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Potential energy curves, transition and permanent dipole moments of KRb

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ABSTRACT

We present extensive calculations of 48 adiabatic potential energy curves of the KRb molecule. Efforts have been focused on preparing the appropriate basis sets. Compared to previous approaches, the set of new potential energy curves is extended to higher excitations, including the single-excited K($4s^2S$)+Rb($5d^2D$) and double-excited K($4p^2P$)+Rb($5p^2P$) atomic limits. Larger distances between nuclei are also taken into account. New features of potential energy curves have been found. The present spectroscopic parameters are compared with the available experimental data and other theoretical results, among which parameters of 15 high-laying excited electronic states are provided for the first time. We also present the values of the transition and permanent dipole moment functions and discuss their features. The aims of the study are to provide high-quality data for the KRb molecule, which may be useful in the physics of low temperatures and alternatively the analysis and assignment of molecular spectra.

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Contents

1. Introduction

The KRb dimer is of particular interest where new experimental and theoretical methods are used to analyse complex spectra [1,2]. KRb is also used in successful experiments [3–6] allowing for the generation cold and ultracold molecular gas and the direct observation of bimolecular reactions [7] or measurement of the variability of the mass ratio of electrons to protons [6]. Studying cold polar molecules, like KRb opens the way for the development of techniques by which molecular rotational states can be unambiguously detected, giving simultaneously site-resolved and spin-resolved detection [8]. It requires the use of high-resolution spectroscopy methods supported by detailed knowledge of the interaction between the two alkali metal atoms. The heavier alkali metal atoms are more difficult to work with because the electron correlations are difficult to control. Correct use of pseudopotentials is of key importance here.

In the past twenty years, several spectroscopic studies on the KRb dimer were reported. Experiments used different techniques like mass-resolved resonance-enhanced two-photon ionisation in a cold molecular beam [9], state-selective detection methods [10], Fourier transform spectroscopy of laser-induced fluorescence [11], and Doppler-free optical–optical double resonance polarisation spectroscopy [12]. For this system, molecular spectra covering low electronic states can be accurately assigned. Moreover, the electronic permanent dipole moment makes them one of the best candidates for slowing down and trapping using inhomogeneous electric fields, thus enabling the study of quantum phenomena such as Bose condensation and Fermi superfluidity [13].

Calculations on the potential energy curves (PEC) of KRb dimer can be divided into two groups depending on the methods and software packages used. The results of Rousseau et al. [14] were obtained using the CIPSI package from Toulouse, assuming semi-empirical pseudopotentials added to the one-component Hamiltonian. The diatomic molecule was treated as a two-electron system in which the interaction between the electrons and the atomic cores was described by pseudopotentials. Other theoretical calculations [15–17] used the MOLPRO code [18] with

Table A
Comparison of present asymptotic energies with other theoretical [14] and experimental [19] results. Energies are shown in cm^{-1} units. MAE stands for mean absolute error, while RMSE is the root mean squared error.

Atomic asymptotes	Exp. [19]	Theory present	ΔE	Theory [14]	ΔE [14]	Calculated electronic states
K(4s)+Rb(5s)	0.0	0.0		0.0		$1^1\Sigma^+$, $1^3\Sigma^+$
K(4s)+Rb(5p)	12737.347	12739.634	−2.287	12737	0.347	$2^1\Sigma^+$, $2^3\Sigma^+$, $1^1\Pi$, $1^3\Pi$
K(4p)+Rb(5s)	13023.659	13023.765	−0.106	13023	0.659	$3^1\Sigma^+$, $3^3\Sigma^+$, $2^1\Pi$, $2^3\Pi$
K(4s)+Rb(4d)	19355.381	19357.684	−2.303	19355	0.381	$4^1\Sigma^+$, $4^3\Sigma^+$, $3^1\Pi$, $3^3\Pi$, $1^1\Delta$, $1^3\Delta$
K(4s)+Rb(6s)	20132.510	20128.754	3.756	20101	31.510	$5^1\Sigma^+$, $5^3\Sigma^+$
K(5s)+Rb(5s)	21026.551	21033.386	−6.835	21018	8.551	$6^1\Sigma^+$, $6^3\Sigma^+$
K(3d)+Rb(5s)	21535.603	21535.579	0.024	21535	0.603	$7^1\Sigma^+$, $7^3\Sigma^+$, $4^1\Pi$, $4^3\Pi$, $2^1\Delta$, $2^3\Delta$
K(4s)+Rb(6p)	23766.754	23764.930	1.824	23799	−32.246	$8^1\Sigma^+$, $8^3\Sigma^+$, $5^1\Pi$, $5^3\Pi$
K(5p)+Rb(5s)	24713.887	24720.103	−6.216	24751	−37.113	$9^1\Sigma^+$, $9^3\Sigma^+$, $6^1\Pi$, $6^3\Pi$
K(4s)+Rb(5d)	25702.313	25700.797	1.516			$10^1\Sigma^+$, $10^3\Sigma^+$, $7^1\Pi$, $7^3\Pi$, $3^1\Delta$, $3^3\Delta$
K(4p)+Rb(5p)	25761.006	25763.401	−2.394			$1^1\Sigma^-$, $1^3\Sigma^-$, $(8,9)^1\Pi$, $(8,9)^3\Pi$, $4^1\Delta$, $4^3\Delta$
MAE			2.726		13.926	
RMSE			3.484		20.869	

spin-average core pseudopotentials. Molecular orbitals were calculated by the complete-active-space and self-consistent-field (CASSCF) method, with subsequent multireference CI.

Our goal is to provide alternative reliable results for electronic states of KRb molecule with particular emphasis on the excited states as well as the transition and permanent dipole moments. Compared to other approaches, we extend the range of internuclear distances to very large values of 52 Å in a combination of excited states asymptotically reaching the atomic doubly excited level K($4p^2P$)+Rb($5p^2P$). The atomic bases are modified, extended, and optimised to ensure the high quality of the calculated PECs, which is important when identifying lines in molecular spectra. Our model is based on two-component pseudopotentials of a large core supported by polarisation potentials. Then KRb is treated as a molecule with two valence electrons, where an appropriate level of correlation can be achieved at a relatively low cost. Scalar relativistic effects are taken into account by energy-consistent pseudopotentials. This approach can also be applied to triatomic alkali molecules and alkali clusters.

Part 2 briefly describes the method used to calculate the electronic structure, permanent and transition dipole moments, and other quantities. The results are presented and discussed in Part 3. The conclusions can be found in Section 4.

2. Method of calculation

In our computational approach, a diatomic molecule is considered to be an effective two-electron system. Each atom is replaced with one valence electron and a core consisting of a point nucleus and the remaining electrons from closed atomic subshells. As the theoretical approach has already been discussed in our recent articles [20–23], here we only provide relevant details of pseudopotentials and atomic basis sets. The calculations are based on the multireference-configuration-interaction (MRCI) method with large effective-core potentials (ECP) supplemented by core-polarisation potentials (CPP), which are vital when explicitly only two valence electrons of the KRb dimer are treated. Rich and properly optimised atomic basis sets allow us to obtain reliable results of the PECs of chosen molecular states. The calculations of the potential curves are performed using the MOLPRO program package [18], while all spectroscopic parameters are obtained by our new program sPYtroscopy [24]. The core electrons of potassium are represented by the energy-consistent relativistic ECP18SDF pseudopotential [25]. In the case of the s and p functions, we use the basis set for potassium which comes with the ECP18SDF pseudopotential. Originally, this basis set presents a (4s4p)/[2s2p] structure, which is not suitable for the description of molecules, so it is necessarily needed to add the d and f functions as well as to further augment the basis set. In our approach, the d and f functions are taken from the basis set, which comes with the ECP10MDF pseudopotential [26]. Additionally, this basis set is augmented by seventeen s functions, six p functions, ten d functions, and six f functions. The extended and optimised basis set for the potassium atom can be found in our previous paper [27]. For the rubidium atom, the core electrons are represented by the energy-consistent relativistic pseudopotential ECP36SDF [28]. Here, the set of s and p functions [29,30] coming with the ECP36SDF pseudopotential is expanded by the set of d and f functions coming with the effective core potential ECP28MDF [26] and augmented by thirteen s functions, seven p functions, nine d functions, and two f functions. All exponents of our extended and optimised Gaussian basis sets can be found in our earlier paper [21]. Finally, all basis functions were carefully reoptimized in order to decrease the difference between the calculated atomic asymptotes and the experimental ones [19]. Here, the scalar relativistic effects are described by the energy-consistent effective core pseudopotentials.

The potential energy curves are computed using the state-averaged multiconfigurational self-consistent field/complete active space self-consistent field (MCSCF/CASSCF) method to generate the orbitals for the subsequent MRCI calculations. The corresponding active space involves the molecular counterparts of the 4s, 4p, 5s, 3d, and 5p valence orbitals of potassium as well as the 5s, 5p, 4d, 6s, 6p, 5d, and 7s valence orbitals of rubidium. Thus, altogether 32 spd orbitals are included in our calculations.

3. Results and discussion

3.1. Asymptotic atomic energies

The molecular calculations were performed for internuclear distances R in the range from 2.4 to 51.9 Å with different step sizes. The calculated PECs correlate for infinite R with eleven combinations of atomic states. We check the quality of our basis sets by performing MRCI calculations for the ground and excited states of both atoms. In the Table A, the currently calculated atomic energies consistently show very good agreement with the experimental data.

3.2. Potential energy curves

Our results of potential energy curves are given in Tables 1–5. The curves of the $^1\Sigma^+$ and $^3\Sigma^+$ electronic states are displayed in Figs. 1 and 2. The ground state and two first excited singlet states are Morse-shaped curves, but the higher excited electronic states, $(4–10)^1\Sigma^+$ reveal the exotic characters. It is very well visible that for these electronic states some avoided crossings (AC) exist, which lead to irregular shapes of PECs. For example, the $4^1\Sigma^+$

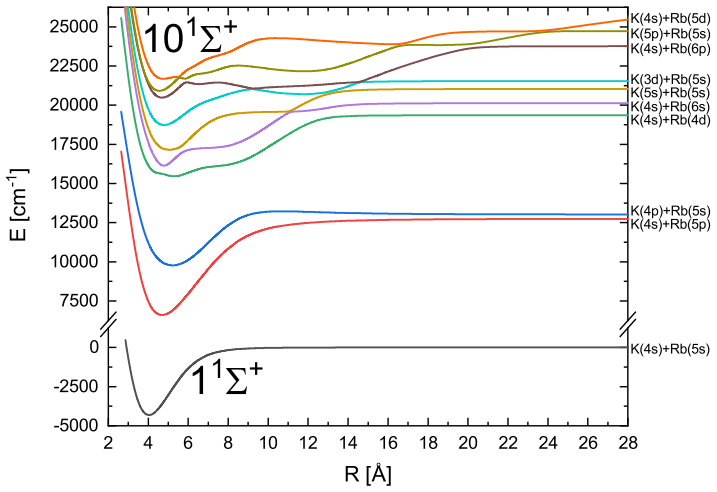

Fig. 1. Adiabatic potential energy curves for the $(1–10)^1\Sigma^+$ electronic states of the KRb molecule.

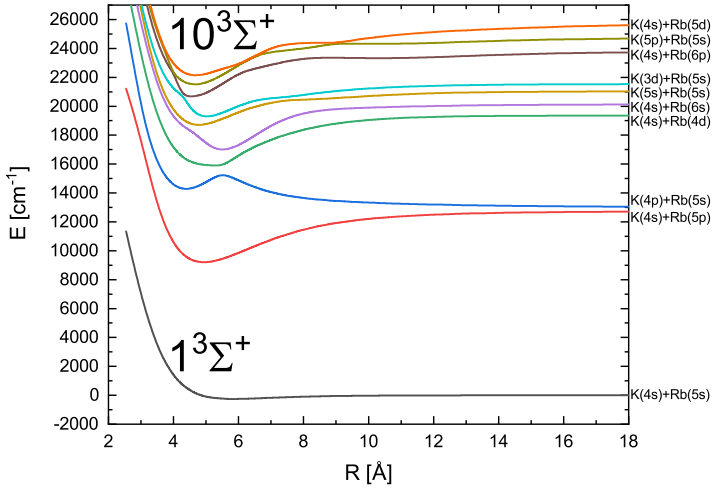

Fig. 2. Adiabatic potential energy curves for the $(1–10)^3\Sigma^+$ electronic states of the KRb molecule.

and $5^1\Sigma^+$ states show an AC at the internuclear distance of 4.8 Å. In turn, there are two ACs between $5^1\Sigma^+$ and $6^1\Sigma^+$. The first AC occurs at around 5.6 Å with the energy gap around 400 cm^{-1}. The second AC is seen at around 11 Å, but now the energy gap is smaller and equals approximately 38 cm^{-1}. The analogous analysis is valid for higher excited electronic states, which show exotic behaviour. It is worth underlining that the $10^1\Sigma^+$ state, correlating with the K($4s^2S$)+Rb($5d^2D$) atomic asymptote is calculated and presented for the first time.

In the case of $^3\Sigma^+$ electronic states, only the two lowest-lying PECs have regular shapes, in contrast to the higher ones, which are the typical exotic states with uncharacteristic shapes and the rather wide minima. The highest two excited triplet Σ^+ states, which correspond to K($5p^2P$)+Rb($5s^2S$) and K($4s^2S$)+Rb($5d^2D$) levels, are investigated for the first time.

Adiabatic potential curves of the $^1\Pi$ and $^3\Pi$ states are presented in Figs. 3 and 4, respectively. For the first time, high-lying potential energy curves $7^{1,3}\Pi$ and $(8,9)^{1,3}\Pi$ correlating with the K($4s^2S$)+Rb($5d^2D$) level and the double-excited atomic asymptote K($4p^2P$)+Rb($5p^2P$) are calculated. Among singlets, most of them are regular Morse-shaped potential energy curves. The only states that show distinctive irregularities are $1^1\Pi$, $8^1\Pi$, and $9^1\Pi$. While among triplets, the majority of them display exotic shapes due to several avoided crossings with the neighbouring states.

The remaining ten PECs of $^1\Delta$, $^3\Delta$ and the two Σ^- are shown in Fig. 5. Potential energy curves ($4^{1,3}\Delta$ and $1^{1,3}\Sigma^-$) correlating with a doubly excited atomic asymptote are reliably calculated for the first time. Particular attention is paid to solving the shapes of $^{1,3}\Sigma^-$ states.

All calculated spectroscopic parameters of PECs are listed in Tables B and C, while the extensive comparison with available other theoretical and experimental parameters are given in Tables D and E. Generally, there is a good consistent agreement between experimental data and our results. For example, in the case of the excited $3^1\Sigma^+$ electronic state, our R_e, D_e, and ω_e are equal to 5.22 Å, 3251, and 40.6 cm^{-1}, respectively. The comparison of these values with experimental ones, which are equal to 5.26 Å, 3246, and 40.8 cm^{-1} [41,42], is very good. Another exemplary case concerns the $3^3\Sigma^+$ state, for which the minimum of the potential curve is laying 1258 cm^{-1} above the dissociation limit K($4p^2P$)+Rb($5s^2S$), but the well depth calculated from the minimum to the top of the potential barrier is equal to 951 cm^{-1}. The spectroscopic parameters calculated for this PEC like R_e = 4.39 Å, T_e = 18605, and ω_e = 65 cm^{-1} equate very well to the experimental results, for which corresponding values are equal to 4.41 Å, 18601, and 64.6 cm^{-1}. It is worth noting that for the first time the reliable spectroscopic parameters of the following fifteen excited electronic states of the KRb molecule are provided:

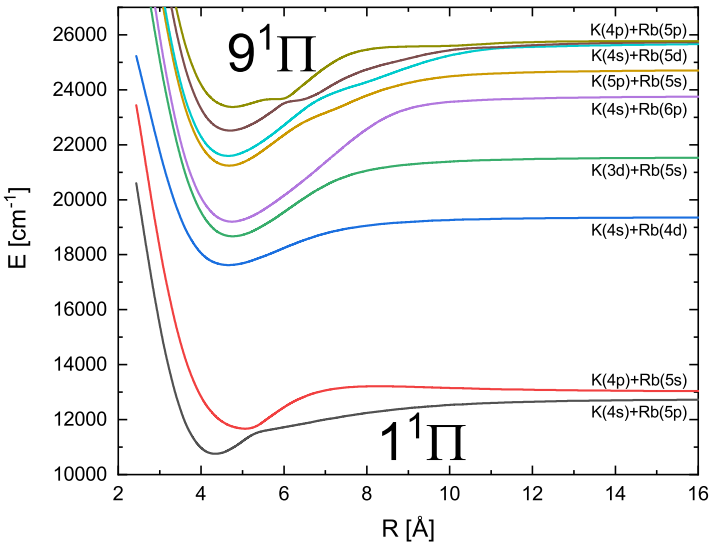

Fig. 3. Adiabatic potential energy curves for the $(1–9)^1\Pi$ electronic states of the KRb molecule.

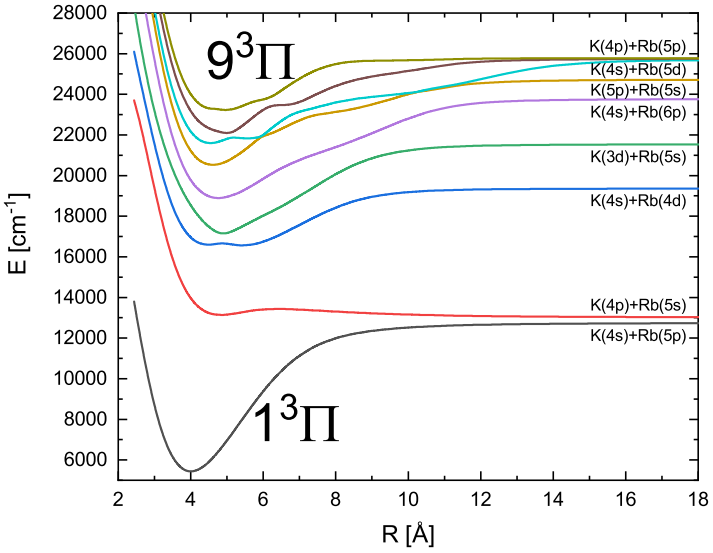

Fig. 4. Adiabatic potential energy curves for the $(1–9)^3\Pi$ electronic states of the KRb molecule.

Table B
The spectroscopic parameters of the bond length R_e, the dissociation energy D_e, the electronic term energy T_e, the vibrational constant ω_e, and the rotational constant B_e for the $^{1,3}\Sigma^+$ and $^{1,3}\Sigma^-$ electronic states. The value of D_e in brackets is well depth calculated from the minimum to the top of the potential barrier.

State	# min.	R_e[Å]	D_e[cm^{-1}]	T_e[cm^{-1}]	ω_e[cm^{-1}]	B_e[cm^{-1}]
$1^1\Sigma^+$	1	4.033	4322	0	76.216	0.03881
$2^1\Sigma^+$	1	4.690	6136	10926	58.255	0.02870
$3^1\Sigma^+$	1	5.219	3251	14096	40.596	0.02317
$4^1\Sigma^+$	1	5.282	3893	19787	38.672	0.02262
$5^1\Sigma^+$	1	4.771	3995	20456	80.613	0.02773
$6^1\Sigma^+$	1	5.047	3881	21475	40.570	0.02478
$7^1\Sigma^+$	1	4.788	2800	23058	52.829	0.02753
	2	11.735	833	25025	13.331	0.00458
$8^1\Sigma^+$	1	4.680	3285	24802	58.488	0.02882
	2	6.533	2423	25664	31.879	0.01479
	3	9.274	2703	25384	36.968	0.00734
$9^1\Sigma^+$	1	4.552	3806	25236	60.276	0.03046
	2	5.835	3040	26003	72.895	0.01854
	3	11.781	2558	26484	13.505	0.00455
	4	18.603	884	28159	5.677	0.00182

(*continued on next page*)

Table B (*continued*).

State	# min.	R_e[Å]	D_e[cm^{-1}]	T_e[cm^{-1}]	ω_e[cm^{-1}]	B_e[cm^{-1}]
$10^1\Sigma^+$	1	4.753	4024	25999	46.574	0.02794
	2	16.388	1825	28198	22.050	0.00235
$1^1\Sigma^-$	1	8.707	43	30043	5.117	0.00833
$1^3\Sigma^+$	1	5.845	255	4067	17.961	0.01848
$2^3\Sigma^+$	1	4.934	3533	13529	49.175	0.02593
$3^3\Sigma^+$	1	4.387	−1258 (951)	18605	65.009	0.03280
$4^3\Sigma^+$	1	5.314	3459	20221	46.400	0.02235
$5^3\Sigma^+$	1	5.502	3125	21326	64.544	0.02085
$6^3\Sigma^+$	1	4.771	2326	23030	57.371	0.02773
$7^3\Sigma^+$	1	5.017	2241	23617	63.786	0.02508
$8^3\Sigma^+$	1	4.562	3085	25002	64.641	0.03033
	2	10.352	439	27648	8.197	0.00589
$9^3\Sigma^+$	1	4.657	3208	25835	58.230	0.02910
	2	10.243	400	28642	6.874	0.00602
$10^3\Sigma^+$	1	4.681	3556	26467	54.064	0.02881
$1^3\Sigma^-$	1	4.025	4020	26066	57.364	0.03896

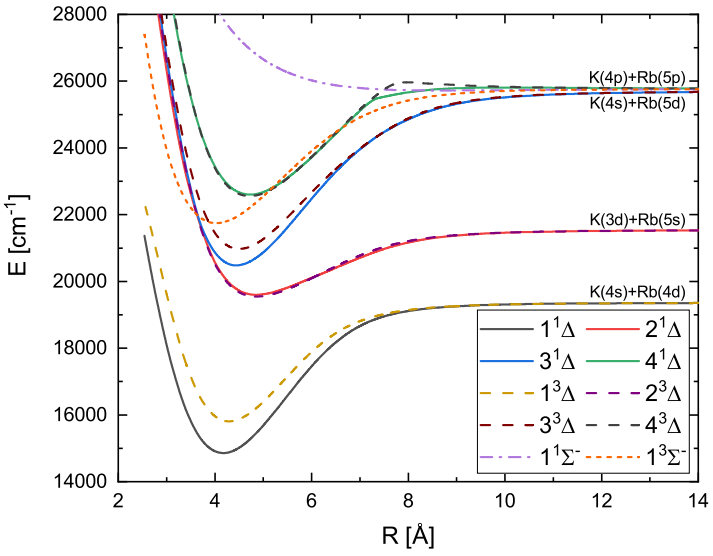

Fig. 5. Adiabatic potential energy curves for the (1–4)$^1\Delta$, $1^1\Sigma^-$, (1–4)$^3\Delta$, and $1^3\Sigma^-$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

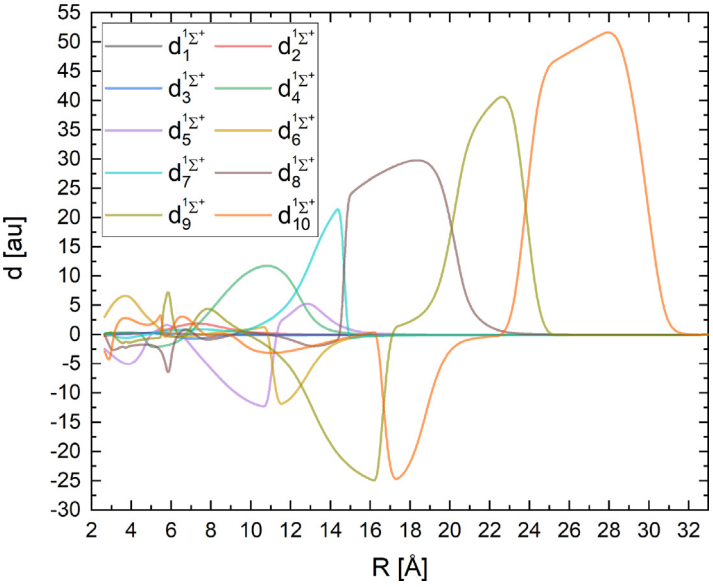

Fig. 6. Permanent dipole moments for the (1–10)$^1\Sigma^+$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

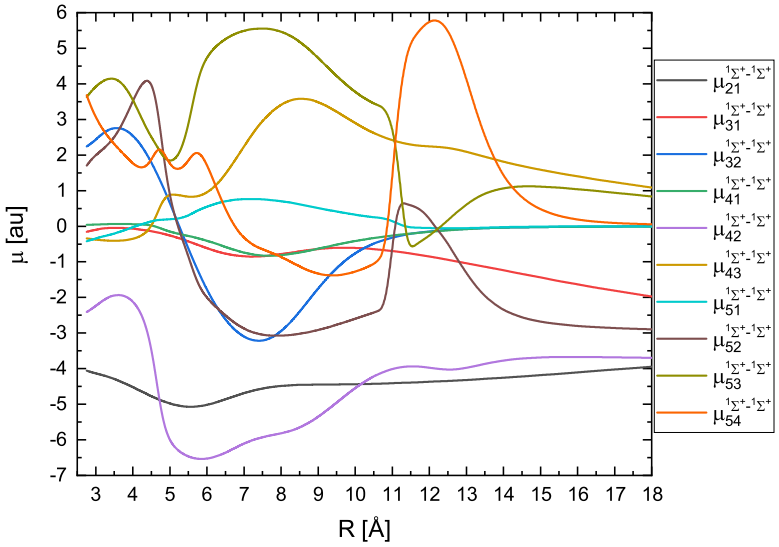

Fig. 7. Transition dipole moments between the $(1–5)^1\Sigma^+$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

Table C
The spectroscopic parameters of the bond length R_e, the dissociation energy D_e, the electronic term energy T_e, the vibrational constant ω_e, and the rotational constant B_e for the $^{1,3}\Pi$ and $^{1,3}\Delta$ electronic states. The value of D_e in brackets is well depth calculated from the minimum to the top of the potential barrier.

State	# min.	R_e[Å]	D_e[cm^{-1}]	T_e[cm^{-1}]	ω_e[cm^{-1}]	B_e[cm^{-1}]
$1^1\Pi$	1	4.341	1988	15074	62.195	0.03349
$2^1\Pi$	1	5.068	1356	15990	49.050	0.02457
$3^1\Pi$	1	4.653	1734	21946	41.023	0.02915
$4^1\Pi$	1	4.762	2871	22987	51.287	0.02783
$5^1\Pi$	1	4.749	4564	23524	52.434	0.02799
$6^1\Pi$	1	4.675	3480	25562	54.453	0.02888
$7^1\Pi$	1	4.647	4109	25915	54.211	0.02923
$8^1\Pi$	1	4.694	3249	26836	52.701	0.02865
$9^1\Pi$	1	4.761	2390	27696	49.143	0.02785
$1^3\Pi$	1	4.000	7310	9752	76.585	0.03945
$2^3\Pi$	1	4.830	−116 (292)	17462	40.332	0.02706
$3^3\Pi$	1	4.480	2759	20921	47.587	0.03145
	2	5.435	2795	20885	37.502	0.02137
$4^3\Pi$	1	4.901	4393	21465	73.763	0.02628
$5^3\Pi$	1	4.763	4870	23217	51.525	0.02782
$6^3\Pi$	1	4.606	4198	24844	59.605	0.02975
$7^3\Pi$	1	4.540	4106	25917	60.527	0.03062
	2	5.558	3873	26150	34.165	0.02043
$8^3\Pi$	1	5.015	3672	26413	67.735	0.02510
$9^3\Pi$	1	4.974	2535	27551	48.661	0.02551
$1^1\Delta$	1	4.172	4506	19174	64.991	0.03626
$2^1\Delta$	1	4.853	1940	23918	44.345	0.02680
$3^1\Delta$	1	4.442	5226	24797	63.708	0.03199
$4^1\Delta$	1	4.722	3168	26918	53.868	0.02831
$1^3\Delta$	1	4.291	3557	20123	63.408	0.03428
$2^3\Delta$	1	4.860	1992	23866	44.527	0.02672
$3^3\Delta$	1	4.501	4732	25291	61.400	0.03116
$4^3\Delta$	1	4.715	3212	26874	54.728	0.02839

$10^1\Sigma^+$, $(9,10)^3\Sigma^+$, $(7–9)^1\Pi$, $(7–9)^3\Pi$, $(3,4)^1\Delta$, $(3,4)^3\Delta$, $1^1\Sigma^-$, and $1^3\Sigma^-$. Special attention should be paid to the $4^3\Delta$–$1^3\Sigma^-$ complex of states, where the $1^3\Sigma^-$ state crosses the $4^3\Delta$ one nearby its minimum. This leads to the strong perturbations of the spectra of these states and may complicate the analysis of experimental and theoretical rovibrational data. The premise for confirming this thesis is the values of spectroscopic parameters (R_e = 4.03 Å, D_e = 4020, T_e = 26066, and ω_e = 57.4 cm^{-1}) for the $4^3\Delta$ state determined by us taking into account the $1^3\Sigma^-$ state, compared with the same parameters (R_e = 4.48 Å, D_e = 3549, T_e = 26205, and ω_e = 89 cm^{-1}) provided by Park et al. [15], where the $1^3\Sigma^-$ state was not included in calculations.

On the other hand, the long-range quality of our potential energy curves can be checked by comparing the coefficients C_6 and C_8 with the results of other authors. In order to calculate these coefficients, we approximate the long-range part of the potential curves with the simple formula $-C_6/R^6 - C_8/R^8 - C_{10}/R^{10} + E_{asymptote}$. The results of C_6 and C_8 for the lowest electronic states are shown in Table F. The average root-mean-square error (RMSE) of the fits is equal to $1.4 \cdot 10^{-7}$ atomic units. Our results are in

Table D
Comparison between present and other available spectroscopic parameters for all electronic states correlating to the three lowest-laying atomic asymptotes of the KRb molecule.

State	Asymptote	R_e[Å]	D_e[cm^{-1}]	T_e[cm^{-1}]	ω_e[cm^{-1}]	B_e[cm^{-1}]	Author
$X^1\Sigma^+$	K(4s)+Rb(5s)	4.033	4322		76.216	0.03881	present
		4.068	4217.815		75.871	0.03814	[31] E
			4217.910				[32] E
			4217.822				[33] E
					75.232		[11] E
		4.055	4110		76.300	0.03839	[14] T
		4.090	4113		76.000	0.03773	[15] T
		4.330	4039			0.03366	[34] T
		4.050	4062			0.03848	[34] T
		4.093	4129		75.395	0.03751	[35] T
		4.074	4306		75.300	0.03803	[36] T
		4.076	4213		75.232	0.03799	[17] T
$1^3\Sigma^+$		5.845	255	4067	17.961	0.01848	present
		5.903	249.031	3968.784	17.579		[31] E
		5.901	239	3871	17.400	0.01813	[14] T
		5.940	242	3845	18.000		[15] T
		5.920	238	3891	17.931	0.01793	[35] T
		5.952	275	3938	19.234		[17] T
$2^1\Sigma^+$	K(4s)+Rb(5p)	4.690	6136	10926	58.255	0.02870	present
		4.707	5985	10862	57.700	0.02849	[14] T
		4.740	5968	10804	58.000		[15] T
		4.747	5807	11104	56.639		[17] T
$2^3\Sigma^+$		4.934	3533	13529	49.175	0.02593	present
		4.983	3447	13507.146	48.639	0.02542	[37] E
		4.953	3424	13423	48.600	0.02573	[14] T
		5.000	3388	13323	49.000		[15] T
		4.967	3323	13588	51.750		[17] T
$1^1\Pi$		4.341	1988	15074	62.195	0.03349	present
		4.381	2021.5	15012.493	61.256	0.03288	[12,38] E
		4.370	1813	15034	61.300	0.03306	[14] T
		4.400	1774	15011	60.000		[15] T
		4.363	1705	15224	62.884		[17] T
		4.372	1928	15027			[39] T
$1^3\Pi$		4.000	7310	9752	76.585	0.03945	present
		4.027		9720.531			[40] E
		4.023	7129	9718	77.400	0.03900	[14] T
		4.060	7017	9721	78.000		[15] T
		4.081	6682	9911	65.973	0.03773	[35] T
		4.024	7019	9910	76.929		[17] T
$3^1\Sigma^+$	K(4p)+Rb(5s)	5.219	3251	14096	40.596	0.02317	present
		5.259		13995.465	40.763	0.02282	[41] E
		5.259	3246.036	13995.511			[42] E
		5.218	3148	13985	39.900	0.02318	[14] T
		5.210	3226	13886	41.000		[15] T
		5.359	2961	14306	36.106		[17] T
$3^3\Sigma^+$		4.387	−1258 (951)	18605	65.009	0.03280	present
				18601.322	64.530		[43] E
		4.412		18601.250	64.560	0.03242	[44] E
		4.445	−1391	18524			[14] T
		4.440		18528	65.000		[15] T
		4.264		21109			[17] T
$2^1\Pi$		5.068	1356	15990	49.050	0.02457	present
		5.082	1050	16210.252	51.700	0.02444	[12] E
		5.088	1358.190	15902.060	49.760	0.02438	[45] E
		5.048	1298	15835	55.400	0.02477	[14] T
		5.060	1210	15777	54.000		[15] T
		5.170	1019	16232	42.728		[17] T
$2^3\Pi$		4.830	−116 (292)	17462	40.332	0.02706	present
				17406.815	38.700		[10] E
		4.868	−189	17322			[14] T
		4.920	−143	17270	38.000		[15] T
		4.855		17871			[17] T

Table E
Comparison between present and other available spectroscopic parameters for the selected excited electronic states of the KRb molecule.

State	Asymptote	R_e[Å]	D_e[cm^{-1}]	T_e[cm^{-1}]	ω_e[cm^{-1}]	B_e[cm^{-1}]	Author
$4^1\Sigma^+$	K(4s)+Rb(4d)	5.282	3893	19787	38.672	0.02262	present
		5.455		20166.371		0.02135	[9] E
		5.265	3816	19648	38.600	0.02277	[14] T
		5.300	3872	19611	38.000		[15] T
$3^1\Pi$		4.653	1734	21946	41.023	0.02915	present
				21762	41.360	0.02882	[41] E
		4.758	1561	21903	38.400	0.02789	[14] T
		4.810	1452	21995	36.000		[15] T
$1^1\Delta$		4.172	4506	19174	64.991	0.03626	present
		4.205		18991.011	64.624	0.03570	[43] E
		4.207	4431	19033	65.400	0.03566	[14] T
		4.250	4275	19187	65.000		[15] T
$1^3\Delta$		4.291	3557	20123	63.408	0.03428	present
		4.226		19861.535	63.296	0.03556	[9] E
		4.316	3514	19950	64.000	0.03389	[14] T
		4.370	3307	20124	64.000		[15] T
$5^1\Sigma^+$	K(4s)+Rb(6s)	4.771	3995	20456	80.613	0.02773	present
		4.826		20394.637	75.614	0.02727	[9] E
		4.761	3818	20393	75.700	0.02785	[14] T
		4.800	3872	20339	75.000		[15] T
$7^1\Sigma^+$	K(3d)+Rb(5s)	4.788	2800	23058	52.829	0.02753	present
				23009.322	54.518		[1] E
		4.803	2713	22932	52.300	0.02737	[14] T
		4.840	2742	22867	53.000		[15] T
$4^1\Pi$		4.762	2871	22987	51.287	0.02783	present
				22925.305	50.152		[1] E
		4.763	2770	22875	50.400	0.02783	[14] T
		4.780	2823	22820	52.000		[15] T
$5^1\Pi$	K(4s)+Rb(6p)	4.749	4564	23524	52.434	0.02799	present
				23459.093	52.172		[1] E
		4.767	4519	23390	52.000	0.02777	[14] T
		4.820	4436	23416	51.000		[15] T

Table F
Long-range C_6 and C_8 coefficients for low-lying electronic states of the KRb molecule. The average beginning of the match is around 26 a_0 and its end is 80 a_0 in each case. C_6 and C_8 coefficients are given in atomic units.

	C_6	C_8	Author
K(4s)+Rb(5s) $1^{1,3}\Sigma^+$	4349	500793	present
	4300	482340	[31] E
	4107	475990	[46] T
	5200	490700	[47] T
K(4s)+Rb(5p) $2^{1,3}\Sigma^+$	250405	5758869	present
	232470	5374400	[46] T
	305850	6924000	[47] T
K(4s)+Rb(5p) $1^{1,3}\Pi$	67541	604188	present
	62767	583522	[39] T
	62776	583550	[46] T
	83070	−276000	[47] T
K(4p)+Rb(5s) $3^{1,3}\Sigma^+$	−228348	5080157	present
	−211180	5012400	[46] T
	−280110	5561000	[47] T
K(4p)+Rb(5s) $2^{1,3}\Pi$	−53109	698988	present
	−48533	706599	[39] T
	−48538	706650	[46] T
	−65250	272000	[47] T

better agreement with the more recent results of Marinescu and Sadeghpour [46] than Bussery et al. [47].

3.3. Permanent and transition dipole moment functions

The Tables 6–10 give the values of the calculated electronic permanent dipole moment functions for all the considered molecular states. In Fig. 6 we show curves of permanent dipole moments for singlet Σ^+ states. We use the convention that the dipole moment is directed from K to Rb atom. This reveals a quite rapid change in the attraction of electrons to different atoms along the chemical bond. In Fig. 6, the very well visible discontinuities of the permanent dipole moment functions (PDMF) are caused by existing of ACs between considered electronic states. For example, in the previously discussed case of the $5^1\Sigma^+$–$6^1\Sigma^+$ complex of states, we can notice strong AC at 11 Å and as a consequence around this internuclear distance

PDMFs sharply change their values. Similar behaviour of PDMFs is apparent for the different pairs of excited electronic states (cf. Figs. 1 and 6), such as $7^1\Sigma^+$–$8^1\Sigma^+$ at 14.5 Å, $9^1\Sigma^+$–$10^1\Sigma^+$ at 17 Å, $8^1\Sigma^+$–$9^1\Sigma^+$ at 20 Å, and again $9^1\Sigma^+$–$10^1\Sigma^+$ at 24 Å. This feature of PDMFs is general for remaining electronic states, which are shown in Graph 1–4.

Presently calculated, the allowed dipole moments of the electronic transitions between the considered molecular states are presented in Tables 11–49. The example plots shown in Fig. 7 display very high variability of the transition dipole moment functions (TDMF) along with the internuclear distance R, which is contrary to very often made assumptions that TDMFs are constants or slowly varying functions. As expected the TDMFs associated with allowed atomic transitions go to finite values with the increase of the interatomic separation. On the other hand, the TDMFs associated with forbidden atomic transitions decrease to zero in the asymptotic limits. When R decreases, several different atomic states start to contribute to the molecular states. Analogously to PDMFs, the transition dipole moments display rapid oscillations and discontinuities due to the existence of avoided crossing. For example, these are visible in Fig. 7 around 11 Å, where $5^1\Sigma^+$ strongly interacts with $6^1\Sigma^+$. The other exemplary curves of TDMF are presented in Graph 5–12.

4. Conclusion

This paper presents the results of adiabatic Born–Oppenheimer potential energy curves and associated with them permanent and transition dipole moment functions. In our computational approach, two valence electrons are taken explicitly into account for building determinants for the multi-configuration wave function. Atomic cores are described by energy-consistent semi-local pseudopotentials and core polarisation potentials. Relativistic effects taken into account include only scalar-relativistic effects. The computational basis sets for K and Rb atoms are carefully selected, augmented, and optimised. The calculated potential energy curves very accurately correlate with the excited states $5p^2P$, $4d^2D$, $6s^2S$, $6p^2P$, and $5d^2D$ of the Rb atom, and the excited states $4p^2P$, $5s^2S$, $3d^2D$, and $5p^2P$ of the K atom. It is worth underlining that the calculated potential energy curves correlating with the singly excited K($4s^2S$)+Rb($5d^2D$) and doubly excited K($4p^2P$)+Rb($5p^2P$) atomic asymptote are presented for the first time. New features of potential energy curves are described, among them very important avoided crossings between PECs. The large set of spectroscopic parameters is presented and compared with available experimental and theoretical results, among which parameters of 15 high-laying excited electronic states are provided for the first time. We also discuss the important features of permanent and transition dipole moment functions for calculated electronic states. The reported data can be useful for careful and precise planning of future experiments in which KRb molecules play a major role, including photodissociation or photoassociation.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

All data will be publicly available in the Open Data Repository Most Wiedzy (https://mostwiedzy.pl/en/open-research-data-series/potential-energy-curves-transition-and-permanent-dipole-moments-of-krb,20221109151737382061-0/catalog).

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Explanation of Tables

Table 1. **Adiabatic potential energy curves for the (1–10)$^1\Sigma^+$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.646 Å to 42.334 Å.
$(1–10)^1\Sigma^+$	Potential energy of the interaction between K and Rb atoms for the $^1\Sigma^+$ electronic states. The energy is given in cm^{-1} units.

Table 2. **Adiabatic potential energy curves for the (1–10)$^3\Sigma^+$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.540 Å to 42.334 Å.
$(1–10)^3\Sigma^+$	Potential energy of the interaction between K and Rb atoms for the $^3\Sigma^+$ electronic states. The energy is given in cm^{-1} units.

Table 3. **Adiabatic potential energy curves for the (1–9)$^1\Pi$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.434 Å to 51.859 Å.
$(1–9)^1\Pi$	Potential energy of the interaction between K and Rb atoms for the $^1\Pi$ electronic states. The energy is given in cm^{-1} units.

Table 4. **Adiabatic potential energy curves for the (1–9)$^3\Pi$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.434 Å to 51.859 Å.
$(1–9)^3\Pi$	Potential energy of the interaction between K and Rb atoms for the $^3\Pi$ electronic states. The energy is given in cm^{-1} units.

Table 5. **Adiabatic potential energy curves for the (1–4)$^1\Delta$, $1^1\Sigma^-$, (1–4)$^3\Delta$, and $1^3\Sigma^-$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.540 Å to 51.859 Å.
$(1–4)^1\Delta$	Potential energy of the interaction between K and Rb atoms for the $^1\Delta$ electronic states. The energy is given in cm^{-1} units.
$1^1\Sigma^-$	Potential energy of the interaction between K and Rb atoms for the $^1\Sigma^-$ electronic state. The energy is given in cm^{-1} units.
$(1–4)^3\Delta$	Potential energy of the interaction between K and Rb atoms for the $^3\Delta$ electronic states. The energy is given in cm^{-1} units.
$1^3\Sigma^-$	Potential energy of the interaction between K and Rb atoms for the $^3\Sigma^-$ electronic state. The energy is given in cm^{-1} units.

Table 6. **Permanent dipole moments for (1–10)$^1\Sigma^+$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.646 Å to 42.334 Å.
$d_i^{1\Sigma^+}$	Permanent dipole moment function for the ith $^1\Sigma^+$ electronic state. The permanent dipole moment is given in atomic units.

Table 7. **Permanent dipole moments for the (1–10)$^3\Sigma^+$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.540 Å to 42.334 Å.
$d_i^{3\Sigma^+}$	Permanent dipole moment function for the ith $^3\Sigma^+$ electronic state. The permanent dipole moment is given in atomic units.

Table 8. **Permanent dipole moments for the (1–9)$^1\Pi$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.434 Å to 51.859 Å.
$d_i^{1\Pi}$	Permanent dipole moment function for the ith $^1\Pi$ electronic state. The permanent dipole moment is given in atomic units.

Table 9. **Permanent dipole moments for the (1–9)$^3\Pi$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.540 Å to 51.859 Å.
$d_i^{3\Pi}$	Permanent dipole moment function for the ith $^3\Pi$ electronic state. The permanent dipole moment is given in atomic units.

Table 10. **Permanent dipole moments for the (1–4)$^1\Delta$, $1^1\Sigma^-$, (1–4)$^3\Delta$, and $1^3\Sigma^-$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.540 Å to 51.859 Å.
$d_i^{1\Delta}$	Permanent dipole moment function for the ith $^1\Delta$ electronic state. The permanent dipole moment is given in atomic units.
$d_1^{1\Sigma^-}$	Permanent dipole moment function for the $1^1\Sigma^-$ electronic state. The permanent dipole moment is given in atomic units.
$d_i^{3\Delta}$	Permanent dipole moment function for the ith $^3\Delta$ electronic state. The permanent dipole moment is given in atomic units.
$d_1^{3\Sigma^-}$	Permanent dipole moment function for the $1^3\Sigma^-$ electronic state. The permanent dipole moment is given in atomic units.

Tables 11, 12, 13, and 14. **Transition dipole moments between the (1–10)$^1\Sigma^+$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.752 Å to 42.334 Å.
$\mu_{ij}^{1\Sigma^+,1\Sigma^+}$	The transition dipole moment between the ith and jth $^1\Sigma^+$ states.

Tables 15, 16, 17, and 18. **Transition dipole moments between the (1–10)$^3\Sigma^+$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.540 Å to 42.334 Å.
$\mu_{ij}^{3\Sigma^+,3\Sigma^+}$	The transition dipole moment between the ith and jth $^3\Sigma^+$ states.

Tables 19, 20, and 21. **Transition dipole moments between the (1–9)$^1\Pi$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.434 Å to 51.859 Å.
$\mu_{ij}^{1\Pi,1\Pi}$	The transition dipole moment between the ith and jth $^1\Pi$ states.

Tables 22, 23, and 24. **Transition dipole moments between the (1–9)$^3\Pi$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.434 Å to 51.859 Å.
$\mu_{ij}^{3\Pi,3\Pi}$	The transition dipole moment between the ith and jth $^3\Pi$ states.

Table 25. **Transition dipole moments between the (1–4)$^1\Delta$ and between the (1–4)$^3\Delta$ electronic states of the KRb molecule.**

R	The internuclear distance given in Å. The range of R is from 2.540 Å to 51.859 Å.
$\mu_{ij}^{1\Delta,1\Delta}$	The transition dipole moment between the ith and jth $^1\Delta$ states.
$\mu_{ij}^{3\Delta,3\Delta}$	The transition dipole moment between the ith and jth $^3\Delta$ states.

Tables 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35.	**Transition dipole moments between the $(1–10)^1\Sigma^+$ and $(1–7)^1\Pi$ electronic states of the KRb molecule.**	
	R	The internuclear distance given in Å. The range of R is from 2.646 Å to 51.859 Å.
	$\mu_{ij}^{^1\Sigma^+-^1\Pi}$	The transition dipole moment between the ith $^1\Sigma^+$ and jth $^1\Pi$ states.
Tables 36, 37, 38, 39, 40, 41, 42, 43, 44, and 45.	**Transition dipole moments between the $(1–10)^3\Sigma^+$ and $(1–7)^3\Pi$ electronic states of the KRb molecule.**	
	R	The internuclear distance given in Å. The range of R is from 2.646 Å to 51.859 Å.
	$\mu_{ij}^{^3\Sigma^+-^3\Pi}$	The transition dipole moment between the ith $^3\Sigma^+$ and jth $^3\Pi$ states.
Tables 46, 47.	**Transition dipole moments between the $(1–7)^1\Pi$ and $(1–3)^1\Delta$ electronic states of the KRb molecule.**	
	R	The internuclear distance given in Å. The range of R is from 2.540 Å to 51.859 Å.
	$\mu_{ij}^{^1\Pi-^1\Delta}$	The transition dipole moment between the ith $^1\Pi$ and jth $^1\Delta$ states.
Tables 48, 49.	**Transition dipole moments between the $(1–7)^3\Pi$ and $(1–3)^3\Delta$ electronic states of the KRb molecule.**	
	R	The internuclear distance given in Å. The range of R is from 2.540 Å to 51.859 Å.
	$\mu_{ij}^{^3\Pi-^3\Delta}$	The transition dipole moment between the ith $^3\Pi$ and jth $^3\Delta$ states.

Explanation of graphs

Graph 1. **Permanent dipole moments for the (1–10)$^3\Sigma^+$ electronic states of the KRb molecule.**
- $d_i^{3\Sigma^+}$ Permanent dipole moment of the ith $^3\Sigma^+$ state'
- d The values of permanent dipole moments in au.
- R The internuclear distance given in Å.

Graph 2. **Permanent dipole moments for the (1–9)$^1\Pi$ electronic states of the KRb molecule.**
- $d_i^{1\Pi}$ Permanent dipole moment of the ith $^1\Pi$ state'
- d The values of permanent dipole moments in au.
- R The internuclear distance given in Å.

Graph 3. **Permanent dipole moments for the (1–9)$^3\Pi$ electronic states of the KRb molecule.**
- $d_i^{3\Pi}$ Permanent dipole moment of the ith $^3\Pi$ state.
- d The values of permanent dipole moments in au.
- R The internuclear distance given in Å.

Graph 4. **Permanent dipole moments for the (1–4)$^1\Delta$, $1^1\Sigma^-$, (1–4)$^3\Delta$, and $1^3\Sigma^-$ electronic states of the KRb molecule.**
- $d_i^{1\Delta}$ Permanent dipole moment of the ith $^1\Delta$ state.
- $d_1^{1\Sigma^-}$ Permanent dipole moment of the first $^1\Sigma^-$ state.
- $d_i^{3\Delta}$ Permanent dipole moment of the ith $^3\Delta$ state.
- $d_1^{3\Sigma^-}$ Permanent dipole moment of the first $^3\Sigma^-$ state.
- d The values of permanent dipole moments in au.
- R The internuclear distance given in Å.

Graph 5. **Transition dipole moments between the (1–5)$^3\Sigma^+$ electronic states of the KRb molecule.**
- $\mu_{ij}^{^3\Sigma^+-^3\Sigma^+}$ Transition dipole moment from the ith $^3\Sigma^+$ state to the jth $^3\Sigma^+$ state.
- μ The values of transition dipole moments in au.
- R The internuclear distance given in Å.

Graph 6. **Transition dipole moments between the (1–5)$^1\Pi$ electronic states of the KRb molecule.**
- $\mu_{ij}^{^1\Pi-^1\Pi}$ Transition dipole moment from the ith $^1\Pi$ state to the jth $^1\Pi$ state.
- μ The values of transition dipole moments in au.
- R The internuclear distance given in Å.

Graph 7. **Transition dipole moments between the (1–5)$^3\Pi$ electronic states of the KRb molecule.**
- $\mu_{ij}^{^3\Pi-^3\Pi}$ Transition dipole moment from the ith $^3\Pi$ state to the jth $^3\Pi$ state.
- μ The values of transition dipole moments in au.
- R The internuclear distance given in Å.

Graph 8. **Transition dipole moments between the (1–4)$^1\Delta$ and between the (1–4)$^3\Delta$ electronic states of the KRb molecule.**
- $\mu_{ij}^{^1\Delta-^1\Delta}$ Transition dipole moment from the ith $^1\Delta$ state to the jth $^1\Delta$ state.
- $\mu_{ij}^{^3\Delta-^3\Delta}$ Transition dipole moment from the ith $^3\Delta$ state to the jth $^3\Delta$ state.
- μ The values of transition dipole moments in au.
- R The internuclear distance given in Å.

Graph 9. **Transition dipole moments between the (1–3)$^1\Sigma^+$ and (1–3)$^1\Pi$ electronic states of the KRb molecule.**
- $\mu_{ij}^{^1\Sigma^+-^1\Pi}$ Transition dipole moment from the ith $^1\Sigma^+$ state to the jth $^1\Pi$ state.
- μ The values of transition dipole moments in au.
- R The internuclear distance given in Å.

Graph 10. **Transition dipole moments between the (1–3)$^3\Sigma^+$ and (1–3)$^3\Pi$ electronic states of the KRb molecule.**
- $\mu_{ij}^{^3\Sigma^+-^3\Pi}$ Transition dipole moment from the ith $^3\Sigma^+$ state to the jth $^3\Pi$ state.
- μ The values of transition dipole moments in au.
- R The internuclear distance given in Å.

Graph 11. **Transition dipole moments between the (1–3)$^1\Pi$ and (1–3)$^1\Delta$ electronic states of the KRb molecule.**
- $\mu_{ij}^{^1\Pi-^1\Delta}$ Transition dipole moment from the ith $^1\Sigma^+$ state to the jth $^1\Pi$ state.
- μ The values of transition dipole moments in au.
- R The internuclear distance given in Å.

Graph 12. **Transition dipole moments between the (1–3)$^3\Pi$ and (1–3)$^3\Delta$ electronic states of the KRb molecule.**
- $\mu_{ij}^{^3\Pi-^3\Delta}$ Transition dipole moment from the ith $^1\Sigma^+$ state to the jth $^1\Pi$ state.
- μ The values of transition dipole moments in au.
- R The internuclear distance given in Å.

Table 1
Adiabatic potential energy curves for the (1-10)$^1\Sigma^+$ electronic states of the KRb molecule. See the explanation of the table.

R	$1^1\Sigma^+$	$2^1\Sigma^+$	$3^1\Sigma^+$	$4^1\Sigma^+$	$5^1\Sigma^+$	$6^1\Sigma^+$	$7^1\Sigma^+$	$8^1\Sigma^+$	$9^1\Sigma^+$	$10^1\Sigma^+$
2.646	2367.385	17047.762	19585.536	25562.487	28263.346	29065.592	29865.254	30859.733	31371.581	32106.503
2.752	1405.217	16056.799	18716.871	24406.066	27062.313	27908.208	28741.215	29850.990	30260.458	31107.926
2.858	475.053	15046.070	17852.183	23267.888	25878.300	26763.195	27623.136	28826.259	29121.944	30176.814
2.963	−398.932	14039.303	17002.452	22176.487	24736.290	25650.555	26536.825	27794.579	28017.741	29225.442
3.069	−1197.822	13059.700	16179.101	21155.228	23655.325	24587.594	25500.369	26782.340	26984.421	28228.066
3.175	−1908.466	12127.712	15393.226	20220.540	22648.876	23588.512	24528.680	25828.117	26028.041	27258.567
3.281	−2523.359	11259.461	14654.646	19381.827	21725.326	22663.712	23632.778	24959.261	25148.814	26358.556
3.387	−3039.998	10466.087	13971.020	18642.540	20888.518	21819.492	22819.587	24186.506	24350.056	25543.581
3.493	−3459.943	9753.971	13347.367	18001.750	20138.472	21058.446	22092.224	23511.196	23634.740	24819.181
3.598	−3787.711	9125.494	12786.030	17455.629	19472.202	20380.276	21450.682	22930.229	23003.705	24185.714
3.704	−4029.809	8579.891	12286.971	16998.554	18884.517	19782.708	20892.596	22438.162	22455.806	23640.363
3.810	−4193.960	8114.058	11848.222	16623.781	18368.787	19262.226	20413.884	21986.804	22029.779	23178.262
3.916	−4288.528	7723.334	11466.421	16323.915	17917.731	18814.608	20009.338	21593.747	21696.744	22793.299
4.022	−4322.037	7402.142	11137.321	16091.228	17524.264	18435.140	19673.098	21270.685	21432.712	22478.693
4.128	−4302.848	7144.490	10856.214	15917.848	17182.263	18118.673	19399.047	21011.959	21230.657	22227.432
4.233	−4238.931	6944.318	10618.273	15795.747	16887.186	17859.581	19181.067	20811.669	21083.855	22032.536
4.339	−4137.722	6795.720	10418.794	15716.493	16636.546	17651.855	19013.232	20663.929	20985.951	21887.241
4.445	−4006.064	6693.090	10253.376	15670.537	16430.481	17489.317	18889.920	20563.017	20931.015	21785.065
4.551	−3850.171	6631.189	10118.024	15645.899	16272.762	17365.884	18805.873	20503.482	20913.560	21719.833
4.657	−3675.634	6605.192	10009.220	15627.151	16171.466	17275.816	18756.227	20480.201	20928.550	21685.621
4.763	−3487.448	6610.688	9923.941	15599.789	16134.329	17213.867	18736.508	20488.405	20971.365	21676.660
4.868	−3290.032	6643.677	9859.659	15561.427	16157.310	17175.385	18742.622	20523.696	21037.787	21687.166
4.974	−3087.277	6700.554	9814.300	15521.518	16224.737	17156.376	18770.825	20582.024	21123.953	21711.104
5.080	−2882.564	6778.075	9786.207	15489.420	16321.064	17153.578	18817.702	20659.650	21226.305	21741.910
5.186	−2678.800	6873.342	9774.053	15469.874	16435.217	17164.589	18880.130	20753.100	21341.551	21772.186
5.292	−2478.455	6983.771	9776.785	15464.246	16559.056	17188.105	18955.245	20859.082	21466.585	21793.868
5.398	−2283.581	7107.060	9793.540	15472.112	16685.313	17224.382	19040.414	20974.348	21598.389	21799.414
5.503	−2095.847	7241.162	9823.579	15492.130	16806.171	17275.761	19133.204	21095.449	21733.879	21784.639
5.609	−1916.564	7384.261	9866.223	15522.495	16913.046	17346.412	19231.346	21218.145	21751.663	21869.648
5.715	−1746.715	7534.746	9920.802	15561.179	16999.298	17439.388	19332.715	21335.517	21710.075	22001.513
5.821	−1586.977	7691.183	9986.622	15606.071	17064.249	17552.446	19435.315	21430.888	21680.674	22123.875
5.927	−1437.763	7852.302	10062.938	15655.077	17112.303	17678.870	19537.272	21467.843	21702.477	22229.787
6.033	−1299.246	8016.963	10148.942	15706.195	17148.516	17811.789	19636.832	21447.838	21773.925	22314.859
6.138	−1171.400	8184.154	10243.759	15757.578	17176.502	17946.247	19732.415	21412.667	21850.907	22384.646
6.244	−1054.018	8352.961	10346.453	15807.597	17198.522	18079.032	19822.666	21380.619	21913.054	22452.272
6.350	−946.767	8522.560	10456.044	15854.893	17216.005	18208.103	19906.553	21357.386	21956.227	22526.501
6.456	−849.198	8692.203	10571.516	15898.428	17229.935	18332.143	19983.477	21344.685	21984.278	22607.368
6.562	−760.785	8861.205	10691.836	15937.515	17241.058	18450.302	20053.353	21342.376	22003.640	22690.301
6.668	−680.949	9028.943	10815.973	15971.805	17249.984	18562.023	20116.630	21349.118	22019.907	22770.434
6.773	−609.084	9194.844	10942.906	16001.301	17257.260	18666.939	20174.205	21362.712	22036.956	22844.357
6.879	−544.569	9358.379	11071.650	16026.281	17263.420	18764.811	20227.269	21380.435	22057.229	22910.329
6.985	−486.788	9519.065	11201.250	16047.272	17268.999	18855.478	20277.088	21399.433	22082.150	22968.049
7.091	−435.141	9676.463	11330.806	16064.957	17274.550	18938.854	20324.824	21417.061	22112.379	23018.260
7.197	−389.052	9830.168	11459.464	16080.136	17280.653	19014.931	20371.411	21431.206	22147.901	23062.366
7.303	−347.975	9979.817	11586.430	16093.656	17287.909	19083.791	20417.481	21440.442	22188.089	23102.088
7.408	−311.408	10125.085	11710.964	16106.365	17296.912	19145.624	20463.363	21444.054	22231.768	23139.246
7.514	−278.880	10265.684	11832.393	16119.093	17308.252	19200.723	20509.112	21441.932	22277.355	23175.632
7.620	−249.957	10401.368	11950.097	16132.619	17322.476	19249.483	20554.576	21434.389	22323.026	23212.945
7.726	−224.250	10531.925	12063.526	16147.655	17340.087	19292.384	20599.454	21421.982	22366.903	23252.709
7.832	−201.405	10657.188	12172.190	16164.851	17361.517	19329.947	20643.387	21405.389	22407.243	23296.201
7.938	−181.099	10777.027	12275.670	16184.777	17387.123	19362.719	20685.991	21385.310	22442.600	23344.336
8.043	−163.046	10891.361	12373.613	16207.925	17417.180	19391.238	20726.923	21362.418	22471.977	23397.552
8.149	−146.989	11000.139	12465.742	16234.712	17451.879	19416.016	20765.900	21337.330	22494.883	23455.770
8.255	−132.699	11103.360	12551.851	16265.469	17491.323	19437.525	20802.714	21310.594	22511.300	23518.408
8.361	−119.971	11201.059	12631.816	16300.449	17535.536	19456.191	20837.233	21282.690	22521.598	23584.481
8.467	−108.627	11293.306	12705.586	16339.816	17584.468	19472.391	20869.388	21254.035	22526.374	23652.744
8.573	−98.507	11380.212	12773.184	16383.661	17638.002	19486.455	20899.175	21224.986	22526.343	23721.806
8.679	−89.469	11461.911	12834.710	16431.987	17695.961	19498.668	20926.621	21195.855	22522.243	23790.247
8.784	−81.386	11538.571	12890.322	16484.729	17758.125	19509.282	20951.768	21166.926	22514.766	23856.688
8.890	−74.154	11610.379	12940.244	16541.752	17824.228	19518.504	20974.640	21138.488	22504.540	23919.864
8.996	−67.671	11677.541	12984.740	16602.861	17893.984	19526.528	20995.130	21110.942	22492.118	23978.679
9.102	−61.852	11740.277	13024.118	16667.814	17967.080	19533.508	21012.589	21085.200	22477.973	24032.270
9.208	−56.622	11798.816	13058.710	16736.328	18043.196	19539.583	21023.407	21065.118	22462.509	24080.054
9.314	−51.917	11853.392	13088.870	16808.092	18121.998	19544.877	21015.916	21062.588	22446.070	24121.752
9.419	−47.676	11904.243	13114.950	16882.774	18203.162	19549.496	20995.229	21072.697	22428.949	24157.380
9.525	−43.851	11951.603	13137.308	16960.038	18286.365	19553.539	20972.188	21084.781	22411.393	24187.200
9.631	−40.392	11995.700	13156.295	17039.541	18371.293	19557.088	20949.198	21096.595	22393.611	24211.647
9.737	−37.260	12036.761	13172.242	17120.946	18457.645	19560.224	20926.834	21107.716	22375.788	24231.261
9.843	−34.422	12074.998	13185.465	17203.923	18545.134	19563.021	20905.299	21118.066	22358.074	24246.611
9.949	−31.846	12110.617	13196.266	17288.157	18633.486	19565.547	20884.686	21127.671	22340.601	24258.252
10.054	−29.502	12143.814	13204.915	17373.346	18722.444	19567.869	20865.049	21136.583	22323.491	24266.698
10.160	−27.366	12174.771	13211.666	17459.205	18811.768	19570.048	20846.425	21144.866	22306.842	24272.406
10.266	−25.420	12203.663	13216.751	17545.456	18901.225	19572.153	20828.832	21152.585	22290.746	24275.773
10.372	−23.642	12230.645	13220.379	17631.848	18990.604	19574.244	20812.290	21159.808	22275.281	24277.142
10.478	−22.013	12255.869	13222.739	17718.137	19079.696	19576.391	20796.817	21166.599	22260.526	24276.802

(*continued on next page*)

Table 1 (*continued*)

R	$1^1\Sigma^+$	$2^1\Sigma^+$	$3^1\Sigma^+$	$4^1\Sigma^+$	$5^1\Sigma^+$	$6^1\Sigma^+$	$7^1\Sigma^+$	$8^1\Sigma^+$	$9^1\Sigma^+$	$10^1\Sigma^+$
10.584	−20.523	12279.474	13223.996	17804.087	19168.300	19578.673	20782.428	21173.016	22246.546	24275.003
10.848	−17.306	12332.203	13223.279	18016.051	19386.203	19585.723	20751.304	21187.826	22215.409	24265.412
11.113	−14.687	12377.289	13218.509	18221.223	19577.447	19615.071	20727.371	21201.561	22190.463	24250.424
11.377	−12.539	12416.112	13211.109	18416.309	19602.129	19805.505	20711.101	21215.068	22172.664	24231.753
11.642	−10.761	12449.769	13202.093	18597.795	19619.404	19997.069	20703.209	21229.186	22163.053	24210.607
11.906	−9.282	12479.141	13192.183	18761.780	19642.999	20175.429	20704.723	21244.762	22162.871	24187.865
12.171	−8.039	12504.920	13181.890	18904.151	19675.244	20337.557	20717.053	21262.625	22173.583	24164.196
12.436	−6.990	12527.669	13171.562	19021.467	19717.309	20480.745	20741.937	21283.449	22196.861	24140.116
12.700	−6.101	12547.839	13161.428	19112.536	19768.067	20602.819	20781.234	21307.495	22234.385	24116.031
12.965	−5.344	12565.792	13151.651	19179.486	19823.478	20702.779	20836.474	21334.271	22287.451	24092.266
13.229	−4.697	12581.831	13142.319	19227.003	19877.995	20781.331	20908.319	21362.403	22356.505	24069.081
13.494	−4.139	12596.200	13133.489	19260.312	19927.008	20840.918	20996.065	21389.973	22440.770	24046.681
13.759	−3.659	12609.107	13125.191	19283.785	19968.197	20885.158	21097.502	21415.233	22538.309	24025.225
14.023	−3.242	12620.728	13117.428	19300.564	20001.298	20917.776	21209.578	21437.128	22646.446	24004.831
14.288	−2.880	12631.208	13110.194	19312.773	20027.238	20941.918	21329.161	21455.370	22762.318	23985.588
14.552	−2.566	12640.674	13103.474	19321.822	20047.329	20959.961	21453.356	21470.336	22883.299	23967.549
14.817	−2.291	12649.240	13097.247	19328.641	20062.852	20973.623	21481.984	21580.473	23007.194	23950.744
15.082	−2.050	12656.997	13091.491	19333.863	20074.884	20984.114	21491.445	21708.236	23132.273	23935.188
15.346	−1.837	12664.031	13086.175	19337.914	20084.268	20992.281	21498.962	21835.656	23257.211	23920.871
15.611	−1.650	12670.415	13081.274	19341.103	20091.649	20998.725	21504.958	21961.843	23381.014	23907.773
15.875	−1.486	12676.214	13076.759	19343.640	20097.507	21003.874	21509.763	22086.173	23502.930	23895.871
16.140	−1.341	12681.486	13072.607	19345.684	20102.197	21008.035	21513.636	22208.206	23622.386	23885.128
16.404	−1.211	12686.281	13068.788	19347.345	20105.994	21011.437	21516.786	22327.644	23738.914	23875.506
16.934	−0.994	12694.626	13062.052	19349.843	20111.646	21016.590	21521.491	22557.969	23859.476	23961.560
17.463	−0.821	12701.557	13056.372	19351.590	20115.550	21020.231	21524.757	22776.173	23847.560	24167.258
17.992	−0.683	12707.329	13051.586	19352.856	20118.337	21022.889	21527.097	22981.707	23839.749	24350.078
18.521	−0.571	12712.151	13047.547	19353.798	20120.390	21024.884	21528.822	23173.874	23836.552	24498.608
19.050	−0.478	12716.185	13044.139	19354.517	20121.941	21026.416	21530.126	23350.911	23839.767	24598.868
19.580	−0.404	12719.569	13041.259	19355.077	20123.140	21027.614	21531.131	23507.629	23854.764	24653.151
20.109	−0.342	12722.415	13038.823	19355.518	20124.081	21028.565	21531.914	23629.984	23895.854	24680.111
20.638	−0.292	12724.816	13036.756	19355.872	20124.836	21029.333	21532.531	23700.580	23980.764	24694.129
21.167	−0.250	12726.847	13035.002	19356.155	20125.444	21029.956	21533.023	23731.182	24098.102	24702.037
22.225	−0.187	12730.033	13032.232	19356.578	20126.355	21030.893	21533.736	23751.330	24352.719	24709.966
23.284	−0.140	12732.351	13030.209	19356.868	20126.985	21031.543	21534.225	23757.503	24595.774	24713.634
24.342	−0.105	12734.056	13028.712	19357.070	20127.430	21032.004	21534.574	23760.196	24715.642	24819.780
25.401	−0.081	12735.323	13027.595	19357.215	20127.751	21032.340	21534.820	23761.647	24716.873	25025.220
26.459	−0.064	12736.275	13026.752	19357.322	20127.986	21032.585	21534.993	23762.540	24717.687	25213.801
27.517	−0.050	12736.997	13026.111	19357.399	20128.163	21032.767	21535.123	23763.137	24718.256	25387.318
28.576	−0.040	12737.550	13025.620	19357.458	20128.295	21032.908	21535.222	23763.561	24718.671	25547.295
29.634	−0.031	12737.978	13025.238	19357.504	20128.396	21033.013	21535.299	23763.870	24718.982	25688.246
30.692	−0.024	12738.314	13024.941	19357.540	20128.473	21033.095	21535.356	23764.101	24719.219	25699.351
31.751	−0.020	12738.578	13024.707	19357.568	20128.534	21033.158	21535.404	23764.279	24719.401	25699.841
37.042	−0.007	12739.282	13024.079	19357.643	20128.697	21033.327	21535.525	23764.722	24719.878	25700.508
42.334	−0.002	12739.539	13023.851	19357.671	20128.754	21033.386	21535.566	23764.873	24720.027	25700.701

Table 2
Adiabatic potential energy curves for the (1-10)$^3\Sigma^+$ electronic states of the KRb molecule. See the explanation of the table.

R	$1^3\Sigma^+$	$2^3\Sigma^+$	$3^3\Sigma^+$	$4^3\Sigma^+$	$5^3\Sigma^+$	$6^3\Sigma^+$	$7^3\Sigma^+$	$8^3\Sigma^+$	$9^3\Sigma^+$	$10^3\Sigma^+$
2.540	11342.941	21230.332	25728.897	28660.413	30386.315	31322.063	32502.167	33444.620	33891.420	34747.941
2.646	10300.735	20468.415	24435.068	27480.825	29337.780	30303.132	31261.909	32422.750	32802.696	33698.727
2.752	9277.945	19658.398	23114.660	26299.968	28267.793	29247.710	29992.497	31330.307	31729.908	32598.218
2.858	8288.179	18805.308	21809.416	25139.713	27194.221	28166.013	28739.367	30206.335	30675.179	31457.205
2.963	7343.136	17913.074	20566.854	24020.083	26136.955	27059.051	27561.414	29096.015	29638.774	30269.856
3.069	6452.361	16987.029	19432.121	22958.543	25115.083	25943.034	26499.343	28031.941	28633.012	29110.593
3.175	5623.028	16041.287	18434.921	21969.077	24145.269	24868.967	25548.353	27036.167	27674.645	28032.281
3.281	4859.827	15103.048	17581.268	21061.554	23241.235	23880.453	24695.426	26123.040	26778.664	27055.327
3.387	4165.058	14205.063	16859.670	20241.590	22413.902	22996.332	23936.083	25300.693	25956.791	26184.068
3.493	3538.881	13373.983	16253.718	19510.963	21671.158	22219.416	23268.703	24572.261	25216.885	25411.409
3.598	2979.730	12625.566	15749.100	18868.346	21017.147	21544.815	22690.999	23937.082	24558.908	24723.694
3.704	2484.679	11966.049	15334.594	18310.119	20451.880	20964.772	22199.225	23391.791	23959.828	24114.472
3.810	2049.829	11395.167	15001.034	17831.069	19971.700	20470.840	21788.283	22931.190	23356.435	23609.450
3.916	1670.639	10908.732	14740.401	17424.991	19570.283	20054.604	21452.034	22548.731	22732.963	23208.608
4.022	1342.245	10500.465	14545.317	17085.172	19239.524	19707.900	21183.472	22120.964	22240.363	22889.764
4.128	1059.698	10163.157	14408.863	16804.762	18969.987	19422.985	20973.907	21553.306	21993.891	22639.985
4.233	818.151	9889.391	14324.512	16577.018	18750.798	19192.791	20802.218	21054.553	21806.106	22450.168
4.339	612.982	9671.949	14286.113	16395.442	18568.941	19011.415	20517.619	20778.074	21669.896	22312.548
4.445	439.864	9504.042	14287.884	16253.850	18408.450	18874.720	20143.465	20702.002	21579.165	22220.127
4.551	294.811	9379.413	14324.387	16146.354	18251.243	18780.317	19827.955	20680.340	21528.343	22166.492
4.657	174.201	9292.380	14390.480	16067.310	18082.190	18725.907	19589.535	20695.132	21512.355	22145.732
4.763	74.762	9237.830	14481.228	16011.212	17896.348	18707.366	19428.744	20739.835	21526.590	22152.378
4.868	−6.428	9211.186	14591.740	15972.574	17700.695	18718.921	19336.189	20809.689	21566.901	22181.342
4.974	−71.961	9208.396	14716.878	15945.914	17508.694	18754.555	19297.937	20900.650	21629.543	22227.851
5.080	−124.126	9225.866	14850.665	15926.102	17334.455	18808.888	19300.808	21009.102	21711.161	22287.443
5.186	−164.929	9260.442	14985.067	15909.859	17190.149	18877.386	19334.416	21131.729	21808.738	22355.943
5.292	−196.129	9309.344	15107.541	15899.478	17084.858	18956.305	19390.974	21265.441	21919.553	22429.550
5.398	−219.246	9370.145	15197.999	15908.129	17023.074	19042.580	19464.527	21407.277	22041.146	22504.997
5.503	−235.608	9440.714	15233.357	15956.850	17003.784	19133.715	19550.289	21554.283	22171.259	22579.816
5.609	−246.356	9519.194	15208.060	16053.059	17021.823	19227.663	19644.244	21703.383	22307.788	22652.703
5.715	−252.468	9603.962	15139.345	16182.718	17070.684	19322.746	19742.906	21851.213	22448.704	22723.920
5.821	−254.792	9693.602	15047.172	16328.425	17144.601	19417.566	19843.202	21993.948	22591.926	22795.586
5.927	−254.044	9786.881	14944.576	16478.546	17239.142	19510.948	19942.400	22127.318	22735.076	22871.761
6.033	−250.838	9882.721	14838.932	16626.303	17350.861	19601.914	20038.100	22247.114	22874.827	22958.225
6.138	−245.693	9980.194	14734.346	16768.026	17476.675	19689.664	20128.236	22350.441	23006.248	23061.387
6.244	−239.052	10078.488	14633.102	16902.147	17613.408	19773.558	20211.131	22437.175	23128.954	23180.059
6.350	−231.282	10176.900	14536.459	17028.486	17757.710	19853.118	20285.544	22510.154	23250.763	23301.163
6.456	−222.692	10274.830	14445.056	17147.625	17906.266	19928.005	20350.728	22573.738	23371.597	23417.173
6.562	−213.538	10371.759	14359.174	17260.400	18056.053	19998.013	20406.475	22632.075	23479.260	23532.849
6.668	−204.035	10467.252	14278.853	17367.600	18204.499	20063.036	20453.111	22688.194	23563.483	23653.523
6.773	−194.351	10560.939	14203.999	17469.854	18349.519	20123.028	20491.460	22743.869	23628.961	23772.493
6.879	−184.629	10652.519	14134.419	17567.616	18489.469	20177.971	20522.755	22799.817	23681.425	23883.469
6.985	−174.983	10741.749	14069.873	17661.198	18623.098	20227.814	20548.541	22856.009	23724.705	23982.294
7.091	−165.497	10828.433	14010.091	17750.808	18749.472	20272.448	20570.565	22911.949	23761.423	24066.679
7.197	−156.244	10912.426	13954.781	17836.585	18867.933	20311.686	20590.645	22966.879	23793.475	24136.595
7.303	−147.274	10993.620	13903.654	17918.627	18978.066	20345.331	20610.514	23019.963	23822.354	24193.696
7.408	−138.625	11071.946	13856.415	17997.012	19079.658	20373.325	20631.601	23070.381	23849.307	24240.132
7.514	−130.324	11147.360	13812.783	18071.811	19172.691	20395.936	20654.808	23117.412	23875.394	24277.768
7.620	−122.390	11219.848	13772.481	18143.092	19257.301	20413.838	20680.412	23160.475	23901.492	24308.009
7.726	−114.831	11289.415	13735.249	18210.929	19333.764	20428.040	20708.154	23199.153	23928.279	24331.910
7.832	−107.652	11356.087	13700.838	18275.411	19402.466	20439.653	20737.491	23233.200	23956.235	24350.324
7.938	−100.853	11419.904	13669.012	18336.627	19463.879	20449.696	20767.798	23262.544	23985.649	24364.037
8.043	−94.425	11480.918	13639.549	18394.682	19518.533	20459.004	20798.509	23287.261	24016.624	24373.801
8.149	−88.365	11539.195	13612.249	18449.692	19566.986	20468.195	20829.165	23307.561	24049.121	24380.344
8.255	−82.656	11594.803	13586.915	18501.777	19609.815	20477.703	20859.415	23323.749	24082.967	24384.373
8.361	−77.292	11647.826	13563.374	18551.062	19647.586	20487.799	20889.003	23336.211	24117.885	24386.562
8.467	−72.258	11698.345	13541.457	18597.679	19680.852	20498.636	20917.750	23345.363	24153.488	24387.569
8.573	−67.537	11746.447	13521.020	18641.756	19710.134	20510.269	20945.539	23351.642	24189.247	24388.091
8.679	−63.117	11792.223	13501.921	18683.425	19735.923	20522.687	20972.304	23355.481	24224.379	24388.991
8.784	−58.982	11835.766	13484.034	18722.810	19758.667	20535.824	20998.018	23357.294	24257.600	24391.579
8.890	−55.119	11877.166	13467.247	18760.033	19778.775	20549.594	21022.674	23357.469	24286.694	24398.055
8.996	−51.509	11916.516	13451.451	18795.213	19796.618	20563.884	21046.283	23356.361	24308.538	24411.498
9.102	−48.140	11953.905	13436.553	18828.454	19812.526	20578.569	21068.875	23354.287	24321.441	24433.549
9.208	−44.997	11989.427	13422.469	18859.865	19826.785	20593.535	21090.481	23351.528	24327.297	24462.245
9.314	−42.067	12023.169	13409.123	18889.538	19839.651	20608.666	21111.137	23348.326	24329.127	24494.517
9.419	−39.336	12055.215	13396.442	18917.563	19851.340	20623.856	21130.881	23344.898	24328.934	24528.309
9.525	−36.791	12085.649	13384.366	18944.025	19862.044	20639.008	21149.750	23341.419	24327.780	24562.525
9.631	−34.420	12114.556	13372.839	18969.001	19871.922	20654.044	21167.780	23338.043	24326.226	24596.570
9.737	−32.214	12142.010	13361.815	18992.566	19881.112	20668.892	21185.002	23334.898	24324.588	24630.110
9.843	−30.160	12168.091	13351.245	19014.786	19889.726	20683.493	21201.451	23332.089	24323.065	24662.937
9.949	−28.246	12192.867	13341.095	19035.728	19897.862	20697.801	21217.159	23329.697	24321.784	24694.928
10.054	−26.464	12216.412	13331.328	19055.455	19905.601	20711.777	21232.154	23327.794	24320.831	24725.997
10.160	−24.807	12238.792	13321.917	19074.024	19913.004	20725.393	21246.468	23326.427	24320.269	24756.100
10.266	−23.262	12260.068	13312.835	19091.495	19920.128	20738.630	21260.126	23325.637	24320.142	24785.209
10.372	−21.822	12280.306	13304.058	19107.924	19927.013	20751.467	21273.156	23325.448	24320.480	24813.312

(*continued on next page*)

Table 2 (*continued*)

R	$1^3\Sigma^+$	$2^3\Sigma^+$	$3^3\Sigma^+$	$4^3\Sigma^+$	$5^3\Sigma^+$	$6^3\Sigma^+$	$7^3\Sigma^+$	$8^3\Sigma^+$	$9^3\Sigma^+$	$10^3\Sigma^+$
10.478	−20.484	12299.560	13295.569	19123.362	19933.693	20763.898	21285.587	23325.878	24321.303	24840.409
10.584	−19.235	12317.884	13287.350	19137.865	19940.196	20775.914	21297.447	23326.934	24322.624	24866.511
10.848	−16.472	12359.968	13267.885	19170.347	19955.795	20804.136	21324.759	23332.289	24328.122	24927.520
11.113	−14.150	12397.292	13249.826	19198.021	19970.574	20829.786	21349.039	23341.360	24336.679	24982.764
11.377	−12.192	12430.481	13233.036	19221.553	19984.596	20852.954	21370.640	23353.791	24348.059	25032.697
11.642	−10.539	12460.066	13217.410	19241.543	19997.859	20873.763	21389.866	23369.117	24361.921	25077.834
11.906	−9.137	12486.502	13202.859	19258.508	20010.325	20892.361	21406.978	23386.815	24377.851	25118.729
12.171	−7.947	12510.173	13189.313	19272.904	20021.962	20908.916	21422.205	23406.344	24395.400	25155.947
12.436	−6.931	12531.409	13176.710	19285.124	20032.738	20923.596	21435.738	23427.174	24414.119	25190.045
12.700	−6.064	12550.497	13164.995	19295.496	20042.649	20936.570	21447.746	23448.806	24433.575	25221.542
12.965	−5.320	12567.679	13154.113	19304.310	20051.701	20948.011	21458.379	23470.786	24453.363	25250.901
13.229	−4.681	12583.165	13144.017	19311.801	20059.918	20958.074	21467.773	23492.716	24473.131	25278.520
13.494	−4.128	12597.144	13134.659	19318.172	20067.334	20966.914	21476.047	23514.253	24492.568	25304.718
13.759	−3.652	12609.774	13125.994	19323.593	20073.999	20974.670	21483.316	23535.125	24511.423	25329.745
14.023	−3.237	12621.196	13117.977	19328.211	20079.962	20981.470	21489.690	23555.110	24529.494	25353.782
14.288	−2.877	12631.538	13110.570	19332.144	20085.285	20987.426	21495.262	23574.051	24546.631	25376.945
14.552	−2.563	12640.907	13103.731	19335.500	20090.016	20992.648	21500.128	23591.835	24562.729	25399.305
14.817	−2.289	12649.403	13097.423	19338.364	20094.219	20997.224	21504.368	23608.403	24577.728	25420.884
15.082	−2.048	12657.111	13091.609	19340.811	20097.942	21001.233	21508.062	23623.727	24591.599	25441.679
15.346	−1.837	12664.112	13086.256	19342.905	20101.240	21004.754	21511.277	23637.813	24604.344	25461.662
15.611	−1.650	12670.470	13081.329	19344.698	20104.157	21007.844	21514.073	23650.689	24615.989	25480.792
15.875	−1.486	12676.253	13076.797	19346.241	20106.738	21010.559	21516.505	23662.405	24626.577	25499.021
16.140	−1.341	12681.512	13072.631	19347.567	20109.021	21012.949	21518.625	23673.019	24636.161	25516.309
16.404	−1.211	12686.301	13068.806	19348.712	20111.042	21015.056	21520.475	23682.601	24644.809	25532.610
16.934	−0.994	12694.634	13062.061	19350.567	20114.418	21018.561	21523.515	23698.965	24659.568	25562.155
17.463	−0.821	12701.561	13056.377	19351.976	20117.075	21021.309	21525.866	23712.098	24671.411	25587.575
17.992	−0.683	12707.331	13051.586	19353.062	20119.178	21023.479	21527.705	23722.570	24680.866	25609.007
18.521	−0.571	12712.151	13047.547	19353.909	20120.855	21025.207	21529.155	23730.885	24688.390	25626.762
19.050	−0.478	12716.185	13044.139	19354.577	20122.198	21026.591	21530.310	23737.476	24694.375	25641.267
19.580	−0.404	12719.569	13041.259	19355.108	20123.280	21027.711	21531.232	23742.700	24699.135	25652.992
20.109	−0.342	12722.415	13038.823	19355.536	20124.160	21028.619	21531.969	23746.841	24702.928	25662.398
20.638	−0.292	12724.816	13036.756	19355.880	20124.878	21029.361	21532.562	23750.131	24708.393	25669.911
21.167	−0.250	12726.847	13035.002	19356.159	20125.470	21029.974	21533.038	23752.754	24711.930	25675.889
22.225	−0.187	12730.033	13032.232	19356.578	20126.364	21030.898	21533.740	23756.542	24714.274	25684.449
23.284	−0.140	12732.351	13030.209	19356.868	20126.987	21031.545	21534.225	23759.020	24715.857	25689.896
24.342	−0.105	12734.056	13028.712	19357.070	20127.430	21032.006	21534.574	23760.675	24716.945	25693.399
25.401	−0.081	12735.323	13027.595	19357.215	20127.751	21032.340	21534.820	23761.805	24717.711	25695.671
26.459	−0.064	12736.275	13026.752	19357.322	20127.988	21032.585	21534.993	23762.593	24718.265	25697.161
27.517	−0.050	12736.997	13026.111	19357.399	20128.163	21032.767	21535.123	23763.155	24718.484	25698.159
28.576	−0.040	12737.550	13025.620	19357.458	20128.295	21032.906	21535.222	23763.565	24718.673	25698.838
29.634	−0.031	12737.978	13025.238	19357.504	20128.396	21033.013	21535.299	23763.872	24718.982	25699.314
30.692	−0.024	12738.314	13024.941	19357.540	20128.473	21033.095	21535.356	23764.103	24719.219	25699.656
31.751	−0.020	12738.578	13024.707	19357.568	20128.534	21033.158	21535.404	23764.279	24719.401	25699.907
37.042	−0.007	12739.282	13024.079	19357.643	20128.697	21033.327	21535.525	23764.722	24719.878	25700.508
42.334	−0.002	12739.539	13023.851	19357.671	20128.754	21033.386	21535.566	23764.873	24720.027	25700.701

Table 3
Adiabatic potential energy curves for the (1-9)$^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$1^1\Pi$	$2^1\Pi$	$3^1\Pi$	$4^1\Pi$	$5^1\Pi$	$6^1\Pi$	$7^1\Pi$	$8^1\Pi$	$9^1\Pi$
2.434	20606.370	23445.101	25230.314	30352.213	31410.571	33265.098	34045.304	35360.627	
2.540	19573.061	22474.020	24578.442	29317.002	30428.292	32272.658	32964.078	34318.105	
2.646	18559.383	21468.346	23924.879	28300.189	29402.463	31234.717	31845.168	33232.882	
2.752	17577.563	20469.062	23266.824	27306.208	28356.272	30178.512	30713.980	32084.388	
2.858	16638.471	19498.899	22613.512	26341.229	27314.024	29129.634	29597.308	30977.758	31822.432
2.963	15752.379	18572.053	21977.206	25413.084	26298.932	28110.723	28521.174	29892.515	30713.541
3.069	14928.851	17698.390	21369.450	24530.434	25331.303	27140.577	27508.303	28857.244	29682.438
3.175	14176.123	16885.114	20799.657	23701.706	24427.221	26234.130	26575.641	27890.452	28718.815
3.281	13500.345	16137.272	20274.755	22934.149	23597.875	25402.907	25732.869	27004.802	27837.153
3.387	12905.082	15457.868	19799.289	22233.195	22849.565	24654.957	24982.920	26207.635	27044.829
3.493	12391.228	14847.924	19375.741	21602.166	22184.366	23994.286	24324.123	25501.741	26344.438
3.598	11957.340	14306.658	19004.888	21042.255	21601.139	23420.829	23752.396	24886.347	25735.000
3.704	11600.075	13831.746	18686.088	20552.708	21096.547	22931.225	23262.599	24358.118	25213.022
3.810	11314.650	13419.636	18417.470	20131.124	20665.863	22519.860	22849.133	23911.972	24773.320
3.916	11095.318	13065.902	18196.150	19773.859	20303.583	22179.882	22506.232	23541.751	24409.720
4.022	10935.776	12765.590	18018.450	19476.464	20003.873	21904.012	22228.068	23240.739	24115.515
4.128	10829.528	12513.506	17880.157	19234.076	19760.897	21685.138	22008.784	23002.045	23883.822
4.233	10770.127	12304.470	17776.756	19041.700	19569.010	21516.689	21842.508	22818.863	23707.676
4.339	10751.338	12133.475	17703.669	18894.406	19422.877	21392.816	21723.373	22684.641	23579.362
4.445	10767.241	11995.821	17656.458	18787.443	19317.518	21308.366	21645.607	22593.147	23487.328
4.551	10812.268	11887.196	17630.994	18716.265	19248.309	21258.800	21603.671	22538.550	23422.251
4.657	10881.197	11803.752	17623.618	18676.558	19210.955	21240.046	21592.373	22515.428	23385.140
4.763	10969.098	11742.165	17631.194	18664.224	19201.447	21248.375	21606.953	22518.810	23373.892
4.868	11071.200	11699.780	17651.135	18675.412	19216.049	21280.333	21643.157	22544.243	23384.451
4.974	11182.553	11674.896	17681.348	18706.565	19251.268	21332.691	21697.255	22587.875	23412.316
5.080	11297.167	11667.609	17720.136	18754.456	19303.880	21402.420	21766.061	22646.536	23452.763
5.186	11405.798	11681.967	17766.087	18816.241	19370.941	21486.683	21846.935	22717.791	23500.795
5.292	11493.379	11728.505	17817.991	18889.459	19449.835	21582.813	21937.769	22799.881	23550.785
5.398	11549.991	11813.211	17874.751	18972.028	19538.299	21688.314	22036.934	22891.546	23596.372
5.503	11586.303	11922.057	17935.353	19062.197	19634.442	21800.839	22143.204	22991.770	23631.518
5.609	11615.271	12039.248	17998.834	19158.500	19736.735	21918.190	22255.625	23099.479	23652.603
5.715	11642.556	12156.761	18064.285	19259.704	19843.996	22038.282	22373.371	23213.222	23660.250
5.821	11670.050	12270.778	18130.850	19364.745	19955.329	22159.142	22495.625	23330.502	23659.747
5.927	11698.288	12379.254	18197.728	19472.663	20070.086	22278.870	22621.470	23445.138	23661.799
6.033	11727.311	12480.989	18264.194	19582.563	20187.801	22395.626	22749.843	23536.089	23691.913
6.138	11756.988	12575.280	18329.604	19693.566	20308.143	22507.646	22879.499	23576.105	23780.923
6.244	11787.133	12661.768	18393.401	19804.765	20430.882	22613.305	23009.003	23593.925	23902.701
6.350	11817.559	12740.344	18455.117	19915.225	20555.849	22711.294	23136.654	23614.823	24033.725
6.456	11848.088	12811.090	18514.379	20023.976	20682.914	22800.873	23260.411	23646.688	24167.100
6.562	11878.557	12874.239	18570.910	20130.049	20811.945	22882.131	23377.806	23692.565	24300.064
6.668	11908.838	12930.135	18624.503	20232.504	20942.794	22956.098	23486.123	23753.588	24430.911
6.773	11938.808	12979.203	18675.048	20330.495	21075.260	23024.544	23583.363	23829.043	24558.265
6.879	11968.371	13021.919	18722.488	20423.315	21209.065	23089.552	23669.547	23915.764	24680.875
6.985	11997.445	13058.791	18766.835	20510.438	21343.849	23153.064	23746.565	24008.859	24797.541
7.091	12025.961	13090.330	18808.148	20591.527	21479.153	23216.604	23816.603	24103.668	24907.098
7.197	12053.863	13117.048	18846.521	20666.451	21614.439	23281.138	23881.210	24196.832	25008.423
7.303	12081.106	13139.441	18882.081	20735.248	21749.102	23347.121	23941.379	24286.257	25100.532
7.408	12107.652	13157.978	18914.973	20798.110	21882.483	23414.544	23997.865	24370.715	25182.664
7.514	12133.473	13173.096	18945.355	20855.335	22013.900	23483.055	24051.397	24449.577	25254.419
7.620	12158.546	13185.204	18973.393	20907.303	22142.651	23552.040	24102.768	24522.605	25315.857
7.726	12182.855	13194.674	18999.256	20954.426	22268.026	23620.711	24152.843	24589.878	25367.517
7.832	12206.389	13201.842	19023.106	20997.140	22389.334	23688.211	24202.517	24651.693	25410.321
7.938	12229.144	13207.015	19045.104	21035.871	22505.894	23753.702	24252.634	24708.526	25445.408
8.043	12251.116	13210.466	19065.401	21071.031	22617.063	23816.465	24303.896	24760.979	25473.968
8.149	12272.308	13212.434	19084.144	21102.995	22722.242	23876.009	24356.763	24809.713	25497.103
8.255	12292.728	13213.143	19101.468	21132.117	22820.900	23932.111	24411.380	24855.432	25515.772
8.361	12312.380	13212.777	19117.491	21158.704	22912.598	23984.818	24467.581	24898.813	25530.773
8.467	12331.277	13211.508	19132.334	21183.037	22997.026	24034.373	24524.951	24940.487	25542.769
8.573	12349.431	13209.478	19146.098	21205.362	23074.011	24081.106	24582.934	24980.984	25552.303
8.679	12366.860	13206.822	19158.878	21225.894	23143.554	24125.321	24640.937	25020.725	25559.831
8.784	12383.577	13203.649	19170.758	21244.824	23205.823	24167.238	24698.422	25059.978	25565.735
8.890	12399.601	13200.054	19181.819	21262.318	23261.148	24206.946	24754.954	25098.869	25570.348
8.996	12414.951	13196.127	19192.130	21278.520	23309.988	24244.443	24810.224	25137.375	25573.961
9.102	12429.647	13191.938	19201.752	21293.556	23352.900	24279.664	24864.015	25175.351	25576.830
9.208	12443.707	13187.550	19210.744	21307.541	23390.485	24312.528	24916.185	25212.557	25579.180
9.314	12457.154	13183.018	19219.154	21320.569	23423.360	24342.983	24966.629	25248.695	25581.226
9.419	12470.006	13178.387	19227.031	21332.726	23452.120	24371.016	25015.260	25283.456	25583.159
9.525	12482.288	13173.699	19234.412	21344.088	23477.315	24396.677	25061.993	25316.530	25585.165
9.631	12494.019	13168.985	19241.339	21354.721	23499.449	24420.060	25106.735	25347.637	25587.421
9.737	12505.219	13164.275	19247.842	21364.688	23518.963	24441.305	25149.396	25376.530	25590.106
9.843	12515.910	13159.594	19253.950	21374.037	23536.236	24460.571	25189.900	25403.001	25593.400
9.949	12526.113	13154.958	19259.693	21382.816	23551.599	24478.032	25228.183	25426.882	25597.475
10.054	12535.844	13150.389	19265.097	21391.071	23565.329	24493.865	25264.199	25448.062	25602.488
10.160	12545.128	13145.896	19270.182	21398.836	23577.666	24508.240	25297.932	25466.502	25608.544
10.266	12553.982	13141.493	19274.971	21406.147	23588.804	24521.317	25329.394	25482.273	25615.659

(*continued on next page*)

Table 3 (*continued*)

R	$1^1\Pi$	$2^1\Pi$	$3^1\Pi$	$4^1\Pi$	$5^1\Pi$	$6^1\Pi$	$7^1\Pi$	$8^1\Pi$	$9^1\Pi$
10.372	12562.423	13137.187	19279.481	21413.034	23598.913	24533.239	25358.606	25495.569	25623.742
10.478	12570.469	13132.987	19283.730	21419.526	23608.133	24544.140	25385.617	25506.710	25632.591
10.584	12578.139	13128.898	19287.736	21425.649	23616.581	24554.135	25410.483	25516.097	25641.937
10.848	12595.779	13119.177	19296.778	21439.493	23634.933	24575.810	25463.616	25534.646	25665.686
11.113	12611.414	13110.199	19304.594	21451.497	23650.202	24593.719	25504.017	25550.964	25687.581
11.377	12625.274	13101.960	19311.353	21461.917	23663.158	24608.771	25531.148	25570.002	25706.256
11.642	12637.558	13094.440	19317.207	21470.979	23674.318	24621.601	25547.745	25591.890	25721.523
11.906	12648.448	13087.601	19322.272	21478.863	23684.039	24632.665	25559.517	25612.834	25733.692
12.171	12658.105	13081.406	19326.664	21485.728	23692.574	24642.289	25569.468	25631.165	25743.224
12.436	12666.669	13075.800	19330.467	21491.707	23700.111	24650.712	25578.607	25646.809	25750.590
12.700	12674.271	13070.741	19333.766	21496.917	23706.794	24658.124	25587.263	25660.114	25756.213
12.965	12681.020	13066.183	19336.628	21501.460	23712.737	24664.667	25595.535	25671.465	25760.455
13.229	12687.016	13062.079	19339.112	21505.424	23718.029	24670.454	25603.441	25681.205	25763.613
13.494	12692.347	13058.385	19341.274	21508.883	23722.750	24675.588	25610.971	25689.615	25765.927
13.759	12697.092	13055.064	19343.151	21511.905	23726.966	24680.144	25618.113	25696.924	25767.588
14.023	12701.317	13052.080	19344.788	21514.547	23730.730	24684.193	25624.840	25703.315	25768.749
14.288	12705.084	13049.398	19346.217	21516.860	23734.094	24687.797	25631.154	25708.929	25769.524
14.552	12708.444	13046.986	19347.464	21518.891	23737.105	24691.008	25637.042	25713.889	25770.007
14.817	12711.444	13044.817	19348.556	21520.673	23739.796	24693.866	25642.514	25718.292	25770.272
15.082	12714.124	13042.866	19349.516	21522.238	23742.206	24696.416	25647.577	25722.216	25770.371
15.346	12716.525	13041.112	19350.358	21523.618	23744.366	24698.694	25652.245	25725.725	25770.351
15.611	12718.673	13039.534	19351.102	21524.836	23746.299	24700.728	25656.538	25728.873	25770.242
15.875	12720.600	13038.112	19351.759	21525.912	23748.033	24702.548	25660.471	25731.706	25770.066
16.140	12722.332	13036.830	19352.340	21526.866	23749.589	24704.179	25664.073	25734.263	25769.849
16.404	12723.886	13035.676	19352.854	21527.711	23750.987	24705.638	25667.358	25736.574	25769.601
16.934	12726.546	13033.690	19353.719	21529.134	23753.373	24708.123	25673.076	25740.573	25769.059
17.463	12728.708	13032.068	19354.408	21530.264	23755.306	24710.133	25677.805	25743.883	25768.499
17.992	12730.475	13030.738	19354.961	21531.170	23756.880	24711.766	25681.701	25746.637	25767.957
18.521	12731.925	13029.640	19355.406	21531.899	23758.168	24713.098	25684.905	25748.944	25767.450
19.050	12733.119	13028.734	19355.771	21532.491	23759.226	24714.191	25687.543	25750.882	25766.985
19.580	12734.109	13027.983	19356.067	21532.974	23760.098	24715.091	25689.712	25752.521	25766.563
20.109	12734.932	13027.356	19356.311	21533.369	23760.820	24715.837	25691.496	25753.910	25766.188
20.638	12735.619	13026.831	19356.515	21533.696	23761.421	24716.458	25692.969	25755.096	25765.856
21.167	12736.196	13026.392	19356.681	21533.969	23761.924	24716.978	25694.185	25756.107	25765.565
22.225	12737.090	13025.707	19356.940	21534.388	23762.701	24717.782	25696.026	25757.723	25765.079
23.284	12737.733	13025.214	19357.125	21534.684	23763.256	24718.359	25697.301	25758.930	25764.711
24.342	12738.202	13024.854	19357.259	21534.899	23763.662	24718.780	25698.195	25759.841	25764.430
25.401	12738.549	13024.588	19357.355	21535.055	23763.960	24719.092	25698.831	25760.539	25764.213
26.459	12738.808	13024.388	19357.430	21535.171	23764.182	24719.327	25699.292	25761.081	25764.048
27.517	12739.006	13024.237	19357.485	21535.261	23764.353	24719.505	25699.632	25761.502	25763.918
28.576	12739.155	13024.123	19357.526	21535.327	23764.483	24719.641	25699.887	25761.836	25763.818
29.634	12739.271	13024.033	19357.559	21535.380	23764.584	24719.746	25700.082	25762.103	25763.741
30.692	12739.361	13023.963	19357.586	21535.419	23764.663	24719.829	25700.231	25762.316	25763.679
31.751	12739.431	13023.908	19357.605	21535.450	23764.724	24719.893	25700.348	25762.490	25763.631
37.042	12739.622	13023.763	19357.658	21535.536	23764.891	24720.071	25700.657	25762.990	25763.499
42.334	12739.690	13023.710	19357.678	21535.566	23764.952	24720.139	25700.769	25763.196	25763.451
47.626	12739.719	13023.688	19357.687	21535.577	23764.976	24720.167	25700.817	25763.293	25763.431
50.272	12739.728	13023.684	19357.689	21535.582	23764.983	24720.174	25700.830	25763.322	25763.425
51.859	12739.730	13023.679	19357.689	21535.584	23764.987	24720.178	25700.837	25763.335	25763.422

Table 4
Adiabatic potential energy curves for the (1-9)$^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$1^3\Pi$	$2^3\Pi$	$3^3\Pi$	$4^3\Pi$	$5^3\Pi$	$6^3\Pi$	$7^3\Pi$	$8^3\Pi$	$9^3\Pi$
2.434	13803.271	23710.031	26093.881	28378.757	31094.942	33210.350	33850.760	35297.914	
2.540	12706.284	23020.878	25220.223	27210.862	30114.953	32166.404	32833.754	34255.194	
2.646	11658.049	22237.468	24345.338	26132.658	29092.993	31068.434	31779.082	33181.132	
2.752	10672.224	21393.042	23478.446	25143.372	28052.642	29949.019	30693.518	31962.876	
2.858	9760.212	20519.291	22629.009	24240.187	27017.709	28833.868	29600.407	30869.548	
2.963	8930.978	19644.639	21807.958	23418.566	26010.364	27748.217	28529.224	29787.459	30583.101
3.069	8190.879	18793.218	21027.147	22672.915	25049.667	26714.329	27506.615	28753.137	29610.624
3.175	7543.552	17984.331	20297.975	21997.227	24150.613	25749.907	26553.204	27786.478	28638.863
3.281	6989.999	17232.248	19630.044	21385.507	23323.760	24867.415	25683.082	26900.347	27739.640
3.387	6528.830	16546.399	19030.272	20832.005	22575.406	24074.177	24904.304	26101.991	26928.855
3.493	6156.652	15931.905	18502.561	20331.362	21908.142	23373.030	24219.882	25394.018	26211.359
3.598	5868.559	15390.367	18047.976	19878.715	21321.603	22763.288	23628.975	24775.442	25587.022
3.704	5658.589	14920.669	17665.177	19469.691	20813.225	22241.728	23128.019	24242.700	25052.704
3.810	5520.156	14519.715	17350.934	19100.397	20378.885	21803.380	22711.643	23790.471	24603.343
3.916	5446.362	14183.065	17100.627	18767.401	20013.435	21442.189	22373.378	23412.281	24232.725
4.022	5430.283	13905.452	16908.734	18467.743	19711.181	21151.536	22106.218	23101.013	23934.064
4.128	5465.164	13681.201	16769.185	18198.937	19466.232	20924.639	21903.033	22849.219	23700.431
4.233	5544.563	13504.520	16675.621	17959.027	19272.765	20754.823	21756.832	22649.330	23525.020
4.339	5662.441	13369.692	16621.468	17746.666	19125.188	20635.716	21660.930	22493.718	23401.357
4.445	5813.203	13271.207	16599.845	17561.342	19018.236	20561.343	21609.011	22374.730	23323.380
4.551	5991.714	13203.824	16603.170	17403.818	18947.039	20526.185	21595.125	22284.712	23285.464
4.657	6193.304	13162.622	16622.258	17277.039	18907.149	20525.197	21613.554	22216.238	23282.361
4.763	6413.733	13143.006	16644.910	17187.526	18894.553	20553.797	21658.498	22162.851	23261.066
4.868	6649.175	13140.717	16656.272	17144.992	18905.672	20607.843	21723.088	22120.903	23239.771
4.974	6896.178	13151.837	16647.096	17154.049	18937.340	20683.610	21796.162	22093.822	23228.798
5.080	7151.642	13172.808	16622.826	17205.097	18986.766	20777.749	21853.947	22100.992	23242.772
5.186	7412.782	13200.422	16595.673	17282.238	19051.491	20887.265	21869.780	22167.475	23280.969
5.292	7677.095	13231.869	16574.507	17373.364	19129.314	21009.457	21857.426	22279.412	23339.283
5.398	7942.344	13264.739	16563.900	17471.120	19218.215	21141.917	21840.445	22413.434	23411.455
5.503	8206.516	13297.053	16565.851	17571.183	19316.278	21282.462	21829.601	22558.498	23489.738
5.609	8467.823	13327.272	16580.955	17671.072	19421.637	21429.119	21829.419	22708.985	23565.320
5.715	8724.665	13354.285	16608.995	17769.526	19532.424	21580.080	21841.891	22860.791	23630.259
5.821	8975.632	13377.394	16649.247	17866.159	19646.783	21733.598	21867.772	23009.742	23681.104
5.927	9219.488	13396.244	16700.650	17961.189	19762.896	21885.786	21909.261	23150.316	23721.485
6.033	9455.160	13410.787	16761.943	18055.256	19879.042	21956.328	22044.504	23274.027	23762.040
6.138	9681.741	13421.179	16831.764	18149.204	19993.660	22018.988	22197.190	23369.174	23818.188
6.244	9898.481	13427.739	16908.749	18243.949	20105.424	22091.129	22347.094	23427.971	23901.564
6.350	10104.790	13430.871	16991.590	18340.327	20213.267	22171.283	22492.478	23456.327	24009.763
6.456	10300.230	13431.022	17079.090	18439.023	20316.429	22257.631	22631.537	23468.067	24132.175
6.562	10484.516	13428.641	17170.185	18540.501	20414.448	22348.182	22762.017	23475.158	24260.080
6.668	10657.508	13424.155	17263.949	18644.995	20507.152	22440.825	22880.955	23486.410	24388.348
6.773	10819.210	13417.959	17359.592	18752.507	20594.608	22533.335	22984.672	23509.008	24514.068
6.879	10969.750	13410.407	17456.426	18862.833	20677.098	22623.386	23069.878	23548.607	24635.466
6.985	11109.376	13401.801	17553.842	18975.601	20755.066	22708.540	23136.379	23607.306	24751.339
7.091	11238.436	13392.408	17651.291	19090.314	20829.073	22786.359	23188.820	23682.156	24860.787
7.197	11357.358	13382.444	17748.251	19206.387	20899.751	22854.688	23234.408	23767.331	24963.106
7.303	11466.641	13372.095	17844.220	19323.183	20967.772	22912.274	23279.143	23857.417	25057.748
7.408	11566.833	13361.510	17938.709	19440.040	21033.823	22959.373	23326.021	23948.628	25144.337
7.514	11658.508	13350.815	18031.235	19556.302	21098.566	22997.788	23375.255	24038.598	25222.705
7.620	11742.259	13340.107	18121.340	19671.325	21162.628	23030.107	23425.533	24125.870	25292.911
7.726	11818.678	13329.460	18208.592	19784.499	21226.575	23058.872	23475.228	24209.533	25355.228
7.832	11888.350	13318.939	18292.589	19895.255	21290.909	23086.113	23523.050	24289.012	25410.088
7.938	11951.842	13308.590	18372.992	20003.063	21356.047	23113.304	23568.189	24363.945	25457.993
8.043	12009.689	13298.446	18449.509	20107.456	21422.322	23141.464	23610.253	24434.128	25499.421
8.149	12062.403	13288.539	18521.921	20208.015	21489.975	23171.280	23649.140	24499.501	25534.747
8.255	12110.459	13278.880	18590.074	20304.386	21559.160	23203.203	23684.947	24560.102	25564.260
8.361	12154.297	13269.489	18653.889	20396.280	21629.940	23237.520	23717.884	24616.084	25588.225
8.467	12194.320	13260.368	18713.353	20483.471	21702.303	23274.380	23748.220	24667.678	25607.034
8.573	12230.900	13251.523	18768.511	20565.800	21776.165	23313.842	23776.249	24715.185	25621.295
8.679	12264.374	13242.954	18819.471	20643.180	21851.379	23355.871	23802.274	24758.960	25631.817
8.784	12295.043	13234.665	18866.375	20715.583	21927.752	23400.365	23826.592	24799.391	25639.470
8.890	12323.189	13226.647	18909.410	20783.047	22005.053	23447.153	23849.474	24836.886	25645.058
8.996	12349.054	13218.900	18948.783	20845.659	22083.019	23496.010	23871.185	24871.855	25649.234
9.102	12372.860	13211.416	18984.722	20903.561	22161.378	23546.663	23891.967	24904.699	25652.502
9.208	12394.810	13204.191	19017.459	20956.932	22239.841	23598.792	23912.044	24935.810	25655.228
9.314	12415.081	13197.218	19047.235	21005.983	22318.116	23652.059	23931.635	24965.549	25657.677
9.419	12433.830	13190.489	19074.281	21050.949	22395.913	23706.091	23950.935	24994.260	25660.030
9.525	12451.204	13184.001	19098.827	21092.078	22472.942	23760.508	23970.144	25022.259	25662.414
9.631	12467.327	13177.746	19121.089	21129.635	22548.922	23814.927	23989.446	25049.827	25664.916
9.737	12482.312	13171.717	19141.269	21163.877	22623.574	23868.964	24009.028	25077.217	25667.595
9.843	12496.264	13165.908	19159.560	21195.060	22696.624	23922.250	24029.070	25104.647	25670.484
9.949	12509.273	13160.309	19176.142	21223.436	22767.809	23974.436	24049.762	25132.292	25673.609
10.054	12521.418	13154.917	19191.173	21249.244	22836.867	24025.192	24071.291	25160.293	25676.980
10.160	12532.776	13149.724	19204.807	21272.706	22903.554	24074.157	24093.907	25188.737	25680.597
10.266	12543.412	13144.724	19217.177	21294.034	22967.634	24116.386	24122.481	25217.659	25684.464

(*continued on next page*)

Table 4 (*continued*)

R	$1^3\Pi$	$2^3\Pi$	$3^3\Pi$	$4^3\Pi$	$5^3\Pi$	$6^3\Pi$	$7^3\Pi$	$8^3\Pi$	$9^3\Pi$
10.372	12553.383	13139.913	19228.407	21313.427	23028.883	24142.025	24166.828	25247.034	25688.568
10.478	12562.741	13135.282	19238.608	21331.064	23087.109	24168.445	24209.575	25276.775	25692.901
10.584	12571.538	13130.827	19247.883	21347.110	23142.145	24196.317	24250.066	25306.731	25697.442
10.848	12591.334	13120.424	19267.590	21381.225	23265.020	24272.492	24341.558	25381.008	25709.522
11.113	12608.431	13110.995	19283.241	21408.315	23366.501	24355.387	24422.189	25450.537	25722.082
11.377	12623.277	13102.466	19295.751	21429.946	23447.750	24434.023	24503.008	25510.480	25734.120
11.642	12636.226	13094.756	19305.812	21447.322	23511.428	24493.790	24597.856	25558.179	25744.548
11.906	12647.559	13087.799	19313.959	21461.366	23560.828	24536.796	24703.294	25594.192	25752.714
12.171	12657.515	13081.526	19320.602	21472.794	23599.111	24569.384	24811.526	25621.016	25758.612
12.436	12666.278	13075.875	19326.052	21482.153	23628.933	24594.880	24917.901	25641.318	25762.641
12.700	12674.010	13070.785	19330.551	21489.861	23652.362	24615.177	25019.445	25657.135	25765.297
12.965	12680.849	13066.209	19334.288	21496.252	23670.947	24631.535	25114.098	25669.832	25767.006
13.229	12686.902	13062.094	19337.412	21501.583	23685.836	24644.835	25200.428	25680.294	25768.080
13.494	12692.273	13058.394	19340.034	21506.051	23697.876	24655.743	25277.569	25689.095	25768.740
13.759	12697.044	13055.069	19342.253	21509.818	23707.700	24664.752	25345.170	25696.621	25769.135
14.023	12701.284	13052.082	19344.136	21513.011	23715.779	24672.245	25403.366	25703.131	25769.359
14.288	12705.062	13049.398	19345.743	21515.732	23722.475	24678.513	25452.701	25708.815	25769.471
14.552	12708.428	13046.986	19347.121	21518.061	23728.061	24683.789	25494.015	25713.819	25769.513
14.817	12711.433	13044.817	19348.308	21520.063	23732.753	24688.254	25528.299	25718.248	25769.506
15.082	12714.119	13042.866	19349.336	21521.790	23736.717	24692.053	25556.583	25722.190	25769.465
15.346	12716.520	13041.112	19350.229	21523.289	23740.084	24695.299	25579.843	25725.708	25769.394
15.611	12718.671	13039.534	19351.008	21524.595	23742.959	24698.088	25598.959	25728.864	25769.302
15.875	12720.600	13038.112	19351.691	21525.736	23745.428	24700.496	25614.682	25731.700	25769.186
16.140	12722.330	13036.830	19352.290	21526.737	23747.557	24702.583	25627.642	25734.259	25769.052
16.404	12723.886	13035.676	19352.819	21527.617	23749.400	24704.398	25638.357	25736.574	25768.898
16.934	12726.546	13033.690	19353.701	21529.083	23752.409	24707.376	25654.660	25740.573	25768.543
17.463	12728.708	13032.068	19354.399	21530.237	23754.720	24709.683	25666.077	25743.883	25768.143
17.992	12730.475	13030.738	19354.954	21531.155	23756.527	24711.496	25674.213	25746.637	25767.720
18.521	12731.925	13029.640	19355.404	21531.892	23757.953	24712.936	25680.119	25748.944	25767.298
19.050	12733.119	13028.734	19355.768	21532.487	23759.095	24714.094	25684.475	25750.884	25766.890
19.580	12734.109	13027.983	19356.067	21532.972	23760.019	24715.034	25687.745	25752.521	25766.506
20.109	12734.932	13027.356	19356.311	21533.369	23760.771	24715.804	25690.236	25753.913	25766.155
20.638	12735.619	13026.831	19356.515	21533.696	23761.392	24716.438	25692.161	25755.096	25765.834
21.167	12736.196	13026.392	19356.681	21533.969	23761.906	24716.965	25693.669	25756.105	25765.551
22.225	12737.090	13025.707	19356.940	21534.388	23762.694	24717.777	25695.815	25757.723	25765.077
23.284	12737.733	13025.214	19357.125	21534.684	23763.254	24718.357	25697.216	25758.930	25764.711
24.342	12738.202	13024.854	19357.259	21534.899	23763.660	24718.780	25698.162	25759.841	25764.428
25.401	12738.549	13024.588	19357.355	21535.055	23763.958	24719.092	25698.818	25760.539	25764.213
26.459	12738.808	13024.388	19357.430	21535.171	23764.182	24719.327	25699.288	25761.078	25764.048
27.517	12739.006	13024.237	19357.485	21535.261	23764.353	24719.505	25699.630	25761.502	25763.918
28.576	12739.155	13024.123	19357.526	21535.327	23764.483	24719.641	25699.887	25761.836	25763.818
29.634	12739.271	13024.033	19357.559	21535.380	23764.584	24719.746	25700.080	25762.103	25763.741
30.692	12739.361	13023.963	19357.586	21535.419	23764.663	24719.829	25700.231	25762.316	25763.679
31.751	12739.431	13023.908	19357.605	21535.450	23764.724	24719.893	25700.348	25762.490	25763.631
37.042	12739.622	13023.763	19357.658	21535.536	23764.891	24720.071	25700.657	25762.990	25763.499
42.334	12739.690	13023.710	19357.678	21535.566	23764.952	24720.139	25700.769	25763.196	25763.451
47.626	12739.719	13023.688	19357.687	21535.577	23764.976	24720.167	25700.817	25763.293	25763.431
50.272	12739.728	13023.684	19357.689	21535.582	23764.983	24720.174	25700.830	25763.322	25763.425
51.859	12739.730	13023.679	19357.689	21535.584	23764.987	24720.178	25700.837	25763.335	25763.422

Table 5
Adiabatic potential energy curves for the (1-4)$^1\Delta$, $1^1\Sigma^-$, (1-4)$^3\Delta$, and $1^3\Sigma^-$ electronic states of the KRb molecule. See the explanation of the table.

R	$1^1\Delta$	$2^1\Delta$	$3^1\Delta$	$4^1\Delta$	$1^1\Sigma^-$	$1^3\Delta$	$2^3\Delta$	$3^3\Delta$	$4^3\Delta$	$1^3\Sigma^-$
2.540	21370.984	30966.960	31198.148	33512.791	34042.666	22349.315	31090.767	31329.453	33778.651	27433.098
2.646	20543.828	29865.254	30181.003	32542.507	33503.290	21763.133	30049.913	30344.361	32802.387	26428.057
2.752	19752.247	28765.919	29136.976	31559.320	32981.721	21137.398	28997.989	29337.174	31793.909	25550.010
2.858	19007.938	27690.561	28089.750	30576.288	32480.466	20492.866	27954.001	28328.923	30777.167	24791.211
2.963	18318.942	26659.575	27062.245	29606.761	31996.660	19849.084	26936.473	27341.816	29775.261	24142.453
3.069	17690.652	25691.081	26075.065	28668.904	31525.128	19223.820	25962.607	26397.342	28809.021	23593.968
3.175	17126.488	24799.512	25145.358	27782.054	31063.116	18632.373	25047.029	25514.165	27896.134	23136.004
3.281	16628.296	23994.698	24286.044	26962.309	30613.511	18086.970	24200.921	24706.382	27050.378	22759.199
3.387	16196.536	23281.781	23505.549	26220.257	30182.959	17596.425	23431.722	23982.768	26281.130	22454.779
3.493	15830.444	22661.792	22808.047	25560.555	29777.662	17166.191	22743.280	23347.099	25593.398	22214.652
3.598	15528.157	22132.592	22194.159	24982.398	29401.230	16798.729	22136.297	22799.170	24988.436	22031.439
3.704	15286.898	21661.676	21689.912	24480.652	29054.783	16494.043	21608.919	22335.953	24464.585	21898.446
3.810	15103.153	21206.637	21327.827	24048.972	28737.778	16250.229	21157.368	21952.562	24018.127	21809.629
3.916	14972.862	20823.516	21039.872	23683.060	28448.743	16063.996	20776.522	21643.004	23643.998	21759.545
4.022	14891.611	20506.175	20819.120	23379.632	28185.768	15931.132	20460.472	21400.741	23336.378	21743.292
4.128	14854.807	20248.143	20658.684	23134.496	27946.793	15846.922	20202.947	21219.095	23089.155	21756.465
4.233	14857.833	20042.943	20551.916	22942.552	27729.757	15806.418	19997.626	21091.521	22896.228	21795.099
4.339	14896.171	19884.296	20492.559	22798.386	27532.695	15804.675	19838.371	21011.766	22751.732	21855.637
4.445	14965.466	19766.254	20474.797	22696.653	27353.782	15836.888	19719.350	20973.977	22650.146	21934.878
4.551	15061.598	19683.266	20493.297	22632.296	27191.335	15898.466	19635.135	20972.735	22586.382	22029.950
4.657	15180.707	19630.217	20543.190	22600.639	27043.835	15985.099	19580.739	21003.077	22555.803	22138.268
4.763	15319.195	19602.443	20620.070	22597.442	26909.901	16092.764	19551.628	21060.481	22554.225	22257.502
4.868	15473.741	19595.724	20719.955	22618.889	26788.299	16217.742	19543.742	21140.846	22577.911	22385.561
4.974	15641.281	19606.290	20839.259	22661.594	26677.907	16356.597	19553.478	21240.472	22623.539	22520.551
5.080	15819.001	19630.803	20974.763	22722.582	26577.728	16506.167	19577.679	21356.029	22688.168	22660.771
5.186	16004.312	19666.347	21123.575	22799.249	26486.855	16663.552	19613.629	21484.532	22769.207	22804.681
5.292	16194.840	19710.415	21283.100	22889.345	26404.473	16826.095	19659.010	21623.301	22864.356	22950.888
5.398	16388.403	19760.894	21451.012	22990.927	26329.843	16991.355	19711.892	21769.954	22971.591	23098.138
5.503	16582.992	19816.048	21625.217	23102.319	26262.290	17157.109	19770.692	21922.360	23089.109	23245.300
5.609	16776.751	19874.490	21803.830	23222.073	26201.206	17321.331	19834.135	22078.639	23215.291	23391.352
5.715	16967.977	19935.157	21985.156	23348.929	26146.035	17482.206	19901.207	22237.126	23348.688	23535.384
5.821	17155.101	19997.273	22167.655	23481.775	26096.262	17638.118	19971.107	22396.368	23487.991	23676.583
5.927	17336.694	20060.308	22349.942	23619.612	26051.426	17787.677	20043.187	22555.105	23632.001	23814.233
6.033	17511.470	20123.930	22530.754	23761.524	26011.095	17929.721	20116.906	22712.271	23779.635	23947.707
6.138	17678.295	20187.946	22708.950	23906.658	25974.877	18063.348	20191.767	22866.967	23929.907	24076.475
6.244	17836.198	20252.261	22883.505	24054.207	25942.413	18187.907	20267.284	23018.484	24081.909	24200.089
6.350	17984.408	20316.813	23053.497	24203.397	25913.372	18303.019	20342.950	23166.265	24234.815	24318.186
6.456	18122.347	20381.527	23218.122	24353.482	25887.452	18408.560	20418.225	23309.909	24387.865	24430.496
6.562	18249.669	20446.281	23376.697	24503.746	25864.372	18504.641	20492.539	23449.152	24540.347	24536.816
6.668	18366.256	20510.872	23528.666	24653.489	25843.880	18591.569	20565.317	23583.842	24691.592	24637.033
6.773	18472.212	20575.016	23673.618	24802.031	25825.736	18669.811	20635.997	23713.916	24840.949	24731.097
6.879	18567.846	20638.356	23811.292	24948.680	25809.725	18739.942	20704.065	23839.363	24987.779	24819.028
6.985	18653.643	20700.474	23941.583	25092.655	25795.648	18802.605	20769.078	23960.197	25131.421	24900.909
7.091	18730.215	20760.931	24064.537	25232.748	25783.320	18858.467	20830.686	24076.437	25271.158	24976.874
7.197	18798.274	20819.300	24180.323	25365.076	25772.575	18908.196	20888.636	24188.082	25406.153	25047.106
7.303	18858.571	20875.189	24289.218	25462.608	25763.256	18952.431	20942.781	24295.102	25535.296	25111.822
7.408	18911.868	20928.278	24391.555	25506.593	25755.219	18991.776	20993.067	24397.436	25656.881	25171.276
7.514	18958.912	20978.320	24487.689	25539.806	25748.336	19026.783	21039.516	24494.997	25767.733	25225.740
7.620	19000.406	21025.156	24577.972	25570.542	25742.482	19057.952	21082.230	24587.677	25861.249	25275.506
7.726	19037.006	21068.713	24662.709	25599.486	25737.553	19085.731	21121.356	24675.366	25925.998	25320.874
7.832	19069.301	21108.989	24742.170	25626.514	25733.447	19110.523	21157.082	24757.972	25956.382	25362.142
7.938	19097.826	21146.047	24816.567	25651.433	25730.071	19132.679	21189.622	24835.422	25963.678	25399.615
8.043	19123.053	21180.002	24886.086	25674.109	25727.343	19152.511	21219.198	24907.684	25960.500	25433.583
8.149	19145.398	21211.005	24950.873	25694.499	25725.186	19170.290	21246.044	24974.778	25953.057	25464.331
8.255	19165.218	21239.232	25011.072	25712.627	25723.533	19186.255	21270.388	25036.773	25943.949	25492.134
8.361	19182.840	21264.875	25066.825	25728.587	25722.324	19200.620	21292.450	25093.792	25934.319	25517.247
8.467	19198.532	21288.135	25118.292	25742.509	25721.498	19213.562	21312.442	25146.014	25924.708	25539.912
8.573	19212.535	21309.205	25165.644	25754.543	25721.011	19225.245	21330.557	25193.660	25915.374	25560.358
8.679	19225.058	21328.277	25209.078	25764.860	25720.814	19235.808	21346.981	25236.986	25906.454	25578.792
8.784	19236.280	21345.539	25248.809	25773.628	25720.866	19245.375	21361.878	25276.277	25898.009	25595.408
8.890	19246.356	21361.159	25285.064	25781.013	25721.134	19254.055	21375.400	25311.825	25890.059	25610.383
8.996	19255.422	21375.299	25318.089	25787.174	25721.584	19261.941	21387.689	25343.938	25882.613	25623.880
9.102	19263.596	21388.104	25348.124	25792.257	25722.185	19269.118	21398.864	25372.918	25875.651	25636.048
9.208	19270.979	21399.712	25375.415	25796.401	25722.916	19275.660	21409.041	25399.051	25869.159	25647.020
9.314	19277.664	21410.240	25400.201	25799.721	25723.752	19281.630	21418.321	25422.620	25863.112	25656.916
9.419	19283.724	21419.800	25422.708	25802.335	25724.672	19287.088	21426.790	25443.881	25857.487	25665.848
9.525	19289.230	21428.491	25443.150	25804.337	25725.660	19292.083	21434.533	25463.074	25852.257	25673.914
9.631	19294.241	21436.403	25461.733	25805.812	25726.700	19296.662	21441.618	25480.419	25847.396	25681.205
9.737	19298.808	21443.613	25478.637	25806.839	25727.780	19300.862	21448.112	25496.116	25842.879	25687.798
9.843	19302.980	21450.193	25494.031	25807.486	25728.886	19304.725	21454.073	25510.342	25838.678	25693.766
9.949	19306.795	21456.204	25508.073	25807.809	25730.007	19308.276	21459.549	25523.260	25834.776	25699.173
10.054	19310.291	21461.707	25520.896	25807.862	25731.136	19311.549	21464.586	25535.013	25831.146	25704.077
10.160	19313.498	21466.750	25532.627	25807.686	25732.266	19314.566	21469.228	25545.726	25827.764	25708.530
10.266	19316.443	21471.377	25543.379	25807.324	25733.390	19317.352	21473.508	25555.510	25824.614	25712.577
10.372	19319.153	21475.628	25553.247	25806.804	25734.502	19319.926	21477.463	25564.469	25821.678	25716.257

(*continued on next page*)

Table 5 (*continued*)

R	$1^1\Delta$	$2^1\Delta$	$3^1\Delta$	$4^1\Delta$	$1^1\Sigma^-$	$1^3\Delta$	$2^3\Delta$	$3^3\Delta$	$4^3\Delta$	$1^3\Sigma^-$
10.478	19321.651	21479.541	25562.322	25806.159	25735.597	19322.307	21481.117	25572.688	25818.939	25719.613
10.584	19323.953	21483.147	25570.682	25805.412	25736.673	19324.513	21484.501	25580.245	25816.377	25722.675
10.848	19328.979	21490.995	25588.892	25803.233	25739.256	19329.350	21491.919	25596.668	25810.669	25729.222
11.113	19333.130	21497.461	25603.946	25800.795	25741.659	19333.378	21498.093	25610.223	25805.796	25734.487
11.377	19336.582	21502.829	25616.504	25798.271	25743.874	19336.747	21503.262	25621.547	25801.609	25738.756
11.642	19339.470	21507.316	25627.078	25795.769	25745.889	19339.580	21507.610	25631.106	25797.972	25742.245
11.906	19341.900	21511.086	25636.048	25793.350	25747.712	19341.972	21511.286	25639.248	25794.794	25745.123
12.171	19343.954	21514.273	25643.708	25791.059	25749.352	19344.005	21514.409	25646.241	25791.991	25747.515
12.436	19345.701	21516.981	25650.288	25788.910	25750.820	19345.734	21517.073	25652.285	25789.507	25749.521
12.700	19347.191	21519.292	25655.972	25786.915	25752.133	19347.213	21519.352	25657.541	25787.290	25751.213
12.965	19348.469	21521.270	25660.906	25785.069	25753.300	19348.484	21521.311	25662.135	25785.304	25752.653
13.229	19349.566	21522.973	25665.203	25783.371	25754.341	19349.577	21522.999	25666.164	25783.513	25753.884
13.494	19350.514	21524.441	25668.965	25781.810	25755.267	19350.521	21524.459	25669.713	25781.893	25754.944
13.759	19351.335	21525.712	25672.266	25780.377	25756.088	19351.339	21525.725	25672.847	25780.423	25755.862
14.023	19352.048	21526.818	25675.174	25779.062	25756.818	19352.051	21526.825	25675.626	25779.089	25756.660
14.288	19352.669	21527.779	25677.740	25777.857	25757.468	19352.672	21527.786	25678.093	25777.870	25757.361
14.552	19353.212	21528.622	25680.013	25776.753	25758.048	19353.214	21528.624	25680.288	25776.760	25757.971
14.817	19353.686	21529.360	25682.032	25775.742	25758.563	19353.688	21529.362	25682.243	25775.744	25758.511
15.082	19354.103	21530.005	25683.828	25774.813	25759.022	19354.105	21530.007	25683.992	25774.815	25758.987
15.346	19354.471	21530.575	25685.430	25773.964	25759.435	19354.471	21530.578	25685.557	25773.962	25759.408
15.611	19354.794	21531.078	25686.861	25773.182	25759.801	19354.796	21531.080	25686.960	25773.180	25759.784
15.875	19355.081	21531.524	25688.140	25772.465	25760.130	19355.081	21531.526	25688.217	25772.463	25760.117
16.140	19355.336	21531.919	25689.291	25771.806	25760.424	19355.336	21531.921	25689.350	25771.804	25760.416
16.404	19355.562	21532.270	25690.322	25771.198	25760.688	19355.562	21532.270	25690.368	25771.198	25760.683
16.934	19355.942	21532.860	25692.087	25770.127	25761.140	19355.942	21532.860	25692.113	25770.127	25761.138
17.463	19356.245	21533.330	25693.522	25769.221	25761.509	19356.245	21533.332	25693.537	25769.221	25761.506
17.992	19356.488	21533.710	25694.694	25768.448	25761.807	19356.488	21533.710	25694.705	25768.448	25761.807
18.521	19356.686	21534.017	25695.660	25767.792	25762.055	19356.684	21534.017	25695.664	25767.792	25762.053
19.050	19356.846	21534.267	25696.454	25767.230	25762.257	19356.844	21534.267	25696.459	25767.230	25762.257
19.580	19356.978	21534.471	25697.115	25766.750	25762.426	19356.976	21534.471	25697.115	25766.750	25762.426
20.109	19357.085	21534.640	25697.663	25766.337	25762.567	19357.085	21534.640	25697.666	25766.339	25762.567
20.638	19357.175	21534.781	25698.120	25765.984	25762.685	19357.173	21534.778	25698.122	25765.986	25762.685
21.167	19357.250	21534.897	25698.506	25765.676	25762.786	19357.248	21534.895	25698.506	25765.679	25762.784
22.225	19357.364	21535.075	25699.103	25765.183	25762.940	19357.364	21535.075	25699.103	25765.185	25762.940
23.284	19357.445	21535.202	25699.531	25764.812	25763.052	19357.445	21535.202	25699.533	25764.812	25763.052
24.342	19357.504	21535.294	25699.845	25764.526	25763.133	19357.504	21535.294	25699.845	25764.529	25763.135
25.401	19357.548	21535.362	25700.075	25764.309	25763.194	19357.546	21535.362	25700.075	25764.311	25763.196
26.459	19357.579	21535.413	25700.249	25764.138	25763.240	19357.579	21535.413	25700.247	25764.142	25763.242
27.517	19357.603	21535.450	25700.378	25764.006	25763.275	19357.603	21535.450	25700.378	25764.008	25763.278
28.576	19357.623	21535.479	25700.477	25763.901	25763.304	19357.621	21535.479	25700.477	25763.903	25763.304
29.634	19357.636	21535.500	25700.554	25763.818	25763.324	19357.636	21535.500	25700.554	25763.818	25763.324
30.692	19357.647	21535.518	25700.613	25763.749	25763.341	19357.647	21535.518	25700.613	25763.752	25763.341
31.751	19357.656	21535.531	25700.659	25763.697	25763.354	19357.656	21535.531	25700.659	25763.697	25763.354
37.042	19357.678	21535.566	25700.784	25763.539	25763.390	19357.680	21535.566	25700.784	25763.541	25763.390
42.334	19357.687	21535.579	25700.828	25763.477	25763.403	19357.689	21535.579	25700.828	25763.477	25763.403
47.626	19357.691	21535.584	25700.846	25763.447	25763.407	19357.691	21535.584	25700.846	25763.447	25763.407
50.272	19357.691	21535.586	25700.850	25763.440	25763.409	19357.693	21535.586	25700.850	25763.440	25763.409
51.859	19357.691	21535.586	25700.852	25763.436	25763.409	19357.693	21535.586	25700.855	25763.436	25763.409

Table 6
Permanent dipole moments for the (1-10)$^1\Sigma^+$ electronic states of the KRb molecule. See the explanation of the table.

R	$d_1^{1\Sigma^+}$	$d_2^{1\Sigma^+}$	$d_3^{1\Sigma^+}$	$d_4^{1\Sigma^+}$	$d_5^{1\Sigma^+}$	$d_6^{1\Sigma^+}$	$d_7^{1\Sigma^+}$	$d_8^{1\Sigma^+}$	$d_9^{1\Sigma^+}$	$d_{10}^{1\Sigma^+}$
2.646	0.18373	−0.24712	0.05341	0.23082	−2.41955	2.98277	0.17288	−0.03208	−0.13644	−2.87681
2.752	0.19341	−0.18905	0.04947	0.25329	−2.73431	3.62213	0.11007	−0.79727	0.12627	−3.69662
2.858	0.20200	−0.13257	0.04584	0.27640	−3.04340	4.20513	0.02236	−1.66722	0.34305	−4.53625
2.963	0.20994	−0.08096	0.04478	0.29802	−3.35366	4.74615	−0.08180	−2.41887	0.45900	−3.47950
3.069	0.21748	−0.03590	0.04719	0.31683	−3.65890	5.23697	−0.19467	−2.67549	0.18007	−0.88428
3.175	0.22473	0.00210	0.05344	0.33253	−3.95117	5.66353	−0.30586	−2.58131	−0.32952	0.78193
3.281	0.23174	0.03339	0.06329	0.34567	−4.22408	6.01571	−0.40492	−2.41567	−0.79409	1.75154
3.387	0.23851	0.05878	0.07624	0.35711	−4.47255	6.29005	−0.48263	−2.25557	−1.14660	2.32639
3.493	0.24499	0.07927	0.09172	0.36745	−4.69137	6.48685	−0.53474	−2.11608	−1.38659	2.64999
3.598	0.25113	0.09592	0.10916	0.37689	−4.87171	6.60475	−0.56055	−2.02176	−1.50489	2.80002
3.704	0.25687	0.10975	0.12803	0.38512	−4.99954	6.63769	−0.56243	−2.33632	−1.15418	2.82704
3.810	0.26215	0.12169	0.14784	0.39126	−5.05639	6.57542	−0.54273	−2.06470	−1.34484	2.76850
3.916	0.26689	0.13258	0.16808	0.39366	−5.02395	6.40800	−0.50597	−1.93975	−1.35837	2.65492
4.022	0.27102	0.14319	0.18822	0.38955	−4.89130	6.13346	−0.45561	−1.89441	−1.27441	2.51126
4.128	0.27447	0.15429	0.20772	0.37388	−4.65966	5.76410	−0.39604	−1.85337	−1.18038	2.35105
4.233	0.27715	0.16656	0.22593	0.33730	−4.34140	5.32641	−0.33053	−1.81138	−1.08932	2.18981
4.339	0.27897	0.18067	0.24216	0.26141	−3.94773	4.85403	−0.26182	−1.77085	−1.00440	2.03679
4.445	0.27985	0.19731	0.25568	0.10928	−3.46991	4.37822	−0.19187	−1.73504	−0.92826	1.90089
4.551	0.27971	0.21714	0.26566	−0.18516	−2.86248	3.92141	−0.12279	−1.70773	−0.86018	1.78749
4.657	0.27847	0.24079	0.27128	−0.68676	−2.07119	3.49546	−0.05537	−1.69238	−0.80235	1.71288
4.763	0.27606	0.26906	0.27183	−1.30567	−1.18978	3.10453	0.01043	−1.69229	−0.75222	1.66852
4.868	0.27244	0.30256	0.26654	−1.78640	−0.47076	2.74561	0.07455	−1.71177	−0.70981	1.66906
4.974	0.26757	0.34195	0.25474	−2.03567	−0.00099	2.41161	0.13749	−1.75700	−0.67527	1.73209
5.080	0.26144	0.38779	0.23588	−2.12807	0.30371	2.09188	0.19960	−1.83572	−0.64737	1.87119
5.186	0.25409	0.44056	0.20956	−2.14009	0.53279	1.77228	0.26149	−1.96135	−0.62426	2.11635
5.292	0.24556	0.50058	0.17556	−2.11374	0.74448	1.43474	0.32342	−2.15427	−0.60335	2.48773
5.398	0.23595	0.56798	0.13387	−2.06847	0.97615	1.05970	0.38556	−2.45053	−0.58035	2.99777
5.503	0.22538	0.64270	0.08469	−2.01250	1.24198	0.63961	0.44778	−2.91628	−0.54572	3.65962
5.609	0.21400	0.72437	0.02854	−1.94841	1.50501	0.21261	0.50942	−3.68117	4.55439	−0.48817
5.715	0.20198	0.81235	−0.03382	−1.87594	1.66980	−0.12738	0.56921	−4.99073	5.89948	−0.36920
5.821	0.18953	0.90566	−0.10134	−1.79306	1.67463	−0.32132	0.62543	−6.80991	7.66105	−0.13087
5.927	0.17682	1.00305	−0.17265	−1.69687	1.54921	−0.40212	0.67585	−6.06871	6.77429	0.31524
6.033	0.16406	1.10301	−0.24618	−1.58399	1.34634	−0.42562	0.71798	−3.24698	3.72410	0.99464
6.138	0.15142	1.20373	−0.32018	−1.45077	1.09760	−0.42613	0.74921	−1.52112	1.73075	1.76991
6.244	0.13907	1.30342	−0.39274	−1.29407	0.81496	−0.41712	0.76911	−0.54032	0.55616	2.43206
6.350	0.12714	1.40009	−0.46196	−1.11124	0.50303	−0.40400	0.77809	−0.07535	−0.07465	2.86798
6.456	0.11574	1.49179	−0.52594	−0.90098	0.16323	−0.38766	0.77926	0.48076	−0.30608	3.07068
6.562	0.10496	1.57673	−0.58294	−0.66306	−0.20242	−0.36820	0.77783	0.73617	−0.26235	3.10265
6.668	0.09486	1.65326	−0.63144	−0.39847	−0.58989	−0.34537	0.77846	0.86048	−0.03486	3.01910
6.773	0.08546	1.71994	−0.67016	−0.10964	−0.99527	−0.31897	0.78472	0.86300	0.32968	2.84574
6.879	0.07679	1.77559	−0.69821	0.20042	−1.41424	−0.28894	0.79741	0.75281	0.79672	2.60082
6.985	0.06884	1.81933	−0.71500	0.52892	−1.84179	−0.25563	0.81661	0.55214	1.34173	2.29590
7.091	0.06159	1.85059	−0.72035	0.87270	−2.27372	−0.21906	0.83882	0.29134	1.92826	1.94634
7.197	0.05500	1.86907	−0.71448	1.22921	−2.70679	−0.17934	0.86036	0.00792	2.51516	1.57293
7.303	0.04905	1.87478	−0.69796	1.59645	−3.13851	−0.13658	0.87808	−0.26106	3.06273	1.19452
7.408	0.04370	1.86799	−0.67174	1.97298	−3.56736	−0.09113	0.88949	−0.48863	3.53814	0.83022
7.514	0.03889	1.84920	−0.63707	2.35785	−3.99258	−0.04328	0.89316	−0.66101	3.91955	0.49689
7.620	0.03458	1.81916	−0.59546	2.75041	−4.41360	0.00600	0.88902	−0.77625	4.19493	0.21060
7.726	0.03074	1.77881	−0.54863	3.15020	−4.83021	0.05607	0.87779	−0.83998	4.35960	−0.01444
7.832	0.02731	1.72922	−0.49839	3.55663	−5.24227	0.10619	0.86014	−0.86128	4.41445	−0.16932
7.938	0.02426	1.67162	−0.44659	3.96912	−5.64946	0.15568	0.83763	−0.84966	4.36620	−0.25041
8.043	0.02155	1.60729	−0.39502	4.38685	−6.05135	0.20394	0.81174	−0.81360	4.22797	−0.26396
8.149	0.01914	1.53756	−0.34527	4.80872	−6.44734	0.25054	0.78383	−0.75990	4.01838	−0.22433
8.255	0.01701	1.46378	−0.29873	5.23333	−6.83654	0.29531	0.75487	−0.69392	3.75960	−0.15124
8.361	0.01512	1.38725	−0.25647	5.65901	−7.21842	0.33809	0.72594	−0.61914	3.47143	−0.06555
8.467	0.01344	1.30919	−0.21920	6.08383	−7.59192	0.37891	0.69765	−0.53829	3.17076	0.01262
8.573	0.01196	1.23074	−0.18732	6.50565	−7.95605	0.41795	0.67051	−0.45332	2.87034	0.06810
8.679	0.01065	1.15290	−0.16087	6.92226	−8.30989	0.45541	0.64489	−0.36542	2.57745	0.08727
8.784	0.00949	1.07657	−0.13965	7.33133	−8.65256	0.49178	0.62117	−0.27566	2.29627	0.06054
8.890	0.00846	1.00247	−0.12321	7.73056	−8.98323	0.52652	0.59979	−0.18461	2.02830	−0.01762
8.996	0.00755	0.93117	−0.11097	8.11807	−9.30125	0.56103	0.58131	−0.09340	1.77287	−0.14921
9.102	0.00674	0.86312	−0.10228	8.49185	−9.60599	0.59521	0.56491	0.00109	1.52945	−0.33258
9.208	0.00603	0.79865	−0.09648	8.85023	−9.89694	0.62941	0.52161	0.12114	1.29664	−0.56067
9.314	0.00539	0.73795	−0.09292	9.19182	−10.17372	0.66399	0.40871	0.31586	1.07269	−0.82041
9.419	0.00483	0.68109	−0.09103	9.51545	−10.43599	0.69932	0.42688	0.38266	0.85615	−1.09812
9.525	0.00434	0.62811	−0.09031	9.82033	−10.68349	0.73591	0.50875	0.38890	0.64483	−1.37597
9.631	0.00390	0.57897	−0.09033	10.10542	−10.91602	0.77384	0.61049	0.37849	0.43848	−1.64875
9.737	0.00350	0.53354	−0.09078	10.37029	−11.13336	0.81368	0.72218	0.36151	0.23508	−1.90369
9.843	0.00316	0.49167	−0.09142	10.61442	−11.33529	0.85587	0.84109	0.34087	0.03337	−2.13490
9.949	0.00285	0.45318	−0.09205	10.83736	−11.52157	0.90084	0.96647	0.31758	−0.16787	−2.33941
10.054	0.00257	0.41788	−0.09257	11.03865	−11.69186	0.94905	1.09829	0.29196	−0.36974	−2.51715
10.160	0.00233	0.38555	−0.09288	11.21775	−11.84569	1.00093	1.23685	0.26388	−0.57345	−2.66795
10.266	0.00211	0.35599	−0.09293	11.37404	−11.98249	1.05693	1.38267	0.23357	−0.78024	−2.79307
10.372	0.00192	0.32899	−0.09273	11.50676	−12.10136	1.11740	1.53640	0.20075	−0.99079	−2.89469
10.478	0.00174	0.30435	−0.09226	11.61494	−12.20096	1.18242	1.69884	0.16514	−1.20654	−2.97518

(*continued on next page*)

Table 6 (*continued*)

R	$d_1^{1\Sigma^+}$	$d_2^{1\Sigma^+}$	$d_3^{1\Sigma^+}$	$d_4^{1\Sigma^+}$	$d_5^{1\Sigma^+}$	$d_6^{1\Sigma^+}$	$d_7^{1\Sigma^+}$	$d_8^{1\Sigma^+}$	$d_9^{1\Sigma^+}$	$d_{10}^{1\Sigma^+}$
10.584	0.00159	0.28187	−0.09155	11.69739	−12.27894	1.25130	1.87072	0.12664	−1.42877	−3.03631
10.848	0.00127	0.23397	−0.08881	11.78058	−12.32261	1.39758	2.35047	0.01481	−2.01945	−3.11600
11.113	0.00103	0.19593	−0.08507	11.66133	−3.88895	−6.72170	2.91796	−0.12354	−2.67923	−3.11752
11.377	0.00084	0.16560	−0.08073	11.29385	2.05310	−12.08479	3.60109	−0.29521	−3.43581	−3.05990
11.642	0.00069	0.14137	−0.07613	10.62044	2.66330	−11.78839	4.43574	−0.50791	−4.32222	−2.94963
11.906	0.00057	0.12188	−0.07147	9.58753	3.33721	−11.17554	5.46502	−0.76550	−5.37485	−2.82234
12.171	0.00048	0.10609	−0.06691	8.18798	4.10010	−10.27352	6.73478	−1.06645	−6.63141	−2.65261
12.436	0.00040	0.09321	−0.06255	6.52872	4.82077	−9.08689	8.28064	−1.39168	−8.11710	−2.45618
12.700	0.00034	0.08259	−0.05842	4.84967	5.26412	−7.67692	10.10914	−1.69545	−9.82807	−2.25239
12.965	0.00029	0.07375	−0.05457	3.40804	5.23944	−6.19050	12.17835	−1.90870	−11.71005	−2.03945
13.229	0.00025	0.06634	−0.05101	2.32645	4.75797	−4.80037	14.36300	−1.97032	−13.65962	−1.82123
13.494	0.00021	0.06006	−0.04771	1.58049	4.00553	−3.60186	16.46034	−1.86871	−15.55120	−1.60062
13.759	0.00018	0.05468	−0.04467	1.08502	3.19419	−2.64297	18.33320	−1.64887	−17.28084	−1.38013
14.023	0.00016	0.05001	−0.04185	0.75819	2.46228	−1.92455	19.93913	−1.37851	−18.79312	−1.16151
14.288	0.00013	0.04598	−0.03925	0.54059	1.86430	−1.40534	21.28802	−1.10913	−20.08110	−0.94659
14.552	0.00012	0.04243	−0.03685	0.39327	1.40177	−1.03493	22.17396	−0.62434	−21.16671	−0.73575
14.817	0.00010	0.03930	−0.03462	0.29172	1.05402	−0.77063	−0.68261	23.39153	−22.08201	−0.53007
15.082	0.00009	0.03652	−0.03251	0.22038	0.79585	−0.58071	−0.53707	24.23706	−22.85769	−0.32893
15.346	0.00008	0.03400	−0.03059	0.16940	0.60482	−0.44279	−0.42084	24.98157	−23.51794	−0.13250
15.611	0.00007	0.03174	−0.02881	0.13236	0.46320	−0.34151	−0.33184	25.65281	−24.07876	0.06031
15.875	0.00006	0.02968	−0.02715	0.10507	0.35778	−0.26630	−0.26318	26.26774	−24.54873	0.25086
16.140	0.00006	0.02780	−0.02559	0.08466	0.27873	−0.20983	−0.21055	26.83752	−24.92792	0.44114
16.404	0.00005	0.02607	−0.02413	0.06920	0.21907	−0.16693	−0.17003	27.36907	−25.20787	0.63367
16.934	0.00004	0.02302	−0.02150	0.04810	0.13895	−0.10882	−0.11428	28.32838	1.04178	−25.38186
17.463	0.00003	0.02040	−0.01918	0.03506	0.09130	−0.07351	−0.08019	29.13703	1.52201	−24.71506
17.992	0.00003	0.01814	−0.01713	0.02660	0.06211	−0.05134	−0.05889	29.72580	2.16560	−22.38682
18.521	0.00002	0.01616	−0.01534	0.02089	0.04367	−0.03698	−0.04535	29.90648	3.17547	−17.17877
19.050	0.00002	0.01443	−0.01375	0.01690	0.03166	−0.02739	−0.03650	29.17736	5.06325	−9.95884
19.580	0.00001	0.01292	−0.01234	0.01398	0.02360	−0.02078	−0.03045	26.14011	9.23448	−4.70168
20.109	0.00001	0.01160	−0.01110	0.01177	0.01803	−0.01608	−0.02593	18.15258	18.33660	−2.19859
20.638	0.00001	0.01044	−0.01001	0.01004	0.01403	−0.01267	−0.02226	8.14568	29.44266	−1.10846
21.167	0.00001	0.00940	−0.00905	0.00861	0.01109	−0.01041	−0.01915	3.13742	35.53802	−0.60682
22.225	0.00001	0.00768	−0.00744	0.00649	0.00727	−0.00769	−0.01397	0.66933	40.15164	−0.22571
23.284	0.00001	0.00632	−0.00615	0.00495	0.00500	−0.00624	−0.01078	0.22449	42.71422	−0.10813
24.342	0.00000	0.00525	−0.00511	0.00385	0.00353	−0.00426	−0.00875	0.10262	−0.06257	44.93438
25.401	0.00000	0.00440	−0.00428	0.00307	0.00256	−0.00278	−0.00725	0.05855	−0.04167	47.05442
26.459	0.00000	0.00371	−0.00361	0.00253	0.00189	−0.00191	−0.00596	0.03873	−0.02950	49.12666
27.517	0.00000	0.00315	−0.00308	0.00212	0.00140	−0.00113	−0.00463	0.02813	−0.02238	51.14552
28.576	0.00000	0.00269	−0.00264	0.00181	0.00109	−0.00098	−0.00350	0.02165	−0.01767	52.95953
29.634	0.00000	0.00231	−0.00227	0.00154	0.00079	0.00085	−0.00269	0.01724	−0.01426	31.39395
30.692	0.00000	0.00200	−0.00197	0.00135	0.00063	0.00332	−0.00227	0.01421	−0.01181	0.16692
31.751	0.00000	0.00174	−0.00171	0.00117	0.00049	0.00332	−0.00191	0.01177	−0.01012	0.03623
37.042	0.00000	0.00092	−0.00090	0.00067	0.00018	0.00372	−0.00108	0.00528	−0.00434	0.01228
42.334	0.00000	0.00054	−0.00053	0.00044	0.00008	0.00333	−0.00055	0.00278	−0.00186	0.00735

Table 7
Permanent dipole moments for the (1-10)$^3\Sigma^+$ electronic states of the KRb molecule. See the explanation of the table.

R	$d_1^{3\Sigma^+}$	$d_2^{3\Sigma^+}$	$d_3^{3\Sigma^+}$	$d_4^{3\Sigma^+}$	$d_5^{3\Sigma^+}$	$d_6^{3\Sigma^+}$	$d_7^{3\Sigma^+}$	$d_8^{3\Sigma^+}$	$d_9^{3\Sigma^+}$	$d_{10}^{3\Sigma^+}$
2.540	0.06098	−0.61803	0.47153	−0.24132	0.24545	−0.57967	−0.62459	0.50559	−0.31521	−0.49443
2.646	0.05897	−0.63474	0.48694	−0.22355	0.48805	−0.65878	−0.83644	0.79813	−0.13646	−0.74342
2.752	0.05633	−0.62968	0.46925	−0.24258	0.84210	−0.64295	−1.23419	1.00038	0.19496	−0.42406
2.858	0.05339	−0.58647	0.40416	−0.29429	1.32352	−0.46577	−1.90335	1.02362	0.87299	1.12814
2.963	0.05048	−0.48866	0.27811	−0.37169	1.94686	−0.27983	−2.70286	0.92259	1.95250	1.28273
3.069	0.04784	−0.33318	0.09165	−0.46583	2.71145	−0.52830	−3.18966	0.73686	3.48696	0.08275
3.175	0.04558	−0.14605	−0.12588	−0.56734	3.57681	−1.16057	−3.37683	0.49636	5.48273	−1.50452
3.281	0.04374	0.02999	−0.32946	−0.66799	4.45003	−1.88297	−3.46815	0.22917	7.68400	−3.21190
3.387	0.04229	0.16825	−0.49139	−0.76227	5.20953	−2.51442	−3.52967	−0.04347	9.51097	−4.47751
3.493	0.04117	0.26637	−0.60924	−0.84611	5.78123	−2.97199	−3.57305	−0.30227	10.41454	−4.72711
3.598	0.04029	0.33305	−0.69212	−0.91719	6.16660	−3.25761	−3.60039	−0.53675	9.83863	−3.28759
3.704	0.03958	0.37784	−0.75016	−0.97451	6.40934	−3.41437	−3.61253	−0.74204	5.77582	2.01807
3.810	0.03897	0.40794	−0.79140	−1.01779	6.55119	−3.48256	−3.60930	−0.91453	0.81850	8.48724
3.916	0.03840	0.42829	−0.82172	−1.04751	6.61384	−3.47850	−3.58725	−1.09253	−0.20627	10.72805
4.022	0.03783	0.44208	−0.84540	−1.06404	6.59174	−3.39054	−3.53119	−0.46585	−1.02025	11.43595
4.128	0.03723	0.45143	−0.86568	−1.06780	6.44796	−3.17150	−3.37382	−0.50353	−1.19091	11.72176
4.233	0.03660	0.45772	−0.88514	−1.05887	6.10764	−2.73002	−2.56385	−1.33299	−1.26581	11.85765
4.339	0.03593	0.46185	−0.90603	−1.03689	5.46266	−1.93122	−0.11174	−3.90594	−1.32166	11.92654
4.445	0.03522	0.46446	−0.93056	−1.00037	4.44221	−0.66113	−0.27387	−3.99383	−1.35542	11.95360
4.551	0.03445	0.46597	−0.96120	−0.94698	3.16757	1.00791	−0.71447	−3.97522	−1.37877	11.94026
4.657	0.03365	0.46668	−1.00092	−0.87255	1.97822	2.75451	−1.31577	−3.98435	−1.39358	11.88818
4.763	0.03280	0.46677	−1.05376	−0.77025	1.13404	4.25824	−2.02447	−4.01561	−1.40253	11.78160
4.868	0.03192	0.46638	−1.12542	−0.62943	0.62646	5.40830	−2.73000	−4.06574	−1.40936	11.62638
4.974	0.03099	0.46561	−1.22424	−0.43438	0.31979	6.23607	−3.33699	−4.13361	−1.41850	11.39803
5.080	0.03004	0.46451	−1.36192	−0.16455	0.09723	6.80126	−3.79832	−4.21899	−1.44734	11.08758
5.186	0.02906	0.46313	−1.55098	0.19785	−0.10762	7.15010	−4.09939	−4.32279	−1.47455	10.68641
5.292	0.02806	0.46148	−1.78604	0.64083	−0.31786	7.31626	−4.24480	−4.44621	−1.51766	10.19699
5.398	0.02705	0.45956	−1.98047	1.05461	−0.52454	7.32975	−4.25129	−4.59116	−1.58308	9.63622
5.503	0.02603	0.45738	−1.94520	1.22087	−0.70547	7.22275	−4.14460	−4.75634	−1.68755	9.04508
5.609	0.02500	0.45490	−1.66099	1.10259	−0.84637	7.02932	−3.95630	−4.93877	−1.84060	8.46685
5.715	0.02397	0.45220	−1.32552	0.89519	−0.94697	6.78163	−3.71802	−5.12753	−2.06611	7.97981
5.821	0.02294	0.44910	−1.05049	0.71667	−1.01468	6.50681	−3.45671	−5.29842	−2.42914	7.64611
5.927	0.02193	0.44568	−0.84645	0.58492	−1.05739	6.22506	−3.19407	−5.40950	−2.99547	7.53293
6.033	0.02092	0.44193	−0.69730	0.48983	−1.08138	5.95013	−2.94541	−5.40785	−3.72918	7.57554
6.138	0.01993	0.43782	−0.58702	0.42057	−1.09210	5.68952	−2.72028	−5.26194	−3.60960	6.74213
6.244	0.01897	0.43334	−0.50391	0.37078	−1.09480	5.44682	−2.52458	−4.99956	−1.77150	4.20398
6.350	0.01801	0.42849	−0.44001	0.33780	−1.09466	5.22258	−2.36141	−4.69359	−0.08711	1.91667
6.456	0.01709	0.42326	−0.38996	0.32031	−1.09524	5.01517	−2.23007	−4.41157	1.79283	−0.36978
6.562	0.01619	0.41765	−0.35014	0.31730	−1.09886	4.82140	−2.12926	−4.18310	3.76052	−2.53427
6.668	0.01532	0.41170	−0.31798	0.32733	−1.10602	4.63674	−2.05472	−4.00936	4.09052	−2.81374
6.773	0.01448	0.40540	−0.29165	0.34872	−1.11609	4.45437	−1.99921	−3.88230	3.98169	−2.36958
6.879	0.01367	0.39874	−0.26982	0.37976	−1.12783	4.26559	−1.95333	−3.78685	3.95209	−1.66547
6.985	0.01288	0.39175	−0.25154	0.41874	−1.13951	4.05833	−1.90320	−3.71099	4.02552	−0.71453
7.091	0.01213	0.38448	−0.23606	0.46418	−1.14934	3.81701	−1.83156	−3.64392	4.17573	0.39254
7.197	0.01141	0.37691	−0.22284	0.51481	−1.15554	3.52339	−1.71897	−3.57611	4.37850	1.49061
7.303	0.01071	0.36909	−0.21144	0.56930	−1.15635	3.16344	−1.54974	−3.49907	4.61414	2.45771
7.408	0.01005	0.36104	−0.20151	0.62631	−1.15029	2.73688	−1.32169	−3.40549	4.86468	3.25406
7.514	0.00942	0.35279	−0.19280	0.68490	−1.13623	2.26482	−1.05443	−3.28903	5.11660	3.88086
7.620	0.00882	0.34437	−0.18510	0.74391	−1.11335	1.78372	−0.78246	−3.14512	5.35620	4.35122
7.726	0.00825	0.33581	−0.17822	0.80234	−1.08135	1.32900	−0.53935	−2.97175	5.57553	4.68385
7.832	0.00771	0.32713	−0.17203	0.85925	−1.04038	0.92205	−0.34439	−2.76789	5.76885	4.89443
7.938	0.00719	0.31837	−0.16642	0.91374	−0.99093	0.56928	−0.20189	−2.53628	5.93277	5.00299
8.043	0.00671	0.30954	−0.16127	0.96498	−0.93382	0.26762	−0.10653	−2.28145	6.06332	5.02739
8.149	0.00626	0.30068	−0.15654	1.01227	−0.87012	0.01017	−0.04933	−2.00894	6.15926	4.99387
8.255	0.00583	0.29181	−0.15216	1.05514	−0.80105	−0.21056	−0.02100	−1.72137	6.21515	4.92638
8.361	0.00543	0.28298	−0.14803	1.09279	−0.72800	−0.40062	−0.01358	−1.43203	6.22373	4.84764
8.467	0.00505	0.27419	−0.14415	1.12493	−0.65228	−0.56493	−0.02054	−1.14251	6.16878	4.78923
8.573	0.00470	0.26548	−0.14046	1.15134	−0.57520	−0.70725	−0.03705	−0.85744	6.01832	4.79431
8.679	0.00437	0.25687	−0.13695	1.17186	−0.49795	−0.83029	−0.05952	−0.57983	5.71524	4.93042
8.784	0.00406	0.24838	−0.13358	1.18647	−0.42156	−0.93608	−0.08540	−0.31201	5.15969	5.30250
8.890	0.00377	0.24002	−0.13037	1.19501	−0.34690	−1.02587	−0.11288	−0.05710	4.23635	6.02729
8.996	0.00350	0.23183	−0.12724	1.19806	−0.27467	−1.10147	−0.14072	0.18797	3.04698	7.01159
9.102	0.00325	0.22381	−0.12422	1.19568	−0.20532	−1.16393	−0.16824	0.42096	2.06236	7.78081
9.208	0.00302	0.21596	−0.12128	1.18854	−0.13930	−1.21456	−0.19500	0.64253	1.49823	8.12404
9.314	0.00281	0.20833	−0.11844	1.17635	−0.07679	−1.25361	−0.22040	0.85129	1.18629	8.20645
9.419	0.00261	0.20090	−0.11568	1.15981	−0.01794	−1.28240	−0.24437	1.04877	0.97353	8.18248
9.525	0.00242	0.19368	−0.11298	1.13934	0.03717	−1.30187	−0.26681	1.23550	0.79686	8.11536
9.631	0.00225	0.18669	−0.11036	1.11559	0.08857	−1.31293	−0.28762	1.41204	0.63429	8.02767
9.737	0.00209	0.17993	−0.10779	1.08860	0.13623	−1.31645	−0.30689	1.57874	0.47865	7.92617
9.843	0.00194	0.17339	−0.10528	1.05903	0.18022	−1.31326	−0.32453	1.73590	0.32702	7.81504
9.949	0.00181	0.16709	−0.10283	1.02726	0.22060	−1.30413	−0.34061	1.88429	0.18036	7.69286
10.054	0.00168	0.16097	−0.10043	0.99354	0.25745	−1.28975	−0.35483	2.02424	0.03785	7.56154
10.160	0.00156	0.15513	−0.09808	0.95867	0.29085	−1.27092	−0.36780	2.15558	−0.10009	7.42183
10.266	0.00145	0.14951	−0.09580	0.92279	0.32088	−1.24823	−0.37926	2.27870	−0.23306	7.27381
10.372	0.00135	0.14412	−0.09356	0.88627	0.34765	−1.22221	−0.38918	2.39451	−0.36152	7.11810

(*continued on next page*)

Table 7 (*continued*)

R	$d_1^{3}\Sigma^+$	$d_2^{3}\Sigma^+$	$d_3^{3}\Sigma^+$	$d_4^{3}\Sigma^+$	$d_5^{3}\Sigma^+$	$d_6^{3}\Sigma^+$	$d_7^{3}\Sigma^+$	$d_8^{3}\Sigma^+$	$d_9^{3}\Sigma^+$	$d_{10}^{3}\Sigma^+$
10.478	0.00126	0.13893	−0.09137	0.84941	0.37122	−1.19341	−0.39761	2.50238	−0.48437	6.95538
10.584	0.00117	0.13396	−0.08923	0.81250	0.39174	−1.16231	−0.40458	2.60280	−0.60208	6.78646
10.848	0.00099	0.12239	−0.08409	0.72157	0.43032	−1.07736	−0.41585	2.82075	−0.87202	6.34545
11.113	0.00083	0.11198	−0.07925	0.63496	0.45247	−0.98647	−0.41896	2.99401	−1.10578	5.88981
11.377	0.00071	0.10262	−0.07466	0.55473	0.46045	−0.89412	−0.41462	3.12399	−1.30325	5.43688
11.642	0.00061	0.09420	−0.07033	0.48196	0.45667	−0.80362	−0.40377	3.21200	−1.46500	5.00282
11.906	0.00051	0.08662	−0.06624	0.41710	0.44356	−0.71719	−0.38759	3.26017	−1.59099	4.60062
12.171	0.00044	0.07979	−0.06238	0.36001	0.42350	−0.63635	−0.36723	3.27071	−1.68231	4.23932
12.436	0.00037	0.07361	−0.05872	0.31023	0.39858	−0.56189	−0.34406	3.24658	−1.73982	3.92500
12.700	0.00032	0.06803	−0.05529	0.26716	0.37063	−0.49433	−0.31923	3.19097	−1.76807	3.65703
12.965	0.00028	0.06297	−0.05206	0.23007	0.34121	−0.43366	−0.29391	3.10732	−1.77041	3.43603
13.229	0.00024	0.05836	−0.04902	0.19818	0.31149	−0.37960	−0.26859	3.00006	−1.74790	3.25797
13.494	0.00020	0.05412	−0.04615	0.17094	0.28233	−0.33169	−0.24439	2.87339	−1.70497	3.11374
13.759	0.00018	0.05030	−0.04345	0.14768	0.25439	−0.28952	−0.22115	2.73167	−1.64615	2.99653
14.023	0.00015	0.04682	−0.04092	0.12785	0.22810	−0.25252	−0.19956	2.57899	−1.57447	2.89916
14.288	0.00013	0.04364	−0.03854	0.11097	0.20372	−0.22020	−0.17969	2.41923	−1.49322	2.81453
14.552	0.00012	0.04074	−0.03627	0.09659	0.18138	−0.19201	−0.16159	2.25591	−1.40561	2.73654
14.817	0.00010	0.03806	−0.03419	0.08436	0.16107	−0.16748	−0.14522	2.09226	−1.31422	2.65977
15.082	0.00009	0.03561	−0.03222	0.07396	0.14278	−0.14616	−0.13050	1.93090	−1.22150	2.58076
15.346	0.00008	0.03334	−0.03038	0.06507	0.12638	−0.12765	−0.11731	1.77397	−1.12950	2.49399
15.611	0.00007	0.03125	−0.02866	0.05749	0.11176	−0.11161	−0.10550	1.62329	−1.03956	2.39970
15.875	0.00006	0.02932	−0.02704	0.05099	0.09878	−0.09770	−0.09494	1.48010	−0.95299	2.29640
16.140	0.00006	0.02753	−0.02551	0.04541	0.08730	−0.08564	−0.08587	1.34530	−0.87081	2.18462
16.404	0.00005	0.02588	−0.02408	0.04062	0.07721	−0.07517	−0.07741	1.21916	−0.79451	2.06493
16.934	0.00004	0.02290	−0.02148	0.03278	0.06043	−0.05821	−0.06312	0.99485	−0.65489	1.80670
17.463	0.00003	0.02033	−0.01917	0.02676	0.04749	−0.04540	−0.05181	0.80633	−0.53582	1.54096
17.992	0.00003	0.01809	−0.01715	0.02208	0.03747	−0.03562	−0.04311	0.65077	−0.43340	1.28512
18.521	0.00002	0.01612	−0.01535	0.01844	0.02972	−0.02819	−0.03654	0.52415	−0.35215	1.05128
19.050	0.00002	0.01441	−0.01377	0.01555	0.02375	−0.02248	−0.03158	0.42186	−0.28633	0.84697
19.580	0.00001	0.01290	−0.01236	0.01324	0.01907	−0.01807	−0.02776	0.34012	−0.23323	0.67490
20.109	0.00001	0.01158	−0.01112	0.01137	0.01541	−0.01462	−0.02443	0.27499	−0.19067	0.53399
20.638	0.00001	0.01042	−0.01002	0.00983	0.01253	−0.01190	−0.02141	0.22320	−0.15672	0.41874
21.167	0.00001	0.00938	−0.00907	0.00850	0.01024	−0.01067	−0.01860	0.18192	−0.12214	0.33163
22.225	0.00001	0.00768	−0.00744	0.00645	0.00698	−0.00727	−0.01378	0.12321	−0.08687	0.20758
23.284	0.00001	0.00632	−0.00615	0.00493	0.00487	−0.00558	−0.01049	0.08576	−0.06154	0.13316
24.342	0.00000	0.00524	−0.00511	0.00384	0.00347	−0.00444	−0.00866	0.06137	−0.04621	0.08708
25.401	0.00000	0.00440	−0.00428	0.00308	0.00251	−0.00323	−0.00738	0.04518	−0.03522	0.06228
26.459	0.00000	0.00369	−0.00361	0.00253	0.00184	−0.00199	−0.00594	0.03423	−0.02716	0.04599
27.517	0.00000	0.00315	−0.00308	0.00212	0.00137	−0.00137	−0.00464	0.02658	−0.02152	0.03625
28.576	0.00000	0.00269	−0.00264	0.00180	0.00104	−0.00149	−0.00364	0.02110	−0.01760	0.03016
29.634	0.00000	0.00231	−0.00227	0.00154	0.00080	−0.00135	−0.00265	0.01705	−0.01441	0.02546
30.692	0.00000	0.00199	−0.00198	0.00135	0.00063	−0.00147	−0.00223	0.01415	−0.01197	0.02216
31.751	0.00000	0.00173	−0.00172	0.00117	0.00049	−0.00141	−0.00189	0.01176	−0.00951	0.01961
37.042	0.00000	0.00092	−0.00087	0.00067	0.00018	−0.00489	−0.00111	0.00529	−0.00398	0.01276
42.334	0.00000	0.00054	−0.00052	0.00044	0.00008	−0.00473	−0.00057	0.00278	−0.00228	0.00752

Table 8
Permanent dipole moments for the (1-9)$^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$d_1^{1\Pi}$	$d_2^{1\Pi}$	$d_3^{1\Pi}$	$d_4^{1\Pi}$	$d_5^{1\Pi}$	$d_6^{1\Pi}$	$d_7^{1\Pi}$	$d_8^{1\Pi}$	$d_9^{1\Pi}$
2.434	0.20028	−2.41847	2.89428	0.78259	−1.75098	−2.58610	3.58096	−0.01231	
2.540	0.20025	−1.99611	2.51405	0.91988	−1.85114	−3.33296	4.50233	−0.11355	
2.646	0.20527	−1.66320	2.20567	1.09370	−1.97261	−4.14361	5.45154	−0.36619	
2.752	0.21241	−1.42254	1.97938	1.28798	−2.10636	−5.02562	6.44097	−1.09781	
2.858	0.21894	−1.24248	1.80782	1.49000	−2.24054	−5.97554	7.47604	−1.00099	−5.32749
2.963	0.22298	−1.09762	1.66670	1.68638	−2.35988	−6.94520	8.49975	−0.95215	−6.88937
3.069	0.22358	−0.97254	1.53966	1.86346	−2.44799	−7.79430	9.38001	−0.90499	−7.60210
3.175	0.22060	−0.85924	1.41662	2.00759	−2.48815	−8.35345	9.94966	−0.84449	−8.46676
3.281	0.21429	−0.75407	1.29170	2.10909	−2.46948	−8.55982	10.14220	−0.77172	−9.21183
3.387	0.20501	−0.65562	1.16182	2.16681	−2.38992	−8.52383	10.07696	−0.68293	−9.97502
3.493	0.19307	−0.56327	1.02499	2.18933	−2.25731	−8.42157	9.93181	−0.58195	−10.66260
3.598	0.17862	−0.47643	0.87978	2.19260	−2.08782	−8.38100	9.83248	−0.46661	−11.25586
3.704	0.16161	−0.39431	0.72481	2.19527	−1.90046	−8.44917	9.83054	−0.34507	−11.72271
3.810	0.14180	−0.31588	0.55870	2.21392	−1.71323	−8.62033	9.92061	−0.21694	−12.04618
3.916	0.11876	−0.24010	0.38018	2.26187	−1.53983	−8.85242	10.06664	−0.09277	−12.19017
4.022	0.09185	−0.16570	0.18856	2.34717	−1.38963	−9.08831	10.21306	0.02610	−12.13231
4.128	0.06022	−0.09138	−0.01606	2.47329	−1.26880	−9.27126	10.30755	0.14254	−11.77104
4.233	0.02268	−0.01557	−0.23155	2.63912	−1.17976	−9.36476	10.31159	0.24714	−10.54424
4.339	−0.02243	0.06371	−0.45373	2.83883	−1.12194	−9.35629	10.21428	0.33009	−7.76846
4.445	−0.07750	0.14903	−0.67591	3.06239	−1.09182	−9.25745	10.02436	0.44625	2.64223
4.551	−0.14603	0.24409	−0.88930	3.29626	−1.08561	−9.09775	9.77172	0.54441	6.67510
4.657	−0.23354	0.35447	−1.08401	3.52485	−1.09676	−8.90657	9.48392	0.64247	6.16550
4.763	−0.34892	0.48915	−1.25118	3.73389	−1.11907	−8.71038	9.18395	0.74646	4.90221
4.868	−0.50736	0.66339	−1.38437	3.91243	−1.14694	−8.52553	8.88769	0.86023	3.52687
4.974	−0.73526	0.90364	−1.48089	4.05442	−1.17624	−8.36365	8.60289	0.98165	2.22513
5.080	−1.07387	1.25127	−1.54137	4.15913	−1.20439	−8.22964	8.33326	1.11398	1.16780
5.186	−1.53749	1.72068	−1.56911	4.22995	−1.23067	−8.12242	8.07820	1.25996	0.52105
5.292	−1.86998	2.05591	−1.56898	4.27255	−1.25556	−8.04364	7.83378	1.42992	0.08864
5.398	−1.67765	1.86347	−1.54635	4.29419	−1.27965	−7.98049	7.59752	1.61450	−0.29052
5.503	−1.29038	1.47351	−1.50614	4.30038	−1.30436	−7.92285	7.35948	1.82695	−0.72339
5.609	−0.98653	1.16467	−1.45266	4.29580	−1.32983	−7.85508	7.11079	2.08285	−1.16085
5.715	−0.77574	0.94694	−1.38961	4.28317	−1.35545	−7.75999	6.83732	2.42207	−1.59880
5.821	−0.62681	0.78949	−1.31980	4.26317	−1.37931	−7.61743	6.52093	2.91588	−2.12010
5.927	−0.51739	0.67034	−1.24553	4.23436	−1.39850	−7.40794	6.14241	3.73619	−2.90061
6.033	−0.43399	0.57635	−1.16891	4.19368	−1.40857	−7.11496	5.67545	4.30030	−3.38501
6.138	−0.36847	0.49976	−1.09124	4.13703	−1.40424	−6.72840	5.08982	2.93792	−1.90688
6.244	−0.31577	0.43583	−1.01391	4.05945	−1.37969	−6.24509	4.34248	2.03168	−0.82610
6.350	−0.27259	0.38153	−0.93760	3.95601	−1.32919	−5.67492	3.37486	1.87669	−0.37682
6.456	−0.23670	0.33486	−0.86291	3.82270	−1.24812	−5.04267	2.11278	2.23489	−0.23076
6.562	−0.20653	0.29442	−0.79055	3.65744	−1.13394	−4.38741	0.50451	3.05791	−0.26622
6.668	−0.18094	0.25920	−0.72106	3.46109	−0.98674	−3.75420	−1.36606	4.24607	−0.41909
6.773	−0.15908	0.22844	−0.65481	3.23740	−0.80974	−3.17887	−3.15382	5.45871	−0.67173
6.879	−0.14030	0.20153	−0.59206	2.99276	−0.60899	−2.68023	−4.43757	6.27531	−1.01182
6.985	−0.12411	0.17800	−0.53291	2.73487	−0.39270	−2.25880	−5.10417	6.57144	−1.41428
7.091	−0.11009	0.15739	−0.47776	2.47340	−0.16935	−1.90707	−5.31509	6.49113	−1.87756
7.197	−0.09793	0.13936	−0.42647	2.21581	0.05211	−1.61111	−5.26138	6.20448	−2.36846
7.303	−0.08736	0.12360	−0.37904	1.96861	0.26384	−1.35757	−5.06701	5.81732	−2.85657
7.408	−0.07816	0.10983	−0.33533	1.73671	0.45950	−1.13448	−4.79943	5.38246	−3.30024
7.514	−0.07015	0.09782	−0.29518	1.52308	0.63400	−0.93275	−4.49446	4.92573	−3.65881
7.620	−0.06318	0.08734	−0.25863	1.32911	0.78361	−0.74559	−4.16914	4.45806	−3.89532
7.726	−0.05711	0.07821	−0.22544	1.15502	0.90561	−0.56898	−3.83127	3.98659	−3.99414
7.832	−0.05180	0.07027	−0.19538	1.00018	0.99822	−0.40112	−3.48190	3.51596	−3.96146
7.938	−0.04721	0.06336	−0.16824	0.86335	1.06060	−0.24300	−3.11844	3.04709	−3.82064
8.043	−0.04321	0.05737	−0.14383	0.74305	1.09268	−0.09628	−2.73644	2.58250	−3.60210
8.149	−0.03975	0.05216	−0.12192	0.63766	1.09539	0.03677	−2.33179	2.12639	−3.33482
8.255	−0.03675	0.04766	−0.10226	0.54557	1.07069	0.15461	−1.90212	1.67616	−3.04331
8.361	−0.03415	0.04375	−0.08477	0.46524	1.02185	0.25652	−1.44886	1.23662	−2.74451
8.467	−0.03191	0.04037	−0.06915	0.39523	0.95332	0.34225	−0.97653	0.80970	−2.45215
8.573	−0.02998	0.03747	−0.05534	0.33424	0.86985	0.41141	−0.49187	0.39797	−2.16897
8.679	−0.02831	0.03495	−0.04310	0.28117	0.77766	0.46460	−0.00596	0.00726	−1.90307
8.784	−0.02689	0.03277	−0.03217	0.23488	0.68253	0.50083	0.46832	−0.35632	−1.65476
8.890	−0.02568	0.03089	−0.02262	0.19469	0.58940	0.52071	0.91861	−0.68529	−1.42530
8.996	−0.02465	0.02927	−0.01429	0.15984	0.50247	0.52482	1.33089	−0.97303	−1.21439
9.102	−0.02376	0.02788	−0.00704	0.12961	0.42453	0.51525	1.69370	−1.21423	−1.02003
9.208	−0.02302	0.02669	−0.00075	0.10338	0.35704	0.49522	1.99896	−1.40655	−0.84096
9.314	−0.02239	0.02566	0.00470	0.08062	0.30037	0.46708	2.24245	−1.55123	−0.67534
9.419	−0.02186	0.02478	0.00940	0.06088	0.25405	0.43420	2.42434	−1.65183	−0.52165
9.525	−0.02141	0.02402	0.01342	0.04382	0.21717	0.39884	2.54724	−1.71243	−0.38046
9.631	−0.02104	0.02337	0.01682	0.02908	0.18851	0.36314	2.61681	−1.73961	−0.25095
9.737	−0.02073	0.02281	0.01970	0.01632	0.16675	0.32787	2.64003	−1.73943	−0.13279
9.843	−0.02047	0.02232	0.02210	0.00542	0.15066	0.29482	2.62476	−1.71576	−0.02722
9.949	−0.02025	0.02190	0.02407	−0.00392	0.13912	0.26404	2.57837	−1.67196	0.06339
10.054	−0.02007	0.02153	0.02571	−0.01189	0.13116	0.23561	2.50748	−1.60996	0.13600
10.160	−0.01991	0.02121	0.02698	−0.01868	0.12592	0.20970	2.42006	−1.52945	0.18738
10.266	−0.01978	0.02092	0.02794	−0.02434	0.12274	0.18637	2.32040	−1.43281	0.21665

(*continued on next page*)

Table 8 (*continued*)

R	$d_1^{1\Pi}$	$d_2^{1\Pi}$	$d_3^{1\Pi}$	$d_4^{1\Pi}$	$d_5^{1\Pi}$	$d_6^{1\Pi}$	$d_7^{1\Pi}$	$d_8^{1\Pi}$	$d_9^{1\Pi}$
10.372	−0.01966	0.02067	0.02867	−0.02911	0.12103	0.16523	2.21425	−1.32355	0.22498
10.478	−0.01956	0.02045	0.02919	−0.03307	0.12035	0.14601	2.10590	−1.20842	0.21769
10.584	−0.01947	0.02024	0.02949	−0.03633	0.12036	0.12892	1.99793	−1.09475	0.20121
10.848	−0.01925	0.01975	0.02955	−0.04198	0.12170	0.09383	1.74112	−0.84599	0.15257
11.113	−0.01902	0.01934	0.02890	−0.04486	0.12291	0.06729	1.46601	−0.61481	0.11770
11.377	−0.01877	0.01895	0.02775	−0.04582	0.12263	0.04799	1.05347	−0.26572	0.09522
11.642	−0.01847	0.01854	0.02637	−0.04539	0.12043	0.03377	0.68492	−0.03624	0.07863
11.906	−0.01812	0.01809	0.02482	−0.04411	0.11636	0.02392	0.50877	0.14973	0.06402
12.171	−0.01773	0.01762	0.02321	−0.04224	0.11067	0.01711	0.43346	0.16922	0.05058
12.436	−0.01729	0.01712	0.02160	−0.04005	0.10374	0.01276	0.39765	0.15604	0.03841
12.700	−0.01683	0.01660	0.02003	−0.03764	0.09592	0.00960	0.37603	0.13398	0.02768
12.965	−0.01632	0.01606	0.01854	−0.03520	0.08756	0.00712	0.35953	0.11119	0.01863
13.229	−0.01578	0.01549	0.01713	−0.03275	0.07896	0.00708	0.34457	0.09077	0.01126
13.494	−0.01521	0.01491	0.01582	−0.03037	0.07029	0.00725	0.32838	0.07341	0.00527
13.759	−0.01464	0.01433	0.01462	−0.02810	0.06188	0.00783	0.31302	0.05898	0.00087
14.023	−0.01406	0.01376	0.01351	−0.02597	0.05383	0.00882	0.29502	0.04673	−0.00245
14.288	−0.01348	0.01318	0.01251	−0.02394	0.04621	0.00926	0.27794	0.03721	−0.00485
14.552	−0.01290	0.01262	0.01158	−0.02211	0.03917	0.00989	0.25754	0.03000	−0.00698
14.817	−0.01234	0.01206	0.01073	−0.02036	0.03267	0.01145	0.23936	0.02388	−0.00820
15.082	−0.01178	0.01151	0.00996	−0.01873	0.02675	0.01264	0.22198	0.01903	−0.00897
15.346	−0.01125	0.01098	0.00927	−0.01720	0.02136	0.01416	0.20558	0.01473	−0.00916
15.611	−0.01072	0.01047	0.00862	−0.01588	0.01661	0.01422	0.18777	0.01169	−0.00971
15.875	−0.01022	0.00998	0.00803	−0.01463	0.01235	0.01505	0.17152	0.00933	−0.00968
16.140	−0.00973	0.00950	0.00750	−0.01349	0.00860	0.01554	0.15746	0.00746	−0.00949
16.404	−0.00927	0.00905	0.00700	−0.01245	0.00530	0.01596	0.14293	0.00600	−0.00923
16.934	−0.00839	0.00820	0.00614	−0.01066	0.00006	0.01637	0.11700	0.00396	−0.00855
17.463	−0.00760	0.00742	0.00542	−0.00917	−0.00400	0.01599	0.09588	0.00262	−0.00777
17.992	−0.00688	0.00672	0.00479	−0.00794	−0.00685	0.01564	0.07795	0.00187	−0.00685
18.521	−0.00623	0.00608	0.00425	−0.00691	−0.00882	0.01509	0.06361	0.00140	−0.00614
19.050	−0.00565	0.00552	0.00379	−0.00604	−0.01008	0.01462	0.05241	0.00115	−0.00544
19.580	−0.00513	0.00501	0.00339	−0.00531	−0.01083	0.01278	0.04354	0.00087	−0.00491
20.109	−0.00466	0.00455	0.00304	−0.00468	−0.01120	0.01195	0.03692	0.00076	−0.00437
20.638	−0.00423	0.00414	0.00274	−0.00418	−0.01130	0.01002	0.03196	0.00068	−0.00369
21.167	−0.00385	0.00377	0.00248	−0.00374	−0.01117	0.00941	0.02812	0.00065	−0.00329
22.225	−0.00322	0.00313	0.00207	−0.00308	−0.01051	0.00712	0.02183	0.00066	−0.00264
23.284	−0.00270	0.00262	0.00174	−0.00261	−0.00961	0.00611	0.01855	0.00063	−0.00217
24.342	−0.00228	0.00221	0.00148	−0.00224	−0.00860	0.00523	0.01629	0.00060	−0.00180
25.401	−0.00194	0.00187	0.00128	−0.00190	−0.00763	0.00459	0.01451	0.00055	−0.00152
26.459	−0.00165	0.00159	0.00110	−0.00162	−0.00674	0.00361	0.01296	0.00051	−0.00129
27.517	−0.00142	0.00136	0.00096	−0.00138	−0.00594	0.00295	0.01154	0.00046	−0.00109
28.576	−0.00122	0.00117	0.00085	−0.00121	−0.00521	0.00225	0.01016	0.00043	−0.00094
29.634	−0.00105	0.00101	0.00075	−0.00107	−0.00459	0.00183	0.00900	0.00039	−0.00080
30.692	−0.00092	0.00088	0.00066	−0.00095	−0.00406	0.00147	0.00797	0.00035	−0.00069
31.751	−0.00080	0.00077	0.00059	−0.00085	−0.00359	0.00117	0.00705	0.00031	−0.00060
37.042	−0.00044	0.00041	0.00034	−0.00049	−0.00202	0.00026	0.00375	0.00025	−0.00024
42.334	−0.00026	0.00024	0.00021	−0.00029	−0.00119	−0.00009	0.00205	0.00015	−0.00010
47.626	−0.00016	0.00015	0.00013	−0.00018	−0.00075	−0.00022	0.00116	0.00010	−0.00005
50.272	−0.00013	0.00012	0.00011	−0.00015	−0.00061	−0.00025	0.00085	0.00008	−0.00003
51.859	−0.00012	0.00011	0.00010	−0.00013	−0.00054	−0.00026	0.00070	0.00008	−0.00002

Table 9
Permanent dipole moments for the (1-9)$^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$d_1^{3\Pi}$	$d_2^{3\Pi}$	$d_3^{3\Pi}$	$d_4^{3\Pi}$	$d_5^{3\Pi}$	$d_6^{3\Pi}$	$d_7^{3\Pi}$	$d_8^{3\Pi}$	$d_9^{3\Pi}$
2.540	0.47021	−2.83030	3.21794	−0.03445	−0.25957	−5.05832	5.77127	0.14162	
2.646	0.47732	−2.99940	3.48054	−0.01709	−0.29238	−5.20952	6.14210	0.12507	
2.752	0.48341	−3.05762	3.61749	−0.00461	−0.31212	−5.25583	6.28426	0.10962	
2.858	0.48884	−3.02573	3.64747	0.00685	−0.31941	−5.26297	6.30457	0.01754	
2.963	0.49388	−2.93301	3.59942	0.01952	−0.31451	−5.25472	6.27740	−0.03518	11.08488
3.069	0.49872	−2.80561	3.50140	0.03326	−0.29840	−5.23268	6.23026	0.00000	11.14716
3.175	0.50351	−2.66250	3.37550	0.04708	−0.27247	−5.19450	6.16221	0.05835	9.41235
3.281	0.50833	−2.51574	3.23693	0.06021	−0.24006	−5.13431	6.07134	0.13062	8.49110
3.387	0.51325	−2.37230	3.09512	0.07256	−0.20486	−5.04962	5.95578	0.20578	8.03305
3.493	0.51828	−2.23580	2.95554	0.08458	−0.16994	−4.94228	5.82022	0.27938	7.69453
3.598	0.52342	−2.10776	2.82072	0.09706	−0.13906	−4.81592	5.66736	0.34496	7.41166
3.704	0.52866	−1.98853	2.69144	0.11094	−0.11371	−4.67477	5.50440	0.39672	7.13469
3.810	0.53399	−1.87779	2.56757	0.12721	−0.09228	−4.52375	5.33634	0.43349	6.86673
3.916	0.53937	−1.77495	2.44785	0.14699	−0.07574	−4.36847	5.16984	0.45876	6.60690
4.022	0.54477	−1.67914	2.33026	0.17167	−0.06361	−4.21266	5.00480	0.45949	6.37860
4.128	0.55013	−1.58946	2.21182	0.20325	−0.05512	−4.05941	4.84437	0.43899	6.14099
4.233	0.55540	−1.50501	2.08812	0.24494	−0.04929	−3.91104	4.69017	0.39878	6.00316
4.339	0.56052	−1.42485	1.95237	0.30214	−0.04539	−3.76849	4.54054	0.33886	5.85026
4.445	0.56539	−1.34809	1.79367	0.38439	−0.04249	−3.63249	4.39448	0.26531	5.72933
4.551	0.56992	−1.27390	1.59368	0.50846	−0.03978	−3.50337	4.24644	0.18909	5.65578
4.657	0.57402	−1.20153	1.32344	0.70185	−0.03625	−3.38035	4.08805	0.13102	5.64931
4.763	0.57754	−1.13028	0.95270	0.99327	−0.03118	−3.26380	3.89505	0.13105	4.99856
4.868	0.58037	−1.05955	0.51260	1.34993	−0.02395	−3.15162	3.59976	0.27124	4.80251
4.974	0.58234	−0.98922	0.15206	1.62176	−0.01315	−3.04393	3.00726	0.76266	4.76059
5.080	0.58330	−0.91883	−0.03640	1.71472	0.00221	−2.93806	1.78355	1.94118	4.64887
5.186	0.58308	−0.84852	−0.10316	1.67825	0.02316	−2.83317	0.58831	3.13539	4.54096
5.292	0.58149	−0.77856	−0.11059	1.57438	0.05084	−2.72676	0.15371	3.60283	4.45251
5.398	0.57837	−0.70949	−0.08883	1.43343	0.08617	−2.61712	0.06931	3.73955	4.35818
5.503	0.57355	−0.64198	−0.04876	1.26752	0.13008	−2.50045	0.09304	3.78016	4.16681
5.609	0.56685	−0.57683	0.00670	1.08131	0.18321	−2.37172	0.14969	3.79284	3.73424
5.715	0.55814	−0.51482	0.07753	0.87723	0.24624	−2.22102	0.20740	3.79496	2.98856
5.821	0.54731	−0.45665	0.16451	0.65699	0.32000	−2.01002	0.22109	3.78412	2.04423
5.927	0.53433	−0.40288	0.26830	0.42238	0.40565	−0.88684	−0.66416	3.73099	1.13068
6.033	0.51914	−0.35384	0.38894	0.17541	0.50451	0.71623	−2.01299	3.51764	0.46585
6.138	0.50179	−0.30965	0.52549	−0.08162	0.61829	0.70190	−1.72761	2.96684	0.24148
6.244	0.48239	−0.27023	0.67599	−0.34603	0.74869	0.74049	−1.47604	2.05389	0.45178
6.350	0.46111	−0.23535	0.83746	−0.61471	0.89725	0.78822	−1.21151	1.06031	0.77238
6.456	0.43819	−0.20468	1.00604	−0.88416	1.06511	0.83939	−0.92790	0.18803	0.97211
6.562	0.41392	−0.17782	1.17720	−1.15063	1.25295	0.89714	−0.63606	−0.54764	1.01013
6.668	0.38861	−0.15438	1.34618	−1.41028	1.46095	0.96754	−0.37364	−1.15882	0.91663
6.773	0.36264	−0.13395	1.50823	−1.65939	1.68879	1.05994	−0.22439	−1.60904	0.71193
6.879	0.33636	−0.11615	1.65894	−1.89459	1.93584	1.18320	−0.31113	−1.81025	0.40997
6.985	0.31010	−0.10065	1.79445	−2.11297	2.20111	1.33879	−0.70386	−1.70866	0.02126
7.091	0.28428	−0.08712	1.91179	−2.31193	2.48377	1.51236	−1.32286	−1.38377	−0.44555
7.197	0.25916	−0.07529	2.00858	−2.48970	2.78261	1.65982	−2.00098	−0.96757	−0.97557
7.303	0.23500	−0.06491	2.08329	−2.64480	3.09646	1.71590	−2.58878	−0.55179	−1.54937
7.408	0.21201	−0.05581	2.13513	−2.77609	3.42429	1.63082	−3.00192	−0.17674	−2.14333
7.514	0.19032	−0.04781	2.16384	−2.88296	3.76451	1.40491	−3.23328	0.14211	−2.72638
7.620	0.17004	−0.04075	2.16995	−2.96488	4.11583	1.07851	−3.32439	0.40161	−3.26383
7.726	0.15123	−0.03449	2.15449	−3.02163	4.47666	0.69790	−3.32589	0.60186	−3.72610
7.832	0.13389	−0.02895	2.11901	−3.05332	4.84525	0.29523	−3.27528	0.74524	−4.09024
7.938	0.11800	−0.02401	2.06549	−3.06033	5.21967	−0.11226	−3.19524	0.83561	−4.33266
8.043	0.10352	−0.01960	1.99626	−3.04342	5.59780	−0.51682	−3.09850	0.87783	−4.44094
8.149	0.09038	−0.01566	1.91391	−3.00377	5.97738	−0.91563	−2.99172	0.87723	−4.40762
8.255	0.07850	−0.01213	1.82119	−2.94293	6.35602	−1.30756	−2.87886	0.83986	−4.22927
8.361	0.06779	−0.00896	1.72080	−2.86290	6.73123	−1.69211	−2.76233	0.77086	−3.92003
8.467	0.05817	−0.00611	1.61542	−2.76598	7.10045	−2.06835	−2.64313	0.67571	−3.51654
8.573	0.04955	−0.00354	1.50754	−2.65483	7.46110	−2.43461	−2.52165	0.55928	−3.07352
8.679	0.04183	−0.00122	1.39938	−2.53218	7.81048	−2.78831	−2.39769	0.42559	−2.64355
8.784	0.03494	0.00088	1.29279	−2.40087	8.14590	−3.12664	−2.27066	0.27798	−2.26209
8.890	0.02878	0.00277	1.18931	−2.26375	8.46459	−3.44640	−2.13954	0.11830	−1.94244
8.996	0.02330	0.00447	1.09012	−2.12342	8.76374	−3.74428	−2.00313	−0.05077	−1.68469
9.102	0.01842	0.00602	0.99603	−1.98239	9.04041	−4.01548	−1.85973	−0.22818	−1.48009
9.208	0.01408	0.00741	0.90764	−1.84277	9.29166	−4.25648	−1.70739	−0.41391	−1.31999
9.314	0.01022	0.00867	0.82527	−1.70642	9.51446	−4.46350	−1.54375	−0.60759	−1.19671
9.419	0.00680	0.00980	0.74901	−1.57461	9.70576	−4.63294	−1.36642	−0.80938	−1.10084
9.525	0.00375	0.01082	0.67883	−1.44861	9.86233	−4.76232	−1.17226	−1.01963	−1.02820
9.631	0.00105	0.01174	0.61455	−1.32919	9.98095	−4.84947	−0.95776	−1.23765	−0.97410
9.737	−0.00135	0.01256	0.55590	−1.21687	10.05829	−4.89376	−0.71856	−1.46249	−0.93472
9.843	−0.00347	0.01331	0.50255	−1.11203	10.09103	−4.89732	−0.44832	−1.69215	−0.90802
9.949	−0.00535	0.01397	0.45418	−1.01454	10.07588	−4.86734	−0.13621	−1.92466	−0.89124
10.054	−0.00702	0.01455	0.41043	−0.92435	10.00982	−4.83076	0.24661	−2.15573	−0.88327
10.160	−0.00848	0.01507	0.37088	−0.84140	9.89022	−4.92441	0.83762	−2.37925	−0.88206
10.266	−0.00976	0.01555	0.33514	−0.76539	9.71525	−1.81536	−1.69797	−2.58827	−0.88584
10.372	−0.01089	0.01595	0.30300	−0.69575	9.48416	0.59342	−3.45883	−2.77528	−0.89380

(*continued on next page*)

Table 9 (*continued*)

R	$d_1^{3\Pi}$	$d_2^{3\Pi}$	$d_3^{3\Pi}$	$d_4^{3\Pi}$	$d_5^{3\Pi}$	$d_6^{3\Pi}$	$d_7^{3\Pi}$	$d_8^{3\Pi}$	$d_9^{3\Pi}$
10.478	−0.01188	0.01629	0.27407	−0.63230	9.19771	1.17965	−3.33120	−2.93034	−0.90337
10.584	−0.01275	0.01660	0.24802	−0.57479	8.85852	1.63807	−3.01713	−3.04479	−0.91377
10.848	−0.01444	0.01715	0.19383	−0.45257	7.81551	2.51115	−1.78240	−3.08967	−0.92325
11.113	−0.01559	0.01747	0.15228	−0.35714	6.60148	2.43082	0.47562	−2.74560	−0.88270
11.377	−0.01632	0.01760	0.12038	−0.28282	5.37501	0.38484	4.53716	−2.10967	−0.76953
11.642	−0.01672	0.01756	0.09584	−0.22539	4.26474	−1.24072	7.84522	−1.41765	−0.60212
11.906	−0.01688	0.01740	0.07691	−0.18049	3.33430	−1.42022	9.29108	−0.86360	−0.42778
12.171	−0.01687	0.01712	0.06224	−0.14556	2.59100	−1.22608	9.93422	−0.49538	−0.28230
12.436	−0.01667	0.01677	0.05085	−0.11824	2.01236	−0.99355	10.13255	−0.27368	−0.17548
12.700	−0.01637	0.01635	0.04193	−0.09685	1.56676	−0.78956	9.99246	−0.14558	−0.10228
12.965	−0.01598	0.01586	0.03494	−0.07996	1.22438	−0.62394	9.57073	−0.07246	−0.05342
13.229	−0.01554	0.01535	0.02941	−0.06656	0.96072	−0.49077	8.91440	−0.03134	−0.02092
13.494	−0.01504	0.01482	0.02501	−0.05589	0.75668	−0.38512	8.08466	−0.00839	0.00065
13.759	−0.01452	0.01427	0.02149	−0.04734	0.59786	−0.30148	7.15095	0.00361	0.01469
14.023	−0.01397	0.01371	0.01867	−0.04047	0.47357	−0.23558	6.18399	0.00974	0.02335
14.288	−0.01342	0.01314	0.01636	−0.03489	0.37574	−0.18281	5.24229	0.01232	0.02892
14.552	−0.01286	0.01259	0.01446	−0.03032	0.29836	−0.14100	4.37709	0.01289	0.03159
14.817	−0.01230	0.01204	0.01288	−0.02656	0.23689	−0.10788	3.61235	0.01235	0.03227
15.082	−0.01175	0.01150	0.01157	−0.02341	0.18786	−0.08135	2.95726	0.01096	0.03145
15.346	−0.01122	0.01097	0.01045	−0.02078	0.14864	−0.06056	2.40888	0.00967	0.02955
15.611	−0.01070	0.01046	0.00949	−0.01855	0.11718	−0.04408	1.95751	0.00835	0.02694
15.875	−0.01020	0.00997	0.00869	−0.01665	0.09189	−0.03119	1.58572	0.00710	0.02380
16.140	−0.00972	0.00950	0.00798	−0.01501	0.07151	−0.02093	1.28782	0.00616	0.02054
16.404	−0.00925	0.00905	0.00737	−0.01360	0.05509	−0.01285	1.04680	0.00493	0.01713
16.934	−0.00838	0.00820	0.00635	−0.01131	0.03115	−0.00156	0.69644	0.00345	0.01090
17.463	−0.00759	0.00742	0.00554	−0.00954	0.01551	0.00500	0.46387	0.00243	0.00573
17.992	−0.00688	0.00672	0.00486	−0.00815	0.00536	0.00897	0.31617	0.00180	0.00206
18.521	−0.00623	0.00609	0.00429	−0.00703	−0.00119	0.01042	0.21665	0.00129	−0.00049
19.050	−0.00565	0.00552	0.00381	−0.00611	−0.00535	0.01158	0.15248	0.00105	−0.00189
19.580	−0.00513	0.00501	0.00340	−0.00534	−0.00790	0.01182	0.10939	0.00090	−0.00264
20.109	−0.00465	0.00455	0.00305	−0.00471	−0.00938	0.01052	0.08014	0.00074	−0.00288
20.638	−0.00423	0.00414	0.00274	−0.00418	−0.01016	0.01014	0.06037	0.00069	−0.00295
21.167	−0.00385	0.00377	0.00248	−0.00374	−0.01046	0.00960	0.04682	0.00066	−0.00289
22.225	−0.00322	0.00314	0.00207	−0.00307	−0.01026	0.00735	0.02988	0.00065	−0.00245
23.284	−0.00270	0.00262	0.00174	−0.00260	−0.00950	0.00640	0.02205	0.00063	−0.00210
24.342	−0.00228	0.00221	0.00148	−0.00223	−0.00857	0.00544	0.01781	0.00060	−0.00178
25.401	−0.00194	0.00187	0.00128	−0.00190	−0.00762	0.00452	0.01518	0.00056	−0.00150
26.459	−0.00165	0.00159	0.00110	−0.00161	−0.00674	0.00357	0.01325	0.00051	−0.00129
27.517	−0.00141	0.00136	0.00096	−0.00139	−0.00593	0.00273	0.01155	0.00048	−0.00111
28.576	−0.00122	0.00117	0.00085	−0.00121	−0.00521	0.00225	0.01020	0.00043	−0.00094
29.634	−0.00105	0.00101	0.00075	−0.00107	−0.00459	0.00183	0.00902	0.00039	−0.00081
30.692	−0.00092	0.00088	0.00066	−0.00095	−0.00406	0.00147	0.00798	0.00035	−0.00069
31.751	−0.00080	0.00077	0.00059	−0.00085	−0.00359	0.00117	0.00706	0.00031	−0.00060
37.042	−0.00044	0.00041	0.00034	−0.00049	−0.00202	0.00026	0.00375	0.00025	−0.00024
42.334	−0.00026	0.00024	0.00021	−0.00029	−0.00119	−0.00010	0.00205	0.00015	−0.00010
47.626	−0.00016	0.00015	0.00013	−0.00018	−0.00075	−0.00022	0.00116	0.00010	−0.00005
50.272	−0.00013	0.00012	0.00011	−0.00015	−0.00061	−0.00025	0.00085	0.00008	−0.00003
51.859	−0.00012	0.00011	0.00010	−0.00013	−0.00054	−0.00026	0.00070	0.00008	−0.00002

Table 10
Permanent dipole moments for the $(1\text{-}4)^1\Delta$, $1^1\Sigma^-$, $(1\text{-}4)^3\Delta$, and $1^3\Sigma^-$ electronic states of the KRb molecule. See the explanation of the table.

R	$d_1^{1\Delta}$	$d_2^{1\Delta}$	$d_3^{1\Delta}$	$d_4^{1\Delta}$	$d_1^{1\Sigma^-}$	$d_1^{3\Delta}$	$d_2^{3\Delta}$	$d_3^{3\Delta}$	$d_4^{3\Delta}$	$d_1^{3\Sigma^-}$
2.540	0.28852	−1.84211	2.71774	−0.36810	−2.01113	−0.03865	2.90901	−3.12105	−0.85986	0.62813
2.646	0.28777	−1.77483	2.76563	−1.63509	−2.46761	−0.04738	3.04839	−3.25442	−0.16002	0.62846
2.752	0.28076	−1.69875	2.73239	−2.63941	−2.98465	−0.06227	3.21720	−3.41910	0.60207	0.62822
2.858	0.26847	−1.61333	2.63775	−3.53378	−3.53221	−0.08209	3.37047	−3.57187	1.37075	0.62777
2.963	0.25180	−1.52441	2.50873	−4.30616	−4.02219	−0.10549	3.48091	−3.68492	2.10266	0.62735
3.069	0.23170	−1.43943	2.36916	−4.90811	−4.31153	−0.13115	3.53097	−3.74013	2.75484	0.62708
3.175	0.20899	−1.36450	2.23562	−5.32586	−4.28886	−0.15796	3.51314	−3.72901	3.28757	0.62706
3.281	0.18446	−1.30341	2.11794	−5.58287	−3.98593	−0.18516	3.43312	−3.65688	3.68372	0.62731
3.387	0.15873	−1.25911	2.02180	−5.70556	−3.53980	−0.21237	3.30885	−3.54154	3.95191	0.62788
3.493	0.13232	−1.23792	1.95450	−5.66179	−3.07237	−0.23947	3.16300	−3.40559	4.11154	0.62875
3.598	0.10557	−1.28478	1.96089	−5.26560	−2.64496	−0.26657	3.01511	−3.26913	4.19312	0.62990
3.704	0.07869	1.48182	−0.84100	−4.21248	−2.27558	−0.29377	2.87802	−3.14461	4.22025	0.63131
3.810	0.05180	1.66625	−1.05623	−2.62567	−1.96322	−0.32132	2.75827	−3.03899	4.21461	0.63294
3.916	0.02491	1.66677	−1.08383	−1.15266	−1.69955	−0.34948	2.65807	−2.95460	4.19139	0.63476
4.022	−0.00205	1.65953	−1.10066	−0.10716	−1.47670	−0.37852	2.57710	−2.89135	4.16212	0.63671
4.128	−0.02920	1.65586	−1.11875	0.57799	−1.28728	−0.40869	2.51390	−2.84782	4.13390	0.63873
4.233	−0.05667	1.65777	−1.14079	1.03152	−1.12522	−0.44021	2.46656	−2.82216	4.11142	0.64075
4.339	−0.08465	1.66544	−1.16758	1.34493	−0.98565	−0.47329	2.43307	−2.81246	4.09719	0.64269
4.445	−0.11329	1.67855	−1.19940	1.57365	−0.86469	−0.50809	2.41156	−2.81663	4.09324	0.64447
4.551	−0.14281	1.69663	−1.23635	1.75056	−0.75928	−0.54474	2.40027	−2.83290	4.09978	0.64600
4.657	−0.17339	1.71911	−1.27850	1.89549	−0.66698	−0.58334	2.39763	−2.85952	4.11666	0.64719
4.763	−0.20519	1.74540	−1.32583	2.02070	−0.58584	−0.62392	2.40216	−2.89473	4.14321	0.64792
4.868	−0.23838	1.77485	−1.37833	2.13392	−0.51426	−0.66646	2.41246	−2.93668	4.17835	0.64806
4.974	−0.27306	1.80679	−1.43593	2.24015	−0.45093	−0.71083	2.42715	−2.98347	4.22063	0.64749
5.080	−0.30934	1.84048	−1.49848	2.34262	−0.39478	−0.75679	2.44485	−3.03298	4.26842	0.64607
5.186	−0.34726	1.87512	−1.56575	2.44347	−0.34489	−0.80400	2.46412	−3.08272	4.31975	0.64327
5.292	−0.38679	1.90984	−1.63738	2.54404	−0.30050	−0.85183	2.48341	−3.13074	4.37322	0.63963
5.398	−0.42783	1.94371	−1.71281	2.64520	−0.26095	−0.89955	2.50112	−3.17414	4.42650	0.63474
5.503	−0.47015	1.97573	−1.79130	2.74744	−0.22571	−0.94618	2.51547	−3.21018	4.47755	0.62848
5.609	−0.51338	2.00485	−1.87184	2.85098	−0.19426	−0.99052	2.52460	−3.23612	4.52451	0.62076
5.715	−0.55702	2.02995	−1.95314	2.95585	−0.16624	−1.03111	2.52655	−3.24857	4.56612	0.61149
5.821	−0.60034	2.04984	−2.03354	3.06193	−0.14127	−1.06643	2.51935	−3.24692	4.60066	0.60061
5.927	−0.64246	2.06331	−2.11107	3.16892	−0.11901	−1.09483	2.50112	−3.22847	4.62794	0.58810
6.033	−0.68230	2.06909	−2.18343	3.27647	−0.09919	−1.11480	2.47028	−3.19197	4.64824	0.57397
6.138	−0.71862	2.06593	−2.24796	3.38416	−0.08153	−1.12512	2.42570	−3.13714	4.66330	0.55826
6.244	−0.75011	2.05267	−2.30180	3.49163	−0.06583	−1.12498	2.36681	−3.06427	4.67388	0.54099
6.350	−0.77552	2.02832	−2.34189	3.59860	−0.05188	−1.11414	2.29374	−2.97427	4.68253	0.52241
6.456	−0.79371	1.99221	−2.36525	3.70484	−0.03951	−1.09313	2.20770	−2.86703	4.69025	0.50264
6.562	−0.80390	1.94411	−2.36903	3.81017	−0.02855	−1.06276	2.11016	−2.74746	4.70542	0.48178
6.668	−0.80567	1.88430	−2.35087	3.91410	−0.01885	−1.02457	2.00351	−2.61843	4.72835	0.46008
6.773	−0.79911	1.81366	−2.30911	4.01486	−0.01025	−0.98030	1.89034	−2.48240	4.76124	0.43775
6.879	−0.78478	1.73361	−2.24314	4.10696	−0.00266	−0.93174	1.77336	−2.34244	4.80492	0.41502
6.985	−0.76368	1.64604	−2.15363	4.17249	0.00441	−0.88064	1.65517	−2.20144	4.85792	0.39213
7.091	−0.73699	1.55302	−2.04249	4.14662	0.01012	−0.82863	1.53806	−2.06197	4.91518	0.36932
7.197	−0.70608	1.45683	−1.91310	3.65214	0.01508	−0.77679	1.42403	−1.92602	4.96389	0.34679
7.303	−0.67233	1.35961	−1.76963	1.30994	0.01936	−0.72620	1.31457	−1.79524	4.97841	0.32473
7.408	−0.63696	1.26332	−1.61760	0.74204	0.02304	−0.67758	1.21081	−1.67069	4.90083	0.30331
7.514	−0.60103	1.16959	−1.46182	0.68346	0.02616	−0.63145	1.11348	−1.55348	4.61311	0.28265
7.620	−0.56539	1.07969	−1.30717	0.62013	0.02879	−0.58804	1.02297	−1.44311	3.84952	0.26290
7.726	−0.53069	0.99457	−1.15777	0.54642	0.03099	−0.54748	0.93945	−1.33999	2.46540	0.24412
7.832	−0.49738	0.91486	−1.01691	0.47053	0.03278	−0.50982	0.86274	−1.24387	1.17523	0.22635
7.938	−0.46575	0.84082	−0.88686	0.39712	0.03423	−0.47504	0.79272	−1.15407	0.51950	0.20965
8.043	−0.43597	0.77260	−0.76898	0.32930	0.03536	−0.44297	0.72905	−1.07089	0.24282	0.19401
8.149	−0.40814	0.71016	−0.66384	0.26886	0.03621	−0.41345	0.67127	−0.99358	0.12194	0.17943
8.255	−0.38224	0.65324	−0.57165	0.21636	0.03682	−0.38633	0.61895	−0.92187	0.06448	0.16585
8.361	−0.35823	0.60154	−0.49197	0.17110	0.03721	−0.36142	0.57164	−0.85544	0.03524	0.15329
8.467	−0.33598	0.55474	−0.42388	0.13277	0.03741	−0.33854	0.52888	−0.79455	0.01953	0.14169
8.573	−0.31547	0.51244	−0.36649	0.10066	0.03744	−0.31756	0.49024	−0.73792	0.01100	0.13100
8.679	−0.29653	0.47423	−0.31871	0.07411	0.03733	−0.29828	0.45533	−0.68583	0.00627	0.12116
8.784	−0.27906	0.43972	−0.27944	0.05222	0.03707	−0.28055	0.42376	−0.63866	0.00351	0.11208
8.890	−0.26294	0.40858	−0.24754	0.03445	0.03671	−0.26424	0.39516	−0.59524	0.00196	0.10377
8.996	−0.24807	0.38045	−0.22196	0.02007	0.03626	−0.24922	0.36921	−0.55582	0.00107	0.09614
9.102	−0.23432	0.35500	−0.20176	0.00852	0.03572	−0.23536	0.34565	−0.52005	0.00047	0.08916
9.208	−0.22162	0.33196	−0.18606	0.00068	0.03512	−0.22255	0.32422	−0.48772	0.00003	0.08277
9.314	−0.20985	0.31105	−0.17408	−0.00794	0.03446	−0.21070	0.30467	−0.45855	−0.00036	0.07691
9.419	−0.19894	0.29205	−0.16513	−0.01361	0.03376	−0.19972	0.28682	−0.43227	−0.00075	0.07155
9.525	−0.18882	0.27475	−0.15862	−0.01799	0.03302	−0.18953	0.27047	−0.40859	−0.00116	0.06663
9.631	−0.17940	0.25895	−0.15403	−0.02130	0.03225	−0.18001	0.25548	−0.38724	−0.00161	0.06213
9.737	−0.17064	0.24449	−0.15081	−0.02373	0.03146	−0.17120	0.24169	−0.36805	−0.00209	0.05801
9.843	−0.16246	0.23123	−0.14883	−0.02545	0.03065	−0.16298	0.22898	−0.35072	−0.00261	0.05423
9.949	−0.15484	0.21903	−0.14778	−0.02656	0.02983	−0.15530	0.21724	−0.33503	−0.00315	0.05075
10.054	−0.14770	0.20780	−0.14753	−0.02724	0.02901	−0.14813	0.20638	−0.32196	−0.00357	0.04755
10.160	−0.14101	0.19742	−0.14784	−0.02758	0.02818	−0.14140	0.19630	−0.30889	−0.00415	0.04462
10.266	−0.13473	0.18780	−0.14841	−0.02768	0.02735	−0.13510	0.18694	−0.29690	−0.00473	0.04192
10.372	−0.12884	0.17887	−0.14918	−0.02758	0.02654	−0.12918	0.17821	−0.28584	−0.00531	0.03944

(*continued on next page*)

Table 10 (*continued*)

R	$d_1^{1\Delta}$	$d_2^{1\Delta}$	$d_3^{1\Delta}$	$d_4^{1\Delta}$	$d_1^{1\Sigma^-}$	$d_1^{3\Delta}$	$d_2^{3\Delta}$	$d_3^{3\Delta}$	$d_4^{3\Delta}$	$d_1^{3\Sigma^-}$
10.478	−0.12331	0.17055	−0.14982	−0.02731	0.02573	−0.12361	0.17007	−0.27559	−0.00588	0.03715
10.584	−0.11809	0.16280	−0.15041	−0.02691	0.02494	−0.11837	0.16247	−0.26606	−0.00642	0.03504
10.848	−0.10628	0.14557	−0.15152	−0.02550	0.02301	−0.10652	0.14546	−0.24485	−0.00767	0.03044
11.113	−0.09605	0.13086	−0.15153	−0.02374	0.02118	−0.09623	0.13089	−0.22612	−0.00872	0.02658
11.377	−0.08710	0.11820	−0.15063	−0.02185	0.01953	−0.08724	0.11828	−0.21077	−0.00946	0.02342
11.642	−0.07922	0.10718	−0.14869	−0.01992	0.01797	−0.07933	0.10727	−0.19710	−0.00996	0.02077
11.906	−0.07226	0.09753	−0.14587	−0.01815	0.01654	−0.07235	0.09761	−0.18484	−0.01018	0.01854
12.171	−0.06608	0.08902	−0.14226	−0.01648	0.01522	−0.06614	0.08909	−0.17355	−0.01016	0.01663
12.436	−0.06058	0.08151	−0.13804	−0.01492	0.01402	−0.06061	0.08153	−0.16310	−0.00997	0.01500
12.700	−0.05564	0.07479	−0.13337	−0.01348	0.01293	−0.05566	0.07479	−0.15376	−0.00961	0.01359
12.965	−0.05123	0.06878	−0.12834	−0.01214	0.01196	−0.05122	0.06876	−0.14462	−0.00915	0.01236
13.229	−0.04724	0.06337	−0.12319	−0.01091	0.01104	−0.04722	0.06335	−0.13615	−0.00863	0.01129
13.494	−0.04364	0.05851	−0.11791	−0.00977	0.01021	−0.04362	0.05848	−0.12823	−0.00806	0.01034
13.759	−0.04038	0.05411	−0.11266	−0.00873	0.00944	−0.04036	0.05408	−0.12083	−0.00747	0.00950
14.023	−0.03742	0.05014	−0.10758	−0.00780	0.00874	−0.03740	0.05010	−0.11390	−0.00686	0.00875
14.288	−0.03474	0.04652	−0.10249	−0.00693	0.00811	−0.03471	0.04648	−0.10750	−0.00624	0.00805
14.552	−0.03229	0.04323	−0.09752	−0.00614	0.00754	−0.03226	0.04319	−0.10137	−0.00565	0.00745
14.817	−0.03006	0.04022	−0.09271	−0.00542	0.00701	−0.03003	0.04019	−0.09562	−0.00507	0.00691
15.082	−0.02801	0.03748	−0.08807	−0.00477	0.00653	−0.02799	0.03745	−0.09023	−0.00453	0.00642
15.346	−0.02614	0.03496	−0.08366	−0.00409	0.00610	−0.02612	0.03495	−0.08519	−0.00402	0.00598
15.611	−0.02443	0.03266	−0.07940	−0.00355	0.00569	−0.02440	0.03265	−0.08049	−0.00354	0.00557
15.875	−0.02285	0.03054	−0.07534	−0.00307	0.00532	−0.02283	0.03054	−0.07610	−0.00310	0.00520
16.140	−0.02140	0.02860	−0.07147	−0.00264	0.00498	−0.02137	0.02859	−0.07198	−0.00270	0.00487
16.404	−0.02006	0.02680	−0.06780	−0.00225	0.00467	−0.02004	0.02680	−0.06811	−0.00233	0.00455
16.934	−0.01768	0.02361	−0.06102	−0.00159	0.00411	−0.01766	0.02362	−0.06106	−0.00171	0.00400
17.463	−0.01568	0.02089	−0.05494	−0.00107	0.00363	−0.01563	0.02089	−0.05483	−0.00120	0.00353
17.992	−0.01393	0.01855	−0.04952	−0.00067	0.00323	−0.01388	0.01855	−0.04935	−0.00080	0.00313
18.521	−0.01241	0.01653	−0.04470	−0.00036	0.00287	−0.01237	0.01652	−0.04451	−0.00049	0.00278
19.050	−0.01109	0.01477	−0.04042	−0.00013	0.00257	−0.01106	0.01477	−0.04024	−0.00025	0.00248
19.580	−0.00995	0.01324	−0.03661	0.00005	0.00230	−0.00991	0.01324	−0.03645	−0.00006	0.00222
20.109	−0.00895	0.01191	−0.03323	0.00018	0.00207	−0.00892	0.01190	−0.03307	0.00010	0.00199
20.638	−0.00807	0.01073	−0.03023	0.00028	0.00190	−0.00804	0.01073	−0.03008	0.00019	0.00179
21.167	−0.00730	0.00970	−0.02755	0.00035	0.00172	−0.00727	0.00970	−0.02743	0.00027	0.00162
22.225	−0.00601	0.00799	−0.02303	0.00043	0.00142	−0.00598	0.00798	−0.02293	0.00036	0.00131
23.284	−0.00499	0.00663	−0.01942	0.00050	0.00119	−0.00497	0.00662	−0.01933	0.00040	0.00108
24.342	−0.00418	0.00556	−0.01648	0.00047	0.00099	−0.00416	0.00555	−0.01640	0.00040	0.00087
25.401	−0.00352	0.00469	−0.01409	0.00046	0.00085	−0.00349	0.00468	−0.01402	0.00038	0.00075
26.459	−0.00299	0.00399	−0.01213	0.00044	0.00072	−0.00296	0.00398	−0.01204	0.00036	0.00063
27.517	−0.00255	0.00342	−0.01046	0.00040	0.00062	−0.00254	0.00340	−0.01039	0.00033	0.00054
28.576	−0.00219	0.00294	−0.00907	0.00037	0.00054	−0.00218	0.00292	−0.00901	0.00030	0.00046
29.634	−0.00189	0.00255	−0.00789	0.00034	0.00047	−0.00188	0.00253	−0.00784	0.00027	0.00040
30.692	−0.00165	0.00221	−0.00690	0.00031	0.00041	−0.00164	0.00220	−0.00686	0.00025	0.00035
31.751	−0.00144	0.00193	−0.00604	0.00037	0.00045	−0.00143	0.00192	−0.00603	0.00023	0.00031
37.042	−0.00077	0.00104	−0.00333	0.00013	0.00016	−0.00075	0.00104	−0.00334	0.00014	0.00017
42.334	−0.00045	0.00061	−0.00201	0.00008	0.00010	−0.00043	0.00061	−0.00201	0.00008	0.00009
47.626	−0.00028	0.00038	−0.00128	0.00005	0.00006	−0.00027	0.00038	−0.00128	0.00005	0.00006
50.272	−0.00023	0.00031	−0.00104	0.00004	0.00005	−0.00021	0.00031	−0.00104	0.00004	0.00005
51.859	−0.00020	0.00027	−0.00093	0.00004	0.00004	−0.00019	0.00027	−0.00091	0.00004	0.00004

Table 11
Transition dipole moments between the (1-6)$^1\Sigma^+$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu_{21}^{1\Sigma^+-1\Sigma^+}$	$\mu_{31}^{1\Sigma^+-1\Sigma^+}$	$\mu_{32}^{1\Sigma^+-1\Sigma^+}$	$\mu_{41}^{1\Sigma^+-1\Sigma^+}$	$\mu_{42}^{1\Sigma^+-1\Sigma^+}$	$\mu_{43}^{1\Sigma^+-1\Sigma^+}$	$\mu_{51}^{1\Sigma^+-1\Sigma^+}$	$\mu_{52}^{1\Sigma^+-1\Sigma^+}$	$\mu_{53}^{1\Sigma^+-1\Sigma^+}$	$\mu_{54}^{1\Sigma^+-1\Sigma^+}$	$\mu_{61}^{1\Sigma^+-1\Sigma^+}$	$\mu_{62}^{1\Sigma^+-1\Sigma^+}$
2.752	−4.05936	−0.15654	2.23898	0.04167	−2.40677	−0.33908	−0.42016	1.70266	3.63111	3.68487	0.26079	3.56416
2.858	−4.09076	−0.12868	2.31414	0.04419	−2.34027	−0.35611	−0.38623	1.85253	3.77050	3.38414	0.31850	3.46105
2.963	−4.12029	−0.10312	2.40588	0.04748	−2.26198	−0.37158	−0.35326	1.96608	3.88892	3.13289	0.36066	3.40478
3.069	−4.14963	−0.08195	2.50236	0.05107	−2.17973	−0.38499	−0.32243	2.06002	3.98839	2.92123	0.38894	3.38128
3.175	−4.18022	−0.06583	2.59283	0.05445	−2.10089	−0.39580	−0.29339	2.14878	4.06749	2.74030	0.40574	3.37837
3.281	−4.21316	−0.05463	2.66869	0.05728	−2.03188	−0.40360	−0.26507	2.24433	4.12270	2.58325	0.41360	3.38688
3.387	−4.24916	−0.04783	2.72406	0.05940	−1.97781	−0.40822	−0.23628	2.35643	4.14956	2.44388	0.41480	3.39928
3.493	−4.28854	−0.04478	2.75538	0.06083	−1.94231	−0.40950	−0.20589	2.49265	4.14320	2.31644	0.41107	3.40842
3.598	−4.33133	−0.04491	2.76102	0.06160	−1.92809	−0.40722	−0.17325	2.65780	4.09901	2.19552	0.40342	3.40671
3.704	−4.37733	−0.04777	2.74026	0.06180	−1.93738	−0.40101	−0.13805	2.85325	4.01320	2.07738	0.39224	3.38631
3.810	−4.42616	−0.05305	2.69324	0.06145	−1.97262	−0.39022	−0.10053	3.07583	3.88372	1.96100	0.37742	3.34000
3.916	−4.47736	−0.06055	2.62035	0.06052	−2.03734	−0.37376	−0.06136	3.31684	3.71228	1.84896	0.35850	3.26334
4.022	−4.53034	−0.07014	2.52226	0.05885	−2.13713	−0.34976	−0.02174	3.56162	3.50581	1.74919	0.33507	3.15646
4.128	−4.58447	−0.08176	2.39980	0.05610	−2.28129	−0.31499	0.01705	3.79018	3.27658	1.67448	0.30697	3.02489
4.233	−4.63906	−0.09537	2.25394	0.05165	−2.48520	−0.26392	0.05391	3.97790	3.04025	1.64183	0.27443	2.87843
4.339	−4.69341	−0.11101	2.08587	0.04429	−2.77383	−0.18703	0.08825	4.09247	2.81202	1.67120	0.23804	2.72820
4.445	−4.74676	−0.12874	1.89701	0.03184	−3.18457	−0.06867	0.11985	4.08385	2.60276	1.78093	0.19854	2.58370
4.551	−4.79839	−0.14862	1.68904	0.01071	−3.75745	0.11188	0.14799	3.86775	2.41378	1.96796	0.15669	2.45122
4.657	−4.84753	−0.17072	1.46392	−0.02267	−4.47559	0.36001	0.17012	3.34043	2.23286	2.15040	0.11321	2.33416
4.763	−4.89343	−0.19513	1.22393	−0.06571	−5.17366	0.61856	0.18268	2.52423	2.05218	2.16373	0.06872	2.23335
4.868	−4.93539	−0.22190	0.97158	−0.10820	−5.66741	0.79664	0.18759	1.67320	1.90523	1.99175	0.02388	2.14797
4.974	−4.97271	−0.25103	0.70956	−0.14408	−5.96255	0.87654	0.19158	0.98937	1.83323	1.79077	−0.02060	2.07600
5.080	−5.00477	−0.28251	0.44069	−0.17411	−6.14386	0.89429	0.19917	0.48130	1.84743	1.65466	−0.06371	2.01431
5.186	−5.03103	−0.31624	0.16785	−0.20069	−6.26644	0.88289	0.21255	0.08961	1.94919	1.59928	−0.10399	1.95815
5.292	−5.05105	−0.35204	−0.10615	−0.22564	−6.35541	0.86171	0.23354	−0.24139	2.14745	1.62004	−0.13906	1.89953
5.398	−5.06450	−0.38966	−0.37856	−0.25019	−6.42190	0.84137	0.26450	−0.55375	2.46004	1.71045	−0.16500	1.82468
5.503	−5.07121	−0.42876	−0.64679	−0.27514	−6.47100	0.82805	0.30756	−0.87479	2.89874	1.85506	−0.17599	1.71170
5.609	−5.07118	−0.46893	−0.90846	−0.30107	−6.50538	0.82571	0.36168	−1.20429	3.42851	2.00561	−0.16651	1.53884
5.715	−5.06454	−0.50964	−1.16144	−0.32838	−6.52655	0.83714	0.41989	−1.50535	3.94118	2.07964	−0.13844	1.31464
5.821	−5.05164	−0.55032	−1.40385	−0.35739	−6.53554	0.86447	0.47421	−1.74156	4.33703	2.02595	−0.10327	1.08888
5.927	−5.03294	−0.59037	−1.63408	−0.38825	−6.53314	0.90933	0.52216	−1.91568	4.60853	1.86301	−0.07153	0.90559
6.033	−5.00906	−0.62916	−1.85083	−0.42101	−6.52007	0.97285	0.56465	−2.05086	4.79666	1.63419	−0.04668	0.77557
6.138	−4.98072	−0.66609	−2.05305	−0.45556	−6.49715	1.05557	0.60267	−2.16608	4.93705	1.37318	−0.02813	0.69154
6.244	−4.94874	−0.70059	−2.24001	−0.49169	−6.46518	1.15732	0.63660	−2.27187	5.04992	1.10152	−0.01442	0.64273
6.350	−4.91396	−0.73219	−2.41113	−0.52895	−6.42537	1.27709	0.66647	−2.37277	5.14513	0.83335	−0.00428	0.61983
6.456	−4.87727	−0.76049	−2.56614	−0.56681	−6.37905	1.41300	0.69215	−2.47005	5.22726	0.57878	0.00325	0.61533
6.562	−4.83952	−0.78519	−2.70481	−0.60453	−6.32793	1.56240	0.71365	−2.56313	5.29825	0.34486	0.00882	0.62312
6.668	−4.80150	−0.80611	−2.82706	−0.64137	−6.27388	1.72203	0.73101	−2.65072	5.35906	0.13751	0.01295	0.63802
6.773	−4.76393	−0.82314	−2.93285	−0.67647	−6.21888	1.88826	0.74443	−2.73132	5.41025	−0.04126	0.01596	0.65583
6.879	−4.72745	−0.83630	−3.02212	−0.70908	−6.16484	2.05747	0.75415	−2.80368	5.45254	−0.19117	0.01815	0.67300
6.985	−4.69260	−0.84566	−3.09485	−0.73852	−6.11341	2.22605	0.76054	−2.86691	5.48658	−0.31337	0.01965	0.68702
7.091	−4.65979	−0.85137	−3.15095	−0.76423	−6.06585	2.39098	0.76394	−2.92068	5.51313	−0.41134	0.02062	0.69621
7.197	−4.62937	−0.85360	−3.19034	−0.78583	−6.02300	2.54970	0.76467	−2.96513	5.53287	−0.48929	0.02114	0.69988
7.303	−4.60154	−0.85260	−3.21291	−0.80308	−5.98518	2.70021	0.76300	−3.00074	5.54627	−0.55199	0.02126	0.69817
7.408	−4.57645	−0.84862	−3.21862	−0.81588	−5.95220	2.84100	0.75917	−3.02830	5.55350	−0.60426	0.02101	0.69200
7.514	−4.55413	−0.84192	−3.20745	−0.82428	−5.92357	2.97085	0.75328	−3.04857	5.55460	−0.65016	0.02042	0.68265
7.620	−4.53456	−0.83281	−3.17956	−0.82841	−5.89835	3.08906	0.74548	−3.06250	5.54920	−0.69343	0.01951	0.67163
7.726	−4.51765	−0.82159	−3.13523	−0.82850	−5.87539	3.19509	0.73585	−3.07092	5.53680	−0.73685	0.01831	0.66049
7.832	−4.50327	−0.80858	−3.07500	−0.82484	−5.85336	3.28861	0.72444	−3.07461	5.51675	−0.78235	0.01684	0.65052
7.938	−4.49121	−0.79410	−2.99963	−0.81774	−5.83089	3.36936	0.71131	−3.07421	5.48840	−0.83093	0.01517	0.64280
8.043	−4.48128	−0.77848	−2.91016	−0.80757	−5.80659	3.43719	0.69654	−3.07025	5.45116	−0.88287	0.01331	0.63807
8.149	−4.47323	−0.76207	−2.80793	−0.79465	−5.77913	3.49199	0.68023	−3.06312	5.40461	−0.93778	0.01132	0.63679
8.255	−4.46683	−0.74520	−2.69451	−0.77932	−5.74732	3.53374	0.66250	−3.05315	5.34856	−0.99475	0.00921	0.63912
8.361	−4.46183	−0.72820	−2.57178	−0.76195	−5.71024	3.56254	0.64352	−3.04052	5.28303	−1.05242	0.00704	0.64514
8.467	−4.45799	−0.71141	−2.44169	−0.74285	−5.66715	3.57860	0.62346	−3.02539	5.20843	−1.10930	0.00483	0.65466
8.573	−4.45510	−0.69513	−2.30636	−0.72230	−5.61758	3.58228	0.60251	−3.00786	5.12544	−1.16381	0.00260	0.66745
8.679	−4.45294	−0.67963	−2.16789	−0.70060	−5.56137	3.57415	0.58089	−2.98800	5.03497	−1.21444	0.00038	0.68318
8.784	−4.45132	−0.66518	−2.02834	−0.67799	−5.49864	3.55494	0.55881	−2.96589	4.93818	−1.25986	−0.00184	0.70146
8.890	−4.45010	−0.65197	−1.88960	−0.65473	−5.42975	3.52556	0.53648	−2.94161	4.83637	−1.29897	−0.00403	0.72198
8.996	−4.44911	−0.64019	−1.75341	−0.63103	−5.35530	3.48709	0.51409	−2.91526	4.73089	−1.33097	−0.00619	0.74432
9.102	−4.44826	−0.62996	−1.62120	−0.60711	−5.27607	3.44071	0.49182	−2.88697	4.62313	−1.35537	−0.00832	0.76811
9.208	−4.44745	−0.62136	−1.49417	−0.58315	−5.19300	3.38769	0.46985	−2.85690	4.51443	−1.37194	−0.01041	0.79300
9.314	−4.44660	−0.61445	−1.37325	−0.55934	−5.10702	3.32929	0.44828	−2.82526	4.40606	−1.38073	−0.01245	0.81861
9.419	−4.44565	−0.60924	−1.25909	−0.53579	−5.01917	3.26679	0.42725	−2.79225	4.29912	−1.38199	−0.01446	0.84462
9.525	−4.44457	−0.60572	−1.15207	−0.51265	−4.93048	3.20138	0.40685	−2.75812	4.19461	−1.37612	−0.01645	0.87071
9.631	−4.44332	−0.60386	−1.05239	−0.49003	−4.84191	3.13418	0.38713	−2.72309	4.09336	−1.36363	−0.01840	0.89660
9.737	−4.44189	−0.60359	−0.96006	−0.46801	−4.75436	3.06619	0.36817	−2.68741	3.99608	−1.34503	−0.02035	0.92201
9.843	−4.44026	−0.60487	−0.87494	−0.44666	−4.66868	2.99831	0.34999	−2.65132	3.90331	−1.32084	−0.02229	0.94672
9.949	−4.43843	−0.60760	−0.79681	−0.42602	−4.58560	2.93130	0.33259	−2.61502	3.81551	−1.29154	−0.02425	0.97050
10.054	−4.43639	−0.61173	−0.72533	−0.40615	−4.50573	2.86582	0.31599	−2.57866	3.73299	−1.25737	−0.02624	0.99318
10.160	−4.43416	−0.61715	−0.66012	−0.38704	−4.42972	2.80244	0.30017	−2.54240	3.65602	−1.21850	−0.02830	1.01475
10.266	−4.43173	−0.62380	−0.60079	−0.36872	−4.35803	2.74161	0.28510	−2.50627	3.58481	−1.17465	−0.03046	1.03522
10.372	−4.42911	−0.63160	−0.54691	−0.35117	−4.29106	2.68369	0.27074	−2.47017	3.51950	−1.12502	−0.03280	1.05484
10.478	−4.42631	−0.64046	−0.49805	−0.33439	−4.22918	2.62900	0.25705	−2.43378	3.46027	−1.06783	−0.03540	1.07428
10.584	−4.42335	−0.65033	−0.45380	−0.31836	−4.17268	2.57775	0.24395	−2.39631	3.40732	−0.99939	−0.03844	1.09503

(*continued on next page*)

Table 11 (*continued*)

R	$\mu_{21}^{1\Sigma^+-1\Sigma^+}$	$\mu_{31}^{1\Sigma^+-1\Sigma^+}$	$\mu_{32}^{1\Sigma^+-1\Sigma^+}$	$\mu_{41}^{1\Sigma^+-1\Sigma^+}$	$\mu_{42}^{1\Sigma^+-1\Sigma^+}$	$\mu_{43}^{1\Sigma^+-1\Sigma^+}$	$\mu_{51}^{1\Sigma^+-1\Sigma^+}$	$\mu_{52}^{1\Sigma^+-1\Sigma^+}$	$\mu_{53}^{1\Sigma^+-1\Sigma^+}$	$\mu_{54}^{1\Sigma^+-1\Sigma^+}$	$\mu_{61}^{1\Sigma^+-1\Sigma^+}$	$\mu_{62}^{1\Sigma^+-1\Sigma^+}$
10.848	−4.41518	−0.67891	−0.36079	−0.28136	−4.05652	2.46582	0.21248	−2.27756	3.30491	−0.69422	−0.05141	1.18980
11.113	−4.40605	−0.71235	−0.28852	−0.24831	−3.97813	2.37809	0.09176	0.73679	2.38407	3.01057	0.17105	−2.39051
11.377	−4.39604	−0.74988	−0.23235	−0.21857	−3.93835	2.31457	−0.02489	0.61679	−0.73048	4.95803	0.17113	−2.34852
11.642	−4.38519	−0.79082	−0.18857	−0.19143	−3.93512	2.27331	−0.03790	0.55541	−0.51196	5.38720	0.14995	−2.28341
11.906	−4.37355	−0.83461	−0.15429	−0.16620	−3.96089	2.24910	−0.04563	0.34696	−0.33388	5.70567	0.13122	−2.24789
12.171	−4.36113	−0.88078	−0.12727	−0.14234	−3.99962	2.23202	−0.05147	−0.03001	−0.12914	5.83174	0.11412	−2.22279
12.436	−4.34795	−0.92894	−0.10581	−0.11978	−4.02765	2.20820	−0.05512	−0.37644	0.10756	5.63976	0.09821	−2.19613
12.700	−4.33401	−0.97872	−0.08866	−0.09908	−4.02443	2.16596	−0.05562	−0.82993	0.35660	5.07685	0.08306	−2.15270
12.965	−4.31933	−1.02983	−0.07483	−0.08115	−3.98700	2.10374	−0.05258	−1.27168	0.58760	4.24627	0.06796	−2.07387
13.229	−4.30391	−1.08196	−0.06354	−0.06651	−3.92915	2.02934	−0.04680	−1.65492	0.77735	3.34530	0.05273	−1.95677
13.494	−4.28778	−1.13487	−0.05428	−0.05504	−3.86765	1.95198	−0.03968	−1.96069	0.91822	2.53296	0.03931	−1.83146
13.759	−4.27095	−1.18831	−0.04660	−0.04619	−3.81284	1.87733	−0.03252	−2.19196	1.01408	1.87781	0.02917	−1.72010
14.023	−4.25345	−1.24204	−0.04020	−0.03936	−3.76856	1.80751	−0.02611	−2.36191	1.07375	1.38226	0.02186	−1.62318
14.288	−4.23532	−1.29585	−0.03481	−0.03402	−3.73487	1.74268	−0.02075	−2.48563	1.10646	1.01978	0.01658	−1.53775
14.552	−4.21660	−1.34955	−0.03024	−0.02979	−3.71039	1.68224	−0.01643	−2.57611	1.11995	0.75842	0.01273	−1.46191
14.817	−4.19734	−1.40294	−0.02635	−0.02638	−3.69338	1.62542	−0.01304	−2.64325	1.12002	0.57044	0.00988	−1.39420
15.082	−4.17760	−1.45586	−0.02300	−0.02358	−3.68221	1.57154	−0.01039	−2.69405	1.11082	0.43467	0.00776	−1.33324
15.346	−4.15743	−1.50815	−0.02012	−0.02125	−3.67551	1.52006	−0.00834	−2.73341	1.09524	0.33583	0.00616	−1.27782
15.611	−4.13689	−1.55967	−0.01766	−0.01929	−3.67219	1.47054	−0.00674	−2.76458	1.07524	0.26314	0.00494	−1.22688
15.875	−4.11606	−1.61028	−0.01549	−0.01762	−3.67138	1.42275	−0.00549	−2.78983	1.05226	0.20912	0.00400	−1.17961
16.140	−4.09500	−1.65988	−0.01359	−0.01617	−3.67241	1.37647	−0.00451	−2.81072	1.02727	0.16854	0.00327	−1.13536
16.404	−4.07377	−1.70837	−0.01193	−0.01490	−3.67477	1.33157	−0.00373	−2.82833	1.00098	0.13771	0.00270	−1.09362
16.934	−4.03110	−1.80170	−0.00920	−0.01280	−3.68196	1.24556	−0.00263	−2.85647	0.94641	0.09564	0.00189	−1.01631
17.463	−3.98854	−1.88980	−0.00706	−0.01112	−3.69083	1.16440	−0.00191	−2.87816	0.89130	0.06973	0.00136	−0.94569
17.992	−3.94654	−1.97239	−0.00539	−0.00974	−3.70010	1.08794	−0.00143	−2.89545	0.83719	0.05309	0.00100	−0.88061
18.521	−3.90548	−2.04938	−0.00408	−0.00859	−3.70908	1.01610	−0.00109	−2.90954	0.78501	0.04193	0.00076	−0.82042
19.050	−3.86569	−2.12083	−0.00305	−0.00761	−3.71737	0.94882	−0.00085	−2.92116	0.73527	0.03413	0.00059	−0.76466
19.580	−3.82738	−2.18689	−0.00225	−0.00677	−3.72484	0.88601	−0.00068	−2.93082	0.68824	0.02845	0.00046	−0.71302
20.109	−3.79073	−2.24780	−0.00162	−0.00605	−3.73141	0.82752	−0.00054	−2.93886	0.64405	0.02416	0.00036	−0.66521
20.638	−3.75585	−2.30384	−0.00113	−0.00543	−3.73710	0.77315	−0.00044	−2.94559	0.60270	0.02078	0.00029	−0.62099
21.167	−3.72277	−2.35535	−0.00073	−0.00489	−3.74198	0.72273	−0.00036	−2.95109	0.56412	0.01809	0.00025	−0.58009
22.225	−3.66210	−2.44604	−0.00019	−0.00400	−3.74966	0.63276	−0.00025	−2.95966	0.49490	0.01412	0.00019	−0.50736
23.284	−3.60846	−2.52242	0.00012	−0.00332	−3.75508	0.55575	−0.00018	−2.96557	0.43533	0.01128	0.00013	−0.44540
24.342	−3.56133	−2.58685	0.00030	−0.00277	−3.75885	0.48986	−0.00012	−2.96952	0.38415	0.00919	0.00009	−0.39248
25.401	−3.52006	−2.64135	0.00040	−0.00233	−3.76137	0.43342	−0.00009	−2.97219	0.34019	0.00760	0.00007	−0.34720
26.459	−3.48395	−2.68764	0.00044	−0.00198	−3.76301	0.38496	−0.00007	−2.97393	0.30237	0.00636	0.00006	−0.30834
27.517	−3.45236	−2.72714	0.00045	−0.00169	−3.76403	0.34322	−0.00005	−2.97502	0.26974	0.00538	0.00006	−0.27488
28.576	−3.42469	−2.76099	0.00044	−0.00145	−3.76460	0.30714	−0.00004	−2.97565	0.24149	0.00459	0.00005	−0.24601
29.634	−3.40042	−2.79014	0.00043	−0.00125	−3.76485	0.27583	−0.00003	−2.97598	0.21697	0.00395	0.00008	−0.22093
30.692	−3.37906	−2.81537	0.00041	−0.00108	−3.76488	0.24857	−0.00002	−2.97608	0.19559	0.00342	0.00007	−0.19911
31.751	−3.36022	−2.83730	0.00039	−0.00094	−3.76477	0.22474	−0.00002	−2.97604	0.17689	0.00298	0.00007	−0.18003
37.042	−3.29353	−2.91272	0.00022	−0.00050	−3.76333	0.14182	−0.00001	−2.97493	0.11172	0.00160	0.00007	−0.11366
42.334	−3.25510	−2.95463	0.00015	−0.00030	−3.76184	0.09504	0.00000	−2.97363	0.07492	0.00093	0.00006	−0.07619

Table 12
Transition dipole moments between the $(6\text{-}8)^1\Sigma^+$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Sigma^+-1\Sigma^+}_{63}$	$\mu^{1\Sigma^+-1\Sigma^+}_{64}$	$\mu^{1\Sigma^+-1\Sigma^+}_{65}$	$\mu^{1\Sigma^+-1\Sigma^+}_{71}$	$\mu^{1\Sigma^+-1\Sigma^+}_{72}$	$\mu^{1\Sigma^+-1\Sigma^+}_{73}$	$\mu^{1\Sigma^+-1\Sigma^+}_{74}$	$\mu^{1\Sigma^+-1\Sigma^+}_{75}$	$\mu^{1\Sigma^+-1\Sigma^+}_{76}$	$\mu^{1\Sigma^+-1\Sigma^+}_{81}$	$\mu^{1\Sigma^+-1\Sigma^+}_{82}$
2.752	−0.39654	−3.53413	2.76005	−0.08777	−2.09790	1.95362	−2.53943	−4.31078	1.88457	−0.03238	−2.07627
2.858	−0.61780	−3.68919	2.52750	−0.12934	−2.12535	1.91508	−2.56169	−4.32057	2.10851	−0.01773	−1.93284
2.963	−0.83885	−3.74793	2.39831	−0.16767	−2.09105	1.89978	−2.64321	−4.24968	2.22100	−0.00357	−1.50701
3.069	−1.05866	−3.75020	2.32487	−0.20305	−2.01429	1.89845	−2.77320	−4.11493	2.23864	0.00747	−0.92824
3.175	−1.27974	−3.72384	2.26214	−0.23534	−1.91149	1.90140	−2.93851	−3.92515	2.18131	0.01465	−0.46046
3.281	−1.50543	−3.68707	2.17070	−0.26436	−1.79647	1.90066	−3.12586	−3.68999	2.07102	0.01977	−0.15433
3.387	−1.73978	−3.65169	2.01819	−0.29020	−1.67926	1.89122	−3.32468	−3.41997	1.92892	0.02392	0.03761
3.493	−1.98672	−3.62488	1.78121	−0.31324	−1.56574	1.87072	−3.52756	−3.12756	1.77186	0.02740	0.15324
3.598	−2.24859	−3.61078	1.44664	−0.33398	−1.45790	1.83801	−3.73069	−2.82211	1.61171	0.03043	0.20531
3.704	−2.52494	−3.61150	1.01416	−0.35291	−1.35581	1.79328	−3.93206	−2.51290	1.45588	0.03462	−0.01709
3.810	−2.81106	−3.62773	0.49904	−0.37038	−1.25888	1.73683	−4.13083	−2.20705	1.30840	−0.02395	−2.04410
3.916	−3.09772	−3.65936	−0.06515	−0.38667	−1.16668	1.66965	−4.32719	−1.90892	1.17140	−0.02335	−1.98608
4.022	−3.37233	−3.70601	−0.62869	−0.40187	−1.07909	1.59297	−4.52121	−1.61784	1.04552	−0.02311	−1.91504
4.128	−3.62180	−3.76862	−1.13317	−0.41598	−0.99621	1.50835	−4.71333	−1.32561	0.93128	−0.02274	−1.84228
4.233	−3.83598	−3.85138	−1.52204	−0.42895	−0.91834	1.41761	−4.90315	−1.01281	0.82910	−0.02219	−1.77055
4.339	−4.00985	−3.96281	−1.74599	−0.44072	−0.84569	1.32235	−5.08716	−0.64379	0.74216	−0.02158	−1.70148
4.445	−4.14358	−4.11380	−1.75682	−0.45119	−0.77846	1.22441	−5.25209	−0.15895	0.67232	−0.02097	−1.63622
4.551	−4.24113	−4.30491	−1.49764	−0.46025	−0.71665	1.12565	−5.35666	0.52498	0.62053	−0.02032	−1.57524
4.657	−4.30771	−4.48858	−0.93317	−0.46782	−0.66030	1.02733	−5.31061	1.45767	0.59037	−0.01971	−1.51902
4.763	−4.34877	−4.55418	−0.17721	−0.47379	−0.60930	0.93084	−5.04004	2.49790	0.58432	−0.01918	−1.46766
4.868	−4.36862	−4.45480	0.50220	−0.47810	−0.56356	0.83725	−4.64398	3.36090	0.60644	−0.01874	−1.42114
4.974	−4.36960	−4.25720	0.96610	−0.48072	−0.52295	0.74729	−4.28741	3.94320	0.66278	−0.01846	−1.37941
5.080	−4.35108	−4.01872	1.24545	−0.48163	−0.48741	0.66146	−4.02573	4.30854	0.76300	−0.01837	−1.34212
5.186	−4.30751	−3.75416	1.40187	−0.48081	−0.45696	0.57993	−3.84410	4.52753	0.92214	−0.01855	−1.30936
5.292	−4.22492	−3.45773	1.47432	−0.47830	−0.43169	0.50269	−3.71513	4.63466	1.16276	−0.01910	−1.28103
5.398	−4.07538	−3.11426	1.47376	−0.47412	−0.41182	0.42943	−3.61623	4.63150	1.51409	−0.02021	−1.25762
5.503	−3.81408	−2.70523	1.38351	−0.46832	−0.39771	0.35974	−3.53026	4.49197	1.99653	−0.02227	−1.24026
5.609	−3.40215	−2.22769	1.17590	−0.46090	−0.38988	0.29314	−3.44417	4.18393	2.57501	−0.02611	−1.23242
5.715	−2.87460	−1.72897	0.87465	−0.45189	−0.38905	0.22913	−3.34774	3.73402	3.12061	−0.03390	−1.24229
5.821	−2.35266	−1.29062	0.57889	−0.44126	−0.39611	0.16727	−3.23241	3.25250	3.49821	−0.05132	−1.27519
5.927	−1.93053	−0.95320	0.36486	−0.42896	−0.41214	0.10742	−3.09120	2.83291	3.67877	−0.08176	−1.25399
6.033	−1.62348	−0.70458	0.23944	−0.41494	−0.43826	0.04974	−2.91881	2.49500	3.70349	−0.11293	−1.19767
6.138	−1.40950	−0.51677	0.17944	−0.39910	−0.47541	−0.00511	−2.71200	2.21885	3.61782	−0.14296	−1.19155
6.244	−1.26298	−0.36622	0.16080	−0.38144	−0.52424	−0.05589	−2.46999	1.97924	3.45441	−0.17243	−1.21272
6.350	−1.16414	−0.23629	0.16539	−0.36206	−0.58449	−0.10067	−2.19672	1.75790	3.23511	−0.20081	−1.24050
6.456	−1.09890	−0.11683	0.17989	−0.34117	−0.65502	−0.13722	−1.89840	1.54318	2.97859	−0.22752	−1.26375
6.562	−1.05725	−0.00090	0.19494	−0.31925	−0.73333	−0.16319	−1.58648	1.33254	2.69965	−0.25194	−1.27531
6.668	−1.03177	0.11474	0.20552	−0.29687	−0.81609	−0.17670	−1.27314	1.12733	2.41316	−0.27362	−1.27020
6.773	−1.01672	0.23240	0.20714	−0.27471	−0.89941	−0.17689	−0.97125	0.93325	2.13086	−0.29216	−1.24454
6.879	−1.00759	0.35293	0.19807	−0.25336	−0.97936	−0.16395	−0.69097	0.75671	1.86166	−0.30735	−1.19556
6.985	−1.00067	0.47634	0.17806	−0.23334	−1.05278	−0.13934	−0.43896	0.60275	1.61149	−0.31916	−1.12199
7.091	−0.99305	0.60222	0.14831	−0.21492	−1.11693	−0.10513	−0.21850	0.47536	1.38292	−0.32762	−1.02472
7.197	−0.98252	0.72991	0.11081	−0.19822	−1.17018	−0.06387	−0.02973	0.37523	1.17691	−0.33290	−0.90681
7.303	−0.96753	0.85857	0.06803	−0.18322	−1.21135	−0.01817	0.12913	0.30212	0.99272	−0.33531	−0.77296
7.408	−0.94706	0.98744	0.02306	−0.16980	−1.24000	0.02947	0.26111	0.25375	0.82942	−0.33530	−0.62859
7.514	−0.92074	1.11554	−0.02219	−0.15786	−1.25598	0.07695	0.36957	0.22825	0.68505	−0.33328	−0.47875
7.620	−0.88853	1.24209	−0.06545	−0.14721	−1.25988	0.12265	0.45821	0.22211	0.55822	−0.32974	−0.32734
7.726	−0.85074	1.36637	−0.10511	−0.13768	−1.25253	0.16540	0.53061	0.23222	0.44730	−0.32509	−0.17682
7.832	−0.80778	1.48780	−0.14032	−0.12912	−1.23504	0.20446	0.59005	0.25566	0.35042	−0.31965	−0.02880
7.938	−0.76028	1.60598	−0.17038	−0.12138	−1.20867	0.23957	0.63977	0.28967	0.26600	−0.31366	0.11599
8.043	−0.70884	1.72060	−0.19525	−0.11430	−1.17475	0.27075	0.68267	0.33196	0.19226	−0.30732	0.25718
8.149	−0.65407	1.83153	−0.21513	−0.10777	−1.13453	0.29827	0.72166	0.38068	0.12746	−0.30077	0.39467
8.255	−0.59657	1.93855	−0.23047	−0.10162	−1.08906	0.32263	0.75974	0.43438	0.06991	−0.29414	0.52844
8.361	−0.53693	2.04216	−0.24175	−0.09574	−1.03918	0.34433	0.80027	0.49204	0.01765	−0.28751	0.65859
8.467	−0.47570	2.14231	−0.24962	−0.08996	−0.98526	0.36419	0.84752	0.55297	−0.03127	−0.28098	0.78527
8.573	−0.41347	2.23923	−0.25469	−0.08404	−0.92709	0.38322	0.90747	0.61688	−0.07921	−0.27462	0.90874
8.679	−0.35078	2.33324	−0.25757	−0.07766	−0.86350	0.40284	0.98949	0.68391	−0.12948	−0.26852	1.02951
8.784	−0.28818	2.42459	−0.25881	−0.07025	−0.79146	0.42537	1.11032	0.75475	−0.18729	−0.26283	1.14857
8.890	−0.22620	2.51390	−0.25892	−0.06065	−0.70376	0.45521	1.30412	0.83092	−0.26288	−0.25775	1.26788
8.996	−0.16537	2.60150	−0.25838	−0.04601	−0.58132	0.50257	1.65351	0.91592	−0.37993	−0.25359	1.39141
9.102	−0.10615	2.68787	−0.25761	−0.01743	−0.36186	0.59667	2.40747	1.01612	−0.60928	−0.25026	1.52480
9.208	−0.04899	2.77349	−0.25690	0.05703	0.19339	0.81982	4.35428	1.10665	−1.17549	−0.23745	1.61500
9.314	0.00571	2.85893	−0.25684	0.16032	1.04012	1.04517	6.63436	0.97185	−1.83533	−0.17556	1.32591
9.419	0.05758	2.94468	−0.25767	0.18999	1.39136	1.10938	7.14014	0.83952	−1.98174	−0.13228	1.04882
9.525	0.10630	3.03127	−0.25980	0.19520	1.55201	1.15764	7.24697	0.78937	−2.01316	−0.11285	0.90685
9.631	0.15155	3.11926	−0.26372	0.19447	1.65910	1.20509	7.28905	0.76922	−2.02931	−0.10210	0.81886
9.737	0.19306	3.20915	−0.26982	0.19173	1.74334	1.25048	7.31785	0.76014	−2.04631	−0.09509	0.75543
9.843	0.23054	3.30148	−0.27881	0.18817	1.81437	1.29270	7.34558	0.75526	−2.06832	−0.09001	0.70552
9.949	0.26366	3.39678	−0.29156	0.18427	1.87611	1.33119	7.37624	0.75167	−2.09701	−0.08607	0.66422
10.054	0.29204	3.49555	−0.30919	0.18023	1.93050	1.36576	7.41148	0.74794	−2.13334	−0.08286	0.62907
10.160	0.31522	3.59841	−0.33347	0.17618	1.97862	1.39633	7.45203	0.74318	−2.17813	−0.08017	0.59871
10.266	0.33251	3.70586	−0.36691	0.17218	2.02117	1.42299	7.49832	0.73668	−2.23218	−0.07785	0.57237
10.372	0.34289	3.81855	−0.41349	0.16827	2.05861	1.44588	7.55056	0.72755	−2.29642	−0.07581	0.54956
10.478	0.34472	3.93717	−0.47991	0.16448	2.09129	1.46517	7.60880	0.71443	−2.37197	−0.07400	0.53001
10.584	0.33509	4.06265	−0.57831	0.16083	2.11948	1.48104	7.67295	0.69476	−2.46029	−0.07238	0.51359

(*continued on next page*)

Table 12 (*continued*)

R	$\mu_{63}^{1\Sigma^+-1\Sigma^+}$	$\mu_{64}^{1\Sigma^+-1\Sigma^+}$	$\mu_{65}^{1\Sigma^+-1\Sigma^+}$	$\mu_{71}^{1\Sigma^+-1\Sigma^+}$	$\mu_{72}^{1\Sigma^+-1\Sigma^+}$	$\mu_{73}^{1\Sigma^+-1\Sigma^+}$	$\mu_{74}^{1\Sigma^+-1\Sigma^+}$	$\mu_{75}^{1\Sigma^+-1\Sigma^+}$	$\mu_{76}^{1\Sigma^+-1\Sigma^+}$	$\mu_{81}^{1\Sigma^+-1\Sigma^+}$	$\mu_{82}^{1\Sigma^+-1\Sigma^+}$
10.848	0.20085	4.41755	−1.21925	0.15237	2.17146	1.50690	7.85755	0.56126	−2.75344	−0.06897	0.48585
11.113	−2.17393	3.73638	−6.96781	0.14496	2.19836	1.51508	8.06957	1.85606	−2.55804	−0.06624	0.47770
11.377	−3.08181	−1.40777	−1.45314	0.13866	2.20056	1.50779	8.29125	3.44134	−1.17073	−0.06404	0.49118
11.642	−3.08879	−1.15274	−0.91557	0.13349	2.17680	1.48647	8.48863	4.12245	−1.09421	−0.06220	0.52946
11.906	−3.09787	−1.03144	−0.78098	0.12943	2.12441	1.45203	8.60499	4.95083	−1.12111	−0.06064	0.59599
12.171	−3.11794	−0.94776	−0.76559	0.12639	2.03970	1.40447	8.56205	5.94101	−1.19645	−0.05914	0.69371
12.436	−3.14143	−0.87441	−0.80269	0.12425	1.92002	1.34184	8.28656	7.01448	−1.30359	−0.05744	0.82283
12.700	−3.15862	−0.78294	−0.83935	0.12290	1.76973	1.25563	7.76398	7.99963	−1.39371	−0.05518	0.97783
12.965	−3.16485	−0.62616	−0.78146	0.12229	1.60741	1.12403	7.06679	8.69758	−1.32549	−0.05205	1.14528
13.229	−3.15547	−0.40023	−0.56469	0.12188	1.45014	0.93796	6.30233	8.98378	−0.98213	−0.04798	1.30593
13.494	−3.11823	−0.21020	−0.31722	0.12037	1.28407	0.74772	5.54974	8.85243	−0.57031	−0.04322	1.44178
13.759	−3.05778	−0.10804	−0.16067	0.11752	1.10492	0.59707	4.85781	8.40875	−0.30532	−0.03825	1.54298
14.023	−2.99076	−0.06169	−0.08187	0.11390	0.92899	0.48669	4.24884	7.79420	−0.17247	−0.03360	1.60918
14.288	−2.92845	−0.04033	−0.04336	0.10995	0.76471	0.41500	3.72559	7.12365	−0.11213	−0.02986	1.64710
14.552	−2.87549	−0.02958	−0.02378	0.10349	0.48165	0.61691	3.26412	6.43639	−0.16688	−0.03549	1.70602
14.817	−2.83269	−0.02355	−0.01330	0.01951	−1.62962	3.13616	0.04765	0.11187	−0.79853	−0.10350	0.57626
15.082	−2.79921	−0.01979	−0.00743	0.01789	−1.61638	3.21081	0.01722	0.05239	−0.62012	−0.10017	0.47029
15.346	−2.77367	−0.01722	−0.00403	0.01599	−1.59003	3.27156	0.00875	0.03572	−0.48604	−0.09740	0.39171
15.611	−2.75456	−0.01532	−0.00201	0.01431	−1.55690	3.32108	0.00500	0.02808	−0.38498	−0.09512	0.32885
15.875	−2.74057	−0.01384	−0.00080	0.01286	−1.51954	3.36200	0.00305	0.02369	−0.30834	−0.09332	0.27764
16.140	−2.73057	−0.01263	−0.00008	0.01162	−1.47955	3.39629	0.00192	0.02076	−0.24978	−0.09201	0.23552
16.404	−2.72367	−0.01160	0.00036	0.01056	−1.43804	3.42543	0.00123	0.01861	−0.20474	−0.09121	0.20061
16.934	−2.71639	−0.00995	0.00075	0.00886	−1.35323	3.47226	0.00048	0.01554	−0.14237	−0.09127	0.14700
17.463	−2.71462	−0.00863	0.00083	0.00755	−1.26904	3.50823	0.00013	0.01329	−0.10344	−0.09399	0.10866
17.992	−2.71585	−0.00756	0.00079	0.00652	−1.18754	3.53667	−0.00006	0.01153	−0.07823	−0.10033	0.08042
18.521	−2.71857	−0.00666	0.00071	0.00568	−1.10983	3.55952	−0.00015	0.01010	−0.06125	−0.11231	0.05880
19.050	−2.72191	−0.00590	0.00061	0.00499	−1.03647	3.57810	−0.00019	0.00889	−0.04938	−0.13418	0.04118
19.580	−2.72537	−0.00525	0.00053	0.00442	−0.96768	3.59329	−0.00021	0.00787	−0.04075	−0.17439	0.02514
20.109	−2.72869	−0.00469	0.00045	0.00392	−0.90348	3.60577	−0.00021	0.00699	−0.03427	−0.23944	0.00832
20.638	−2.73170	−0.00421	0.00038	0.00350	−0.84378	3.61601	−0.00021	0.00622	−0.02929	−0.29786	−0.00574
21.167	−2.73428	−0.00383	0.00032	0.00314	−0.78838	3.62442	−0.00018	0.00560	−0.02550	−0.32229	−0.01222
22.225	−2.73859	−0.00316	0.00032	0.00255	−0.68959	3.63707	−0.00021	0.00455	−0.02001	−0.33337	−0.01424
23.284	−2.74157	−0.00257	0.00023	0.00210	−0.60517	3.64567	−0.00015	0.00372	−0.01601	−0.33530	−0.01296
24.342	−2.74355	−0.00213	0.00014	0.00175	−0.53306	3.65146	−0.00014	0.00307	−0.01276	−0.33585	−0.01119
25.401	−2.74472	−0.00179	0.00010	0.00147	−0.47135	3.65529	−0.00013	0.00256	−0.01068	−0.33607	−0.00962
26.459	−2.74533	−0.00154	0.00008	0.00125	−0.41840	3.65768	−0.00013	0.00216	−0.00895	−0.33618	−0.00828
27.517	−2.74546	−0.00129	0.00007	0.00107	−0.37284	3.65906	−0.00010	0.00183	−0.00772	−0.33626	−0.00713
28.576	−2.74544	−0.00110	0.00006	0.00092	−0.33351	3.65982	−0.00009	0.00157	−0.00664	−0.33632	−0.00616
29.634	−2.74526	−0.00095	0.00003	0.00080	−0.29942	3.66011	−0.00008	0.00134	−0.00605	−0.33637	−0.00534
30.692	−2.74496	−0.00082	0.00002	0.00069	−0.26973	3.66010	−0.00007	0.00116	−0.00525	−0.33641	−0.00467
31.751	−2.74457	−0.00071	0.00002	0.00061	−0.24379	3.65989	−0.00006	0.00101	−0.00471	−0.33644	−0.00409
37.042	−2.74245	−0.00038	0.00000	0.00032	−0.15372	3.65759	−0.00003	0.00054	−0.00290	−0.33655	−0.00224
42.334	−2.74064	−0.00022	0.00000	0.00018	−0.10293	3.65524	−0.00002	0.00031	−0.00188	−0.33661	−0.00131

Table 13
Transition dipole moments between the (8-9)$^1\Sigma^+$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Sigma^+-1\Sigma^+}_{83}$	$\mu^{1\Sigma^+-1\Sigma^+}_{84}$	$\mu^{1\Sigma^+-1\Sigma^+}_{85}$	$\mu^{1\Sigma^+-1\Sigma^+}_{86}$	$\mu^{1\Sigma^+-1\Sigma^+}_{87}$	$\mu^{1\Sigma^+-1\Sigma^+}_{91}$	$\mu^{1\Sigma^+-1\Sigma^+}_{92}$	$\mu^{1\Sigma^+-1\Sigma^+}_{93}$	$\mu^{1\Sigma^+-1\Sigma^+}_{94}$	$\mu^{1\Sigma^+-1\Sigma^+}_{95}$	$\mu^{1\Sigma^+-1\Sigma^+}_{96}$
2.752	−0.72624	0.66340	−5.23283	−2.18344	−0.33575	−0.00903	1.16738	−0.09953	0.13921	4.36227	3.65321
2.858	−0.85824	0.70034	−4.88502	−1.99984	−0.54273	−0.01550	1.46462	0.06063	0.15947	4.27976	4.20333
2.963	−0.90755	0.69129	−4.14993	−1.34140	−0.38269	−0.01511	1.90388	0.17841	0.26341	4.76343	4.67871
3.069	−0.87112	0.63891	−3.25520	−0.52346	0.04598	−0.00902	2.22647	0.34107	0.38594	5.29142	4.95248
3.175	−0.79698	0.57877	−2.64059	−0.00937	0.44062	−0.00110	2.34353	0.43977	0.46187	5.55198	5.05171
3.281	−0.72038	0.52624	−2.31657	0.20403	0.72367	0.00596	2.35354	0.47689	0.49671	5.64547	5.12099
3.387	−0.64929	0.47918	−2.14728	0.24931	0.92284	0.01148	2.32174	0.47943	0.50783	5.66281	5.22178
3.493	−0.58563	0.43561	−2.05270	0.20094	1.05811	0.01545	2.27269	0.46309	0.50403	5.62747	5.37116
3.598	−0.53210	0.39767	−2.02635	−0.06300	1.11752	0.01787	2.21673	0.43308	0.48744	5.52790	5.57042
3.704	−0.52127	0.40417	−2.51904	−0.67257	−0.68662	0.01588	2.16779	0.34963	0.42617	5.15194	5.77098
3.810	0.41622	−0.47067	−5.36666	−6.06087	−4.63961	−0.03209	0.49837	−0.39281	−0.26578	−1.30345	0.47955
3.916	0.36884	−0.42391	−5.06523	−6.35709	−4.90185	−0.03403	0.45010	−0.36674	−0.24036	−1.38899	0.20254
4.022	0.33249	−0.37400	−4.74996	−6.62706	−5.13114	−0.03504	0.44937	−0.33420	−0.20149	−1.33060	0.08748
4.128	0.29903	−0.31035	−4.41126	−6.85829	−5.36024	−0.03566	0.45474	−0.30376	−0.15779	−1.24635	0.01605
4.233	0.26748	−0.22405	−4.06899	−7.03404	−5.59110	−0.03603	0.46095	−0.27624	−0.10812	−1.15687	−0.02823
4.339	0.23796	−0.10153	−3.74405	−7.14534	−5.82223	−0.03625	0.46693	−0.25159	−0.04908	−1.06945	−0.05068
4.445	0.21043	0.07939	−3.44960	−7.19098	−6.05069	−0.03633	0.47228	−0.22960	0.02533	−0.98491	−0.05462
4.551	0.18473	0.34798	−3.18200	−7.17575	−6.27181	−0.03631	0.47682	−0.20991	0.12227	−0.90009	−0.04486
4.657	0.16066	0.71226	−2.91607	−7.10652	−6.48313	−0.03619	0.48027	−0.19241	0.24017	−0.80406	−0.02417
4.763	0.13787	1.09590	−2.63578	−6.99112	−6.68115	−0.03596	0.48226	−0.17695	0.35179	−0.69285	0.00425
4.868	0.11578	1.38034	−2.39001	−6.83646	−6.86274	−0.03563	0.48220	−0.16347	0.42109	−0.58475	0.03808
4.974	0.09355	1.54708	−2.23777	−6.64735	−7.02468	−0.03512	0.47945	−0.15206	0.44400	−0.49837	0.07582
5.080	0.07009	1.64740	−2.19034	−6.42540	−7.16497	−0.03444	0.47254	−0.14274	0.43637	−0.43560	0.11507
5.186	0.04378	1.72848	−2.24132	−6.16780	−7.28116	−0.03347	0.46015	−0.13586	0.40894	−0.38983	0.15511
5.292	0.01195	1.82201	−2.38965	−5.86379	−7.36969	−0.03217	0.43978	−0.13201	0.36596	−0.35594	0.19384
5.398	−0.02990	1.95508	−2.63967	−5.49089	−7.42501	−0.03040	0.40786	−0.13211	0.30611	−0.33128	0.22924
5.503	−0.09019	2.16224	−2.97400	−5.01482	−7.43684	−0.02796	0.35901	−0.13915	0.21916	−0.32134	0.25649
5.609	−0.18699	2.50727	−3.28941	−4.42170	−7.37236	−0.00924	0.27744	−1.44068	−4.84259	−3.31002	1.06847
5.715	−0.36439	3.13530	−3.30535	−3.78716	−7.11972	0.00994	−0.27897	−1.45443	−4.71104	−4.06964	0.75298
5.821	−0.72112	4.32689	−2.44092	−3.24302	−6.21200	0.02369	−0.11209	−1.33295	−3.91536	−5.03665	0.81173
5.927	−1.18419	5.68350	−0.33940	−2.77652	−3.94774	0.01729	0.24251	−0.93028	−1.93141	−5.74596	1.33131
6.033	−1.37098	6.16957	1.22152	−2.56281	−2.04643	0.00306	0.39432	−0.54482	−0.27294	−5.64615	1.59026
6.138	−1.39468	6.32795	1.98068	−2.58359	−1.10879	−0.00761	0.32860	−0.31036	0.64740	−5.33423	1.65400
6.244	−1.36468	6.43731	2.41287	−2.67834	−0.62912	−0.01644	0.15427	−0.14409	1.23385	−4.97066	1.69299
6.350	−1.31014	6.53895	2.69876	−2.78368	−0.37483	−0.02384	−0.06681	−0.01521	1.63129	−4.61090	1.73303
6.456	−1.24108	6.63777	2.89699	−2.87666	−0.25548	−0.02932	−0.29429	0.08230	1.88670	−4.31866	1.76572
6.562	−1.16298	6.73323	3.02526	−2.95002	−0.22850	−0.03218	−0.51095	0.15266	2.02820	−4.13224	1.78423
6.668	−1.07989	6.82423	3.08633	−3.00101	−0.26735	−0.03196	−0.71539	0.20173	2.07807	−4.05215	1.78325
6.773	−0.99499	6.91161	3.07952	−3.03170	−0.35055	−0.02840	−0.91085	0.23556	2.04966	−4.06324	1.76020
6.879	−0.91073	6.99582	3.00614	−3.04526	−0.45786	−0.02143	−1.09959	0.25933	1.95345	−4.14933	1.71492
6.985	−0.82851	7.07646	2.86985	−3.04497	−0.57005	−0.01126	−1.28115	0.27773	1.79970	−4.29242	1.64952
7.091	−0.74890	7.15112	2.67897	−3.03314	−0.67048	0.00155	−1.45313	0.29508	1.60218	−4.47571	1.56826
7.197	−0.67177	7.21668	2.44629	−3.01084	−0.74718	0.01614	−1.61161	0.31507	1.37775	−4.68450	1.47668
7.303	−0.59652	7.27051	2.18695	−2.97863	−0.79321	0.03161	−1.75267	0.34064	1.14418	−4.90771	1.38048
7.408	−0.52220	7.31196	1.91633	−2.93676	−0.80797	0.04718	−1.87334	0.37391	0.91674	−5.13842	1.28348
7.514	−0.44811	7.34109	1.64659	−2.88625	−0.79512	0.06226	−1.97182	0.41603	0.70654	−5.37266	1.18839
7.620	−0.37337	7.35971	1.38744	−2.82858	−0.76065	0.07659	−2.04777	0.46755	0.51940	−5.60826	1.09590
7.726	−0.29726	7.36987	1.14431	−2.76541	−0.71097	0.09002	−2.10184	0.52849	0.35707	−5.84225	1.00562
7.832	−0.21928	7.37329	0.92031	−2.69861	−0.65250	0.10243	−2.13564	0.59837	0.21888	−6.06933	0.91761
7.938	−0.13913	7.37138	0.71648	−2.63010	−0.58977	0.11374	−2.15204	0.67643	0.10289	−6.28297	0.83193
8.043	−0.05673	7.36527	0.53295	−2.56146	−0.52642	0.12380	−2.15489	0.76148	0.00640	−6.47629	0.74962
8.149	0.02780	7.35577	0.36920	−2.49404	−0.46479	0.13251	−2.14866	0.85209	−0.07315	−6.64433	0.67214
8.255	0.11412	7.34341	0.22439	−2.42880	−0.40619	0.13982	−2.13792	0.94677	−0.13836	−6.78523	0.60101
8.361	0.20162	7.32867	0.09769	−2.36681	−0.35157	0.14570	−2.12617	1.04403	−0.19091	−6.89978	0.53707
8.467	0.28950	7.31158	−0.01173	−2.30852	−0.30098	0.15024	−2.11620	1.14253	−0.23265	−6.99129	0.48096
8.573	0.37670	7.29191	−0.10440	−2.25423	−0.25421	0.15356	−2.10955	1.24110	−0.26503	−7.06389	0.43262
8.679	0.46184	7.26864	−0.18028	−2.20397	−0.21070	0.15581	−2.10689	1.33874	−0.28926	−7.12192	0.39159
8.784	0.54298	7.23908	−0.23814	−2.15726	−0.16936	0.15713	−2.10819	1.43460	−0.30637	−7.16925	0.35721
8.890	0.61676	7.19564	−0.27390	−2.11219	−0.12832	0.15766	−2.11308	1.52800	−0.31734	−7.20951	0.32871
8.996	0.67562	7.11403	−0.27545	−2.06259	−0.08303	0.15754	−2.12091	1.61840	−0.32304	−7.24533	0.30538
9.102	0.69396	6.88812	−0.20075	−1.98032	−0.02030	0.15686	−2.13099	1.70534	−0.32429	−7.27892	0.28659
9.208	0.54647	5.84990	0.11814	−1.68250	−0.09640	0.15573	−2.14259	1.78849	−0.32195	−7.31227	0.27180
9.314	0.11619	3.02549	0.68433	−0.88842	−0.15836	0.15424	−2.15508	1.86763	−0.31652	−7.34628	0.26046
9.419	−0.09928	1.49317	0.94393	−0.44862	−0.11703	0.15245	−2.16787	1.94259	−0.30876	−7.38234	0.25237
9.525	−0.18024	0.89301	1.07966	−0.26958	−0.08345	0.15041	−2.18046	2.01331	−0.29921	−7.42130	0.24726
9.631	−0.21873	0.59915	1.18396	−0.17700	−0.05879	0.14820	−2.19239	2.07978	−0.28836	−7.46374	0.24499
9.737	−0.24015	0.43049	1.27802	−0.12007	−0.03927	0.14585	−2.20331	2.14201	−0.27665	−7.51053	0.24565
9.843	−0.25334	0.32361	1.36875	−0.08077	−0.02297	0.14339	−2.21290	2.20005	−0.26443	−7.56198	0.24934
9.949	−0.26216	0.25131	1.45902	−0.05120	−0.00892	0.14088	−2.22091	2.25399	−0.25198	−7.61848	0.25638
10.054	−0.26861	0.20010	1.55021	−0.02728	−0.00350	0.13833	−2.22712	2.30388	−0.23955	−7.68043	0.26735
10.160	−0.27389	0.16263	1.64323	−0.00656	−0.01467	0.13577	−2.23141	2.34986	−0.22734	−7.74797	0.28314
10.266	−0.27880	0.13453	1.73856	0.01274	−0.02489	0.13322	−2.23361	2.39202	−0.21548	−7.82131	0.30517
10.372	−0.28393	0.11304	1.83653	0.03220	−0.03433	0.13071	−2.23363	2.43041	−0.20408	−7.90052	0.33584
10.478	−0.28976	0.09635	1.93734	0.05364	−0.04319	0.12825	−2.23134	2.46509	−0.19322	−7.98550	0.37913
10.584	−0.29672	0.08327	2.04105	0.07967	−0.05159	0.12587	−2.22676	2.49616	−0.18292	−8.07581	0.44246

(*continued on next page*)

Table 13 (*continued*)

R	$\mu_{83}^{1\Sigma^+-1\Sigma^+}$	$\mu_{84}^{1\Sigma^+-1\Sigma^+}$	$\mu_{85}^{1\Sigma^+-1\Sigma^+}$	$\mu_{86}^{1\Sigma^+-1\Sigma^+}$	$\mu_{87}^{1\Sigma^+-1\Sigma^+}$	$\mu_{91}^{1\Sigma^+-1\Sigma^+}$	$\mu_{92}^{1\Sigma^+-1\Sigma^+}$	$\mu_{93}^{1\Sigma^+-1\Sigma^+}$	$\mu_{94}^{1\Sigma^+-1\Sigma^+}$	$\mu_{95}^{1\Sigma^+-1\Sigma^+}$	$\mu_{96}^{1\Sigma^+-1\Sigma^+}$
10.848	−0.32169	0.06116	2.30891	0.21407	−0.07160	0.12023	−2.20463	2.55801	−0.15976	−8.30745	0.84532
11.113	−0.36249	0.04836	1.63448	2.04205	−0.09139	0.11529	−2.16649	2.59717	−0.14048	−5.37317	6.78280
11.377	−0.42590	0.04087	0.25355	2.91820	−0.11247	0.11114	−2.11149	2.61255	−0.12449	−0.75408	8.95891
11.642	−0.51991	0.03644	0.14265	3.24575	−0.13646	0.10788	−2.03847	2.60195	−0.11110	−0.39929	9.33976
11.906	−0.65306	0.03387	0.10530	3.55158	−0.16484	0.10548	−1.94588	2.56199	−0.09926	−0.28513	9.69504
12.171	−0.83376	0.03227	0.08805	3.80338	−0.19824	0.10391	−1.83230	2.48874	−0.08800	−0.23487	9.99473
12.436	−1.06703	0.03110	0.07917	3.94678	−0.23374	0.10305	−1.69693	2.37844	−0.07661	−0.21021	10.17540
12.700	−1.34946	0.03022	0.07392	3.92090	−0.25719	0.10264	−1.54095	2.22968	−0.06517	−0.19652	10.16526
12.965	−1.66489	0.02970	0.06969	3.68991	−0.23783	0.10236	−1.36892	2.04587	−0.05445	−0.18601	9.91701
13.229	−1.98570	0.02964	0.06531	3.27457	−0.17076	0.10190	−1.18916	1.83679	−0.04515	−0.17445	9.43506
13.494	−2.28286	0.03034	0.06125	2.75118	−0.12027	0.10107	−1.01225	1.61719	−0.03749	−0.16027	8.77822
13.759	−2.53716	0.03249	0.05981	2.21539	−0.12264	0.09983	−0.84797	1.40250	−0.03127	−0.14394	8.04245
14.023	−2.74286	0.03823	0.06612	1.73605	−0.17441	0.09830	−0.70269	1.20447	−0.02623	−0.12683	7.31324
14.288	−2.90300	0.05691	0.09923	1.34141	−0.32655	0.09668	−0.57885	1.02948	−0.02213	−0.11030	6.64224
14.552	−2.98636	0.34576	0.66835	1.02200	−2.42970	0.09513	−0.47581	0.87913	−0.01881	−0.09527	6.05200
14.817	−0.19089	2.90768	5.87024	−0.02695	−0.40434	0.09383	−0.39122	0.75205	−0.01609	−0.08217	5.54700
15.082	−0.17600	2.59263	5.33903	−0.02517	−0.17248	0.09290	−0.32225	0.64559	−0.01394	−0.07114	5.12296
15.346	−0.14929	2.32667	4.87630	−0.02072	−0.10228	0.09242	−0.26605	0.55646	−0.01222	−0.06210	4.77221
15.611	−0.12508	2.10196	4.47844	−0.01713	−0.06850	0.09251	−0.22012	0.48174	−0.01094	−0.05502	4.48713
15.875	−0.10470	1.91182	4.13918	−0.01441	−0.04885	0.09325	−0.18244	0.41886	−0.01014	−0.04996	4.26115
16.140	−0.08786	1.75082	3.85202	−0.01233	−0.03623	0.09480	−0.15130	0.36562	−0.01007	−0.04763	4.08950
16.404	−0.07402	1.61463	3.61108	−0.01072	−0.02759	0.09750	−0.12537	0.32018	−0.01200	−0.05197	3.96940
16.934	−0.05329	1.40386	3.24947	−0.00843	−0.01684	0.32522	−0.06545	0.01473	−2.04674	−6.35328	0.01605
17.463	−0.03922	1.26121	3.02922	−0.00695	−0.01077	0.32391	−0.05926	0.01446	−2.06069	−6.39591	0.02028
17.992	−0.02962	1.17880	2.94582	−0.00599	−0.00707	0.32169	−0.05393	0.01427	−2.05965	−6.39263	0.01727
18.521	−0.02316	1.16010	3.02295	−0.00543	−0.00470	0.31745	−0.04946	0.01368	−2.03720	−6.32780	0.01413
19.050	−0.01903	1.22574	3.33383	−0.00526	−0.00308	0.30864	−0.04594	0.01254	−1.97498	−6.14877	0.01130
19.580	−0.01690	1.42401	4.03709	−0.00554	−0.00189	0.28766	−0.04338	0.01050	−1.81899	−5.69496	0.00862
20.109	−0.01632	1.78739	5.24511	−0.00616	−0.00091	0.23611	−0.04017	0.00697	−1.44664	−4.59038	0.00575
20.638	−0.01578	2.10906	6.32001	−0.00625	−0.00028	0.15590	−0.03325	0.00303	−0.89556	−2.91880	0.00304
21.167	−0.01465	2.22907	6.74438	−0.00564	0.00006	0.09551	−0.02496	0.00098	−0.50221	−1.69740	0.00121
22.225	−0.01251	2.26781	6.91009	−0.00366	0.00033	0.04269	−0.01327	0.00011	−0.18673	−0.67918	0.00095
23.284	−0.01077	2.26715	6.92657	−0.00257	0.00044	−0.02324	0.00577	−0.00027	0.08688	−0.33356	0.00090
24.342	−0.00933	2.26326	6.92551	−0.00181	0.00048	−0.25463	0.02138	−0.01507	0.00084	−0.00313	6.78846
25.401	−0.00809	2.25962	6.92143	−0.00122	0.00053	−0.25474	0.01809	−0.01359	0.00081	−0.00222	6.78144
26.459	−0.00705	2.25658	6.91724	−0.00083	0.00054	−0.25482	0.01538	−0.01211	0.00076	−0.00159	6.77530
27.517	−0.00616	2.25408	6.91345	−0.00047	0.00055	−0.25489	0.01315	−0.01074	0.00071	−0.00113	6.77019
28.576	−0.00538	2.25205	6.91012	−0.00026	0.00055	−0.25494	0.01129	−0.00950	0.00064	−0.00079	6.76572
29.634	−0.00473	2.25039	6.90723	−0.00020	0.00044	−0.25497	0.00970	−0.00841	0.00060	−0.00048	6.76194
30.692	−0.00416	2.24903	6.90471	−0.00008	0.00042	−0.25502	0.00844	−0.00746	0.00052	−0.00034	6.75848
31.751	−0.00366	2.24789	6.90251	0.00002	0.00039	−0.25505	0.00735	−0.00660	0.00046	−0.00021	6.75558
37.042	−0.00210	2.24424	6.89488	0.00012	0.00022	−0.25515	0.00393	−0.00378	0.00026	−0.00007	6.74597
42.334	−0.00124	2.24240	6.89061	0.00010	0.00017	−0.25519	0.00229	−0.00227	0.00016	0.00012	6.74083

Table 14
Transition dipole moments between the (9-10)$^1\Sigma^+$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Sigma^+-1\Sigma^+}_{97}$	$\mu^{1\Sigma^+-1\Sigma^+}_{98}$	$\mu^{1\Sigma^+-1\Sigma^+}_{101}$	$\mu^{1\Sigma^+-1\Sigma^+}_{102}$	$\mu^{1\Sigma^+-1\Sigma^+}_{103}$	$\mu^{1\Sigma^+-1\Sigma^+}_{104}$	$\mu^{1\Sigma^+-1\Sigma^+}_{105}$	$\mu^{1\Sigma^+-1\Sigma^+}_{106}$	$\mu^{1\Sigma^+-1\Sigma^+}_{107}$	$\mu^{1\Sigma^+-1\Sigma^+}_{108}$	$\mu^{1\Sigma^+-1\Sigma^+}_{109}$
2.752	2.72669	0.58265	−0.02038	−0.08760	−0.34047	0.05040	−2.26682	−1.87544	2.93965	−4.05835	−2.62458
2.858	2.72884	0.62064	0.02313	−0.16520	0.01429	0.15456	−2.12194	−2.29812	4.07961	−5.10085	−4.55245
2.963	2.97298	−0.07645	0.09690	−0.38112	0.39327	0.23933	−1.72842	−3.29952	4.89729	−5.41978	−8.21413
3.069	3.28543	−0.73589	0.14213	−0.46723	0.60968	0.24006	−1.40540	−3.86755	4.83783	−4.11649	−10.66676
3.175	3.55023	−1.31473	0.15886	−0.49459	0.68773	0.21541	−1.27903	−4.10500	4.51080	−2.98422	−11.75880
3.281	3.77933	−1.64753	0.16447	−0.50274	0.71946	0.19505	−1.25583	−4.22127	4.14247	−2.41201	−12.36676
3.387	3.98725	−1.84308	0.16486	−0.50075	0.73287	0.18470	−1.28919	−4.26307	3.76417	−2.16264	−12.80423
3.493	4.18584	−1.95955	0.16212	−0.49151	0.73708	0.18634	−1.35972	−4.24154	3.38704	−2.08093	−13.15743
3.598	4.39090	−2.02313	0.15725	−0.47720	0.73620	0.20065	−1.45889	−4.16289	3.01963	−2.16957	−13.43962
3.704	4.69105	−1.97762	0.15095	−0.45940	0.73220	0.22891	−1.57953	−4.03376	2.66831	−3.61536	−13.38588
3.810	1.73871	−2.03634	0.14368	−0.43950	0.72660	0.27345	−1.71322	−3.86161	2.33950	−14.06017	0.64541
3.916	1.65004	−2.03598	0.13567	−0.41814	0.72045	0.33557	−1.85054	−3.65682	2.03597	−14.21254	1.01935
4.022	1.66872	−2.00939	0.12721	−0.39649	0.71477	0.41998	−1.97971	−3.43142	1.76182	−14.35063	1.02480
4.128	1.70130	−1.97257	0.11851	−0.37468	0.71031	0.53251	−2.08964	−3.19873	1.51774	−14.45964	0.95714
4.233	1.73546	−1.92959	0.10969	−0.35311	0.70805	0.68345	−2.16936	−2.97132	1.30276	−14.53974	0.86526
4.339	1.76799	−1.88307	0.10098	−0.33166	0.70912	0.88727	−2.20835	−2.76321	1.11845	−14.58872	0.76257
4.445	1.79695	−1.83429	0.09246	−0.31019	0.71457	1.16648	−2.18772	−2.57937	0.95822	−14.60649	0.65940
4.551	1.82485	−1.78335	0.08429	−0.28796	0.72588	1.54662	−2.06667	−2.42355	0.81837	−14.59427	0.56085
4.657	1.84994	−1.73003	0.07665	−0.26429	0.74471	2.02384	−1.78306	−2.29691	0.69425	−14.54663	0.46851
4.763	1.87294	−1.67361	0.06967	−0.23800	0.77320	2.51262	−1.32000	−2.19684	0.57916	−14.45832	0.38680
4.868	1.89360	−1.61235	0.06351	−0.20730	0.81393	2.91485	−0.78073	−2.11967	0.46443	−14.31593	0.31756
4.974	1.91043	−1.54436	0.05821	−0.16964	0.86995	3.23852	−0.26076	−2.05939	0.33866	−14.09996	0.26074
5.080	1.92519	−1.46594	0.05371	−0.12167	0.94414	3.53907	0.23870	−2.00684	0.18810	−13.77549	0.22351
5.186	1.93520	−1.37257	0.04958	−0.05943	1.03822	3.85030	0.75411	−1.94604	−0.00807	−13.28621	0.20825
5.292	1.94069	−1.25754	0.04474	0.01965	1.14917	4.17498	1.31854	−1.85203	−0.27255	−12.57126	0.22254
5.398	1.93985	−1.11084	0.03742	0.11285	1.26615	4.48467	1.94331	−1.68996	−0.62782	−11.57777	0.27492
5.503	1.92914	0.90969	0.02571	0.20657	1.36981	4.72847	2.61355	−1.42678	−1.09700	−10.30519	0.37887
5.609	1.72375	8.76965	−0.02444	0.28282	−0.14830	0.12103	0.32628	−0.27748	−1.91047	−0.69126	0.51327
5.715	−2.69948	6.72535	−0.01946	0.16601	−0.17318	−0.03602	−0.40291	0.27894	−1.86291	−0.38981	0.73213
5.821	−4.44677	2.88798	−0.01225	−0.01335	−0.21437	−0.25102	−0.60427	0.26595	−1.75994	−0.15522	1.09837
5.927	−6.53787	−3.05262	−0.00236	−0.27157	−0.27636	−0.52289	−0.99898	0.24403	−1.52809	−0.31855	1.68802
6.033	−7.30179	−5.58711	0.00898	−0.58333	−0.35256	−0.78536	−1.59905	0.22008	−1.06296	−0.75325	2.28412
6.138	−7.34996	−5.96187	0.01911	−0.87778	−0.42232	−0.92715	−2.31977	0.18812	−0.35151	−1.24414	2.59623
6.244	−7.12001	−5.83524	0.02641	−1.10211	−0.46792	−0.90058	−3.03872	0.13864	0.45175	−1.72287	2.55394
6.350	−6.72771	−5.62189	0.03160	−1.24963	−0.48528	−0.75218	−3.66144	0.08031	1.13262	−2.07979	2.34474
6.456	−6.26533	−5.45126	0.03588	−1.33706	−0.48115	−0.55201	−4.14827	0.03389	1.57314	−2.24197	2.17260
6.562	−5.79375	−5.35961	0.04032	−1.38551	−0.46400	−0.34770	−4.51552	0.01230	1.77720	−2.20368	2.12452
6.668	−5.34029	−5.33093	0.04553	−1.40894	−0.43872	−0.15856	−4.79297	−0.01854	1.80520	−1.99160	2.19103
6.773	−4.91041	−5.33251	0.05172	−1.41586	−0.40786	−0.00865	−5.00184	−0.05132	1.72213	−1.63881	2.32145
6.879	−4.50305	−5.32737	0.05875	−1.41155	−0.37210	0.15337	−5.15153	−0.10785	1.57939	−1.17629	2.46783
6.985	−4.11846	−5.28622	0.06658	−1.40119	−0.33286	0.27279	−5.24883	−0.18274	1.41189	−0.64160	2.57741
7.091	−3.75702	−5.18550	0.07489	−1.38986	−0.29083	0.36712	−5.29587	−0.27094	1.24191	−0.06818	2.61840
7.197	−3.42228	−5.01551	0.08333	−1.38271	−0.24689	0.43739	−5.29467	−0.36713	1.08148	0.51210	2.57153
7.303	−3.11777	−4.77944	0.09154	−1.38441	−0.20197	0.48663	−5.24633	−0.46689	0.93553	1.07373	2.43085
7.408	−2.84626	−4.48991	0.09912	−1.39868	−0.15723	0.51959	−5.15108	−0.56842	0.80556	1.59819	2.20058
7.514	−2.60915	−4.16458	0.10575	−1.42781	−0.11378	0.54027	−5.00939	−0.66711	0.68839	2.07666	1.89303
7.620	−2.40491	−3.81745	0.11116	−1.47282	−0.07310	0.55415	−4.82139	−0.76194	0.58288	2.50637	1.52487
7.726	−2.23028	−3.46077	0.11520	−1.53246	−0.03665	0.56596	−4.59020	−0.85162	0.48670	2.88822	1.11306
7.832	−2.08084	−3.10444	0.11788	−1.60358	−0.00572	0.57932	−4.32160	−0.93481	0.39852	3.22539	0.68128
7.938	−1.95150	−2.75658	0.11936	−1.68131	0.01882	0.59658	−4.02461	−1.01077	0.31924	3.52167	0.25440
8.043	−1.83756	−2.42507	0.11998	−1.75945	0.03678	0.61884	−3.71210	−1.07877	0.24995	3.78256	−0.14413
8.149	−1.73496	−2.11706	0.12015	−1.83177	0.04863	0.64601	−3.39769	−1.13877	0.19255	4.01464	−0.49528
8.255	−1.64029	−1.83795	0.12034	−1.89289	0.05544	0.67687	−3.09337	−1.19127	0.14922	4.22613	−0.78760
8.361	−1.55147	−1.59154	0.12096	−1.93869	0.05841	0.71064	−2.80833	−1.23722	0.12226	4.42451	−1.01766
8.467	−1.46641	−1.37867	0.12233	−1.96644	0.05879	0.74557	−2.54715	−1.27750	0.11451	4.61811	−1.18874
8.573	−1.38352	−1.19862	0.12468	−1.97456	0.05763	0.78011	−2.31094	−1.31301	0.13031	4.81299	−1.30695
8.679	−1.30118	−1.04983	0.12810	−1.96218	0.05569	0.81306	−2.09837	−1.34407	0.17703	5.01325	−1.38020
8.784	−1.21744	−0.93101	0.13265	−1.92904	0.05351	0.84312	−1.90686	−1.37054	0.26835	5.21954	−1.41582
8.890	−1.12866	−0.84289	0.13826	−1.87555	0.05145	0.86907	−1.73351	−1.39175	0.43344	5.42686	−1.42116
8.996	−1.02685	−0.79177	0.14482	−1.80293	0.04961	0.88992	−1.57547	−1.40662	0.74399	5.61741	−1.40146
9.102	−0.88470	−0.80143	0.15211	−1.71342	0.04796	0.90483	−1.43064	−1.41382	1.42089	5.71444	−1.36150
9.208	−0.57794	−0.93322	0.15992	−1.61034	0.04639	0.91317	−1.29761	−1.41241	3.20291	5.19591	−1.30592
9.314	−0.06970	−1.00418	0.16800	−1.49779	0.04475	0.91482	−1.17554	−1.40189	5.50558	3.07697	−1.23964
9.419	0.12832	−0.90995	0.17609	−1.38023	0.04285	0.91008	−1.06432	−1.38200	6.23729	1.80710	−1.16585
9.525	0.17981	−0.81404	0.18401	−1.26192	0.04060	0.89941	−0.96384	−1.35353	6.53848	1.27443	−1.08853
9.631	0.19176	−0.72490	0.19163	−1.14645	0.03799	0.88352	−0.87389	−1.31760	6.73717	0.99118	−1.01079
9.737	0.19112	−0.63880	0.19889	−1.03638	0.03499	0.86316	−0.79421	−1.27563	6.89181	0.81187	−0.93452
9.843	0.18645	−0.55348	0.20575	−0.93336	0.03169	0.83897	−0.72418	−1.22907	7.01940	0.68513	−0.86144
9.949	0.18099	−0.46760	0.21221	−0.83822	0.02818	0.81141	−0.66302	−1.17933	7.12746	0.58895	−0.79258
10.054	0.17603	−0.38031	0.21829	−0.75110	0.02456	0.78092	−0.61011	−1.12742	7.22116	0.51257	−0.72843
10.160	0.17222	−0.29074	0.22402	−0.67177	0.02087	0.74772	−0.56456	−1.07459	7.30333	0.45001	−0.66866
10.266	0.16974	−0.19839	0.22942	−0.59977	0.01720	0.71179	−0.52575	−1.02167	7.37666	0.39762	−0.61335
10.372	0.16870	−0.10266	0.23453	−0.53459	0.01367	0.67308	−0.49310	−0.96913	7.44292	0.35277	−0.56257
10.478	0.16909	−0.00316	0.23936	−0.47556	0.01027	0.63150	−0.46636	−0.91756	7.50365	0.31409	−0.51557
10.584	0.17091	0.10096	0.24396	−0.42214	0.00705	0.58676	−0.44549	−0.86730	7.55993	0.28010	−0.47264

(*continued on next page*)

Table 14 (*continued*)

R	$\mu^{1\Sigma^+-1\Sigma^+}_{97}$	$\mu^{1\Sigma^+-1\Sigma^+}_{98}$	$\mu^{1\Sigma^+-1\Sigma^+}_{101}$	$\mu^{1\Sigma^+-1\Sigma^+}_{102}$	$\mu^{1\Sigma^+-1\Sigma^+}_{103}$	$\mu^{1\Sigma^+-1\Sigma^+}_{104}$	$\mu^{1\Sigma^+-1\Sigma^+}_{105}$	$\mu^{1\Sigma^+-1\Sigma^+}_{106}$	$\mu^{1\Sigma^+-1\Sigma^+}_{107}$	$\mu^{1\Sigma^+-1\Sigma^+}_{108}$	$\mu^{1\Sigma^+-1\Sigma^+}_{109}$
10.848	0.18130	0.38592	0.25456	−0.30955	0.00032	0.45926	−0.42847	−0.74401	7.68623	0.21119	−0.37989
11.113	0.20011	0.71483	0.26395	−0.22062	−0.00496	0.30596	−0.75294	−0.18443	7.79774	0.15859	−0.30392
11.377	0.22794	1.10105	0.27227	−0.14986	−0.00883	0.12188	−0.69019	0.25370	7.89669	0.11658	−0.24161
11.642	0.26634	1.55985	0.27971	−0.09367	−0.01123	−0.09626	−0.69866	0.28366	7.98314	0.08223	−0.19016
11.906	0.31722	2.10555	0.28633	−0.04871	−0.01257	−0.34556	−0.79646	0.30795	8.05246	0.05360	−0.14712
12.171	0.38188	2.74517	0.29222	−0.01308	−0.01282	−0.61484	−1.00555	0.34165	8.09664	0.02947	−0.11141
12.436	0.45430	3.46418	0.29742	0.01491	−0.01226	−0.88059	−1.34717	0.38371	8.10470	0.00973	−0.08155
12.700	0.50256	4.21078	0.30200	0.03677	−0.01108	−1.11515	−1.82198	0.41196	8.06498	−0.00526	−0.05687
12.965	0.44708	4.88941	0.30602	0.05335	−0.00940	−1.30209	−2.39618	0.36515	7.97261	−0.01474	−0.03688
13.229	0.25157	5.38792	0.30950	0.06579	−0.00748	−1.44286	−3.01233	0.20680	7.82805	−0.01815	−0.02108
13.494	0.05972	5.63204	0.31251	0.07475	−0.00537	−1.54901	−3.61063	0.04120	7.64127	−0.01530	−0.00900
13.759	−0.02870	5.62135	0.31508	0.08088	−0.00318	−1.63219	−4.14872	−0.04870	7.43685	−0.00585	−0.00006
14.023	−0.04287	5.41477	0.31727	0.08471	−0.00099	−1.70031	−4.60709	−0.08163	7.24143	0.01323	0.00646
14.288	−0.01070	5.09082	0.31911	0.08669	0.00114	−1.75805	−4.98454	−0.08844	7.07258	0.06091	0.01123
14.552	0.42025	4.69718	0.32064	0.08724	0.00313	−1.80815	−5.28976	−0.08516	6.90587	0.68926	0.01485
14.817	4.33323	0.13544	0.32189	0.08662	0.00499	−1.85196	−5.53477	−0.07852	0.14944	6.84503	0.01790
15.082	3.97469	0.07996	0.32291	0.08514	0.00667	−1.89036	−5.73120	−0.07119	0.07803	6.79177	0.02084
15.346	3.64867	0.05860	0.32370	0.08301	0.00817	−1.92415	−5.88880	−0.06423	0.05463	6.77542	0.02412
15.611	3.36118	0.04651	0.32428	0.08042	0.00951	−1.95366	−6.01555	−0.05809	0.04234	6.79547	0.02850
15.875	3.11308	0.03939	0.32468	0.07750	0.01058	−1.97924	−6.11749	−0.05305	0.03475	6.85136	0.03535
16.140	2.90341	0.03656	0.32488	0.07438	0.01139	−2.00116	−6.19921	−0.04967	0.03014	6.94341	0.04850
16.404	2.73067	0.04193	0.32484	0.07108	0.01178	−2.01962	−6.26413	0.05041	0.02927	7.07315	0.08511
16.934	−0.00536	7.45977	0.10312	0.08411	0.24679	−0.00328	0.00230	3.88446	2.49189	0.01397	0.09389
17.463	−0.00802	8.05867	0.11820	0.05308	0.18918	−0.00117	0.01496	4.03182	2.39758	0.00153	0.02454
17.992	−0.00637	8.96410	0.14241	0.02645	0.13957	−0.00149	0.01573	4.47769	2.46547	0.00262	0.01250
18.521	−0.00484	10.35133	0.17815	0.00116	0.09149	−0.00134	0.01595	5.24789	2.69701	0.00255	0.00772
19.050	−0.00368	12.52323	0.21504	−0.02040	0.04626	−0.00101	0.01554	6.06204	2.96709	0.00229	0.00520
19.580	−0.00287	15.74867	0.23730	−0.03235	0.01459	−0.00060	0.01402	6.53073	3.11575	0.00211	0.00369
20.109	−0.00227	18.37216	0.24690	−0.03616	0.00237	−0.00021	0.01204	6.71227	3.16679	0.00223	0.00252
20.638	−0.00173	15.58828	0.25088	−0.03601	−0.01063	−0.00009	0.01011	6.77515	3.18196	0.00230	0.00158
21.167	−0.00107	10.65366	0.25268	−0.03434	−0.01458	−0.00035	0.00845	6.79618	3.18654	0.00168	−0.00107
22.225	−0.00100	5.23124	0.25403	−0.02990	−0.01690	−0.00069	0.00600	6.80240	3.18545	0.00196	−0.00246
23.284	−0.00081	3.05074	0.25443	−0.02535	−0.01641	−0.00085	0.00432	6.79636	3.18346	0.00134	−0.00292
24.342	3.18098	0.00119	−0.01416	−0.00036	−0.00044	−0.04687	0.18477	0.00040	0.00044	1.99278	−0.00209
25.401	3.17852	0.00094	−0.00920	0.00450	−0.00054	−0.02795	0.11021	0.00011	0.00024	1.41701	−0.00042
26.459	3.17636	0.00066	−0.00622	0.00972	−0.00048	−0.01784	0.06908	0.00005	0.00016	1.09741	−0.00020
27.517	3.17453	0.00053	−0.00437	0.01815	−0.00014	−0.01209	0.04505	0.00003	0.00013	0.95089	−0.00012
28.576	3.17307	0.00044	−0.00314	0.04097	−0.00196	−0.00853	0.03000	−0.00005	−0.00015	1.06083	0.00010
29.634	3.17182	0.00083	−0.00174	0.50392	−0.10133	−0.00504	0.01154	−0.00089	−0.00120	5.60665	0.00159
30.692	3.17070	0.00031	−0.00015	0.79337	−0.17368	−0.00095	0.00537	−0.00124	−0.00158	8.24307	0.00273
31.751	3.16967	0.00026	−0.00009	0.77161	−0.15895	−0.00072	0.00539	−0.00098	−0.00132	8.24760	0.00233
37.042	3.16627	0.00014	−0.00008	0.69017	−0.10131	−0.00013	0.00357	−0.00032	−0.00059	8.24480	0.00111
42.334	3.16446	0.00009	−0.00005	0.64552	−0.06750	−0.00010	0.00221	−0.00012	−0.00031	8.24264	0.00051

Table 15
Transition dipole moments between the (1-6)$^3\Sigma^+$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Sigma^+,3\Sigma^+}_{21}$	$\mu^{3\Sigma^+,3\Sigma^+}_{31}$	$\mu^{3\Sigma^+,3\Sigma^+}_{32}$	$\mu^{3\Sigma^+,3\Sigma^+}_{41}$	$\mu^{3\Sigma^+,3\Sigma^+}_{42}$	$\mu^{3\Sigma^+,3\Sigma^+}_{43}$	$\mu^{3\Sigma^+,3\Sigma^+}_{51}$	$\mu^{3\Sigma^+,3\Sigma^+}_{52}$	$\mu^{3\Sigma^+,3\Sigma^+}_{53}$	$\mu^{3\Sigma^+,3\Sigma^+}_{54}$	$\mu^{3\Sigma^+,3\Sigma^+}_{61}$	$\mu^{3\Sigma^+,3\Sigma^+}_{62}$
2.540	−4.12873	0.49264	−0.56706	−0.24226	4.19049	−3.14932	−0.21303	−0.51800	3.16107	0.76123	0.08018	−0.18540
2.646	−4.16596	0.55384	−0.63276	−0.25758	4.44638	−2.99840	−0.22433	−0.37121	3.23577	0.74438	−0.03203	−0.21279
2.752	−4.22830	0.55785	−0.71367	−0.26670	4.73928	−2.76344	−0.23695	−0.24409	3.25263	0.64389	−0.15683	−0.20323
2.858	−4.31502	0.47436	−0.81031	−0.27004	5.05428	−2.39761	−0.25191	−0.17647	3.23703	0.43256	−0.29892	−0.11884
2.963	−4.41689	0.27817	−0.91467	−0.26835	5.36244	−1.87025	−0.26985	−0.19562	3.20619	0.08564	−0.43575	0.05932
3.069	−4.51336	−0.02530	−1.00491	−0.26268	5.61438	−1.19813	−0.29054	−0.30326	3.16284	−0.41246	−0.50541	0.24425
3.175	−4.58411	−0.38044	−1.05690	−0.25417	5.76336	−0.46977	−0.31165	−0.46443	3.09853	−1.05331	−0.50415	0.34119
3.281	−4.62761	−0.70917	−1.06773	−0.24401	5.80541	0.19714	−0.32869	−0.62717	3.00911	−1.78705	−0.46687	0.35086
3.387	−4.65815	−0.96366	−1.05585	−0.23314	5.77755	0.73214	−0.33672	−0.75810	2.90557	−2.52664	−0.41694	0.30732
3.493	−4.68831	−1.13763	−1.04030	−0.22232	5.72030	1.12797	−0.33354	−0.85198	2.80920	−3.18358	−0.36747	0.24162
3.598	−4.72269	−1.24500	−1.03122	−0.21209	5.65829	1.40800	−0.32048	−0.91885	2.74000	−3.70486	−0.32505	0.17159
3.704	−4.76089	−1.30279	−1.03197	−0.20279	5.60202	1.60008	−0.30071	−0.97209	2.70899	−4.07563	−0.29165	0.10278
3.810	−4.80077	−1.32510	−1.04291	−0.19466	5.55401	1.72739	−0.27720	−1.02377	2.71878	−4.29933	−0.26672	0.03390
3.916	−4.84022	−1.32237	−1.06351	−0.18788	5.51312	1.80737	−0.25191	−1.08441	2.76700	−4.37966	−0.24907	−0.03871
4.022	−4.87753	−1.30208	−1.09321	−0.18255	5.47641	1.85266	−0.22578	−1.16525	2.84848	−4.31188	−0.23732	−0.11839
4.128	−4.91154	−1.26954	−1.13180	−0.17880	5.44009	1.87248	−0.19886	−1.28016	2.95434	−4.07876	−0.23030	−0.20624
4.233	−4.94152	−1.22859	−1.17942	−0.17678	5.39974	1.87370	−0.17073	−1.44812	3.06719	−3.65115	−0.22685	−0.29875
4.339	−4.96711	−1.18198	−1.23663	−0.17668	5.35010	1.86151	−0.14091	−1.69377	3.15212	−3.00109	−0.22541	−0.38418
4.445	−4.98814	−1.13168	−1.30446	−0.17877	5.28468	1.83983	−0.11017	−2.04076	3.14972	−2.14462	−0.22357	−0.44159
4.551	−5.00465	−1.07911	−1.38438	−0.18348	5.19515	1.81171	−0.08185	−2.49227	2.99602	−1.20214	−0.21849	−0.45171
4.657	−5.01677	−1.02520	−1.47842	−0.19138	5.07015	1.77911	−0.06055	−3.01390	2.67990	−0.37333	−0.20882	−0.41689
4.763	−5.02474	−0.97046	−1.58918	−0.20337	4.89378	1.74259	−0.04793	−3.55068	2.26614	0.21635	−0.19549	−0.35963
4.868	−5.02882	−0.91488	−1.71987	−0.22076	4.64352	1.70014	−0.04158	−4.06900	1.83619	0.58534	−0.18025	−0.30073
4.974	−5.02932	−0.85780	−1.87394	−0.24557	4.28794	1.64448	−0.03770	−4.56893	1.43156	0.81328	−0.16420	−0.24907
5.080	−5.02656	−0.79730	−2.05352	−0.28076	3.78602	1.55716	−0.03284	−5.06044	1.05350	0.96015	−0.14790	−0.20509
5.186	−5.02088	−0.72912	−2.25345	−0.33050	3.09159	1.39758	−0.02440	−5.53662	0.68675	1.04646	−0.13164	−0.16587
5.292	−5.01262	−0.64468	−2.44209	−0.39878	2.16837	1.08885	−0.01059	−5.96334	0.32054	1.05896	−0.11568	−0.12776
5.398	−5.00209	−0.53233	−2.52023	−0.48125	1.03049	0.54254	0.00897	−6.29287	−0.02925	0.96860	−0.10027	−0.08753
5.503	−4.98961	−0.39590	−2.34072	−0.55139	−0.17164	−0.16757	0.03327	−6.49392	−0.29772	0.77286	−0.08575	−0.04289
5.609	−4.97549	−0.26971	−1.91796	−0.58158	−1.20793	−0.75046	0.06075	−6.56545	−0.42365	0.53709	−0.07238	0.00742
5.715	−4.96000	−0.17722	−1.43200	−0.57739	−2.02713	−1.08885	0.09016	−6.52339	−0.42939	0.32856	−0.06031	0.06386
5.821	−4.94342	−0.11433	−0.99783	−0.55540	−2.71136	−1.26238	0.12050	−6.38400	−0.36786	0.16179	−0.04967	0.12610
5.927	−4.92597	−0.07059	−0.64200	−0.52533	−3.32558	−1.35100	0.15060	−6.15946	−0.27387	0.02688	−0.04036	0.19362
6.033	−4.90788	−0.03850	−0.35797	−0.49164	−3.89037	−1.39673	0.17879	−5.86327	−0.16633	−0.08609	−0.03234	0.26564
6.138	−4.88937	−0.01355	−0.13257	−0.45691	−4.39869	−1.41943	0.20313	−5.51632	−0.05695	−0.18224	−0.02546	0.34139
6.244	−4.87061	0.00689	0.04648	−0.42311	−4.83564	−1.42959	0.22210	−5.14690	0.04584	−0.26310	−0.01959	0.42016
6.350	−4.85179	0.02439	0.18900	−0.39183	−5.19234	−1.43405	0.23505	−4.78409	0.13663	−0.32916	−0.01456	0.50137
6.456	−4.83302	0.03997	0.30254	−0.36402	−5.47040	−1.43765	0.24228	−4.44992	0.21318	−0.38125	−0.01017	0.58478
6.562	−4.81445	0.05424	0.39288	−0.34002	−5.67894	−1.44377	0.24468	−4.15666	0.27560	−0.42065	−0.00624	0.67035
6.668	−4.79617	0.06765	0.46440	−0.31967	−5.83004	−1.45436	0.24331	−3.90796	0.32530	−0.44871	−0.00252	0.75846
6.773	−4.77828	0.08046	0.52053	−0.30259	−5.93525	−1.47036	0.23913	−3.70211	0.36407	−0.46657	0.00124	0.84998
6.879	−4.76086	0.09287	0.56389	−0.28832	−6.00435	−1.49198	0.23292	−3.53475	0.39351	−0.47505	0.00537	0.94627
6.985	−4.74397	0.10505	0.59668	−0.27634	−6.04482	−1.51911	0.22525	−3.40046	0.41481	−0.47466	0.01024	1.04916
7.091	−4.72764	0.11708	0.62052	−0.26627	−6.06256	−1.55131	0.21653	−3.29398	0.42870	−0.46570	0.01621	1.16026
7.197	−4.71190	0.12906	0.63681	−0.25770	−6.06194	−1.58810	0.20705	−3.21029	0.43554	−0.44873	0.02359	1.28032
7.303	−4.69677	0.14104	0.64670	−0.25035	−6.04632	−1.62889	0.19702	−3.14482	0.43533	−0.42402	0.03251	1.40787
7.408	−4.68227	0.15305	0.65124	−0.24394	−6.01812	−1.67310	0.18658	−3.09338	0.42789	−0.39193	0.04272	1.53877
7.514	−4.66840	0.16514	0.65111	−0.23827	−5.97954	−1.72009	0.17582	−3.05238	0.41284	−0.35305	0.05356	1.66718
7.620	−4.65514	0.17734	0.64708	−0.23315	−5.93221	−1.76919	0.16485	−3.01856	0.38986	−0.30797	0.06421	1.78806
7.726	−4.64249	0.18966	0.63974	−0.22844	−5.87752	−1.81977	0.15375	−2.98913	0.35872	−0.25740	0.07396	1.89916
7.832	−4.63043	0.20210	0.62961	−0.22402	−5.81677	−1.87119	0.14261	−2.96176	0.31942	−0.20209	0.08237	2.00074
7.938	−4.61894	0.21469	0.61719	−0.21978	−5.75095	−1.92280	0.13151	−2.93460	0.27210	−0.14296	0.08926	2.09428
8.043	−4.60800	0.22744	0.60288	−0.21565	−5.68112	−1.97400	0.12053	−2.90628	0.21740	−0.08085	0.09467	2.18120
8.149	−4.59758	0.24034	0.58702	−0.21156	−5.60816	−2.02421	0.10977	−2.87597	0.15615	−0.01677	0.09868	2.26236
8.255	−4.58766	0.25340	0.56997	−0.20745	−5.53289	−2.07288	0.09930	−2.84331	0.08943	0.04806	0.10142	2.33805
8.361	−4.57819	0.26662	0.55195	−0.20330	−5.45615	−2.11955	0.08920	−2.80830	0.01865	0.11309	0.10304	2.40807
8.467	−4.56917	0.28000	0.53324	−0.19907	−5.37858	−2.16382	0.07954	−2.77132	−0.05481	0.17713	0.10365	2.47201
8.573	−4.56056	0.29354	0.51406	−0.19475	−5.30084	−2.20532	0.07038	−2.73295	−0.12958	0.23931	0.10340	2.52931
8.679	−4.55232	0.30726	0.49460	−0.19032	−5.22346	−2.24377	0.06176	−2.69397	−0.20435	0.29886	0.10240	2.57949
8.784	−4.54445	0.32115	0.47503	−0.18579	−5.14692	−2.27897	0.05371	−2.65516	−0.27799	0.35513	0.10076	2.62220
8.890	−4.53690	0.33520	0.45547	−0.18116	−5.07164	−2.31074	0.04624	−2.61732	−0.34960	0.40765	0.09862	2.65726
8.996	−4.52965	0.34944	0.43608	−0.17645	−4.99797	−2.33901	0.03936	−2.58116	−0.41850	0.45603	0.09607	2.68461
9.102	−4.52268	0.36385	0.41696	−0.17165	−4.92618	−2.36375	0.03305	−2.54725	−0.48422	0.50002	0.09320	2.70443
9.208	−4.51596	0.37845	0.39818	−0.16680	−4.85649	−2.38496	0.02729	−2.51606	−0.54649	0.53949	0.09009	2.71703
9.314	−4.50948	0.39322	0.37984	−0.16190	−4.78906	−2.40270	0.02206	−2.48791	−0.60522	0.57440	0.08680	2.72286
9.419	−4.50321	0.40819	0.36198	−0.15697	−4.72399	−2.41708	0.01734	−2.46301	−0.66040	0.60478	0.08341	2.72244
9.525	−4.49713	0.42335	0.34466	−0.15204	−4.66137	−2.42819	0.01308	−2.44146	−0.71214	0.63072	0.07996	2.71634
9.631	−4.49122	0.43870	0.32791	−0.14711	−4.60124	−2.43620	0.00926	−2.42324	−0.76060	0.65232	0.07649	2.70515
9.737	−4.48546	0.45424	0.31177	−0.14221	−4.54357	−2.44126	0.00584	−2.40830	−0.80594	0.66985	0.07304	2.68947
9.843	−4.47984	0.46999	0.29624	−0.13735	−4.48837	−2.44353	0.00279	−2.39650	−0.84838	0.68344	0.06964	2.66987
9.949	−4.47433	0.48593	0.28135	−0.13254	−4.43561	−2.44321	0.00009	−2.38767	−0.88810	0.69332	0.06630	2.64690
10.054	−4.46893	0.50208	0.26708	−0.12781	−4.38521	−2.44047	−0.00230	−2.38161	−0.92528	0.69975	0.06304	2.62108
10.160	−4.46364	0.51844	0.25346	−0.12317	−4.33718	−2.43550	−0.00439	−2.37814	−0.96011	0.70286	0.05989	2.59286
10.266	−4.45840	0.53500	0.24045	−0.11861	−4.29140	−2.42848	−0.00623	−2.37695	−0.99268	0.70300	0.05684	2.56266
10.372	−4.45323	0.55178	0.22806	−0.11415	−4.24782	−2.41960	−0.00782	−2.37785	−1.02317	0.70036	0.05389	2.53087

(*continued on next page*)

Table 15 (*continued*)

R	$\mu_{21}^{^3\Sigma^+,^3\Sigma^+}$	$\mu_{31}^{^3\Sigma^+,^3\Sigma^+}$	$\mu_{32}^{^3\Sigma^+,^3\Sigma^+}$	$\mu_{41}^{^3\Sigma^+,^3\Sigma^+}$	$\mu_{42}^{^3\Sigma^+,^3\Sigma^+}$	$\mu_{43}^{^3\Sigma^+,^3\Sigma^+}$	$\mu_{51}^{^3\Sigma^+,^3\Sigma^+}$	$\mu_{52}^{^3\Sigma^+,^3\Sigma^+}$	$\mu_{53}^{^3\Sigma^+,^3\Sigma^+}$	$\mu_{54}^{^3\Sigma^+,^3\Sigma^+}$	$\mu_{61}^{^3\Sigma^+,^3\Sigma^+}$	$\mu_{62}^{^3\Sigma^+,^3\Sigma^+}$
10.478	−4.44811	0.56877	0.21627	−0.10980	−4.20638	−2.40901	−0.00919	−2.38060	−1.05165	0.69524	0.05106	2.49781
10.584	−4.44303	0.58598	0.20505	−0.10557	−4.16700	−2.39690	−0.01036	−2.38501	−1.07824	0.68782	0.04834	2.46379
10.848	−4.43043	0.62993	0.17942	−0.09553	−4.07715	−2.36097	−0.01249	−2.40187	−1.13696	0.66090	0.04204	2.37607
11.113	−4.41784	0.67522	0.15695	−0.08630	−3.99880	−2.31870	−0.01372	−2.42481	−1.18537	0.62481	0.03643	2.28690
11.377	−4.40514	0.72182	0.13732	−0.07790	−3.93098	−2.27193	−0.01424	−2.45150	−1.22426	0.58273	0.03148	2.19846
11.642	−4.39221	0.76970	0.12018	−0.07030	−3.87277	−2.22219	−0.01423	−2.48018	−1.25436	0.53740	0.02713	2.11214
11.906	−4.37895	0.81877	0.10522	−0.06345	−3.82331	−2.17062	−0.01383	−2.50956	−1.27639	0.49103	0.02334	2.02886
12.171	−4.36527	0.86895	0.09217	−0.05731	−3.78177	−2.11803	−0.01317	−2.53875	−1.29102	0.44527	0.02004	1.94913
12.436	−4.35112	0.92014	0.08078	−0.05183	−3.74733	−2.06500	−0.01234	−2.56717	−1.29898	0.40133	0.01719	1.87321
12.700	−4.33643	0.97221	0.07084	−0.04694	−3.71925	−2.01195	−0.01142	−2.59448	−1.30096	0.36001	0.01473	1.80113
12.965	−4.32116	1.02503	0.06216	−0.04258	−3.69674	−1.95914	−0.01046	−2.62050	−1.29764	0.32176	0.01262	1.73281
13.229	−4.30530	1.07845	0.05457	−0.03869	−3.67915	−1.90672	−0.00950	−2.64514	−1.28968	0.28684	0.01081	1.66808
13.494	−4.28882	1.13231	0.04794	−0.03522	−3.66583	−1.85481	−0.00858	−2.66839	−1.27767	0.25525	0.00927	1.60667
13.759	−4.27173	1.18645	0.04213	−0.03213	−3.65619	−1.80348	−0.00770	−2.69026	−1.26218	0.22692	0.00795	1.54835
14.023	−4.25403	1.24070	0.03705	−0.02936	−3.64967	−1.75275	−0.00689	−2.71079	−1.24372	0.20170	0.00683	1.49285
14.288	−4.23575	1.29489	0.03260	−0.02689	−3.64581	−1.70267	−0.00614	−2.73005	−1.22276	0.17932	0.00587	1.43991
14.552	−4.21692	1.34886	0.02869	−0.02469	−3.64415	−1.65325	−0.00546	−2.74810	−1.19971	0.15957	0.00506	1.38931
14.817	−4.19758	1.40245	0.02530	−0.02271	−3.64430	−1.60448	−0.00485	−2.76500	−1.17493	0.14219	0.00437	1.34083
15.082	−4.17777	1.45551	0.02228	−0.02094	−3.64593	−1.55649	−0.00430	−2.78082	−1.14883	0.12690	0.00378	1.29429
15.346	−4.15755	1.50790	0.01962	−0.01934	−3.64872	−1.50925	−0.00381	−2.79562	−1.12167	0.11347	0.00327	1.24952
15.611	−4.13698	1.55949	0.01728	−0.01791	−3.65241	−1.46281	−0.00338	−2.80945	−1.09372	0.10170	0.00284	1.20641
15.875	−4.11613	1.61016	0.01522	−0.01661	−3.65679	−1.41722	−0.00300	−2.82236	−1.06523	0.09137	0.00247	1.16485
16.140	−4.09505	1.65980	0.01340	−0.01544	−3.66165	−1.37252	−0.00266	−2.83441	−1.03640	0.08229	0.00215	1.12473
16.404	−4.07381	1.70831	0.01179	−0.01437	−3.66684	−1.32874	−0.00236	−2.84563	−1.00743	0.07430	0.00188	1.08599
16.934	−4.03111	1.80168	0.00911	−0.01252	−3.67770	−1.24414	−0.00187	−2.86583	−0.94966	0.06119	0.00144	1.01239
17.463	−3.98853	1.88979	0.00700	−0.01097	−3.68854	−1.16368	−0.00149	−2.88326	−0.89295	0.05080	0.00112	0.94368
17.992	−3.94653	1.97239	0.00534	−0.00966	−3.69886	−1.08756	−0.00118	−2.89823	−0.83804	0.04262	0.00087	0.87960
18.521	−3.90548	2.04938	0.00404	−0.00854	−3.70841	−1.01591	−0.00095	−2.91105	−0.78544	0.03611	0.00069	0.81991
19.050	−3.86568	2.12083	0.00302	−0.00759	−3.71702	−0.94872	−0.00077	−2.92199	−0.73550	0.03090	0.00055	0.76442
19.580	−3.82738	2.18689	0.00222	−0.00676	−3.72464	−0.88595	−0.00062	−2.93126	−0.68836	0.02665	0.00044	0.71291
20.109	−3.79073	2.24780	0.00159	−0.00605	−3.73131	−0.82748	−0.00051	−2.93910	−0.64410	0.02316	0.00036	0.66516
20.638	−3.75585	2.30384	0.00110	−0.00543	−3.73705	−0.77313	−0.00041	−2.94570	−0.60272	0.02025	0.00029	0.62097
21.167	−3.72277	2.35535	0.00072	−0.00489	−3.74198	−0.72272	−0.00034	−2.95124	−0.56415	0.01782	0.00026	0.58002
22.225	−3.66210	2.44604	0.00019	−0.00400	−3.74966	−0.63276	−0.00024	−2.95973	−0.49494	0.01401	0.00017	0.50740
23.284	−3.60846	2.52242	−0.00012	−0.00331	−3.75508	−0.55575	−0.00017	−2.96556	−0.43534	0.01123	0.00014	0.44537
24.342	−3.56133	2.58685	−0.00030	−0.00277	−3.75885	−0.48987	−0.00012	−2.96952	−0.38416	0.00918	0.00010	0.39247
25.401	−3.52006	2.64135	−0.00039	−0.00233	−3.76137	−0.43342	−0.00009	−2.97219	−0.34020	0.00760	0.00007	0.34717
26.459	−3.48395	2.68764	−0.00044	−0.00198	−3.76302	−0.38496	−0.00007	−2.97393	−0.30237	0.00636	0.00006	0.30832
27.517	−3.45236	2.72714	−0.00045	−0.00169	−3.76403	−0.34322	−0.00005	−2.97502	−0.26974	0.00538	0.00010	0.27488
28.576	−3.42469	2.76099	−0.00044	−0.00145	−3.76460	−0.30714	−0.00004	−2.97565	−0.24150	0.00459	0.00005	0.24600
29.634	−3.40042	2.79014	−0.00041	−0.00125	−3.76484	−0.27584	−0.00003	−2.97598	−0.21697	0.00395	0.00004	0.22095
30.692	−3.37906	2.81537	−0.00036	−0.00108	−3.76488	−0.24857	−0.00002	−2.97608	−0.19559	0.00342	0.00003	0.19911
31.751	−3.36023	2.83731	−0.00035	−0.00094	−3.76477	−0.22474	−0.00002	−2.97604	−0.17689	0.00298	−0.00003	0.18002
37.042	−3.29353	2.91271	−0.00024	−0.00050	−3.76333	−0.14182	−0.00001	−2.97493	−0.11173	0.00160	−0.00010	0.11368
42.334	−3.25510	2.95463	−0.00015	−0.00030	−3.76184	−0.09504	0.00000	−2.97363	−0.07492	0.00093	−0.00010	0.07622

Table 16
Transition dipole moments between the (6-8)$^3\Sigma^+$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Sigma^+,3\Sigma^+}_{63}$	$\mu^{3\Sigma^+,3\Sigma^+}_{64}$	$\mu^{3\Sigma^+,3\Sigma^+}_{65}$	$\mu^{3\Sigma^+,3\Sigma^+}_{71}$	$\mu^{3\Sigma^+,3\Sigma^+}_{72}$	$\mu^{3\Sigma^+,3\Sigma^+}_{73}$	$\mu^{3\Sigma^+,3\Sigma^+}_{74}$	$\mu^{3\Sigma^+,3\Sigma^+}_{75}$	$\mu^{3\Sigma^+,3\Sigma^+}_{76}$	$\mu^{3\Sigma^+,3\Sigma^+}_{81}$	$\mu^{3\Sigma^+,3\Sigma^+}_{82}$
2.540	−0.77078	9.38745	−3.27829	−0.38308	−0.22723	−0.24898	−0.35694	2.03297	−1.69423	−0.03399	−2.57534
2.646	−0.75892	9.21515	−3.68443	−0.42333	−0.30562	−0.30848	−0.30597	2.21689	−1.77662	0.00324	−1.99782
2.752	−0.70532	9.13114	−4.07553	−0.44127	−0.40310	−0.41835	0.03779	2.20545	−1.79795	0.03671	−1.32833
2.858	−0.57044	9.06120	−4.52429	−0.40887	−0.50880	−0.59893	0.98210	1.79617	−1.64269	0.05770	−0.82659
2.963	−0.29141	8.75696	−4.91002	−0.29693	−0.57180	−0.81678	2.63405	0.85886	−1.14717	0.06932	−0.48938
3.069	0.10246	8.18935	−4.94580	−0.14538	−0.54264	−0.96736	4.16356	−0.15238	−0.55875	0.07501	−0.23824
3.175	0.51251	7.72812	−4.65690	−0.02325	−0.46000	−1.03678	4.99199	−0.76942	−0.27517	0.07694	−0.03408
3.281	0.89965	7.42791	−4.15979	0.06167	−0.37108	−1.06494	5.34556	−1.05529	−0.25115	0.07608	0.13318
3.387	1.23900	7.19440	−3.54229	0.12130	−0.29364	−1.07205	5.46239	−1.15071	−0.34862	0.07335	0.26586
3.493	1.50811	6.98981	−2.92243	0.16438	−0.22967	−1.06775	5.45816	−1.14213	−0.48455	0.06947	0.36936
3.598	1.69750	6.82394	−2.40822	0.19604	−0.17507	−1.05733	5.38678	−1.08097	−0.62211	0.06499	0.45129
3.704	1.80886	6.71542	−2.05896	0.21942	−0.12409	−1.04341	5.27580	−0.99771	−0.75155	0.06030	0.52047
3.810	1.84673	6.67566	−1.89387	0.23658	−0.06972	−1.02646	5.14120	−0.90986	−0.87646	0.05571	0.59201
3.916	1.81220	6.70905	−1.91778	0.24904	0.00132	−1.00412	4.99346	−0.82666	−1.00624	0.05148	0.74576
4.022	1.69979	6.81597	−2.13627	0.25796	0.10471	−0.96738	4.84248	−0.75008	−1.15975	0.00906	3.32206
4.128	1.49572	6.99287	−2.55827	0.26402	0.32623	−0.88128	4.70101	−0.66187	−1.39018	−0.01297	3.34004
4.233	1.17767	7.22634	−3.18054	0.26037	1.12572	−0.50108	4.51670	−0.38562	−1.98197	−0.06684	3.17968
4.339	0.72089	7.47883	−3.94265	0.14675	3.03882	0.94342	2.85488	0.51559	−2.93216	−0.22914	1.43000
4.445	0.11953	7.67169	−4.66069	0.10579	3.21212	1.47244	2.35788	0.40302	−3.18546	−0.25368	0.72548
4.551	−0.58070	7.70113	−5.05147	0.10449	3.10869	1.76691	2.58519	−0.05358	−3.45463	−0.25720	0.52562
4.657	−1.28935	7.50744	−4.97638	0.11257	2.89582	1.96073	3.05497	−0.62709	−3.57950	−0.25711	0.43580
4.763	−1.93664	7.11219	−4.60029	0.12347	2.61769	2.01763	3.62198	−1.18957	−3.45099	−0.25565	0.38640
4.868	−2.50845	6.56243	−4.18554	0.13441	2.32819	1.90973	4.18227	−1.69295	−3.06367	−0.25363	0.35678
4.974	−3.02188	5.87905	−3.87940	0.14417	2.06701	1.63445	4.66345	−2.17138	−2.47763	−0.25144	0.33877
5.080	−3.49668	5.05067	−3.70506	0.15226	1.84899	1.19054	5.01324	−2.68340	−1.76659	−0.24939	0.32859
5.186	−3.94013	4.04475	−3.61665	0.15847	1.67334	0.55983	5.17882	−3.26212	−0.99206	−0.24776	0.32437
5.292	−4.32632	2.81783	−3.53762	0.16264	1.53415	−0.28883	5.08962	−3.89262	−0.20722	−0.24690	0.32512
5.398	−4.54925	1.36346	−3.39209	0.16457	1.42523	−1.33111	4.65091	−4.51273	0.54101	−0.24715	0.33052
5.503	−4.44539	−0.13149	−3.13895	0.16417	1.34136	−2.33706	3.83049	−5.04570	1.21436	−0.24895	0.34054
5.609	−4.04903	−1.31594	−2.78175	0.16138	1.27847	−3.00531	2.82469	−5.43920	1.78629	−0.25282	0.35530
5.715	−3.58791	−2.07665	−2.35035	0.15624	1.23320	−3.33317	1.86498	−5.67541	2.24363	−0.25938	0.37496
5.821	−3.19610	−2.51905	−1.87941	0.14883	1.20299	−3.47617	1.01625	−5.75813	2.58253	−0.26905	0.39856
5.927	−2.89826	−2.75064	−1.40015	0.13915	1.18542	−3.54308	0.27314	−5.69887	2.80731	−0.28209	0.42455
6.033	−2.68308	−2.83632	−0.94122	0.12734	1.17841	−3.58480	−0.36558	−5.51458	2.92605	−0.29789	0.44831
6.138	−2.53428	−2.81618	−0.52891	0.11354	1.18002	−3.62171	−0.88602	−5.22947	2.94849	−0.31502	0.46370
6.244	−2.43846	−2.72112	−0.18401	0.09793	1.18837	−3.66008	−1.27203	−4.87476	2.88471	−0.33178	0.46537
6.350	−2.38607	−2.57819	0.08230	0.08079	1.20164	−3.69952	−1.51766	−4.48322	2.74464	−0.34712	0.45194
6.456	−2.37071	−2.40969	0.26924	0.06245	1.21793	−3.73671	−1.63102	−4.08305	2.53805	−0.36065	0.42519
6.562	−2.38882	−2.23208	0.38366	0.04338	1.23538	−3.76650	−1.63157	−3.69329	2.27351	−0.37246	0.38878
6.668	−2.43877	−2.05543	0.43585	0.02408	1.25202	−3.78298	−1.54326	−3.32489	1.95931	−0.38270	0.34611
6.773	−2.52069	−1.88480	0.43692	0.00507	1.26569	−3.77976	−1.39003	−2.98272	1.60203	−0.39158	0.29985
6.879	−2.63583	−1.72158	0.39731	−0.01319	1.27396	−3.74980	−1.19324	−2.66738	1.20726	−0.39920	0.25200
6.985	−2.78565	−1.56438	0.32683	−0.03022	1.27386	−3.68542	−0.97095	−2.37709	0.78027	−0.40571	0.20397
7.091	−2.97025	−1.41000	0.23496	−0.04563	1.26224	−3.57865	−0.73807	−2.10842	0.32909	−0.41125	0.15661
7.197	−3.18555	−1.25419	0.13227	−0.05900	1.23605	−3.42283	−0.50774	−1.85740	−0.13150	−0.41592	0.11049
7.303	−3.42047	−1.09281	0.03076	−0.06999	1.19390	−3.21619	−0.29270	−1.62051	−0.57541	−0.41989	0.06585
7.408	−3.65624	−0.92419	−0.05673	−0.07840	1.13797	−2.96690	−0.10489	−1.39599	−0.96630	−0.42323	0.02296
7.514	−3.87121	−0.75060	−0.11937	−0.08431	1.07534	−2.69460	0.04713	−1.18517	−1.26966	−0.42598	−0.01839
7.620	−4.04900	−0.57824	−0.15203	−0.08809	1.01568	−2.42552	0.15954	−0.99128	−1.46946	−0.42813	−0.05811
7.726	−4.18360	−0.41435	−0.15606	−0.09029	0.96783	−2.18256	0.23461	−0.81786	−1.57387	−0.42969	−0.09612
7.832	−4.27789	−0.26479	−0.13739	−0.09145	0.93705	−1.97886	0.27864	−0.66686	−1.60625	−0.43062	−0.13228
7.938	−4.33891	−0.13280	−0.10351	−0.09193	0.92465	−1.81801	0.29916	−0.53845	−1.59238	−0.43093	−0.16625
8.043	−4.37414	−0.01959	−0.06131	−0.09199	0.92940	−1.69735	0.30280	−0.43121	−1.55308	−0.43061	−0.19764
8.149	−4.38979	0.07515	−0.01629	−0.09175	0.94884	−1.61157	0.29490	−0.34317	−1.50245	−0.42968	−0.22605
8.255	−4.39054	0.15244	0.02738	−0.09127	0.98014	−1.55481	0.27927	−0.27201	−1.44902	−0.42822	−0.25102
8.361	−4.37963	0.21396	0.06745	−0.09062	1.02069	−1.52154	0.25896	−0.21550	−1.39787	−0.42621	−0.27250
8.467	−4.35955	0.26125	0.10194	−0.08979	1.06813	−1.50716	0.23589	−0.17139	−1.35103	−0.42374	−0.29016
8.573	−4.33208	0.29609	0.13015	−0.08882	1.12050	−1.50785	0.21152	−0.13762	−1.30948	−0.42091	−0.30401
8.679	−4.29863	0.32018	0.15197	−0.08773	1.17614	−1.52048	0.18690	−0.11235	−1.27334	−0.41779	−0.31405
8.784	−4.26038	0.33511	0.16751	−0.08652	1.23376	−1.54258	0.16280	−0.09398	−1.24202	−0.41444	−0.32062
8.890	−4.21824	0.34259	0.17762	−0.08522	1.29226	−1.57210	0.13969	−0.08114	−1.21518	−0.41093	−0.32391
8.996	−4.17303	0.34394	0.18293	−0.08384	1.35072	−1.60740	0.11797	−0.07258	−1.19210	−0.40732	−0.32427
9.102	−4.12555	0.34044	0.18422	−0.08239	1.40844	−1.64713	0.09785	−0.06734	−1.17206	−0.40366	−0.32198
9.208	−4.07643	0.33317	0.18230	−0.08088	1.46482	−1.69021	0.07946	−0.06460	−1.15442	−0.40000	−0.31745
9.314	−4.02623	0.32311	0.17792	−0.07932	1.51942	−1.73574	0.06286	−0.06368	−1.13858	−0.39636	−0.31102
9.419	−3.97545	0.31103	0.17171	−0.07773	1.57187	−1.78296	0.04806	−0.06405	−1.12402	−0.39278	−0.30303
9.525	−3.92449	0.29759	0.16423	−0.07610	1.62188	−1.83128	0.03501	−0.06526	−1.11028	−0.38928	−0.29379
9.631	−3.87370	0.28331	0.15595	−0.07445	1.66926	−1.88019	0.02364	−0.06697	−1.09699	−0.38587	−0.28354
9.737	−3.82338	0.26863	0.14719	−0.07278	1.71386	−1.92930	0.01385	−0.06895	−1.08376	−0.38256	−0.27264
9.843	−3.77375	0.25386	0.13825	−0.07110	1.75560	−1.97827	0.00556	−0.07099	−1.07033	−0.37936	−0.26126
9.949	−3.72501	0.23925	0.12932	−0.06942	1.79444	−2.02685	−0.00140	−0.07293	−1.05649	−0.37628	−0.24960
10.054	−3.67730	0.22499	0.12055	−0.06773	1.83037	−2.07482	−0.00704	−0.07471	−1.04196	−0.37332	−0.23785
10.160	−3.63074	0.21117	0.11205	−0.06603	1.86344	−2.12205	−0.01170	−0.07622	−1.02681	−0.37051	−0.22610
10.266	−3.58541	0.19793	0.10389	−0.06434	1.89368	−2.16841	−0.01537	−0.07741	−1.01087	−0.36779	−0.21449
10.372	−3.54137	0.18532	0.09612	−0.06266	1.92117	−2.21381	−0.01823	−0.07824	−0.99418	−0.36520	−0.20308

(*continued on next page*)

Table 16 (*continued*)

R	$\mu_{63}^{3\Sigma^+,3\Sigma^+}$	$\mu_{64}^{3\Sigma^+,3\Sigma^+}$	$\mu_{65}^{3\Sigma^+,3\Sigma^+}$	$\mu_{71}^{3\Sigma^+,3\Sigma^+}$	$\mu_{72}^{3\Sigma^+,3\Sigma^+}$	$\mu_{73}^{3\Sigma^+,3\Sigma^+}$	$\mu_{74}^{3\Sigma^+,3\Sigma^+}$	$\mu_{75}^{3\Sigma^+,3\Sigma^+}$	$\mu_{76}^{3\Sigma^+,3\Sigma^+}$	$\mu_{81}^{3\Sigma^+,3\Sigma^+}$	$\mu_{82}^{3\Sigma^+,3\Sigma^+}$
10.478	−3.49869	0.17336	0.08873	−0.06099	1.94603	−2.25820	−0.02029	−0.07879	−0.97652	−0.36273	−0.19201
10.584	−3.45737	0.16208	0.08175	−0.05933	1.96833	−2.30154	−0.02172	−0.07900	−0.95799	−0.36038	−0.18132
10.848	−3.36010	0.13679	0.06608	−0.05525	2.01362	−2.40518	−0.02313	−0.07830	−0.90803	−0.35500	−0.15648
11.113	−3.27139	0.11548	0.05280	−0.05127	2.04531	−2.50210	−0.02241	−0.07609	−0.85363	−0.35031	−0.13459
11.377	−3.19102	0.09772	0.04166	−0.04744	2.06499	−2.59247	−0.02052	−0.07282	−0.79602	−0.34625	−0.11573
11.642	−3.11863	0.08298	0.03242	−0.04378	2.07414	−2.67649	−0.01806	−0.06892	−0.73681	−0.34279	−0.09980
11.906	−3.05392	0.07081	0.02485	−0.04029	2.07408	−2.75448	−0.01550	−0.06471	−0.67717	−0.33985	−0.08656
12.171	−2.99647	0.06078	0.01873	−0.03701	2.06600	−2.82671	−0.01303	−0.06037	−0.61851	−0.33740	−0.07576
12.436	−2.94590	0.05250	0.01382	−0.03394	2.05091	−2.89353	−0.01078	−0.05606	−0.56176	−0.33540	−0.06704
12.700	−2.90179	0.04565	0.00993	−0.03108	2.02975	−2.95525	−0.00881	−0.05190	−0.50789	−0.33379	−0.06013
12.965	−2.86367	0.03996	0.00690	−0.02845	2.00336	−3.01222	−0.00715	−0.04795	−0.45741	−0.33254	−0.05472
13.229	−2.83108	0.03523	0.00457	−0.02602	1.97251	−3.06477	−0.00577	−0.04426	−0.41068	−0.33160	−0.05052
13.494	−2.80351	0.03124	0.00280	−0.02380	1.93789	−3.11324	−0.00463	−0.04086	−0.36787	−0.33092	−0.04729
13.759	−2.78047	0.02788	0.00148	−0.02178	1.90013	−3.15793	−0.00369	−0.03769	−0.32896	−0.33047	−0.04482
14.023	−2.76149	0.02504	0.00052	−0.01995	1.85978	−3.19913	−0.00292	−0.03476	−0.29383	−0.33021	−0.04296
14.288	−2.74608	0.02259	−0.00016	−0.01828	1.81739	−3.23714	−0.00230	−0.03207	−0.26234	−0.33010	−0.04149
14.552	−2.73380	0.02049	−0.00063	−0.01678	1.77339	−3.27219	−0.00179	−0.02960	−0.23423	−0.33013	−0.04032
14.817	−2.72422	0.01866	−0.00094	−0.01542	1.72820	−3.30444	−0.00140	−0.02732	−0.20924	−0.33025	−0.03935
15.082	−2.71697	0.01706	−0.00115	−0.01420	1.68215	−3.33425	−0.00107	−0.02526	−0.18709	−0.33044	−0.03852
15.346	−2.71168	0.01565	−0.00126	−0.01309	1.63558	−3.36173	−0.00081	−0.02337	−0.16750	−0.33069	−0.03775
15.611	−2.70804	0.01439	−0.00133	−0.01209	1.58877	−3.38705	−0.00059	−0.02165	−0.15019	−0.33097	−0.03701
15.875	−2.70576	0.01329	−0.00133	−0.01118	1.54197	−3.41037	−0.00039	−0.02009	−0.13492	−0.33128	−0.03624
16.140	−2.70457	0.01228	−0.00131	−0.01037	1.49541	−3.43185	−0.00025	−0.01865	−0.12144	−0.33160	−0.03548
16.404	−2.70428	0.01138	−0.00127	−0.00962	1.44928	−3.45162	−0.00014	−0.01733	−0.10954	−0.33193	−0.03469
16.934	−2.70564	0.00981	−0.00117	−0.00834	1.35896	−3.48655	0.00003	−0.01507	−0.08970	−0.33255	−0.03301
17.463	−2.70867	0.00855	−0.00103	−0.00726	1.27198	−3.51607	0.00012	−0.01310	−0.07416	−0.33313	−0.03121
17.992	−2.71257	0.00749	−0.00089	−0.00636	1.18908	−3.54095	0.00017	−0.01144	−0.06192	−0.33364	−0.02933
18.521	−2.71676	0.00660	−0.00076	−0.00560	1.11065	−3.56185	0.00020	−0.01005	−0.05217	−0.33408	−0.02741
19.050	−2.72091	0.00585	−0.00064	−0.00495	1.03691	−3.57936	0.00022	−0.00887	−0.04433	−0.33445	−0.02551
19.580	−2.72482	0.00522	−0.00054	−0.00440	0.96792	−3.59397	0.00023	−0.00786	−0.03800	−0.33476	−0.02365
20.109	−2.72838	0.00467	−0.00046	−0.00391	0.90362	−3.60613	0.00023	−0.00698	−0.03278	−0.33501	−0.02186
20.638	−2.73153	0.00419	−0.00039	−0.00350	0.84386	−3.61621	0.00022	−0.00623	−0.02848	−0.33523	−0.02018
21.167	−2.73422	0.00384	−0.00040	−0.00313	0.78839	−3.62452	0.00020	−0.00560	−0.02521	−0.33540	−0.01861
22.225	−2.73856	0.00315	−0.00031	−0.00254	0.68960	−3.63711	0.00019	−0.00454	−0.01959	−0.33568	−0.01579
23.284	−2.74150	0.00259	−0.00021	−0.00209	0.60516	−3.64567	0.00017	−0.00372	−0.01574	−0.33587	−0.01339
24.342	−2.74354	0.00213	−0.00012	−0.00175	0.53304	−3.65147	0.00013	−0.00306	−0.01276	−0.33601	−0.01134
25.401	−2.74476	0.00178	−0.00009	−0.00147	0.47134	−3.65529	0.00012	−0.00256	−0.01060	−0.33612	−0.00968
26.459	−2.74535	0.00152	−0.00007	−0.00125	0.41839	−3.65769	0.00012	−0.00216	−0.00886	−0.33620	−0.00829
27.517	−2.74542	0.00128	−0.00006	−0.00108	0.37284	−3.65907	0.00009	−0.00183	−0.00822	−0.33626	−0.00713
28.576	−2.74551	0.00110	−0.00004	−0.00092	0.33350	−3.65983	0.00009	−0.00157	−0.00652	−0.33632	−0.00616
29.634	−2.74533	0.00095	−0.00003	−0.00080	0.29942	−3.66012	0.00008	−0.00134	−0.00556	−0.33637	−0.00536
30.692	−2.74500	0.00083	−0.00002	−0.00069	0.26974	−3.66008	0.00007	−0.00116	−0.00480	−0.33641	−0.00468
31.751	−2.74461	0.00072	−0.00002	−0.00060	0.24380	−3.65987	0.00006	−0.00101	−0.00423	−0.33645	−0.00410
37.042	−2.74247	0.00038	0.00000	−0.00033	0.15373	−3.65764	0.00003	−0.00054	−0.00320	−0.33655	−0.00224
42.334	−2.74070	0.00022	0.00000	−0.00019	0.10294	−3.65528	0.00002	−0.00031	−0.00223	−0.33661	−0.00131

Table 17
Transition dipole moments between the (8-9)$^3\Sigma^+$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Sigma^+,3\Sigma^+}_{83}$	$\mu^{3\Sigma^+,3\Sigma^+}_{84}$	$\mu^{3\Sigma^+,3\Sigma^+}_{85}$	$\mu^{3\Sigma^+,3\Sigma^+}_{86}$	$\mu^{3\Sigma^+,3\Sigma^+}_{87}$	$\mu^{3\Sigma^+,3\Sigma^+}_{91}$	$\mu^{3\Sigma^+,3\Sigma^+}_{92}$	$\mu^{3\Sigma^+,3\Sigma^+}_{93}$	$\mu^{3\Sigma^+,3\Sigma^+}_{94}$	$\mu^{3\Sigma^+,3\Sigma^+}_{95}$	$\mu^{3\Sigma^+,3\Sigma^+}_{96}$
2.540	1.22802	−0.68455	−0.95575	−6.57181	3.14631	0.06108	1.71201	0.10632	0.12833	−0.22465	8.31937
2.646	0.99713	−0.70630	−0.83130	−8.81731	1.98810	0.05466	2.10774	0.17489	0.28696	−0.52400	6.90726
2.752	0.85140	−0.66328	−0.55624	−10.67676	1.26239	0.03035	2.30281	0.19512	0.45308	−0.81323	5.02678
2.858	0.80399	−0.60251	−0.18810	−11.62259	2.07044	−0.00330	2.24294	0.17277	0.55345	−1.03298	3.87369
2.963	0.81787	−0.54840	0.26357	−11.55180	4.45263	−0.03794	2.08104	0.16390	0.60351	−1.24108	3.58577
3.069	0.85249	−0.50015	0.81762	−10.64467	6.90712	−0.07137	1.91280	0.18860	0.63337	−1.48508	3.45355
3.175	0.88360	−0.45333	1.47612	−9.68917	8.41191	−0.10271	1.76951	0.23031	0.66091	−1.78132	3.10223
3.281	0.90422	−0.40888	2.18834	−8.94822	9.22606	−0.12868	1.65724	0.26694	0.68652	−2.09972	2.60427
3.387	0.91849	−0.36676	2.87499	−8.36534	9.67667	−0.14260	1.58684	0.29242	0.69800	−2.38144	2.06835
3.493	0.93182	−0.32832	3.46148	−7.90042	9.92690	−0.13916	1.60017	0.32431	0.68585	−2.57330	1.61174
3.598	0.94662	−0.29471	3.91328	−7.54881	10.05438	−0.11490	1.79779	0.40485	0.64843	−2.63902	1.36410
3.704	0.96251	−0.26615	4.23261	−7.31288	10.09831	−0.05997	2.33942	0.60941	0.55580	−2.37552	1.46386
3.810	0.97549	−0.24178	4.43436	−7.19747	10.07416	−0.00856	2.88255	0.84865	0.44150	−1.74399	1.60384
3.916	0.95805	0.21213	4.55748	−7.22648	9.93085	0.00058	3.12027	1.03332	0.41531	1.27021	−1.36653
4.022	0.99326	0.34219	1.88104	−2.55403	1.11100	0.04667	−0.23467	1.15186	0.26644	4.25528	−6.97563
4.128	1.25233	0.20833	1.50440	−2.07032	−1.68564	0.04361	−0.49280	1.10368	0.23661	4.19688	−7.31081
4.233	1.57980	−0.68514	1.46491	−1.76600	−2.05173	0.04044	−0.54248	1.11433	0.23590	3.85146	−7.58622
4.339	1.55094	−3.42672	1.30805	−0.13052	−0.70567	0.03758	−0.56500	1.12975	0.24412	3.28246	−7.90166
4.445	1.36315	−3.72341	1.26891	0.74772	−0.00267	0.03504	−0.57705	1.14412	0.25942	2.50329	−8.19747
4.551	1.32517	−3.61538	1.40435	0.89507	0.00905	0.03286	−0.58318	1.15489	0.28275	1.62469	−8.37705
4.657	1.33260	−3.43378	1.58647	0.92519	0.15153	0.03100	−0.58550	1.16027	0.31475	0.84612	−8.37816
4.763	1.36370	−3.21493	1.77042	0.91203	0.38044	0.02943	−0.58516	1.15826	0.35705	0.30196	−8.21925
4.868	1.41271	−2.96023	1.95082	0.88260	0.62961	0.02809	−0.58294	1.14617	0.41192	−0.01581	−7.95174
4.974	1.47846	−2.65866	2.14006	0.84455	0.87529	0.02703	−0.57964	1.12017	0.48322	−0.18155	−7.61512
5.080	1.55983	−2.29043	2.34724	0.79363	1.11271	0.02607	−0.57532	1.07334	0.57469	−0.25759	−7.22185
5.186	1.65218	−1.82822	2.56876	0.72509	1.34325	0.02526	−0.57070	0.99357	0.69168	−0.28184	−6.78261
5.292	1.73417	−1.24537	2.78567	0.63279	1.56950	0.02454	−0.56617	0.85969	0.83506	−0.27365	−6.30745
5.398	1.74189	−0.54086	2.97388	0.51071	1.79352	0.02382	−0.56181	0.64597	0.98631	−0.24680	−5.80795
5.503	1.58253	0.19628	3.12161	0.35232	2.01301	0.02300	−0.55781	0.36250	1.09098	−0.21478	−5.29584
5.609	1.26005	0.82378	3.23771	0.14841	2.22766	0.02185	−0.55360	0.08063	1.10796	−0.19421	−4.77584
5.715	0.87593	1.31630	3.34348	−0.11244	2.43142	0.02013	−0.54808	−0.15837	1.05680	−0.20166	−4.24388
5.821	0.49165	1.73798	3.46016	−0.44156	2.61264	0.01731	−0.53770	−0.37685	0.97019	−0.26274	−3.66623
5.927	0.12007	2.14717	3.60383	−0.84703	2.75137	0.01186	−0.51095	−0.62880	0.87483	−0.42095	−2.94763
6.033	−0.23268	2.57071	3.77542	−1.31889	2.82439	−0.00088	−0.43395	−0.99744	0.80528	−0.75268	−1.82835
6.138	−0.54930	3.01055	3.96185	−1.82101	2.81358	−0.01737	−0.24457	−1.49787	0.79965	−1.25504	0.04690
6.244	−0.80544	3.45155	4.14346	−2.29914	2.72446	−0.02868	−0.02378	−1.77831	0.82243	−1.53092	1.84431
6.350	−0.98565	3.87592	4.30870	−2.70798	2.58539	−0.02914	0.13360	−1.77913	0.91124	−1.46828	2.89919
6.456	−1.09224	4.26806	4.45581	−3.02906	2.43488	−0.03101	0.34815	−1.65184	1.21206	−1.10158	3.89676
6.562	−1.13761	4.62082	4.59137	−3.26255	2.29736	−0.03817	0.66049	−1.33671	1.75639	−0.24502	4.89780
6.668	−1.13740	4.93088	4.72105	−3.41526	2.18833	−0.04128	0.81665	−1.03264	2.23310	0.59759	5.20846
6.773	−1.10600	5.19818	4.84813	−3.49532	2.11600	−0.04185	0.83461	−0.88551	2.61019	1.12682	5.26777
6.879	−1.05464	5.42460	4.97493	−3.50802	2.08241	−0.04228	0.79229	−0.81914	2.91446	1.43591	5.31184
6.985	−0.99203	5.61357	5.10210	−3.45736	2.08779	−0.04300	0.71892	−0.78558	3.15681	1.59855	5.36947
7.091	−0.92443	5.76996	5.22901	−3.34651	2.12853	−0.04383	0.62875	−0.76354	3.34502	1.66293	5.43135
7.197	−0.85603	5.89800	5.35473	−3.17952	2.19584	−0.04447	0.52992	−0.74364	3.48464	1.66374	5.48175
7.303	−0.78959	6.00301	5.47788	−2.96377	2.27515	−0.04464	0.42787	−0.72195	3.57931	1.62752	5.50507
7.408	−0.72670	6.08876	5.59637	−2.71287	2.34618	−0.04415	0.32674	−0.69676	3.63210	1.57261	5.48832
7.514	−0.66804	6.15872	5.70872	−2.44722	2.38710	−0.04300	0.22923	−0.66853	3.64725	1.51364	5.42527
7.620	−0.61380	6.21486	5.81267	−2.18892	2.38384	−0.04117	0.13727	−0.63787	3.62937	1.45937	5.32355
7.726	−0.56381	6.25850	5.90679	−1.95449	2.33282	−0.03881	0.05188	−0.60577	3.58423	1.41439	5.19953
7.832	−0.51770	6.29007	5.99020	−1.75155	2.23963	−0.03617	−0.02647	−0.57319	3.51806	1.38042	5.07136
7.938	−0.47505	6.31004	6.06232	−1.57976	2.11386	−0.03355	−0.09771	−0.54090	3.43685	1.35530	4.95509
8.043	−0.43538	6.31834	6.12387	−1.43527	1.96575	−0.03124	−0.16203	−0.50940	3.34617	1.33787	4.86148
8.149	−0.39831	6.31529	6.17564	−1.31230	1.80441	−0.02962	−0.21943	−0.47892	3.25061	1.32406	4.79950
8.255	−0.36347	6.30184	6.21898	−1.20580	1.63724	−0.02906	−0.26979	−0.44936	3.15334	1.31027	4.77732
8.361	−0.33090	6.27828	6.25559	−1.11108	1.46976	−0.03004	−0.31229	−0.42044	3.05589	1.29169	4.80770
8.467	−0.30029	6.24603	6.28722	−1.02541	1.30628	−0.03311	−0.34516	−0.39134	2.95770	1.26386	4.90654
8.573	−0.27159	6.20634	6.31546	−0.94640	1.15000	−0.03920	−0.36493	−0.36062	2.85535	1.22001	5.10224
8.679	−0.24476	6.16037	6.34194	−0.87218	1.00330	−0.04981	−0.36468	−0.32566	2.73970	1.14915	5.43979
8.784	−0.21962	6.10920	6.36739	−0.80277	0.86709	−0.06738	−0.33169	−0.28165	2.58965	1.03125	5.98079
8.890	−0.19620	6.05384	6.39295	−0.73639	0.74231	−0.09442	−0.24751	−0.22132	2.36226	0.83579	6.75787
8.996	−0.17440	5.99486	6.41944	−0.67284	0.62938	−0.12874	−0.10921	−0.14226	2.01835	0.55175	7.61060
9.102	−0.15416	5.93287	6.44726	−0.61205	0.52807	−0.15985	0.03509	−0.06173	1.62036	0.25077	8.20191
9.208	−0.13539	5.86827	6.47658	−0.55394	0.43797	−0.18128	0.13472	−0.00027	1.28928	0.02048	8.46589
9.314	−0.11801	5.80132	6.50748	−0.49847	0.35848	−0.19526	0.18851	0.04282	1.05580	−0.13005	8.55928
9.419	−0.10194	5.73222	6.53989	−0.44567	0.28891	−0.20501	0.21291	0.07240	0.89435	−0.22550	8.58854
9.525	−0.08711	5.66112	6.57366	−0.39558	0.22850	−0.21237	0.22044	0.09407	0.77845	−0.28659	8.59476
9.631	−0.07346	5.58805	6.60863	−0.34818	0.17649	−0.21825	0.21838	0.11080	0.69114	−0.32595	8.59171
9.737	−0.06088	5.51325	6.64439	−0.30368	0.13198	−0.22309	0.21088	0.12420	0.62210	−0.35121	8.58378
9.843	−0.04934	5.43676	6.68070	−0.26200	0.09426	−0.22719	0.20033	0.13526	0.56540	−0.36690	8.57241
9.949	−0.03874	5.35869	6.71728	−0.22316	0.06260	−0.23068	0.18819	0.14453	0.51744	−0.37586	8.55798
10.054	−0.02904	5.27908	6.75375	−0.18711	0.03659	−0.23369	0.17556	0.15241	0.47617	−0.38017	8.54088
10.160	−0.02017	5.19820	6.78979	−0.15386	0.01506	−0.23631	0.16260	0.15902	0.43941	−0.38089	8.52076
10.266	−0.01210	5.11624	6.82535	−0.12329	−0.00239	−0.23854	0.14991	0.16459	0.40653	−0.37891	8.49790
10.372	−0.00480	5.03336	6.85997	−0.09526	−0.01630	−0.24046	0.13770	0.16922	0.37678	−0.37500	8.47236

(*continued on next page*)

Table 17 (*continued*)

R	$\mu_{83}^{3\Sigma^+,3\Sigma^+}$	$\mu_{84}^{3\Sigma^+,3\Sigma^+}$	$\mu_{85}^{3\Sigma^+,3\Sigma^+}$	$\mu_{86}^{3\Sigma^+,3\Sigma^+}$	$\mu_{87}^{3\Sigma^+,3\Sigma^+}$	$\mu_{91}^{3\Sigma^+,3\Sigma^+}$	$\mu_{92}^{3\Sigma^+,3\Sigma^+}$	$\mu_{93}^{3\Sigma^+,3\Sigma^+}$	$\mu_{94}^{3\Sigma^+,3\Sigma^+}$	$\mu_{95}^{3\Sigma^+,3\Sigma^+}$	$\mu_{96}^{3\Sigma^+,3\Sigma^+}$
10.478	0.00184	4.94974	6.89352	−0.06984	−0.02706	−0.24212	0.12620	0.17302	0.34975	−0.36959	8.44454
10.584	0.00782	4.86561	6.92569	−0.04683	−0.03518	−0.24354	0.11546	0.17602	0.32498	−0.36307	8.41454
10.848	0.02023	4.65460	6.99909	−0.00096	−0.04644	−0.24626	0.09222	0.18043	0.27141	−0.34352	8.33138
11.113	0.02947	4.44553	7.06098	0.03651	−0.04842	−0.24808	0.07420	0.18102	0.22738	−0.32136	8.23941
11.377	0.03612	4.24189	7.11056	0.06191	−0.04497	−0.24926	0.06097	0.17843	0.19089	−0.29819	8.14176
11.642	0.04060	4.04656	7.14789	0.07906	−0.03870	−0.25000	0.05189	0.17322	0.16048	−0.27507	8.04145
11.906	0.04336	3.86189	7.17381	0.08972	−0.03118	−0.25041	0.04642	0.16561	0.13519	−0.25267	7.94104
12.171	0.04477	3.68937	7.18975	0.09540	−0.02346	−0.25061	0.04368	0.15636	0.11408	−0.23123	7.84261
12.436	0.04518	3.53000	7.19728	0.09739	−0.01618	−0.25070	0.04315	0.14589	0.09644	−0.21105	7.74802
12.700	0.04484	3.38421	7.19800	0.09663	−0.00990	−0.25073	0.04421	0.13459	0.08169	−0.19223	7.65822
12.965	0.04398	3.25192	7.19349	0.09396	−0.00452	−0.25073	0.04637	0.12280	0.06924	−0.17475	7.57419
13.229	0.04278	3.13287	7.18509	0.08998	−0.00034	−0.25073	0.04920	0.11081	0.05875	−0.15865	7.49641
13.494	0.04138	3.02641	7.17401	0.08515	0.00285	−0.25075	0.05237	0.09886	0.04986	−0.14384	7.42507
13.759	0.03988	2.93178	7.16124	0.07987	0.00522	−0.25080	0.05562	0.08720	0.04238	−0.13029	7.36019
14.023	0.03835	2.84811	7.14754	0.07438	0.00687	−0.25087	0.05876	0.07595	0.03605	−0.11796	7.30153
14.288	0.03683	2.77449	7.13348	0.06885	0.00794	−0.25097	0.06161	0.06526	0.03068	−0.10672	7.24880
14.552	0.03536	2.71000	7.11952	0.06345	0.00852	−0.25110	0.06405	0.05522	0.02611	−0.09652	7.20154
14.817	0.03402	2.65362	7.10594	0.05826	0.00878	−0.25125	0.06601	0.04585	0.02225	−0.08724	7.15938
15.082	0.03268	2.60458	7.09293	0.05331	0.00871	−0.25141	0.06749	0.03726	0.01895	−0.07887	7.12178
15.346	0.03142	2.56198	7.08062	0.04867	0.00846	−0.25159	0.06847	0.02942	0.01616	−0.07129	7.08831
15.611	0.03024	2.52504	7.06905	0.04435	0.00805	−0.25178	0.06897	0.02234	0.01377	−0.06444	7.05854
15.875	0.02912	2.49301	7.05830	0.04035	0.00757	−0.25196	0.06904	0.01596	0.01175	−0.05826	7.03203
16.140	0.02806	2.46526	7.04832	0.03667	0.00701	−0.25215	0.06867	0.01032	0.01000	−0.05269	7.00844
16.404	0.02705	2.44120	7.03908	0.03329	0.00643	−0.25233	0.06793	0.00534	0.00850	−0.04767	6.98740
16.934	0.02517	2.40218	7.02254	0.02739	0.00528	−0.25268	0.06554	−0.00276	0.00608	−0.03906	6.95169
17.463	0.02344	2.37250	7.00855	0.02249	0.00417	−0.25300	0.06231	−0.00879	0.00426	−0.03201	6.92299
17.992	0.02184	2.34968	6.99659	0.01847	0.00320	−0.25327	0.05866	−0.01320	0.00281	−0.02627	6.89926
18.521	0.02035	2.33190	6.98626	0.01517	0.00238	−0.25352	0.05466	−0.01613	0.00177	−0.02163	6.88009
19.050	0.01896	2.31788	6.97721	0.01248	0.00170	−0.25373	0.05062	−0.01800	0.00099	−0.01789	6.86412
19.580	0.01767	2.30669	6.96934	0.01027	0.00117	−0.25391	0.04668	−0.01908	0.00042	−0.01481	6.85077
20.109	0.01646	2.29768	6.96239	0.00846	0.00075	−0.25407	0.04290	−0.01956	0.00000	−0.01231	6.83937
20.638	0.01533	2.29037	6.95623	0.00698	0.00042	−0.25420	0.03934	−0.01960	−0.00029	−0.01025	6.82957
21.167	0.01426	2.28437	6.95068	0.00559	0.00010	−0.25433	0.03609	−0.01934	−0.00043	−0.00845	6.82317
22.225	0.01237	2.27528	6.94128	0.00378	−0.00026	−0.25446	0.03040	−0.01842	−0.00067	−0.00613	6.80965
23.284	0.01074	2.26871	6.93362	0.00255	−0.00043	−0.25459	0.02552	−0.01690	−0.00084	−0.00443	6.79826
24.342	0.00933	2.26368	6.92745	0.00184	−0.00049	−0.25468	0.02144	−0.01524	−0.00085	−0.00317	6.78908
25.401	0.00811	2.25974	6.92202	0.00108	−0.00058	−0.25476	0.01811	−0.01362	−0.00082	−0.00223	6.78161
26.459	0.00705	2.25662	6.91743	0.00082	−0.00054	−0.25482	0.01538	−0.01211	−0.00075	−0.00160	6.77534
27.517	0.00616	2.25409	6.91351	0.00057	−0.00050	−0.25490	0.01315	−0.01075	−0.00069	−0.00113	6.77022
28.576	0.00540	2.25206	6.91014	0.00030	−0.00051	−0.25495	0.01128	−0.00951	−0.00063	−0.00079	6.76572
29.634	0.00475	2.25040	6.90723	0.00013	−0.00047	−0.25499	0.00973	−0.00842	−0.00057	−0.00053	6.76183
30.692	0.00422	2.24903	6.90471	0.00002	−0.00043	−0.25502	0.00844	−0.00746	−0.00051	−0.00035	6.75847
31.751	0.00372	2.24789	6.90251	−0.00006	−0.00041	−0.25505	0.00735	−0.00661	−0.00046	−0.00022	6.75558
37.042	0.00208	2.24425	6.89489	−0.00008	−0.00021	−0.25515	0.00393	−0.00378	−0.00026	−0.00007	6.74597
42.334	0.00124	2.24240	6.89061	−0.00008	−0.00016	−0.25519	0.00229	−0.00227	−0.00016	0.00012	6.74083

Table 18
Transition dipole moments between the $(9\text{-}10)^3\Sigma^+$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Sigma^+,3\Sigma^+}_{97}$	$\mu^{3\Sigma^+,3\Sigma^+}_{98}$	$\mu^{3\Sigma^+,3\Sigma^+}_{101}$	$\mu^{3\Sigma^+,3\Sigma^+}_{102}$	$\mu^{3\Sigma^+,3\Sigma^+}_{103}$	$\mu^{3\Sigma^+,3\Sigma^+}_{104}$	$\mu^{3\Sigma^+,3\Sigma^+}_{105}$	$\mu^{3\Sigma^+,3\Sigma^+}_{106}$	$\mu^{3\Sigma^+,3\Sigma^+}_{107}$	$\mu^{3\Sigma^+,3\Sigma^+}_{108}$	$\mu^{3\Sigma^+,3\Sigma^+}_{109}$
2.540	5.95347	−0.10532	−0.10783	−0.17733	−0.14321	0.26085	1.72525	−0.03717	−0.68474	5.11531	17.09420
2.646	6.32507	0.26801	−0.04997	−0.12268	−0.16122	0.58372	1.57964	0.01925	−0.56051	8.87254	15.86736
2.752	6.14984	0.62548	0.05073	−0.13229	−0.19126	0.87825	1.43941	0.04883	−0.46009	11.77157	13.78119
2.858	5.52566	0.94414	0.24282	−0.24975	−0.22158	1.12950	1.20412	0.11689	−0.09326	11.45490	12.26843
2.963	4.68762	1.03335	0.36491	−0.34243	−0.20296	1.08956	0.97616	0.28275	0.65498	8.96053	10.77369
3.069	3.94922	0.76466	0.37207	−0.40304	−0.19355	0.97771	0.99749	0.08617	1.35782	8.42903	10.12783
3.175	3.47930	−0.05745	0.34268	−0.50700	−0.20936	0.84926	1.05128	−0.28917	1.98449	8.71093	9.52632
3.281	3.13449	−1.06531	0.29850	−0.66462	−0.24961	0.70675	1.02448	−0.69639	2.55506	9.06399	8.48023
3.387	2.83974	−2.35037	0.25161	−0.85792	−0.30921	0.56688	0.92737	−1.03280	3.00927	9.23010	7.09903
3.493	2.67735	−3.36497	0.21237	−1.05465	−0.37906	0.45697	0.86861	−1.23831	3.23664	9.23544	6.13348
3.598	2.81548	−3.54379	0.18826	−1.18241	−0.44064	0.40778	1.03191	−1.28920	3.05058	9.34185	6.59783
3.704	3.33539	−1.88883	0.17945	−0.91845	−0.40462	0.47370	1.70695	−1.06840	1.99709	9.79540	8.31806
3.810	3.37682	−0.29826	0.15995	−0.23272	−0.23229	0.56831	2.43676	−0.67789	0.50902	9.86588	6.44004
3.916	3.20130	0.63867	0.13517	0.14063	−0.13272	0.59271	2.72182	−0.51608	−0.24007	9.91544	−3.60318
4.022	10.20409	0.46233	0.11461	0.30219	−0.09414	0.60190	2.86045	−0.44153	−0.62940	3.82475	−9.44638
4.128	9.98788	−0.21960	0.09734	0.38432	−0.08013	0.61362	2.96082	−0.33897	−0.94965	2.35000	−9.88076
4.233	9.53950	−2.48967	0.08232	0.43364	−0.07718	0.63131	3.04190	−0.15692	−1.47752	1.54409	−10.05687
4.339	5.05572	−8.33442	0.06894	0.46794	−0.08043	0.65623	3.09247	0.13564	−2.00603	0.18107	−10.17610
4.445	3.40303	−9.04166	0.05692	0.49480	−0.08881	0.68992	3.08064	0.54671	−1.89729	−0.74530	−10.25422
4.551	3.30104	−9.03347	0.04558	0.51891	−0.10108	0.73034	2.97364	1.04169	−1.91379	−0.95098	−10.27271
4.657	3.64022	−8.92224	0.03475	0.54199	−0.11899	0.77959	2.77652	1.54719	−1.98471	−1.06690	−10.24546
4.763	4.17216	−8.78292	0.02399	0.56543	−0.14453	0.83948	2.54512	2.00624	−2.04061	−1.13008	−10.16773
4.868	4.77208	−8.63132	0.01329	0.58926	−0.18229	0.91214	2.33528	2.40789	−2.04219	−1.14777	−10.04343
4.974	5.36989	−8.48130	0.00222	0.61380	−0.23872	0.99976	2.17485	2.76613	−1.97833	−1.11699	−9.86912
5.080	5.93660	−8.33496	−0.00942	0.63862	−0.32522	1.10251	2.06233	3.09704	−1.85218	−1.03148	−9.64323
5.186	6.45364	−8.20116	−0.02171	0.66291	−0.46061	1.21290	1.98559	3.40924	−1.66626	−0.88644	−9.36905
5.292	6.90790	−8.08351	−0.03486	0.68532	−0.67327	1.30454	1.93605	3.70664	−1.42498	−0.66945	−9.02548
5.398	7.28733	−7.98962	−0.04860	0.70429	−0.98258	1.32227	1.90990	3.98913	−1.12316	−0.37471	−8.61173
5.503	7.58178	−7.92724	−0.06224	0.71802	−1.34391	1.22631	1.91225	4.25511	−0.75284	0.01063	−8.12699
5.609	7.78210	−7.89522	−0.07513	0.72572	−1.65164	1.07207	1.94302	4.50507	−0.29800	0.51236	−7.54227
5.715	7.87595	−7.88533	−0.08601	0.72796	−1.86007	0.94174	1.98877	4.74479	0.27398	1.17259	−6.81617
5.821	7.83553	−7.86111	−0.09314	0.72788	−1.97530	0.85300	2.01886	4.98800	1.02662	2.07190	−5.88283
5.927	7.58209	−7.68281	−0.09522	0.73651	−1.98800	0.78500	1.98601	5.26004	2.09169	3.36416	−4.54991
6.033	6.83334	−6.91712	−0.09133	0.77761	−1.83593	0.70010	1.80482	5.57855	3.71849	5.30799	−2.34880
6.138	4.89880	−4.60744	−0.08023	0.86015	−1.36971	0.57487	1.30377	5.70963	5.88104	7.78870	1.12722
6.244	2.20971	−1.33940	−0.06514	0.91395	−0.73278	0.53545	0.55031	5.24253	7.14465	9.17549	3.46979
6.350	0.05483	1.25154	−0.05459	0.94170	−0.24617	0.65402	−0.17955	4.59872	7.22473	9.21269	3.92579
6.456	−2.08535	3.82992	−0.04593	0.93362	0.24621	0.73403	−0.96051	3.67802	6.53805	8.21370	3.58113
6.562	−4.22019	6.35728	−0.03508	0.79562	0.79879	0.45186	−1.60082	2.06924	4.78662	5.76808	1.69900
6.668	−4.84331	7.00324	−0.02905	0.66219	1.03060	0.04686	−1.77254	0.99636	3.24094	3.79573	0.08324
6.773	−4.61053	6.66987	−0.02879	0.63548	1.04660	−0.27356	−1.76733	0.77540	2.56870	3.12310	−0.80950
6.879	−4.15911	6.15867	−0.03083	0.67100	0.99139	−0.56789	−1.71084	0.99961	2.36540	3.15128	−1.08437
6.985	−3.65399	5.67920	−0.03377	0.73685	0.90452	−0.84467	−1.62308	1.47990	2.35886	3.48027	−1.19947
7.091	−3.12890	5.28294	−0.03733	0.81241	0.80155	−1.07028	−1.51357	2.10589	2.37973	3.84338	−1.28478
7.197	−2.58840	4.97911	−0.04157	0.88277	0.69539	−1.21247	−1.39333	2.78750	2.32185	4.06768	−1.39113
7.303	−2.03901	4.76132	−0.04668	0.94007	0.59601	−1.26799	−1.26470	3.45937	2.14354	4.09090	−1.53052
7.408	−1.50130	4.62507	−0.05285	0.98174	0.50872	−1.25513	−1.12153	4.08059	1.85346	3.93093	−1.69993
7.514	−1.00517	4.56354	−0.06002	1.00909	0.43516	−1.19682	−0.96267	4.62524	1.48703	3.62536	−1.88382
7.620	−0.58139	4.56691	−0.06819	1.02363	0.37465	−1.11212	−0.78596	5.08284	1.09508	3.21837	−2.06957
7.726	−0.24667	4.62461	−0.07723	1.02768	0.32604	−1.01519	−0.59594	5.45700	0.72215	2.74287	−2.24560
7.832	−0.00113	4.72400	−0.08698	1.02318	0.28754	−0.91636	−0.39846	5.76039	0.39884	2.22736	−2.40332
7.938	0.16580	4.85402	−0.09721	1.01208	0.25874	−0.82233	−0.20173	6.00563	0.13815	1.69205	−2.53745
8.043	0.27015	5.00052	−0.10776	0.99623	0.23791	−0.73912	−0.01234	6.20381	−0.05826	1.15430	−2.64642
8.149	0.32673	5.15251	−0.11839	0.97743	0.22406	−0.67156	0.16564	6.36107	−0.19490	0.62378	−2.73348
8.255	0.34859	5.29888	−0.12891	0.95742	0.21653	−0.62337	0.33031	6.47844	−0.27788	0.10433	−2.80661
8.361	0.34430	5.43112	−0.13906	0.93835	0.21455	−0.60142	0.48183	6.55256	−0.31615	−0.40870	−2.87418
8.467	0.32176	5.53584	−0.14860	0.92248	0.21827	−0.61174	0.62297	6.57027	−0.31701	−0.92808	−2.94676
8.573	0.28562	5.59547	−0.15707	0.91299	0.22809	−0.66564	0.75897	6.50666	−0.28729	−1.48288	−3.03483
8.679	0.23855	5.57516	−0.16368	0.91410	0.24499	−0.78102	0.89827	6.31072	−0.23378	−2.12051	−3.14123
8.784	0.18013	5.40376	−0.16664	0.93049	0.27018	−0.98483	1.05122	5.88152	−0.16370	−2.90978	−3.23504
8.890	0.10582	4.94489	−0.16237	0.96304	0.30238	−1.29924	1.21956	5.05464	−0.08932	−3.90856	−3.18250
8.996	−0.00856	4.08191	−0.14686	0.99751	0.33156	−1.67743	1.36956	3.74723	−0.03204	−5.00823	−2.73133
9.102	−0.11037	3.00878	−0.12377	1.01428	0.34266	−1.97594	1.44573	2.30634	−0.01168	−5.88729	−1.91283
9.208	−0.23936	2.09319	−0.10285	1.01937	0.33673	−2.12815	1.45168	1.19492	0.02314	−6.42247	−1.14360
9.314	−0.37144	1.44161	−0.08785	1.02593	0.32352	−2.18039	1.42509	0.47743	0.04999	−6.73945	−0.60968
9.419	−0.50451	0.99417	−0.07772	1.03740	0.30850	−2.18190	1.38763	0.03304	0.08180	−6.95255	−0.26951
9.525	−0.63764	0.68198	−0.07085	1.05271	0.29354	−2.15845	1.34701	−0.24330	0.11380	−7.11731	−0.05403
9.631	−0.77009	0.45884	−0.06611	1.07018	0.27919	−2.12181	1.30570	−0.41608	0.14381	−7.25792	0.08424
9.737	−0.90098	0.29582	−0.06278	1.08847	0.26546	−2.07832	1.26459	−0.52315	0.17102	−7.38584	0.17344
9.843	−1.02966	0.17504	−0.06042	1.10658	0.25238	−2.03054	1.22398	−0.58698	0.19486	−7.50604	0.23080
9.949	−1.15549	0.08464	−0.05873	1.12391	0.23986	−1.98029	1.18409	−0.62165	0.21531	−7.62190	0.26698
10.054	−1.27792	0.01673	−0.05755	1.14015	0.22792	−1.92789	1.14516	−0.63646	0.23238	−7.73318	0.28895
10.160	−1.39652	−0.03417	−0.05675	1.15467	0.21644	−1.87484	1.10709	−0.63699	0.24611	−7.84347	0.30036
10.266	−1.51108	−0.07191	−0.05621	1.16737	0.20539	−1.82106	1.07021	−0.62772	0.25680	−7.95212	0.30482
10.372	−1.62140	−0.09938	−0.05587	1.17815	0.19476	−1.76683	1.03461	−0.61165	0.26464	−8.05940	0.30455

(*continued on next page*)

Table 18 (*continued*)

R	$\mu_{97}^{^3\Sigma^+ ^3\Sigma^+}$	$\mu_{98}^{^3\Sigma^+ ^3\Sigma^+}$	$\mu_{101}^{^3\Sigma^+ ^3\Sigma^+}$	$\mu_{102}^{^3\Sigma^+ ^3\Sigma^+}$	$\mu_{103}^{^3\Sigma^+ ^3\Sigma^+}$	$\mu_{104}^{^3\Sigma^+ ^3\Sigma^+}$	$\mu_{105}^{^3\Sigma^+ ^3\Sigma^+}$	$\mu_{106}^{^3\Sigma^+ ^3\Sigma^+}$	$\mu_{107}^{^3\Sigma^+ ^3\Sigma^+}$	$\mu_{108}^{^3\Sigma^+ ^3\Sigma^+}$	$\mu_{109}^{^3\Sigma^+ ^3\Sigma^+}$
10.478	−1.72704	−0.11903	−0.05569	1.18692	0.18458	−1.71214	1.00039	−0.59086	0.26997	−8.16502	0.30041
10.584	−1.82801	−0.13249	−0.05564	1.19364	0.17480	−1.65726	0.96762	−0.56697	0.27300	−8.26922	0.29381
10.848	−2.05968	−0.14687	−0.05584	1.20150	0.15208	−1.51978	0.89245	−0.50064	0.27237	−8.52284	0.27074
11.113	−2.26218	−0.14413	−0.05628	1.19734	0.13179	−1.38330	0.82730	−0.43307	0.26266	−8.76409	0.24444
11.377	−2.43652	−0.13273	−0.05673	1.18249	0.11384	−1.24958	0.77182	−0.36979	0.24719	−8.99045	0.21829
11.642	−2.58455	−0.11718	−0.05708	1.15912	0.09819	−1.12020	0.72521	−0.31333	0.22846	−9.19831	0.19302
11.906	−2.70874	−0.10066	−0.05720	1.12934	0.08461	−0.99713	0.68600	−0.26431	0.20832	−9.38579	0.17060
12.171	−2.81140	−0.08488	−0.05706	1.09570	0.07290	−0.88144	0.65274	−0.22272	0.18800	−9.55052	0.15050
12.436	−2.89535	−0.07083	−0.05662	1.06023	0.06276	−0.77437	0.62371	−0.18794	0.16827	−9.69173	0.13296
12.700	−2.96291	−0.05845	−0.05588	1.02491	0.05397	−0.67635	0.59753	−0.15914	0.14999	−9.80942	0.11725
12.965	−3.01652	−0.04831	−0.05481	0.99130	0.04613	−0.58779	0.57284	−0.13547	0.13324	−9.90342	0.10413
13.229	−3.05860	−0.03980	−0.05348	0.96060	0.03902	−0.50836	0.54875	−0.11606	0.11818	−9.97506	0.09250
13.494	−3.09122	−0.03295	−0.05187	0.93362	0.03230	−0.43796	0.52446	−0.10018	0.10462	−10.02505	0.08228
13.759	−3.11612	−0.02752	−0.05003	0.91098	0.02580	−0.37578	0.49969	−0.08721	0.09287	−10.05450	0.07339
14.023	−3.13488	−0.02327	−0.04799	0.89287	0.01921	−0.32152	0.47414	−0.07660	0.08257	−10.06498	0.06610
14.288	−3.14894	−0.01998	−0.04579	0.87954	0.01239	−0.27401	0.44794	−0.06786	0.07355	−10.05803	0.06005
14.552	−3.15934	−0.01736	−0.04345	0.87070	0.00513	−0.23313	0.42096	−0.06062	0.06577	−10.03516	0.05446
14.817	−3.16696	−0.01538	−0.04104	0.86637	−0.00260	−0.19761	0.39372	−0.05462	0.05889	−9.99835	0.05064
15.082	−3.17253	−0.01377	−0.03856	0.86613	−0.01113	−0.16694	0.36628	−0.04960	0.05297	−9.94939	0.04728
15.346	−3.17655	−0.01246	−0.03606	0.86964	−0.02045	−0.14066	0.33899	−0.04537	0.04779	−9.89002	0.04460
15.611	−3.17945	−0.01138	−0.03359	0.87655	−0.03065	−0.11809	0.31225	−0.04174	0.04333	−9.82224	0.04254
15.875	−3.18147	−0.01042	−0.03111	0.88644	−0.04166	−0.09903	0.28587	−0.03865	0.03924	−9.74679	0.04062
16.140	−3.18297	−0.00960	−0.02870	0.89889	−0.05359	−0.08255	0.26052	−0.03601	0.03587	−9.66628	0.03908
16.404	−3.18406	−0.00886	−0.02636	0.91344	−0.06639	−0.06844	0.23625	−0.03373	0.03295	−9.58186	0.03775
16.934	−3.18541	−0.00765	−0.02195	0.94710	−0.09436	−0.04627	0.19114	−0.02996	0.02831	−9.40703	0.03557
17.463	−3.18628	−0.00652	−0.01803	0.98362	−0.12472	−0.03004	0.15208	−0.02691	0.02471	−9.23218	0.03374
17.992	−3.18696	−0.00553	−0.01462	1.01968	−0.15629	−0.01841	0.11893	−0.02436	0.02185	−9.06556	0.03187
18.521	−3.18743	−0.00471	−0.01173	1.05228	−0.18762	−0.01033	0.09131	−0.02211	0.01951	−8.91316	0.03018
19.050	−3.18778	−0.00399	−0.00934	1.07926	−0.21718	−0.00489	0.06877	−0.02006	0.01753	−8.77865	0.02848
19.580	−3.18815	−0.00342	−0.00739	1.09916	−0.24364	−0.00136	0.05088	−0.01815	0.01575	−8.66357	0.02683
20.109	−3.18826	−0.00293	−0.00582	1.11139	−0.26597	0.00081	0.03680	−0.01636	0.01416	−8.56797	0.02496
20.638	−3.18818	−0.00252	−0.00456	1.11607	−0.28360	0.00204	0.02583	−0.01467	0.01270	−8.49062	0.02306
21.167	−3.18738	−0.00220	−0.00364	1.11393	−0.29622	0.00326	0.01765	−0.01245	0.01131	−8.42912	0.02165
22.225	−3.18529	−0.00163	−0.00225	1.09308	−0.30831	0.00348	0.00624	−0.00898	0.00859	−8.34559	0.01809
23.284	−3.18334	−0.00130	−0.00140	1.05683	−0.30502	0.00319	0.00020	−0.00673	0.00661	−8.29925	0.01511
24.342	−3.18094	−0.00121	−0.00079	1.01370	−0.29205	0.00295	−0.00389	−0.00760	0.00638	−8.27466	0.01174
25.401	−3.17849	−0.00108	−0.00051	0.96983	−0.27379	0.00254	−0.00562	−0.00515	0.00469	−8.26143	0.00862
26.459	−3.17637	−0.00082	−0.00030	0.92760	−0.25305	0.00205	−0.00641	−0.00468	0.00412	−8.25456	0.00662
27.517	−3.17456	−0.00065	−0.00021	0.88846	−0.23166	0.00172	−0.00652	−0.00377	0.00340	−8.25134	0.00511
28.576	−3.17310	−0.00051	−0.00019	0.85383	−0.21149	0.00136	−0.00637	−0.00212	0.00236	−8.24929	0.00419
29.634	−3.17184	−0.00037	−0.00014	0.82298	−0.19244	0.00110	−0.00607	−0.00199	0.00210	−8.24821	0.00334
30.692	−3.17070	−0.00031	−0.00011	0.79588	−0.17502	0.00091	−0.00570	−0.00160	0.00175	−8.24755	0.00281
31.751	−3.16967	−0.00026	−0.00010	0.77208	−0.15923	0.00078	−0.00531	−0.00121	0.00143	−8.24707	0.00237
37.042	−3.16627	−0.00014	−0.00006	0.69021	−0.10128	0.00016	−0.00351	−0.00099	0.00090	−8.24435	0.00112
42.334	−3.16446	−0.00009	−0.00002	0.64552	−0.06748	0.00009	−0.00219	−0.00094	0.00069	−8.24242	0.00052

Table 19
Transition dipole moments between the (1-6)$^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu_{21}^{1\Pi\text{-}1\Pi}$	$\mu_{31}^{1\Pi\text{-}1\Pi}$	$\mu_{32}^{1\Pi\text{-}1\Pi}$	$\mu_{41}^{1\Pi\text{-}1\Pi}$	$\mu_{42}^{1\Pi\text{-}1\Pi}$	$\mu_{43}^{1\Pi\text{-}1\Pi}$	$\mu_{51}^{1\Pi\text{-}1\Pi}$	$\mu_{52}^{1\Pi\text{-}1\Pi}$	$\mu_{53}^{1\Pi\text{-}1\Pi}$	$\mu_{54}^{1\Pi\text{-}1\Pi}$	$\mu_{61}^{1\Pi\text{-}1\Pi}$	$\mu_{62}^{1\Pi\text{-}1\Pi}$
2.434	−0.39374	0.05190	−1.72343	3.46682	0.49519	−0.03209	−1.10857	−0.50378	0.37328	−1.38065	0.02051	−1.62329
2.540	−0.38746	−0.07720	−2.43589	3.54235	0.42915	0.12084	−1.15012	−0.36449	0.11695	−1.36274	0.22489	−1.52983
2.646	−0.43635	−0.15917	−2.87257	3.58010	0.40393	0.27652	−1.22072	−0.18502	−0.07715	−1.31275	0.40898	−1.48270
2.752	−0.53909	−0.21312	−3.17417	3.58593	0.38565	0.43071	−1.31135	0.00454	−0.24472	−1.23378	0.57985	−1.47282
2.858	−0.68498	−0.24946	−3.40749	3.56134	0.35716	0.58765	−1.41656	0.19431	−0.40840	−1.12282	0.73551	−1.48995
2.963	−0.86034	−0.27522	−3.60089	3.50753	0.30988	0.75117	−1.53203	0.38036	−0.58184	−0.97500	0.86671	−1.52022
3.069	−1.05141	−0.29596	−3.76627	3.42770	0.24190	0.92234	−1.65348	0.55953	−0.77229	−0.78791	0.96162	−1.54531
3.175	−1.24607	−0.31632	−3.90835	3.32827	0.15616	1.09817	−1.77586	0.72811	−0.98245	−0.56578	1.01351	−1.54453
3.281	−1.43479	−0.34008	−4.02922	3.21878	0.05997	1.27323	−1.89339	0.88276	−1.20939	−0.32063	1.02895	−1.50549
3.387	−1.61084	−0.37015	−4.13040	3.11064	−0.03588	1.44205	−2.00035	1.02097	−1.44477	−0.07087	1.02487	−1.43019
3.493	−1.77007	−0.40885	−4.21345	3.01512	−0.11925	1.60040	−2.09239	1.14224	−1.67636	0.16485	1.01807	−1.32987
3.598	−1.91034	−0.45814	−4.28017	2.94102	−0.17855	1.74617	−2.16757	1.24788	−1.89027	0.37384	1.01920	−1.21743
3.704	−2.03089	−0.51991	−4.33252	2.89368	−0.20413	1.87831	−2.22582	1.33999	−2.07352	0.55121	1.03246	−1.10319
3.810	−2.13186	−0.59609	−4.37214	2.87484	−0.18895	1.99579	−2.26813	1.42047	−2.21590	0.69877	1.05802	−0.99445
3.916	−2.21380	−0.68873	−4.40023	2.88320	−0.12861	2.09633	−2.29559	1.49038	−2.31107	0.82017	1.09320	−0.89629
4.022	−2.27753	−0.80002	−4.41703	2.91521	−0.02092	2.17614	−2.30873	1.54972	−2.35636	0.91954	1.13333	−0.81157
4.128	−2.32387	−0.93215	−4.42172	2.96570	0.13438	2.23006	−2.30760	1.59760	−2.35193	0.99911	1.17259	−0.74131
4.233	−2.35359	−1.08714	−4.41226	3.02823	0.33583	2.25209	−2.29186	1.63234	−2.30157	1.05861	1.20519	−0.68489
4.339	−2.36728	−1.26651	−4.38553	3.09549	0.58018	2.23635	−2.26113	1.65231	−2.21164	1.09574	1.22648	−0.64100
4.445	−2.36526	−1.47106	−4.33757	3.15944	0.86249	2.17827	−2.21524	1.65632	−2.09116	1.10684	1.23378	−0.60805
4.551	−2.34730	−1.70098	−4.26366	3.21141	1.17667	2.07701	−2.15448	1.64423	−1.95023	1.08936	1.22621	−0.58434
4.657	−2.31220	−1.95644	−4.15849	3.24195	1.51673	1.93562	−2.07928	1.61806	−1.80039	1.04198	1.20416	−0.56912
4.763	−2.25654	−2.23938	−4.01459	3.23938	1.87910	1.76147	−1.98973	1.58274	−1.65238	0.96609	1.16815	−0.56291
4.868	−2.17169	−2.55653	−3.81843	3.18602	2.26634	1.56519	−1.88410	1.54743	−1.51535	0.86570	1.11779	−0.56833
4.974	−2.03525	−2.92448	−3.54021	3.04830	2.69262	1.35840	−1.75516	1.52815	−1.39563	0.74672	1.04989	−0.59119
5.080	−1.78544	−3.37461	−3.10816	2.75134	3.18898	1.15183	−1.58172	1.55138	−1.29692	0.61567	0.95412	−0.64311
5.186	−1.26062	−3.92921	−2.36017	2.12982	3.78196	0.95391	−1.31255	1.65012	−1.22020	0.47836	0.80407	−0.73899
5.292	−0.28108	−4.43579	−1.13532	1.01176	4.33511	0.77020	−0.89927	1.79764	−1.16457	0.33882	0.57086	−0.85717
5.398	0.69185	−4.57030	0.15910	−0.21959	4.53998	0.60401	−0.49606	1.85730	−1.12834	0.19952	0.32981	−0.90588
5.503	1.17641	−4.45083	1.01776	−1.05626	4.50023	0.45601	−0.27968	1.82479	−1.10851	0.06013	0.17962	−0.87686
5.609	1.34964	−4.29442	1.52134	−1.55797	4.41804	0.32615	−0.20393	1.76797	−1.10263	−0.08070	0.10138	−0.81593
5.715	1.38960	−4.15808	1.83036	−1.87405	4.34673	0.21350	−0.19858	1.70905	−1.10803	−0.22551	0.05820	−0.74232
5.821	1.37103	−4.04595	2.03047	−2.08593	4.29046	0.11703	−0.22735	1.64971	−1.12246	−0.37720	0.02863	−0.66036
5.927	1.32443	−3.95363	2.16372	−2.23391	4.24574	0.03549	−0.27348	1.58713	−1.14360	−0.53892	0.00088	−0.56912
6.033	1.26366	−3.87662	2.25250	−2.33926	4.20912	−0.03222	−0.32917	1.51797	−1.16969	−0.71287	−0.03192	−0.46621
6.138	1.19582	−3.81136	2.30995	−2.41434	4.17781	−0.08692	−0.39068	1.43942	−1.19911	−0.90006	−0.07358	−0.34849
6.244	1.12495	−3.75509	2.34457	−2.46676	4.14953	−0.12946	−0.45611	1.34961	−1.23056	−1.09977	−0.12520	−0.21306
6.350	1.05353	−3.70570	2.36224	−2.50166	4.12221	−0.16036	−0.52422	1.24787	−1.26318	−1.30905	−0.18530	−0.05879
6.456	0.98319	−3.66162	2.36729	−2.52275	4.09386	−0.18078	−0.59384	1.13480	−1.29606	−1.52263	−0.24986	0.11226
6.562	0.91501	−3.62164	2.36301	−2.53294	4.06264	−0.19211	−0.66359	1.01225	−1.32840	−1.73324	−0.31310	0.29413
6.668	0.84972	−3.58483	2.35195	−2.53458	4.02695	−0.19568	−0.73183	0.88316	−1.35977	−1.93214	−0.36917	0.47820
6.773	0.78777	−3.55052	2.33609	−2.52977	3.98566	−0.19300	−0.79678	0.75115	−1.38985	−2.11056	−0.41351	0.65565
6.879	0.72945	−3.51821	2.31694	−2.52037	3.93829	−0.18566	−0.85669	0.62010	−1.41855	−2.26101	−0.44383	0.81981
6.985	0.67488	−3.48755	2.29564	−2.50807	3.88489	−0.17534	−0.91000	0.49358	−1.44576	−2.37852	−0.45977	0.96689
7.091	0.62408	−3.45836	2.27315	−2.49409	3.82644	−0.16285	−0.95567	0.37468	−1.47201	−2.46012	−0.46219	1.09539
7.197	0.57699	−3.43047	2.25008	−2.47950	3.76406	−0.14946	−0.99298	0.26557	−1.49750	−2.50652	−0.45228	1.20516
7.303	0.53350	−3.40382	2.22688	−2.46499	3.69922	−0.13595	−1.02166	0.16760	−1.52263	−2.52031	−0.43117	1.29653
7.408	0.49343	−3.37837	2.20387	−2.45093	3.63343	−0.12274	−1.04178	0.08141	−1.54795	−2.50518	−0.39974	1.36989
7.514	0.45661	−3.35415	2.18125	−2.43749	3.56811	−0.11028	−1.05362	0.00713	−1.57393	−2.46563	−0.35854	1.42543
7.620	0.42282	−3.33110	2.15913	−2.42466	3.50447	−0.09853	−1.05757	−0.05556	−1.60094	−2.40630	−0.30799	1.46321
7.726	0.39185	−3.30929	2.13759	−2.41230	3.44348	−0.08763	−1.05409	−0.10712	−1.62937	−2.33118	−0.24849	1.48312
7.832	0.36349	−3.28874	2.11662	−2.40024	3.38585	−0.07756	−1.04361	−0.14813	−1.65949	−2.24368	−0.18083	1.48525
7.938	0.33755	−3.26943	2.09620	−2.38826	3.33210	−0.06839	−1.02653	−0.17922	−1.69142	−2.14662	−0.10627	1.47016
8.043	0.31382	−3.25139	2.07628	−2.37617	3.28249	−0.06004	−1.00322	−0.20101	−1.72515	−2.04208	−0.02709	1.43928
8.149	0.29210	−3.23462	2.05682	−2.36380	3.23716	−0.05247	−0.97407	−0.21415	−1.76044	−1.93167	0.05366	1.39517
8.255	0.27221	−3.21911	2.03776	−2.35103	3.19612	−0.04558	−0.93950	−0.21930	−1.79691	−1.81660	0.13239	1.34128
8.361	0.25400	−3.20483	2.01902	−2.33766	3.15924	−0.03940	−0.90002	−0.21726	−1.83390	−1.69802	0.20553	1.28149
8.467	0.23733	−3.19175	2.00053	−2.32364	3.12637	−0.03391	−0.85628	−0.20888	−1.87067	−1.57705	0.27006	1.21935
8.573	0.22201	−3.17990	1.98224	−2.30889	3.09730	−0.02894	−0.80914	−0.19519	−1.90613	−1.45485	0.32388	1.15748
8.679	0.20797	−3.16920	1.96414	−2.29340	3.07180	−0.02455	−0.75955	−0.17729	−1.93953	−1.33289	0.36578	1.09739
8.784	0.19507	−3.15960	1.94611	−2.27713	3.04962	−0.02069	−0.70863	−0.15632	−1.96999	−1.21284	0.39544	1.03980
8.890	0.18319	−3.15107	1.92813	−2.26005	3.03053	−0.01717	−0.65747	−0.13345	−1.99705	−1.09624	0.41330	0.98480
8.996	0.17226	−3.14354	1.91016	−2.24218	3.01427	−0.01412	−0.60714	−0.10970	−2.02038	−0.98466	0.42027	0.93237
9.102	0.16217	−3.13697	1.89217	−2.22354	3.00057	−0.01150	−0.55856	−0.08596	−2.03990	−0.87938	0.41766	0.88239
9.208	0.15284	−3.13131	1.87413	−2.20414	2.98922	−0.00926	−0.51243	−0.06294	−2.05576	−0.78137	0.40709	0.83485
9.314	0.14422	−3.12651	1.85601	−2.18404	2.98000	−0.00733	−0.46923	−0.04112	−2.06827	−0.69116	0.39023	0.78986
9.419	0.13623	−3.12253	1.83779	−2.16326	2.97272	−0.00569	−0.42921	−0.02085	−2.07781	−0.60897	0.36876	0.74752
9.525	0.12882	−3.11930	1.81945	−2.14185	2.96716	−0.00430	−0.39248	−0.00230	−2.08484	−0.53471	0.34420	0.70792
9.631	0.12193	−3.11678	1.80099	−2.11983	2.96317	−0.00313	−0.35900	0.01448	−2.08978	−0.46808	0.31787	0.67110
9.737	0.11552	−3.11492	1.78238	−2.09727	2.96060	−0.00216	−0.32863	0.02947	−2.09293	−0.40859	0.29083	0.63703
9.843	0.10955	−3.11368	1.76363	−2.07420	2.95926	−0.00137	−0.30118	0.04275	−2.09471	−0.35573	0.26391	0.60560
9.949	0.10397	−3.11300	1.74474	−2.05066	2.95903	−0.00072	−0.27642	0.05440	−2.09537	−0.30891	0.23769	0.57667
10.054	0.09876	−3.11285	1.72569	−2.02670	2.95977	−0.00020	−0.25414	0.06455	−2.09513	−0.26757	0.21257	0.55005
10.160	0.09388	−3.11317	1.70650	−2.00238	2.96140	0.00021	−0.23410	0.07329	−2.09417	−0.23118	0.18885	0.52551
10.266	0.08931	−3.11395	1.68715	−1.97771	2.96378	0.00054	−0.21608	0.08078	−2.09268	−0.19906	0.16664	0.50280

(*continued on next page*)

Table 19 (*continued*)

R	$\mu_{21}^{1\Pi\text{-}1\Pi}$	$\mu_{31}^{1\Pi\text{-}1\Pi}$	$\mu_{32}^{1\Pi\text{-}1\Pi}$	$\mu_{41}^{1\Pi\text{-}1\Pi}$	$\mu_{42}^{1\Pi\text{-}1\Pi}$	$\mu_{43}^{1\Pi\text{-}1\Pi}$	$\mu_{51}^{1\Pi\text{-}1\Pi}$	$\mu_{52}^{1\Pi\text{-}1\Pi}$	$\mu_{53}^{1\Pi\text{-}1\Pi}$	$\mu_{54}^{1\Pi\text{-}1\Pi}$	$\mu_{61}^{1\Pi\text{-}1\Pi}$	$\mu_{62}^{1\Pi\text{-}1\Pi}$
10.372	0.08502	−3.11512	1.66766	−1.95275	2.96683	0.00078	−0.19986	0.08710	−2.09072	−0.17088	0.14601	0.48179
10.478	0.08099	−3.11666	1.64804	−1.92754	2.97047	0.00093	−0.18526	0.09238	−2.08839	−0.14619	0.12696	0.46226
10.584	0.07720	−3.11852	1.62830	−1.90212	2.97460	0.00104	−0.17211	0.09671	−2.08581	−0.12452	0.10945	0.44401
10.848	0.06863	−3.12444	1.57842	−1.83785	2.98663	0.00120	−0.14460	0.10406	−2.07858	−0.08154	0.07193	0.40306
11.113	0.06120	−3.13174	1.52804	−1.77300	3.00043	0.00116	−0.12323	0.10742	−2.07085	−0.05093	0.04232	0.36748
11.377	0.05471	−3.14006	1.47730	−1.70802	3.01516	0.00103	−0.10643	0.10783	−2.06275	−0.02926	0.01916	0.33585
11.642	0.04903	−3.14900	1.42641	−1.64335	3.03029	0.00085	−0.09311	0.10611	−2.05485	−0.01421	0.00127	0.30740
11.906	0.04402	−3.15830	1.37562	−1.57934	3.04538	0.00067	−0.08242	0.10289	−2.04718	−0.00391	−0.01241	0.28156
12.171	0.03958	−3.16771	1.32517	−1.51629	3.06010	0.00048	−0.07373	0.09870	−2.03992	0.00302	−0.02275	0.25800
12.436	0.03565	−3.17705	1.27525	−1.45447	3.07423	0.00032	−0.06657	0.09389	−2.03309	0.00753	−0.03042	0.23644
12.700	0.03215	−3.18614	1.22606	−1.39407	3.08761	0.00017	−0.06058	0.08874	−2.02675	0.01034	−0.03600	0.21674
12.965	0.02903	−3.19491	1.17780	−1.33532	3.10011	0.00005	−0.05553	0.08347	−2.02085	0.01191	−0.03991	0.19867
13.229	0.02625	−3.20323	1.13060	−1.27833	3.11170	−0.00004	−0.05118	0.07822	−2.01543	0.01269	−0.04248	0.18218
13.494	0.02375	−3.21106	1.08459	−1.22322	3.12232	−0.00010	−0.04740	0.07309	−2.01039	0.01290	−0.04401	0.16712
13.759	0.02153	−3.21835	1.03992	−1.17005	3.13202	−0.00016	−0.04407	0.06816	−2.00587	0.01276	−0.04475	0.15338
14.023	0.01954	−3.22509	0.99665	−1.11887	3.14079	−0.00021	−0.04111	0.06348	−2.00171	0.01233	−0.04490	0.14088
14.288	0.01775	−3.23128	0.95486	−1.06974	3.14867	−0.00022	−0.03846	0.05906	−1.99796	0.01180	−0.04454	0.12953
14.552	0.01615	−3.23691	0.91456	−1.02263	3.15573	−0.00021	−0.03606	0.05493	−1.99452	0.01116	−0.04385	0.11925
14.817	0.01471	−3.24201	0.87581	−0.97756	3.16198	−0.00022	−0.03388	0.05109	−1.99137	0.01048	−0.04287	0.10986
15.082	0.01342	−3.24660	0.83861	−0.93448	3.16749	−0.00020	−0.03187	0.04751	−1.98850	0.00981	−0.04171	0.10132
15.346	0.01225	−3.25071	0.80296	−0.89337	3.17232	−0.00022	−0.03001	0.04419	−1.98585	0.00915	−0.04044	0.09354
15.611	0.01120	−3.25437	0.76883	−0.85416	3.17654	−0.00018	−0.02831	0.04114	−1.98343	0.00853	−0.03907	0.08646
15.875	0.01026	−3.25762	0.73620	−0.81682	3.18018	−0.00018	−0.02673	0.03832	−1.98119	0.00793	−0.03765	0.08002
16.140	0.00941	−3.26047	0.70504	−0.78128	3.18331	−0.00016	−0.02525	0.03572	−1.97915	0.00737	−0.03621	0.07416
16.404	0.00864	−3.26298	0.67532	−0.74748	3.18598	−0.00016	−0.02388	0.03333	−1.97723	0.00684	−0.03478	0.06881
16.934	0.00731	−3.26705	0.61997	−0.68479	3.19013	−0.00015	−0.02138	0.02909	−1.97379	0.00591	−0.03196	0.05946
17.463	0.00622	−3.27007	0.56977	−0.62818	3.19296	−0.00012	−0.01920	0.02549	−1.97082	0.00513	−0.02928	0.05162
17.992	0.00532	−3.27223	0.52428	−0.57710	3.19475	−0.00012	−0.01726	0.02242	−1.96818	0.00446	−0.02678	0.04505
18.521	0.00458	−3.27371	0.48308	−0.53100	3.19573	−0.00011	−0.01556	0.01980	−1.96585	0.00389	−0.02447	0.03950
19.050	0.00396	−3.27465	0.44577	−0.48938	3.19610	−0.00010	−0.01405	0.01754	−1.96380	0.00343	−0.02236	0.03479
19.580	0.00344	−3.27516	0.41196	−0.45178	3.19600	−0.00010	−0.01272	0.01561	−1.96195	0.00301	−0.02042	0.03076
20.109	0.00300	−3.27535	0.38131	−0.41776	3.19555	−0.00010	−0.01152	0.01393	−1.96028	0.00266	−0.01867	0.02731
20.638	0.00262	−3.27527	0.35349	−0.38697	3.19483	−0.00011	−0.01047	0.01248	−1.95879	0.00232	−0.01708	0.02435
21.167	0.00231	−3.27502	0.32820	−0.35901	3.19394	−0.00010	−0.00952	0.01121	−1.95743	0.00207	−0.01563	0.02177
22.225	0.00181	−3.27419	0.28424	−0.31052	3.19176	−0.00009	−0.00792	0.00913	−1.95502	0.00159	−0.01317	0.01756
23.284	0.00144	−3.27301	0.24761	−0.27020	3.18944	−0.00008	−0.00663	0.00751	−1.95304	0.00129	−0.01112	0.01436
24.342	0.00116	−3.27171	0.21691	−0.23648	3.18709	−0.00007	−0.00559	0.00624	−1.95138	0.00105	−0.00944	0.01187
25.401	0.00095	−3.27038	0.19102	−0.20810	3.18482	−0.00006	−0.00474	0.00523	−1.94998	0.00087	−0.00807	0.00988
26.459	0.00079	−3.26909	0.16906	−0.18403	3.18268	−0.00005	−0.00404	0.00441	−1.94879	0.00074	−0.00689	0.00831
27.517	0.00066	−3.26786	0.15031	−0.16353	3.18070	−0.00005	−0.00347	0.00375	−1.94776	0.00062	−0.00594	0.00705
28.576	0.00055	−3.26673	0.13422	−0.14594	3.17889	−0.00004	−0.00300	0.00323	−1.94688	0.00054	−0.00514	0.00606
29.634	0.00046	−3.26567	0.12034	−0.13079	3.17724	−0.00004	−0.00261	0.00278	−1.94612	0.00046	−0.00447	0.00520
30.692	0.00040	−3.26471	0.10830	−0.11766	3.17575	−0.00003	−0.00227	0.00241	−1.94545	0.00040	−0.00390	0.00450
31.751	0.00034	−3.26383	0.09782	−0.10623	3.17440	−0.00003	−0.00199	0.00210	−1.94487	0.00035	−0.00342	0.00391
37.042	0.00017	−3.26050	0.06155	−0.06674	3.16937	−0.00002	−0.00108	0.00112	−1.94282	0.00021	−0.00186	0.00208
42.334	0.00010	−3.25844	0.04120	−0.04464	3.16631	−0.00001	−0.00063	0.00065	−1.94163	0.00013	−0.00110	0.00120
47.626	0.00006	−3.25712	0.02892	−0.03132	3.16437	−0.00001	−0.00040	0.00041	−1.94090	0.00008	−0.00069	0.00074
50.272	0.00005	−3.25664	0.02459	−0.02662	3.16367	0.00000	−0.00032	0.00033	−1.94064	0.00007	−0.00056	0.00059
51.859	0.00004	−3.25640	0.02239	−0.02424	3.16331	0.00000	−0.00028	0.00029	−1.94051	0.00006	−0.00049	0.00052

Table 20
Transition dipole moments between the (6-8)$^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Pi\text{-}1\Pi}_{63}$	$\mu^{1\Pi\text{-}1\Pi}_{64}$	$\mu^{1\Pi\text{-}1\Pi}_{65}$	$\mu^{1\Pi\text{-}1\Pi}_{71}$	$\mu^{1\Pi\text{-}1\Pi}_{72}$	$\mu^{1\Pi\text{-}1\Pi}_{73}$	$\mu^{1\Pi\text{-}1\Pi}_{74}$	$\mu^{1\Pi\text{-}1\Pi}_{75}$	$\mu^{1\Pi\text{-}1\Pi}_{76}$	$\mu^{1\Pi\text{-}1\Pi}_{81}$	$\mu^{1\Pi\text{-}1\Pi}_{82}$	$\mu^{1\Pi\text{-}1\Pi}_{83}$
2.434	−1.45118	−1.34850	−5.39303	−0.18393	1.55995	1.17813	−3.56529	0.33017	7.90701			
2.540	−1.69665	−1.14574	−5.30182	−0.10112	1.53080	0.96205	−3.89593	0.28875	7.82503			
2.646	−1.88689	−0.91011	−5.20240	0.00513	1.43085	0.86272	−4.24615	0.30206	7.56644			
2.752	−2.04506	−0.61602	−5.11379	0.10751	1.29646	0.85675	−4.60150	0.34921	7.08625	−0.24479	−0.93831	0.40900
2.858	−2.17685	−0.23646	−5.05320	0.24215	1.13514	0.93147	−4.94055	0.40842	6.31298	−0.28783	−0.62682	0.24185
2.963	−2.27847	0.24603	−5.03783	0.40334	0.94578	1.08123	−5.22977	0.45686	5.16895	−0.31649	−0.51598	0.20210
3.069	−2.34253	0.82206	−5.08096	0.58932	0.72983	1.29414	−5.42684	0.48173	3.64701	−0.34188	−0.43942	0.18758
3.175	−2.36998	1.43005	−5.18491	0.78724	0.50095	1.54271	−5.50416	0.49347	1.89976	−0.36481	−0.37517	0.18389
3.281	−2.37826	1.97400	−5.33796	0.97478	0.28339	1.78710	−5.47552	0.51891	0.22984	−0.38511	−0.31962	0.18538
3.387	−2.39447	2.37782	−5.51424	1.13224	0.09715	1.99381	−5.38787	0.58666	−1.09599	−0.40286	−0.27082	0.18938
3.493	−2.44132	2.61626	−5.68303	1.25020	−0.05122	2.14594	−5.29389	0.70484	−1.97476	−0.41807	−0.22888	0.19251
3.598	−2.53123	2.70321	−5.81465	1.32798	−0.16579	2.23921	−5.22931	0.86635	−2.42564	−0.43107	−0.19433	0.19348
3.704	−2.66608	2.66436	−5.88929	1.36887	−0.25495	2.27293	−5.21038	1.05967	−2.50807	−0.44192	−0.16722	0.18904
3.810	−2.84154	2.52355	−5.89675	1.37704	−0.32718	2.24578	−5.24098	1.27123	−2.27516	−0.45102	−0.14826	0.17857
3.916	−3.04831	2.29775	−5.83778	1.35663	−0.38946	2.15565	−5.31389	1.48731	−1.77145	−0.45861	−0.13744	0.15864
4.022	−3.27246	2.00140	−5.72103	1.31206	−0.44726	2.00205	−5.41607	1.69062	−1.04504	−0.46541	−0.13485	0.12920
4.128	−3.49637	1.64882	−5.56167	1.24825	−0.50451	1.78871	−5.52969	1.86299	−0.16184	−0.47185	−0.14036	0.08563
4.233	−3.70195	1.25801	−5.37856	1.17067	−0.56432	1.52398	−5.63635	1.98627	0.80222	−0.47926	−0.15382	0.02909
4.339	−3.87305	0.84835	−5.19266	1.08460	−0.62865	1.22179	−5.72001	2.04812	1.76722	−0.48851	−0.17489	−0.04392
4.445	−3.99914	0.43880	−5.02222	0.99428	−0.69837	0.89941	−5.76894	2.04474	2.66601	−0.50109	−0.20297	−0.12501
4.551	−4.07545	0.04758	−4.87758	0.90192	−0.77411	0.57457	−5.77574	1.98012	3.45516	−0.51793	−0.23678	−0.22391
4.657	−4.10232	−0.31192	−4.76521	0.80744	−0.85592	0.26407	−5.73765	1.86380	4.11427	−0.54134	−0.27441	−0.33599
4.763	−4.08518	−0.62991	−4.68400	0.70778	−0.94386	−0.01718	−5.65420	1.70782	4.64021	−0.57301	−0.31226	−0.46152
4.868	−4.03203	−0.90029	−4.62879	0.59618	−1.03757	−0.25717	−5.52756	1.52478	5.03835	−0.61572	−0.34416	−0.59885
4.974	−3.95126	−1.12172	−4.59252	0.45925	−1.13593	−0.44700	−5.36188	1.32571	5.31790	−0.67313	−0.35896	−0.74668
5.080	−3.85153	−1.29637	−4.56696	0.26974	−1.23352	−0.58186	−5.16230	1.11886	5.48874	−0.74980	−0.33504	−0.90276
5.186	−3.74008	−1.42922	−4.54474	−0.02276	−1.30551	−0.66031	−4.93492	0.91012	5.56194	−0.84570	−0.23143	−1.06315
5.292	−3.62092	−1.52783	−4.52029	−0.44326	−1.27624	−0.68541	−4.68710	0.70301	5.54614	−0.92653	0.00948	−1.22027
5.398	−3.49766	−1.59914	−4.48991	−0.83802	−1.11556	−0.66330	−4.42447	0.49829	5.45557	−0.93765	0.24729	−1.36934
5.503	−3.37212	−1.65227	−4.45236	−1.08668	−0.93878	−0.60193	−4.15494	0.29796	5.30328	−0.90911	0.43508	−1.50031
5.609	−3.24435	−1.69476	−4.40857	−1.23705	−0.79661	−0.51288	−3.88401	0.10251	5.10670	−0.87867	0.57000	−1.60153
5.715	−3.11380	−1.73421	−4.36141	−1.33734	−0.68067	−0.40763	−3.61602	−0.08631	4.88612	−0.85719	0.68995	−1.65750
5.821	−2.98036	−1.77712	−4.31531	−1.41046	−0.57826	−0.29799	−3.35323	−0.26662	4.66072	−0.85415	0.83340	−1.62942
5.927	−2.84365	−1.82704	−4.27678	−1.46757	−0.47992	−0.19517	−3.09627	−0.43592	4.44927	−0.89083	1.06816	−1.39690
6.033	−2.70351	−1.88592	−4.25209	−1.51549	−0.37881	−0.10841	−2.84425	−0.59241	4.26246	−0.95429	1.46394	−0.60926
6.138	−2.55952	−1.95270	−4.24776	−1.55898	−0.26864	−0.04570	−2.59377	−0.73541	4.10293	−0.88428	1.70388	0.34482
6.244	−2.41117	−2.02312	−4.26834	−1.60121	−0.14276	−0.01401	−2.34053	−0.86471	3.96520	−0.76209	1.77705	0.79161
6.350	−2.25829	−2.09098	−4.31528	−1.64373	0.00688	0.02123	−2.07760	−0.98046	3.83840	−0.63011	1.81701	1.02166
6.456	−2.10220	−2.14803	−4.38671	−1.68513	0.18971	0.07620	−1.79517	−1.08119	3.71209	−0.46851	1.83141	1.17481
6.562	−1.94605	−2.18670	−4.47767	−1.71804	0.41306	0.18763	−1.48019	−1.16174	3.57685	−0.26019	1.80624	1.28166
6.668	−1.79476	−2.20240	−4.58183	−1.72662	0.67088	0.35495	−1.12361	−1.21158	3.41920	−0.00138	1.72466	1.33828
6.773	−1.65388	−2.19475	−4.69314	−1.69420	0.93051	0.55355	−0.73834	−1.22174	3.21877	0.28315	1.58257	1.33632
6.879	−1.52784	−2.16707	−4.80640	−1.62278	1.14654	0.73931	−0.36528	−1.20163	2.97048	0.54705	1.40384	1.28538
6.985	−1.41920	−2.12411	−4.91719	−1.53433	1.29846	0.88146	−0.04193	−1.17884	2.69781	0.75951	1.22470	1.20966
7.091	−1.32763	−2.07207	−5.02077	−1.44963	1.39661	0.97551	0.22146	−1.17941	2.43194	0.91971	1.06599	1.12741
7.197	−1.25249	−2.01657	−5.11240	−1.37758	1.46028	1.03090	0.43258	−1.21606	2.19160	1.04075	0.93105	1.04640
7.303	−1.19221	−1.96296	−5.18715	−1.31954	1.50543	1.05768	0.60274	−1.29277	1.98528	1.13560	0.81566	0.96772
7.408	−1.14489	−1.91543	−5.24029	−1.27376	1.54282	1.06350	0.74141	−1.40944	1.81605	1.21352	0.71442	0.89044
7.514	−1.10878	−1.87824	−5.26691	−1.23767	1.57957	1.05300	0.85504	−1.56429	1.68530	1.28047	0.62278	0.81376
7.620	−1.08210	−1.85479	−5.26237	−1.20859	1.62027	1.02901	0.94731	−1.75480	1.59345	1.34049	0.53725	0.73737
7.726	−1.06282	−1.84781	−5.22221	−1.18376	1.66782	0.99328	1.02097	−1.97697	1.54058	1.39602	0.45544	0.66147
7.832	−1.04857	−1.85904	−5.14276	−1.16027	1.72354	0.94720	1.07747	−2.22495	1.52543	1.44876	0.37567	0.58663
7.938	−1.03671	−1.88910	−5.02162	−1.13530	1.78726	0.89232	1.11762	−2.49027	1.54513	1.49994	0.29661	0.51375
8.043	−1.02409	−1.93699	−4.85911	−1.10609	1.85733	0.83052	1.14260	−2.76166	1.59379	1.55038	0.21744	0.44351
8.149	−1.00757	−2.00033	−4.65870	−1.07031	1.93083	0.76468	1.15408	−3.02629	1.66297	1.60066	0.13760	0.37665
8.255	−0.98435	−2.07550	−4.42717	−1.02655	2.00460	0.69710	1.15407	−3.27078	1.74154	1.65099	0.05644	0.31409
8.361	−0.95276	−2.15838	−4.17321	−0.97424	2.07530	0.63094	1.14488	−3.48597	1.81888	1.70135	−0.02624	0.25601
8.467	−0.91227	−2.24489	−3.90584	−0.91376	2.14051	0.56857	1.12873	−3.66664	1.88504	1.75129	−0.11062	0.20290
8.573	−0.86356	−2.33166	−3.63260	−0.84632	2.19905	0.51190	1.10746	−3.81150	1.93093	1.80008	−0.19659	0.15495
8.679	−0.80791	−2.41579	−3.35961	−0.77360	2.25026	0.46136	1.08163	−3.92447	1.95155	1.84669	−0.28379	0.11255
8.784	−0.74747	−2.49510	−3.09077	−0.69767	2.29425	0.41689	1.05133	−4.01112	1.94412	1.88975	−0.37135	0.07583
8.890	−0.68440	−2.56764	−2.82905	−0.62125	2.33165	0.37891	1.01685	−4.07699	1.90739	1.92788	−0.45816	0.04454
8.996	−0.62089	−2.63266	−2.57681	−0.54692	2.36317	0.34653	0.97804	−4.12807	1.84355	1.95968	−0.54289	0.01854
9.102	−0.55869	−2.68973	−2.33612	−0.47734	2.38969	0.31918	0.93530	−4.16901	1.75625	1.98398	−0.62425	−0.00267
9.208	−0.49907	−2.73868	−2.10882	−0.41491	2.41209	0.29627	0.88943	−4.20340	1.65060	1.99957	−0.70131	−0.01931
9.314	−0.44324	−2.77991	−1.89624	−0.36153	2.43120	0.27722	0.84159	−4.23390	1.53209	2.00540	−0.77350	−0.03207
9.419	−0.39169	−2.81391	−1.69942	−0.31859	2.44774	0.26131	0.79306	−4.26234	1.40595	2.00022	−0.84094	−0.04147
9.525	−0.34466	−2.84139	−1.51888	−0.28669	2.46208	0.24813	0.74493	−4.29046	1.27812	1.98245	−0.90427	−0.04789
9.631	−0.30217	−2.86318	−1.35466	−0.26605	2.47451	0.23713	0.69825	−4.31940	1.15238	1.95011	−0.96475	−0.05187
9.737	−0.26419	−2.88019	−1.20616	−0.25639	2.48506	0.22760	0.65380	−4.35031	1.03121	1.90070	−1.02401	−0.05427
9.843	−0.23021	−2.89303	−1.07276	−0.25715	2.49349	0.21925	0.61208	−4.38438	0.91730	1.83124	−1.08397	−0.05486
9.949	−0.20003	−2.90250	−0.95341	−0.26749	2.49940	0.21171	0.57330	−4.42300	0.81166	1.73897	−1.14639	−0.05429
10.054	−0.17328	−2.90912	−0.84696	−0.28644	2.50212	0.20475	0.53738	−4.46788	0.71511	1.62231	−1.21256	−0.05287
10.160	−0.14969	−2.91365	−0.75224	−0.31310	2.50085	0.19784	0.50455	−4.52091	0.62641	1.48227	−1.28299	−0.05100
10.266	−0.12881	−2.91643	−0.66809	−0.34619	2.49427	0.19171	0.47414	−4.58540	0.54769	1.32423	−1.35752	−0.04854

(*continued on next page*)

Table 20 (*continued*)

R	$\mu_{63}^{1\Pi\text{-}1\Pi}$	$\mu_{64}^{1\Pi\text{-}1\Pi}$	$\mu_{65}^{1\Pi\text{-}1\Pi}$	$\mu_{71}^{1\Pi\text{-}1\Pi}$	$\mu_{72}^{1\Pi\text{-}1\Pi}$	$\mu_{73}^{1\Pi\text{-}1\Pi}$	$\mu_{74}^{1\Pi\text{-}1\Pi}$	$\mu_{75}^{1\Pi\text{-}1\Pi}$	$\mu_{76}^{1\Pi\text{-}1\Pi}$	$\mu_{81}^{1\Pi\text{-}1\Pi}$	$\mu_{82}^{1\Pi\text{-}1\Pi}$	$\mu_{83}^{1\Pi\text{-}1\Pi}$
10.372	−0.11048	−2.91778	−0.59343	−0.38484	2.48099	0.18524	0.44630	−4.66461	0.47635	1.15736	−1.43582	−0.04636
10.478	−0.09439	−2.91804	−0.52712	−0.42793	2.45886	0.17831	0.42073	−4.76359	0.41163	0.99337	−1.51851	−0.04485
10.584	−0.08022	−2.91741	−0.46838	−0.47415	2.42481	0.17169	0.39670	−4.88917	0.35452	0.84336	−1.60781	−0.04393
10.848	−0.05197	−2.91332	−0.34897	−0.59451	2.25327	0.15389	0.34082	−5.38060	0.23688	0.57827	−1.88988	−0.04773
11.113	−0.03160	−2.90660	−0.26030	−0.69201	1.83044	0.13091	0.27950	−6.23544	0.14956	0.52250	−2.31640	−0.06436
11.377	−0.01718	−2.89852	−0.19433	−0.71026	1.04538	0.09804	0.19746	−7.12062	0.09562	0.67491	−2.75825	−0.08761
11.642	−0.00692	−2.89013	−0.14506	−0.68508	0.33544	0.06808	0.12260	−7.38749	0.07720	0.86999	−2.91816	−0.09620
11.906	0.00026	−2.88159	−0.10838	−0.68334	−0.05816	0.04986	0.07691	−7.34976	0.07646	1.02136	−2.91793	−0.09279
12.171	0.00511	−2.87326	−0.08088	−0.69956	−0.26688	0.03860	0.05041	−7.27429	0.07692	1.14131	−2.88321	−0.08564
12.436	0.00829	−2.86523	−0.06034	−0.72190	−0.38570	0.03071	0.03422	−7.21096	0.07614	1.24113	−2.84417	−0.07792
12.700	0.01031	−2.85759	−0.04492	−0.74512	−0.45740	0.02482	0.02401	−7.16296	0.07190	1.32615	−2.80685	−0.07058
12.965	0.01141	−2.85043	−0.03343	−0.76750	−0.50193	0.01980	0.01732	−7.12704	0.06672	1.39929	−2.77234	−0.06386
13.229	0.01195	−2.84373	−0.02495	−0.78835	−0.52945	0.01561	0.01296	−7.10038	0.06294	1.46253	−2.74076	−0.05784
13.494	0.01201	−2.83755	−0.01858	−0.80766	−0.54564	0.01207	0.01013	−7.07997	0.05862	1.51736	−2.71200	−0.05257
13.759	0.01186	−2.83176	−0.01376	−0.82543	−0.55392	0.00928	0.00845	−7.06496	0.05271	1.56499	−2.68581	−0.04787
14.023	0.01152	−2.82656	−0.01028	−0.84169	−0.55652	0.00643	0.00707	−7.05363	0.04915	1.60643	−2.66202	−0.04389
14.288	0.01108	−2.82176	−0.00743	−0.85662	−0.55486	0.00450	0.00652	−7.04538	0.04320	1.64253	−2.64042	−0.04018
14.552	0.01060	−2.81761	−0.00545	−0.87014	−0.55003	0.00255	0.00574	−7.03931	0.03918	1.67409	−2.62084	−0.03690
14.817	0.01005	−2.81351	−0.00413	−0.88226	−0.54290	0.00103	0.00555	−7.03536	0.03614	1.70168	−2.60306	−0.03404
15.082	0.00951	−2.80976	−0.00313	−0.89303	−0.53395	−0.00010	0.00553	−7.03292	0.03286	1.72587	−2.58690	−0.03149
15.346	0.00896	−2.80636	−0.00226	−0.90248	−0.52360	−0.00113	0.00560	−7.03138	0.03002	1.74712	−2.57218	−0.02937
15.611	0.00850	−2.80334	−0.00177	−0.91057	−0.51226	−0.00195	0.00535	−7.03098	0.02693	1.76586	−2.55881	−0.02736
15.875	0.00798	−2.80029	−0.00147	−0.91731	−0.50021	−0.00260	0.00537	−7.03154	0.02481	1.78246	−2.54660	−0.02552
16.140	0.00751	−2.79749	−0.00118	−0.92267	−0.48764	−0.00277	0.00540	−7.03293	0.02219	1.79722	−2.53543	−0.02386
16.404	0.00705	−2.79484	−0.00105	−0.92676	−0.47475	−0.00313	0.00539	−7.03474	0.02039	1.81043	−2.52518	−0.02235
16.934	0.00621	−2.79003	−0.00088	−0.93114	−0.44852	−0.00354	0.00529	−7.03977	0.01715	1.83306	−2.50702	−0.01970
17.463	0.00546	−2.78590	−0.00076	−0.93078	−0.42232	−0.00352	0.00517	−7.04629	0.01399	1.85186	−2.49142	−0.01751
17.992	0.00482	−2.78215	−0.00071	−0.92642	−0.39668	−0.00347	0.00488	−7.05352	0.01188	1.86782	−2.47788	−0.01561
18.521	0.00427	−2.77879	−0.00066	−0.91859	−0.37192	−0.00327	0.00453	−7.06130	0.01003	1.88177	−2.46593	−0.01397
19.050	0.00377	−2.77577	−0.00057	−0.90801	−0.34819	−0.00298	0.00417	−7.06927	0.00795	1.89419	−2.45530	−0.01254
19.580	0.00335	−2.77328	−0.00059	−0.89536	−0.32564	−0.00268	0.00389	−7.07710	0.00717	1.90540	−2.44571	−0.01138
20.109	0.00299	−2.77080	−0.00057	−0.88122	−0.30432	−0.00237	0.00353	−7.08462	0.00615	1.91567	−2.43707	−0.01027
20.638	0.00266	−2.76888	−0.00048	−0.86617	−0.28424	−0.00210	0.00337	−7.09165	0.00566	1.92477	−2.42934	−0.00942
21.167	0.00241	−2.76679	−0.00047	−0.85051	−0.26541	−0.00183	0.00303	−7.09813	0.00478	1.93355	−2.42218	−0.00853
22.225	0.00180	−2.76389	−0.00028	−0.81857	−0.23139	−0.00141	0.00251	−7.10937	0.00385	1.94917	−2.40962	−0.00713
23.284	0.00146	−2.76068	−0.00027	−0.78792	−0.20202	−0.00100	0.00202	−7.11805	0.00302	1.96290	−2.39894	−0.00592
24.342	0.00119	−2.75799	−0.00023	−0.75929	−0.17679	−0.00067	0.00164	−7.12460	0.00239	1.97509	−2.38964	−0.00496
25.401	0.00100	−2.75581	−0.00017	−0.73313	−0.15515	−0.00043	0.00134	−7.12945	0.00186	1.98606	−2.38136	−0.00418
26.459	0.00082	−2.75397	−0.00020	−0.70952	−0.13663	−0.00025	0.00109	−7.13297	0.00154	1.99577	−2.37406	−0.00354
27.517	0.00069	−2.75237	−0.00017	−0.68837	−0.12077	−0.00013	0.00090	−7.13550	0.00128	2.00482	−2.36726	−0.00302
28.576	0.00058	−2.75106	−0.00016	−0.66948	−0.10716	−0.00003	0.00077	−7.13728	0.00104	2.01331	−2.36088	−0.00262
29.634	0.00049	−2.74988	−0.00014	−0.65268	−0.09544	0.00003	0.00065	−7.13848	0.00089	2.02063	−2.35538	−0.00226
30.692	0.00042	−2.74886	−0.00012	−0.63773	−0.08532	0.00009	0.00055	−7.13925	0.00076	2.02722	−2.35043	−0.00196
31.751	0.00036	−2.74797	−0.00011	−0.62442	−0.07655	0.00013	0.00047	−7.13971	0.00066	2.03307	−2.34604	−0.00171
37.042	0.00018	−2.74486	−0.00007	−0.57630	−0.04674	0.00020	0.00023	−7.13964	0.00035	2.05158	−2.33274	−0.00093
42.334	0.00010	−2.74304	−0.00004	−0.54786	−0.03055	0.00015	0.00013	−7.13834	0.00020	2.07218	−2.31556	−0.00054
47.626	0.00006	−2.74195	−0.00002	−0.53016	−0.02105	0.00011	0.00008	−7.13699	0.00013	2.08539	−2.30441	−0.00033
50.272	0.00005	−2.74156	−0.00002	−0.52381	−0.01776	0.00010	0.00006	−7.13642	0.00011	2.08959	−2.30092	−0.00027
51.859	0.00004	−2.74136	−0.00002	−0.52058	−0.01610	0.00009	0.00005	−7.13611	0.00010	2.09165	−2.29923	−0.00024

Table 21
Transition dipole moments between the (8-9)$^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Pi\text{-}1\Pi}_{84}$	$\mu^{1\Pi\text{-}1\Pi}_{85}$	$\mu^{1\Pi\text{-}1\Pi}_{86}$	$\mu^{1\Pi\text{-}1\Pi}_{87}$	$\mu^{1\Pi\text{-}1\Pi}_{91}$	$\mu^{1\Pi\text{-}1\Pi}_{92}$	$\mu^{1\Pi\text{-}1\Pi}_{93}$	$\mu^{1\Pi\text{-}1\Pi}_{94}$	$\mu^{1\Pi\text{-}1\Pi}_{95}$	$\mu^{1\Pi\text{-}1\Pi}_{96}$	$\mu^{1\Pi\text{-}1\Pi}_{97}$	$\mu^{1\Pi\text{-}1\Pi}_{98}$
2.752	0.51652	0.14438	−0.45662	−0.39031								
2.858	1.03713	−0.10646	−0.42242	−0.47323								
2.963	1.24850	−0.25649	−0.39388	−0.61028	0.03816	0.69149	1.17082	0.59592	−1.12768	−2.65569	3.65095	7.59527
3.069	1.40203	−0.40373	−0.41933	−0.74962	−0.04657	0.55293	1.29309	0.43742	−1.06862	−3.12589	3.25498	7.50100
3.175	1.52667	−0.56169	−0.48903	−0.88507	−0.12753	0.51343	1.37141	0.36849	−1.05481	−3.52902	2.75881	7.37811
3.281	1.63108	−0.72845	−0.58167	−1.00516	−0.19980	0.49225	1.43983	0.31659	−1.04908	−3.84433	2.28217	7.26481
3.387	1.71670	−0.89964	−0.66998	−1.12559	−0.26214	0.47732	1.50207	0.26807	−1.04224	−4.08825	1.85919	7.15308
3.493	1.78758	−1.06612	−0.73219	−1.25610	−0.31349	0.46218	1.55348	0.22888	−1.02454	−4.28408	1.55670	7.02256
3.598	1.84823	−1.22093	−0.75826	−1.40202	−0.35396	0.44454	1.59715	0.19540	−1.00113	−4.43734	1.37595	6.88571
3.704	1.90342	−1.35623	−0.73743	−1.56390	−0.38349	0.42321	1.62514	0.17766	−0.96088	−4.58280	1.34082	6.71930
3.810	1.95740	−1.46856	−0.66890	−1.73712	−0.40383	0.39851	1.64541	0.17546	−0.91747	−4.70168	1.44068	6.53915
3.916	2.01331	−1.55465	−0.54680	−1.91299	−0.41493	0.37116	1.64154	0.20272	−0.84989	−4.82933	1.69825	6.29804
4.022	2.07241	−1.61571	−0.37542	−2.08345	−0.41761	0.34313	1.61081	0.25878	−0.76052	−4.95174	2.09634	5.98718
4.128	2.13722	−1.64982	−0.15686	−2.24511	−0.41253	0.31569	1.53234	0.35843	−0.63146	−5.07685	2.67350	5.54190
4.233	2.20837	−1.66167	0.09886	−2.38614	−0.39538	0.29491	1.33224	0.54211	−0.39524	−5.26239	3.58271	4.76594
4.339	2.28792	−1.65278	0.38079	−2.50154	−0.35314	0.28706	0.90825	0.81208	0.02403	−5.48211	4.88459	3.41430
4.445	2.36947	−1.63548	0.67972	−2.61845	−0.19933	0.32335	−0.39013	1.30713	1.08616	−5.29246	7.22954	0.45562
4.551	2.46053	−1.60458	0.99698	−2.72218	−0.03634	0.32829	−1.37665	1.32179	1.78039	−4.56002	7.80672	−3.24409
4.657	2.56061	−1.57009	1.32449	−2.82516	0.06549	0.31653	−1.83026	1.10711	2.08352	−4.23776	7.68561	−4.43675
4.763	2.67060	−1.53584	1.66377	−2.93783	0.14606	0.29164	−2.08293	0.83790	2.25227	−4.17666	7.44355	−5.11249
4.868	2.79245	−1.50725	2.01293	−3.06464	0.22196	0.25031	−2.22989	0.56078	2.34508	−4.24056	7.14368	−5.55335
4.974	2.92598	−1.48768	2.37132	−3.21070	0.30151	0.19240	−2.30720	0.30200	2.38003	−4.34806	6.79495	−5.86061
5.080	3.06985	−1.47996	2.73162	−3.37697	0.39215	0.11589	−2.33930	0.08008	2.37002	−4.42917	6.40828	−6.07671
5.186	3.22053	−1.48591	3.08548	−3.56413	0.50107	0.00966	−2.33631	−0.08220	2.32140	−4.41676	6.03705	−6.20580
5.292	3.37324	−1.50689	3.42144	−3.76729	0.60572	−0.17575	−2.31117	−0.18538	2.25150	−4.33990	5.64901	−6.22384
5.398	3.51951	−1.54107	3.72497	−3.98613	0.66734	−0.41710	−2.24719	−0.20708	2.14890	−4.23198	5.25062	−6.04465
5.503	3.65356	−1.58897	3.98344	−4.22029	0.69923	−0.64484	−2.15102	−0.14091	2.01233	−4.13978	4.82160	−5.65465
5.609	3.76760	−1.65083	4.18171	−4.46936	0.71351	−0.84036	−2.04997	0.02184	1.83969	−4.08026	4.37078	−5.08129
5.715	3.85212	−1.72968	4.28814	−4.74862	0.70041	−0.99551	−1.97951	0.28562	1.62791	−4.10846	3.90673	−4.39458
5.821	3.88290	−1.83652	4.22489	−5.09503	0.64664	−1.09059	−1.98968	0.68760	1.35514	−4.31823	3.37104	−3.59085
5.927	3.75834	−1.99308	3.71197	−5.60934	0.50766	−1.06089	−2.16271	1.39995	0.91623	−4.90713	2.46566	−2.33404
6.033	3.01872	−2.10396	1.90393	−6.17437	0.16940	−0.68467	−2.51450	2.71917	0.04624	−5.97636	0.36893	0.50148
6.138	1.80121	−1.84375	0.33987	−6.00353	−0.17360	−0.12475	−2.58316	3.68214	−0.79250	−6.38035	−1.79791	2.98253
6.244	1.20524	−1.53190	−1.31766	−5.83065	−0.29347	0.14525	−2.50668	3.93909	−1.11367	−6.35333	−2.52862	3.68789
6.350	1.00816	−1.26442	−1.67543	−5.88166	−0.32474	0.26342	−2.44686	3.99998	−1.22828	−6.33244	−2.57684	4.05533
6.456	1.00196	−1.00281	−1.74234	−5.98639	−0.32759	0.32031	−2.39894	3.99459	−1.26838	−6.32056	−2.25963	4.42161
6.562	1.09773	−0.72822	−1.61160	−5.92986	−0.32087	0.34642	−2.35315	3.95210	−1.27881	−6.29709	−1.64212	4.79098
6.668	1.23146	−0.44238	−1.34019	−5.44804	−0.31162	0.35315	−2.30483	3.87972	−1.28158	−6.25540	−0.75758	5.07414
6.773	1.34177	−0.17046	−1.01568	−4.38953	−0.30350	0.34534	−2.25192	3.78028	−1.29293	−6.20051	0.28751	5.14954
6.879	1.39052	0.04947	−0.74288	−2.95517	−0.29845	0.32485	−2.19317	3.65488	−1.32658	−6.14113	1.29893	4.96690
6.985	1.38296	0.19574	−0.57579	−1.53411	−0.29801	0.29215	−2.12624	3.50666	−1.39686	−6.08011	2.12709	4.58177
7.091	1.34480	0.27212	−0.50252	−0.34918	−0.30312	0.24655	−2.05208	3.33625	−1.51145	−6.02137	2.72786	4.07289
7.197	1.29851	0.29220	−0.48628	0.57480	−0.31456	0.18771	−1.96840	3.14613	−1.67899	−5.96009	3.12480	3.49392
7.303	1.25588	0.26908	−0.49410	1.28832	−0.33312	0.11551	−1.87454	2.93943	−1.90242	−5.89079	3.34947	2.87368
7.408	1.22118	0.21268	−0.50268	1.84794	−0.35910	0.03069	−1.76965	2.72166	−2.17916	−5.80602	3.42704	2.23261
7.514	1.19495	0.13026	−0.49642	2.29786	−0.39237	−0.06475	−1.65414	2.49721	−2.50091	−5.69983	3.37529	1.59149
7.620	1.17612	0.02726	−0.46544	2.66765	−0.43259	−0.16687	−1.53110	2.27196	−2.85154	−5.56934	3.21010	0.97674
7.726	1.16177	−0.09175	−0.40319	2.97721	−0.47860	−0.27128	−1.40356	2.05256	−3.21444	−5.41283	2.94991	0.41061
7.832	1.14911	−0.22266	−0.30626	3.23827	−0.52934	−0.37369	−1.27526	1.84417	−3.57473	−5.22906	2.61483	−0.08967
7.938	1.13542	−0.36252	−0.17527	3.45682	−0.58339	−0.46965	−1.15087	1.65031	−3.91633	−5.01989	2.22948	−0.50913
8.043	1.11809	−0.50809	−0.01419	3.63518	−0.63980	−0.55705	−1.03267	1.47285	−4.23311	−4.78230	1.81699	−0.84697
8.149	1.09529	−0.65611	0.17028	3.77325	−0.69769	−0.63481	−0.92183	1.31205	−4.52175	−4.51340	1.39984	−1.10787
8.255	1.06503	−0.80519	0.36681	3.87136	−0.75638	−0.70242	−0.82003	1.16719	−4.77938	−4.21409	0.99939	−1.29679
8.361	1.02684	−0.95315	0.56470	3.92764	−0.81549	−0.76059	−0.72672	1.03727	−5.00619	−3.88600	0.63123	−1.42317
8.467	0.98026	−1.09897	0.75346	3.94194	−0.87487	−0.81001	−0.64169	0.92063	−5.20231	−3.53475	0.30545	−1.49590
8.573	0.92540	−1.24270	0.92559	3.91495	−0.93439	−0.85182	−0.56441	0.81592	−5.36727	−3.16790	0.02674	−1.52468
8.679	0.86382	−1.38459	1.07513	3.84636	−0.99422	−0.88680	−0.49492	0.72197	−5.50050	−2.79536	−0.20461	−1.51542
8.784	0.79673	−1.52585	1.19855	3.73743	−1.05470	−0.91577	−0.43271	0.63747	−5.60172	−2.42735	−0.39139	−1.47560
8.890	0.72626	−1.66865	1.29420	3.59256	−1.11631	−0.93959	−0.37704	0.56124	−5.67221	−2.07019	−0.53698	−1.41252
8.996	0.65446	−1.81570	1.36100	3.41684	−1.17961	−0.95883	−0.32755	0.49232	−5.71235	−1.73179	−0.64703	−1.33151
9.102	0.58390	−1.97007	1.40041	3.21771	−1.24536	−0.97405	−0.28330	0.42995	−5.72328	−1.41665	−0.72700	−1.23832
9.208	0.51625	−2.13539	1.41321	3.00416	−1.31437	−0.98558	−0.24397	0.37346	−5.70587	−1.12761	−0.78270	−1.13638
9.314	0.45297	−2.31538	1.40192	2.78437	−1.38771	−0.99346	−0.20916	0.32220	−5.66017	−0.86742	−0.81966	−1.02884
9.419	0.39477	−2.51369	1.36870	2.56586	−1.46652	−0.99766	−0.17848	0.27559	−5.58569	−0.63530	−0.84330	−0.91705
9.525	0.34257	−2.73323	1.31804	2.35376	−1.55198	−0.99789	−0.15147	0.23310	−5.48042	−0.43002	−0.85965	−0.80241
9.631	0.29608	−2.97680	1.25248	2.15090	−1.64527	−0.99364	−0.12752	0.19422	−5.34094	−0.24893	−0.87310	−0.68468
9.737	0.25512	−3.24587	1.17587	1.95776	−1.74738	−0.98402	−0.10690	0.15893	−5.16154	−0.09147	−0.88680	−0.56311
9.843	0.21868	−3.53953	1.08869	1.77420	−1.85846	−0.96816	−0.08907	0.12670	−4.93580	0.04622	−0.90303	−0.43585
9.949	0.18610	−3.85301	0.99381	1.59784	−1.97745	−0.94512	−0.07375	0.09753	−4.65657	0.16517	−0.92247	−0.30311
10.054	0.15643	−4.17580	0.89292	1.42601	−2.10132	−0.91441	−0.06072	0.07155	−4.31871	0.26577	−0.94390	−0.16620
10.160	0.12903	−4.49068	0.78926	1.25857	−2.22468	−0.87671	−0.05010	0.04892	−3.92293	0.34775	−0.96371	−0.02840
10.266	0.10268	−4.77589	0.68342	1.09395	−2.34036	−0.83444	−0.04110	0.02963	−3.47911	0.41172	−0.97767	0.10409
10.372	0.07729	−5.00830	0.58149	0.93410	−2.44175	−0.79133	−0.03464	0.01422	−3.00577	0.45597	−0.98140	0.22435
10.478	0.05253	−5.17016	0.48711	0.78017	−2.52427	−0.75206	−0.03023	0.00244	−2.52738	0.48176	−0.97158	0.32730
10.584	0.02781	−5.25079	0.40206	0.63167	−2.58675	−0.72065	−0.02725	−0.00617	−2.06680	0.49213	−0.94717	0.41141

(*continued on next page*)

Table 21 (*continued*)

R	$\mu_{84}^{1\Pi\text{-}1\Pi}$	$\mu_{85}^{1\Pi\text{-}1\Pi}$	$\mu_{86}^{1\Pi\text{-}1\Pi}$	$\mu_{87}^{1\Pi\text{-}1\Pi}$	$\mu_{91}^{1\Pi\text{-}1\Pi}$	$\mu_{92}^{1\Pi\text{-}1\Pi}$	$\mu_{93}^{1\Pi\text{-}1\Pi}$	$\mu_{94}^{1\Pi\text{-}1\Pi}$	$\mu_{95}^{1\Pi\text{-}1\Pi}$	$\mu_{96}^{1\Pi\text{-}1\Pi}$	$\mu_{97}^{1\Pi\text{-}1\Pi}$	$\mu_{98}^{1\Pi\text{-}1\Pi}$
10.848	−0.03581	−5.04770	0.24055	0.26594	−2.66992	−0.68799	−0.02511	−0.01743	−1.07716	0.47117	−0.82518	0.55915
11.113	−0.10894	−4.05528	0.14474	−0.15418	−2.68776	−0.71475	−0.02695	−0.02046	−0.34170	0.42018	−0.61410	0.67163
11.377	−0.17827	−2.13285	0.08638	−0.53724	−2.67460	−0.77867	−0.02980	−0.01956	0.19452	0.36232	−0.32984	0.73647
11.642	−0.20450	−0.45766	0.04139	−0.61978	−2.64696	−0.86050	−0.03264	−0.01752	0.59088	0.31084	−0.11759	0.69652
11.906	−0.20122	0.40281	0.00595	−0.55676	−2.61296	−0.94809	−0.03464	−0.01473	0.88931	0.26631	−0.01752	0.61503
12.171	−0.18934	0.80356	−0.02085	−0.47950	−2.57667	−1.03468	−0.03586	−0.01181	1.11711	0.22979	0.02547	0.53546
12.436	−0.17570	0.98801	−0.03997	−0.41189	−2.54039	−1.11687	−0.03634	−0.00894	1.29255	0.19988	0.04357	0.46629
12.700	−0.16252	1.06400	−0.05421	−0.35575	−2.50538	−1.19318	−0.03620	−0.00625	1.42831	0.17575	0.05061	0.40797
12.965	−0.15016	1.08133	−0.06343	−0.30875	−2.47238	−1.26317	−0.03553	−0.00364	1.53345	0.15488	0.05191	0.35892
13.229	−0.13886	1.06505	−0.06930	−0.26925	−2.44163	−1.32694	−0.03452	−0.00146	1.61443	0.13843	0.05071	0.31782
13.494	−0.12849	1.02879	−0.07221	−0.23589	−2.41330	−1.38490	−0.03331	0.00047	1.67613	0.12435	0.04854	0.28315
13.759	−0.11904	0.98066	−0.07342	−0.20729	−2.38743	−1.43750	−0.03199	0.00204	1.72248	0.11348	0.04518	0.25376
14.023	−0.11025	0.92550	−0.07098	−0.18155	−2.36391	−1.48529	−0.03045	0.00363	1.75609	0.10200	0.04190	0.22820
14.288	−0.10234	0.86648	−0.06942	−0.16037	−2.34270	−1.52870	−0.02902	0.00471	1.77937	0.09480	0.03859	0.20659
14.552	−0.09508	0.80569	−0.06947	−0.14297	−2.32370	−1.56822	−0.02742	0.00573	1.79391	0.08801	0.03672	0.18806
14.817	−0.08844	0.74473	−0.06707	−0.12712	−2.30669	−1.60425	−0.02595	0.00651	1.80105	0.08178	0.03409	0.17168
15.082	−0.08236	0.68463	−0.06445	−0.11359	−2.29158	−1.63716	−0.02455	0.00714	1.80188	0.07637	0.03163	0.15732
15.346	−0.07669	0.62615	−0.05904	−0.10044	−2.27819	−1.66735	−0.02328	0.00764	1.79719	0.07123	0.02885	0.14423
15.611	−0.07153	0.56986	−0.05662	−0.09000	−2.26651	−1.69499	−0.02191	0.00806	1.78785	0.06743	0.02779	0.13282
15.875	−0.06681	0.51611	−0.05396	−0.08130	−2.25627	−1.72042	−0.02072	0.00835	1.77432	0.06363	0.02604	0.12277
16.140	−0.06245	0.46520	−0.05120	−0.07386	−2.24739	−1.74388	−0.01966	0.00857	1.75717	0.06007	0.02426	0.11375
16.404	−0.05842	0.41727	−0.04865	−0.06737	−2.23975	−1.76555	−0.01863	0.00869	1.73684	0.05690	0.02284	0.10561
16.934	−0.05126	0.33064	−0.04384	−0.05688	−2.22773	−1.80427	−0.01676	0.00876	1.68821	0.05127	0.02036	0.09155
17.463	−0.04513	0.25616	−0.03833	−0.04850	−2.21932	−1.83783	−0.01515	0.00862	1.63122	0.04642	0.01818	0.07974
17.992	−0.03988	0.19315	−0.03461	−0.04230	−2.21368	−1.86716	−0.01370	0.00834	1.56804	0.04178	0.01599	0.06990
18.521	−0.03536	0.14039	−0.03123	−0.03746	−2.21028	−1.89299	−0.01241	0.00800	1.50098	0.03818	0.01440	0.06157
19.050	−0.03144	0.09664	−0.02898	−0.03357	−2.20850	−1.91588	−0.01125	0.00761	1.43163	0.03530	0.01286	0.05445
19.580	−0.02812	0.06075	−0.02391	−0.02940	−2.20789	−1.93631	−0.01024	0.00716	1.36146	0.03223	0.01171	0.04813
20.109	−0.02517	0.03137	−0.02171	−0.02667	−2.20806	−1.95458	−0.00931	0.00674	1.29153	0.02975	0.01046	0.04286
20.638	−0.02269	0.00787	−0.01795	−0.02315	−2.20881	−1.97079	−0.00840	0.00633	1.22265	0.02793	0.00873	0.03807
21.167	−0.02043	−0.01138	−0.01647	−0.02119	−2.20983	−1.98558	−0.00765	0.00592	1.15595	0.02594	0.00777	0.03411
22.225	−0.01675	−0.03890	−0.01314	−0.01725	−2.21245	−2.01091	−0.00634	0.00519	1.03037	0.02356	0.00633	0.02753
23.284	−0.01383	−0.05605	−0.01133	−0.01467	−2.21476	−2.03189	−0.00535	0.00454	0.91663	0.02010	0.00522	0.02253
24.342	−0.01152	−0.06618	−0.00978	−0.01253	−2.21676	−2.04950	−0.00451	0.00394	0.81574	0.01761	0.00436	0.01861
25.401	−0.00968	−0.07165	−0.00844	−0.01074	−2.21805	−2.06459	−0.00382	0.00342	0.72688	0.01545	0.00371	0.01550
26.459	−0.00819	−0.07388	−0.00749	−0.00928	−2.21865	−2.07748	−0.00330	0.00297	0.64868	0.01280	0.00328	0.01302
27.517	−0.00698	−0.07417	−0.00656	−0.00804	−2.21875	−2.08896	−0.00283	0.00258	0.58067	0.01131	0.00287	0.01102
28.576	−0.00601	−0.07328	−0.00516	−0.00673	−2.21823	−2.09927	−0.00245	0.00223	0.52113	0.00980	0.00263	0.00937
29.634	−0.00519	−0.07122	−0.00454	−0.00588	−2.21772	−2.10808	−0.00212	0.00195	0.46915	0.00874	0.00233	0.00804
30.692	−0.00450	−0.06860	−0.00400	−0.00515	−2.21703	−2.11586	−0.00185	0.00171	0.42360	0.00783	0.00207	0.00694
31.751	−0.00392	−0.06564	−0.00355	−0.00453	−2.21631	−2.12265	−0.00162	0.00150	0.38359	0.00704	0.00184	0.00602
37.042	−0.00209	−0.04978	−0.00241	−0.00252	−2.21497	−2.14370	−0.00086	0.00082	0.24310	0.00397	0.00111	0.00311
42.334	−0.00122	−0.03783	−0.00155	−0.00150	−2.20461	−2.16572	−0.00051	0.00048	0.16317	0.00266	0.00068	0.00179
47.626	−0.00076	−0.02875	−0.00106	−0.00095	−2.19745	−2.17964	−0.00032	0.00030	0.11467	0.00187	0.00044	0.00110
50.272	−0.00061	−0.02514	−0.00089	−0.00077	−2.19532	−2.18403	−0.00026	0.00024	0.09752	0.00159	0.00036	0.00088
51.859	−0.00054	−0.02323	−0.00081	−0.00068	−2.19431	−2.18617	−0.00023	0.00021	0.08884	0.00145	0.00032	0.00077

Table 22
Transition dipole moments between the (1-6)$^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Pi\,3\Pi}_{21}$	$\mu^{3\Pi\,3\Pi}_{31}$	$\mu^{3\Pi\,3\Pi}_{32}$	$\mu^{3\Pi\,3\Pi}_{41}$	$\mu^{3\Pi\,3\Pi}_{42}$	$\mu^{3\Pi\,3\Pi}_{43}$	$\mu^{3\Pi\,3\Pi}_{51}$	$\mu^{3\Pi\,3\Pi}_{52}$	$\mu^{3\Pi\,3\Pi}_{53}$	$\mu^{3\Pi\,3\Pi}_{54}$	$\mu^{3\Pi\,3\Pi}_{61}$	$\mu^{3\Pi\,3\Pi}_{62}$
2.540	−1.64396	2.06774	0.36126	2.44655	−0.84283	−0.55344	−0.24131	−0.51386	0.90458	−0.36586	−0.01232	−1.75324
2.646	−1.83944	1.86311	−0.25323	2.51018	−0.75967	−0.57604	−0.26514	−0.45437	0.67812	−0.31557	0.02215	−1.75908
2.752	−1.99840	1.64887	−0.88084	2.57316	−0.68419	−0.56340	−0.28944	−0.34808	0.47337	−0.27185	0.05161	−1.74039
2.858	−2.12139	1.44618	−1.47307	2.62914	−0.62242	−0.52924	−0.31423	−0.20086	0.29355	−0.23879	0.07776	−1.70594
2.963	−2.21647	1.26913	−2.00401	2.67457	−0.57235	−0.48856	−0.33943	−0.02289	0.14077	−0.21755	0.10121	−1.66177
3.069	−2.29322	1.12236	−2.46509	2.70970	−0.52876	−0.44983	−0.36494	0.17409	0.01577	−0.20590	0.12250	−1.61055
3.175	−2.35932	1.00355	−2.85800	2.73719	−0.48781	−0.41458	−0.39075	0.37693	−0.08121	−0.20056	0.14227	−1.55343
3.281	−2.41971	0.90728	−3.18909	2.76028	−0.44821	−0.38022	−0.41686	0.57413	−0.15135	−0.19848	0.16113	−1.49129
3.387	−2.47710	0.82780	−3.46645	2.78196	−0.41040	−0.34296	−0.44317	0.75587	−0.19665	−0.19748	0.17972	−1.42533
3.493	−2.53268	0.76017	−3.69811	2.80473	−0.37594	−0.29925	−0.46928	0.91465	−0.22048	−0.19632	0.19864	−1.35712
3.598	−2.58670	0.70044	−3.89138	2.83065	−0.34703	−0.24629	−0.49430	1.04541	−0.22604	−0.19443	0.21826	−1.28830
3.704	−2.63887	0.64539	−4.05249	2.86151	−0.32648	−0.18240	−0.51679	1.14540	−0.21700	−0.19144	0.23856	−1.22058
3.810	−2.68864	0.59208	−4.18647	2.89887	−0.31767	−0.10685	−0.53499	1.21331	−0.19725	−0.18713	0.25923	−1.15532
3.916	−2.73528	0.53757	−4.29705	2.94404	−0.32443	−0.01979	−0.54749	1.24861	−0.16885	−0.18121	0.27969	−1.09328
4.022	−2.77796	0.47837	−4.38686	2.99804	−0.35080	0.07799	−0.55351	1.25144	−0.13342	−0.17294	0.29921	−1.03508
4.128	−2.81578	0.40988	−4.45730	3.06147	−0.40148	0.18553	−0.55306	1.22211	−0.09197	−0.16109	0.31706	−0.98097
4.233	−2.84771	0.32549	−4.50832	3.13444	−0.48287	0.30201	−0.54688	1.16086	−0.04535	−0.14375	0.33265	−0.93091
4.339	−2.87268	0.21491	−4.53765	3.21627	−0.60509	0.42692	−0.53599	1.06781	0.00552	−0.11834	0.34565	−0.88492
4.445	−2.88952	0.06138	−4.53916	3.30453	−0.78514	0.55924	−0.52137	0.94302	0.05892	−0.08109	0.35586	−0.84273
4.551	−2.89702	−0.16328	−4.49857	3.39214	−1.05127	0.69471	−0.50376	0.78666	0.11138	−0.02689	0.36327	−0.80399
4.657	−2.89386	−0.50419	−4.38406	3.45949	−1.44607	0.81673	−0.48357	0.59902	0.15523	0.05128	0.36799	−0.76847
4.763	−2.87879	−1.01489	−4.13284	3.45873	−2.00813	0.87456	−0.46093	0.38099	0.17449	0.16036	0.37016	−0.73557
4.868	−2.85060	−1.68654	−3.67729	3.31674	−2.68505	0.77569	−0.43578	0.13428	0.14434	0.29773	0.37004	−0.70524
4.974	−2.80825	−2.35891	−3.08069	3.03529	−3.26581	0.50220	−0.40787	−0.13843	0.05230	0.44224	0.36781	−0.67707
5.080	−2.75096	−2.87656	−2.53426	2.74027	−3.59932	0.18881	−0.37707	−0.43312	−0.08513	0.57597	0.36371	−0.65081
5.186	−2.67838	−3.24102	−2.12908	2.51974	−3.72393	−0.06320	−0.34327	−0.74410	−0.25042	0.69974	0.35791	−0.62628
5.292	−2.59071	−3.50818	−1.84664	2.37983	−3.71930	−0.24038	−0.30656	−1.06444	−0.43816	0.81945	0.35059	−0.60360
5.398	−2.48881	−3.71734	−1.64817	2.30160	−3.63645	−0.35504	−0.26727	−1.38612	−0.64750	0.93828	0.34193	−0.58322
5.503	−2.37421	−3.88869	−1.50450	2.26755	−3.50396	−0.41888	−0.22602	−1.70074	−0.87694	1.05708	0.33210	−0.56630
5.609	−2.24908	−4.03164	−1.39723	2.26549	−3.33979	−0.44043	−0.18359	−2.00028	−1.12339	1.17566	0.32124	−0.55610
5.715	−2.11609	−4.15028	−1.31501	2.28728	−3.15719	−0.42664	−0.14094	−2.27786	−1.38214	1.29359	0.30963	−0.56224
5.821	−1.97820	−4.24627	−1.25099	2.32738	−2.96698	−0.38449	−0.09907	−2.52836	−1.64780	1.41010	0.29793	−0.62829
5.927	−1.83841	−4.32022	−1.20092	2.38170	−2.77809	−0.32153	−0.05892	−2.74842	−1.91440	1.52486	0.28276	−1.59514
6.033	−1.69950	−4.37258	−1.16219	2.44692	−2.59759	−0.24580	−0.02131	−2.93638	−2.17644	1.63741	0.09109	−3.17049
6.138	−1.56390	−4.40395	−1.13323	2.52005	−2.43067	−0.16533	0.01309	−3.09201	−2.42918	1.74714	0.08571	−2.96410
6.244	−1.43357	−4.41533	−1.11296	2.59820	−2.28064	−0.08752	0.04376	−3.21602	−2.66882	1.85328	0.08730	−2.74492
6.350	−1.30996	−4.40817	−1.10064	2.67844	−2.14931	−0.01862	0.07037	−3.30995	−2.89289	1.95481	0.08929	−2.51528
6.456	−1.19403	−4.38436	−1.09570	2.75790	−2.03724	0.03673	0.09275	−3.37575	−3.10009	2.05055	0.09099	−2.27730
6.562	−1.08637	−4.34615	−1.09762	2.83381	−1.94407	0.07572	0.11088	−3.41571	−3.29019	2.13920	0.09262	−2.03225
6.668	−0.98715	−4.29604	−1.10588	2.90372	−1.86889	0.09741	0.12489	−3.43231	−3.46383	2.21972	0.09463	−1.77988
6.773	−0.89634	−4.23664	−1.11996	2.96557	−1.81047	0.10244	0.13503	−3.42812	−3.62225	2.29113	0.09753	−1.51790
6.879	−0.81369	−4.17052	−1.13932	3.01784	−1.76742	0.09275	0.14162	−3.40567	−3.76695	2.35285	0.10167	−1.24208
6.985	−0.73881	−4.10006	−1.16337	3.05961	−1.73829	0.07112	0.14510	−3.36739	−3.89934	2.40470	0.10711	−0.94713
7.091	−0.67122	−4.02742	−1.19154	3.09051	−1.72174	0.04076	0.14594	−3.31550	−4.02064	2.44677	0.11343	−0.62919
7.197	−0.61040	−3.95440	−1.22320	3.11063	−1.71650	0.00488	0.14466	−3.25207	−4.13167	2.47947	0.11960	−0.29146
7.303	−0.55581	−3.88247	−1.25772	3.12049	−1.72137	−0.03354	0.14176	−3.17888	−4.23280	2.50339	0.12437	0.05104
7.408	−0.50688	−3.81276	−1.29445	3.12093	−1.73531	−0.07197	0.13772	−3.09750	−4.32396	2.51932	0.12721	0.37386
7.514	−0.46309	−3.74615	−1.33275	3.11287	−1.75731	−0.10847	0.13299	−3.00929	−4.40471	2.52782	0.12866	0.65508
7.620	−0.42392	−3.68318	−1.37196	3.09742	−1.78643	−0.14155	0.12796	−2.91544	−4.47436	2.52963	0.13016	0.88543
7.726	−0.38889	−3.62420	−1.41143	3.07564	−1.82178	−0.17029	0.12295	−2.81702	−4.53208	2.52531	0.13317	1.06696
7.832	−0.35756	−3.56940	−1.45052	3.04856	−1.86251	−0.19416	0.11823	−2.71497	−4.57702	2.51525	0.13871	1.20686
7.938	−0.32950	−3.51880	−1.48863	3.01714	−1.90775	−0.21301	0.11400	−2.61016	−4.60841	2.49963	0.14731	1.31294
8.043	−0.30436	−3.47236	−1.52519	2.98220	−1.95664	−0.22690	0.11043	−2.50343	−4.62573	2.47846	0.15918	1.39176
8.149	−0.28179	−3.42994	−1.55970	2.94448	−2.00835	−0.23609	0.10761	−2.39556	−4.62871	2.45150	0.17415	1.44848
8.255	−0.26151	−3.39138	−1.59171	2.90459	−2.06202	−0.24089	0.10565	−2.28734	−4.61742	2.41837	0.19199	1.48695
8.361	−0.24323	−3.35646	−1.62089	2.86303	−2.11685	−0.24172	0.10458	−2.17957	−4.59236	2.37864	0.21227	1.51016
8.467	−0.22672	−3.32496	−1.64695	2.82022	−2.17207	−0.23897	0.10443	−2.07298	−4.55428	2.33184	0.23451	1.52043
8.573	−0.21178	−3.29667	−1.66971	2.77650	−2.22697	−0.23309	0.10516	−1.96830	−4.50425	2.27764	0.25818	1.51965
8.679	−0.19822	−3.27136	−1.68909	2.73216	−2.28093	−0.22454	0.10675	−1.86615	−4.44360	2.21589	0.28270	1.50936
8.784	−0.18589	−3.24881	−1.70506	2.68742	−2.33342	−0.21380	0.10908	−1.76710	−4.37378	2.14674	0.30750	1.49090
8.890	−0.17463	−3.22883	−1.71769	2.64248	−2.38401	−0.20136	0.11201	−1.67162	−4.29633	2.07065	0.33202	1.46545
8.996	−0.16433	−3.21122	−1.72710	2.59749	−2.43240	−0.18767	0.11537	−1.58004	−4.21276	1.98837	0.35571	1.43411
9.102	−0.15488	−3.19579	−1.73343	2.55264	−2.47834	−0.17325	0.11895	−1.49258	−4.12464	1.90083	0.37812	1.39776
9.208	−0.14620	−3.18235	−1.73687	2.50804	−2.52172	−0.15853	0.12255	−1.40936	−4.03335	1.80924	0.39883	1.35730
9.314	−0.13818	−3.17075	−1.73764	2.46384	−2.56249	−0.14386	0.12595	−1.33034	−3.94015	1.71482	0.41747	1.31348
9.419	−0.13077	−3.16080	−1.73594	2.42008	−2.60064	−0.12959	0.12893	−1.25548	−3.84616	1.61881	0.43380	1.26700
9.525	−0.12390	−3.15240	−1.73200	2.37695	−2.63623	−0.11594	0.13131	−1.18457	−3.75239	1.52241	0.44752	1.21848
9.631	−0.11753	−3.14538	−1.72604	2.33449	−2.66936	−0.10311	0.13293	−1.11742	−3.65965	1.42664	0.45846	1.16848
9.737	−0.11159	−3.13962	−1.71825	2.29277	−2.70015	−0.09120	0.13365	−1.05376	−3.56859	1.33238	0.46643	1.11760
9.843	−0.10604	−3.13499	−1.70881	2.25182	−2.72872	−0.08028	0.13335	−0.99334	−3.47975	1.24033	0.47112	1.06657
9.949	−0.10086	−3.13139	−1.69794	2.21167	−2.75524	−0.07037	0.13197	−0.93586	−3.39352	1.15108	0.47192	1.01680
10.054	−0.09601	−3.12873	−1.68578	2.17235	−2.77984	−0.06146	0.12944	−0.88107	−3.31015	1.06501	0.46647	0.97192
10.160	−0.09146	−3.12688	−1.67249	2.13386	−2.80271	−0.05350	0.12577	−0.82870	−3.22982	0.98237	0.43996	0.95094
10.266	−0.08716	−3.12583	−1.65823	2.09620	−2.82396	−0.04639	0.12095	−0.77854	−3.15251	0.90326	−0.15972	0.90073
10.372	−0.08314	−3.12539	−1.64305	2.05931	−2.84375	−0.04021	0.11504	−0.73037	−3.07838	0.82806	−0.33058	−0.69893

(*continued on next page*)

Table 22 (*continued*)

R	$\mu_{21}^{3\Pi,3\Pi}$	$\mu_{31}^{3\Pi,3\Pi}$	$\mu_{32}^{3\Pi,3\Pi}$	$\mu_{41}^{3\Pi,3\Pi}$	$\mu_{42}^{3\Pi,3\Pi}$	$\mu_{43}^{3\Pi,3\Pi}$	$\mu_{51}^{3\Pi,3\Pi}$	$\mu_{52}^{3\Pi,3\Pi}$	$\mu_{53}^{3\Pi,3\Pi}$	$\mu_{54}^{3\Pi,3\Pi}$	$\mu_{61}^{3\Pi,3\Pi}$	$\mu_{62}^{3\Pi,3\Pi}$
10.478	−0.07934	−3.12554	−1.62711	2.02323	−2.86220	−0.03474	0.10813	−0.68408	−3.00728	0.75658	−0.34642	−0.67604
10.584	−0.07575	−3.12621	−1.61049	1.98791	−2.87946	−0.02993	0.10032	−0.63957	−2.93911	0.68894	−0.34882	−0.67211
10.848	−0.06761	−3.12981	−1.56657	1.90275	−2.91793	−0.02051	0.07792	−0.53597	−2.78099	0.53704	−0.33052	−0.68508
11.113	−0.06049	−3.13553	−1.52010	1.82170	−2.95095	−0.01392	0.05382	−0.44401	−2.63986	0.41012	−0.26603	−0.70907
11.377	−0.05423	−3.14273	−1.47196	1.74433	−2.97964	−0.00935	0.03094	−0.36499	−2.51615	0.30816	−0.12128	−0.68783
11.642	−0.04869	−3.15091	−1.42280	1.67021	−3.00487	−0.00630	0.01140	−0.29944	−2.41062	0.22937	0.01146	−0.57439
11.906	−0.04379	−3.15968	−1.37316	1.59911	−3.02721	−0.00416	−0.00398	−0.24664	−2.32316	0.17037	0.06340	−0.46602
12.171	−0.03942	−3.16873	−1.32347	1.53074	−3.04714	−0.00270	−0.01534	−0.20483	−2.25243	0.12714	0.07786	−0.38684
12.436	−0.03554	−3.17781	−1.27407	1.46499	−3.06500	−0.00170	−0.02331	−0.17194	−2.19591	0.09572	0.07920	−0.32793
12.700	−0.03208	−3.18672	−1.22523	1.40170	−3.08104	−0.00102	−0.02859	−0.14602	−2.15123	0.07297	0.07611	−0.28242
12.965	−0.02897	−3.19531	−1.17718	1.34082	−3.09541	−0.00058	−0.03185	−0.12547	−2.11606	0.05650	0.07172	−0.24622
13.229	−0.02621	−3.20353	−1.13015	1.28228	−3.10836	−0.00029	−0.03365	−0.10899	−2.08818	0.04441	0.06719	−0.21679
13.494	−0.02373	−3.21127	−1.08428	1.22604	−3.11996	−0.00011	−0.03441	−0.09564	−2.06607	0.03549	0.06296	−0.19243
13.759	−0.02151	−3.21850	−1.03969	1.17206	−3.13034	−0.00001	−0.03443	−0.08468	−2.04846	0.02886	0.05913	−0.17196
14.023	−0.01953	−3.22519	−0.99648	1.12030	−3.13960	0.00004	−0.03395	−0.07557	−2.03443	0.02387	0.05572	−0.15458
14.288	−0.01774	−3.23134	−0.95472	1.07074	−3.14783	0.00008	−0.03313	−0.06791	−2.02302	0.02003	0.05264	−0.13963
14.552	−0.01614	−3.23695	−0.91446	1.02334	−3.15512	0.00011	−0.03209	−0.06140	−2.01372	0.01706	0.04986	−0.12668
14.817	−0.01470	−3.24204	−0.87574	0.97804	−3.16154	0.00012	−0.03091	−0.05581	−2.00610	0.01471	0.04733	−0.11535
15.082	−0.01341	−3.24662	−0.83856	0.93481	−3.16717	0.00013	−0.02965	−0.05096	−1.99978	0.01285	0.04501	−0.10536
15.346	−0.01225	−3.25073	−0.80292	0.89359	−3.17210	0.00013	−0.02836	−0.04672	−1.99451	0.01134	0.04285	−0.09654
15.611	−0.01120	−3.25438	−0.76880	0.85432	−3.17637	0.00012	−0.02707	−0.04298	−1.99006	0.01009	0.04083	−0.08870
15.875	−0.01026	−3.25762	−0.73618	0.81693	−3.18006	0.00012	−0.02579	−0.03967	−1.98628	0.00905	0.03894	−0.08170
16.140	−0.00940	−3.26047	−0.70503	0.78135	−3.18323	0.00011	−0.02455	−0.03670	−1.98303	0.00818	0.03715	−0.07541
16.404	−0.00863	−3.26298	−0.67531	0.74752	−3.18592	0.00011	−0.02335	−0.03404	−1.98020	0.00743	0.03545	−0.06972
16.934	−0.00730	−3.26705	−0.61997	0.68479	−3.19010	0.00010	−0.02109	−0.02946	−1.97558	0.00623	0.03228	−0.05996
17.463	−0.00622	−3.27006	−0.56977	0.62819	−3.19294	0.00012	−0.01902	−0.02568	−1.97186	0.00528	0.02945	−0.05193
17.992	−0.00532	−3.27223	−0.52428	0.57710	−3.19474	0.00011	−0.01717	−0.02252	−1.96879	0.00454	0.02686	−0.04523
18.521	−0.00458	−3.27371	−0.48308	0.53101	−3.19573	0.00012	−0.01550	−0.01985	−1.96621	0.00393	0.02451	−0.03958
19.050	−0.00395	−3.27464	−0.44577	0.48939	−3.19610	0.00011	−0.01401	−0.01757	−1.96399	0.00343	0.02237	−0.03482
19.580	−0.00343	−3.27516	−0.41196	0.45179	−3.19600	0.00010	−0.01269	−0.01562	−1.96206	0.00301	0.02043	−0.03077
20.109	−0.00300	−3.27534	−0.38131	0.41778	−3.19554	0.00012	−0.01151	−0.01394	−1.96035	0.00263	0.01866	−0.02733
20.638	−0.00263	−3.27528	−0.35349	0.38696	−3.19483	0.00011	−0.01046	−0.01248	−1.95882	0.00233	0.01707	−0.02435
21.167	−0.00231	−3.27502	−0.32821	0.35901	−3.19395	0.00010	−0.00952	−0.01121	−1.95745	0.00208	0.01563	−0.02178
22.225	−0.00181	−3.27418	−0.28423	0.31052	−3.19176	0.00009	−0.00791	−0.00913	−1.95503	0.00159	0.01317	−0.01753
23.284	−0.00144	−3.27301	−0.24761	0.27021	−3.18944	0.00007	−0.00663	−0.00751	−1.95305	0.00129	0.01113	−0.01433
24.342	−0.00116	−3.27171	−0.21691	0.23649	−3.18709	0.00006	−0.00559	−0.00624	−1.95138	0.00105	0.00945	−0.01183
25.401	−0.00095	−3.27038	−0.19102	0.20810	−3.18482	0.00006	−0.00474	−0.00523	−1.94998	0.00086	0.00807	−0.00987
26.459	−0.00079	−3.26909	−0.16905	0.18403	−3.18268	0.00005	−0.00404	−0.00441	−1.94879	0.00074	0.00689	−0.00831
27.517	−0.00065	−3.26787	−0.15031	0.16352	−3.18070	0.00005	−0.00348	−0.00377	−1.94776	0.00064	0.00594	−0.00709
28.576	−0.00055	−3.26673	−0.13422	0.14594	−3.17889	0.00004	−0.00300	−0.00323	−1.94688	0.00054	0.00514	−0.00606
29.634	−0.00046	−3.26567	−0.12034	0.13079	−3.17724	0.00004	−0.00261	−0.00278	−1.94612	0.00046	0.00447	−0.00520
30.692	−0.00040	−3.26471	−0.10830	0.11766	−3.17575	0.00003	−0.00227	−0.00241	−1.94545	0.00040	0.00390	−0.00450
31.751	−0.00034	−3.26383	−0.09782	0.10623	−3.17440	0.00003	−0.00199	−0.00210	−1.94487	0.00035	0.00342	−0.00391
37.042	−0.00017	−3.26050	−0.06155	0.06674	−3.16937	0.00002	−0.00108	−0.00112	−1.94282	0.00021	0.00186	−0.00208
42.334	−0.00010	−3.25844	−0.04120	0.04464	−3.16631	0.00001	−0.00063	−0.00065	−1.94163	0.00013	0.00110	−0.00120
47.626	−0.00006	−3.25712	−0.02892	0.03132	−3.16437	0.00001	−0.00040	−0.00041	−1.94090	0.00008	0.00069	−0.00074
50.272	−0.00005	−3.25664	−0.02459	0.02662	−3.16367	0.00000	−0.00032	−0.00033	−1.94064	0.00007	0.00056	−0.00059
51.859	−0.00004	−3.25640	−0.02239	0.02424	−3.16331	0.00000	−0.00028	−0.00029	−1.94051	0.00006	0.00049	−0.00052

Table 23
Transition dipole moments between the (6-8)$^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Pi\,3\Pi}_{63}$	$\mu^{3\Pi\,3\Pi}_{64}$	$\mu^{3\Pi\,3\Pi}_{65}$	$\mu^{3\Pi\,3\Pi}_{71}$	$\mu^{3\Pi\,3\Pi}_{72}$	$\mu^{3\Pi\,3\Pi}_{73}$	$\mu^{3\Pi\,3\Pi}_{74}$	$\mu^{3\Pi\,3\Pi}_{75}$	$\mu^{3\Pi\,3\Pi}_{76}$	$\mu^{3\Pi\,3\Pi}_{81}$	$\mu^{3\Pi\,3\Pi}_{82}$	$\mu^{3\Pi\,3\Pi}_{83}$
2.540	−0.41498	−0.25252	−5.46008	−0.01837	−0.99946	−2.29766	1.19429	−1.97043	6.34824			
2.646	−0.78064	−0.12594	−5.36052	−0.02053	−1.26160	−2.22391	0.88139	−1.75880	7.25964			
2.752	−1.15569	0.00459	−5.23423	−0.04774	−1.47086	−2.12279	0.60212	−1.53950	8.06112			
2.858	−1.51928	0.11979	−5.07636	−0.06801	−1.62012	−2.01444	0.41222	−1.35085	8.67223			
2.963	−1.86635	0.21589	−4.88993	−0.08471	−1.71867	−1.91174	0.30282	−1.19262	9.14196	−0.05815	−0.51154	0.63998
3.069	−2.19657	0.29428	−4.68205	−0.09958	−1.77625	−1.81780	0.24846	−1.05788	9.52245	−0.00956	−0.56608	0.91103
3.175	−2.51006	0.35809	−4.45884	−0.11324	−1.80067	−1.73107	0.23050	−0.94074	9.84881	0.01801	−0.52907	0.99810
3.281	−2.80584	0.41059	−4.23025	−0.12593	−1.79876	−1.64990	0.23863	−0.83939	10.13642	0.03659	−0.49579	1.06011
3.387	−3.08275	0.45495	−4.00659	−0.13770	−1.77666	−1.57271	0.26769	−0.75216	10.39245	0.05094	−0.46968	1.11141
3.493	−3.34039	0.49338	−3.79714	−0.14856	−1.73963	−1.49851	0.31498	−0.67847	10.62170	0.06289	−0.44480	1.15703
3.598	−3.57858	0.52754	−3.60989	−0.15851	−1.69264	−1.42677	0.37858	−0.61770	10.82525	0.07328	−0.42055	1.19819
3.704	−3.79701	0.55903	−3.45204	−0.16749	−1.63985	−1.35735	0.45593	−0.56794	11.00427	0.08228	−0.39741	1.23447
3.810	−3.99534	0.59005	−3.32922	−0.17563	−1.58490	−1.29054	0.54400	−0.52559	11.15949	0.09029	−0.37598	1.26749
3.916	−4.17358	0.62382	−3.24298	−0.18295	−1.53056	−1.22562	0.63967	−0.49047	11.29434	0.09732	−0.35461	1.29692
4.022	−4.33116	0.66529	−3.19453	−0.18952	−1.47952	−1.16181	0.73968	−0.46233	11.40976	0.10346	−0.33432	1.32437
4.128	−4.46688	0.72136	−3.18358	−0.19548	−1.43417	−1.09772	0.84182	−0.44022	11.50835	0.10883	−0.31468	1.35040
4.233	−4.57825	0.80160	−3.20941	−0.20098	−1.39702	−1.03122	0.94529	−0.42309	11.59229	0.11338	−0.29941	1.37651
4.339	−4.66145	0.91959	−3.27010	−0.20615	−1.37098	−0.95812	1.05096	−0.41040	11.66318	0.11708	−0.28184	1.40032
4.445	−4.70791	1.09585	−3.36431	−0.21119	−1.36009	−0.87194	1.16153	−0.40035	11.72140	0.12042	−0.26643	1.42595
4.551	−4.70054	1.36239	−3.49017	−0.21617	−1.37111	−0.76032	1.28119	−0.39219	11.76584	0.12425	−0.25842	1.45922
4.657	−4.60326	1.76561	−3.64555	−0.22114	−1.41589	−0.60088	1.41329	−0.38530	11.78878	0.13413	−0.29893	1.53144
4.763	−4.34743	2.34690	−3.82776	−0.22599	−1.51808	−0.36080	1.55259	−0.37879	11.76824	0.10665	0.02326	1.30485
4.868	−3.86397	3.05099	−4.03319	−0.22965	−1.72707	−0.02265	1.66804	−0.37273	11.63072	−0.20680	1.63344	1.05125
4.974	−3.22968	3.65405	−4.25730	−0.22678	−2.14673	0.35861	1.71716	−0.36699	11.09430	−0.21839	1.59548	0.76658
5.080	−2.65786	3.99728	−4.49422	−0.19851	−2.83839	0.68411	1.64725	−0.35574	9.31187	−0.23047	1.45962	0.58923
5.186	−2.24664	4.12144	−4.73677	−0.13873	−3.39136	0.89767	1.44076	−0.33768	6.35204	−0.24309	1.26584	0.51261
5.292	−1.97464	4.11013	−4.97626	−0.08595	−3.61730	1.07290	1.27649	−0.34183	4.08901	−0.25718	1.03919	0.51099
5.398	−1.79930	4.01716	−5.20300	−0.04815	−3.69986	1.25318	1.19213	−0.37363	2.63743	−0.27333	0.78726	0.56740
5.503	−1.68948	3.87257	−5.40646	−0.01983	−3.71111	1.43188	1.15371	−0.43107	1.60811	−0.29147	0.51116	0.67637
5.609	−1.62675	3.69488	−5.57594	0.00208	−3.67020	1.59672	1.14178	−0.51813	0.79049	−0.30856	0.20944	0.83446
5.715	−1.60416	3.49539	−5.69955	0.01830	−3.58354	1.73394	1.15271	−0.65236	0.07936	−0.31787	−0.09754	1.02659
5.821	−1.63947	3.27082	−5.75481	0.02576	−3.44868	1.81505	1.22019	−0.91187	−0.60174	−0.31165	−0.37702	1.23450
5.927	2.15841	2.55996	−5.16028	0.05248	−2.94763	−1.29985	2.09313	−2.78573	−1.53818	−0.28351	−0.60330	1.45860
6.033	2.21055	0.66818	0.24337	0.26017	0.05040	−1.32531	3.06345	−5.84058	−1.34538	−0.22787	−0.75759	1.70249
6.138	2.18563	0.76263	0.65491	0.24894	0.16188	−1.44007	2.88517	−5.73102	−1.98186	−0.14458	−0.81862	1.94644
6.244	2.17878	0.73416	0.88792	0.23486	0.15325	−1.49195	2.76530	−5.55976	−2.50012	−0.05321	−0.79314	2.13016
6.350	2.16102	0.66193	1.09232	0.22042	0.10443	−1.53487	2.69536	−5.31755	−2.96613	0.01987	−0.73437	2.23868
6.456	2.13204	0.55687	1.29440	0.20639	0.02229	−1.57711	2.68323	−4.99366	−3.38299	0.06842	−0.68485	2.30423
6.562	2.09671	0.41909	1.50233	0.19339	−0.10037	−1.61927	2.74123	−4.57241	−3.73906	0.09834	−0.65373	2.35079
6.668	2.06104	0.24444	1.71969	0.18166	−0.27641	−1.65660	2.88049	−4.03315	−4.00784	0.11550	−0.63722	2.38653
6.773	2.03166	0.02604	1.94863	0.17062	−0.51581	−1.67620	3.09755	−3.36388	−4.14155	0.12327	−0.63017	2.41222
6.879	2.01445	−0.24529	2.19042	0.15794	−0.80739	−1.65659	3.35289	−2.60240	−4.08008	0.12333	−0.62820	2.42636
6.985	2.01351	−0.57914	2.44465	0.14025	−1.10591	−1.58008	3.57209	−1.87193	−3.79560	0.11625	−0.62818	2.42798
7.091	2.02884	−0.98015	2.70734	0.11599	−1.35555	−1.44798	3.69372	−1.32103	−3.32162	0.10205	−0.62646	2.41404
7.197	2.05421	−1.43884	2.96836	0.08622	−1.52408	−1.27668	3.69953	−1.01879	−2.71698	0.08051	−0.62045	2.38323
7.303	2.07718	−1.92413	3.21271	0.05325	−1.60490	−1.08773	3.60065	−0.94195	−2.04202	0.05128	−0.60679	2.33311
7.408	2.08500	−2.39108	3.42729	0.01953	−1.60850	−0.90474	3.42610	−1.02047	−1.37060	0.01440	−0.58197	2.26216
7.514	2.07173	−2.80377	3.60846	−0.01313	−1.55693	−0.74723	3.21454	−1.17901	−0.77523	−0.03022	−0.54223	2.16790
7.620	2.03881	−3.14935	3.76134	−0.04394	−1.47468	−0.62423	3.00039	−1.36380	−0.29222	−0.08187	−0.48378	2.05004
7.726	1.99092	−3.43302	3.89370	−0.07285	−1.38069	−0.53444	2.80368	−1.54643	0.08003	−0.13958	−0.40290	1.90814
7.832	1.93246	−3.66656	4.01175	−0.10008	−1.28638	−0.47163	2.63170	−1.71645	0.36240	−0.20203	−0.29612	1.74220
7.938	1.86655	−3.86118	4.11927	−0.12587	−1.19752	−0.42879	2.48444	−1.87262	0.57859	−0.26758	−0.16031	1.55215
8.043	1.79521	−4.02521	4.21808	−0.15035	−1.11650	−0.39994	2.35895	−2.01748	0.74838	−0.33436	0.00645	1.33871
8.149	1.71993	−4.16436	4.30877	−0.17359	−1.04395	−0.38067	2.25153	−2.15485	0.88596	−0.39983	0.20501	1.10275
8.255	1.64177	−4.28222	4.39102	−0.19555	−0.97965	−0.36774	2.15878	−2.28863	1.00140	−0.46097	0.43115	0.85032
8.361	1.56171	−4.38079	4.46424	−0.21619	−0.92313	−0.35878	2.07747	−2.42217	1.10171	−0.51437	0.67510	0.59241
8.467	1.48059	−4.46144	4.52747	−0.23547	−0.87362	−0.35227	2.00529	−2.55867	1.19134	−0.55711	0.92159	0.34580
8.573	1.39927	−4.52498	4.57974	−0.25336	−0.83041	−0.34705	1.94027	−2.70078	1.27338	−0.58811	1.15425	0.12769
8.679	1.31845	−4.57215	4.62020	−0.26986	−0.79279	−0.34235	1.88094	−2.85069	1.34988	−0.60835	1.36123	−0.05038
8.784	1.23885	−4.60352	4.64826	−0.28500	−0.76012	−0.33755	1.82612	−3.01023	1.42217	−0.62034	1.53783	−0.18554
8.890	1.16114	−4.61965	4.66364	−0.29879	−0.73184	−0.33214	1.77497	−3.18091	1.49122	−0.62681	1.68499	−0.28145
8.996	1.08598	−4.62110	4.66641	−0.31132	−0.70745	−0.32583	1.72680	−3.36397	1.55812	−0.63034	1.80684	−0.34573
9.102	1.01367	−4.60926	4.65691	−0.32260	−0.68650	−0.31816	1.68124	−3.56035	1.62271	−0.63247	1.90761	−0.38483
9.208	0.94468	−4.58500	4.63590	−0.33275	−0.66860	−0.30889	1.63799	−3.77089	1.68581	−0.63460	1.99132	−0.40543
9.314	0.87933	−4.54950	4.60432	−0.34187	−0.65336	−0.29781	1.59683	−3.99626	1.74777	−0.63789	2.06110	−0.41286
9.419	0.81772	−4.50439	4.56322	−0.35003	−0.64052	−0.28450	1.55755	−4.23676	1.80892	−0.64246	2.11971	−0.41027
9.525	0.76011	−4.45080	4.51359	−0.35741	−0.62969	−0.26885	1.51989	−4.49290	1.86954	−0.64929	2.16887	−0.40136
9.631	0.70652	−4.39043	4.45599	−0.36415	−0.62052	−0.25054	1.48329	−4.76492	1.92943	−0.65882	2.20997	−0.38799
9.737	0.65695	−4.32498	4.39002	−0.37050	−0.61251	−0.22924	1.44656	−5.05332	1.98766	−0.67154	2.24413	−0.37205
9.843	0.61143	−4.25653	4.31283	−0.37686	−0.60480	−0.20442	1.40696	−5.35958	2.04144	−0.68789	2.27165	−0.35377
9.949	0.57003	−4.18866	4.21421	−0.38414	−0.59568	−0.17521	1.35750	−5.68892	2.08203	−0.70846	2.29349	−0.33506
10.054	0.53314	−4.12954	4.05624	−0.39516	−0.57956	−0.13868	1.27430	−6.06174	2.07781	−0.73389	2.30951	−0.31572
10.160	0.50258	−4.11634	3.59941	−0.42546	−0.52435	−0.07814	1.01460	−6.60079	1.82187	−0.76457	2.32001	−0.29630
10.266	0.26991	−2.85347	−4.30020	0.58952	0.52308	0.38489	−3.02339	−6.44728	3.53776	−0.80129	2.32494	−0.27721
10.372	−0.10367	1.80633	−6.32987	0.51001	0.71358	0.42352	−3.65427	4.86414	3.06024	−0.84456	2.32420	−0.25861

(*continued on next page*)

Table 23 (*continued*)

R	$\mu_{63}^{3\Pi,3\Pi}$	$\mu_{64}^{3\Pi,3\Pi}$	$\mu_{65}^{3\Pi,3\Pi}$	$\mu_{71}^{3\Pi,3\Pi}$	$\mu_{72}^{3\Pi,3\Pi}$	$\mu_{73}^{3\Pi,3\Pi}$	$\mu_{74}^{3\Pi,3\Pi}$	$\mu_{75}^{3\Pi,3\Pi}$	$\mu_{76}^{3\Pi,3\Pi}$	$\mu_{81}^{3\Pi,3\Pi}$	$\mu_{82}^{3\Pi,3\Pi}$	$\mu_{83}^{3\Pi,3\Pi}$
10.478	−0.05190	1.69450	−6.74908	0.49393	0.67860	0.40418	−3.61935	4.67734	3.06764	−0.89490	2.31762	−0.24064
10.584	−0.01022	1.68137	−7.02276	0.48527	0.62650	0.38531	−3.53911	4.66036	3.19248	−0.95285	2.30486	−0.22345
10.848	0.07640	1.82222	−7.33501	0.47672	0.46868	0.35394	−3.25902	4.99609	3.76812	−1.13213	2.24471	−0.18378
11.113	0.12016	2.23161	−6.83099	0.49387	0.25610	0.35734	−2.78500	6.04197	4.63930	−1.35425	2.14399	−0.14959
11.377	0.07927	2.87777	−4.78813	0.52975	−0.04215	0.39842	−1.85885	7.78748	4.67617	−1.59513	2.01283	−0.12183
11.642	0.00932	3.17817	−2.41782	0.52960	−0.26835	0.42866	−0.90837	8.65750	2.94361	−1.81928	1.87434	−0.10107
11.906	−0.02102	3.17684	−1.20613	0.51704	−0.35705	0.43503	−0.43326	8.65431	1.63161	−2.00086	1.75323	−0.08651
12.171	−0.02957	3.11791	−0.65579	0.51165	−0.38722	0.42495	−0.21963	8.43265	0.94200	−2.13447	1.66264	−0.07660
12.436	−0.03023	3.05865	−0.38247	0.51334	−0.39580	0.40177	−0.11587	8.18542	0.56520	−2.22740	1.60329	−0.06984
12.700	−0.02827	3.00825	−0.23457	0.52078	−0.39592	0.36916	−0.06200	7.96555	0.34531	−2.28996	1.56976	−0.06458
12.965	−0.02570	2.96722	−0.14948	0.53298	−0.39288	0.33057	−0.03292	7.78749	0.21003	−2.33079	1.55560	−0.06012
13.229	−0.02293	2.93415	−0.09773	0.54910	−0.38921	0.28895	−0.01683	7.65115	0.12481	−2.35605	1.55511	−0.05615
13.494	−0.02037	2.90754	−0.06521	0.56842	−0.38608	0.24680	−0.00784	7.54997	0.06968	−2.37007	1.56408	−0.05246
13.759	−0.01811	2.88602	−0.04426	0.59019	−0.38399	0.20645	−0.00275	7.47509	0.03460	−2.37582	1.57932	−0.04882
14.023	−0.01622	2.86875	−0.03066	0.61375	−0.38319	0.16928	0.00011	7.41810	0.01225	−2.37548	1.59859	−0.04532
14.288	−0.01452	2.85443	−0.02126	0.63851	−0.38372	0.13632	0.00178	7.37268	0.00161	−2.37052	1.62019	−0.04200
14.552	−0.01308	2.84261	−0.01478	0.66388	−0.38538	0.10811	0.00284	7.33407	−0.00971	−2.36216	1.64292	−0.03877
14.817	−0.01185	2.83280	−0.01027	0.68946	−0.38790	0.08453	0.00352	7.29971	−0.01437	−2.35142	1.66595	−0.03571
15.082	−0.01079	2.82464	−0.00722	0.71481	−0.39086	0.06523	0.00401	7.26841	−0.01690	−2.33910	1.68866	−0.03285
15.346	−0.00988	2.81771	−0.00495	0.73956	−0.39385	0.04971	0.00438	7.23962	−0.01807	−2.32591	1.71066	−0.03020
15.611	−0.00900	2.81181	−0.00331	0.76329	−0.39644	0.03736	0.00465	7.21333	−0.01844	−2.31238	1.73170	−0.02781
15.875	−0.00834	2.80679	−0.00220	0.78571	−0.39823	0.02771	0.00481	7.18950	−0.01738	−2.29910	1.75163	−0.02560
16.140	−0.00771	2.80239	−0.00134	0.80634	−0.39901	0.02018	0.00499	7.16844	−0.01679	−2.28630	1.77047	−0.02362
16.404	−0.00716	2.79857	−0.00073	0.82494	−0.39858	0.01440	0.00515	7.15011	−0.01652	−2.27439	1.78817	−0.02183
16.934	−0.00618	2.79214	−0.00011	0.85539	−0.39384	0.00658	0.00532	7.12150	−0.01501	−2.25378	1.82049	−0.01878
17.463	−0.00547	2.78708	0.00024	0.87652	−0.38421	0.00229	0.00495	7.10207	−0.01208	−2.23781	1.84926	−0.01639
17.992	−0.00481	2.78277	0.00046	0.88856	−0.37078	−0.00011	0.00476	7.09086	−0.01051	−2.22632	1.87504	−0.01445
18.521	−0.00423	2.77930	0.00050	0.89287	−0.35460	−0.00133	0.00451	7.08559	−0.00880	−2.21860	1.89835	−0.01287
19.050	−0.00376	2.77609	0.00055	0.89092	−0.33682	−0.00189	0.00419	7.08483	−0.00761	−2.21380	1.91942	−0.01149
19.580	−0.00334	2.77324	0.00054	0.88416	−0.31828	−0.00206	0.00384	7.08696	−0.00661	−2.21118	1.93860	−0.01035
20.109	−0.00298	2.77102	0.00054	0.87401	−0.29960	−0.00203	0.00369	7.09078	−0.00617	−2.21011	1.95599	−0.00933
20.638	−0.00267	2.76869	0.00051	0.86151	−0.28125	−0.00189	0.00334	7.09550	−0.00536	−2.21001	1.97185	−0.00846
21.167	−0.00241	2.76659	0.00048	0.84755	−0.26354	−0.00170	0.00301	7.10052	−0.00467	−2.21055	1.98628	−0.00770
22.225	−0.00182	2.76384	0.00030	0.81744	−0.23066	−0.00137	0.00249	7.11024	−0.00377	−2.21264	2.01113	−0.00636
23.284	−0.00147	2.76062	0.00025	0.78749	−0.20174	−0.00099	0.00202	7.11837	−0.00297	−2.21491	2.03198	−0.00533
24.342	−0.00121	2.75798	0.00022	0.75913	−0.17666	−0.00067	0.00163	7.12473	−0.00232	−2.21683	2.04953	−0.00449
25.401	−0.00100	2.75577	0.00018	0.73307	−0.15511	−0.00043	0.00133	7.12949	−0.00188	−2.21812	2.06459	−0.00381
26.459	−0.00082	2.75395	0.00020	0.70950	−0.13662	−0.00025	0.00109	7.13299	−0.00155	−2.21862	2.07753	−0.00330
27.517	−0.00069	2.75242	0.00020	0.68834	−0.12078	−0.00012	0.00092	7.13552	−0.00127	−2.21847	2.08924	−0.00284
28.576	−0.00058	2.75105	0.00016	0.66948	−0.10716	−0.00003	0.00077	7.13728	−0.00105	−2.21822	2.09928	−0.00245
29.634	−0.00049	2.74988	0.00014	0.65268	−0.09544	0.00003	0.00065	7.13848	−0.00089	−2.21771	2.10809	−0.00212
30.692	−0.00042	2.74886	0.00012	0.63773	−0.08532	0.00009	−0.00055	7.13925	−0.00077	−2.21703	2.11586	−0.00185
31.751	−0.00036	2.74797	0.00011	0.62442	−0.07655	0.00013	0.00047	7.13971	−0.00066	−2.21631	2.12265	−0.00162
37.042	−0.00018	2.74486	0.00007	0.57630	−0.04674	0.00020	0.00023	7.13964	−0.00034	−2.21496	2.14371	−0.00086
42.334	−0.00010	2.74304	0.00004	0.54786	−0.03055	0.00015	0.00013	7.13834	−0.00020	−2.20460	2.16573	−0.00051
47.626	−0.00006	2.74195	0.00002	0.53016	−0.02105	0.00011	0.00008	7.13699	−0.00013	−2.19743	2.17965	−0.00032
50.272	−0.00005	2.74156	0.00002	0.52381	−0.01776	0.00010	0.00006	7.13642	−0.00011	−2.19531	2.18405	−0.00026
51.859	−0.00004	2.74136	0.00002	0.52058	−0.01610	0.00009	0.00005	7.13611	−0.00010	−2.19430	2.18619	−0.00023

Table 24
Transition dipole moments between the (8-9)$^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Pi,3\Pi}_{84}$	$\mu^{3\Pi,3\Pi}_{85}$	$\mu^{3\Pi,3\Pi}_{86}$	$\mu^{3\Pi,3\Pi}_{87}$	$\mu^{3\Pi,3\Pi}_{91}$	$\mu^{3\Pi,3\Pi}_{92}$	$\mu^{3\Pi,3\Pi}_{93}$	$\mu^{3\Pi,3\Pi}_{94}$	$\mu^{3\Pi,3\Pi}_{95}$	$\mu^{3\Pi,3\Pi}_{96}$	$\mu^{3\Pi,3\Pi}_{97}$	$\mu^{3\Pi,3\Pi}_{98}$
2.752					0.07267	0.86440	0.84201	1.62462	−0.07981	1.21309	−0.06405	
2.858					0.09252	0.91224	0.74540	0.76714	−0.02704	0.51171	−0.03482	
2.963	−2.30788	0.58756	−3.24536	2.24969	0.10280	0.91844	0.67429	0.50275	−0.02031	0.54899	−0.05926	−4.71226
3.069	−0.87905	0.69558	−2.55455	4.13304	0.11188	0.91345	0.62090	0.39218	−0.02699	0.74874	−0.18826	−6.52449
3.175	−0.42839	0.73839	−2.22589	4.76078	0.12025	0.90329	0.57971	0.33864	−0.03844	0.99732	−0.31033	−6.62038
3.281	−0.25942	0.77980	−2.06769	5.16047	0.12787	0.89231	0.54908	0.30921	−0.05242	1.25368	−0.41594	−6.47358
3.387	−0.18044	0.81466	−1.97097	5.49209	0.13444	0.88251	0.52607	0.29046	−0.06769	1.50492	−0.50309	−6.24285
3.493	−0.13742	0.84019	−1.89034	5.80628	0.13993	0.87871	0.50979	0.27413	−0.08211	1.73586	−0.56608	−5.99876
3.598	−0.11171	0.85755	−1.81518	6.10286	0.14425	0.88402	0.49857	0.25631	−0.09430	1.93898	−0.60385	−5.75905
3.704	−0.09407	0.86382	−1.74263	6.38974	0.14729	0.90055	0.49144	0.23519	−0.10324	2.10881	−0.61603	−5.54489
3.810	−0.08024	0.86709	−1.67099	6.65545	0.14902	0.93087	0.48746	0.21017	−0.11044	2.23900	−0.60435	−5.36919
3.916	−0.06538	0.86556	−1.59652	6.90442	0.14947	0.97724	0.48551	0.18144	−0.11623	2.32565	−0.57529	−5.22391
4.022	−0.04833	0.86225	−1.52398	7.12765	0.14848	1.04265	0.48415	0.14967	−0.11736	2.36283	−0.51975	−5.13075
4.128	−0.02653	0.85664	−1.45283	7.32933	0.14593	1.12974	0.48226	0.11541	−0.11421	2.34362	−0.44063	−5.08554
4.233	0.00191	0.85539	−1.38634	7.48075	0.14157	1.24165	0.47863	0.07882	−0.10660	2.25821	−0.33701	−5.11293
4.339	0.04127	0.84823	−1.31945	7.61268	0.13491	1.38147	0.47075	0.03968	−0.09373	2.09292	−0.20529	−5.17790
4.445	0.09771	0.84675	−1.25412	7.68739	0.12538	1.55137	0.45608	−0.00309	−0.07655	1.82600	−0.04148	−5.30843
4.551	0.18665	0.86813	−1.18970	7.64036	0.11191	1.75086	0.42965	−0.05073	−0.05564	1.42462	0.16203	−5.53511
4.657	0.35034	0.98753	−1.14860	7.24329	0.09302	1.97178	0.38300	−0.10138	−0.03216	0.83598	0.41384	−5.93705
4.763	0.40452	0.57130	−0.89233	8.06680	0.06659	2.19170	0.30711	−0.14215	−0.01049	−0.03429	0.73222	−5.81693
4.868	1.19800	−2.17628	−1.64620	5.43164	0.02862	2.35426	0.20623	−0.12567	0.00142	−1.37253	1.14857	−1.79242
4.974	1.32659	−1.88426	−1.94433	4.91760	−0.02920	2.32439	−0.14042	0.04640	0.01266	−3.58276	1.67804	−0.40081
5.080	1.41008	−1.69153	−2.06403	4.16306	−0.11336	1.82669	−0.23924	0.46641	0.06933	−6.94538	2.00256	1.18554
5.186	1.49442	−1.58720	−2.00184	3.11851	−0.18588	1.01071	−0.48986	0.90249	0.12398	−9.69094	1.51276	2.38494
5.292	1.61135	−1.56002	−1.76633	2.32115	−0.22283	0.47729	−0.70334	1.12988	0.12502	−10.81990	0.90011	2.85859
5.398	1.76757	−1.60136	−1.35174	1.82772	−0.24430	0.20198	−0.85451	1.25719	0.08603	−11.24330	0.51841	3.08785
5.503	1.96187	−1.70108	−0.75418	1.48797	−0.26161	0.04815	−0.96540	1.36585	0.01605	−11.41164	0.30057	3.18655
5.609	2.16564	−1.84585	0.04242	1.19769	−0.27882	−0.05154	−1.04712	1.48895	−0.08721	−11.45703	0.18970	3.18760
5.715	2.31553	−2.00232	1.01487	0.87925	−0.29812	−0.13196	−1.10046	1.64745	−0.23468	−11.40809	0.18515	3.00041
5.821	2.34494	−2.13846	2.14566	0.46862	−0.32125	−0.21693	−1.11520	1.85712	−0.44598	−11.23679	0.40933	2.58297
5.927	2.21752	−2.22971	3.31918	0.99729	−0.34933	−0.33044	−1.06893	2.13736	−0.75373	−10.23325	3.71518	1.92955
6.033	1.89448	−2.23249	0.57034	5.06857	−0.38098	−0.49921	−0.92279	2.49092	−1.19561	−1.38599	10.07726	1.08522
6.138	1.35113	−2.08125	0.31056	6.94692	−0.40616	−0.73402	−0.64932	2.85598	−1.76592	−0.93292	8.86387	0.21273
6.244	0.69075	−1.77752	0.24112	8.52248	−0.40968	−0.99521	−0.31191	3.10627	−2.35271	−0.79842	7.20556	−0.30524
6.350	0.09587	−1.43664	0.21012	9.45458	−0.39057	−1.22859	−0.03333	3.19724	−2.85126	−0.67787	5.63387	−0.28062
6.456	−0.36774	−1.14168	0.17108	9.85649	−0.35950	−1.42199	0.13461	3.18190	−3.27100	−0.49545	4.39311	0.14971
6.562	−0.72664	−0.90081	0.11539	9.92200	−0.32384	−1.58221	0.19709	3.09710	−3.65605	−0.20724	3.41846	0.84890
6.668	−1.01551	−0.69835	0.04688	9.74301	−0.28675	−1.70992	0.16422	2.94115	−4.02795	0.22238	2.58044	1.76225
6.773	−1.25682	−0.52006	−0.03023	9.32656	−0.25042	−1.79422	0.04299	2.69367	−4.37032	0.81247	1.78835	2.85336
6.879	−1.46176	−0.35576	−0.10665	8.66880	−0.21812	−1.81927	−0.14648	2.34940	−4.62194	1.52656	1.04474	4.00238
6.985	−1.63644	−0.19721	−0.17430	7.85327	−0.19470	−1.78450	−0.35860	1.95331	−4.71245	2.24842	0.46162	4.98526
7.091	−1.78166	−0.03977	−0.22262	7.05732	−0.18369	−1.71576	−0.54428	1.58308	−4.63230	2.85224	0.14886	5.62821
7.197	−1.89618	0.11984	−0.24957	6.42560	−0.18489	−1.64385	−0.68157	1.28600	−4.43380	3.28337	0.10150	5.90874
7.303	−1.97766	0.28398	−0.26373	6.00340	−0.19570	−1.58450	−0.77281	1.06473	−4.17466	3.55041	0.22853	5.89974
7.408	−2.02300	0.45293	−0.28171	5.76983	−0.21341	−1.54074	−0.82826	0.90223	−3.89191	3.68862	0.42233	5.68302
7.514	−2.02888	0.62807	−0.31532	5.68221	−0.23595	−1.51039	−0.85728	0.77987	−3.60531	3.74018	0.59963	5.31710
7.620	−1.99244	0.80811	−0.36179	5.69362	−0.26185	−1.49027	−0.86642	0.68382	−3.32471	3.74450	0.71920	4.84845
7.726	−1.91115	0.99249	−0.40639	5.76345	−0.29017	−1.47748	−0.86040	0.60454	−3.05536	3.72936	0.77261	4.31152
7.832	−1.78340	1.18064	−0.43083	5.85856	−0.32030	−1.46978	−0.84252	0.53593	−2.80013	3.71070	0.76861	3.73370
7.938	−1.60731	1.37255	−0.41624	5.95274	−0.35182	−1.46549	−0.81527	0.47433	−2.56058	3.69641	0.72086	3.13875
8.043	−1.38341	1.56732	−0.34875	6.02407	−0.38443	−1.46340	−0.78064	0.41769	−2.33764	3.69006	0.64248	2.54323
8.149	−1.11190	1.76412	−0.21407	6.05236	−0.41789	−1.46259	−0.74026	0.36500	−2.13167	3.69266	0.54404	1.96228
8.255	−0.80115	1.95758	0.00903	6.01833	−0.45203	−1.46245	−0.69567	0.31582	−1.94286	3.70483	0.43358	1.40819
8.361	−0.46698	2.13947	0.25956	5.90869	−0.48665	−1.46257	−0.64813	0.27033	−1.77112	3.72634	0.31729	0.89411
8.467	−0.13369	2.29975	0.57150	5.72148	−0.52163	−1.46269	−0.59886	0.22874	−1.61614	3.75711	0.19928	0.43400
8.573	0.17240	2.43101	0.89795	5.47082	−0.55683	−1.46272	−0.54889	0.19137	−1.47750	3.79706	0.08252	0.03836
8.679	0.43201	2.53151	1.21185	5.18194	−0.59218	−1.46264	−0.49909	0.15848	−1.35461	3.84648	−0.03087	−0.28978
8.784	0.63739	2.60476	1.49517	4.88032	−0.62762	−1.46260	−0.45020	0.13027	−1.24684	3.90530	−0.13963	−0.55601
8.890	0.79034	2.65655	1.74064	4.58473	−0.66315	−1.46275	−0.40290	0.10694	−1.15345	3.97320	−0.24291	−0.77043
8.996	0.89848	2.69302	1.94856	4.30429	−0.69873	−1.46351	−0.35730	0.08828	−1.07373	4.04908	−0.34046	−0.94547
9.102	0.96989	2.71846	2.12205	4.04376	−0.73445	−1.46507	−0.31401	0.07439	−1.00679	4.13366	−0.43261	−1.09088
9.208	1.01246	2.73624	2.26563	3.80326	−0.77040	−1.46777	−0.27312	0.06520	−0.95174	4.22528	−0.51935	−1.21520
9.314	1.03280	2.74874	2.38322	3.58129	−0.80661	−1.47187	−0.23463	0.06063	−0.90775	4.32263	−0.60096	−1.32483
9.419	1.03650	2.75698	2.47904	3.37562	−0.84341	−1.47788	−0.19891	0.06015	−0.87375	4.42436	−0.67799	−1.42471
9.525	1.02750	2.76218	2.55628	3.18356	−0.88087	−1.48599	−0.16559	0.06380	−0.84893	4.52725	−0.75042	−1.51814
9.631	1.00918	2.76485	2.61733	3.00271	−0.91917	−1.49653	−0.13475	0.07110	−0.83232	4.62910	−0.81820	−1.60754
9.737	0.98419	2.76531	2.66502	2.82968	−0.95849	−1.50981	−0.10621	0.08158	−0.82292	4.72675	−0.88047	−1.69449
9.843	0.95416	2.76396	2.70099	2.66282	−0.99897	−1.52608	−0.08003	0.09453	−0.81996	4.81721	−0.93385	−1.77932
9.949	0.92081	2.76052	2.73152	2.49370	−1.04083	−1.54564	−0.05596	0.10951	−0.82205	4.89735	−0.97026	−1.86260
10.054	0.88503	2.75531	2.76778	2.30628	−1.08417	−1.56873	−0.03397	0.12555	−0.82837	4.96854	−0.95946	−1.94367
10.160	0.84764	2.74795	2.87869	1.99888	−1.12907	−1.59564	−0.01394	0.14178	−0.83790	5.05406	−0.72306	−2.02106
10.266	0.80928	2.73838	3.02059	1.56588	−1.17552	−1.62661	0.00422	0.15720	−0.84955	3.16470	4.02872	−2.09307
10.372	0.77011	2.72611	2.28665	2.37341	−1.22353	−1.66195	0.02079	0.17060	−0.86275	1.88472	4.74848	−2.15710
10.478	0.73044	2.71075	2.09418	2.39742	−1.27292	−1.70189	0.03562	0.18102	−0.87639	1.81298	4.72177	−2.21004
10.584	0.69051	2.69177	1.96706	2.34939	−1.32338	−1.74658	0.04880	0.18777	−0.88996	1.85677	4.60737	−2.24811

(*continued on next page*)

Table 24 (*continued*)

R	$\mu^{3\Pi,3\Pi}_{84}$	$\mu^{3\Pi,3\Pi}_{85}$	$\mu^{3\Pi,3\Pi}_{86}$	$\mu^{3\Pi,3\Pi}_{87}$	$\mu^{3\Pi,3\Pi}_{91}$	$\mu^{3\Pi,3\Pi}_{92}$	$\mu^{3\Pi,3\Pi}_{93}$	$\mu^{3\Pi,3\Pi}_{94}$	$\mu^{3\Pi,3\Pi}_{95}$	$\mu^{3\Pi,3\Pi}_{96}$	$\mu^{3\Pi,3\Pi}_{97}$	$\mu^{3\Pi,3\Pi}_{98}$
10.848	0.58829	2.62470	1.75870	2.08803	−1.44995	−1.87967	0.07578	0.18108	−0.92247	2.11775	4.04051	−2.25409
11.113	0.48332	2.52244	1.68783	1.61699	−1.56401	−2.03825	0.09423	0.13923	−0.95366	2.51288	3.01594	−2.09422
11.377	0.37890	2.38135	1.66196	0.91231	−1.64485	−2.20493	0.10429	0.07261	−0.98516	2.78716	1.48477	−1.77649
11.642	0.28265	2.21036	1.39186	0.40374	−1.68022	−2.35426	0.10649	0.00225	−1.01200	2.39739	0.25254	−1.38927
11.906	0.20251	2.02855	1.02396	0.26632	−1.67855	−2.46890	0.10285	−0.05415	−1.02494	1.78077	−0.27788	−1.03872
12.171	0.14135	1.85481	0.71123	0.27866	−1.65945	−2.54713	0.09602	−0.09122	−1.01943	1.27850	−0.48129	−0.77453
12.436	0.09704	1.70061	0.47582	0.33131	−1.63893	−2.59620	0.08776	−0.11190	−0.99792	0.92029	−0.55247	−0.59250
12.700	0.06579	1.57161	0.30766	0.38513	−1.62463	−2.62464	0.07939	−0.12102	−0.96554	0.67219	−0.56451	−0.47019
12.965	0.04382	1.46850	0.19014	0.42713	−1.61863	−2.63921	0.07168	−0.12328	−0.92694	0.50140	−0.54708	−0.38710
13.229	0.02850	1.39015	0.10892	0.45235	−1.62044	−2.64424	0.06448	−0.12129	−0.88583	0.38233	−0.51170	−0.32869
13.494	0.01772	1.33444	0.05281	0.46075	−1.62855	−2.64286	0.05806	−0.11700	−0.84412	0.29890	−0.46707	−0.28597
13.759	0.01006	1.29908	0.01499	0.45343	−1.64138	−2.63704	0.05238	−0.11123	−0.80303	0.23606	−0.41752	−0.25301
14.023	0.00457	1.28137	−0.01069	0.43276	−1.65752	−2.62826	0.04732	−0.10516	−0.76268	0.19178	−0.36713	−0.22674
14.288	0.00068	1.27828	−0.02817	0.40328	−1.67571	−2.61748	0.04295	−0.09894	−0.72307	0.15894	−0.31831	−0.20511
14.552	−0.00213	1.28705	−0.03952	0.36720	−1.69498	−2.60547	0.03911	−0.09283	−0.68390	0.13415	−0.27323	−0.18669
14.817	−0.00417	1.30472	−0.04669	0.32788	−1.71452	−2.59284	0.03574	−0.08694	−0.64484	0.11507	−0.23276	−0.17069
15.082	−0.00563	1.32843	−0.05086	0.28773	−1.73371	−2.57999	0.03286	−0.08120	−0.60570	0.09707	−0.19650	−0.15634
15.346	−0.00668	1.35546	−0.05312	0.24869	−1.75211	−2.56737	0.03024	−0.07597	−0.56609	0.08552	−0.16625	−0.14380
15.611	−0.00744	1.38334	−0.05391	0.21215	−1.76941	−2.55518	0.02792	−0.07106	−0.52610	0.07621	−0.14087	−0.13258
15.875	−0.00795	1.41015	−0.05385	0.17814	−1.78541	−2.54359	0.02587	−0.06649	−0.48592	0.06855	−0.11981	−0.12249
16.140	−0.00829	1.43404	−0.05283	0.14837	−1.80008	−2.53274	0.02397	−0.06220	−0.44570	0.06357	−0.10332	−0.11357
16.404	−0.00850	1.45394	−0.05150	0.12178	−1.81336	−2.52258	0.02247	−0.05824	−0.40612	0.05569	−0.08797	−0.10506
16.934	−0.00863	1.47867	−0.04845	0.07928	−1.83622	−2.50456	0.01969	−0.05118	−0.32971	0.04736	−0.06732	−0.09089
17.463	−0.00860	1.48170	−0.04518	0.04815	−1.85494	−2.48919	0.01741	−0.04509	−0.25958	0.04124	−0.05342	−0.07915
17.992	−0.00834	1.46471	−0.04176	0.02752	−1.87057	−2.47594	0.01550	−0.03985	−0.19760	0.03637	−0.04454	−0.06943
18.521	−0.00798	1.43128	−0.03853	0.01346	−1.88401	−2.46436	0.01395	−0.03536	−0.14453	0.03085	−0.03741	−0.06101
19.050	−0.00759	1.38544	−0.03551	0.00519	−1.89581	−2.45413	0.01255	−0.03146	−0.10002	0.02765	−0.03292	−0.05401
19.580	−0.00717	1.33133	−0.03277	0.00007	−1.90658	−2.44489	0.01131	−0.02808	−0.06318	0.02491	−0.02949	−0.04799
20.109	−0.00672	1.27212	−0.03061	−0.00269	−1.91633	−2.43650	0.01037	−0.02522	−0.03328	0.02023	−0.02547	−0.04254
20.638	−0.00630	1.21050	−0.02831	−0.00429	−1.92552	−2.42884	0.00938	−0.02265	−0.00887	0.01846	−0.02322	−0.03804
21.167	−0.00590	1.14834	−0.02622	−0.00506	−1.93410	−2.42181	0.00850	−0.02040	0.01076	0.01689	−0.02127	−0.03411
22.225	−0.00521	1.02726	−0.02337	−0.00516	−1.94930	−2.40951	0.00711	−0.01675	0.03854	0.01340	−0.01721	−0.02752
23.284	−0.00453	0.91561	−0.02033	−0.00474	−1.96297	−2.39888	0.00591	−0.01382	0.05591	0.01150	−0.01466	−0.02252
24.342	−0.00393	0.81540	−0.01780	−0.00416	−1.97511	−2.38963	0.00495	−0.01152	0.06612	0.00993	−0.01253	−0.01860
25.401	−0.00341	0.72680	−0.01565	−0.00361	−1.98605	−2.38136	0.00418	−0.00967	0.07161	0.00856	−0.01076	−0.01550
26.459	−0.00297	0.64863	−0.01275	−0.00325	−1.99582	−2.37402	0.00354	−0.00819	0.07389	0.00755	−0.00929	−0.01302
27.517	−0.00257	0.58058	−0.01104	−0.00297	−2.00520	−2.36697	0.00306	−0.00701	0.07438	0.00587	−0.00776	−0.01099
28.576	−0.00224	0.52113	−0.00980	−0.00263	−2.01332	−2.36087	0.00262	−0.00601	0.07328	0.00516	−0.00674	−0.00937
29.634	−0.00195	0.46916	−0.00874	−0.00233	−2.02064	−2.35537	0.00226	−0.00519	0.07123	0.00454	−0.00588	−0.00804
30.692	−0.00171	0.42361	−0.00783	−0.00207	−2.02722	−2.35043	0.00196	−0.00450	0.06860	0.00400	−0.00515	−0.00694
31.751	−0.00150	0.38359	−0.00704	−0.00184	−2.03307	−2.34604	0.00171	−0.00392	0.06564	0.00355	−0.00453	−0.00602
37.042	−0.00082	0.24310	−0.00397	−0.00111	−2.05159	−2.33273	0.00093	−0.00209	0.04978	0.00241	−0.00252	−0.00311
42.334	−0.00048	0.16317	−0.00266	−0.00068	−2.07219	−2.31555	0.00054	−0.00122	0.03784	0.00155	−0.00150	−0.00179
47.626	−0.00030	0.11467	−0.00187	−0.00044	−2.08540	−2.30439	0.00033	−0.00076	0.02875	0.00106	−0.00095	−0.00110
50.272	−0.00024	0.09752	−0.00159	−0.00036	−2.08961	−2.30091	0.00027	−0.00061	0.02514	0.00089	−0.00077	−0.00088
51.859	−0.00021	0.08884	−0.00145	−0.00032	−2.09167	−2.29922	0.00024	−0.00054	0.02323	0.00081	−0.00068	−0.00077

Table 25
Transition dipole moments between the $(1\text{-}4)^1\Delta$ and between the $(1\text{-}4)^3\Delta$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Delta\text{-}1\Delta}_{21}$	$\mu^{1\Delta\text{-}1\Delta}_{31}$	$\mu^{1\Delta\text{-}1\Delta}_{32}$	$\mu^{1\Delta\text{-}1\Delta}_{41}$	$\mu^{1\Delta\text{-}1\Delta}_{42}$	$\mu^{1\Delta\text{-}1\Delta}_{43}$	$\mu^{3\Delta\text{-}3\Delta}_{21}$	$\mu^{3\Delta\text{-}3\Delta}_{31}$	$\mu^{3\Delta\text{-}3\Delta}_{32}$	$\mu^{3\Delta\text{-}3\Delta}_{41}$	$\mu^{3\Delta\text{-}3\Delta}_{42}$	$\mu^{3\Delta\text{-}3\Delta}_{43}$
2.540	0.54912	0.41182	−1.37655	2.26959	3.90780	−1.59095	0.25359	0.28487	−1.16829	−2.06356	−2.92112	3.58606
2.646	0.60551	0.75000	−1.77068	1.78950	3.98880	−1.08644	0.54707	0.47779	−1.22510	−1.90861	−2.89124	3.81401
2.752	0.63060	1.06305	−2.17991	1.38805	3.98127	−0.73542	0.83273	0.67100	−1.20921	−1.70118	−2.90132	3.99226
2.858	0.63479	1.34417	−2.56709	1.03604	3.94850	−0.47657	1.11217	0.85126	−1.22001	−1.47111	−2.89928	4.15968
2.963	0.62710	1.59402	−2.90956	0.73862	3.89676	−0.28285	1.38862	1.00170	−1.31000	−1.24352	−2.85875	4.33606
3.069	0.61425	1.81696	−3.19670	0.50286	3.84035	−0.14201	1.66307	1.10947	−1.49065	−1.03715	−2.77053	4.52862
3.175	0.60068	2.01801	−3.42627	0.32654	3.80476	−0.05102	1.93199	1.17095	−1.73869	−0.86448	−2.64011	4.73590
3.281	0.58890	2.20144	−3.60086	0.19933	3.82313	−0.01198	2.18841	1.19176	−2.01163	−0.73109	−2.48319	4.95179
3.387	0.58075	2.37001	−3.72485	0.11036	3.93376	0.02989	2.42537	1.18328	−2.26779	−0.63659	−2.31819	5.16935
3.493	0.57902	2.52483	−3.80163	0.05085	4.17777	0.11519	2.63815	1.15787	−2.48009	−0.57792	−2.15988	5.38200
3.598	0.60023	2.66310	−3.81812	0.01534	4.57549	0.30104	2.82500	1.12544	−2.63779	−0.55081	−2.01738	5.58616
3.704	2.82355	0.44623	−3.98415	−0.00329	−0.21538	5.08334	2.98611	1.09281	−2.74176	−0.55136	−1.89454	5.77853
3.810	2.92952	0.52427	−3.89944	−0.01614	−0.52280	5.49663	3.12277	1.06367	−2.79813	−0.57598	−1.79181	5.95682
3.916	3.03496	0.53576	−3.85427	−0.05266	−0.65139	5.77753	3.23652	1.03987	−2.81464	−0.62168	−1.70805	6.11940
4.022	3.12885	0.54298	−3.79582	−0.10862	−0.72033	5.97414	3.32876	1.02203	−2.79857	−0.68569	−1.64141	6.26517
4.128	3.20998	0.55034	−3.72238	−0.18184	−0.75914	6.13480	3.40067	1.01020	−2.75624	−0.76591	−1.58998	6.39366
4.233	3.27775	0.55889	−3.63512	−0.27035	−0.78403	6.27916	3.45304	1.00412	−2.69279	−0.86024	−1.55206	6.50434
4.339	3.33169	0.56896	−3.53559	−0.37303	−0.80334	6.41282	3.48646	1.00338	−2.61242	−0.96678	−1.52619	6.59705
4.445	3.37132	0.58074	−3.42529	−0.48888	−0.82139	6.53635	3.50126	1.00752	−2.51855	−1.08371	−1.51123	6.67183
4.551	3.39616	0.59425	−3.30561	−0.61692	−0.84058	6.64890	3.49766	1.01607	−2.41403	−1.20909	−1.50627	6.72888
4.657	3.40576	0.60955	−3.17787	−0.75598	−0.86238	6.74931	3.47577	1.02851	−2.30132	−1.34098	−1.51066	6.76859
4.763	3.39970	0.62660	−3.04334	−0.90495	−0.88780	6.83632	3.43569	1.04427	−2.18259	−1.47730	−1.52395	6.79158
4.868	3.37764	0.64537	−2.90328	−1.06229	−0.91760	6.90897	3.37757	1.06273	−2.05980	−1.61581	−1.54584	6.79870
4.974	3.33935	0.66576	−2.75896	−1.22625	−0.95245	6.96652	3.30166	1.08320	−1.93482	−1.75416	−1.57617	6.79118
5.080	3.28476	0.68765	−2.61168	−1.39479	−0.99296	7.00844	3.20838	1.10482	−1.80936	−1.88987	−1.61479	6.77053
5.186	3.21399	0.71083	−2.46279	−1.56532	−1.03966	7.03469	3.09825	1.12680	−1.68508	−2.02031	−1.66162	6.73895
5.292	3.12738	0.73506	−2.31365	−1.73558	−1.09307	7.04510	2.97214	1.14793	−1.56365	−2.14302	−1.71654	6.69825
5.398	3.02554	0.75995	−2.16560	−1.90241	−1.15355	7.04042	2.83112	1.16709	−1.44652	−2.25542	−1.77925	6.65143
5.503	2.90933	0.78502	−2.01999	−2.06273	−1.22136	7.02156	2.67655	1.18304	−1.33508	−2.35512	−1.84926	6.60146
5.609	2.77987	0.80967	−1.87810	−2.21361	−1.29658	6.98964	2.51009	1.19452	−1.23066	−2.44001	−1.92582	6.55146
5.715	2.63849	0.83320	−1.74111	−2.35175	−1.37898	6.94678	2.33377	1.20058	−1.13438	−2.50814	−2.00775	6.50480
5.821	2.48676	0.85474	−1.61015	−2.47444	−1.46824	6.89472	2.14995	1.19983	−1.04734	−2.55834	−2.09361	6.46354
5.927	2.32645	0.87331	−1.48629	−2.57912	−1.56333	6.83603	1.96137	1.19181	−0.97029	−2.58950	−2.18133	6.43029
6.033	2.15950	0.88788	−1.37049	−2.66397	−1.66314	6.77275	1.77105	1.17626	−0.90374	−2.60117	−2.26843	6.40650
6.138	1.98805	0.89735	−1.26359	−2.72694	−1.76597	6.70819	1.58230	1.15336	−0.84767	−2.59341	−2.35196	6.39290
6.244	1.81433	0.90093	−1.16650	−2.76763	−1.86966	6.64409	1.39839	1.12366	−0.80200	−2.56685	−2.42882	6.38869
6.350	1.64084	0.89751	−1.07993	−2.78551	−1.97171	6.58254	1.22256	1.08804	−0.76585	−2.52249	−2.49603	6.39374
6.456	1.47007	0.88722	−1.00421	−2.78073	−2.06899	6.52575	1.05762	1.04790	−0.73839	−2.46292	−2.54998	6.40163
6.562	1.30455	0.86961	−0.93972	−2.75420	−2.15805	6.47409	0.90577	1.00463	−0.71725	−2.38885	−2.58836	6.41307
6.668	1.14666	0.84515	−0.88625	−2.70707	−2.23501	6.42720	0.76854	0.95914	−0.70097	−2.30314	−2.60918	6.42214
6.773	0.99863	0.81465	−0.84304	−2.64015	−2.29527	6.38279	0.64667	0.91266	−0.68756	−2.20765	−2.61093	6.42450
6.879	0.86202	0.77885	−0.80913	−2.55484	−2.33327	6.33335	0.54015	0.86607	−0.67520	−2.10415	−2.59283	6.41504
6.985	0.73808	0.73936	−0.78261	−2.44890	−2.33851	6.26339	0.44839	0.82002	−0.66233	−1.99398	−2.55444	6.38797
7.091	0.62739	0.69748	−0.76148	−2.30941	−2.28193	6.12035	0.37028	0.77492	−0.64777	−1.87780	−2.49534	6.33673
7.197	0.52995	0.65457	−0.74355	−2.04085	−2.00716	5.59453	0.30459	0.73115	−0.63063	−1.75515	−2.41477	6.25187
7.303	0.44530	0.61178	−0.72672	−0.97060	−0.63982	2.57730	0.24981	0.68883	−0.61053	−1.62386	−2.30986	6.11949
7.408	0.37260	0.57001	−0.70928	−0.23801	0.21200	0.34630	0.20445	0.64804	−0.58739	−1.47781	−2.17285	5.91262
7.514	0.31078	0.53001	−0.68984	−0.05585	0.38773	−0.29152	0.16711	0.60871	−0.56148	−1.30225	−1.98262	5.56910
7.620	0.25863	0.49215	−0.66765	0.00469	0.42027	−0.55839	0.13652	0.57107	−0.53312	−1.06470	−1.69050	4.94656
7.726	0.21492	0.45669	−0.64239	0.02621	0.40818	−0.69136	0.11156	0.53504	−0.50284	−0.74113	−1.24961	3.88114
7.832	0.17849	0.42372	−0.61414	0.03185	0.37941	−0.75829	0.09119	0.50058	−0.47135	−0.42440	−0.78568	2.67015
7.938	0.14821	0.39321	−0.58336	0.03022	0.34452	−0.78648	0.07458	0.46790	−0.43914	−0.21856	−0.46713	1.80042
8.043	0.12313	0.36512	−0.55056	0.02540	0.30865	−0.79024	0.06110	0.43686	−0.40692	−0.10288	−0.27836	1.26715
8.149	0.10240	0.33929	−0.51643	0.01931	0.27442	−0.77758	0.05013	0.40757	−0.37512	−0.03731	−0.16509	0.93767
8.255	0.08528	0.31563	−0.48166	0.01300	0.24297	−0.75430	0.04120	0.38006	−0.34417	−0.00154	−0.09337	0.72265
8.361	0.07111	0.29395	−0.44697	0.00689	0.21466	−0.72420	0.03392	0.35433	−0.31444	0.02528	−0.04597	0.57559
8.467	0.05939	0.27420	−0.41288	0.00131	0.18969	−0.68994	0.02798	0.33050	−0.28618	0.04013	−0.01340	0.46984
8.573	0.04971	0.25620	−0.37985	−0.00371	0.16793	−0.65353	0.02313	0.30830	−0.25960	0.04923	0.00919	0.39376
8.679	0.04168	0.23984	−0.34823	−0.00807	0.14914	−0.61636	0.01915	0.28775	−0.23481	0.05457	0.02497	0.33841
8.784	0.03502	0.22499	−0.31830	−0.01185	0.13305	−0.57950	0.01592	0.26898	−0.21192	0.05776	0.03664	0.29378
8.890	0.02948	0.21154	−0.29022	−0.01504	0.11927	−0.54356	0.01324	0.25175	−0.19072	0.05923	0.04487	0.25996
8.996	0.02487	0.19937	−0.26408	−0.01771	0.10753	−0.50901	0.01103	0.23601	−0.17131	0.05957	0.05067	0.23313
9.102	0.02102	0.18835	−0.23990	−0.01992	0.09755	−0.47614	0.00921	0.22168	−0.15355	0.05918	0.05478	0.21189
9.208	0.01780	0.17839	−0.21765	−0.02173	0.08907	−0.44511	0.00770	0.20864	−0.13737	0.05827	0.05756	0.19473
9.314	0.01510	0.16936	−0.19728	−0.02319	0.08186	−0.41598	0.00645	0.19679	−0.12268	0.05701	0.05934	0.18069
9.419	0.01284	0.16117	−0.17869	−0.02434	0.07573	−0.38876	0.00541	0.18601	−0.10937	0.05550	0.06034	0.16906
9.525	0.01093	0.15373	−0.16178	−0.02522	0.07050	−0.36340	0.00455	0.17620	−0.09733	0.05383	0.06075	0.15931
9.631	0.00933	0.14695	−0.14642	−0.02588	0.06602	−0.33982	0.00382	0.16725	−0.08647	0.05211	0.06072	0.15106
9.737	0.00797	0.14077	−0.13249	−0.02635	0.06217	−0.31786	0.00322	0.15910	−0.07667	0.05029	0.06031	0.14396
9.843	0.00683	0.13511	−0.11989	−0.02665	0.05885	−0.29747	0.00272	0.15165	−0.06784	0.04846	0.05963	0.13778
9.949	0.00585	0.12995	−0.10847	−0.02683	0.05592	−0.27840	0.00229	0.14488	−0.05979	0.04675	0.05882	0.13115
10.054	0.00503	0.12514	−0.09824	−0.02686	0.05338	−0.26090	0.00193	0.13859	−0.05263	0.04494	0.05776	0.12642
10.160	0.00434	0.12068	−0.08902	−0.02678	0.05112	−0.24479	0.00163	0.13280	−0.04620	0.04317	0.05658	0.12218
10.266	0.00374	0.11650	−0.08076	−0.02660	0.04912	−0.23004	0.00138	0.12743	−0.04042	0.04145	0.05531	0.11835
10.372	0.00323	0.11256	−0.07332	−0.02632	0.04734	−0.21659	0.00116	0.12245	−0.03525	0.03977	0.05398	0.11486

(*continued on next page*)

Table 25 (*continued*)

R	$\mu_{21}^{1\Delta\text{-}1\Delta}$	$\mu_{31}^{1\Delta\text{-}1\Delta}$	$\mu_{32}^{1\Delta\text{-}1\Delta}$	$\mu_{41}^{1\Delta\text{-}1\Delta}$	$\mu_{42}^{1\Delta\text{-}1\Delta}$	$\mu_{43}^{1\Delta\text{-}1\Delta}$	$\mu_{21}^{3\Delta\text{-}3\Delta}$	$\mu_{31}^{3\Delta\text{-}3\Delta}$	$\mu_{32}^{3\Delta\text{-}3\Delta}$	$\mu_{41}^{3\Delta\text{-}3\Delta}$	$\mu_{42}^{3\Delta\text{-}3\Delta}$	$\mu_{43}^{3\Delta\text{-}3\Delta}$
10.478	0.00279	0.10887	−0.06656	−0.02599	0.04572	−0.20409	0.00098	0.11780	−0.03062	0.03815	0.05260	0.11164
10.584	0.00242	0.10539	−0.06050	−0.02560	0.04424	−0.19253	0.00082	0.11345	−0.02648	0.03658	0.05120	0.10864
10.848	0.00169	0.09755	−0.04783	−0.02449	0.04103	−0.16721	0.00052	0.10369	−0.01797	0.03292	0.04769	0.10188
11.113	0.00119	0.09053	−0.03805	−0.02322	0.03828	−0.14624	0.00030	0.09516	−0.01136	0.02964	0.04419	0.09589
11.377	0.00085	0.08425	−0.03050	−0.02187	0.03587	−0.12885	0.00018	0.08777	−0.00674	0.02672	0.04100	0.09024
11.642	0.00060	0.07850	−0.02463	−0.02049	0.03366	−0.11428	0.00012	0.08121	−0.00342	0.02413	0.03798	0.08501
11.906	0.00044	0.07322	−0.02006	−0.01916	0.03164	−0.10213	0.00007	0.07531	−0.00102	0.02189	0.03517	0.07990
12.171	0.00032	0.06833	−0.01649	−0.01788	0.02974	−0.09181	0.00004	0.06994	0.00067	0.01992	0.03258	0.07496
12.436	0.00024	0.06382	−0.01373	−0.01668	0.02795	−0.08295	0.00002	0.06503	0.00185	0.01820	0.03021	0.07022
12.700	0.00018	0.05962	−0.01151	−0.01556	0.02627	−0.07528	0.00001	0.06046	0.00263	0.01673	0.02804	0.06573
12.965	0.00014	0.05570	−0.00977	−0.01454	0.02467	−0.06851	−0.00001	0.05633	0.00314	0.01542	0.02611	0.06142
13.229	0.00011	0.05207	−0.00836	−0.01359	0.02318	−0.06258	−0.00001	0.05252	0.00341	0.01425	0.02430	0.05732
13.494	0.00009	0.04870	−0.00721	−0.01273	0.02178	−0.05731	−0.00002	0.04901	0.00354	0.01323	0.02263	0.05345
13.759	0.00007	0.04556	−0.00627	−0.01194	0.02045	−0.05261	−0.00002	0.04576	0.00355	0.01232	0.02111	0.04979
14.023	0.00006	0.04264	−0.00551	−0.01124	0.01921	−0.04842	−0.00002	0.04276	0.00349	0.01151	0.01971	0.04635
14.288	0.00005	0.03993	−0.00487	−0.01058	0.01805	−0.04461	−0.00002	0.03999	0.00338	0.01079	0.01843	0.04310
14.552	0.00005	0.03740	−0.00433	−0.00998	0.01696	−0.04114	−0.00002	0.03742	0.00323	0.01014	0.01724	0.04008
14.817	0.00004	0.03506	−0.00386	−0.00944	0.01594	−0.03799	−0.00002	0.03504	0.00307	0.00955	0.01615	0.03726
15.082	0.00004	0.03288	−0.00347	−0.00893	0.01499	−0.03512	−0.00002	0.03284	0.00290	0.00905	0.01517	0.03460
15.346	0.00003	0.03086	−0.00312	−0.00847	0.01411	−0.03258	−0.00002	0.03080	0.00273	0.00856	0.01423	0.03214
15.611	0.00003	0.02898	−0.00282	−0.00805	0.01328	−0.03016	−0.00002	0.02891	0.00255	0.00812	0.01337	0.02984
15.875	0.00003	0.02723	−0.00255	−0.00765	0.01251	−0.02793	−0.00002	0.02715	0.00238	0.00771	0.01257	0.02772
16.140	0.00002	0.02559	−0.00231	−0.00729	0.01178	−0.02590	−0.00002	0.02551	0.00220	0.00733	0.01183	0.02575
16.404	0.00002	0.02408	−0.00210	−0.00694	0.01111	−0.02402	−0.00002	0.02399	0.00203	0.00698	0.01115	0.02393
16.934	0.00002	0.02134	−0.00175	−0.00632	0.00989	−0.02072	−0.00002	0.02125	0.00173	0.00635	0.00992	0.02068
17.463	0.00001	0.01900	−0.00146	−0.00579	0.00883	−0.01792	−0.00002	0.01888	0.00145	0.00579	0.00885	0.01792
17.992	0.00001	0.01693	−0.00122	−0.00530	0.00790	−0.01555	−0.00001	0.01682	0.00122	0.00530	0.00792	0.01556
18.521	0.00001	0.01512	−0.00102	−0.00486	0.00709	−0.01354	−0.00001	0.01503	0.00103	0.00485	0.00710	0.01355
19.050	0.00001	0.01354	−0.00086	−0.00446	0.00637	−0.01183	−0.00001	0.01346	0.00087	0.00445	0.00638	0.01185
19.580	0.00001	0.01215	−0.00073	−0.00410	0.00575	−0.01037	−0.00001	0.01209	0.00073	0.00409	0.00575	0.01039
20.109	0.00001	0.01094	−0.00062	−0.00377	0.00519	−0.00912	−0.00001	0.01088	0.00061	0.00377	0.00521	0.00910
20.638	0.00001	0.00987	−0.00052	−0.00347	0.00470	−0.00806	−0.00001	0.00981	0.00052	0.00347	0.00471	0.00804
21.167	0.00001	0.00892	−0.00045	−0.00320	0.00427	−0.00714	−0.00001	0.00887	0.00045	0.00319	0.00427	0.00713
22.225	0.00001	0.00734	−0.00033	−0.00273	0.00354	−0.00566	−0.00001	0.00730	0.00033	0.00271	0.00352	0.00563
23.284	0.00001	0.00609	−0.00024	−0.00233	0.00297	−0.00454	−0.00001	0.00606	0.00024	0.00232	0.00294	0.00452
24.342	0.00001	0.00510	−0.00018	−0.00201	0.00250	−0.00367	−0.00001	0.00507	0.00018	0.00200	0.00247	0.00367
25.401	0.00000	0.00430	−0.00014	−0.00173	0.00211	−0.00300	0.00000	0.00427	0.00013	0.00172	0.00209	0.00301
26.459	0.00000	0.00365	−0.00010	−0.00149	0.00180	−0.00249	0.00000	0.00363	0.00010	0.00149	0.00178	0.00249
27.517	0.00000	0.00312	−0.00007	−0.00130	0.00154	−0.00207	0.00000	0.00310	0.00008	0.00130	0.00153	0.00208
28.576	0.00000	0.00268	−0.00006	−0.00113	0.00133	−0.00175	0.00000	0.00266	0.00006	0.00113	0.00132	0.00175
29.634	0.00000	0.00231	−0.00004	−0.00099	0.00115	−0.00148	0.00000	0.00230	0.00005	0.00099	0.00114	0.00149
30.692	0.00000	0.00201	0.00003	−0.00087	0.00100	−0.00127	0.00000	0.00200	0.00004	0.00087	0.00099	0.00127
31.751	0.00000	0.00175	−0.00003	−0.00076	0.00086	−0.00107	0.00000	0.00174	0.00003	0.00078	0.00087	0.00110
37.042	0.00000	0.00094	−0.00001	−0.00042	0.00047	−0.00053	0.00000	0.00094	0.00001	0.00044	0.00047	0.00056
42.334	0.00000	0.00055	0.00000	−0.00025	0.00028	−0.00030	0.00000	0.00055	0.00000	0.00026	0.00028	0.00032
47.626	0.00000	0.00034	0.00000	−0.00016	0.00017	−0.00018	0.00000	0.00034	0.00000	0.00016	0.00017	0.00021
50.272	0.00000	0.00028	0.00000	−0.00013	0.00014	−0.00015	0.00000	0.00028	0.00000	0.00013	0.00014	0.00017
51.859	0.00000	0.00024	0.00000	−0.00011	0.00012	−0.00013	0.00000	0.00024	0.00000	0.00012	0.00012	0.00015

Table 26
Transition dipole moments between the $1^1\Sigma^+$ and $(1\text{-}7)^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Sigma^+\text{-}1\Pi}_{11}$	$\mu^{1\Sigma^+\text{-}1\Pi}_{12}$	$\mu^{1\Sigma^+\text{-}1\Pi}_{13}$	$\mu^{1\Sigma^+\text{-}1\Pi}_{14}$	$\mu^{1\Sigma^+\text{-}1\Pi}_{15}$	$\mu^{1\Sigma^+\text{-}1\Pi}_{16}$	$\mu^{1\Sigma^+\text{-}1\Pi}_{17}$
2.646	−3.74622	0.49247	−0.50111	−0.11726	0.53603	0.01867	−0.11265
2.752	−3.75727	0.39636	−0.40737	−0.14722	0.53540	0.02114	−0.09975
2.858	−3.76537	0.31305	−0.28836	−0.18326	0.52722	0.02448	−0.08154
2.963	−3.76964	0.24122	−0.15826	−0.22160	0.51125	0.02729	−0.05840
3.069	−3.77032	0.18001	−0.02700	−0.25902	0.48819	0.02726	−0.03124
3.175	−3.76837	0.12850	0.09845	−0.29314	0.45966	0.02194	−0.00179
3.281	−3.76502	0.08545	0.21358	−0.32254	0.42794	0.01027	0.02770
3.387	−3.76146	0.04946	0.31582	−0.34681	0.39567	−0.00676	0.05559
3.493	−3.75865	0.01899	0.40410	−0.36646	0.36536	−0.02691	0.08132
3.598	−3.75727	−0.00746	0.47841	−0.38275	0.33898	−0.04778	0.10519
3.704	−3.75773	−0.03130	0.53938	−0.39724	0.31780	−0.06740	0.12777
3.810	−3.76023	−0.05380	0.58797	−0.41149	0.30244	−0.08416	0.14959
3.916	−3.76478	−0.07616	0.62522	−0.42678	0.29305	−0.09698	0.17090
4.022	−3.77130	−0.09952	0.65209	−0.44396	0.28955	−0.10535	0.19163
4.128	−3.77959	−0.12511	0.66943	−0.46343	0.29174	−0.10928	0.21135
4.233	−3.78940	−0.15438	0.67793	−0.48512	0.29934	−0.10934	0.22943
4.339	−3.80038	−0.18916	0.67826	−0.50849	0.31198	−0.10642	0.24520
4.445	−3.81205	−0.23201	0.67111	−0.53258	0.32917	−0.10150	0.25796
4.551	−3.82373	−0.28663	0.65738	−0.55612	0.35028	−0.09557	0.26763
4.657	−3.83421	−0.35885	0.63819	−0.57770	0.37448	−0.08927	0.27399
4.763	−3.84122	−0.45837	0.61482	−0.59598	0.40071	−0.08295	0.27683
4.868	−3.83986	−0.60242	0.58869	−0.60996	0.42776	−0.07686	0.27598
4.974	−3.81809	−0.82357	0.56112	−0.61900	0.45443	−0.07094	0.27148
5.080	−3.74225	−1.18550	0.53326	−0.62298	0.47954	−0.06517	0.26331
5.186	−3.51515	−1.79211	0.50595	−0.62208	0.50203	−0.05944	0.25135
5.292	−2.96378	−2.63537	0.47974	−0.61670	0.52127	−0.05358	0.23599
5.398	−2.21623	−3.31370	0.45493	−0.60735	0.53679	−0.04736	0.21747
5.503	−1.65595	−3.64885	0.43162	−0.59448	0.54847	−0.04057	0.19632
5.609	−1.31523	−3.80658	0.40976	−0.57845	0.55646	−0.03300	0.17328
5.715	−1.10585	−3.89345	0.38921	−0.55958	0.56112	−0.02453	0.14910
5.821	−0.97012	−3.94969	0.36986	−0.53808	0.56290	−0.01519	0.12464
5.927	−0.87776	−3.99075	0.35153	−0.51419	0.56233	−0.00507	0.10054
6.033	−0.81261	−4.02327	0.33409	−0.48812	0.55994	0.00552	0.07724
6.138	−0.76552	−4.05040	0.31742	−0.46014	0.55619	0.01621	0.05505
6.244	−0.73099	−4.07376	0.30143	−0.43061	0.55141	0.02658	0.03405
6.350	−0.70558	−4.09428	0.28605	−0.39994	0.54584	0.03619	0.01435
6.456	−0.68702	−4.11249	0.27125	−0.36863	0.53959	0.04468	−0.00399
6.562	−0.67376	−4.12874	0.25703	−0.33725	0.53271	0.05182	−0.02066
6.668	−0.66472	−4.14328	0.24338	−0.30642	0.52520	0.05763	−0.03491
6.773	−0.65912	−4.15630	0.23030	−0.27670	0.51706	0.06223	−0.04581
6.879	−0.65639	−4.16794	0.21781	−0.24861	0.50836	0.06588	−0.05301
6.985	−0.65610	−4.17833	0.20592	−0.22257	0.49923	0.06881	−0.05705
7.091	−0.65792	−4.18756	0.19464	−0.19885	0.48986	0.07121	−0.05871
7.197	−0.66158	−4.19576	0.18398	−0.17754	0.48047	0.07317	−0.05840
7.303	−0.66690	−4.20299	0.17391	−0.15865	0.47128	0.07470	−0.05627
7.408	−0.67371	−4.20935	0.16443	−0.14204	0.46252	0.07574	−0.05235
7.514	−0.68188	−4.21489	0.15552	−0.12756	0.45436	0.07613	−0.04660
7.620	−0.69129	−4.21968	0.14717	−0.11498	0.44695	0.07566	−0.03906
7.726	−0.70186	−4.22379	0.13934	−0.10408	0.44037	0.07403	−0.02980
7.832	−0.71352	−4.22725	0.13200	−0.09464	0.43466	0.07090	−0.01898
7.938	−0.72620	−4.23011	0.12513	−0.08645	0.42981	0.06589	−0.00692
8.043	−0.73984	−4.23242	0.11870	−0.07934	0.42575	0.05864	0.00604
8.149	−0.75439	−4.23420	0.11268	−0.07314	0.42239	0.04891	0.01937
8.255	−0.76980	−4.23548	0.10704	−0.06771	0.41955	0.03661	0.03251
8.361	−0.78605	−4.23629	0.10176	−0.06294	0.41709	0.02186	0.04493
8.467	−0.80308	−4.23665	0.09681	−0.05873	0.41478	0.00499	0.05622
8.573	−0.82088	−4.23658	0.09217	−0.05500	0.41246	−0.01351	0.06608
8.679	−0.83939	−4.23610	0.08782	−0.05167	0.40997	−0.03311	0.07430
8.784	−0.85860	−4.23522	0.08373	−0.04871	0.40721	−0.05321	0.08076
8.890	−0.87847	−4.23395	0.07989	−0.04603	0.40412	−0.07327	0.08540
8.996	−0.89896	−4.23230	0.07628	−0.04361	0.40073	−0.09279	0.08824
9.102	−0.92005	−4.23027	0.07288	−0.04141	0.39708	−0.11137	0.08938
9.208	−0.94172	−4.22789	0.06969	−0.03940	0.39326	−0.12868	0.08898
9.314	−0.96392	−4.22514	0.06667	−0.03756	0.38935	−0.14455	0.08726
9.419	−0.98663	−4.22205	0.06382	−0.03587	0.38546	−0.15888	0.08448
9.525	−1.00983	−4.21861	0.06113	−0.03430	0.38164	−0.17166	0.08091
9.631	−1.03349	−4.21484	0.05858	−0.03285	0.37796	−0.18297	0.07681
9.737	−1.05757	−4.21072	0.05616	−0.03149	0.37446	−0.19288	0.07242
9.843	−1.08204	−4.20628	0.05387	−0.03023	0.37117	−0.20153	0.06789
9.949	−1.10689	−4.20151	0.05170	−0.02904	0.36811	−0.20905	0.06336
10.054	−1.13207	−4.19643	0.04964	−0.02792	0.36528	−0.21557	0.05896
10.160	−1.15756	−4.19103	0.04768	−0.02687	0.36267	−0.22122	0.05476
10.266	−1.18333	−4.18532	0.04582	−0.02587	0.36029	−0.22609	0.05082
10.372	−1.20936	−4.17932	0.04405	−0.02493	0.35811	−0.23030	0.04714
10.478	−1.23560	−4.17301	0.04236	−0.02403	0.35613	−0.23395	0.04373

(*continued on next page*)

Table 26 (*continued*)

R	$\mu_{11}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{12}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{13}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{14}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{15}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{16}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{17}^{1\Sigma^+\text{-}^1\Pi}$
10.584	−1.26204	−4.16642	0.04075	−0.02317	0.35435	−0.23712	0.04062
10.848	−1.32879	−4.14872	0.03705	−0.02122	0.35056	−0.24328	0.03394
11.113	−1.39612	−4.12937	0.03376	−0.01947	0.34763	−0.24757	0.02806
11.377	−1.46360	−4.10851	0.03083	−0.01789	0.34539	−0.25061	0.02152
11.642	−1.53085	−4.08629	0.02822	−0.01647	0.34367	−0.25268	0.01551
11.906	−1.59749	−4.06286	0.02588	−0.01520	0.34234	−0.25412	0.01165
12.171	−1.66319	−4.03841	0.02378	−0.01404	0.34134	−0.25512	0.00928
12.436	−1.72764	−4.01310	0.02189	−0.01299	0.34056	−0.25580	0.00773
12.700	−1.79060	−3.98711	0.02019	−0.01202	0.33995	−0.25622	0.00666
12.965	−1.85185	−3.96061	0.01865	−0.01115	0.33948	−0.25650	0.00589
13.229	−1.91122	−3.93379	0.01725	−0.01036	0.33911	−0.25666	0.00527
13.494	−1.96857	−3.90677	0.01598	−0.00963	0.33882	−0.25674	0.00478
13.759	−2.02380	−3.87972	0.01482	−0.00896	0.33859	−0.25677	0.00437
14.023	−2.07685	−3.85277	0.01376	−0.00835	0.33843	−0.25678	0.00397
14.288	−2.12767	−3.82605	0.01279	−0.00779	0.33827	−0.25677	0.00365
14.552	−2.17626	−3.79966	0.01191	−0.00727	0.33816	−0.25673	0.00335
14.817	−2.22263	−3.77370	0.01110	−0.00679	0.33805	−0.25666	0.00309
15.082	−2.26681	−3.74824	0.01036	−0.00635	0.33796	−0.25662	0.00285
15.346	−2.30884	−3.72336	0.00968	−0.00594	0.33789	−0.25656	0.00263
15.611	−2.34878	−3.69909	0.00906	−0.00557	0.33783	−0.25649	0.00243
15.875	−2.38671	−3.67549	0.00848	−0.00522	0.33777	−0.25643	0.00224
16.140	−2.42269	−3.65259	0.00796	−0.00491	0.33771	−0.25636	0.00207
16.404	−2.45680	−3.63041	0.00747	−0.00460	0.33766	−0.25632	0.00191
16.934	−2.51976	−3.58824	0.00660	−0.00408	0.33758	−0.25621	0.00162
17.463	−2.57623	−3.54902	0.00586	−0.00363	0.33750	−0.25611	0.00137
17.992	−2.62689	−3.51268	0.00521	−0.00323	0.33744	−0.25603	0.00115
18.521	−2.67233	−3.47912	0.00465	−0.00289	0.33739	−0.25596	0.00097
19.050	−2.71313	−3.44820	0.00415	−0.00259	0.33734	−0.25590	0.00081
19.580	−2.74982	−3.41974	0.00373	−0.00233	0.33729	−0.25584	0.00069
20.109	−2.78284	−3.39358	0.00335	−0.00209	0.33725	−0.25579	0.00058
20.638	−2.81262	−3.36953	0.00302	−0.00189	0.33722	−0.25575	0.00050
21.167	−2.83953	−3.34743	0.00274	−0.00170	0.33718	−0.25570	0.00046
22.225	−2.88596	−3.30842	0.00226	−0.00140	0.33712	−0.25565	0.00036
23.284	−2.92429	−3.27538	0.00188	−0.00116	0.33707	−0.25559	0.00029
24.342	−2.95616	−3.24731	0.00157	−0.00098	0.33702	−0.25555	0.00022
25.401	−2.98287	−3.22335	0.00132	−0.00083	0.33699	−0.25551	0.00018
26.459	−3.00541	−3.20282	0.00112	−0.00070	0.33696	−0.25548	0.00014
27.517	−3.02456	−3.18516	0.00096	−0.00060	0.33693	−0.25546	0.00010
28.576	−3.04093	−3.16989	0.00082	−0.00052	0.33691	−0.25544	0.00007
29.634	−3.05500	−3.15663	0.00071	−0.00045	0.33689	−0.25540	0.00005
30.692	−3.06717	−3.14508	0.00062	−0.00039	0.33687	−0.25538	0.00003
31.751	−3.07774	−3.13496	0.00054	−0.00034	0.33686	−0.25537	0.00002
37.042	−3.11412	−3.09964	0.00029	−0.00019	0.33681	−0.25530	0.00002
42.334	−3.13440	−3.07959	0.00017	−0.00011	0.33679	−0.25523	0.00002
47.626	−3.14660	−3.06741	0.00011	−0.00006	0.33677	−0.25522	0.00001
50.272	−3.15090	−3.06309	0.00009	−0.00005	0.33676	−0.25522	0.00000
51.859	−3.15307	−3.06091	0.00008	−0.00004	0.33676	−0.25522	0.00000

Table 27
Transition dipole moments between the $2^1\Sigma^+$ and $(1\text{-}7)^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Sigma^+,1\Pi}_{21}$	$\mu^{1\Sigma^+,1\Pi}_{22}$	$\mu^{1\Sigma^+,1\Pi}_{23}$	$\mu^{1\Sigma^+,1\Pi}_{24}$	$\mu^{1\Sigma^+,1\Pi}_{25}$	$\mu^{1\Sigma^+,1\Pi}_{26}$	$\mu^{1\Sigma^+,1\Pi}_{27}$
2.646	−0.04494	−0.96274	−0.31727	−3.14318	−1.05387	0.13839	−0.11323
2.752	−0.05558	−1.01960	−0.37493	−3.16346	−1.12236	0.33662	−0.19377
2.858	−0.06616	−1.09908	−0.40711	−3.15073	−1.20548	0.52840	−0.29841
2.963	−0.07670	−1.19257	−0.42364	−3.10394	−1.29728	0.69997	−0.43394
3.069	−0.08718	−1.29134	−0.43156	−3.02543	−1.39210	0.83584	−0.60084
3.175	−0.09746	−1.38801	−0.43624	−2.92158	−1.48418	0.92620	−0.78713
3.281	−0.10745	−1.47701	−0.44160	−2.80245	−1.56780	0.97540	−0.97015
3.387	−0.11715	−1.55468	−0.45053	−2.68001	−1.63807	0.99933	−1.12783
3.493	−0.12662	−1.61908	−0.46504	−2.56565	−1.69194	1.01511	−1.24837
3.598	−0.13594	−1.66953	−0.48664	−2.46819	−1.72886	1.03415	−1.32948
3.704	−0.14524	−1.70622	−0.51656	−2.39288	−1.75021	1.06202	−1.37369
3.810	−0.15465	−1.72985	−0.55588	−2.34155	−1.75823	1.10005	−1.38550
3.916	−0.16441	−1.74134	−0.60558	−2.31328	−1.75507	1.14619	−1.36891
4.022	−0.17474	−1.74175	−0.66659	−2.30544	−1.74229	1.19680	−1.32906
4.128	−0.18592	−1.73210	−0.73973	−2.31441	−1.72083	1.24674	−1.27160
4.233	−0.19833	−1.71338	−0.82541	−2.33593	−1.69117	1.29081	−1.20269
4.339	−0.21248	−1.68645	−0.92345	−2.36562	−1.65364	1.32484	−1.12855
4.445	−0.22910	−1.65213	−1.03270	−2.39928	−1.60870	1.34623	−1.05462
4.551	−0.24927	−1.61087	−1.15120	−2.43323	−1.55719	1.35505	−0.98490
4.657	−0.27470	−1.56304	−1.27582	−2.46467	−1.50035	1.35192	−0.92130
4.763	−0.30827	−1.50840	−1.40280	−2.49195	−1.43980	1.33810	−0.86500
4.868	−0.35499	−1.44560	−1.52823	−2.51446	−1.37743	1.31533	−0.81612
4.974	−0.42416	−1.37046	−1.64843	−2.53254	−1.31517	1.28462	−0.77405
5.080	−0.53316	−1.27107	−1.76063	−2.54707	−1.25473	1.24711	−0.73790
5.186	−0.70661	−1.11557	−1.86299	−2.55911	−1.19720	1.20345	−0.70728
5.292	−0.92483	−0.85811	−1.95443	−2.56998	−1.14342	1.15404	−0.68093
5.398	−1.06042	−0.56639	−2.03465	−2.58059	−1.09315	1.09884	−0.65787
5.503	−1.08325	−0.36394	−2.10393	−2.59183	−1.04568	1.03768	−0.63683
5.609	−1.05573	−0.24465	−2.16290	−2.60424	−0.99975	0.96980	−0.61566
5.715	−1.01091	−0.17215	−2.21234	−2.61812	−0.95372	0.89454	−0.59233
5.821	−0.96020	−0.12514	−2.25322	−2.63359	−0.90566	0.81100	−0.56354
5.927	−0.90783	−0.09289	−2.28659	−2.65036	−0.85357	0.71740	−0.52623
6.033	−0.85564	−0.06977	−2.31346	−2.66788	−0.79562	0.61148	−0.47683
6.138	−0.80447	−0.05262	−2.33480	−2.68530	−0.73030	0.49054	−0.41078
6.244	−0.75490	−0.03955	−2.35157	−2.70149	−0.65660	0.35207	−0.32262
6.350	−0.70719	−0.02936	−2.36459	−2.71505	−0.57420	0.19476	−0.20472
6.456	−0.66147	−0.02131	−2.37472	−2.72456	−0.48368	0.02038	−0.04696
6.562	−0.61790	−0.01483	−2.38260	−2.72854	−0.38641	−0.16579	0.16008
6.668	−0.57653	−0.00956	−2.38885	−2.72579	−0.28457	−0.35564	0.41375
6.773	−0.53739	−0.00521	−2.39397	−2.71552	−0.18089	−0.54064	0.68346
6.879	−0.50049	−0.00161	−2.39838	−2.69751	−0.07831	−0.71411	0.92164
6.985	−0.46577	0.00141	−2.40237	−2.67209	0.02026	−0.87188	1.10191
7.091	−0.43318	0.00393	−2.40628	−2.64022	0.11238	−1.01185	1.22821
7.197	−0.40268	0.00608	−2.41025	−2.60312	0.19617	−1.13363	1.32006
7.303	−0.37417	0.00791	−2.41445	−2.56226	0.27033	−1.23702	1.39160
7.408	−0.34760	0.00947	−2.41896	−2.51912	0.33415	−1.32207	1.45401
7.514	−0.32287	0.01080	−2.42381	−2.47508	0.38737	−1.38856	1.51504
7.620	−0.29990	0.01194	−2.42906	−2.43131	0.43006	−1.43633	1.57861
7.726	−0.27860	0.01292	−2.43467	−2.38876	0.46245	−1.46470	1.64837
7.832	−0.25889	0.01374	−2.44064	−2.34813	0.48494	−1.47349	1.72513
7.938	−0.24069	0.01443	−2.44688	−2.30989	0.49800	−1.46296	1.80880
8.043	−0.22391	0.01501	−2.45340	−2.27436	0.50215	−1.43428	1.89745
8.149	−0.20845	0.01547	−2.46011	−2.24163	0.49802	−1.39018	1.98804
8.255	−0.19423	0.01581	−2.46695	−2.21169	0.48626	−1.33426	2.07689
8.361	−0.18119	0.01609	−2.47387	−2.18447	0.46770	−1.27073	2.16047
8.467	−0.16924	0.01628	−2.48081	−2.15980	0.44329	−1.20353	2.23623
8.573	−0.15829	0.01639	−2.48774	−2.13747	0.41412	−1.13572	2.30269
8.679	−0.14826	0.01642	−2.49464	−2.11725	0.38139	−1.06929	2.35926
8.784	−0.13909	0.01640	−2.50148	−2.09890	0.34633	−1.00526	2.40611
8.890	−0.13071	0.01632	−2.50823	−2.08221	0.31015	−0.94405	2.44385
8.996	−0.12305	0.01618	−2.51488	−2.06693	0.27391	−0.88587	2.47333
9.102	−0.11602	0.01598	−2.52146	−2.05287	0.23842	−0.83078	2.49598
9.208	−0.10959	0.01573	−2.52793	−2.03983	0.20441	−0.77887	2.51296
9.314	−0.10371	0.01545	−2.53433	−2.02765	0.17241	−0.73041	2.52552
9.419	−0.09832	0.01514	−2.54066	−2.01617	0.14263	−0.68552	2.53479
9.525	−0.09336	0.01481	−2.54694	−2.00526	0.11522	−0.64427	2.54171
9.631	−0.08880	0.01446	−2.55319	−1.99481	0.09019	−0.60666	2.54694
9.737	−0.08459	0.01408	−2.55943	−1.98472	0.06751	−0.57257	2.55083
9.843	−0.08071	0.01369	−2.56567	−1.97490	0.04705	−0.54178	2.55351
9.949	−0.07711	0.01330	−2.57194	−1.96528	0.02869	−0.51404	2.55479
10.054	−0.07377	0.01289	−2.57828	−1.95580	0.01231	−0.48901	2.55425
10.160	−0.07066	0.01249	−2.58463	−1.94640	−0.00226	−0.46646	2.55116
10.266	−0.06776	0.01208	−2.59105	−1.93704	−0.01517	−0.44603	2.54438
10.372	−0.06505	0.01167	−2.59755	−1.92767	−0.02654	−0.42747	2.53275
10.478	−0.06251	0.01127	−2.60413	−1.91826	−0.03652	−0.41051	2.51415

(*continued on next page*)

Table 27 (*continued*)

R	$\mu_{21}^{1\Sigma^+\text{-}1\Pi}$	$\mu_{22}^{1\Sigma^+\text{-}1\Pi}$	$\mu_{23}^{1\Sigma^+\text{-}1\Pi}$	$\mu_{24}^{1\Sigma^+\text{-}1\Pi}$	$\mu_{25}^{1\Sigma^+\text{-}1\Pi}$	$\mu_{26}^{1\Sigma^+\text{-}1\Pi}$	$\mu_{27}^{1\Sigma^+\text{-}1\Pi}$
10.584	−0.06013	0.01087	−2.61081	−1.90879	−0.04522	−0.39494	2.48563
10.848	−0.05474	0.00991	−2.62791	−1.88466	−0.06216	−0.36064	2.33897
11.113	−0.05004	0.00900	−2.64565	−1.85974	−0.07348	−0.33127	1.95780
11.377	−0.04588	0.00815	−2.66400	−1.83381	−0.08049	−0.30542	1.22416
11.642	−0.04218	0.00737	−2.68292	−1.80678	−0.08415	−0.28214	0.54828
11.906	−0.03886	0.00668	−2.70226	−1.77856	−0.08537	−0.26081	0.17535
12.171	−0.03586	0.00607	−2.72198	−1.74916	−0.08482	−0.24114	−0.01707
12.436	−0.03313	0.00552	−2.74196	−1.71858	−0.08297	−0.22287	−0.12128
12.700	−0.03066	0.00503	−2.76211	−1.68690	−0.08022	−0.20594	−0.17866
12.965	−0.02840	0.00460	−2.78233	−1.65416	−0.07688	−0.19027	−0.20941
13.229	−0.02632	0.00420	−2.80253	−1.62046	−0.07319	−0.17573	−0.22397
13.494	−0.02442	0.00387	−2.82260	−1.58591	−0.06933	−0.16225	−0.22742
13.759	−0.02269	0.00359	−2.84245	−1.55060	−0.06541	−0.14984	−0.22351
14.023	−0.02110	0.00334	−2.86200	−1.51465	−0.06153	−0.13841	−0.21475
14.288	−0.01964	0.00311	−2.88119	−1.47820	−0.05775	−0.12793	−0.20202
14.552	−0.01830	0.00292	−2.89994	−1.44135	−0.05409	−0.11829	−0.18677
14.817	−0.01707	0.00274	−2.91820	−1.40425	−0.05064	−0.10944	−0.16981
15.082	−0.01594	0.00258	−2.93592	−1.36701	−0.04735	−0.10133	−0.15159
15.346	−0.01489	0.00244	−2.95304	−1.32977	−0.04429	−0.09388	−0.13286
15.611	−0.01393	0.00232	−2.96955	−1.29265	−0.04139	−0.08705	−0.11381
15.875	−0.01305	0.00221	−2.98541	−1.25574	−0.03871	−0.08079	−0.09465
16.140	−0.01223	0.00210	−3.00061	−1.21914	−0.03622	−0.07506	−0.07548
16.404	−0.01148	0.00201	−3.01513	−1.18297	−0.03390	−0.06980	−0.05669
16.934	−0.01014	0.00185	−3.04212	−1.11220	−0.02971	−0.06049	−0.02031
17.463	−0.00898	0.00170	−3.06643	−1.04399	−0.02613	−0.05265	0.01396
17.992	−0.00798	0.00158	−3.08813	−0.97877	−0.02305	−0.04603	0.04607
18.521	−0.00712	0.00146	−3.10739	−0.91682	−0.02038	−0.04038	0.07591
19.050	−0.00636	0.00136	−3.12440	−0.85831	−0.01810	−0.03555	0.10365
19.580	−0.00571	0.00126	−3.13936	−0.80331	−0.01610	−0.03141	0.12941
20.109	−0.00514	0.00117	−3.15248	−0.75180	−0.01437	−0.02785	0.15335
20.638	−0.00463	0.00109	−3.16398	−0.70372	−0.01286	−0.02480	0.17563
21.167	−0.00418	0.00101	−3.17407	−0.65893	−0.01156	−0.02213	0.19636
22.225	−0.00344	0.00087	−3.19058	−0.57862	−0.00940	−0.01777	0.23328
23.284	−0.00286	0.00075	−3.20323	−0.50947	−0.00772	−0.01447	0.26492
24.342	−0.00240	0.00065	−3.21303	−0.45001	−0.00639	−0.01190	0.29188
25.401	−0.00202	0.00056	−3.22056	−0.39888	−0.00534	−0.00989	0.31502
26.459	−0.00172	0.00049	−3.22642	−0.35484	−0.00450	−0.00828	0.33484
27.517	−0.00147	0.00043	−3.23104	−0.31680	−0.00382	−0.00699	0.35183
28.576	−0.00126	0.00037	−3.23471	−0.28384	−0.00326	−0.00594	0.36646
29.634	−0.00109	0.00032	−3.23765	−0.25519	−0.00281	−0.00506	0.37911
30.692	−0.00095	0.00028	−3.24003	−0.23019	−0.00242	−0.00436	0.39012
31.751	−0.00083	0.00025	−3.24197	−0.20829	−0.00211	−0.00377	0.39970
37.042	−0.00044	0.00014	−3.24770	−0.13185	−0.00113	−0.00197	0.43264
42.334	−0.00026	0.00008	−3.25023	−0.08853	−0.00065	−0.00113	0.45093
47.626	−0.00016	0.00005	−3.25152	−0.06226	−0.00040	−0.00067	0.46182
50.272	−0.00013	0.00004	−3.25193	−0.05296	−0.00032	−0.00054	0.46562
51.859	−0.00012	0.00003	−3.25213	−0.04827	−0.00029	−0.00046	0.46753

Table 28
Transition dipole moments between the $3^1\Sigma^+$ and $(1\text{-}7)^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Sigma^+,1\Pi}_{31}$	$\mu^{1\Sigma^+,1\Pi}_{32}$	$\mu^{1\Sigma^+,1\Pi}_{33}$	$\mu^{1\Sigma^+,1\Pi}_{34}$	$\mu^{1\Sigma^+,1\Pi}_{35}$	$\mu^{1\Sigma^+,1\Pi}_{36}$	$\mu^{1\Sigma^+,1\Pi}_{37}$
2.646	0.03551	0.16361	0.89226	0.14756	−0.83142	0.48758	1.39533
2.752	0.06248	0.13224	0.94071	0.18949	−0.90714	0.63803	1.39453
2.858	0.09104	0.11352	0.99247	0.25116	−0.96471	0.79088	1.36785
2.963	0.12061	0.10227	1.04731	0.32732	−1.00684	0.94312	1.30979
3.069	0.15014	0.09521	1.10363	0.41275	−1.03718	1.08756	1.21886
3.175	0.17795	0.09019	1.15931	0.50285	−1.05984	1.21039	1.10320
3.281	0.20219	0.08577	1.21201	0.59316	−1.07885	1.29763	0.98233
3.387	0.22124	0.08113	1.25980	0.67929	−1.09788	1.34432	0.87717
3.493	0.23401	0.07581	1.30135	0.75714	−1.12000	1.35573	0.79973
3.598	0.24005	0.06963	1.33606	0.82313	−1.14761	1.34108	0.75266
3.704	0.23954	0.06265	1.36387	0.87447	−1.18225	1.30907	0.73326
3.810	0.23299	0.05490	1.38537	0.90926	−1.22465	1.26597	0.73753
3.916	0.22111	0.04645	1.40156	0.92642	−1.27463	1.21638	0.76116
4.022	0.20479	0.03746	1.41334	0.92550	−1.33167	1.16320	0.80016
4.128	0.18493	0.02806	1.42153	0.90669	−1.39481	1.10890	0.85066
4.233	0.16238	0.01839	1.42660	0.87084	−1.46288	1.05577	0.90927
4.339	0.13794	0.00860	1.42867	0.81950	−1.53465	1.00612	0.97344
4.445	0.11230	−0.00109	1.42725	0.75506	−1.60896	0.96179	1.04126
4.551	0.08608	−0.01068	1.42223	0.68042	−1.68479	0.92449	1.11348
4.657	0.05973	−0.01987	1.41275	0.59936	−1.76148	0.89506	1.19015
4.763	0.03358	−0.02834	1.39851	0.51582	−1.83867	0.87380	1.27152
4.868	0.00777	−0.03560	1.37954	0.43360	−1.91626	0.86099	1.35728
4.974	−0.01787	−0.04068	1.35639	0.35597	−1.99448	0.85624	1.44723
5.080	−0.04385	−0.04148	1.32994	0.28514	−2.07347	0.85936	1.53950
5.186	−0.07056	−0.03320	1.30117	0.22248	−2.15339	0.87054	1.63217
5.292	−0.09451	−0.00959	1.27120	0.16807	−2.23429	0.88901	1.72243
5.398	−0.10835	0.02214	1.24098	0.12114	−2.31565	0.91378	1.80684
5.503	−0.11488	0.04769	1.21128	0.08009	−2.39675	0.94341	1.88287
5.609	−0.11933	0.06569	1.18279	0.04262	−2.47671	0.97549	1.94894
5.715	−0.12314	0.07853	1.15603	0.00610	−2.55439	1.00698	2.00497
5.821	−0.12640	0.08773	1.13135	−0.03230	−2.62865	1.03444	2.05287
5.927	−0.12902	0.09416	1.10907	−0.07538	−2.69832	1.05378	2.09510
6.033	−0.13090	0.09836	1.08943	−0.12572	−2.76228	1.06132	2.13485
6.138	−0.13201	0.10072	1.07261	−0.18536	−2.81944	1.05410	2.17507
6.244	−0.13231	0.10155	1.05875	−0.25571	−2.86871	1.03035	2.21826
6.350	−0.13183	0.10110	1.04794	−0.33722	−2.90907	0.98982	2.26467
6.456	−0.13061	0.09958	1.04023	−0.42939	−2.93959	0.93436	2.31124
6.562	−0.12872	0.09720	1.03563	−0.53065	−2.95948	0.86790	2.34777
6.668	−0.12625	0.09412	1.03409	−0.63855	−2.96824	0.79605	2.35490
6.773	−0.12328	0.09047	1.03556	−0.75008	−2.96583	0.72466	2.31460
6.879	−0.11991	0.08640	1.03994	−0.86200	−2.95257	0.65881	2.23194
6.985	−0.11624	0.08197	1.04713	−0.97139	−2.92916	0.60216	2.13318
7.091	−0.11236	0.07726	1.05705	−1.07561	−2.89651	0.55686	2.04081
7.197	−0.10835	0.07233	1.06953	−1.17300	−2.85556	0.52485	1.96009
7.303	−0.10429	0.06720	1.08444	−1.26248	−2.80715	0.50715	1.89126
7.408	−0.10025	0.06197	1.10162	−1.34375	−2.75185	0.50481	1.83063
7.514	−0.09625	0.05660	1.12094	−1.41688	−2.69012	0.51853	1.77379
7.620	−0.09234	0.05114	1.14218	−1.48236	−2.62205	0.54903	1.71840
7.726	−0.08855	0.04562	1.16514	−1.54085	−2.54754	0.59587	1.65972
7.832	−0.08490	0.04007	1.18956	−1.59315	−2.46638	0.65787	1.59513
7.938	−0.08138	0.03451	1.21517	−1.64001	−2.37830	0.73244	1.52076
8.043	−0.07801	0.02896	1.24169	−1.68211	−2.28305	0.81529	1.43437
8.149	−0.07476	0.02346	1.26880	−1.72016	−2.18066	0.90135	1.33393
8.255	−0.07164	0.01808	1.29618	−1.75469	−2.07114	0.98423	1.21877
8.361	−0.06864	0.01280	1.32347	−1.78623	−1.95526	1.05825	1.09030
8.467	−0.06574	0.00767	1.35037	−1.81520	−1.83401	1.11843	0.95045
8.573	−0.06293	0.00275	1.37658	−1.84194	−1.70893	1.16145	0.80199
8.679	−0.06020	−0.00194	1.40181	−1.86681	−1.58199	1.18562	0.64821
8.784	−0.05755	−0.00638	1.42583	−1.89006	−1.45544	1.19063	0.49278
8.890	−0.05496	−0.01050	1.44848	−1.91194	−1.33143	1.17704	0.33985
8.996	−0.05243	−0.01431	1.46959	−1.93265	−1.21202	1.14681	0.19388
9.102	−0.04999	−0.01778	1.48909	−1.95239	−1.09882	1.10239	0.05825
9.208	−0.04759	−0.02093	1.50689	−1.97131	−0.99317	1.04679	−0.06334
9.314	−0.04527	−0.02375	1.52302	−1.98954	−0.89568	0.98315	−0.16832
9.419	−0.04302	−0.02624	1.53748	−2.00722	−0.80662	0.91458	−0.25525
9.525	−0.04085	−0.02841	1.55032	−2.02445	−0.72592	0.84375	−0.32369
9.631	−0.03876	−0.03028	1.56161	−2.04131	−0.65322	0.77292	−0.37407
9.737	−0.03675	−0.03186	1.57143	−2.05787	−0.58803	0.70384	−0.40764
9.843	−0.03483	−0.03318	1.57986	−2.07420	−0.52976	0.63772	−0.42553
9.949	−0.03300	−0.03426	1.58699	−2.09035	−0.47778	0.57540	−0.42963
10.054	−0.03123	−0.03512	1.59292	−2.10638	−0.43149	0.51728	−0.42188
10.160	−0.02956	−0.03577	1.59770	−2.12226	−0.39027	0.46365	−0.40393
10.266	−0.02797	−0.03624	1.60143	−2.13805	−0.35356	0.41447	−0.37787
10.372	−0.02647	−0.03655	1.60418	−2.15376	−0.32088	0.36961	−0.34519
10.478	−0.02505	−0.03672	1.60601	−2.16940	−0.29176	0.32889	−0.30784

(*continued on next page*)

Table 28 (*continued*)

R	$\mu_{31}^{1\Sigma^+,1\Pi}$	$\mu_{32}^{1\Sigma^+,1\Pi}$	$\mu_{33}^{1\Sigma^+,1\Pi}$	$\mu_{34}^{1\Sigma^+,1\Pi}$	$\mu_{35}^{1\Sigma^+,1\Pi}$	$\mu_{36}^{1\Sigma^+,1\Pi}$	$\mu_{37}^{1\Sigma^+,1\Pi}$
10.584	−0.02371	−0.03675	1.60700	−2.18498	−0.26580	0.29206	−0.26772
10.848	−0.02067	−0.03636	1.60609	−2.22367	−0.21236	0.21478	−0.16734
11.113	−0.01805	−0.03549	1.60094	−2.26201	−0.17189	0.15526	−0.09337
11.377	−0.01579	−0.03427	1.59213	−2.29990	−0.14100	0.10971	−0.05315
11.642	−0.01386	−0.03283	1.58012	−2.33725	−0.11718	0.07491	0.00080
11.906	−0.01222	−0.03126	1.56523	−2.37400	−0.09868	0.04839	0.06575
12.171	−0.01080	−0.02964	1.54779	−2.41003	−0.08419	0.02816	0.12809
12.436	−0.00959	−0.02800	1.52805	−2.44529	−0.07274	0.01277	0.18107
12.700	−0.00854	−0.02639	1.50625	−2.47970	−0.06359	0.00114	0.22507
12.965	−0.00764	−0.02483	1.48261	−2.51320	−0.05622	−0.00761	0.26145
13.229	−0.00689	−0.02330	1.45732	−2.54576	−0.05021	−0.01416	0.29167
13.494	−0.00622	−0.02187	1.43057	−2.57729	−0.04524	−0.01900	0.31706
13.759	−0.00565	−0.02052	1.40254	−2.60780	−0.04111	−0.02250	0.33836
14.023	−0.00516	−0.01925	1.37341	−2.63725	−0.03764	−0.02501	0.35638
14.288	−0.00473	−0.01805	1.34335	−2.66559	−0.03466	−0.02671	0.37167
14.552	−0.00435	−0.01694	1.31253	−2.69282	−0.03210	−0.02777	0.38484
14.817	−0.00402	−0.01589	1.28110	−2.71894	−0.02985	−0.02837	0.39570
15.082	−0.00373	−0.01491	1.24922	−2.74392	−0.02788	−0.02863	0.40485
15.346	−0.00347	−0.01400	1.21704	−2.76779	−0.02611	−0.02859	0.41211
15.611	−0.00323	−0.01317	1.18468	−2.79054	−0.02457	−0.02831	0.41770
15.875	−0.00303	−0.01238	1.15229	−2.81218	−0.02313	−0.02790	0.42192
16.140	−0.00284	−0.01164	1.11996	−2.83274	−0.02183	−0.02738	0.42484
16.404	−0.00267	−0.01096	1.08784	−2.85221	−0.02064	−0.02679	0.42636
16.934	−0.00237	−0.00972	1.02454	−2.88805	−0.01853	−0.02543	0.42579
17.463	−0.00213	−0.00865	0.96306	−2.91992	−0.01670	−0.02392	0.42111
17.992	−0.00193	−0.00771	0.90392	−2.94812	−0.01511	−0.02237	0.41292
18.521	−0.00175	−0.00690	0.84747	−2.97297	−0.01371	−0.02086	0.40200
19.050	−0.00160	−0.00618	0.79396	−2.99480	−0.01247	−0.01940	0.38895
19.580	−0.00146	−0.00555	0.74351	−3.01392	−0.01136	−0.01801	0.37439
20.109	−0.00133	−0.00500	0.69615	−3.03066	−0.01037	−0.01669	0.35886
20.638	−0.00122	−0.00451	0.65185	−3.04529	−0.00949	−0.01546	0.34278
21.167	−0.00113	−0.00407	0.61054	−3.05807	−0.00867	−0.01442	0.32662
22.225	−0.00096	−0.00335	0.53632	−3.07894	−0.00730	−0.01230	0.29480
23.284	−0.00082	−0.00278	0.47232	−3.09490	−0.00618	−0.01056	0.26496
24.342	−0.00070	−0.00231	0.41726	−3.10714	−0.00528	−0.00905	0.23767
25.401	−0.00060	−0.00196	0.36987	−3.11661	−0.00451	−0.00777	0.21333
26.459	−0.00052	−0.00166	0.32903	−3.12401	−0.00388	−0.00674	0.19176
27.517	−0.00045	−0.00142	0.29374	−3.12984	−0.00335	−0.00590	0.17270
28.576	−0.00039	−0.00122	0.26316	−3.13454	−0.00291	−0.00510	0.15589
29.634	−0.00035	−0.00106	0.23657	−3.13831	−0.00252	−0.00444	0.14109
30.692	−0.00031	−0.00092	0.21338	−3.14136	−0.00219	−0.00390	0.12802
31.751	−0.00029	−0.00081	0.19306	−3.14385	−0.00192	−0.00343	0.11647
37.042	−0.00014	−0.00043	0.12215	−3.15127	−0.00109	−0.00185	0.07526
42.334	−0.00009	−0.00025	0.08198	−3.15462	−0.00063	−0.00111	0.05127
47.626	−0.00006	−0.00016	0.05763	−3.15643	−0.00040	−0.00062	0.03644
50.272	−0.00005	−0.00013	0.04902	−3.15700	−0.00032	−0.00049	0.03113
51.859	−0.00004	−0.00012	0.04466	−3.15728	−0.00028	−0.00042	0.02843

Table 29
Transition dipole moments between the $4^1\Sigma^+$ and (1-7)$^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Sigma^+\text{-}1\Pi}_{41}$	$\mu^{1\Sigma^+\text{-}1\Pi}_{42}$	$\mu^{1\Sigma^+\text{-}1\Pi}_{43}$	$\mu^{1\Sigma^+\text{-}1\Pi}_{44}$	$\mu^{1\Sigma^+\text{-}1\Pi}_{45}$	$\mu^{1\Sigma^+\text{-}1\Pi}_{46}$	$\mu^{1\Sigma^+\text{-}1\Pi}_{47}$
2.646	−2.37788	−0.87548	−2.15840	2.30156	−5.77733	0.22313	−0.64461
2.752	−2.48769	−0.78237	−2.36418	2.44540	−5.60747	0.16928	−0.70653
2.858	−2.61000	−0.70329	−2.53389	2.61799	−5.42433	0.11354	−0.73269
2.963	−2.73675	−0.63240	−2.67756	2.81379	−5.23509	0.05377	−0.73322
3.069	−2.86203	−0.56708	−2.80236	3.02834	−5.04416	−0.01066	−0.71662
3.175	−2.98163	−0.50646	−2.91337	3.25472	−4.85426	−0.07626	−0.68948
3.281	−3.09278	−0.45050	−3.01312	3.48279	−4.66889	−0.13671	−0.65737
3.387	−3.19378	−0.39928	−3.10157	3.70055	−4.49420	−0.18746	−0.62605
3.493	−3.28373	−0.35266	−3.17669	3.89743	−4.33874	−0.22799	−0.60023
3.598	−3.36225	−0.31018	−3.23527	4.06682	−4.21125	−0.26039	−0.58306
3.704	−3.42914	−0.27112	−3.27378	4.20651	−4.11833	−0.28743	−0.57626
3.810	−3.48420	−0.23461	−3.28894	4.31733	−4.06328	−0.31150	−0.58109
3.916	−3.52693	−0.19967	−3.27842	4.40089	−4.04578	−0.33591	−0.59857
4.022	−3.55613	−0.16511	−3.24086	4.45825	−4.06262	−0.36330	−0.62975
4.128	−3.56932	−0.12951	−3.17661	4.48821	−4.10732	−0.39757	−0.67586
4.233	−3.56138	−0.09110	−3.08803	4.48565	−4.16911	−0.44391	−0.73827
4.339	−3.52163	−0.04751	−2.97999	4.43873	−4.22938	−0.50992	−0.81842
4.445	−3.42762	0.00414	−2.85850	4.32280	−4.25301	−0.60527	−0.91644
4.551	−3.23464	0.06688	−2.72654	4.09127	−4.17275	−0.73812	−1.02619
4.657	−2.87960	0.13962	−2.57215	3.68156	−3.88542	−0.89845	−1.12267
4.763	−2.36247	0.21248	−2.37832	3.10636	−3.35363	−1.03731	−1.16598
4.868	−1.82298	0.27610	−2.16936	2.53141	−2.73808	−1.10696	−1.14693
4.974	−1.38232	0.33600	−1.98902	2.09216	−2.21704	−1.11703	−1.09391
5.080	−1.04365	0.40583	−1.84989	1.79291	−1.82973	−1.09709	−1.02927
5.186	−0.75640	0.49551	−1.74488	1.59144	−1.54898	−1.06605	−0.96408
5.292	−0.47278	0.57920	−1.66456	1.45182	−1.34344	−1.03110	−0.89704
5.398	−0.22961	0.58790	−1.60190	1.35046	−1.19055	−0.99492	−0.83023
5.503	−0.07813	0.53730	−1.55208	1.27292	−1.07554	−0.95767	−0.76490
5.609	−0.00932	0.47550	−1.51146	1.20994	−0.98957	−0.91825	−0.70301
5.715	0.06379	0.41938	−1.47771	1.15590	−0.92658	−0.87549	−0.64762
5.821	0.10062	0.37189	−1.44928	1.10725	−0.88260	−0.82733	−0.59990
5.927	0.12709	0.33266	−1.42469	1.06147	−0.85523	−0.77225	−0.56281
6.033	0.14670	0.30063	−1.40295	1.01685	−0.84246	−0.70843	−0.53894
6.138	0.16126	0.27473	−1.38327	0.97217	−0.84265	−0.63452	−0.53037
6.244	0.17166	0.25398	−1.36490	0.92652	−0.85433	−0.54961	−0.53977
6.350	0.17845	0.23753	−1.34738	0.87933	−0.87587	−0.45386	−0.56938
6.456	0.18191	0.22462	−1.33019	0.83031	−0.90556	−0.34955	−0.62233
6.562	0.18223	0.21455	−1.31290	0.77960	−0.94172	−0.24072	−0.69987
6.668	0.17973	0.20678	−1.29536	0.72725	−0.98286	−0.13400	−0.79456
6.773	0.17466	0.20080	−1.27734	0.67428	−1.02745	−0.03468	−0.88954
6.879	0.16739	0.19621	−1.25852	0.62168	−1.07443	0.05253	−0.96471
6.985	0.15825	0.19272	−1.23896	0.57028	−1.12314	0.12529	−1.01355
7.091	0.14762	0.19009	−1.21849	0.52094	−1.17316	0.18294	−1.04188
7.197	0.13590	0.18807	−1.19684	0.47468	−1.22443	0.22600	−1.05823
7.303	0.12345	0.18653	−1.17390	0.43193	−1.27703	0.25566	−1.06761
7.408	0.11056	0.18535	−1.14943	0.39305	−1.33105	0.27315	−1.07282
7.514	0.09753	0.18439	−1.12334	0.35791	−1.38668	0.28019	−1.07542
7.620	0.08456	0.18356	−1.09543	0.32639	−1.44388	0.27831	−1.07563
7.726	0.07180	0.18280	−1.06555	0.29815	−1.50245	0.26909	−1.07368
7.832	0.05938	0.18202	−1.03359	0.27280	−1.56210	0.25481	−1.06918
7.938	0.04741	0.18116	−0.99948	0.24984	−1.62221	0.23780	−1.06234
8.043	0.03593	0.18016	−0.96331	0.22887	−1.68200	0.22116	−1.05296
8.149	0.02499	0.17898	−0.92507	0.20946	−1.74051	0.20792	−1.04193
8.255	0.01458	0.17756	−0.88493	0.19130	−1.79658	0.20082	−1.03042
8.361	0.00477	0.17593	−0.84307	0.17408	−1.84914	0.20219	−1.01996
8.467	−0.00448	0.17404	−0.79976	0.15765	−1.89699	0.21249	−1.01217
8.573	−0.01317	0.17190	−0.75526	0.14188	−1.93920	0.23100	−1.00856
8.679	−0.02129	0.16949	−0.71000	0.12673	−1.97506	0.25586	−1.01017
8.784	−0.02886	0.16681	−0.66433	0.11221	−2.00436	0.28458	−1.01754
8.890	−0.03585	0.16391	−0.61854	0.09832	−2.02711	0.31403	−1.03074
8.996	−0.04226	0.16079	−0.57303	0.08513	−2.04379	0.34180	−1.04895
9.102	−0.04817	0.15750	−0.52813	0.07265	−2.05493	0.36603	−1.07155
9.208	−0.05344	0.15398	−0.48421	0.06099	−2.06181	0.38498	−1.09687
9.314	−0.05810	0.15030	−0.44148	0.05024	−2.06508	0.39807	−1.12348
9.419	−0.06217	0.14645	−0.40022	0.04033	−2.06563	0.40566	−1.14997
9.525	−0.06561	0.14245	−0.36059	0.03129	−2.06422	0.40806	−1.17512
9.631	−0.06839	0.13829	−0.32274	0.02313	−2.06145	0.40595	−1.19801
9.737	−0.07048	0.13398	−0.28677	0.01583	−2.05778	0.40012	−1.21782
9.843	−0.07184	0.12949	−0.25275	0.00933	−2.05363	0.39143	−1.23468
9.949	−0.07242	0.12481	−0.22070	0.00361	−2.04923	0.38063	−1.24843
10.054	−0.07215	0.11993	−0.19066	−0.00141	−2.04458	0.36819	−1.25929
10.160	−0.07096	0.11481	−0.16256	−0.00576	−2.03989	0.35487	−1.26790
10.266	−0.06874	0.10939	−0.13642	−0.00944	−2.03514	0.34104	−1.27485
10.372	−0.06540	0.10366	−0.11215	−0.01265	−2.03015	0.32697	−1.28120
10.478	−0.06081	0.09755	−0.08972	−0.01539	−2.02482	0.31288	−1.28802

(*continued on next page*)

Table 29 (*continued*)

R	$\mu_{41}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{42}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{43}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{44}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{45}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{46}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{47}^{1\Sigma^+\text{-}^1\Pi}$
10.584	−0.05481	0.09100	−0.06906	−0.01767	−2.01896	0.29902	−1.29665
10.848	−0.03236	0.07216	−0.02484	−0.02179	−2.00002	0.26623	−1.33651
11.113	0.00405	0.04851	0.00962	−0.02417	−1.96957	0.23675	−1.41441
11.377	0.06015	0.01793	0.03501	−0.02530	−1.91740	0.21059	−1.45148
11.642	0.14369	−0.02225	0.05183	−0.02557	−1.82807	0.18739	−1.35931
11.906	0.26351	−0.07467	0.06047	−0.02512	−1.68111	0.16637	−1.21657
12.171	0.42555	−0.14029	0.06138	−0.02408	−1.45607	0.14668	−1.05992
12.436	0.62530	−0.21558	0.05576	−0.02255	−1.14777	0.12766	−0.89390
12.700	0.84226	−0.29117	0.04594	−0.02065	−0.78175	0.10935	−0.72755
12.965	1.04774	−0.35595	0.03476	−0.01863	−0.40960	0.09250	−0.57499
13.229	1.22138	−0.40347	0.02449	−0.01672	−0.07795	0.07787	−0.44648
13.494	1.35783	−0.43354	0.01616	−0.01501	0.19208	0.06584	−0.34493
13.759	1.46150	−0.44947	0.00981	−0.01354	0.40137	0.05608	−0.26679
14.023	1.53961	−0.45508	0.00515	−0.01230	0.56005	0.04819	−0.20731
14.288	1.59878	−0.45360	0.00178	−0.01123	0.67966	0.04176	−0.16205
14.552	1.64416	−0.44737	−0.00062	−0.01032	0.77007	0.03657	−0.12733
14.817	1.67947	−0.43801	−0.00231	−0.00951	0.83886	0.03226	−0.10055
15.082	1.70739	−0.42666	−0.00346	−0.00878	0.89161	0.02862	−0.07982
15.346	1.72977	−0.41409	−0.00425	−0.00814	0.93250	0.02557	−0.06345
15.611	1.74797	−0.40085	−0.00475	−0.00757	0.96445	0.02296	−0.05057
15.875	1.76298	−0.38729	−0.00505	−0.00705	0.98965	0.02069	−0.04035
16.140	1.77549	−0.37368	−0.00517	−0.00660	1.00970	0.01875	−0.03241
16.404	1.78605	−0.36018	−0.00521	−0.00618	1.02583	0.01702	−0.02589
16.934	1.80278	−0.33402	−0.00506	−0.00543	1.04961	0.01415	−0.01652
17.463	1.81537	−0.30935	−0.00472	−0.00480	1.06575	0.01186	−0.01067
17.992	1.82512	−0.28641	−0.00433	−0.00425	1.07712	0.01001	−0.00682
18.521	1.83284	−0.26525	−0.00393	−0.00378	1.08535	0.00850	−0.00444
19.050	1.83909	−0.24581	−0.00356	−0.00337	1.09149	0.00727	−0.00288
19.580	1.84421	−0.22801	−0.00321	−0.00302	1.09619	0.00624	−0.00199
20.109	1.84846	−0.21172	−0.00290	−0.00271	1.09985	0.00538	−0.00148
20.638	1.85202	−0.19682	−0.00261	−0.00244	1.10276	0.00466	−0.00118
21.167	1.85505	−0.18320	−0.00235	−0.00219	1.10509	0.00400	−0.00126
22.225	1.85983	−0.15933	−0.00190	−0.00182	1.10857	0.00318	−0.00118
23.284	1.86337	−0.13928	−0.00151	−0.00148	1.11101	0.00246	−0.00135
24.342	1.86608	−0.12235	−0.00122	−0.00126	1.11272	0.00189	−0.00152
25.401	1.86815	−0.10801	−0.00099	−0.00106	1.11401	0.00153	−0.00160
26.459	1.86978	−0.09579	−0.00083	−0.00091	1.11498	0.00124	−0.00156
27.517	1.87108	−0.08531	−0.00070	−0.00077	1.11572	0.00096	−0.00144
28.576	1.87212	−0.07630	−0.00059	−0.00066	1.11629	0.00078	−0.00129
29.634	1.87298	−0.06850	−0.00050	−0.00056	1.11675	0.00064	−0.00116
30.692	1.87368	−0.06172	−0.00043	−0.00049	1.11712	0.00053	−0.00104
31.751	1.87427	−0.05580	−0.00037	−0.00043	1.11742	0.00044	−0.00094
37.042	1.87609	−0.03524	−0.00019	−0.00023	1.11836	0.00019	−0.00043
42.334	1.87701	−0.02364	−0.00012	−0.00013	1.11878	0.00010	−0.00014
47.626	1.87751	−0.01662	−0.00008	−0.00008	1.11902	0.00006	−0.00002
50.272	1.87768	−0.01414	−0.00006	−0.00007	1.11910	0.00004	−0.00001
51.859	1.87777	−0.01288	−0.00006	−0.00005	1.11914	0.00004	0.00002

Table 30
Transition dipole moments between the $5^1\Sigma^+$ and $(1\text{-}7)^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Sigma^+-1\Pi}_{51}$	$\mu^{1\Sigma^+-1\Pi}_{52}$	$\mu^{1\Sigma^+-1\Pi}_{53}$	$\mu^{1\Sigma^+-1\Pi}_{54}$	$\mu^{1\Sigma^+-1\Pi}_{55}$	$\mu^{1\Sigma^+-1\Pi}_{56}$	$\mu^{1\Sigma^+-1\Pi}_{57}$
2.646	−0.47772	0.66880	−0.26224	1.73740	1.04440	3.77801	−0.46055
2.752	−0.43503	0.56150	−0.13272	1.63921	1.22754	3.44157	−0.43875
2.858	−0.38015	0.48758	−0.00477	1.54363	1.43335	3.18559	−0.45037
2.963	−0.32411	0.44067	0.12522	1.45759	1.63077	2.99318	−0.50599
3.069	−0.27444	0.41097	0.25549	1.38127	1.79694	2.84014	−0.59967
3.175	−0.23571	0.38949	0.38307	1.31263	1.91821	2.70944	−0.70684
3.281	−0.21022	0.36931	0.50502	1.25038	1.98685	2.59591	−0.79081
3.387	−0.19901	0.34542	0.61910	1.19471	1.99818	2.50242	−0.82434
3.493	−0.20271	0.31474	0.72351	1.14773	1.94964	2.43060	−0.79909
3.598	−0.22211	0.27581	0.81621	1.11194	1.83985	2.37587	−0.71969
3.704	−0.25850	0.22875	0.89456	1.08949	1.66922	2.32940	−0.59623
3.810	−0.31365	0.17523	0.95501	1.08192	1.44028	2.28027	−0.44080
3.916	−0.39005	0.11800	0.99347	1.09163	1.15845	2.21726	−0.26691
4.022	−0.49101	0.06099	1.00526	1.12253	0.83025	2.13276	−0.09157
4.128	−0.62193	0.00823	0.98542	1.18229	0.46090	2.02367	0.06644
4.233	−0.79225	−0.03675	0.92813	1.28428	0.04880	1.89182	0.18870
4.339	−1.01845	−0.07105	0.82475	1.45079	−0.42138	1.74113	0.25808
4.445	−1.32684	−0.09118	0.66041	1.71590	−0.98469	1.57125	0.25781
4.551	−1.74777	−0.09048	0.41576	2.11864	−1.69142	1.37478	0.16699
4.657	−2.27299	−0.05691	0.09031	2.65249	−2.55083	1.13545	−0.03266
4.763	−2.78188	0.02272	−0.23901	3.17532	−3.41827	0.86166	−0.31797
4.868	−3.12305	0.15386	−0.45332	3.50471	−4.07850	0.60688	−0.61626
4.974	−3.27950	0.35058	−0.52791	3.62481	−4.48922	0.40737	−0.88490
5.080	−3.29085	0.66096	−0.51035	3.61229	−4.71701	0.25773	−1.12417
5.186	−3.13165	1.17045	−0.44508	3.52692	−4.81097	0.14136	−1.34305
5.292	−2.69016	1.86086	−0.35700	3.39755	−4.78378	0.04873	−1.54108
5.398	−2.06982	2.34989	−0.25777	3.23078	−4.61654	−0.02325	−1.70528
5.503	−1.57389	2.43530	−0.15299	3.01495	−4.26787	−0.07203	−1.80623
5.609	−1.22715	2.24077	−0.05069	2.73216	−3.71088	−0.09681	−1.80260
5.715	−0.96887	1.89707	0.03403	2.39476	−3.01760	−0.10809	−1.67979
5.821	−0.77546	1.53267	0.08825	2.06119	−2.35525	−0.12528	−1.48074
5.927	−0.63603	1.22939	0.11269	1.78204	−1.83793	−0.16011	−1.26582
6.033	−0.53550	1.00318	0.11619	1.56781	−1.47546	−0.21223	−1.06499
6.138	−0.45968	0.84029	0.10712	1.40721	−1.23425	−0.27746	−0.88201
6.244	−0.39890	0.72333	0.09109	1.28595	−1.07935	−0.35159	−0.71072
6.350	−0.34721	0.63878	0.07139	1.19219	−0.98500	−0.43062	−0.54107
6.456	−0.30148	0.57710	0.05036	1.11731	−0.93318	−0.50938	−0.36055
6.562	−0.26003	0.53170	0.02943	1.05514	−0.91137	−0.58167	−0.15803
6.668	−0.22195	0.49805	0.00943	1.00087	−0.91076	−0.64246	0.07034
6.773	−0.18697	0.47283	−0.00879	0.95169	−0.92448	−0.68742	0.30464
6.879	−0.15492	0.45374	−0.02466	0.90568	−0.94735	−0.71542	0.51295
6.985	−0.12569	0.43909	−0.03801	0.86107	−0.97570	−0.72652	0.67902
7.091	−0.09926	0.42763	−0.04862	0.81764	−1.00643	−0.72224	0.80793
7.197	−0.07543	0.41849	−0.05659	0.77481	−1.03749	−0.70371	0.91704
7.303	−0.05407	0.41101	−0.06206	0.73243	−1.06740	−0.67151	1.01649
7.408	−0.03494	0.40475	−0.06524	0.69028	−1.09512	−0.62544	1.11318
7.514	−0.01788	0.39947	−0.06642	0.64859	−1.11984	−0.56509	1.21100
7.620	−0.00262	0.39493	−0.06588	0.60716	−1.14119	−0.48863	1.30966
7.726	0.01105	0.39103	−0.06398	0.56593	−1.15868	−0.39410	1.40901
7.832	0.02335	0.38769	−0.06098	0.52483	−1.17186	−0.27993	1.50601
7.938	0.03449	0.38489	−0.05723	0.48380	−1.18016	−0.14555	1.59754
8.043	0.04462	0.38261	−0.05298	0.44284	−1.18308	0.00840	1.67949
8.149	0.05389	0.38084	−0.04852	0.40201	−1.18008	0.17902	1.74799
8.255	0.06243	0.37961	−0.04397	0.36143	−1.17024	0.36203	1.79975
8.361	0.07030	0.37893	−0.03952	0.32114	−1.15345	0.55158	1.83310
8.467	0.07760	0.37882	−0.03527	0.28128	−1.12936	0.74227	1.84758
8.573	0.08438	0.37929	−0.03131	0.24202	−1.09806	0.92914	1.84384
8.679	0.09070	0.38037	−0.02769	0.20349	−1.06010	1.10834	1.82287
8.784	0.09658	0.38208	−0.02447	0.16583	−1.01651	1.27715	1.78620
8.890	0.10207	0.38442	−0.02156	0.12923	−0.96838	1.43343	1.73563
8.996	0.10717	0.38742	−0.01897	0.09382	−0.91736	1.57618	1.67317
9.102	0.11193	0.39109	−0.01673	0.05971	−0.86514	1.70514	1.60135
9.208	0.11631	0.39547	−0.01483	0.02692	−0.81315	1.82042	1.52237
9.314	0.12034	0.40061	−0.01307	−0.00423	−0.76234	1.92209	1.43917
9.419	0.12399	0.40654	−0.01154	−0.03381	−0.71397	2.01173	1.35427
9.525	0.12725	0.41329	−0.01021	−0.06175	−0.66878	2.09057	1.26989
9.631	0.13009	0.42095	−0.00897	−0.08792	−0.62720	2.15988	1.18783
9.737	0.13243	0.42955	−0.00793	−0.11250	−0.58987	2.22172	1.10927
9.843	0.13421	0.43918	−0.00700	−0.13539	−0.55689	2.27736	1.03516
9.949	0.13529	0.44998	−0.00614	−0.15658	−0.52856	2.32830	0.96586
10.054	0.13548	0.46208	−0.00536	−0.17617	−0.50498	2.37572	0.90144
10.160	0.13449	0.47572	−0.00461	−0.19407	−0.48660	2.42088	0.84178
10.266	0.13188	0.49117	−0.00386	−0.21050	−0.47399	2.46467	0.78648
10.372	0.12692	0.50886	−0.00309	−0.22523	−0.46827	2.50807	0.73503
10.478	0.11838	0.52949	−0.00225	−0.23845	−0.47131	2.55157	0.68660

(*continued on next page*)

Table 30 (*continued*)

R	$\mu_{51}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{52}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{53}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{54}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{55}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{56}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{57}^{1\Sigma^+\text{-}^1\Pi}$
10.584	0.10400	0.55420	−0.00125	−0.25017	−0.48681	2.59579	0.64018
10.848	−0.00611	0.65661	0.00342	−0.27256	−0.65962	2.70556	0.51609
11.113	−1.91009	1.35734	0.06355	−0.18773	−3.61764	1.70028	−0.15039
11.377	−2.64421	1.28351	0.08858	−0.03465	−4.53523	0.17730	−0.60002
11.642	−2.68829	1.22970	0.09357	−0.02175	−4.66172	0.08664	−0.65250
11.906	−2.72287	1.19127	0.09788	−0.01778	−4.84232	0.07104	−0.68397
12.171	−2.75418	1.15670	0.10098	−0.01671	−5.08019	0.07283	−0.71132
12.436	−2.77808	1.12129	0.10144	−0.01696	−5.35974	0.07964	−0.72248
12.700	−2.79198	1.08305	0.09770	−0.01768	−5.65132	0.08643	−0.70251
12.965	−2.79906	1.04280	0.08894	−0.01827	−5.92431	0.09064	−0.64486
13.229	−2.80498	1.00245	0.07615	−0.01843	−6.15877	0.09135	−0.55707
13.494	−2.81237	0.96297	0.06132	−0.01812	−6.34637	0.08899	−0.45499
13.759	−2.82073	0.92435	0.04660	−0.01744	−6.48745	0.08444	−0.35421
14.023	−2.82888	0.88647	0.03340	−0.01652	−6.58860	0.07875	−0.26490
14.288	−2.83632	0.84948	0.02236	−0.01552	−6.65862	0.07255	−0.19073
14.552	−2.84308	0.81360	0.01353	−0.01451	−6.70642	0.06630	−0.13193
14.817	−2.84935	0.77899	0.00670	−0.01352	−6.73904	0.06032	−0.08660
15.082	−2.85529	0.74578	0.00151	−0.01260	−6.76159	0.05479	−0.05238
15.346	−2.86106	0.71402	−0.00234	−0.01171	−6.77738	0.04969	−0.02681
15.611	−2.86662	0.68368	−0.00517	−0.01090	−6.78895	0.04506	−0.00810
15.875	−2.87203	0.65476	−0.00720	−0.01016	−6.79757	0.04087	0.00545
16.140	−2.87725	0.62719	−0.00863	−0.00945	−6.80422	0.03707	0.01514
16.404	−2.88228	0.60094	−0.00960	−0.00884	−6.80956	0.03368	0.02182
16.934	−2.89170	0.55214	−0.01054	−0.00775	−6.81767	0.02792	0.02928
17.463	−2.90016	0.50792	−0.01069	−0.00681	−6.82384	0.02325	0.03168
17.992	−2.90768	0.46786	−0.01039	−0.00602	−6.82887	0.01940	0.03142
18.521	−2.91430	0.43155	−0.00988	−0.00532	−6.83319	0.01631	0.02984
19.050	−2.92009	0.39865	−0.00928	−0.00473	−6.83701	0.01378	0.02764
19.580	−2.92518	0.36879	−0.00864	−0.00422	−6.84038	0.01171	0.02529
20.109	−2.92962	0.34168	−0.00800	−0.00377	−6.84342	0.01002	0.02293
20.638	−2.93353	0.31705	−0.00737	−0.00339	−6.84609	0.00865	0.02059
21.167	−2.93695	0.29462	−0.00682	−0.00307	−6.84866	0.00758	0.01850
22.225	−2.94259	0.25556	−0.00581	−0.00247	−6.85302	0.00557	0.01527
23.284	−2.94704	0.22295	−0.00492	−0.00204	−6.85649	0.00426	0.01267
24.342	−2.95055	0.19553	−0.00419	−0.00171	−6.85973	0.00335	0.01053
25.401	−2.95335	0.17238	−0.00358	−0.00143	−6.86231	0.00266	0.00888
26.459	−2.95561	0.15270	−0.00309	−0.00121	−6.86452	0.00213	0.00757
27.517	−2.95746	0.13588	−0.00267	−0.00103	−6.86640	0.00173	0.00654
28.576	−2.95899	0.12142	−0.00232	−0.00088	−6.86803	0.00142	0.00568
29.634	−2.96026	0.10893	−0.00203	−0.00076	−6.86944	0.00118	0.00497
30.692	−2.96133	0.09809	−0.00178	−0.00066	−6.87067	0.00099	0.00437
31.751	−2.96224	0.08864	−0.00157	−0.00058	−6.87174	0.00083	0.00388
37.042	−2.96517	0.05587	−0.00088	−0.00031	−6.87547	0.00041	0.00224
42.334	−2.96670	0.03745	−0.00052	−0.00018	−6.87758	0.00023	0.00133
47.626	−2.96757	0.02630	−0.00033	−0.00011	−6.87886	0.00014	0.00082
50.272	−2.96787	0.02237	−0.00026	−0.00009	−6.87931	0.00012	0.00065
51.859	−2.96802	0.02037	−0.00023	−0.00008	−6.87954	0.00010	0.00057

Table 31
Transition dipole moments between the $6^1\Sigma^+$ and $(1\text{-}7)^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Sigma^+-1\Pi}_{61}$	$\mu^{1\Sigma^+-1\Pi}_{62}$	$\mu^{1\Sigma^+-1\Pi}_{63}$	$\mu^{1\Sigma^+-1\Pi}_{64}$	$\mu^{1\Sigma^+-1\Pi}_{65}$	$\mu^{1\Sigma^+-1\Pi}_{66}$	$\mu^{1\Sigma^+-1\Pi}_{67}$
2.646	0.74482	1.56710	0.07818	1.09187	2.08610	−2.59829	−3.34241
2.752	0.68816	1.62866	0.03809	1.41658	2.00448	−2.74855	−3.51095
2.858	0.64511	1.64478	−0.01749	1.67384	1.96973	−2.63493	−3.73631
2.963	0.61624	1.63008	−0.08605	1.86600	1.98839	−2.30517	−3.96959
3.069	0.59935	1.59453	−0.16228	1.99222	2.06069	−1.81784	−4.15508
3.175	0.59218	1.54513	−0.23858	2.05086	2.18104	−1.26022	−4.24168
3.281	0.59301	1.48675	−0.30608	2.04438	2.33736	−0.73863	−4.20963
3.387	0.60054	1.42253	−0.35644	1.98229	2.51282	−0.33702	−4.08026
3.493	0.61364	1.35409	−0.38282	1.87985	2.68991	−0.08903	−3.89383
3.598	0.63123	1.28194	−0.38056	1.75477	2.85419	−0.01122	−3.68377
3.704	0.65217	1.20593	−0.34767	1.62335	2.99530	0.01261	−3.46825
3.810	0.67519	1.12572	−0.28517	1.49771	3.10613	0.13149	−3.25295
3.916	0.69890	1.04084	−0.19709	1.38495	3.18206	0.31472	−3.03510
4.022	0.72227	0.95128	−0.09024	1.28670	3.22028	0.53130	−2.81077
4.128	0.74486	0.85742	0.02685	1.20052	3.22091	0.75182	−2.57778
4.233	0.76710	0.76022	0.14531	1.12158	3.18804	0.95132	−2.33822
4.339	0.79003	0.66083	0.25778	1.04427	3.12920	1.11378	−2.09791
4.445	0.81532	0.56019	0.35873	0.96324	3.05489	1.23029	−1.86408
4.551	0.84493	0.45944	0.44397	0.87522	2.97593	1.30166	−1.64043
4.657	0.88090	0.35778	0.51181	0.77738	2.90325	1.33306	−1.42860
4.763	0.92554	0.25346	0.56166	0.66793	2.84722	1.33030	−1.22804
4.868	0.98128	0.14154	0.59410	0.54529	2.81794	1.30126	−1.03461
4.974	1.04984	−0.01060	0.61112	0.40676	2.82585	1.25246	−0.84264
5.080	1.12807	−0.16569	0.61481	0.24790	2.88348	1.19144	−0.64307
5.186	1.19125	−0.44168	0.60765	0.06165	3.00813	1.12472	−0.42543
5.292	1.16794	−0.86490	0.59226	−0.16403	3.22087	1.06102	−0.17338
5.398	1.05564	−1.33758	0.56956	−0.44340	3.54720	1.00902	0.13346
5.503	0.98634	−1.77409	0.53840	−0.78429	3.99762	0.97888	0.51372
5.609	0.99217	−2.18666	0.49507	−1.16035	4.52312	0.97808	0.96285
5.715	1.03096	−2.53382	0.43868	−1.49161	4.99521	1.00774	1.42257
5.821	1.06656	−2.76346	0.37678	−1.70234	5.30925	1.06123	1.81988
5.927	1.09207	−2.88214	0.31900	−1.78534	5.47073	1.12748	2.12911
6.033	1.11440	−2.92696	0.26978	−1.77383	5.53443	1.19607	2.36499
6.138	1.13975	−2.92879	0.22926	−1.69962	5.54407	1.25857	2.54982
6.244	1.17136	−2.90608	0.19602	−1.58358	5.52393	1.30995	2.70053
6.350	1.21037	−2.86924	0.16882	−1.43856	5.48605	1.34871	2.82801
6.456	1.25732	−2.82399	0.14632	−1.27420	5.43615	1.37636	2.93511
6.562	1.31214	−2.77386	0.12762	−1.09792	5.37659	1.39820	3.01611
6.668	1.37462	−2.72089	0.11228	−0.91744	5.30837	1.41942	3.05591
6.773	1.44429	−2.66627	0.09965	−0.73947	5.23212	1.44627	3.03649
6.879	1.52036	−2.61068	0.08930	−0.57021	5.14891	1.48309	2.96608
6.985	1.60173	−2.55447	0.08090	−0.41485	5.06001	1.53195	2.87622
7.091	1.68693	−2.49774	0.07413	−0.27689	4.96756	1.59238	2.79200
7.197	1.77419	−2.44056	0.06858	−0.15864	4.87397	1.66343	2.71769
7.303	1.86157	−2.38305	0.06382	−0.06070	4.78198	1.74313	2.64977
7.408	1.94716	−2.32539	0.05958	0.01751	4.69478	1.82866	2.58025
7.514	2.02914	−2.26801	0.05544	0.07761	4.61493	1.91820	2.50161
7.620	2.10607	−2.21135	0.05119	0.12172	4.54511	2.00869	2.40803
7.726	2.17694	−2.15592	0.04665	0.15221	4.48737	2.09668	2.29408
7.832	2.24114	−2.10222	0.04178	0.17161	4.44325	2.17763	2.15752
7.938	2.29848	−2.05063	0.03659	0.18212	4.41362	2.24604	1.99806
8.043	2.34906	−2.00146	0.03101	0.18580	4.39846	2.29536	1.81872
8.149	2.39324	−1.95488	0.02517	0.18437	4.39693	2.31937	1.62535
8.255	2.43153	−1.91093	0.01916	0.17926	4.40743	2.31301	1.42585
8.361	2.46442	−1.86960	0.01306	0.17156	4.42765	2.27386	1.22922
8.467	2.49253	−1.83077	0.00695	0.16216	4.45470	2.20273	1.04314
8.573	2.51640	−1.79428	0.00093	0.15173	4.48540	2.10325	0.87334
8.679	2.53659	−1.75995	−0.00499	0.14078	4.51656	1.98113	0.72358
8.784	2.55355	−1.72757	−0.01072	0.12973	4.54537	1.84297	0.59543
8.890	2.56775	−1.69696	−0.01626	0.11875	4.56958	1.69566	0.48926
8.996	2.57959	−1.66793	−0.02156	0.10810	4.58773	1.54547	0.40460
9.102	2.58941	−1.64028	−0.02665	0.09781	4.59906	1.39765	0.33960
9.208	2.59753	−1.61385	−0.03147	0.08807	4.60366	1.25621	0.29265
9.314	2.60422	−1.58848	−0.03600	0.07895	4.60213	1.12385	0.26165
9.419	2.60973	−1.56402	−0.04029	0.07042	4.59524	1.00240	0.24426
9.525	2.61427	−1.54036	−0.04434	0.06248	4.58393	0.89266	0.23815
9.631	2.61805	−1.51737	−0.04814	0.05515	4.56927	0.79466	0.24106
9.737	2.62124	−1.49498	−0.05174	0.04834	4.55217	0.70829	0.25100
9.843	2.62401	−1.47309	−0.05514	0.04205	4.53359	0.63283	0.26626
9.949	2.62652	−1.45160	−0.05834	0.03623	4.51434	0.56755	0.28538
10.054	2.62890	−1.43042	−0.06136	0.03083	4.49520	0.51170	0.30729
10.160	2.63132	−1.40943	−0.06421	0.02578	4.47676	0.46472	0.33114
10.266	2.63390	−1.38851	−0.06690	0.02108	4.45965	0.42625	0.35644
10.372	2.63683	−1.36744	−0.06945	0.01643	4.44424	0.39621	0.38297
10.478	2.64022	−1.34592	−0.07188	0.01178	4.43089	0.37529	0.41085

(*continued on next page*)

Table 31 (*continued*)

R	$\mu_{61}^{1\Sigma^+-1\Pi}$	$\mu_{62}^{1\Sigma^+-1\Pi}$	$\mu_{63}^{1\Sigma^+-1\Pi}$	$\mu_{64}^{1\Sigma^+-1\Pi}$	$\mu_{65}^{1\Sigma^+-1\Pi}$	$\mu_{66}^{1\Sigma^+-1\Pi}$	$\mu_{67}^{1\Sigma^+-1\Pi}$
10.584	2.64427	−1.32334	−0.07420	0.00684	4.41969	0.36525	0.44054
10.848	2.65751	−1.24907	−0.07951	−0.01225	4.39201	0.43627	0.53244
11.113	1.87083	−0.33117	−0.05579	−0.21760	2.62441	2.33006	0.71364
11.377	0.52524	0.54775	−0.01161	−0.29183	0.20514	3.05562	0.38846
11.642	0.44266	0.68953	−0.00834	−0.29152	0.02802	3.27530	0.25342
11.906	0.43900	0.81667	−0.00781	−0.28230	−0.03183	3.53880	0.18378
12.171	0.46115	0.96022	−0.00846	−0.26480	−0.06500	3.85329	0.15031
12.436	0.49820	1.12712	−0.00988	−0.23950	−0.08707	4.21585	0.13548
12.700	0.54765	1.31458	−0.01109	−0.20771	−0.09260	4.61184	0.12645
12.965	0.61144	1.51051	−0.00926	−0.17196	−0.05988	5.01455	0.10348
13.229	0.68365	1.69947	−0.00231	−0.13586	0.01291	5.38889	0.05360
13.494	0.73993	1.87127	0.00533	−0.10277	0.07397	5.70252	0.00261
13.759	0.76878	2.01940	0.00959	−0.07488	0.09766	5.94524	−0.02644
14.023	0.77674	2.14099	0.01111	−0.05266	0.09914	6.12520	−0.03807
14.288	0.77154	2.23790	0.01127	−0.03549	0.09252	6.25613	−0.04087
14.552	0.75817	2.31439	0.01087	−0.02250	0.08386	6.35099	−0.03973
14.817	0.73976	2.37493	0.01027	−0.01276	0.07531	6.42026	−0.03692
15.082	0.71830	2.42327	0.00960	−0.00557	0.06751	6.47191	−0.03350
15.346	0.69513	2.46235	0.00895	−0.00021	0.06056	6.51071	−0.02994
15.611	0.67112	2.49435	0.00833	0.00373	0.05444	6.54054	−0.02651
15.875	0.64687	2.52088	0.00775	0.00660	0.04905	6.56392	−0.02330
16.140	0.62277	2.54314	0.00720	0.00864	0.04429	6.58258	−0.02042
16.404	0.59910	2.56203	0.00671	0.01005	0.04009	6.59782	−0.01780
16.934	0.55364	2.59223	0.00584	0.01165	0.03305	6.62093	−0.01342
17.463	0.51125	2.61520	0.00511	0.01218	0.02746	6.63747	−0.01000
17.992	0.47214	2.63315	0.00449	0.01211	0.02297	6.64993	−0.00741
18.521	0.43630	2.64750	0.00397	0.01170	0.01933	6.65974	−0.00546
19.050	0.40355	2.65917	0.00352	0.01110	0.01638	6.66762	−0.00398
19.580	0.37369	2.66880	0.00313	0.01043	0.01395	6.67423	−0.00289
20.109	0.34648	2.67684	0.00279	0.00974	0.01194	6.67982	−0.00207
20.638	0.32167	2.68361	0.00251	0.00907	0.01028	6.68452	−0.00146
21.167	0.29902	2.68930	0.00228	0.00841	0.00897	6.68985	−0.00133
22.225	0.25954	2.69848	0.00185	0.00693	0.00674	6.69689	−0.00061
23.284	0.22648	2.70533	0.00153	0.00599	0.00524	6.70226	−0.00032
24.342	0.19870	2.71058	0.00126	0.00526	0.00412	6.70558	0.00000
25.401	0.17520	2.71463	0.00106	0.00446	0.00327	6.70933	0.00003
26.459	0.15521	2.71785	0.00090	0.00380	0.00266	6.71210	0.00007
27.517	0.13813	2.72033	0.00077	0.00315	0.00214	6.71565	0.00009
28.576	0.12343	2.72241	0.00067	0.00268	0.00179	6.71775	0.00010
29.634	0.11074	2.72411	0.00056	0.00203	0.00148	6.71970	0.00007
30.692	0.09972	2.72554	0.00049	0.00175	0.00124	6.72097	0.00007
31.751	0.09012	2.72672	0.00042	0.00142	0.00105	6.72231	0.00006
37.042	0.05682	2.73048	0.00023	0.00043	0.00052	6.72638	0.00003
42.334	0.03808	2.73238	0.00013	0.00001	0.00028	6.72843	0.00001
47.626	0.02675	2.73340	0.00008	−0.00097	0.00018	6.73009	0.00001
50.272	0.02275	2.73377	0.00007	−0.00097	0.00014	6.73042	0.00001
51.859	0.02072	2.73394	0.00006	−0.00162	0.00013	6.73053	0.00001

Table 32
Transition dipole moments between the $7^1\Sigma^+$ and $(1\text{-}7)^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Sigma^+,1\Pi}_{71}$	$\mu^{1\Sigma^+,1\Pi}_{72}$	$\mu^{1\Sigma^+,1\Pi}_{73}$	$\mu^{1\Sigma^+,1\Pi}_{74}$	$\mu^{1\Sigma^+,1\Pi}_{75}$	$\mu^{1\Sigma^+,1\Pi}_{76}$	$\mu^{1\Sigma^+,1\Pi}_{77}$
2.646	0.50470	−1.39088	0.92823	−2.05473	0.92722	−4.81358	−1.15473
2.752	0.65415	−1.44108	0.84881	−2.26080	0.94959	−4.91442	−0.92469
2.858	0.72141	−1.52260	0.77478	−2.46947	0.79163	−5.02227	−0.54283
2.963	0.73291	−1.62992	0.69706	−2.67796	0.49890	−5.10581	0.02373
3.069	0.70956	−1.75295	0.61250	−2.87625	0.11567	−5.12048	0.60415
3.175	0.66689	−1.88117	0.52299	−3.05267	−0.31458	−5.03360	1.27290
3.281	0.61563	−2.00613	0.43240	−3.19931	−0.75230	−4.85663	1.89358
3.387	0.56256	−2.12280	0.34454	−3.31484	−1.16717	−4.63731	2.40095
3.493	0.51124	−2.22872	0.26153	−3.40256	−1.53896	−4.42734	2.77808
3.598	0.46291	−2.32316	0.18308	−3.46938	−1.85668	−4.26244	3.03996
3.704	0.41753	−2.40611	0.10708	−3.52283	−2.11614	−4.15975	3.20853
3.810	0.37463	−2.47785	0.03010	−3.56921	−2.31753	−4.12554	3.30300
3.916	0.33347	−2.53889	−0.05191	−3.61238	−2.46286	−4.15861	3.33726
4.022	0.29332	−2.58971	−0.14250	−3.65438	−2.55587	−4.25071	3.32164
4.128	0.25335	−2.63089	−0.24465	−3.69532	−2.60085	−4.38885	3.26629
4.233	0.21260	−2.66308	−0.36021	−3.73372	−2.60228	−4.55765	3.18272
4.339	0.16979	−2.68724	−0.48850	−3.76689	−2.56579	−4.74009	3.08263
4.445	0.12320	−2.70418	−0.62785	−3.79189	−2.49620	−4.92494	2.97702
4.551	0.07029	−2.71405	−0.77452	−3.80507	−2.40047	−5.10206	2.87809
4.657	−0.00707	−2.71816	−0.92305	−3.80433	−2.28441	−5.26474	2.79095
4.763	−0.07303	−2.71640	−1.06730	−3.78839	−2.15425	−5.41088	2.71911
4.868	−0.18173	−2.70749	−1.20124	−3.75723	−2.01569	−5.53876	2.66545
4.974	−0.34151	−2.68631	−1.31964	−3.71228	−1.87404	−5.64775	2.62838
5.080	−0.59673	−2.63483	−1.41912	−3.65551	−1.73332	−5.73715	2.60806
5.186	−1.02134	−2.49434	−1.49775	−3.58883	−1.59512	−5.80782	2.60470
5.292	−1.61646	−2.15082	−1.55516	−3.51475	−1.46106	−5.85860	2.61610
5.398	−2.10386	−1.67354	−1.59212	−3.43502	−1.33045	−5.89023	2.64056
5.503	−2.34817	−1.31160	−1.60997	−3.35097	−1.20169	−5.90338	2.67422
5.609	−2.46388	−1.09317	−1.61072	−3.26334	−1.07218	−5.89878	2.71273
5.715	−2.52953	−0.96328	−1.59622	−3.17201	−0.93921	−5.87749	2.74841
5.821	−2.57594	−0.88480	−1.56809	−3.07648	−0.79990	−5.84059	2.77130
5.927	−2.61551	−0.83804	−1.52821	−2.97549	−0.65153	−5.78795	2.77083
6.033	−2.65331	−0.81241	−1.47829	−2.86705	−0.49199	−5.71703	2.73496
6.138	−2.69100	−0.80194	−1.41968	−2.74898	−0.32044	−5.62263	2.65117
6.244	−2.72811	−0.80317	−1.35397	−2.61933	−0.13695	−5.49632	2.50492
6.350	−2.76323	−0.81415	−1.28218	−2.47603	0.05696	−5.32861	2.27842
6.456	−2.79345	−0.83379	−1.20621	−2.31987	0.25826	−5.11425	1.94495
6.562	−2.81621	−0.86191	−1.12773	−2.15171	0.46357	−4.85532	1.47393
6.668	−2.82892	−0.89861	−1.04886	−1.97520	0.66872	−4.56502	0.85242
6.773	−2.83003	−0.94424	−0.97141	−1.79466	0.87015	−4.26239	0.13276
6.879	−2.81903	−0.99899	−0.89699	−1.61466	1.06498	−3.96694	−0.56329
6.985	−2.79604	−1.06266	−0.82667	−1.44004	1.25067	−3.69378	−1.13407
7.091	−2.76230	−1.13448	−0.76095	−1.27354	1.42583	−3.45242	−1.55408
7.197	−2.71899	−1.21316	−0.70000	−1.11826	1.58880	−3.24630	−1.85311
7.303	−2.66791	−1.29698	−0.64352	−0.97556	1.73829	−3.07752	−2.06070
7.408	−2.61081	−1.38396	−0.59113	−0.84650	1.87297	−2.94649	−2.20464
7.514	−2.54963	−1.47220	−0.54245	−0.73111	1.99118	−2.85342	−2.30624
7.620	−2.48610	−1.55981	−0.49706	−0.62940	2.09193	−2.79851	−2.37544
7.726	−2.42178	−1.64527	−0.45461	−0.54090	2.17445	−2.78304	−2.42310
7.832	−2.35798	−1.72742	−0.41473	−0.46479	2.23822	−2.80681	−2.45268
7.938	−2.29565	−1.80545	−0.37723	−0.40005	2.28324	−2.86914	−2.46842
8.043	−2.23543	−1.87892	−0.34183	−0.34554	2.30975	−2.96725	−2.47120
8.149	−2.17760	−1.94770	−0.30842	−0.30005	2.31832	−3.09602	−2.46357
8.255	−2.12215	−2.01184	−0.27671	−0.26222	2.31049	−3.24925	−2.44814
8.361	−2.06876	−2.07167	−0.24654	−0.23107	2.28761	−3.41905	−2.42669
8.467	−2.01679	−2.12759	−0.21755	−0.20540	2.25267	−3.59771	−2.40121
8.573	−1.96512	−2.18016	−0.18930	−0.18415	2.21000	−3.77713	−2.37263
8.679	−1.91190	−2.23011	−0.16104	−0.16626	2.16648	−3.94841	−2.34120
8.784	−1.85369	−2.27838	−0.13154	−0.15057	2.13333	−4.10028	−2.30692
8.890	−1.78331	−2.32609	−0.09791	−0.13531	2.13102	−4.21483	−2.27080
8.996	−1.68219	−2.37388	−0.05372	−0.11732	2.20444	−4.25042	−2.23803
9.102	−1.48646	−2.41279	0.02102	−0.08731	2.47841	−4.06755	−2.22075
9.208	−0.90715	−2.30705	0.19510	−0.01056	3.30052	−3.00005	−2.18333
9.314	−0.19063	−1.64868	0.41520	0.10361	4.13575	−0.59371	−1.81988
9.419	0.69815	−1.21477	0.47117	0.13582	4.26271	0.45656	−1.56640
9.525	0.90424	−1.03717	0.47861	0.13734	4.31046	0.75599	−1.48281
9.631	1.01958	−0.94998	0.47530	0.13145	4.35867	0.83233	−1.45490
9.737	1.09857	−0.90037	0.46869	0.12348	4.40765	0.82722	−1.44571
9.843	1.15939	−0.86920	0.46090	0.11505	4.45486	0.78863	−1.44272
9.949	1.20960	−0.84809	0.45273	0.10673	4.49897	0.73638	−1.44184
10.054	1.25286	−0.83284	0.44453	0.09880	4.53931	0.67980	−1.44196
10.160	1.29115	−0.82112	0.43649	0.09132	4.57543	0.62364	−1.44344
10.266	1.32559	−0.81152	0.42871	0.08428	4.60735	0.57024	−1.44743
10.372	1.35685	−0.80313	0.42124	0.07778	4.63508	0.52069	−1.45513
10.478	1.38536	−0.79535	0.41411	0.07174	4.65859	0.47556	−1.46865

(*continued on next page*)

Table 32 (*continued*)

R	$\mu_{71}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{72}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{73}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{74}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{75}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{76}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{77}^{1\Sigma^+\text{-}^1\Pi}$
10.584	1.41137	−0.78775	0.40737	0.06614	4.67784	0.43480	−1.49056
10.848	1.46623	−0.76762	0.39217	0.05398	4.70657	0.35232	−1.60236
11.113	1.50679	−0.74350	0.37955	0.04386	4.70592	0.29499	−1.83553
11.377	1.53214	−0.71327	0.36970	0.03541	4.67152	0.25905	−2.09117
11.642	1.54041	−0.67527	0.36269	0.02819	4.59760	0.24210	−2.16724
11.906	1.52899	−0.62784	0.35865	0.02202	4.47604	0.24269	−2.15495
12.171	1.49494	−0.56949	0.35755	0.01664	4.29821	0.26055	−2.13877
12.436	1.43556	−0.49966	0.35916	0.01210	4.05574	0.29359	−2.13399
12.700	1.34874	−0.42224	0.36308	0.00894	3.74634	0.32847	−2.14042
12.965	1.23261	−0.35263	0.36837	0.00816	3.37819	0.32202	−2.15248
13.229	1.08979	−0.30969	0.37423	0.00927	2.97173	0.23290	−2.16342
13.494	0.93845	−0.28258	0.37955	0.00954	2.55585	0.11744	−2.16738
13.759	0.79845	−0.25295	0.38408	0.00822	2.16186	0.04114	−2.16283
14.023	0.67658	−0.22242	0.38792	0.00631	1.81051	0.00045	−2.15200
14.288	0.57154	−0.20184	0.39128	0.00434	1.50947	−0.02954	−2.13746
14.552	0.43124	−0.35195	0.39285	0.00179	1.25486	−0.24590	−2.11009
14.817	−0.55660	−1.95510	0.01292	−0.04214	0.05904	−2.20014	−0.03745
15.082	−0.52658	−1.91783	0.00894	−0.03167	0.04371	−2.07832	−0.01778
15.346	−0.49758	−1.88982	0.00759	−0.02343	0.03701	−1.98364	−0.01236
15.611	−0.47131	−1.86860	0.00680	−0.01688	0.03240	−1.90984	−0.01002
15.875	−0.44754	−1.85254	0.00622	−0.01193	0.02879	−1.85183	−0.00868
16.140	−0.42588	−1.84040	0.00576	−0.00815	0.02578	−1.80592	−0.00782
16.404	−0.40599	−1.83125	0.00535	−0.00522	0.02319	−1.76934	−0.00719
16.934	−0.37050	−1.81923	0.00466	−0.00136	0.01894	−1.71589	−0.00636
17.463	−0.33953	−1.81261	0.00408	0.00086	0.01561	−1.68016	−0.00570
17.992	−0.31213	−1.80914	0.00359	0.00217	0.01293	−1.65552	−0.00526
18.521	−0.28766	−1.80752	0.00318	0.00296	0.01080	−1.63795	−0.00480
19.050	−0.26568	−1.80697	0.00282	0.00347	0.00906	−1.62531	−0.00441
19.580	−0.24584	−1.80706	0.00252	0.00375	0.00764	−1.61578	−0.00405
20.109	−0.22789	−1.80751	0.00225	0.00384	0.00647	−1.60856	−0.00371
20.638	−0.21160	−1.80816	0.00202	0.00376	0.00550	−1.60305	−0.00343
21.167	−0.19680	−1.80894	0.00183	0.00348	0.00471	−1.59834	−0.00305
22.225	−0.17099	−1.81055	0.00149	0.00277	0.00346	−1.59207	−0.00258
23.284	−0.14942	−1.81207	0.00123	0.00215	0.00261	−1.58803	−0.00216
24.342	−0.13124	−1.81340	0.00102	0.00191	0.00194	−1.58581	−0.00184
25.401	−0.11587	−1.81461	0.00085	0.00165	0.00146	−1.58390	−0.00157
26.459	−0.10279	−1.81568	0.00072	0.00141	0.00114	−1.58253	−0.00135
27.517	−0.09158	−1.81662	0.00062	0.00112	0.00089	−1.58126	−0.00115
28.576	−0.08193	−1.81742	0.00053	0.00086	0.00070	−1.58063	−0.00100
29.634	−0.07358	−1.81811	0.00046	0.00066	0.00055	−1.58015	−0.00087
30.692	−0.06632	−1.81872	0.00040	0.00052	0.00043	−1.57984	−0.00075
31.751	−0.05997	−1.81925	0.00035	0.00043	0.00035	−1.57961	−0.00066
37.042	−0.03792	−1.82108	0.00018	0.00028	0.00009	−1.57899	−0.00036
42.334	−0.02548	−1.82212	0.00011	0.00021	0.00004	−1.57906	−0.00021
47.626	−0.01792	−1.82274	0.00007	0.00013	0.00001	−1.57918	−0.00013
50.272	−0.01525	−1.82296	0.00005	0.00009	0.00001	−1.57927	−0.00010
51.859	−0.01389	−1.82307	0.00005	0.00014	0.00000	−1.57930	−0.00009

Table 33
Transition dipole moments between the $8^1\Sigma^+$ and $(1\text{-}7)^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Sigma^+-1\Pi}_{81}$	$\mu^{1\Sigma^+-1\Pi}_{82}$	$\mu^{1\Sigma^+-1\Pi}_{83}$	$\mu^{1\Sigma^+-1\Pi}_{84}$	$\mu^{1\Sigma^+-1\Pi}_{85}$	$\mu^{1\Sigma^+-1\Pi}_{86}$	$\mu^{1\Sigma^+-1\Pi}_{87}$
2.646	−1.47831	0.24599	−0.61282	−0.24131	−2.20294	−0.17910	2.96078
2.752	−1.27644	0.38008	−0.52166	−0.29390	−2.76985	−0.18165	2.92984
2.858	−1.08982	0.48416	−0.31111	−0.58219	−3.78042	−0.28509	2.52993
2.963	−0.93295	0.55131	0.05629	−1.19903	−5.21318	−0.31889	1.48151
3.069	−0.79253	0.56461	0.50428	−1.98050	−6.42544	−0.15877	0.13765
3.175	−0.68237	0.53996	0.89712	−2.68108	−7.02149	−0.11145	−0.89364
3.281	−0.60120	0.50115	1.21543	−3.27166	−7.21504	−0.41429	−1.58462
3.387	−0.53612	0.45866	1.47982	−3.77222	−7.21025	−0.71923	−2.07963
3.493	−0.48004	0.41726	1.70059	−4.18423	−7.10968	−0.99701	−2.46333
3.598	−0.43273	0.38067	1.87254	−4.49671	−6.96511	−1.19765	−2.75196
3.704	−0.42521	0.36965	1.85149	−4.55402	−6.69568	0.83792	2.49961
3.810	−0.41631	0.26500	1.27981	−0.83795	−0.02155	4.96863	4.64934
3.916	−0.41043	0.23777	1.39971	−0.87273	0.00781	4.98684	4.79247
4.022	−0.41329	0.21772	1.45342	−0.79706	0.11600	4.87983	4.88781
4.128	−0.41784	0.19912	1.48602	−0.71871	0.25422	4.70629	4.99007
4.233	−0.42279	0.18173	1.50422	−0.65567	0.38799	4.49260	5.08783
4.339	−0.42773	0.16535	1.51089	−0.61305	0.51333	4.26081	5.16664
4.445	−0.43244	0.15019	1.50847	−0.59199	0.62882	4.02994	5.21585
4.551	−0.43668	0.13587	1.49659	−0.58920	0.73309	3.81197	5.22609
4.657	−0.44040	0.12217	1.47787	−0.60193	0.82570	3.61534	5.19602
4.763	−0.44355	0.10820	1.45383	−0.62611	0.90598	3.44334	5.12582
4.868	−0.44623	0.09239	1.42621	−0.65734	0.97303	3.29611	5.01758
4.974	−0.44871	0.07142	1.39635	−0.69223	1.02549	3.17341	4.87275
5.080	−0.45104	0.03837	1.36613	−0.72756	1.06185	3.07421	4.69407
5.186	−0.45030	−0.02005	1.33746	−0.76105	1.07987	2.99556	4.48662
5.292	−0.43630	−0.10940	1.31097	−0.79074	1.07428	2.93817	4.25414
5.398	−0.41325	−0.18450	1.28760	−0.81444	1.03822	2.90189	4.00371
5.503	−0.41575	−0.20925	1.26856	−0.82735	0.96096	2.89031	3.73988
5.609	−0.46568	−0.19451	1.25323	−0.81630	0.82108	2.91093	3.45441
5.715	−0.59299	−0.14769	1.23696	−0.73783	0.57454	2.97491	3.09015
5.821	−0.86379	−0.06787	1.17849	−0.44661	0.11984	3.04043	2.39339
5.927	−1.17515	−0.00765	0.97377	0.18375	−0.48899	2.82353	1.09183
6.033	−1.23526	0.01430	0.78922	0.67514	−0.81227	2.51086	0.13670
6.138	−1.17466	−0.00898	0.72021	0.94802	−0.92980	2.40807	−0.29419
6.244	−1.07715	−0.03573	0.70737	1.12790	−0.97732	2.44465	−0.48870
6.350	−0.96097	−0.05911	0.71955	1.26250	−0.99655	2.55531	−0.55592
6.456	−0.83241	−0.07635	0.74290	1.36585	−1.00227	2.70250	−0.52112
6.562	−0.69608	−0.08557	0.77059	1.44061	−1.00294	2.85948	−0.37702
6.668	−0.55662	−0.08512	0.79847	1.48564	−1.00513	3.00751	−0.11151
6.773	−0.41854	−0.07373	0.82404	1.49971	−1.01519	3.13660	0.25610
6.879	−0.28550	−0.05072	0.84559	1.48292	−1.03875	3.24344	0.66333
6.985	−0.15984	−0.01684	0.86223	1.43827	−1.07895	3.32947	1.04168
7.091	−0.04258	0.02571	0.87296	1.37036	−1.13646	3.39781	1.35281
7.197	0.06621	0.07354	0.87732	1.28572	−1.20935	3.45187	1.58901
7.303	0.16686	0.12298	0.87533	1.19148	−1.29468	3.49559	1.75045
7.408	0.26007	0.17073	0.86737	1.09364	−1.38927	3.53275	1.84273
7.514	0.34659	0.21462	0.85450	0.99718	−1.49104	3.56727	1.87216
7.620	0.42720	0.25341	0.83777	0.90535	−1.59924	3.60150	1.84455
7.726	0.50254	0.28675	0.81824	0.82016	−1.71388	3.63617	1.76552
7.832	0.57343	0.31484	0.79699	0.74218	−1.83552	3.66959	1.64018
7.938	0.64053	0.33811	0.77485	0.67168	−1.96470	3.69830	1.47450
8.043	0.70454	0.35694	0.75250	0.60827	−2.10173	3.71690	1.27595
8.149	0.76616	0.37164	0.73038	0.55149	−2.24636	3.71956	1.05396
8.255	0.82616	0.38226	0.70885	0.50075	−2.39775	3.70157	0.81946
8.361	0.88533	0.38849	0.68811	0.45553	−2.55384	3.66110	0.58367
8.467	0.94475	0.38963	0.66832	0.41530	−2.71179	3.59939	0.35652
8.573	1.00587	0.38420	0.64958	0.37961	−2.86760	3.52160	0.14611
8.679	1.07093	0.36945	0.63199	0.34813	−3.01599	3.43718	−0.04091
8.784	1.14382	0.34001	0.61559	0.32078	−3.14958	3.36165	−0.19752
8.890	1.23222	0.28423	0.60048	0.29751	−3.25620	3.32229	−0.31302
8.996	1.35391	0.17316	0.58637	0.27924	−3.30805	3.37745	−0.36250
9.102	1.55767	−0.08434	0.57020	0.26822	−3.20891	3.68503	−0.26783
9.208	1.94767	−0.81256	0.51812	0.26385	−2.48133	4.66289	0.26522
9.314	2.13698	−1.84661	0.34186	0.22591	−0.72530	5.56503	1.15410
9.419	2.02669	−2.18855	0.22720	0.19214	0.08173	5.62543	1.40594
9.525	1.94251	−2.30642	0.17412	0.17706	0.33155	5.63571	1.41670
9.631	1.88437	−2.36976	0.14311	0.16970	0.41183	5.66238	1.36496
9.737	1.83994	−2.41330	0.12181	0.16594	0.42845	5.69538	1.29263
9.843	1.80324	−2.44735	0.10574	0.16415	0.41743	5.72809	1.21387
9.949	1.77125	−2.47596	0.09292	0.16355	0.39377	5.75754	1.13474
10.054	1.74232	−2.50100	0.08231	0.16370	0.36482	5.78286	1.05825
10.160	1.71549	−2.52351	0.07335	0.16442	0.33406	5.80344	0.98572
10.266	1.69012	−2.54407	0.06564	0.16564	0.30355	5.81953	0.91779
10.372	1.66579	−2.56305	0.05893	0.16698	0.27433	5.83133	0.85439
10.478	1.64219	−2.58070	0.05303	0.16847	0.24697	5.83899	0.79512

(*continued on next page*)

Table 33 (*continued*)

R	$\mu_{81}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{82}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{83}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{84}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{85}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{86}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{87}^{1\Sigma^+\text{-}^1\Pi}$
10.584	1.61910	−2.59714	0.04784	0.17009	0.22180	5.84306	0.73942
10.848	1.56256	−2.63362	0.03722	0.17442	0.16831	5.83674	0.60784
11.113	1.50631	−2.66381	0.02910	0.17895	0.12775	5.80712	0.46079
11.377	1.44909	−2.68728	0.02276	0.18325	0.09830	5.75017	0.27460
11.642	1.38971	−2.70244	0.01764	0.18693	0.07789	5.66136	0.12168
11.906	1.32704	−2.70677	0.01337	0.18962	0.06483	5.52849	0.03987
12.171	1.25970	−2.69625	0.00973	0.19067	0.05730	5.34022	0.00007
12.436	1.18639	−2.66593	0.00654	0.18894	0.05369	5.08460	−0.01842
12.700	1.10657	−2.61143	0.00373	0.18306	0.05243	4.75558	−0.02543
12.965	1.02156	−2.53201	0.00131	0.17182	0.05195	4.36317	−0.02631
13.229	0.93510	−2.43342	−0.00062	0.15513	0.05096	3.93665	−0.02448
13.494	0.85228	−2.32690	−0.00195	0.13436	0.04870	3.51655	−0.02205
13.759	0.77743	−2.22435	−0.00261	0.11209	0.04484	3.13770	−0.02068
14.023	0.71285	−2.13369	−0.00243	0.09061	0.03884	2.81840	−0.02222
14.288	0.65987	−2.05764	0.00033	0.07152	0.02759	2.56056	−0.03294
14.552	0.65295	−1.97430	0.03513	0.05552	0.08651	2.34506	−0.22196
14.817	0.43780	−0.08644	0.39736	0.00370	1.04811	0.03556	−2.10617
15.082	0.37544	−0.08651	0.40087	0.00245	0.87768	0.01214	−2.09289
15.346	0.32705	−0.07654	0.40474	0.00173	0.73727	0.00548	−2.08221
15.611	0.28752	−0.06649	0.40923	0.00123	0.62155	0.00265	−2.07505
15.875	0.25470	−0.05763	0.41457	0.00087	0.52578	0.00124	−2.07204
16.140	0.22714	−0.05008	0.42103	0.00059	0.44616	0.00054	−2.07428
16.404	0.20379	−0.04371	0.42883	0.00040	0.37972	0.00013	−2.08214
16.934	0.16667	−0.03383	0.45001	0.00013	0.27717	−0.00024	−2.12045
17.463	0.13874	−0.02681	0.48208	−0.00004	0.20413	−0.00033	−2.20027
17.992	0.11710	−0.02181	0.53157	−0.00013	0.15169	−0.00037	−2.34402
18.521	0.09979	−0.01831	0.61082	−0.00019	0.11381	−0.00037	−2.59521
19.050	0.08519	−0.01603	0.74481	−0.00023	0.08642	−0.00035	−3.04145
19.580	0.07126	−0.01485	0.98271	−0.00027	0.06642	−0.00037	−3.85448
20.109	0.05478	−0.01444	1.36217	−0.00030	0.05000	−0.00044	−5.15534
20.638	0.03641	−0.01354	1.70245	−0.00027	0.03587	−0.00046	−6.30319
21.167	0.02400	−0.01207	1.84571	−0.00024	0.02666	−0.00031	−6.77164
22.225	0.01348	−0.00955	1.91198	−0.00002	0.01835	−0.00019	−6.98385
23.284	0.00941	−0.00774	1.92443	0.00007	0.01442	−0.00008	−7.02986
24.342	0.00725	−0.00640	1.92845	0.00013	0.01160	−0.00002	−7.05159
25.401	0.00583	−0.00535	1.93056	0.00017	0.00963	0.00005	−7.06626
26.459	0.00481	−0.00450	1.93196	0.00017	0.00811	0.00010	−7.07769
27.517	0.00402	−0.00382	1.93300	0.00019	0.00691	0.00014	−7.08690
28.576	0.00341	−0.00327	1.93382	0.00021	0.00592	0.00014	−7.09438
29.634	0.00290	−0.00282	1.93447	0.00016	0.00512	0.00017	−7.10040
30.692	0.00250	−0.00244	1.93501	0.00016	0.00444	0.00017	−7.10522
31.751	0.00216	−0.00212	1.93546	0.00015	0.00387	0.00016	−7.10915
37.042	0.00113	−0.00113	1.93698	0.00011	0.00206	0.00010	−7.12094
42.334	0.00066	−0.00066	1.93774	0.00008	0.00119	0.00007	−7.12576
47.626	0.00041	−0.00041	1.93816	0.00004	0.00074	0.00005	−7.12808
50.272	0.00033	−0.00033	1.93831	0.00004	0.00060	0.00004	−7.12881
51.859	0.00029	−0.00029	1.93838	0.00003	0.00053	0.00003	−7.12916

Table 34
Transition dipole moments between the $9^1\Sigma^+$ and $(1\text{-}7)^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Sigma^+-1\Pi}_{91}$	$\mu^{1\Sigma^+-1\Pi}_{92}$	$\mu^{1\Sigma^+-1\Pi}_{93}$	$\mu^{1\Sigma^+-1\Pi}_{94}$	$\mu^{1\Sigma^+-1\Pi}_{95}$	$\mu^{1\Sigma^+-1\Pi}_{96}$	$\mu^{1\Sigma^+-1\Pi}_{97}$
2.646	−0.84429	0.10745	0.44417	1.62166	5.44357	0.03004	4.92242
2.752	−0.49851	0.00853	0.60697	1.87585	6.18279	0.44803	5.17353
2.858	−0.19873	−0.04576	0.84128	2.12406	6.25509	0.88445	5.55726
2.963	0.04943	0.01972	1.05167	2.25683	5.49893	1.45387	6.04301
3.069	0.22350	0.12929	1.14689	2.18853	4.21443	2.16884	6.25050
3.175	0.30805	0.20842	1.17071	2.04467	3.10341	2.92589	6.11933
3.281	0.34354	0.24969	1.19307	1.91213	2.33188	3.62753	5.84150
3.387	0.35967	0.26679	1.23309	1.79175	1.79161	4.20444	5.54140
3.493	0.36777	0.26888	1.29181	1.67895	1.40201	4.63436	5.29031
3.598	0.36990	0.25916	1.37601	1.60105	1.15739	4.93439	5.13827
3.704	0.33191	0.20928	1.65565	1.98438	1.63635	5.22168	5.34691
3.810	0.30378	0.28611	2.27431	5.02679	6.75714	2.07794	3.86916
3.916	0.28006	0.26627	2.30462	5.09325	6.65992	2.01341	4.01661
4.022	0.25087	0.24248	2.32419	5.12855	6.60153	2.01828	4.28134
4.128	0.22461	0.22006	2.30565	5.12165	6.57831	1.99575	4.56169
4.233	0.20238	0.19942	2.24591	5.07608	6.58563	1.94378	4.83922
4.339	0.18446	0.18032	2.14704	4.99552	6.61744	1.87505	5.10730
4.445	0.17044	0.16225	2.01467	4.88324	6.66781	1.80298	5.35961
4.551	0.16075	0.14494	1.85593	4.74083	6.72753	1.74112	5.60389
4.657	0.15516	0.12758	1.67992	4.57084	6.78919	1.70039	5.84658
4.763	0.15366	0.10956	1.49738	4.37756	6.84507	1.68184	6.08609
4.868	0.15632	0.08947	1.31720	4.16644	6.88829	1.68848	6.32098
4.974	0.16313	0.06517	1.14610	3.94495	6.91445	1.71784	6.55320
5.080	0.17339	0.03192	0.98970	3.71953	6.91951	1.77146	6.78299
5.186	0.18253	−0.01929	0.84909	3.49867	6.90333	1.84582	6.99118
5.292	0.17575	−0.09484	0.72462	3.28697	6.86576	1.93961	7.18295
5.398	0.14391	−0.17630	0.61460	3.08750	6.80890	2.04690	7.33832
5.503	0.10189	−0.25175	0.51678	2.89968	6.73388	2.16065	7.44278
5.609	−1.36799	−0.42037	0.12971	0.80802	−1.17367	0.93619	1.68038
5.715	−1.31438	−0.30668	0.19114	1.09710	−1.22990	0.60917	−2.11028
5.821	−1.10691	−0.21418	0.41435	1.42271	−1.23256	−0.09600	−2.80504
5.927	−0.65078	−0.09978	0.78566	1.64385	−0.97025	−1.22327	−3.52485
6.033	−0.27915	0.05128	0.97453	1.67640	−0.49252	−1.88411	−3.74207
6.138	−0.07825	0.22716	1.02477	1.68978	−0.00141	−2.12798	−3.80209
6.244	0.04576	0.41685	1.02082	1.68502	0.45953	−2.18758	−3.80366
6.350	0.12545	0.59476	0.98960	1.64461	0.84136	−2.13511	−3.72209
6.456	0.16985	0.74177	0.94717	1.58142	1.11723	−2.01219	−3.56971
6.562	0.18653	0.85477	0.90211	1.51667	1.30102	−1.85156	−3.36566
6.668	0.18363	0.93958	0.85736	1.46479	1.41730	−1.67335	−3.10595
6.773	0.16835	1.00253	0.81263	1.43204	1.48623	−1.48548	−2.78426
6.879	0.14636	1.04764	0.76709	1.41863	1.51926	−1.29175	−2.42044
6.985	0.12196	1.07694	0.72019	1.42201	1.52383	−1.09385	−2.05314
7.091	0.09824	1.09137	0.67259	1.43740	1.50437	−0.89454	−1.70862
7.197	0.07692	1.09131	0.62538	1.45970	1.46461	−0.69793	−1.38798
7.303	0.05849	1.07711	0.57977	1.48422	1.40838	−0.50805	−1.09438
7.408	0.04265	1.04951	0.53649	1.50735	1.33962	−0.32870	−0.82787
7.514	0.02873	1.00932	0.49522	1.52742	1.26316	−0.15933	−0.58731
7.620	0.01618	0.95799	0.45542	1.54296	1.18225	−0.00081	−0.37646
7.726	0.00473	0.89721	0.41600	1.55298	1.10055	0.14973	−0.19246
7.832	−0.00553	0.82911	0.37610	1.55654	1.02076	0.29398	−0.03667
7.938	−0.01431	0.75639	0.33556	1.55287	0.94426	0.43347	0.09314
8.043	−0.02130	0.68205	0.29470	1.54142	0.87217	0.56911	0.19808
8.149	−0.02629	0.60895	0.25465	1.52279	0.80417	0.69879	0.28100
8.255	−0.02931	0.53954	0.21637	1.49801	0.73961	0.82250	0.34499
8.361	−0.03058	0.47544	0.18088	1.46827	0.67786	0.93854	0.39322
8.467	−0.03043	0.41746	0.14881	1.43514	0.61802	1.04643	0.42934
8.573	−0.02925	0.36574	0.12046	1.40001	0.55951	1.14553	0.45630
8.679	−0.02742	0.31997	0.09575	1.36397	0.50195	1.23546	0.47544
8.784	−0.02525	0.27961	0.07446	1.32788	0.44549	1.31598	0.48768
8.890	−0.02304	0.24395	0.05635	1.29227	0.39051	1.38707	0.49328
8.996	−0.02095	0.21235	0.04102	1.25751	0.33767	1.44853	0.49171
9.102	−0.01908	0.18421	0.02821	1.22367	0.28738	1.49978	0.48397
9.208	−0.01759	0.15898	0.01736	1.19122	0.24062	1.54283	0.47049
9.314	−0.01648	0.13619	0.00831	1.15999	0.19757	1.57716	0.45177
9.419	−0.01580	0.11547	0.00080	1.13003	0.15832	1.60335	0.42892
9.525	−0.01553	0.09650	−0.00541	1.10132	0.12302	1.62213	0.40326
9.631	−0.01567	0.07902	−0.01051	1.07386	0.09162	1.63427	0.37601
9.737	−0.01620	0.06280	−0.01470	1.04759	0.06388	1.64058	0.34867
9.843	−0.01707	0.04768	−0.01809	1.02249	0.03970	1.64191	0.32124
9.949	−0.01824	0.03351	−0.02081	0.99854	0.01888	1.63909	0.29480
10.054	−0.01967	0.02022	−0.02295	0.97573	0.00085	1.63254	0.26978
10.160	−0.02133	0.00771	−0.02461	0.95398	−0.01449	1.62310	0.24635
10.266	−0.02317	−0.00406	−0.02585	0.93282	−0.02747	1.61110	0.22475
10.372	−0.02509	−0.01513	−0.02677	0.91321	−0.03826	1.59726	0.20482
10.478	−0.02709	−0.02557	−0.02744	0.89475	−0.04708	1.58236	0.18680

(*continued on next page*)

Table 34 (*continued*)

R	$\mu_{91}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{92}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{93}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{94}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{95}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{96}^{1\Sigma^+\text{-}^1\Pi}$	$\mu_{97}^{1\Sigma^+\text{-}^1\Pi}$
10.584	−0.02907	−0.03527	−0.02782	0.87725	−0.05445	1.56523	0.17001
10.848	−0.03370	−0.05647	−0.02793	0.83790	−0.06631	1.52006	0.13199
11.113	−0.03720	−0.07277	−0.02722	0.80437	−0.07106	1.47217	0.09367
11.377	−0.03888	−0.08335	−0.02603	0.77742	−0.07094	1.42365	0.04748
11.642	−0.03811	−0.08710	−0.02452	0.75692	−0.06772	1.37601	0.00889
11.906	−0.03451	−0.08304	−0.02283	0.74272	−0.06216	1.33025	−0.01290
12.171	−0.02797	−0.07060	−0.02104	0.73443	−0.05500	1.28431	−0.02386
12.436	−0.01888	−0.05001	−0.01921	0.73168	−0.04716	1.23513	−0.02887
12.700	−0.00818	−0.02293	−0.01737	0.73346	−0.03912	1.17825	−0.03044
12.965	0.00277	0.00752	−0.01554	0.73830	−0.03130	1.10867	−0.03011
13.229	0.01249	0.03729	−0.01380	0.74461	−0.02419	1.02516	−0.02878
13.494	0.01985	0.06285	−0.01218	0.75120	−0.01808	0.92906	−0.02672
13.759	0.02446	0.08206	−0.01075	0.75748	−0.01310	0.82546	−0.02464
14.023	0.02656	0.09464	−0.00954	0.76376	−0.00915	0.72071	−0.02268
14.288	0.02675	0.10150	−0.00852	0.77050	−0.00621	0.62007	−0.02071
14.552	0.02565	0.10401	−0.00767	0.77835	−0.00405	0.52820	−0.01891
14.817	0.02380	0.10353	−0.00701	0.78811	−0.00243	0.44590	−0.01764
15.082	0.02157	0.10119	−0.00651	0.80056	−0.00128	0.37287	−0.01652
15.346	0.01919	0.09767	−0.00619	0.81614	−0.00040	0.31029	−0.01606
15.611	0.01680	0.09355	−0.00605	0.83566	0.00026	0.25647	−0.01608
15.875	0.01448	0.08921	−0.00618	0.86023	0.00078	0.21040	−0.01695
16.140	0.01223	0.08484	−0.00689	0.89129	0.00116	0.17065	−0.01912
16.404	0.01004	0.08060	−0.00931	0.92987	0.00153	0.13672	−0.02754
16.934	0.03151	0.02035	−1.87713	−0.00044	0.04091	0.00317	−6.49421
17.463	0.02691	0.01848	−1.86740	−0.00143	0.02679	0.00272	−6.49220
17.992	0.02414	0.01646	−1.85258	−0.00132	0.01755	0.00215	−6.46564
18.521	0.02338	0.01439	−1.82708	−0.00106	0.01230	0.00168	−6.39234
19.050	0.02527	0.01212	−1.77618	−0.00081	0.01081	0.00129	−6.21544
19.580	0.03105	0.00928	−1.65630	−0.00057	0.01363	0.00098	−5.77003
20.109	0.04138	0.00530	−1.36160	−0.00035	0.02070	0.00068	−4.67158
20.638	0.04910	0.00125	−0.90121	−0.00016	0.02672	0.00036	−2.98384
21.167	0.04941	−0.00086	−0.55264	0.00009	0.02741	0.00055	−1.72795
22.225	0.04296	−0.00169	−0.24575	0.00018	0.02682	0.00021	−0.65494
23.284	0.03658	−0.00151	−0.13161	0.00022	0.03010	0.00004	−0.27979
24.342	0.00938	0.01173	−0.00109	2.72191	0.00132	−0.00056	−0.00191
25.401	0.00803	0.00968	−0.00088	2.72444	0.00097	−0.00023	−0.00179
26.459	0.00690	0.00805	−0.00073	2.72614	0.00078	−0.00003	−0.00009
27.517	0.00596	0.00676	−0.00061	2.72756	0.00061	0.00016	−0.00001
28.576	0.00516	0.00573	−0.00050	2.72868	0.00050	0.00023	0.00002
29.634	0.00455	0.00502	−0.00043	2.72946	−0.00001	0.00023	0.00133
30.692	0.00394	0.00431	−0.00036	2.73027	−0.00027	0.00032	0.00116
31.751	0.00345	0.00374	−0.00031	2.73099	−0.00022	0.00033	0.00102
37.042	0.00189	0.00199	−0.00014	2.73332	−0.00012	0.00033	0.00045
42.334	0.00112	0.00113	−0.00007	2.73452	−0.00006	0.00026	0.00020
47.626	0.00070	0.00069	−0.00004	2.73524	−0.00003	0.00020	−0.00006
50.272	0.00056	0.00059	−0.00001	2.73704	−0.00002	0.00015	−0.00028
51.859	0.00050	0.00052	−0.00001	2.73715	−0.00001	0.00014	−0.00025

Table 35
Transition dipole moments between the $10^1\Sigma^+$ and (1-7)$^1\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{1\Sigma^+,1\Pi}_{101}$	$\mu^{1\Sigma^+,1\Pi}_{102}$	$\mu^{1\Sigma^+,1\Pi}_{103}$	$\mu^{1\Sigma^+,1\Pi}_{104}$	$\mu^{1\Sigma^+,1\Pi}_{105}$	$\mu^{1\Sigma^+,1\Pi}_{106}$	$\mu^{1\Sigma^+,1\Pi}_{107}$
2.646	−1.82581	−0.53543	−0.25702	−0.45048	−4.41193	−0.17685	0.22264
2.752	−1.95385	−0.58791	−0.37651	−0.20613	−3.26688	0.08468	0.60140
2.858	−1.79909	−0.67530	−0.41709	0.04008	−2.11447	0.61628	0.42970
2.963	−1.18965	−0.81121	−0.31288	0.26217	−0.87707	1.36945	−0.39390
3.069	−0.63259	−0.86088	−0.18416	0.36045	−0.05720	1.74382	−1.15106
3.175	−0.36030	−0.86817	−0.11237	0.39560	0.31646	1.78611	−1.62058
3.281	−0.22224	−0.86909	−0.07002	0.41882	0.50399	1.71870	−1.93070
3.387	−0.14285	−0.87041	−0.04119	0.44436	0.60887	1.63606	−2.12561
3.493	−0.09242	−0.87316	−0.01981	0.47362	0.66861	1.57979	−2.22504
3.598	−0.05805	−0.87723	−0.00383	0.50558	0.69951	1.56350	−2.24616
3.704	−0.03318	−0.88271	0.00745	0.53845	0.71059	1.58423	−2.20376
3.810	−0.01477	−0.88971	0.01385	0.57052	0.70732	1.63093	−2.10585
3.916	−0.00010	−0.89776	0.01497	0.60090	0.69464	1.69281	−1.96731
4.022	0.01220	−0.90724	0.01024	0.62855	0.67636	1.75525	−1.79501
4.128	0.02278	−0.91823	−0.00072	0.65265	0.65631	1.80589	−1.60049
4.233	0.03244	−0.93097	−0.01800	0.67217	0.63706	1.83548	−1.39574
4.339	0.04218	−0.94630	−0.04112	0.68536	0.62158	1.84043	−1.19351
4.445	0.05311	−0.96473	−0.07102	0.69012	0.61534	1.81791	−1.00960
4.551	0.06641	−0.98687	−0.10340	0.68382	0.61409	1.77305	−0.84277
4.657	0.08434	−1.01415	−0.13753	0.66344	0.62168	1.71410	−0.70214
4.763	0.11060	−1.04729	−0.17008	0.62538	0.63894	1.64541	−0.59575
4.868	0.15187	−1.08638	−0.19783	0.56488	0.66730	1.57341	−0.52767
4.974	0.22113	−1.12941	−0.21770	0.47680	0.70788	1.50301	−0.51161
5.080	0.34423	−1.16555	−0.22572	0.35451	0.76125	1.43892	−0.55488
5.186	0.56530	−1.15706	−0.21953	0.19024	0.83085	1.37701	−0.66720
5.292	0.89420	−1.02596	−0.19842	−0.01889	0.91337	1.31425	−0.84866
5.398	1.18251	−0.78709	−0.16698	−0.26742	1.00297	1.23354	−1.09117
5.503	1.32986	−0.57432	−0.13711	−0.54056	1.08076	1.11317	−1.38142
5.609	0.06241	−0.33215	−0.42867	−2.72134	6.63089	2.26063	−7.47905
5.715	0.00984	−0.43659	−0.34621	−2.53594	6.48954	2.32987	−7.39392
5.821	−0.06025	−0.57578	−0.26584	−2.31815	6.25953	2.32820	−7.11971
5.927	−0.15371	−0.75024	−0.18243	−2.01989	5.85863	2.19505	−6.51615
6.033	−0.25753	−0.92534	−0.08953	−1.60390	5.24896	1.88875	−5.50258
6.138	−0.34120	−1.04721	0.01418	−1.10793	4.54136	1.45902	−4.25268
6.244	−0.38759	−1.09602	0.11737	−0.61584	3.87394	1.02090	−3.04810
6.350	−0.40491	−1.08978	0.19743	−0.18763	3.27493	0.66342	−2.04088
6.456	−0.40882	−1.05702	0.23873	0.15535	2.73664	0.42527	−1.25522
6.562	−0.41013	−1.01847	0.23949	0.41830	2.24572	0.30036	−0.65790
6.668	−0.41275	−0.98286	0.20534	0.61346	1.79511	0.26169	−0.22035
6.773	−0.41640	−0.95337	0.14464	0.75258	1.38287	0.28021	0.07537
6.879	−0.41977	−0.93032	0.06564	0.84472	1.01401	0.33735	0.24078
6.985	−0.42063	−0.91425	−0.02451	0.89626	0.69113	0.41220	0.30790
7.091	−0.41790	−0.90499	−0.11965	0.91378	0.41663	0.49449	0.31324
7.197	−0.41093	−0.90224	−0.21539	0.90311	0.18833	0.57665	0.28542
7.303	−0.39982	−0.90573	−0.30909	0.86888	0.00093	0.65347	0.24512
7.408	−0.38505	−0.91482	−0.39947	0.81516	−0.15265	0.72256	0.20500
7.514	−0.36715	−0.92815	−0.48593	0.74445	−0.27921	0.78114	0.17241
7.620	−0.34701	−0.94433	−0.56825	0.65991	−0.38612	0.82842	0.15402
7.726	−0.32533	−0.96137	−0.64703	0.56423	−0.48021	0.86456	0.15202
7.832	−0.30287	−0.97695	−0.72240	0.46059	−0.56711	0.88939	0.16843
7.938	−0.28039	−0.98876	−0.79466	0.35322	−0.65213	0.90420	0.20297
8.043	−0.25858	−0.99477	−0.86404	0.24620	−0.73888	0.91103	0.25416
8.149	−0.23809	−0.99364	−0.93094	0.14368	−0.82955	0.91213	0.32001
8.255	−0.21943	−0.98481	−0.99613	0.04886	−0.92494	0.91070	0.39861
8.361	−0.20311	−0.96836	−1.06040	−0.03620	−1.02476	0.91013	0.48877
8.467	−0.18938	−0.94480	−1.12455	−0.11040	−1.12753	0.91252	0.59047
8.573	−0.17840	−0.91479	−1.18929	−0.17345	−1.23106	0.91892	0.70479
8.679	−0.17022	−0.87895	−1.25486	−0.22553	−1.33282	0.92883	0.83295
8.784	−0.16485	−0.83781	−1.32094	−0.26699	−1.43017	0.94017	0.97583
8.890	−0.16198	−0.79206	−1.38726	−0.29844	−1.51929	0.95018	1.13380
8.996	−0.16139	−0.74240	−1.45250	−0.32038	−1.59756	0.95535	1.30552
9.102	−0.16262	−0.68982	−1.51507	−0.33371	−1.66311	0.95266	1.48730
9.208	−0.16537	−0.63544	−1.57356	−0.33889	−1.71227	0.94046	1.67509
9.314	−0.16904	−0.58069	−1.62668	−0.33699	−1.74451	0.91725	1.86386
9.419	−0.17320	−0.52702	−1.67333	−0.32957	−1.75974	0.88367	2.04966
9.525	−0.17743	−0.47571	−1.71332	−0.31787	−1.75942	0.84115	2.22873
9.631	−0.18139	−0.42773	−1.74686	−0.30308	−1.74572	0.79168	2.39903
9.737	−0.18493	−0.38370	−1.77456	−0.28657	−1.72098	0.73804	2.56023
9.843	−0.18790	−0.34388	−1.79724	−0.26914	−1.68756	0.68218	2.71194
9.949	−0.19022	−0.30829	−1.81574	−0.25147	−1.64944	0.62707	2.85582
10.054	−0.19200	−0.27659	−1.83077	−0.23396	−1.60464	0.57166	2.99434
10.160	−0.19319	−0.24862	−1.84310	−0.21722	−1.55720	0.51889	3.13009
10.266	−0.19390	−0.22394	−1.85333	−0.20153	−1.50696	0.46854	3.26709
10.372	−0.19406	−0.20225	−1.86176	−0.18645	−1.45695	0.42185	3.40826
10.478	−0.19379	−0.18315	−1.86880	−0.17242	−1.40613	0.37833	3.55961

(*continued on next page*)

Table 35 (*continued*)

R	$\mu^{1\Sigma^+\text{-}^1\Pi}_{101}$	$\mu^{1\Sigma^+\text{-}^1\Pi}_{102}$	$\mu^{1\Sigma^+\text{-}^1\Pi}_{103}$	$\mu^{1\Sigma^+\text{-}^1\Pi}_{104}$	$\mu^{1\Sigma^+\text{-}^1\Pi}_{105}$	$\mu^{1\Sigma^+\text{-}^1\Pi}_{106}$	$\mu^{1\Sigma^+\text{-}^1\Pi}_{107}$
10.584	−0.19312	−0.16637	−1.87476	−0.15930	−1.35586	0.33873	3.72770
10.848	−0.18986	−0.13262	−1.88618	−0.13050	−1.23393	0.25303	4.27740
11.113	−0.18500	−0.10781	−1.89401	−0.10709	−1.11625	0.18690	5.12545
11.377	−0.17883	−0.08937	−1.89930	−0.08797	−1.00466	0.13595	5.99480
11.642	−0.17158	−0.07563	−1.90277	−0.07246	−0.90226	0.09743	6.30736
11.906	−0.16356	−0.06523	−1.90536	−0.05999	−0.80474	0.06757	6.33294
12.171	−0.15497	−0.05734	−1.90703	−0.04984	−0.71583	0.04552	6.31225
12.436	−0.14598	−0.05127	−1.90765	−0.04161	−0.63450	0.02948	6.29645
12.700	−0.13680	−0.04657	−1.90778	−0.03489	−0.56001	0.01769	6.28996
12.965	−0.12753	−0.04287	−1.90741	−0.02937	−0.49234	0.00918	6.29120
13.229	−0.11830	−0.03998	−1.90673	−0.02484	−0.43098	0.00326	6.29934
13.494	−0.10926	−0.03756	−1.90573	−0.02114	−0.37569	−0.00082	6.31164
13.759	−0.10050	−0.03554	−1.90453	−0.01808	−0.32613	−0.00350	6.32672
14.023	−0.09205	−0.03381	−1.90316	−0.01550	−0.28200	−0.00510	6.34340
14.288	−0.08405	−0.03229	−1.90166	−0.01340	−0.24271	−0.00592	6.36111
14.552	−0.07650	−0.03092	−1.89995	−0.01165	−0.20789	−0.00635	6.37850
14.817	−0.06945	−0.02963	−1.89819	−0.01017	−0.17731	−0.00651	6.39630
15.082	−0.06288	−0.02843	−1.89635	−0.00899	−0.15051	−0.00641	6.41350
15.346	−0.05688	−0.02726	−1.89432	−0.00799	−0.12710	−0.00617	6.42992
15.611	−0.05139	−0.02613	−1.89212	−0.00721	−0.10674	−0.00582	6.44524
15.875	−0.04642	−0.02503	−1.88973	−0.00666	−0.08920	−0.00542	6.45917
16.140	−0.04197	−0.02397	−1.88709	0.00644	−0.07408	−0.00508	6.47124
16.404	−0.03802	−0.02299	−1.88417	0.00723	−0.06118	−0.00477	6.48149
16.934	−0.00622	−0.07299	0.00381	1.03812	0.00177	−0.08413	0.01722
17.463	−0.00202	−0.06616	0.00105	1.20992	0.00241	−0.04820	0.00055
17.992	0.00267	−0.06019	0.00202	1.48326	0.00306	−0.02533	−0.00234
18.521	0.00819	−0.05392	0.00260	1.87834	0.00392	−0.01426	−0.00374
19.050	0.01332	−0.04607	0.00294	2.28251	0.00455	−0.01341	−0.00447
19.580	0.01593	−0.03800	0.00292	2.52660	0.00456	−0.01545	−0.00435
20.109	0.01638	−0.03158	0.00269	2.63250	0.00416	−0.01686	−0.00382
20.638	0.01582	−0.02682	0.00240	2.67682	0.00366	−0.01741	−0.00324
21.167	0.01480	−0.02291	0.00163	2.69631	0.00369	−0.00369	−0.00746
22.225	0.01287	−0.01802	0.00165	2.71232	0.00228	−0.00182	−0.00437
23.284	0.01098	−0.01439	0.00134	2.71836	0.00171	0.00102	−0.00199
24.342	0.03148	−0.00113	−0.07814	0.00017	−0.04043	0.11795	−0.00113
25.401	0.02790	−0.00083	−0.04915	0.00006	−0.05524	0.04126	−0.00044
26.459	0.02617	−0.00055	−0.03212	0.00003	−0.07653	0.00470	−0.00013
27.517	0.02619	−0.00025	−0.02172	0.00003	−0.12349	−0.01308	0.00014
28.576	0.03253	0.00035	−0.01508	0.00004	−0.25551	−0.02029	0.00034
29.634	0.17037	0.01454	−0.00959	−0.00048	−2.62628	−0.01148	−0.00236
30.692	0.24882	0.02500	0.00260	−0.00062	−4.09154	−0.00537	−0.00308
31.751	0.25103	0.02357	0.00198	−0.00051	−4.10074	−0.00497	−0.00267
37.042	0.25968	0.01698	0.00086	−0.00022	−4.11056	−0.00298	−0.00142
42.334	0.26561	0.01233	0.00044	−0.00011	−4.11385	−0.00161	−0.00082
47.626	0.26962	0.00914	0.00023	−0.00006	−4.11535	−0.00081	−0.00051
50.272	0.27113	0.00794	0.00017	−0.00005	−4.11582	−0.00060	−0.00041
51.859	0.27191	0.00731	0.00013	−0.00004	−4.11600	−0.00052	−0.00036

Table 36
Transition dipole moments between the $1^3\Sigma^+$ and $(1\text{-}7)^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Sigma^+,3\Pi}_{11}$	$\mu^{3\Sigma^+,3\Pi}_{12}$	$\mu^{3\Sigma^+,3\Pi}_{13}$	$\mu^{3\Sigma^+,3\Pi}_{14}$	$\mu^{3\Sigma^+,3\Pi}_{15}$	$\mu^{3\Sigma^+,3\Pi}_{16}$	$\mu^{3\Sigma^+,3\Pi}_{17}$
2.540	0.08097	−1.79951	1.81718	3.01647	0.10713	0.43373	0.31877
2.646	0.07167	−1.99733	1.66959	2.98911	0.09825	0.43577	0.27509
2.752	0.06277	−2.17843	1.53216	2.94552	0.09380	0.44365	0.23917
2.858	0.05439	−2.33793	1.40397	2.89460	0.09367	0.45308	0.21322
2.963	0.04655	−2.47416	1.28323	2.84372	0.09782	0.46243	0.19492
3.069	0.03926	−2.58792	1.17015	2.79691	0.10608	0.47074	0.18124
3.175	0.03247	−2.68179	1.06667	2.75531	0.11814	0.47724	0.16996
3.281	0.02614	−2.75913	0.97480	2.71862	0.13351	0.48119	0.15981
3.387	0.02021	−2.82336	0.89562	2.68596	0.15147	0.48203	0.15000
3.493	0.01460	−2.87759	0.82929	2.65642	0.17095	0.47935	0.14032
3.598	0.00925	−2.92447	0.77531	2.62907	0.19050	0.47309	0.13074
3.704	0.00409	−2.96620	0.73302	2.60299	0.20836	0.46353	0.12138
3.810	−0.00093	−3.00453	0.70192	2.57722	0.22275	0.45129	0.11242
3.916	−0.00585	−3.04093	0.68191	2.55067	0.23224	0.43730	0.10393
4.022	−0.01070	−3.07660	0.67349	2.52198	0.23632	0.42249	0.09610
4.128	−0.01554	−3.11252	0.67800	2.48943	0.23535	0.40777	0.08896
4.233	−0.02040	−3.14957	0.69801	2.45073	0.23037	0.39381	0.08251
4.339	−0.02532	−3.18847	0.73806	2.40255	0.22268	0.38105	0.07672
4.445	−0.03034	−3.22984	0.80579	2.33950	0.21347	0.36991	0.07136
4.551	−0.03550	−3.27413	0.91343	2.25208	0.20379	0.36025	0.06646
4.657	−0.04084	−3.32168	1.07824	2.12175	0.19425	0.35206	0.06167
4.763	−0.04642	−3.37268	1.31194	1.91670	0.18525	0.34524	0.05619
4.868	−0.05227	−3.42709	1.58063	1.61195	0.17699	0.33973	0.04874
4.974	−0.05844	−3.48463	1.78552	1.25804	0.16947	0.33536	0.03633
5.080	−0.06499	−3.54478	1.87151	0.95746	0.16269	0.33197	0.01367
5.186	−0.07196	−3.60677	1.86816	0.74631	0.15654	0.32947	−0.00983
5.292	−0.07942	−3.66959	1.81473	0.60595	0.15097	0.32773	−0.02051
5.398	−0.08741	−3.73210	1.73366	0.51197	0.14590	0.32672	−0.02268
5.503	−0.09599	−3.79305	1.63644	0.44738	0.14128	0.32640	−0.02051
5.609	−0.10522	−3.85127	1.52962	0.40163	0.13709	0.32674	−0.01546
5.715	−0.11517	−3.90575	1.41761	0.36813	0.13331	0.32774	−0.00742
5.821	−0.12588	−3.95573	1.30379	0.34269	0.12991	0.32916	0.00769
5.927	−0.13742	−4.00076	1.19097	0.32253	0.12692	0.30988	0.11732
6.033	−0.14983	−4.04068	1.08133	0.30573	0.12430	0.03135	0.33290
6.138	−0.16316	−4.07562	0.97662	0.29094	0.12205	0.00980	0.33820
6.244	−0.17746	−4.10586	0.87807	0.27727	0.12016	−0.00065	0.34333
6.350	−0.19274	−4.13183	0.78651	0.26408	0.11859	−0.00822	0.34934
6.456	−0.20903	−4.15400	0.70234	0.25098	0.11733	−0.01415	0.35639
6.562	−0.22634	−4.17286	0.62572	0.23774	0.11635	−0.01853	0.36437
6.668	−0.24467	−4.18886	0.55653	0.22429	0.11565	−0.02105	0.37255
6.773	−0.26401	−4.20242	0.49449	0.21066	0.11523	−0.02111	0.37903
6.879	−0.28432	−4.21390	0.43920	0.19695	0.11505	−0.01789	0.38098
6.985	−0.30556	−4.22361	0.39016	0.18330	0.11511	−0.01042	0.37698
7.091	−0.32770	−4.23181	0.34686	0.16985	0.11540	0.00206	0.36919
7.197	−0.35066	−4.23872	0.30876	0.15677	0.11590	0.01945	0.36084
7.303	−0.37439	−4.24450	0.27532	0.14419	0.11660	0.04013	0.35342
7.408	−0.39883	−4.24931	0.24604	0.13222	0.11748	0.06119	0.34719
7.514	−0.42391	−4.25325	0.22044	0.12093	0.11854	0.07991	0.34231
7.620	−0.44954	−4.25642	0.19810	0.11039	0.11974	0.09498	0.33893
7.726	−0.47569	−4.25891	0.17862	0.10061	0.12110	0.10639	0.33706
7.832	−0.50228	−4.26078	0.16163	0.09162	0.12261	0.11481	0.33641
7.938	−0.52925	−4.26207	0.14684	0.08339	0.12427	0.12098	0.33661
8.043	−0.55654	−4.26284	0.13394	0.07592	0.12607	0.12555	0.33732
8.149	−0.58412	−4.26312	0.12270	0.06915	0.12802	0.12897	0.33825
8.255	−0.61193	−4.26294	0.11289	0.06307	0.13012	0.13164	0.33918
8.361	−0.63993	−4.26232	0.10433	0.05764	0.13238	0.13379	0.34002
8.467	−0.66810	−4.26129	0.09683	0.05280	0.13481	0.13562	0.34061
8.573	−0.69641	−4.25988	0.09025	0.04853	0.13743	0.13724	0.34092
8.679	−0.72483	−4.25808	0.08446	0.04476	0.14024	0.13877	0.34095
8.784	−0.75335	−4.25593	0.07934	0.04146	0.14325	0.14027	0.34067
8.890	−0.78194	−4.25343	0.07479	0.03859	0.14649	0.14180	0.34007
8.996	−0.81059	−4.25059	0.07073	0.03608	0.14998	0.14341	0.33917
9.102	−0.83929	−4.24742	0.06709	0.03391	0.15372	0.14512	0.33795
9.208	−0.86804	−4.24394	0.06381	0.03201	0.15774	0.14698	0.33641
9.314	−0.89682	−4.24014	0.06083	0.03038	0.16206	0.14900	0.33456
9.419	−0.92563	−4.23603	0.05811	0.02895	0.16670	0.15121	0.33238
9.525	−0.95447	−4.23163	0.05562	0.02770	0.17167	0.15364	0.32985
9.631	−0.98332	−4.22693	0.05332	0.02660	0.17701	0.15634	0.32692
9.737	−1.01218	−4.22194	0.05118	0.02562	0.18270	0.15938	0.32352
9.843	−1.04106	−4.21667	0.04918	0.02473	0.18877	0.16297	0.31952
9.949	−1.06993	−4.21111	0.04731	0.02391	0.19522	0.16762	0.31458
10.054	−1.09880	−4.20528	0.04555	0.02318	0.20204	0.17507	0.30760
10.160	−1.12766	−4.19919	0.04390	0.02248	0.20921	0.19552	0.29165
10.266	−1.15650	−4.19282	0.04232	0.02184	0.21669	0.34648	0.03219
10.372	−1.18531	−4.18620	0.04082	0.02123	0.22444	0.31609	−0.13692

(*continued on next page*)

Table 36 (*continued*)

R	$\mu_{11}^{^3\Sigma^+{-}^3\Pi}$	$\mu_{12}^{^3\Sigma^+{-}^3\Pi}$	$\mu_{13}^{^3\Sigma^+{-}^3\Pi}$	$\mu_{14}^{^3\Sigma^+{-}^3\Pi}$	$\mu_{15}^{^3\Sigma^+{-}^3\Pi}$	$\mu_{16}^{^3\Sigma^+{-}^3\Pi}$	$\mu_{17}^{^3\Sigma^+{-}^3\Pi}$
10.478	−1.21409	−4.17932	0.03940	0.02065	0.23239	0.30670	−0.14819
10.584	−1.24283	−4.17218	0.03804	0.02009	0.24045	0.30057	−0.15115
10.848	−1.31439	−4.15328	0.03489	0.01878	0.26040	0.29122	−0.14375
11.113	−1.38543	−4.13295	0.03206	0.01756	0.27875	0.29262	−0.10905
11.377	−1.45574	−4.11128	0.02951	0.01641	0.29421	0.29875	−0.03005
11.642	−1.52512	−4.08841	0.02720	0.01533	0.30631	0.28727	−0.03821
11.906	−1.59334	−4.06448	0.02509	0.01430	0.31526	0.27472	−0.06082
12.171	−1.66021	−4.03963	0.02317	0.01335	0.32170	0.26749	−0.06336
12.436	−1.72552	−4.01401	0.02143	0.01245	0.32626	0.26344	−0.05929
12.700	−1.78910	−3.98778	0.01984	0.01162	0.32947	0.26108	−0.05323
12.965	−1.85080	−3.96112	0.01839	0.01084	0.33175	0.25960	−0.04680
13.229	−1.91049	−3.93415	0.01705	0.01012	0.33337	0.25867	−0.04063
13.494	−1.96807	−3.90703	0.01583	0.00945	0.33452	0.25804	−0.03495
13.759	−2.02345	−3.87991	0.01471	0.00882	0.33537	0.25759	−0.02980
14.023	−2.07661	−3.85291	0.01368	0.00824	0.33597	0.25730	−0.02522
14.288	−2.12751	−3.82615	0.01273	0.00770	0.33641	0.25706	−0.02123
14.552	−2.17615	−3.79973	0.01187	0.00720	0.33673	0.25688	−0.01777
14.817	−2.22255	−3.77375	0.01107	0.00673	0.33696	0.25675	−0.01483
15.082	−2.26676	−3.74827	0.01034	0.00631	0.33712	0.25663	−0.01236
15.346	−2.30881	−3.72338	0.00966	0.00591	0.33724	0.25654	−0.01029
15.611	−2.34876	−3.69911	0.00904	0.00554	0.33732	0.25646	−0.00858
15.875	−2.38669	−3.67551	0.00847	0.00521	0.33737	0.25638	−0.00718
16.140	−2.42268	−3.65260	0.00795	0.00489	0.33740	0.25632	−0.00602
16.404	−2.45680	−3.63042	0.00746	0.00460	0.33742	0.25626	−0.00507
16.934	−2.51975	−3.58824	0.00660	0.00408	0.33743	0.25617	−0.00360
17.463	−2.57623	−3.54902	0.00585	0.00362	0.33741	0.25608	−0.00263
17.992	−2.62689	−3.51268	0.00521	0.00323	0.33739	0.25602	−0.00193
18.521	−2.67233	−3.47913	0.00464	0.00289	0.33736	0.25595	−0.00147
19.050	−2.71313	−3.44820	0.00415	0.00259	0.33732	0.25589	−0.00113
19.580	−2.74982	−3.41974	0.00373	0.00233	0.33728	0.25584	−0.00089
20.109	−2.78284	−3.39358	0.00335	0.00209	0.33725	0.25579	−0.00072
20.638	−2.81263	−3.36953	0.00302	0.00189	0.33721	0.25575	−0.00058
21.167	−2.83953	−3.34743	0.00274	0.00170	0.33717	0.25572	−0.00051
22.225	−2.88596	−3.30842	0.00226	0.00140	0.33712	0.25565	−0.00038
23.284	−2.92429	−3.27538	0.00188	0.00117	0.33707	0.25559	−0.00029
24.342	−2.95616	−3.24731	0.00157	0.00098	0.33702	0.25555	−0.00023
25.401	−2.98287	−3.22335	0.00132	0.00082	0.33699	0.25552	−0.00018
26.459	−3.00541	−3.20282	0.00112	0.00070	0.33696	0.25548	−0.00014
27.517	−3.02456	−3.18516	0.00096	0.00060	0.33693	0.25547	−0.00010
28.576	−3.04093	−3.16989	0.00082	0.00052	0.33691	0.25544	−0.00007
29.634	−3.05500	−3.15663	0.00071	0.00045	0.33689	0.25540	−0.00005
30.692	−3.06717	−3.14508	0.00062	0.00039	0.33687	0.25538	−0.00003
31.751	−3.07774	−3.13496	0.00054	0.00034	0.33686	0.25536	−0.00002
37.042	−3.11412	−3.09964	0.00029	0.00018	0.33681	0.25530	−0.00002
42.334	−3.13440	−3.07959	0.00017	0.00011	0.33679	0.25524	−0.00002
47.626	−3.14660	−3.06741	0.00011	0.00006	0.33677	0.25522	−0.00001
50.272	−3.15090	−3.06309	0.00009	0.00005	0.33676	0.25522	0.00000
51.859	−3.15307	−3.06091	0.00008	0.00004	0.33676	0.25522	0.00000

Table 37
Transition dipole moments between the $2^3\Sigma^+$ and $(1\text{-}7)^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Sigma^+,3\Pi}_{21}$	$\mu^{3\Sigma^+,3\Pi}_{22}$	$\mu^{3\Sigma^+,3\Pi}_{23}$	$\mu^{3\Sigma^+,3\Pi}_{24}$	$\mu^{3\Sigma^+,3\Pi}_{25}$	$\mu^{3\Sigma^+,3\Pi}_{26}$	$\mu^{3\Sigma^+,3\Pi}_{27}$
2.540	0.34962	−1.10023	−0.98563	0.12869	−0.62328	−0.24974	−0.09466
2.646	0.38863	−1.06506	−1.16538	0.12497	−0.50820	−0.34987	−0.40247
2.752	0.37845	−1.04351	−1.37405	0.13174	−0.42789	−0.43332	−0.67243
2.858	0.30585	−1.04285	−1.62948	0.14848	−0.39795	−0.48697	−0.84709
2.963	0.16054	−1.06107	−1.94163	0.17366	−0.42690	−0.50571	−0.91882
3.069	−0.05110	−1.08453	−2.29409	0.20385	−0.50016	−0.48973	−0.89776
3.175	−0.29510	−1.09306	−2.63612	0.23281	−0.57610	−0.44718	−0.80649
3.281	−0.52534	−1.07524	−2.91441	0.25472	−0.61354	−0.39267	−0.67944
3.387	−0.71336	−1.03468	−3.10887	0.26794	−0.60107	−0.33904	−0.54687
3.493	−0.85463	−0.98149	−3.22921	0.27454	−0.55211	−0.29216	−0.42523
3.598	−0.95628	−0.92412	−3.29441	0.27778	−0.48551	−0.25305	−0.31989
3.704	−1.02738	−0.86757	−3.32138	0.28069	−0.41568	−0.22082	−0.23104
3.810	−1.07549	−0.81424	−3.32246	0.28606	−0.35165	−0.19417	−0.15718
3.916	−1.10621	−0.76504	−3.30612	0.29653	−0.29815	−0.17210	−0.09680
4.022	−1.12361	−0.72013	−3.27787	0.31509	−0.25779	−0.15368	−0.04848
4.128	−1.13061	−0.67931	−3.24109	0.34531	−0.23182	−0.13820	−0.01129
4.233	−1.12937	−0.64219	−3.19741	0.39205	−0.22085	−0.12514	0.01515
4.339	−1.12152	−0.60834	−3.14662	0.46252	−0.22525	−0.11410	0.03044
4.445	−1.10831	−0.57730	−3.08580	0.56830	−0.24527	−0.10509	0.03237
4.551	−1.09072	−0.54861	−3.00663	0.72765	−0.28132	−0.09733	0.01952
4.657	−1.06955	−0.52187	−2.88990	0.96804	−0.33368	−0.09091	−0.01482
4.763	−1.04544	−0.49667	−2.69707	1.31423	−0.40259	−0.08548	−0.08727
4.868	−1.01893	−0.47266	−2.38723	1.73371	−0.48806	−0.08140	−0.23276
4.974	−0.99047	−0.44957	−2.00166	2.09450	−0.58960	−0.07860	−0.52671
5.080	−0.96043	−0.42710	−1.65963	2.30428	−0.70650	−0.07683	−1.05313
5.186	−0.92914	−0.40506	−1.41510	2.38964	−0.83734	−0.07621	−1.55747
5.292	−0.89688	−0.38330	−1.25365	2.40144	−0.98007	−0.07668	−1.81715
5.398	−0.86390	−0.36178	−1.14928	2.37106	−1.13193	−0.07877	−1.94319
5.503	−0.83040	−0.34048	−1.08276	2.31480	−1.28970	−0.08315	−2.00731
5.609	−0.79659	−0.31949	−1.04184	2.24169	−1.44993	−0.09165	−2.03464
5.715	−0.76263	−0.29891	−1.01883	2.15761	−1.60918	−0.10993	−2.03462
5.821	−0.72869	−0.27889	−1.00878	2.06694	−1.76425	−0.16394	−2.00947
5.927	−0.69493	−0.25959	−1.00855	1.97331	−1.91232	−0.76766	−1.81969
6.033	−0.66149	−0.24115	−1.01593	1.87978	−2.05096	−1.90963	−0.15253
6.138	−0.62851	−0.22367	−1.02941	1.78884	−2.17824	−1.83846	−0.07492
6.244	−0.59614	−0.20723	−1.04793	1.70242	−2.29253	−1.74781	−0.07016
6.350	−0.56445	−0.19186	−1.07073	1.62197	−2.39265	−1.64262	−0.09226
6.456	−0.53366	−0.17758	−1.09729	1.54857	−2.47778	−1.52429	−0.13863
6.562	−0.50381	−0.16436	−1.12722	1.48289	−2.54749	−1.39301	−0.21601
6.668	−0.47502	−0.15217	−1.16025	1.42533	−2.60180	−1.24814	−0.33525
6.773	−0.44737	−0.14094	−1.19619	1.37608	−2.64104	−1.08765	−0.50561
6.879	−0.42093	−0.13061	−1.23496	1.33516	−2.66584	−0.90822	−0.72035
6.985	−0.39573	−0.12110	−1.27643	1.30248	−2.67710	−0.70550	−0.94692
7.091	−0.37183	−0.11238	−1.32054	1.27786	−2.67569	−0.47635	−1.14284
7.197	−0.34923	−0.10436	−1.36720	1.26098	−2.66267	−0.22302	−1.28146
7.303	−0.32793	−0.09699	−1.41621	1.25151	−2.63904	0.04188	−1.35505
7.408	−0.30790	−0.09021	−1.46739	1.24906	−2.60585	0.29777	−1.36909
7.514	−0.28912	−0.08396	−1.52045	1.25319	−2.56402	0.52539	−1.33889
7.620	−0.27153	−0.07819	−1.57504	1.26336	−2.51445	0.71549	−1.28263
7.726	−0.25512	−0.07289	−1.63074	1.27904	−2.45797	0.86819	−1.21519
7.832	−0.23981	−0.06799	−1.68711	1.29964	−2.39540	0.98841	−1.14561
7.938	−0.22554	−0.06347	−1.74365	1.32449	−2.32754	1.08184	−1.07868
8.043	−0.21227	−0.05929	−1.79986	1.35292	−2.25516	1.15348	−1.01659
8.149	−0.19991	−0.05542	−1.85520	1.38418	−2.17904	1.20727	−0.96008
8.255	−0.18843	−0.05184	−1.90930	1.41754	−2.09999	1.24625	−0.90930
8.361	−0.17774	−0.04852	−1.96170	1.45226	−2.01879	1.27274	−0.86382
8.467	−0.16781	−0.04544	−2.01204	1.48760	−1.93624	1.28846	−0.82354
8.573	−0.15856	−0.04259	−2.06006	1.52290	−1.85311	1.29492	−0.78785
8.679	−0.14996	−0.03993	−2.10556	1.55755	−1.77012	1.29336	−0.75631
8.784	−0.14196	−0.03747	−2.14840	1.59102	−1.68792	1.28478	−0.72848
8.890	−0.13451	−0.03518	−2.18854	1.62291	−1.60706	1.27011	−0.70394
8.996	−0.12756	−0.03305	−2.22600	1.65287	−1.52804	1.25018	−0.68243
9.102	−0.12109	−0.03106	−2.26083	1.68069	−1.45120	1.22571	−0.66359
9.208	−0.11505	−0.02922	−2.29317	1.70616	−1.37681	1.19735	−0.64717
9.314	−0.10940	−0.02749	−2.32310	1.72926	−1.30503	1.16568	−0.63282
9.419	−0.10413	−0.02589	−2.35081	1.74994	−1.23593	1.13123	−0.62033
9.525	−0.09920	−0.02439	−2.37646	1.76822	−1.16953	1.09449	−0.60943
9.631	−0.09459	−0.02298	−2.40021	1.78418	−1.10576	1.05591	−0.59978
9.737	−0.09027	−0.02167	−2.42224	1.79791	−1.04454	1.01603	−0.59098
9.843	−0.08622	−0.02045	−2.44271	1.80945	−0.98575	0.97549	−0.58227
9.949	−0.08242	−0.01929	−2.46179	1.81895	−0.92926	0.93556	−0.57203
10.054	−0.07883	−0.01821	−2.47962	1.82665	−0.87493	0.89965	−0.55492
10.160	−0.07548	−0.01720	−2.49633	1.83247	−0.82258	0.88597	−0.50117
10.266	−0.07231	−0.01626	−2.51204	1.83668	−0.77212	0.84994	0.48627
10.372	−0.06932	−0.01537	−2.52695	1.83937	−0.72347	0.65956	0.67138

(*continued on next page*)

Table 37 (*continued*)

R	$\mu_{21}^{^3\Sigma^+\,^3\Pi}$	$\mu_{22}^{^3\Sigma^+\,^3\Pi}$	$\mu_{23}^{^3\Sigma^+\,^3\Pi}$	$\mu_{24}^{^3\Sigma^+\,^3\Pi}$	$\mu_{25}^{^3\Sigma^+\,^3\Pi}$	$\mu_{26}^{^3\Sigma^+\,^3\Pi}$	$\mu_{27}^{^3\Sigma^+\,^3\Pi}$
10.478	−0.06651	−0.01455	−2.54100	1.84065	−0.67656	0.63549	0.64285
10.584	−0.06385	−0.01378	−2.55437	1.84065	−0.63138	0.62897	0.59772
10.848	−0.05782	−0.01205	−2.58534	1.83569	−0.52625	0.63373	0.45810
11.113	−0.05254	−0.01057	−2.61359	1.82472	−0.43341	0.65055	0.26839
11.377	−0.04789	−0.00931	−2.63989	1.80887	−0.35431	0.63269	0.00291
11.642	−0.04377	−0.00823	−2.66481	1.78908	−0.28937	0.53419	−0.19373
11.906	−0.04010	−0.00730	−2.68871	1.76607	−0.23759	0.43750	−0.26139
12.171	−0.03681	−0.00652	−2.71187	1.74038	−0.19699	0.36570	−0.27305
12.436	−0.03387	−0.00584	−2.73444	1.71244	−0.16533	0.31174	−0.26319
12.700	−0.03121	−0.00527	−2.75657	1.68261	−0.14058	0.26979	−0.24427
12.965	−0.02880	−0.00474	−2.77824	1.65118	−0.12107	0.23632	−0.22142
13.229	−0.02663	−0.00432	−2.79951	1.61840	−0.10550	0.20909	−0.19716
13.494	−0.02465	−0.00396	−2.82037	1.58447	−0.09293	0.18645	−0.17301
13.759	−0.02286	−0.00365	−2.84082	1.54960	−0.08263	0.16738	−0.14977
14.023	−0.02123	−0.00338	−2.86083	1.51396	−0.07407	0.15116	−0.12812
14.288	−0.01973	−0.00314	−2.88035	1.47771	−0.06686	0.13713	−0.10854
14.552	−0.01836	−0.00293	−2.89934	1.44101	−0.06072	0.12493	−0.09097
14.817	−0.01711	−0.00275	−2.91776	1.40400	−0.05544	0.11426	−0.07533
15.082	−0.01597	−0.00259	−2.93560	1.36684	−0.05085	0.10479	−0.06144
15.346	−0.01491	−0.00244	−2.95281	1.32965	−0.04682	0.09637	−0.04880
15.611	−0.01395	−0.00232	−2.96939	1.29256	−0.04324	0.08884	−0.03717
15.875	−0.01306	−0.00220	−2.98530	1.25566	−0.04005	0.08209	−0.02607
16.140	−0.01223	−0.00210	−3.00053	1.21909	−0.03718	0.07598	−0.01522
16.404	−0.01148	−0.00201	−3.01507	1.18292	−0.03460	0.07044	0.00438
16.934	−0.01013	−0.00184	−3.04209	1.11216	−0.03010	0.06084	0.01784
17.463	−0.00897	−0.00170	−3.06641	1.04396	−0.02635	0.05283	0.04085
17.992	−0.00798	−0.00156	−3.08812	0.97874	−0.02316	0.04610	0.06449
18.521	−0.00711	−0.00145	−3.10739	0.91679	−0.02045	0.04040	0.08838
19.050	−0.00636	−0.00135	−3.12440	0.85829	−0.01813	0.03556	0.11199
19.580	−0.00570	−0.00125	−3.13936	0.80330	−0.01613	0.03142	0.13495
20.109	−0.00513	−0.00116	−3.15249	0.75180	−0.01439	0.02787	0.15702
20.638	−0.00462	−0.00108	−3.16399	0.70371	−0.01288	0.02480	0.17797
21.167	−0.00418	−0.00101	−3.17407	0.65893	−0.01157	0.02212	0.19780
22.225	−0.00344	−0.00087	−3.19058	0.57862	−0.00940	0.01775	0.23382
23.284	−0.00286	−0.00075	−3.20322	0.50948	−0.00772	0.01447	0.26511
24.342	−0.00240	−0.00065	−3.21303	0.45001	−0.00640	0.01188	0.29196
25.401	−0.00203	−0.00056	−3.22056	0.39888	−0.00534	0.00989	0.31506
26.459	−0.00172	−0.00049	−3.22642	0.35483	−0.00450	0.00828	0.33485
27.517	−0.00147	−0.00043	−3.23104	0.31680	−0.00382	0.00699	0.35184
28.576	−0.00126	−0.00037	−3.23471	0.28384	−0.00326	0.00596	0.36647
29.634	−0.00109	−0.00032	−3.23765	0.25519	−0.00281	0.00507	0.37912
30.692	−0.00094	−0.00029	−3.24003	0.23018	−0.00243	0.00438	0.39012
31.751	−0.00082	−0.00025	−3.24197	0.20828	−0.00211	0.00379	0.39969
37.042	−0.00044	−0.00014	−3.24770	0.13185	−0.00113	0.00195	0.43264
42.334	−0.00026	−0.00008	−3.25023	0.08853	−0.00065	0.00112	0.45093
47.626	−0.00016	−0.00005	−3.25152	0.06227	−0.00040	0.00067	0.46182
50.272	−0.00013	−0.00004	−3.25193	0.05297	−0.00032	0.00053	0.46562
51.859	−0.00012	−0.00003	−3.25213	0.04827	−0.00029	0.00047	0.46753

Table 38
Transition dipole moments between the $3^3\Sigma^+$ and $(1\text{-}7)^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Sigma^+,3\Pi}_{31}$	$\mu^{3\Sigma^+,3\Pi}_{32}$	$\mu^{3\Sigma^+,3\Pi}_{33}$	$\mu^{3\Sigma^+,3\Pi}_{34}$	$\mu^{3\Sigma^+,3\Pi}_{35}$	$\mu^{3\Sigma^+,3\Pi}_{36}$	$\mu^{3\Sigma^+,3\Pi}_{37}$
2.540	2.21533	1.90997	1.85983	0.25985	5.81278	−0.37191	0.22331
2.646	2.23880	1.86300	2.25256	0.28340	5.52166	−0.36819	0.27146
2.752	2.28417	1.75068	2.58381	0.32108	5.20729	−0.38839	0.36821
2.858	2.34801	1.59009	2.82073	0.36265	4.88947	−0.42896	0.50083
2.963	2.42104	1.39647	2.93902	0.39761	4.59180	−0.48674	0.66464
3.069	2.48742	1.18625	2.93308	0.42126	4.33652	−0.55431	0.84479
3.175	2.53328	0.98190	2.83226	0.43699	4.14125	−0.61842	1.01336
3.281	2.55879	0.80572	2.69480	0.45287	4.01617	−0.66721	1.14605
3.387	2.57518	0.66758	2.57083	0.47560	3.95864	−0.69699	1.23632
3.493	2.59243	0.56433	2.48079	0.50753	3.95521	−0.71095	1.29116
3.598	2.61485	0.48760	2.42346	0.54758	3.98946	−0.71409	1.32076
3.704	2.64290	0.42941	2.38953	0.59291	4.04767	−0.71092	1.33374
3.810	2.67544	0.38375	2.36877	0.64020	4.12026	−0.70503	1.33627
3.916	2.71090	0.34648	2.35229	0.68691	4.20094	−0.69896	1.33277
4.022	2.74783	0.31480	2.33273	0.73203	4.28578	−0.69469	1.32624
4.128	2.78495	0.28677	2.30384	0.77673	4.37208	−0.69374	1.31881
4.233	2.82112	0.26104	2.25986	0.82435	4.45767	−0.69730	1.31201
4.339	2.85528	0.23659	2.19462	0.88029	4.54046	−0.70632	1.30718
4.445	2.88632	0.21257	2.10018	0.95210	4.61806	−0.72216	1.30549
4.551	2.91306	0.18824	1.96484	1.04887	4.68769	−0.74577	1.30912
4.657	2.93387	0.16284	1.76913	1.18008	4.74538	−0.77865	1.32079
4.763	2.94649	0.13539	1.48519	1.34242	4.78526	−0.82252	1.34568
4.868	2.94735	0.10471	1.10304	1.48725	4.79868	−0.87973	1.39462
4.974	2.93028	0.06904	0.69060	−1.52451	4.77116	−0.95336	1.48571
5.080	2.88382	0.02566	0.34595	−1.42472	4.67899	−1.04681	1.60089
5.186	2.78547	−0.02946	0.08951	−1.22339	4.47893	−1.16207	1.64060
5.292	2.59190	−0.10082	−0.10273	−0.94903	4.09469	−1.29084	1.62049
5.398	2.24284	−0.18635	−0.24331	−0.61949	3.43292	−1.39362	1.52366
5.503	1.74662	−0.26372	−0.32151	−0.28852	2.53682	−1.39486	1.31887
5.609	1.26004	−0.30738	−0.34051	−0.04004	1.69262	−1.28174	1.08450
5.715	0.90333	−0.32213	−0.33410	0.10487	1.08991	−1.13213	0.90478
5.821	0.66961	−0.32395	−0.32868	0.17775	0.69842	−1.01224	0.77884
5.927	0.51737	−0.32160	−0.33335	0.20843	0.43963	−1.08732	0.41381
6.033	0.41507	−0.31796	−0.34890	0.21416	0.25830	−0.84168	0.70400
6.138	0.34362	−0.31378	−0.37372	0.20405	0.12249	−0.81262	0.69602
6.244	0.29178	−0.30893	−0.40567	0.18302	0.01430	−0.82644	0.68736
6.350	0.25290	−0.30330	−0.44271	0.15373	−0.07651	−0.86051	0.70085
6.456	0.22275	−0.29676	−0.48349	0.11807	−0.15564	−0.91003	0.74265
6.562	0.19875	−0.28935	−0.52663	0.07700	−0.22647	−0.97453	0.81968
6.668	0.17917	−0.28115	−0.57124	0.03136	−0.29085	−1.05514	0.93691
6.773	0.16284	−0.27229	−0.61663	−0.01814	−0.34980	−1.15411	1.09008
6.879	0.14895	−0.26290	−0.66239	−0.07106	−0.40378	−1.27365	1.24935
6.985	0.13693	−0.25313	−0.70824	−0.12684	−0.45299	−1.41487	1.36136
7.091	0.12640	−0.24311	−0.75404	−0.18505	−0.49747	−1.57466	1.38192
7.197	0.11704	−0.23297	−0.79968	−0.24534	−0.53714	−1.74227	1.30360
7.303	0.10865	−0.22282	−0.84514	−0.30746	−0.57192	−1.89868	1.14810
7.408	0.10108	−0.21276	−0.89037	−0.37114	−0.60178	−2.02469	0.95033
7.514	0.09419	−0.20287	−0.93532	−0.43623	−0.62671	−2.11078	0.74502
7.620	0.08792	−0.19321	−0.97989	−0.50257	−0.64679	−2.15932	0.55532
7.726	0.08216	−0.18383	−1.02399	−0.56998	−0.66215	−2.17864	0.39061
7.832	0.07689	−0.17477	−1.06746	−0.63836	−0.67300	−2.17720	0.25165
7.938	0.07203	−0.16606	−1.11009	−0.70757	−0.67958	−2.16129	0.13554
8.043	0.06756	−0.15772	−1.15168	−0.77746	−0.68222	−2.13523	0.03854
8.149	0.06344	−0.14977	−1.19197	−0.84786	−0.68123	−2.10180	−0.04276
8.255	0.05964	−0.14220	−1.23082	−0.91855	−0.67695	−2.06265	−0.11104
8.361	0.05613	−0.13501	−1.26799	−0.98929	−0.66974	−2.01902	−0.16871
8.467	0.05288	−0.12821	−1.30328	−1.05980	−0.65987	−1.97154	−0.21715
8.573	0.04987	−0.12179	−1.33657	−1.12976	−0.64764	−1.92086	−0.25790
8.679	0.04709	−0.11573	−1.36773	−1.19885	−0.63330	−1.86743	−0.29206
8.784	0.04450	−0.11002	−1.39671	−1.26671	−0.61705	−1.81163	−0.32051
8.890	0.04211	−0.10464	−1.42347	−1.33301	−0.59908	−1.75381	−0.34404
8.996	0.03987	−0.09959	−1.44802	−1.39742	−0.57958	−1.69436	−0.36327
9.102	0.03779	−0.09485	−1.47040	−1.45966	−0.55871	−1.63359	−0.37877
9.208	0.03585	−0.09040	−1.49067	−1.51952	−0.53663	−1.57180	−0.39102
9.314	0.03403	−0.08622	−1.50891	−1.57680	−0.51347	−1.50927	−0.40049
9.419	0.03233	−0.08230	−1.52521	−1.63140	−0.48941	−1.44626	−0.40758
9.525	0.03074	−0.07862	−1.53968	−1.68327	−0.46457	−1.38295	−0.41267
9.631	0.02924	−0.07517	−1.55240	−1.73240	−0.43911	−1.31949	−0.41625
9.737	0.02784	−0.07193	−1.56351	−1.77883	−0.41316	−1.25592	−0.41877
9.843	0.02651	−0.06889	−1.57310	−1.82268	−0.38686	−1.19216	−0.42124
9.949	0.02525	−0.06601	−1.58128	−1.86405	−0.36034	−1.12761	−0.42549
10.054	0.02408	−0.06336	−1.58814	−1.90305	−0.33376	−1.05983	−0.43752
10.160	0.02296	−0.06081	−1.59377	−1.93987	−0.30718	−0.97214	−0.49001
10.266	0.02191	−0.05844	−1.59827	−1.97463	−0.28080	−0.03004	−1.03125
10.372	0.02092	−0.05620	−1.60173	−2.00748	−0.25474	0.27780	−0.93546

(*continued on next page*)

Table 38 (*continued*)

R	$\mu_{31}^{^3\Sigma^+\,^3\Pi}$	$\mu_{32}^{^3\Sigma^+\,^3\Pi}$	$\mu_{33}^{^3\Sigma^+\,^3\Pi}$	$\mu_{34}^{^3\Sigma^+\,^3\Pi}$	$\mu_{35}^{^3\Sigma^+\,^3\Pi}$	$\mu_{36}^{^3\Sigma^+\,^3\Pi}$	$\mu_{37}^{^3\Sigma^+\,^3\Pi}$
10.478	0.01997	−0.05410	−1.60416	−2.03859	−0.22916	0.29964	−0.87129
10.584	0.01907	−0.05211	−1.60567	−2.06810	−0.20424	0.29614	−0.81648
10.848	0.01701	−0.04760	−1.60578	−2.13573	−0.14600	0.24892	−0.70209
11.113	0.01521	−0.04366	−1.60131	−2.19605	−0.09567	0.14837	−0.61784
11.377	0.01360	−0.04018	−1.59291	−2.25054	−0.05505	0.01487	−0.54111
11.642	0.01220	−0.03710	−1.58108	−2.30042	−0.02440	−0.12252	−0.44556
11.906	0.01096	−0.03434	−1.56624	−2.34658	−0.00257	−0.14065	−0.37076
12.171	0.00986	−0.03184	−1.54876	−2.38965	0.01220	−0.12892	−0.31783
12.436	0.00889	−0.02958	−1.52894	−2.43016	0.02171	−0.11146	−0.27799
12.700	0.00803	−0.02751	−1.50705	−2.46850	0.02749	−0.09498	−0.24701
12.965	0.00729	−0.02559	−1.48329	−2.50492	0.03070	−0.08117	−0.22295
13.229	0.00662	−0.02386	−1.45788	−2.53966	0.03218	−0.07007	−0.20500
13.494	0.00604	−0.02227	−1.43101	−2.57281	0.03252	−0.06131	−0.19284
13.759	0.00553	−0.02080	−1.40289	−2.60451	0.03214	−0.05444	−0.18624
14.023	0.00507	−0.01944	−1.37368	−2.63482	0.03130	−0.04907	−0.18506
14.288	0.00467	−0.01818	−1.34356	−2.66381	0.03020	−0.04479	−0.18899
14.552	0.00431	−0.01702	−1.31269	−2.69152	0.02895	−0.04137	−0.19743
14.817	0.00399	−0.01595	−1.28121	−2.71802	0.02763	−0.03853	−0.20974
15.082	0.00371	−0.01495	−1.24930	−2.74326	0.02631	−0.03623	−0.22514
15.346	0.00346	−0.01403	−1.21709	−2.76731	0.02501	−0.03428	−0.24244
15.611	0.00324	−0.01317	−1.18472	−2.79020	0.02375	−0.03259	−0.26087
15.875	0.00303	−0.01238	−1.15230	−2.81196	0.02255	−0.03111	−0.27940
16.140	0.00285	−0.01164	−1.11998	−2.83258	0.02141	−0.02978	−0.29729
16.404	0.00268	−0.01095	−1.08785	−2.85211	0.02033	−0.02857	−0.31390
16.934	0.00239	−0.00971	−1.02454	−2.88801	0.01835	−0.02639	−0.34163
17.463	0.00215	−0.00863	−0.96307	−2.91991	0.01660	−0.02445	−0.36068
17.992	0.00194	−0.00769	−0.90392	−2.94813	0.01504	−0.02271	−0.37105
18.521	0.00176	−0.00688	−0.84748	−2.97298	0.01366	−0.02105	−0.37368
19.050	0.00161	−0.00616	−0.79396	−2.99481	0.01243	−0.01951	−0.37020
19.580	0.00147	−0.00554	−0.74351	−3.01393	0.01133	−0.01807	−0.36218
20.109	0.00135	−0.00499	−0.69616	−3.03067	0.01035	−0.01673	−0.35101
20.638	0.00124	−0.00450	−0.65186	−3.04529	0.00946	−0.01548	−0.33786
21.167	0.00113	−0.00406	−0.61054	−3.05805	0.00867	−0.01441	−0.32354
22.225	0.00096	−0.00334	−0.53632	−3.07894	0.00731	−0.01235	−0.29363
23.284	0.00082	−0.00277	−0.47232	−3.09489	0.00619	−0.01061	−0.26452
24.342	0.00070	−0.00231	−0.41727	−3.10715	0.00525	−0.00905	−0.23752
25.401	0.00061	−0.00196	−0.36987	−3.11662	0.00450	−0.00774	−0.21328
26.459	0.00052	−0.00166	−0.32903	−3.12401	0.00387	−0.00676	−0.19174
27.517	0.00046	−0.00142	−0.29374	−3.12985	0.00334	−0.00589	−0.17271
28.576	0.00040	−0.00122	−0.26316	−3.13454	0.00290	−0.00513	−0.15591
29.634	0.00034	−0.00106	−0.23657	−3.13830	0.00254	−0.00446	−0.14109
30.692	0.00029	−0.00092	−0.21337	−3.14133	0.00224	−0.00392	−0.12802
31.751	0.00027	−0.00080	−0.19306	−3.14382	0.00196	−0.00345	−0.11646
37.042	0.00015	−0.00044	−0.12215	−3.15131	0.00107	−0.00181	−0.07526
42.334	0.00009	−0.00026	−0.08198	−3.15466	0.00063	−0.00106	−0.05127
47.626	0.00006	−0.00016	−0.05763	−3.15644	0.00040	−0.00062	−0.03644
50.272	0.00005	−0.00013	−0.04902	−3.15700	0.00032	−0.00049	−0.03113
51.859	0.00004	−0.00012	−0.04466	−3.15728	0.00028	−0.00042	−0.02843

Table 39
Transition dipole moments between the $4^3\Sigma^+$ and $(1\text{-}7)^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Sigma^+,3\Pi}_{41}$	$\mu^{3\Sigma^+,3\Pi}_{42}$	$\mu^{3\Sigma^+,3\Pi}_{43}$	$\mu^{3\Sigma^+,3\Pi}_{44}$	$\mu^{3\Sigma^+,3\Pi}_{45}$	$\mu^{3\Sigma^+,3\Pi}_{46}$	$\mu^{3\Sigma^+,3\Pi}_{47}$
2.540	0.22262	1.00647	−1.06067	−0.51448	1.32997	−4.12421	1.61829
2.646	0.24834	1.14537	−0.89067	−0.47421	1.45742	−4.07905	1.48163
2.752	0.27167	1.27406	−0.72185	−0.43631	1.57652	−4.07308	1.35012
2.858	0.29285	1.38810	−0.55351	−0.40164	1.68386	−4.08661	1.23784
2.963	0.31222	1.48554	−0.38704	−0.37037	1.77451	−4.10852	1.13803
3.069	0.33022	1.56573	−0.22545	−0.34137	1.84477	−4.13247	1.04472
3.175	0.34734	1.62896	−0.07206	−0.31284	1.89309	−4.15336	0.95412
3.281	0.36414	1.67616	0.07034	−0.28282	1.92071	−4.16717	0.86600
3.387	0.38118	1.70847	0.20011	−0.25039	1.93163	−4.17127	0.78124
3.493	0.39907	1.72735	0.31680	−0.21454	1.93060	−4.16361	0.70193
3.598	0.41829	1.73421	0.42087	−0.17476	1.92287	−4.14318	0.62959
3.704	0.43932	1.73043	0.51331	−0.13106	1.91316	−4.10961	0.56550
3.810	0.46263	1.71724	0.59548	−0.08435	1.90540	−4.06299	0.51056
3.916	0.48874	1.69565	0.66883	−0.03585	1.90273	−4.00373	0.46494
4.022	0.51825	1.66654	0.73495	0.01176	1.90747	−3.93233	0.42883
4.128	0.55187	1.63060	0.79534	0.05513	1.92152	−3.84917	0.40214
4.233	0.59045	1.58828	0.85143	0.09012	1.94672	−3.75447	0.38483
4.339	0.63510	1.53988	0.90447	0.11159	1.98502	−3.64766	0.37708
4.445	0.68724	1.48541	0.95538	0.11302	2.03900	−3.52880	0.37964
4.551	0.74881	1.42482	1.00392	0.08326	2.11093	−3.39493	0.39387
4.657	0.82238	1.35764	1.04629	−0.00699	2.20462	−3.24318	0.42217
4.763	0.91166	1.28318	1.06966	−0.13531	2.32545	−3.06772	0.46843
4.868	1.02200	1.20051	1.04652	−0.34269	2.47879	−2.86116	0.54421
4.974	1.16148	1.10849	0.96179	−0.56349	2.67494	−2.61159	0.66516
5.080	1.34257	1.00629	0.83652	−0.74047	2.92924	−2.30330	0.83479
5.186	1.58436	0.89399	0.69019	−0.86757	3.26559	−1.91892	1.00791
5.292	1.90979	0.77291	0.52155	−0.95430	3.71244	−1.44207	1.22818
5.398	2.31303	0.64424	0.32435	−0.98829	4.24897	−0.87298	1.54601
5.503	2.69031	0.51318	0.10775	−0.93276	4.70161	−0.27164	1.90886
5.609	2.91196	0.39796	−0.09688	−0.78794	4.87719	−0.25208	2.21050
5.715	2.98016	0.31058	−0.27274	−0.60799	4.79776	−0.67064	2.41231
5.821	2.95194	0.24718	−0.42506	−0.43641	4.55976	−1.05473	2.50948
5.927	2.86218	0.20078	−0.56039	−0.29329	4.22156	−2.05222	2.01488
6.033	2.72834	0.16733	−0.67967	−0.18549	3.81764	−2.74559	1.11986
6.138	2.56413	0.14513	−0.78026	−0.11346	3.37933	−2.63062	1.42400
6.244	2.38442	0.13339	−0.85918	−0.07265	2.93861	−2.49617	1.59178
6.350	2.20386	0.13105	−0.91549	−0.05578	2.52295	−2.33546	1.68951
6.456	2.03358	0.13655	−0.95094	−0.05514	2.15018	−2.16078	1.72749
6.562	1.88003	0.14795	−0.96869	−0.06398	1.82755	−1.98344	1.70685
6.668	1.74547	0.16342	−0.97236	−0.07731	1.55466	−1.81102	1.62255
6.773	1.62951	0.18139	−0.96523	−0.09167	1.32693	−1.64752	1.46589
6.879	1.53052	0.20065	−0.95004	−0.10495	1.13816	−1.49440	1.23810
6.985	1.44638	0.22037	−0.92886	−0.11589	0.98203	−1.35148	0.96835
7.091	1.37497	0.23990	−0.90323	−0.12387	0.85286	−1.21726	0.70525
7.197	1.31436	0.25886	−0.87440	−0.12867	0.74566	−1.08967	0.48361
7.303	1.26289	0.27702	−0.84326	−0.13034	0.65623	−0.96789	0.31550
7.408	1.21917	0.29423	−0.81045	−0.12918	0.58111	−0.85358	0.20094
7.514	1.18204	0.31042	−0.77646	−0.12546	0.51742	−0.75033	0.13305
7.620	1.15052	0.32556	−0.74171	−0.11955	0.46279	−0.66093	0.10074
7.726	1.12379	0.33969	−0.70647	−0.11199	0.41541	−0.58596	0.09246
7.832	1.10120	0.35286	−0.67104	−0.10312	0.37366	−0.52426	0.09844
7.938	1.08221	0.36513	−0.63566	−0.09331	0.33628	−0.47388	0.11185
8.043	1.06637	0.37656	−0.60055	−0.08289	0.30228	−0.43288	0.12817
8.149	1.05330	0.38725	−0.56587	−0.07216	0.27085	−0.39953	0.14464
8.255	1.04274	0.39728	−0.53192	−0.06138	0.24135	−0.37252	0.15950
8.361	1.03444	0.40674	−0.49882	−0.05077	0.21333	−0.35065	0.17193
8.467	1.02823	0.41571	−0.46674	−0.04049	0.18651	−0.33298	0.18122
8.573	1.02396	0.42427	−0.43580	−0.03070	0.16066	−0.31877	0.18722
8.679	1.02152	0.43251	−0.40612	−0.02149	0.13568	−0.30740	0.18980
8.784	1.02082	0.44048	−0.37780	−0.01294	0.11162	−0.29840	0.18893
8.890	1.02179	0.44825	−0.35086	−0.00513	0.08846	−0.29129	0.18473
8.996	1.02438	0.45588	−0.32538	0.00191	0.06635	−0.28574	0.17721
9.102	1.02854	0.46340	−0.30136	0.00817	0.04546	−0.28144	0.16648
9.208	1.03422	0.47085	−0.27881	0.01362	0.02598	−0.27815	0.15263
9.314	1.04136	0.47824	−0.25770	0.01834	0.00817	−0.27562	0.13589
9.419	1.04990	0.48559	−0.23799	0.02234	−0.00773	−0.27371	0.11637
9.525	1.05979	0.49288	−0.21966	0.02566	−0.02147	−0.27226	0.09426
9.631	1.07095	0.50012	−0.20269	0.02839	−0.03280	−0.27116	0.06973
9.737	1.08331	0.50728	−0.18691	0.03057	−0.04144	−0.27029	0.04295
9.843	1.09678	0.51434	−0.17233	0.03217	−0.04717	−0.26953	0.01413
9.949	1.11125	0.52130	−0.15888	0.03326	−0.04966	−0.26872	−0.01694
10.054	1.12665	0.52803	−0.14644	0.03414	−0.04878	−0.26702	−0.05152
10.160	1.14287	0.53460	−0.13504	0.03451	−0.04434	−0.26035	−0.09835
10.266	1.15981	0.54090	−0.12455	0.03464	−0.03625	−0.01322	−0.28767
10.372	1.17735	0.54691	−0.11489	0.03452	−0.02436	0.10348	−0.28207

(*continued on next page*)

Table 39 (*continued*)

R	$\mu_{41}^{^3\Sigma^+\,^3\Pi}$	$\mu_{42}^{^3\Sigma^+\,^3\Pi}$	$\mu_{43}^{^3\Sigma^+\,^3\Pi}$	$\mu_{44}^{^3\Sigma^+\,^3\Pi}$	$\mu_{45}^{^3\Sigma^+\,^3\Pi}$	$\mu_{46}^{^3\Sigma^+\,^3\Pi}$	$\mu_{47}^{^3\Sigma^+\,^3\Pi}$
10.478	1.19541	0.55259	−0.10605	0.03422	−0.00873	0.14072	−0.28198
10.584	1.21386	0.55791	−0.09795	0.03375	0.01061	0.16936	−0.28462
10.848	1.26108	0.56940	−0.08054	0.03214	0.07390	0.21785	−0.30180
11.113	1.30873	0.57798	−0.06660	0.03003	0.15426	0.21699	−0.34382
11.377	1.35560	0.58340	−0.05544	0.02775	0.24447	0.13000	−0.40823
11.642	1.40079	0.58560	−0.04647	0.02543	0.33724	−0.02444	−0.43568
11.906	1.44363	0.58467	−0.03928	0.02329	0.42707	−0.02585	−0.43104
12.171	1.48370	0.58084	−0.03348	0.02130	0.51062	−0.04517	−0.41502
12.436	1.52078	0.57438	−0.02877	0.01947	0.58648	−0.05177	−0.39211
12.700	1.55484	0.56566	−0.02492	0.01781	0.65413	−0.05275	−0.36450
12.965	1.58589	0.55501	−0.02177	0.01631	0.71384	−0.05106	−0.33320
13.229	1.61405	0.54277	−0.01916	0.01498	0.76622	−0.04819	−0.29970
13.494	1.63949	0.52929	−0.01699	0.01378	0.81188	−0.04483	−0.26549
13.759	1.66241	0.51486	−0.01519	0.01270	0.85151	−0.04134	−0.23148
14.023	1.68299	0.49975	−0.01367	0.01176	0.88585	−0.03796	−0.19892
14.288	1.70145	0.48421	−0.01239	0.01088	0.91554	−0.03470	−0.16874
14.552	1.71798	0.46841	−0.01129	0.01009	0.94115	−0.03166	−0.14135
14.817	1.73278	0.45254	−0.01039	0.00939	0.96326	−0.02888	−0.11752
15.082	1.74601	0.43673	−0.00958	0.00874	0.98232	−0.02632	−0.09699
15.346	1.75785	0.42109	−0.00886	0.00814	0.99875	−0.02397	−0.07941
15.611	1.76845	0.40573	−0.00824	0.00759	1.01295	−0.02187	−0.06484
15.875	1.77794	0.39070	−0.00768	0.00710	1.02520	−0.01994	−0.05278
16.140	1.78645	0.37607	−0.00718	0.00663	1.03581	−0.01822	−0.04283
16.404	1.79408	0.36186	−0.00673	0.00621	1.04501	−0.01666	−0.03467
16.934	1.80711	0.33484	−0.00591	0.00546	1.05998	−0.01393	−0.02228
17.463	1.81771	0.30976	−0.00521	0.00481	1.07133	−0.01175	−0.01445
17.992	1.82639	0.28661	−0.00462	0.00426	1.08014	−0.00993	−0.00915
18.521	1.83353	0.26535	−0.00410	0.00378	1.08698	−0.00846	−0.00595
19.050	1.83947	0.24586	−0.00365	0.00336	1.09237	−0.00724	−0.00393
19.580	1.84442	0.22803	−0.00327	0.00301	1.09665	−0.00623	−0.00266
20.109	1.84858	0.21173	−0.00293	0.00270	1.10009	−0.00538	−0.00189
20.638	1.85210	0.19683	−0.00264	0.00243	1.10287	−0.00467	−0.00144
21.167	1.85509	0.18320	−0.00237	0.00219	1.10515	−0.00404	−0.00142
22.225	1.85984	0.15933	−0.00190	0.00180	1.10860	−0.00313	−0.00125
23.284	1.86337	0.13928	−0.00152	0.00149	1.11101	−0.00243	−0.00139
24.342	1.86608	0.12235	−0.00122	0.00125	1.11273	−0.00187	−0.00152
25.401	1.86815	0.10801	−0.00099	0.00105	1.11401	−0.00150	−0.00160
26.459	1.86978	0.09579	−0.00082	0.00090	1.11498	−0.00121	−0.00156
27.517	1.87108	0.08531	−0.00070	0.00076	1.11572	−0.00095	−0.00144
28.576	1.87212	0.07630	−0.00059	0.00066	1.11629	−0.00079	−0.00130
29.634	1.87297	0.06850	−0.00050	0.00057	1.11675	−0.00065	−0.00116
30.692	1.87368	0.06172	−0.00043	0.00049	1.11712	−0.00054	−0.00105
31.751	1.87426	0.05580	−0.00037	0.00043	1.11742	−0.00045	−0.00094
37.042	1.87609	0.03523	−0.00019	0.00023	1.11837	−0.00019	−0.00043
42.334	1.87701	0.02364	−0.00012	0.00014	1.11878	−0.00010	−0.00014
47.626	1.87751	0.01662	−0.00008	0.00008	1.11902	−0.00006	−0.00002
50.272	1.87768	0.01414	−0.00006	0.00006	1.11910	−0.00004	−0.00001
51.859	1.87777	0.01288	−0.00006	0.00005	1.11914	−0.00004	0.00002

Table 40
Transition dipole moments between the $5^3\Sigma^+$ and $(1\text{-}7)^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Sigma^+,3\Pi}_{51}$	$\mu^{3\Sigma^+,3\Pi}_{52}$	$\mu^{3\Sigma^+,3\Pi}_{53}$	$\mu^{3\Sigma^+,3\Pi}_{54}$	$\mu^{3\Sigma^+,3\Pi}_{55}$	$\mu^{3\Sigma^+,3\Pi}_{56}$	$\mu^{3\Sigma^+,3\Pi}_{57}$
2.540	0.14564	−0.91284	1.75956	0.58012	0.84635	−4.82467	1.59983
2.646	0.14580	−1.13598	1.80446	0.55711	0.99679	−5.11268	1.65144
2.752	0.14298	−1.34503	1.84965	0.50928	1.21027	−5.32460	1.72530
2.858	0.13677	−1.52779	1.91240	0.44223	1.49137	−5.45512	1.87994
2.963	0.12721	−1.67502	2.00877	0.35977	1.84492	−5.50126	2.13431
3.069	0.11485	−1.77874	2.15168	0.26223	2.26655	−5.45414	2.48622
3.175	0.10120	−1.83346	2.34411	0.14842	2.73151	−5.30693	2.91406
3.281	0.08860	−1.84033	2.57349	0.02001	3.18547	−5.06869	3.37184
3.387	0.07970	−1.81275	2.81214	−0.11758	3.56089	−4.77599	3.79650
3.493	0.07643	−1.77313	3.02921	−0.25525	3.80942	−4.48687	4.13520
3.598	0.07889	−1.74290	3.20395	−0.38590	3.92359	−4.25162	4.36659
3.704	0.08614	−1.73520	3.32707	−0.50620	3.92428	−4.09755	4.49362
3.810	0.09704	−1.75560	3.39555	−0.61618	3.83846	−4.03235	4.52756
3.916	0.11064	−1.80550	3.40672	−0.71746	3.68725	−4.05516	4.47565
4.022	0.12634	−1.88481	3.35519	−0.81431	3.47965	−4.16188	4.33812
4.128	0.14351	−1.99189	3.22951	−0.91197	3.21288	−4.34639	4.10482
4.233	0.16106	−2.12032	3.01026	−1.01521	2.87221	−4.59410	3.75561
4.339	0.17655	−2.25119	2.67174	−1.12518	2.43631	−4.86500	3.26726
4.445	0.18509	−2.34286	2.19711	−1.23375	1.89820	−5.07133	2.63862
4.551	0.18024	−2.33779	1.61101	−1.32694	1.29827	−5.09165	1.93912
4.657	0.15802	−2.20740	0.98645	−1.38295	0.73083	−4.86636	1.29987
4.763	0.12020	−1.98877	0.39151	−1.37833	0.27167	−4.47801	0.82253
4.868	0.07024	−1.75156	−0.13726	−1.28255	−0.07646	−4.07384	0.51911
4.974	0.00801	−1.54486	−0.54994	−1.09932	−0.35445	−3.75397	0.35845
5.080	−0.07148	−1.38502	−0.82447	−0.89023	−0.61011	−3.54682	0.31259
5.186	−0.17577	−1.26823	−0.99686	−0.70517	−0.88004	−3.43485	0.35916
5.292	−0.31092	−1.18176	−1.10645	−0.55583	−1.18297	−3.37878	0.46915
5.398	−0.47760	−1.11120	−1.17233	−0.44353	−1.51858	−3.33479	0.62858
5.503	−0.67111	−1.04626	−1.20244	−0.37050	−1.87393	−3.27081	0.83479
5.609	−0.88576	−0.98294	−1.20208	−0.33768	−2.23501	−3.17236	1.09028
5.715	−1.11783	−0.92162	−1.17540	−0.34248	−2.59216	−3.03301	1.40418
5.821	−1.36416	−0.86426	−1.12502	−0.37991	−2.93653	−2.82553	1.81167
5.927	−1.61890	−0.81283	−1.05265	−0.44330	−3.25507	−1.81798	2.88848
6.033	−1.87149	−0.76890	−0.96056	−0.52522	−3.52914	2.14791	2.79005
6.138	−2.10817	−0.73358	−0.85354	−0.61729	−3.73938	2.68322	2.51613
6.244	−2.31642	−0.70764	−0.73819	−0.71132	−3.87330	3.10511	2.31079
6.350	−2.48909	−0.69141	−0.62161	−0.80056	−3.93024	3.47028	2.14355
6.456	−2.62538	−0.68491	−0.50976	−0.88000	−3.92002	3.77994	2.02042
6.562	−2.72885	−0.68776	−0.40645	−0.94720	−3.85792	4.03210	1.95365
6.668	−2.80483	−0.69938	−0.31373	−1.00112	−3.75974	4.22509	1.95818
6.773	−2.85867	−0.71915	−0.23246	−1.04167	−3.63920	4.35587	2.05037
6.879	−2.89496	−0.74640	−0.16279	−1.06951	−3.50697	4.41826	2.24089
6.985	−2.91734	−0.78045	−0.10446	−1.08538	−3.37103	4.40116	2.52812
7.091	−2.92864	−0.82060	−0.05693	−1.09012	−3.23704	4.29003	2.89926
7.197	−2.93103	−0.86606	−0.01948	−1.08456	−3.10888	4.07436	3.33013
7.303	−2.92625	−0.91598	0.00881	−1.06950	−2.98926	3.76187	3.77801
7.408	−2.91575	−0.96939	0.02898	−1.04577	−2.87993	3.38797	4.19166
7.514	−2.90082	−1.02523	0.04214	−1.01425	−2.78201	3.00238	4.53611
7.620	−2.88258	−1.08230	0.04949	−0.97579	−2.69635	2.64431	4.80452
7.726	−2.86219	−1.13953	0.05219	−0.93136	−2.62323	2.33217	5.00857
7.832	−2.84067	−1.19580	0.05129	−0.88202	−2.56298	2.06809	5.16465
7.938	−2.81895	−1.25007	0.04779	−0.82883	−2.51558	1.84685	5.28670
8.043	−2.79783	−1.30143	0.04254	−0.77290	−2.48086	1.66143	5.38459
8.149	−2.77798	−1.34915	0.03626	−0.71533	−2.45852	1.50524	5.46477
8.255	−2.75985	−1.39267	0.02941	−0.65716	−2.44809	1.37281	5.53130
8.361	−2.74379	−1.43165	0.02241	−0.59938	−2.44910	1.25989	5.58655
8.467	−2.72993	−1.46586	0.01554	−0.54286	−2.46105	1.16291	5.63177
8.573	−2.71830	−1.49527	0.00899	−0.48836	−2.48342	1.07934	5.66785
8.679	−2.70882	−1.51995	0.00288	−0.43649	−2.51574	1.00706	5.69532
8.784	−2.70136	−1.54010	−0.00277	−0.38772	−2.55766	0.94442	5.71435
8.890	−2.69571	−1.55597	−0.00790	−0.34236	−2.60890	0.89010	5.72512
8.996	−2.69168	−1.56786	−0.01250	−0.30061	−2.66925	0.84292	5.72793
9.102	−2.68906	−1.57610	−0.01659	−0.26251	−2.73863	0.80197	5.72278
9.208	−2.68764	−1.58104	−0.02015	−0.22801	−2.81699	0.76646	5.70967
9.314	−2.68723	−1.58298	−0.02327	−0.19702	−2.90439	0.73559	5.68849
9.419	−2.68766	−1.58224	−0.02594	−0.16933	−3.00086	0.70864	5.65907
9.525	−2.68878	−1.57911	−0.02819	−0.14472	−3.10646	0.68472	5.62114
9.631	−2.69048	−1.57384	−0.03004	−0.12295	−3.22126	0.66260	5.57439
9.737	−2.69259	−1.56669	−0.03156	−0.10372	−3.34523	0.64039	5.51835
9.843	−2.69502	−1.55787	−0.03275	−0.08684	−3.47828	0.61412	5.45281
9.949	−2.69770	−1.54757	−0.03366	−0.07205	−3.62014	0.57423	5.37799
10.054	−2.70058	−1.53593	−0.03433	−0.05909	−3.77049	0.48988	5.29581
10.160	−2.70359	−1.52317	−0.03476	−0.04779	−3.92846	0.17987	5.21293
10.266	−2.70666	−1.50936	−0.03498	−0.03797	−4.09329	−4.35046	2.66349
10.372	−2.70978	−1.49465	−0.03503	−0.02943	−4.26361	−4.81613	1.23839

(*continued on next page*)

Table 40 (*continued*)

R	$\mu_{51}^{^3\Sigma^+{}^3\Pi}$	$\mu_{52}^{^3\Sigma^+{}^3\Pi}$	$\mu_{53}^{^3\Sigma^+{}^3\Pi}$	$\mu_{54}^{^3\Sigma^+{}^3\Pi}$	$\mu_{55}^{^3\Sigma^+{}^3\Pi}$	$\mu_{56}^{^3\Sigma^+{}^3\Pi}$	$\mu_{57}^{^3\Sigma^+{}^3\Pi}$
10.478	−2.71292	−1.47916	−0.03494	−0.02201	−4.43784	−4.70362	1.10329
10.584	−2.71607	−1.46299	−0.03473	−0.01558	−4.61398	−4.54701	1.09379
10.848	−2.72388	−1.42017	−0.03379	−0.00307	−5.04810	−4.04616	1.26604
11.113	−2.73158	−1.37489	−0.03249	0.00549	−5.44529	−3.34317	1.70453
11.377	−2.73919	−1.32813	−0.03100	0.01118	−5.77952	−2.27234	2.32846
11.642	−2.74682	−1.28067	−0.02946	0.01486	−6.04188	−1.26406	2.47383
11.906	−2.75455	−1.23309	−0.02797	0.01714	−6.23825	−0.74640	2.22756
12.171	−2.76243	−1.18585	−0.02654	0.01837	−6.38172	−0.49304	1.91329
12.436	−2.77047	−1.13931	−0.02524	0.01886	−6.48574	−0.35327	1.61837
12.700	−2.77865	−1.09372	−0.02405	0.01885	−6.56151	−0.26764	1.35976
12.965	−2.78693	−1.04924	−0.02296	0.01848	−6.61733	−0.21094	1.13761
13.229	−2.79528	−1.00608	−0.02198	0.01789	−6.65904	−0.17120	0.94831
13.494	−2.80361	−0.96430	−0.02109	0.01716	−6.69072	−0.14201	0.78796
13.759	−2.81187	−0.92396	−0.02027	0.01635	−6.71526	−0.11983	0.65269
14.023	−2.81999	−0.88509	−0.01954	0.01550	−6.73452	−0.10249	0.53945
14.288	−2.82793	−0.84772	−0.01884	0.01464	−6.74993	−0.08860	0.44546
14.552	−2.83563	−0.81184	−0.01820	0.01378	−6.76243	−0.07730	0.36805
14.817	−2.84307	−0.77745	−0.01760	0.01294	−6.77274	−0.06788	0.30484
15.082	−2.85021	−0.74452	−0.01702	0.01214	−6.78138	−0.06000	0.25344
15.346	−2.85703	−0.71303	−0.01646	0.01139	−6.78871	−0.05331	0.21170
15.611	−2.86352	−0.68293	−0.01591	0.01067	−6.79503	−0.04757	0.17799
15.875	−2.86967	−0.65420	−0.01537	0.00998	−6.80052	−0.04262	0.15074
16.140	−2.87549	−0.62679	−0.01483	0.00936	−6.80537	−0.03831	0.12856
16.404	−2.88098	−0.60065	−0.01430	0.00877	−6.80968	−0.03453	0.11045
16.934	−2.89102	−0.55201	−0.01332	0.00775	−6.81689	−0.02825	0.08358
17.463	−2.89981	−0.50787	−0.01231	0.00682	−6.82300	−0.02337	0.06488
17.992	−2.90750	−0.46783	−0.01136	0.00601	−6.82824	−0.01951	0.05156
18.521	−2.91421	−0.43154	−0.01047	0.00533	−6.83272	−0.01639	0.04208
19.050	−2.92008	−0.39864	−0.00964	0.00474	−6.83657	−0.01383	0.03511
19.580	−2.92518	−0.36879	−0.00888	0.00423	−6.84005	−0.01175	0.02976
20.109	−2.92964	−0.34169	−0.00816	0.00378	−6.84315	−0.01004	0.02556
20.638	−2.93354	−0.31705	−0.00751	0.00339	−6.84595	−0.00863	0.02219
21.167	−2.93698	−0.29461	−0.00691	0.00303	−6.84841	−0.00767	0.01979
22.225	−2.94264	−0.25554	−0.00584	0.00248	−6.85279	−0.00595	0.01569
23.284	−2.94705	−0.22293	−0.00495	0.00205	−6.85647	−0.00443	0.01272
24.342	−2.95055	−0.19553	−0.00419	0.00171	−6.85973	−0.00338	0.01061
25.401	−2.95335	−0.17237	−0.00359	0.00143	−6.86231	−0.00267	0.00891
26.459	−2.95561	−0.15270	−0.00309	0.00121	−6.86452	−0.00215	0.00759
27.517	−2.95746	−0.13588	−0.00267	0.00103	−6.86641	−0.00174	0.00654
28.576	−2.95899	−0.12142	−0.00233	0.00088	−6.86804	−0.00142	0.00568
29.634	−2.96026	−0.10893	−0.00203	0.00076	−6.86944	−0.00118	0.00497
30.692	−2.96133	−0.09809	−0.00178	0.00066	−6.87067	−0.00099	0.00438
31.751	−2.96224	−0.08864	−0.00157	0.00058	−6.87174	−0.00083	0.00387
37.042	−2.96518	−0.05587	−0.00088	0.00031	−6.87547	−0.00040	0.00224
42.334	−2.96670	−0.03745	−0.00052	0.00018	−6.87758	−0.00023	0.00133
47.626	−2.96757	−0.02630	−0.00033	0.00011	−6.87886	−0.00014	0.00082
50.272	−2.96787	−0.02237	−0.00026	0.00009	−6.87931	−0.00012	0.00065
51.859	−2.96802	−0.02037	−0.00023	0.00008	−6.87954	−0.00010	0.00057

Table 41
Transition dipole moments between the $6^3\Sigma^+$ and $(1\text{-}7)^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Sigma^+,3\Pi}_{61}$	$\mu^{3\Sigma^+,3\Pi}_{62}$	$\mu^{3\Sigma^+,3\Pi}_{63}$	$\mu^{3\Sigma^+,3\Pi}_{64}$	$\mu^{3\Sigma^+,3\Pi}_{65}$	$\mu^{3\Sigma^+,3\Pi}_{66}$	$\mu^{3\Sigma^+,3\Pi}_{67}$
2.540	0.37015	0.01242	−0.32553	−0.02476	−0.22628	−1.59594	−4.89716
2.646	0.33567	0.04966	−0.32758	−0.01308	−0.26096	−1.63037	−5.34884
2.752	0.31745	0.02956	−0.36404	0.01967	−0.62659	−1.72177	−5.76194
2.858	0.32644	−0.09720	−0.49810	0.09183	−1.58316	−1.94536	−6.10466
2.963	0.35642	−0.36743	−0.78349	0.21716	−3.15161	−2.32026	−6.23149
3.069	0.36889	−0.70013	−1.11382	0.35559	−4.47298	−2.75743	−5.99752
3.175	0.35528	−1.00558	−1.35300	0.46227	−5.00989	−3.22397	−5.61680
3.281	0.33223	−1.27950	−1.48585	0.53280	−5.01167	−3.71060	−5.22759
3.387	0.30878	−1.52137	−1.54165	0.56970	−4.75311	−4.16423	−4.85472
3.493	0.28762	−1.72125	−1.55996	0.57772	−4.40733	−4.53278	−4.52455
3.598	0.26911	−1.87308	−1.57674	0.56338	−4.07496	−4.79339	−4.26518
3.704	0.25269	−1.97729	−1.61504	0.53368	−3.80440	−4.94791	−4.09111
3.810	0.23741	−2.03622	−1.68652	0.49484	−3.61218	−5.00521	−4.00350
3.916	0.22207	−2.05018	−1.79770	0.45456	−3.50063	−4.96925	−3.99818
4.022	0.20528	−2.01484	−1.95306	0.42092	−3.46808	−4.83293	−4.07113
4.128	0.18522	−1.91972	−2.15674	0.40535	−3.51275	−4.57519	−4.21889
4.233	0.15958	−1.74720	−2.40972	0.42399	−3.63080	−4.15936	−4.43510
4.339	0.12580	−1.47558	−2.69980	0.49906	−3.80828	−3.53969	−4.69874
4.445	0.08234	−1.09373	−2.98417	0.65695	−4.00748	−2.69148	−4.95541
4.551	0.03143	−0.62786	−3.18163	0.91757	−4.16867	−1.67099	−5.12290
4.657	−0.02118	−0.14448	−3.20338	1.29096	−4.24565	−0.61793	−5.13348
4.763	−0.07016	0.29605	−2.98803	1.76882	−4.24065	0.33990	−4.96891
4.868	−0.11389	0.67316	−2.52005	2.27307	−4.18317	1.16174	−4.61969
4.974	−0.15311	0.99293	−1.90923	2.62861	−4.09800	1.86267	−3.98081
5.080	−0.18905	1.26715	−1.34645	2.74798	−3.99623	2.46844	−2.77292
5.186	−0.22265	1.50419	−0.90840	2.69495	−3.88247	2.99867	−1.33433
5.292	−0.25443	1.70814	−0.57537	2.54924	−3.75912	3.46237	−0.45055
5.398	−0.28478	1.88039	−0.31441	2.36007	−3.62816	3.86308	0.01155
5.503	−0.31398	2.02190	−0.10300	2.15513	−3.49283	4.20218	0.27332
5.609	−0.34243	2.13415	0.07181	1.95091	−3.35689	4.48262	0.43117
5.715	−0.37063	2.21970	0.21733	1.75680	−3.22390	4.71029	0.51536
5.821	−0.39925	2.28194	0.33764	1.57870	−3.09683	4.89850	0.47945
5.927	−0.42894	2.32451	0.43566	1.41835	−2.97790	4.95220	−1.04221
6.033	−0.46038	2.35091	0.51349	1.27573	−2.86859	1.43704	−4.95801
6.138	−0.49424	2.36391	0.57297	1.14906	−2.76937	1.30057	−5.06626
6.244	−0.53119	2.36580	0.61596	1.03636	−2.68065	1.32904	−5.09988
6.350	−0.57178	2.35798	0.64437	0.93545	−2.60278	1.40022	−5.09286
6.456	−0.61661	2.34110	0.65988	0.84390	−2.53546	1.49428	−5.04473
6.562	−0.66605	2.31495	0.66427	0.75998	−2.47889	1.60754	−4.94218
6.668	−0.72035	2.27844	0.65897	0.68222	−2.43278	1.74081	−4.75729
6.773	−0.77943	2.22962	0.64511	0.60975	−2.39662	1.89629	−4.44627
6.879	−0.84275	2.16558	0.62351	0.54219	−2.36941	2.07537	−3.97329
6.985	−0.90904	2.08247	0.59461	0.47976	−2.34924	2.27478	−3.35402
7.091	−0.97597	1.97607	0.55853	0.42312	−2.33277	2.48122	−2.65795
7.197	−1.03986	1.84299	0.51566	0.37322	−2.31486	2.66653	−1.94567
7.303	−1.09596	1.68314	0.46699	0.33088	−2.28894	2.79387	−1.25040
7.408	−1.13963	1.50262	0.41472	0.29655	−2.24873	2.83469	−0.60550
7.514	−1.16825	1.31443	0.36223	0.26985	−2.19144	2.78894	−0.04954
7.620	−1.18249	1.13480	0.31301	0.24968	−2.11931	2.68236	0.39132
7.726	−1.18558	0.97725	0.26969	0.23456	−2.03816	2.54815	0.71367
7.832	−1.18144	0.84900	0.23306	0.22287	−1.95447	2.41258	0.92994
7.938	−1.17332	0.75147	0.20273	0.21325	−1.87298	2.29156	1.05933
8.043	−1.16336	0.68247	0.17770	0.20466	−1.79627	2.19226	1.12095
8.149	−1.15286	0.63832	0.15683	0.19635	−1.72530	2.11690	1.13084
8.255	−1.14256	0.61507	0.13915	0.18770	−1.66017	2.06511	1.10206
8.361	−1.13287	0.60907	0.12393	0.17838	−1.60048	2.03547	1.04420
8.467	−1.12416	0.61704	0.11044	0.16823	−1.54548	2.02654	0.96576
8.573	−1.11661	0.63625	0.09833	0.15718	−1.49462	2.03655	0.87255
8.679	−1.11040	0.66437	0.08729	0.14533	−1.44731	2.06399	0.76944
8.784	−1.10564	0.69942	0.07709	0.13285	−1.40291	2.10737	0.66006
8.890	−1.10230	0.73983	0.06773	0.11996	−1.36119	2.16564	0.54799
8.996	−1.10038	0.78423	0.05904	0.10692	−1.32167	2.23762	0.43524
9.102	−1.09977	0.83154	0.05095	0.09400	−1.28399	2.32226	0.32349
9.208	−1.10032	0.88087	0.04343	0.08146	−1.24784	2.41860	0.21405
9.314	−1.10189	0.93150	0.03648	0.06952	−1.21295	2.52574	0.10747
9.419	−1.10424	0.98286	0.03007	0.05835	−1.17907	2.64278	0.00439
9.525	−1.10719	1.03452	0.02419	0.04808	−1.14600	2.76883	−0.09481
9.631	−1.11050	1.08610	0.01881	0.03877	−1.11353	2.90304	−0.18984
9.737	−1.11400	1.13734	0.01392	0.03044	−1.08146	3.04446	−0.27966
9.843	−1.11752	1.18801	0.00951	0.02318	−1.04963	3.19245	−0.36228
9.949	−1.12088	1.23796	0.00554	0.01695	−1.01781	3.34684	−0.43145
10.054	−1.12395	1.28704	0.00198	0.01154	−0.98599	3.50950	−0.46554
10.160	−1.12662	1.33517	−0.00117	0.00712	−0.95373	3.69402	0.33025
10.266	−1.12878	1.38227	−0.00395	0.00346	−0.92107	2.24316	3.16357
10.372	−1.13036	1.42830	−0.00639	0.00057	−0.88787	1.31092	3.82849

(*continued on next page*)

Table 41 (*continued*)

R	$\mu_{61}^{^3\Sigma^+{}^3\Pi}$	$\mu_{62}^{^3\Sigma^+{}^3\Pi}$	$\mu_{63}^{^3\Sigma^+{}^3\Pi}$	$\mu_{64}^{^3\Sigma^+{}^3\Pi}$	$\mu_{65}^{^3\Sigma^+{}^3\Pi}$	$\mu_{66}^{^3\Sigma^+{}^3\Pi}$	$\mu_{67}^{^3\Sigma^+{}^3\Pi}$
10.478	−1.13132	1.47321	−0.00852	−0.00172	−0.85394	1.31641	4.00199
10.584	−1.13162	1.51700	−0.01038	−0.00345	−0.81928	1.42308	4.13733
10.848	−1.12930	1.62146	−0.01393	−0.00583	−0.72970	1.91022	4.35481
11.113	−1.12255	1.71876	−0.01621	−0.00608	−0.63802	2.83728	4.22330
11.377	−1.11150	1.80904	−0.01755	−0.00499	−0.54870	4.28334	3.23405
11.642	−1.09649	1.89244	−0.01817	−0.00311	−0.46630	5.27201	1.87609
11.906	−1.07788	1.96917	−0.01827	−0.00089	−0.39380	5.67685	1.09270
12.171	−1.05620	2.03955	−0.01800	0.00147	−0.33207	5.88987	0.69173
12.436	−1.03188	2.10385	−0.01747	0.00373	−0.28058	6.03291	0.46728
12.700	−1.00545	2.16240	−0.01679	0.00587	−0.23808	6.14022	0.33068
12.965	−0.97737	2.21554	−0.01597	0.00780	−0.20310	6.22469	0.24237
13.229	−0.94805	2.26370	−0.01512	0.00947	−0.17428	6.29297	0.18262
13.494	−0.91790	2.30723	−0.01424	0.01094	−0.15042	6.34910	0.14077
13.759	−0.88726	2.34650	−0.01336	0.01217	−0.13060	6.39568	0.11076
14.023	−0.85645	2.38187	−0.01250	0.01315	−0.11399	6.43483	0.08871
14.288	−0.82573	2.41371	−0.01167	0.01394	−0.10001	6.46781	0.07213
14.552	−0.79531	2.44235	−0.01088	0.01455	−0.08816	6.49578	0.05956
14.817	−0.76538	2.46809	−0.01014	0.01494	−0.07805	6.51981	0.04974
15.082	−0.73608	2.49124	−0.00945	0.01524	−0.06939	6.54033	0.04190
15.346	−0.70753	2.51206	−0.00880	0.01541	−0.06191	6.55803	0.03555
15.611	−0.67980	2.53080	−0.00821	0.01547	−0.05543	6.57339	0.03029
15.875	−0.65298	2.54768	−0.00765	0.01540	−0.04978	6.58666	0.02601
16.140	−0.62709	2.56289	−0.00713	0.01528	−0.04484	6.59836	0.02231
16.404	−0.60215	2.57661	−0.00665	0.01509	−0.04049	6.60866	0.01915
16.934	−0.55518	2.60021	−0.00581	0.01452	−0.03327	6.62610	0.01400
17.463	−0.51203	2.61958	−0.00509	0.01382	−0.02757	6.63981	0.01024
17.992	−0.47255	2.63558	−0.00448	0.01306	−0.02303	6.65070	0.00745
18.521	−0.43651	2.64885	−0.00396	0.01225	−0.01937	6.65984	0.00541
19.050	−0.40366	2.65992	−0.00351	0.01142	−0.01640	6.66748	0.00390
19.580	−0.37375	2.66922	−0.00313	0.01062	−0.01397	6.67390	0.00281
20.109	−0.34651	2.67708	−0.00279	0.00984	−0.01196	6.67943	0.00200
20.638	−0.32169	2.68375	−0.00250	0.00911	−0.01029	6.68419	0.00142
21.167	−0.29902	2.68940	−0.00230	0.00820	−0.00899	6.69051	0.00125
22.225	−0.25952	2.69851	−0.00188	0.00708	−0.00684	6.69695	0.00070
23.284	−0.22646	2.70529	−0.00153	0.00596	−0.00528	6.70314	0.00022
24.342	−0.19872	2.71051	−0.00126	0.00521	−0.00405	6.70668	0.00009
25.401	−0.17520	2.71464	−0.00105	0.00450	−0.00325	6.70909	0.00002
26.459	−0.15522	2.71785	−0.00089	0.00385	−0.00262	6.71212	−0.00006
27.517	−0.13811	2.72027	−0.00076	0.00276	−0.00216	6.71638	−0.00012
28.576	−0.12344	2.72248	−0.00065	0.00274	−0.00176	6.71688	−0.00009
29.634	−0.11075	2.72420	−0.00056	0.00242	−0.00146	6.71857	−0.00008
30.692	−0.09973	2.72562	−0.00049	0.00210	−0.00123	6.71999	−0.00007
31.751	−0.09013	2.72680	−0.00042	0.00181	−0.00104	6.72132	−0.00006
37.042	−0.05682	2.73044	−0.00023	0.00018	−0.00051	6.72677	−0.00003
42.334	−0.03808	2.73235	−0.00013	−0.00028	−0.00029	6.72872	−0.00001
47.626	−0.02675	2.73338	−0.00008	−0.00141	−0.00018	6.73024	−0.00001
50.272	−0.02275	2.73376	−0.00007	−0.00137	−0.00015	6.73051	−0.00001
51.859	−0.02072	2.73395	−0.00006	−0.00134	−0.00013	6.73062	−0.00001

Table 42
Transition dipole moments between the $7^3\Sigma^+$ and $(1\text{-}7)^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Sigma^+,3\Pi}_{71}$	$\mu^{3\Sigma^+,3\Pi}_{72}$	$\mu^{3\Sigma^+,3\Pi}_{73}$	$\mu^{3\Sigma^+,3\Pi}_{74}$	$\mu^{3\Sigma^+,3\Pi}_{75}$	$\mu^{3\Sigma^+,3\Pi}_{76}$	$\mu^{3\Sigma^+,3\Pi}_{77}$
2.540	−0.58767	0.49106	0.37197	0.26481	7.68783	0.51820	1.22154
2.646	−0.55406	0.57558	0.54831	0.28517	7.96637	0.69437	1.54938
2.752	−0.50908	0.68094	0.75340	0.32390	8.19425	0.80160	1.53514
2.858	−0.44560	0.79452	0.95573	0.37167	8.25271	0.78355	0.96208
2.963	−0.36134	0.86148	1.08514	0.40072	7.89287	0.55485	−0.22316
3.069	−0.28881	0.84224	1.12926	0.39952	7.21944	0.22716	−1.36158
3.175	−0.25597	0.78917	1.17507	0.39866	6.73096	−0.00297	−1.93726
3.281	−0.25120	0.73764	1.25144	0.41347	6.51379	−0.12535	−2.09704
3.387	−0.25991	0.69170	1.34646	0.44215	6.46163	−0.18344	−2.03755
3.493	−0.27418	0.64958	1.44695	0.48103	6.49167	−0.20564	−1.86689
3.598	−0.29025	0.60973	1.54466	0.52524	6.55739	−0.21039	−1.64280
3.704	−0.30628	0.57081	1.63446	0.56918	6.63442	−0.21061	−1.39872
3.810	−0.32128	0.53099	1.71284	0.60663	6.70963	−0.21763	−1.15573
3.916	−0.33434	0.48684	1.77754	0.63201	6.77619	−0.24597	−0.92923
4.022	−0.34432	0.42961	1.82620	0.63891	6.82588	−0.32413	−0.73081
4.128	−0.34688	0.32872	1.85399	0.61070	6.82811	−0.54210	−0.57123
4.233	−0.30607	−0.01333	1.79341	0.42473	6.42175	−1.43304	−0.46607
4.339	−0.02787	−1.08864	0.89302	0.30888	2.60800	−3.69085	−0.37401
4.445	0.08335	−1.52368	0.47741	0.44366	1.04887	−4.25578	−0.46746
4.551	0.13267	−1.85027	0.28870	0.40780	0.48917	−4.72595	−0.67269
4.657	0.16674	−2.14202	0.10350	0.34291	0.09112	−5.19175	−0.95167
4.763	0.18943	−2.36547	−0.10555	0.31064	−0.27682	−5.55988	−1.26486
4.868	0.20081	−2.49839	−0.31100	0.36479	−0.63292	−5.77013	−1.54463
4.974	0.20250	−2.54708	−0.47270	0.50696	−0.96964	−5.82593	−1.66230
5.080	0.19670	−2.53072	−0.58454	0.68380	−1.28372	−5.76037	−1.35919
5.186	0.18530	−2.46839	−0.66220	0.84649	−1.57310	−5.60677	−0.67298
5.292	0.16972	−2.37542	−0.71715	0.97353	−1.83503	−5.39343	−0.11178
5.398	0.15101	−2.26428	−0.75482	1.05875	−2.06489	−5.14215	0.27565
5.503	0.13010	−2.14560	−0.77807	1.10217	−2.25793	−4.87141	0.57837
5.609	0.10777	−2.02799	−0.78911	1.10771	−2.41017	−4.59505	0.84641
5.715	0.08463	−1.91811	−0.79010	1.08196	−2.51910	−4.31957	1.11094
5.821	0.06114	−1.82048	−0.78284	1.03258	−2.58437	−4.03088	1.43288
5.927	0.03762	−1.73792	−0.76929	0.96682	−2.60685	−3.09518	2.73351
6.033	0.01444	−1.67187	−0.75078	0.89144	−2.58892	1.22331	3.82499
6.138	−0.00799	−1.62269	−0.72833	0.81165	−2.53369	1.58215	3.60028
6.244	−0.02907	−1.59031	−0.70302	0.73170	−2.44507	1.79170	3.43670
6.350	−0.04795	−1.57437	−0.67609	0.65498	−2.32732	1.94938	3.30651
6.456	−0.06342	−1.57446	−0.64836	0.58338	−2.18514	2.06666	3.20489
6.562	−0.07391	−1.59035	−0.62127	0.51882	−2.02285	2.14314	3.12907
6.668	−0.07740	−1.62208	−0.59606	0.46234	−1.84438	2.17336	3.07629
6.773	−0.07135	−1.67002	−0.57403	0.41418	−1.65243	2.14905	3.04143
6.879	−0.05272	−1.73470	−0.55633	0.37474	−1.44869	2.05804	3.02207
6.985	−0.01799	−1.81643	−0.54369	0.34380	−1.23326	1.88500	3.02697
7.091	0.03645	−1.91439	−0.53631	0.32111	−1.00573	1.61406	3.07038
7.197	0.11342	−2.02521	−0.53344	0.30640	−0.76671	1.23892	3.14264
7.303	0.21346	−2.14170	−0.53307	0.29956	−0.52027	0.77695	3.20290
7.408	0.33306	−2.25313	−0.53214	0.30026	−0.27567	0.27539	3.20824
7.514	0.46455	−2.34827	−0.52744	0.30781	−0.04652	−0.20749	3.14290
7.620	0.59831	−2.41996	−0.51685	0.32075	0.15439	−0.62960	3.02153
7.726	0.72615	−2.46705	−0.49988	0.33721	0.31913	−0.97503	2.87064
7.832	0.84301	−2.49313	−0.47736	0.35492	0.44675	−1.24838	2.71351
7.938	0.94680	−2.50344	−0.45067	0.37182	0.54075	−1.46257	2.56399
8.043	1.03727	−2.50292	−0.42122	0.38629	0.60642	−1.63156	2.42803
8.149	1.11503	−2.49537	−0.39028	0.39724	0.64913	−1.76706	2.30709
8.255	1.18103	−2.48354	−0.35881	0.40400	0.67350	−1.87819	2.19966
8.361	1.23632	−2.46924	−0.32762	0.40628	0.68338	−1.97122	2.10500
8.467	1.28185	−2.45369	−0.29737	0.40418	0.68182	−2.05102	2.01963
8.573	1.31860	−2.43762	−0.26852	0.39797	0.67123	−2.12079	1.94256
8.679	1.34745	−2.42151	−0.24142	0.38805	0.65355	−2.18286	1.87224
8.784	1.36923	−2.40561	−0.21625	0.37493	0.63040	−2.23897	1.80760
8.890	1.38469	−2.39003	−0.19314	0.35913	0.60309	−2.29038	1.74758
8.996	1.39456	−2.37483	−0.17214	0.34122	0.57266	−2.33795	1.69144
9.102	1.39948	−2.35999	−0.15322	0.32175	0.54004	−2.38240	1.63858
9.208	1.40007	−2.34546	−0.13633	0.30127	0.50595	−2.42433	1.58836
9.314	1.39684	−2.33121	−0.12128	0.28013	0.47107	−2.46404	1.54090
9.419	1.39030	−2.31718	−0.10798	0.25878	0.43587	−2.50191	1.49564
9.525	1.38089	−2.30331	−0.09628	0.23759	0.40074	−2.53821	1.45226
9.631	1.36906	−2.28958	−0.08604	0.21675	0.36595	−2.57314	1.41035
9.737	1.35511	−2.27593	−0.07710	0.19651	0.33178	−2.60718	1.36892
9.843	1.33937	−2.26235	−0.06927	0.17731	0.29843	−2.64088	1.32631
9.949	1.32214	−2.24882	−0.06244	0.15930	0.26600	−2.67597	1.27748
10.054	1.30366	−2.23531	−0.05659	0.14204	0.23439	−2.71971	1.20652
10.160	1.28418	−2.22185	−0.05141	0.12630	0.20406	−2.80603	1.01351
10.266	1.26390	−2.20844	−0.04691	0.11152	0.17482	−2.24402	−1.97570
10.372	1.24299	−2.19509	−0.04300	0.09784	0.14683	−1.53736	−2.56884

(*continued on next page*)

Table 42 (*continued*)

R	$\mu_{71}^{^3\Sigma^+{}^3\Pi}$	$\mu_{72}^{^3\Sigma^+{}^3\Pi}$	$\mu_{73}^{^3\Sigma^+{}^3\Pi}$	$\mu_{74}^{^3\Sigma^+{}^3\Pi}$	$\mu_{75}^{^3\Sigma^+{}^3\Pi}$	$\mu_{76}^{^3\Sigma^+{}^3\Pi}$	$\mu_{77}^{^3\Sigma^+{}^3\Pi}$
10.478	1.22157	−2.18179	−0.03958	0.08539	0.12004	−1.45333	−2.61838
10.584	1.19980	−2.16855	−0.03659	0.07406	0.09462	−1.43915	−2.62332
10.848	1.14452	−2.13582	−0.03065	0.05015	0.03779	−1.53982	−2.53803
11.113	1.08908	−2.10382	−0.02627	0.03211	−0.00813	−1.86720	−2.24458
11.377	1.03451	−2.07280	−0.02297	0.01874	−0.04205	−2.40295	−1.52989
11.642	0.98147	−2.04306	−0.02044	0.00909	−0.06452	−2.65509	−0.76082
11.906	0.93047	−2.01485	−0.01846	0.00237	−0.07745	−2.64065	−0.37209
12.171	0.88181	−1.98846	−0.01682	−0.00219	−0.08314	−2.56063	−0.19527
12.436	0.83568	−1.96403	−0.01543	−0.00503	−0.08390	−2.46846	−0.10738
12.700	0.79214	−1.94171	−0.01426	−0.00663	−0.08152	−2.37704	−0.05988
12.965	0.75118	−1.92156	−0.01319	−0.00730	−0.07728	−2.29051	−0.03268
13.229	0.71276	−1.90353	−0.01224	−0.00737	−0.07212	−2.21078	−0.01641
13.494	0.67676	−1.88759	−0.01139	−0.00683	−0.06656	−2.13799	−0.00660
13.759	0.64304	−1.87364	−0.01059	−0.00604	−0.06097	−2.07242	−0.00046
14.023	0.61147	−1.86154	−0.00987	−0.00502	−0.05556	−2.01388	0.00332
14.288	0.58190	−1.85115	−0.00920	−0.00397	−0.05045	−1.96181	0.00556
14.552	0.55418	−1.84231	−0.00857	−0.00290	−0.04570	−1.91579	0.00687
14.817	0.52818	−1.83486	−0.00799	−0.00184	−0.04136	−1.87529	0.00752
15.082	0.50377	−1.82863	−0.00745	−0.00087	−0.03741	−1.83970	0.00779
15.346	0.48082	−1.82348	−0.00695	0.00000	−0.03383	−1.80852	0.00780
15.611	0.45923	−1.81926	−0.00649	0.00077	−0.03060	−1.78122	0.00766
15.875	0.43890	−1.81584	−0.00609	0.00150	−0.02772	−1.75734	0.00746
16.140	0.41971	−1.81310	−0.00569	0.00204	−0.02511	−1.73647	0.00722
16.404	0.40159	−1.81094	−0.00532	0.00248	−0.02277	−1.71821	0.00696
16.934	0.36827	−1.80798	−0.00467	0.00308	−0.01878	−1.68821	0.00646
17.463	0.33840	−1.80638	−0.00410	0.00340	−0.01555	−1.66519	0.00590
17.992	0.31156	−1.80569	−0.00362	0.00362	−0.01294	−1.64748	0.00535
18.521	0.28738	−1.80561	−0.00320	0.00378	−0.01082	−1.63369	0.00488
19.050	0.26553	−1.80592	−0.00284	0.00391	−0.00908	−1.62293	0.00444
19.580	0.24578	−1.80648	−0.00253	0.00401	−0.00766	−1.61460	0.00408
20.109	0.22786	−1.80720	−0.00226	0.00398	−0.00649	−1.60796	0.00372
20.638	0.21159	−1.80799	−0.00203	0.00382	−0.00551	−1.60270	0.00340
21.167	0.19680	−1.80886	−0.00183	0.00350	−0.00472	−1.59801	0.00303
22.225	0.17099	−1.81052	−0.00150	0.00280	−0.00349	−1.59199	0.00258
23.284	0.14942	−1.81207	−0.00123	0.00223	−0.00262	−1.58780	0.00214
24.342	0.13125	−1.81341	−0.00102	0.00192	−0.00194	−1.58567	0.00186
25.401	0.11587	−1.81461	−0.00085	0.00166	−0.00147	−1.58391	0.00158
26.459	0.10279	−1.81568	−0.00072	0.00142	−0.00114	−1.58252	0.00135
27.517	0.09158	−1.81663	−0.00062	0.00110	−0.00089	−1.58120	0.00115
28.576	0.08193	−1.81742	−0.00053	0.00089	−0.00070	−1.58070	0.00099
29.634	0.07357	−1.81811	−0.00046	0.00068	−0.00053	−1.58018	0.00087
30.692	0.06631	−1.81872	−0.00040	0.00054	−0.00041	−1.57987	0.00075
31.751	0.05997	−1.81925	−0.00035	0.00045	−0.00033	−1.57963	0.00066
37.042	0.03792	−1.82108	−0.00018	0.00027	−0.00009	−1.57898	0.00036
42.334	0.02548	−1.82212	−0.00011	0.00020	−0.00004	−1.57905	0.00021
47.626	0.01792	−1.82274	−0.00007	0.00015	−0.00001	−1.57919	0.00013
50.272	0.01525	−1.82296	−0.00005	0.00012	−0.00001	−1.57928	0.00010
51.859	0.01389	−1.82307	−0.00005	0.00012	0.00000	−1.57931	0.00009

Table 43
Transition dipole moments between the $8^3\Sigma^+$ and $(1\text{-}7)^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Sigma^+,3\Pi}_{81}$	$\mu^{3\Sigma^+,3\Pi}_{82}$	$\mu^{3\Sigma^+,3\Pi}_{83}$	$\mu^{3\Sigma^+,3\Pi}_{84}$	$\mu^{3\Sigma^+,3\Pi}_{85}$	$\mu^{3\Sigma^+,3\Pi}_{86}$	$\mu^{3\Sigma^+,3\Pi}_{87}$
2.540	0.00166	−0.97435	1.17070	−0.20765	0.55472	3.24939	1.51208
2.646	0.02734	−1.02873	1.02043	−0.17502	0.68245	2.09531	0.97045
2.752	0.05202	−1.01756	0.85851	−0.13226	0.81131	0.73032	0.41539
2.858	0.07033	−0.98997	0.72682	−0.08868	0.92485	−0.27812	0.11439
2.963	0.08430	−0.97445	0.63584	−0.04901	1.03425	−0.91562	0.03284
3.069	0.09573	−0.96965	0.57500	−0.01195	1.13946	−1.33337	−0.07587
3.175	0.10540	−0.97041	0.53488	0.02421	1.23481	−1.62839	−0.18487
3.281	0.11362	−0.97346	0.50938	0.06015	1.31490	−1.84910	−0.32866
3.387	0.12052	−0.97723	0.49402	0.09690	1.37760	−2.02097	−0.48467
3.493	0.12636	−0.98074	0.48610	0.13373	1.42254	−2.15712	−0.63925
3.598	0.13144	−0.98330	0.48321	0.17006	1.45221	−2.26702	−0.78375
3.704	0.13600	−0.98402	0.48332	0.20572	1.47056	−2.35973	−0.91215
3.810	0.14055	−0.98011	0.48540	0.24261	1.48175	−2.45346	−1.02181
3.916	0.14684	−0.95180	0.48302	0.29615	1.49781	−2.64947	−1.09685
4.022	0.10559	−0.72889	0.04801	0.73430	0.62852	−4.31808	−0.20400
4.128	0.14037	−0.98920	−0.04288	0.78715	−0.99479	−3.86746	−0.10021
4.233	0.24081	−1.21281	−0.48918	0.91046	−2.63376	−3.57056	0.06800
4.339	0.40371	−0.90850	−1.60494	0.94941	−6.46467	−1.54282	0.26774
4.445	0.41188	−0.67277	−1.71586	0.88183	−6.91130	−0.73931	0.32632
4.551	0.41577	−0.59409	−1.65906	0.89798	−6.98357	−0.51670	0.41328
4.657	0.41973	−0.55344	−1.53451	0.96302	−7.00382	−0.41468	0.59677
4.763	0.42292	−0.52807	−1.33490	1.06597	−6.99776	−0.35608	0.96700
4.868	0.42492	−0.51039	−1.05993	1.16880	−6.97437	−0.30820	1.66901
4.974	0.42538	−0.49747	−0.76738	1.19723	−6.93062	−0.26368	2.95506
5.080	0.42399	−0.48770	−0.53413	1.12012	−6.86326	−0.21925	4.98249
5.186	0.42016	−0.48041	−0.37623	0.96573	−6.76605	−0.17041	6.52579
5.292	0.41347	−0.47506	−0.27101	0.76444	−6.63342	−0.11328	6.98602
5.398	0.40284	−0.47124	−0.19576	0.53510	−6.45710	−0.04636	7.02693
5.503	0.38741	−0.46860	−0.13528	0.28949	−6.22835	0.03569	6.94984
5.609	0.36539	−0.46676	−0.07829	0.03423	−5.93559	0.14141	6.83152
5.715	0.33465	−0.46498	−0.01651	−0.22458	−5.56455	0.29054	6.67463
5.821	0.29306	−0.46222	0.05666	−0.47818	−5.10009	0.56810	6.44283
5.927	0.23835	−0.45640	0.14542	−0.71724	−4.52890	2.55028	5.60251
6.033	0.17116	−0.44520	0.25124	−0.92742	−3.85557	5.71318	0.13861
6.138	0.09621	−0.42711	0.36867	−1.09191	−3.11707	5.13844	−0.26114
6.244	0.02200	−0.40274	0.48766	−1.19929	−2.38165	4.47255	−0.44104
6.350	−0.04369	−0.37478	0.59843	−1.25091	−1.71658	3.78946	−0.54506
6.456	−0.09689	−0.34572	0.69672	−1.25999	−1.15707	3.14271	−0.58972
6.562	−0.13759	−0.31732	0.78144	−1.23958	−0.70829	2.55249	−0.57278
6.668	−0.16749	−0.29028	0.85369	−1.20090	−0.35842	2.01975	−0.48614
6.773	−0.18879	−0.26473	0.91499	−1.15234	−0.09026	1.53757	−0.32394
6.879	−0.20337	−0.24075	0.96667	−1.09844	0.11178	1.09757	−0.11014
6.985	−0.21287	−0.21825	1.01001	−1.04241	0.26179	0.69375	0.09569
7.091	−0.21849	−0.19724	1.04547	−0.98608	0.37108	0.32510	0.22466
7.197	−0.22109	−0.17759	1.07389	−0.93063	0.44916	0.00331	0.24542
7.303	−0.22126	−0.15925	1.09580	−0.87694	0.50361	−0.28035	0.16437
7.408	−0.21938	−0.14206	1.11196	−0.82551	0.54063	−0.49620	−0.00829
7.514	−0.21566	−0.12600	1.12296	−0.77651	0.56483	−0.65031	−0.19085
7.620	−0.21015	−0.11101	1.12975	−0.72975	0.57958	−0.75134	−0.40544
7.726	−0.20273	−0.09696	1.13340	−0.68569	0.58701	−0.81185	−0.61810
7.832	−0.19339	−0.08382	1.13525	−0.64404	0.58858	−0.84345	−0.81932
7.938	−0.18213	−0.07149	1.13671	−0.60474	0.58496	−0.85569	−1.00502
8.043	−0.16900	−0.05988	1.13901	−0.56769	0.57636	−0.85474	−1.17395
8.149	−0.15418	−0.04888	1.14324	−0.53285	0.56279	−0.84519	−1.32618
8.255	−0.13792	−0.03840	1.14982	−0.50001	0.54433	−0.83024	−1.46272
8.361	−0.12054	−0.02828	1.15919	−0.46905	0.52110	−0.81200	−1.58427
8.467	−0.10242	−0.01848	1.17122	−0.43984	0.49339	−0.79271	−1.69273
8.573	−0.08390	−0.00891	1.18559	−0.41222	0.46171	−0.77333	−1.78931
8.679	−0.06533	0.00050	1.20202	−0.38613	0.42682	−0.75502	−1.87465
8.784	−0.04699	0.00966	1.21956	−0.36125	0.38916	−0.73790	−1.95206
8.890	−0.02906	0.01866	1.23800	−0.33762	0.34964	−0.72252	−2.02143
8.996	−0.01180	0.02746	1.25691	−0.31513	0.30905	−0.70951	−2.08406
9.102	0.00469	0.03603	1.27591	−0.29374	0.26806	−0.69889	−2.14079
9.208	0.02033	0.04434	1.29470	−0.27345	0.22737	−0.69075	−2.19271
9.314	0.03504	0.05235	1.31306	−0.25415	0.18763	−0.68513	−2.24086
9.419	0.04880	0.06003	1.33087	−0.23586	0.14946	−0.68193	−2.28593
9.525	0.06159	0.06733	1.34804	−0.21858	0.11345	−0.68097	−2.32869
9.631	0.07342	0.07427	1.36459	−0.20225	0.08017	−0.68208	−2.36965
9.737	0.08433	0.08074	1.38038	−0.18688	0.05014	−0.68403	−2.41000
9.843	0.09432	0.08677	1.39549	−0.17248	0.02385	−0.68535	−2.45072
9.949	0.10343	0.09238	1.40995	−0.15903	0.00180	−0.68125	−2.49321
10.054	0.11174	0.09742	1.42380	−0.14650	−0.01574	−0.65631	−2.54220
10.160	0.11921	0.10207	1.43712	−0.13480	−0.02816	0.51735	−2.61687
10.266	0.12593	0.10622	1.44995	−0.12385	−0.03536	2.05529	−1.76820
10.372	0.13195	0.10993	1.46225	−0.11361	−0.03717	2.52467	−1.10722

(*continued on next page*)

Table 43 (*continued*)

R	$\mu_{81}^{^3\Sigma^+{}^3\Pi}$	$\mu_{82}^{^3\Sigma^+{}^3\Pi}$	$\mu_{83}^{^3\Sigma^+{}^3\Pi}$	$\mu_{84}^{^3\Sigma^+{}^3\Pi}$	$\mu_{85}^{^3\Sigma^+{}^3\Pi}$	$\mu_{86}^{^3\Sigma^+{}^3\Pi}$	$\mu_{87}^{^3\Sigma^+{}^3\Pi}$
10.478	0.13726	0.11314	1.47425	−0.10414	−0.03348	2.59115	−1.07246
10.584	0.14192	0.11590	1.48591	−0.09534	−0.02451	2.63049	−1.10730
10.848	0.15097	0.12091	1.51387	−0.07598	0.01817	2.67003	−1.34269
11.113	0.15670	0.12343	1.54049	−0.06012	0.08086	2.52962	−1.85866
11.377	0.15961	0.12381	1.56616	−0.04714	0.14930	1.90069	−2.70616
11.642	0.16014	0.12238	1.59111	−0.03646	0.21115	1.07701	−3.32410
11.906	0.15871	0.11949	1.61537	−0.02781	0.25914	0.61236	−3.65163
12.171	0.15562	0.11546	1.63901	−0.02083	0.29137	0.37902	−3.91374
12.436	0.15121	0.11058	1.66192	−0.01529	0.30889	0.25046	−4.17354
12.700	0.14577	0.10514	1.68394	−0.01083	0.31431	0.17322	−4.44215
12.965	0.13956	0.09940	1.70511	−0.00737	0.31054	0.12384	−4.71803
13.229	0.13277	0.09343	1.72517	−0.00462	0.30012	0.09081	−4.99500
13.494	0.12561	0.08744	1.74409	−0.00249	0.28524	0.06795	−5.26426
13.759	0.11827	0.08154	1.76177	−0.00088	0.26761	0.05168	−5.51730
14.023	0.11087	0.07583	1.77818	0.00031	0.24851	0.03996	−5.74695
14.288	0.10355	0.07038	1.79327	0.00116	0.22895	0.03125	−5.94871
14.552	0.09638	0.06521	1.80710	0.00176	0.20960	0.02470	−6.12089
14.817	0.08946	0.06035	1.81972	0.00213	0.19093	0.01978	−6.26434
15.082	0.08284	0.05581	1.83112	0.00236	0.17323	0.01598	−6.38198
15.346	0.07656	0.05160	1.84139	0.00247	0.15674	0.01303	−6.47764
15.611	0.07064	0.04771	1.85060	0.00249	0.14152	0.01077	−6.55493
15.875	0.06509	0.04414	1.85886	0.00240	0.12767	0.00888	−6.61724
16.140	0.05992	0.04085	1.86625	0.00231	0.11510	0.00741	−6.66789
16.404	0.05514	0.03783	1.87286	0.00220	0.10379	0.00623	−6.70942
16.934	0.04664	0.03253	1.88400	0.00190	0.08469	0.00455	−6.77273
17.463	0.03951	0.02811	1.89293	0.00161	0.06948	0.00336	−6.81922
17.992	0.03357	0.02442	1.90011	0.00132	0.05747	0.00254	−6.85569
18.521	0.02862	0.02133	1.90589	0.00107	0.04803	0.00193	−6.88594
19.050	0.02451	0.01872	1.91057	0.00085	0.04064	0.00150	−6.91193
19.580	0.02111	0.01651	1.91438	0.00065	0.03470	0.00115	−6.93481
20.109	0.01828	0.01464	1.91750	0.00047	0.02993	0.00088	−6.95505
20.638	0.01592	0.01303	1.92005	0.00033	0.02605	0.00067	−6.97293
21.167	0.01392	0.01167	1.92212	0.00021	0.02294	0.00026	−6.98892
22.225	0.01086	0.00943	1.92535	0.00001	0.01801	0.00004	−7.01535
23.284	0.00864	0.00772	1.92770	−0.00006	0.01444	−0.00003	−7.03615
24.342	0.00701	0.00640	1.92940	−0.00010	0.01165	−0.00005	−7.05296
25.401	0.00577	0.00534	1.93086	−0.00020	0.00965	−0.00011	−7.06657
26.459	0.00478	0.00450	1.93206	−0.00016	0.00813	−0.00011	−7.07774
27.517	0.00401	0.00383	1.93303	−0.00015	0.00691	−0.00020	−7.08693
28.576	0.00340	0.00327	1.93383	−0.00019	0.00592	−0.00015	−7.09440
29.634	0.00291	0.00281	1.93448	−0.00019	0.00511	−0.00014	−7.10039
30.692	0.00250	0.00243	1.93501	−0.00019	0.00444	−0.00013	−7.10522
31.751	0.00216	0.00212	1.93546	−0.00019	0.00387	−0.00012	−7.10916
37.042	0.00113	0.00113	1.93698	−0.00010	0.00206	−0.00011	−7.12094
42.334	0.00066	0.00066	1.93774	−0.00007	0.00119	−0.00007	−7.12576
47.626	0.00041	0.00041	1.93816	−0.00004	0.00074	−0.00004	−7.12808
50.272	0.00033	0.00033	1.93831	−0.00003	0.00060	−0.00004	−7.12881
51.859	0.00029	0.00029	1.93838	−0.00003	0.00053	−0.00003	−7.12916

Table 44
Transition dipole moments between the $9^3\Sigma^+$ and $(1\text{-}7)^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Sigma^+,3\Pi}_{91}$	$\mu^{3\Sigma^+,3\Pi}_{92}$	$\mu^{3\Sigma^+,3\Pi}_{93}$	$\mu^{3\Sigma^+,3\Pi}_{94}$	$\mu^{3\Sigma^+,3\Pi}_{95}$	$\mu^{3\Sigma^+,3\Pi}_{96}$	$\mu^{3\Sigma^+,3\Pi}_{97}$
2.540	−0.03747	0.11640	−0.14539	0.04506	0.31424	−4.75784	−2.49075
2.646	−0.03159	−0.06213	0.04672	−0.00027	0.21637	−5.56150	−2.76400
2.752	−0.01261	−0.22479	0.17859	−0.03053	0.06515	−6.08013	−2.91094
2.858	0.01096	−0.28499	0.20358	−0.04008	−0.08125	−6.26284	−3.02000
2.963	0.03204	−0.27194	0.17018	−0.04166	−0.21744	−6.30150	−3.23240
3.069	0.04892	−0.23221	0.11529	−0.04417	−0.36523	−6.25330	−3.60498
3.175	0.06239	−0.19194	0.05319	−0.04936	−0.54100	−6.10649	−4.16577
3.281	0.07396	−0.16201	−0.00675	−0.05622	−0.74178	−5.83733	−4.87139
3.387	0.08403	−0.14558	−0.04985	−0.06148	−0.93037	−5.49203	−5.57873
3.493	0.09168	−0.14635	−0.05765	−0.07250	−1.04576	−5.23799	−6.07059
3.598	0.09195	−0.18031	0.01199	−0.11423	−1.01144	−5.31587	−6.03068
3.704	0.06467	−0.29880	0.10715	−0.25180	−0.66104	−5.76541	−4.54734
3.810	0.00274	−0.50284	0.19514	−0.46076	−0.13119	−5.42334	−2.01673
3.916	−0.04269	−0.72462	0.19304	−0.59966	0.12217	−4.51326	−0.84862
4.022	−0.13734	−1.07653	0.50539	−0.21039	1.43493	1.96379	1.24328
4.128	−0.14721	−1.02545	0.49977	0.28793	1.47328	2.30234	1.27442
4.233	−0.15186	−1.01621	0.49703	0.32377	1.48502	2.35626	1.31135
4.339	−0.15624	−1.01083	0.49030	0.35836	1.49861	2.37338	1.33340
4.445	−0.16096	−1.00514	0.47587	0.39449	1.51833	2.37145	1.33122
4.551	−0.16597	−0.99857	0.44945	0.44120	1.54296	2.36270	1.31196
4.657	−0.17167	−0.99092	0.40140	0.49895	1.57455	2.35034	1.26247
4.763	−0.17804	−0.98093	0.31929	0.56583	1.61494	2.33660	1.14842
4.868	−0.18533	−0.96832	0.19529	0.62527	1.66194	2.31952	0.90929
4.974	−0.19352	−0.95306	0.05523	0.65644	1.71965	2.30188	0.42238
5.080	−0.20302	−0.93477	−0.06327	0.65420	1.78569	2.28484	−0.49341
5.186	−0.21400	−0.91344	−0.14863	0.63366	1.86191	2.27011	−1.41032
5.292	−0.22679	−0.88886	−0.20725	0.60419	1.94933	2.25890	−1.87474
5.398	−0.24184	−0.86090	−0.24552	0.56853	2.04919	2.25209	−2.11596
5.503	−0.25987	−0.82952	−0.26647	0.52798	2.16469	2.25011	−2.30142
5.609	−0.28224	−0.79425	−0.26988	0.48391	2.30248	2.24995	−2.50457
5.715	−0.31110	−0.75399	−0.25286	0.43715	2.47533	2.24026	−2.77097
5.821	−0.35086	−0.70596	−0.20961	0.39011	2.71023	2.16674	−3.17772
5.927	−0.41097	−0.64144	−0.12854	0.35111	3.06561	−0.87151	−4.18665
6.033	−0.50941	−0.53231	0.01167	0.33475	3.65127	−4.18939	−2.65834
6.138	−0.64183	−0.31995	0.20447	0.33930	4.42453	−5.52008	−2.00688
6.244	−0.71208	−0.06273	0.30254	0.27518	4.77966	−6.36854	−1.10042
6.350	−0.71476	0.12781	0.23506	0.17287	4.67888	−6.63847	−0.24621
6.456	−0.66783	0.30048	−0.01465	−0.19327	4.18892	−6.24235	0.89107
6.562	−0.52612	0.44413	−0.49738	−0.46280	3.05286	−4.56911	2.41350
6.668	−0.40711	0.45960	−0.96165	−0.72734	2.14806	−3.01364	3.14687
6.773	−0.36927	0.41980	−1.30725	−0.87107	1.81661	−2.30213	3.10460
6.879	−0.36735	0.37171	−1.56714	−0.93344	1.74053	−1.98868	2.63107
6.985	−0.37723	0.32599	−1.76549	−0.94268	1.76394	−1.82729	1.93700
7.091	−0.38890	0.28453	−1.91880	−0.91690	1.82635	−1.71055	1.20648
7.197	−0.39791	0.24729	−2.03799	−0.86936	1.90283	−1.58529	0.55628
7.303	−0.40225	0.21384	−2.13094	−0.81016	1.98243	−1.43029	0.02732
7.408	−0.40106	0.18365	−2.20256	−0.74704	2.06047	−1.24754	−0.37487
7.514	−0.39437	0.15617	−2.25659	−0.68594	2.13550	−1.05578	−0.66201
7.620	−0.38273	0.13111	−2.29537	−0.62995	2.20755	−0.87359	−0.85387
7.726	−0.36680	0.10775	−2.32127	−0.58324	2.27626	−0.71353	−0.97588
7.832	−0.34751	0.08593	−2.33552	−0.54716	2.34251	−0.57857	−1.04747
7.938	−0.32579	0.06537	−2.33896	−0.52296	2.40626	−0.46967	−1.08395
8.043	−0.30248	0.04587	−2.33216	−0.51160	2.46741	−0.38360	−1.09564
8.149	−0.27826	0.02733	−2.31552	−0.51424	2.52492	−0.31759	−1.08896
8.255	−0.25389	0.00963	−2.28902	−0.53202	2.57768	−0.26916	−1.06839
8.361	−0.22976	−0.00720	−2.25217	−0.56738	2.62280	−0.23560	−1.03335
8.467	−0.20636	−0.02323	−2.20369	−0.62450	2.65566	−0.21752	−0.98381
8.573	−0.18397	−0.03844	−2.14008	−0.71073	2.66775	−0.21420	−0.91233
8.679	−0.16284	−0.05279	−2.05304	−0.83875	2.64222	−0.22757	−0.80589
8.784	−0.14311	−0.06603	−1.92391	−1.02780	2.54428	−0.26133	−0.64101
8.890	−0.12469	−0.07723	−1.71745	−1.29254	2.31143	−0.31826	−0.38795
8.996	−0.10748	−0.08455	−1.40734	−1.59633	1.89516	−0.38711	−0.05517
9.102	−0.09277	−0.08775	−1.05809	−1.83712	1.39509	−0.43794	0.25233
9.208	−0.08227	−0.08977	−0.77456	−1.97652	0.98140	−0.45798	0.44740
9.314	−0.07532	−0.09258	−0.57877	−2.05184	0.69504	−0.45725	0.54474
9.419	−0.07051	−0.09631	−0.44649	−2.09723	0.50238	−0.44579	0.58383
9.525	−0.06683	−0.10061	−0.35442	−2.12886	0.36912	−0.42919	0.59125
9.631	−0.06389	−0.10518	−0.28777	−2.15336	0.27326	−0.41042	0.58152
9.737	−0.06115	−0.10973	−0.23761	−2.17364	0.20174	−0.39118	0.56241
9.843	−0.05854	−0.11417	−0.19883	−2.19220	0.14649	−0.37318	0.53790
9.949	−0.05609	−0.11835	−0.16809	−2.20955	0.10259	−0.35810	0.50966
10.054	−0.05367	−0.12238	−0.14308	−2.22441	0.06734	−0.34785	0.47789
10.160	−0.05142	−0.12600	−0.12258	−2.23941	0.03799	−0.35911	0.43040
10.266	−0.04924	−0.12937	−0.10541	−2.25297	0.01377	−0.52200	−0.10173
10.372	−0.04723	−0.13244	−0.09072	−2.26578	−0.00648	−0.44155	−0.24496

(*continued on next page*)

Table 44 (*continued*)

R	$\mu_{91}^{^3\Sigma^+{}^3\Pi}$	$\mu_{92}^{^3\Sigma^+{}^3\Pi}$	$\mu_{93}^{^3\Sigma^+{}^3\Pi}$	$\mu_{94}^{^3\Sigma^+{}^3\Pi}$	$\mu_{95}^{^3\Sigma^+{}^3\Pi}$	$\mu_{96}^{^3\Sigma^+{}^3\Pi}$	$\mu_{97}^{^3\Sigma^+{}^3\Pi}$
10.478	−0.04528	−0.13518	−0.07836	−2.27791	−0.02358	−0.40989	−0.25049
10.584	−0.04347	−0.13762	−0.06773	−2.28948	−0.03792	−0.38617	−0.24642
10.848	−0.03956	−0.14244	−0.04684	−2.31583	−0.06393	−0.34490	−0.22566
11.113	−0.03648	−0.14552	−0.03200	−2.34067	−0.07865	−0.33122	−0.18254
11.377	−0.03415	−0.14710	−0.02113	−2.36437	−0.08491	−0.33935	−0.09430
11.642	−0.03248	−0.14747	−0.01311	−2.38744	−0.08500	−0.32952	−0.01883
11.906	−0.03157	−0.14640	−0.00712	−2.40930	−0.08108	−0.31275	−0.00486
12.171	−0.03101	−0.14443	−0.00271	−2.43061	−0.07562	−0.29549	−0.00748
12.436	−0.03094	−0.14146	0.00060	−2.45124	−0.06907	−0.27859	−0.00384
12.700	−0.03108	−0.13774	0.00321	−2.47147	−0.06241	−0.26067	0.00125
12.965	−0.03136	−0.13334	0.00502	−2.49117	−0.05623	−0.24236	0.00638
13.229	−0.03182	−0.12853	0.00642	−2.51024	−0.05017	−0.22171	0.01083
13.494	−0.03218	−0.12341	0.00735	−2.52847	−0.04500	−0.20363	0.01408
13.759	−0.03250	−0.11804	0.00794	−2.54577	−0.04026	−0.18653	0.01673
14.023	−0.03281	−0.11258	0.00840	−2.56256	−0.03596	−0.16811	0.01837
14.288	−0.03293	−0.10700	0.00856	−2.57780	−0.03248	−0.15274	0.01899
14.552	−0.03293	−0.10143	0.00857	−2.59192	−0.02941	−0.13841	0.01902
14.817	−0.03282	−0.09596	0.00848	−2.60561	−0.02650	−0.12338	0.01881
15.082	−0.03256	−0.09056	0.00827	−2.61747	−0.02408	−0.11135	0.01863
15.346	−0.03220	−0.08533	0.00801	−2.62827	−0.02193	−0.10041	0.01777
15.611	−0.03171	−0.08028	0.00768	−2.63803	−0.01998	−0.09058	0.01720
15.875	−0.03120	−0.07542	0.00744	−2.64810	−0.01820	−0.08163	0.01590
16.140	−0.03054	−0.07081	0.00706	−2.65597	−0.01661	−0.07385	0.01509
16.404	−0.02981	−0.06643	0.00668	−2.66302	−0.01517	−0.06699	0.01423
16.934	−0.02819	−0.05846	0.00599	−2.67496	−0.01268	−0.05522	0.01183
17.463	−0.02646	−0.05138	0.00530	−2.68445	−0.01060	−0.04642	0.01023
17.992	−0.02473	−0.04501	0.00472	−2.69265	−0.00885	−0.04009	0.00864
18.521	−0.02295	−0.03965	0.00414	−2.69849	−0.00742	−0.03484	0.00737
19.050	−0.02123	−0.03500	0.00364	−2.70314	−0.00624	−0.03064	0.00624
19.580	−0.01960	−0.03098	0.00319	−2.70686	−0.00526	−0.02732	0.00523
20.109	−0.01806	−0.02751	0.00281	−2.70986	−0.00445	−0.02446	0.00432
20.638	−0.01662	−0.02451	0.00247	−2.71232	−0.00376	−0.02208	0.00348
21.167	−0.01536	−0.02156	0.00174	−2.71370	−0.00325	−0.00320	0.00712
22.225	−0.01297	−0.01765	0.00171	−2.71725	−0.00238	−0.00235	0.00550
23.284	−0.01104	−0.01425	0.00137	−2.71997	−0.00179	−0.00126	0.00273
24.342	−0.00943	−0.01169	0.00109	−2.72248	−0.00114	−0.00068	0.00242
25.401	−0.00808	−0.00965	0.00089	−2.72447	−0.00075	−0.00021	0.00057
26.459	−0.00692	−0.00807	0.00073	−2.72624	−0.00063	−0.00003	−0.00067
27.517	−0.00598	−0.00676	0.00060	−2.72765	−0.00046	0.00016	−0.00060
28.576	−0.00518	−0.00571	0.00050	−2.72869	−0.00039	0.00020	−0.00072
29.634	−0.00451	−0.00500	0.00043	−2.72945	−0.00032	0.00029	−0.00135
30.692	−0.00394	−0.00431	0.00037	−2.73027	−0.00026	0.00032	−0.00118
31.751	−0.00345	−0.00373	0.00031	−2.73098	−0.00022	0.00033	−0.00103
37.042	−0.00189	−0.00199	0.00014	−2.73332	−0.00012	0.00033	−0.00045
42.334	−0.00112	−0.00114	0.00007	−2.73452	−0.00006	0.00026	−0.00019
47.626	−0.00070	−0.00069	0.00004	−2.73525	−0.00003	0.00020	0.00006
50.272	−0.00056	−0.00059	0.00001	−2.73704	−0.00002	0.00015	0.00027
51.859	−0.00050	−0.00052	0.00001	−2.73715	−0.00001	0.00014	0.00025

Table 45
Transition dipole moments between the $10^3\Sigma^+$ and (1-7)$^3\Pi$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu^{3\Sigma^+,3\Pi}_{101}$	$\mu^{3\Sigma^+,3\Pi}_{102}$	$\mu^{3\Sigma^+,3\Pi}_{103}$	$\mu^{3\Sigma^+,3\Pi}_{104}$	$\mu^{3\Sigma^+,3\Pi}_{105}$	$\mu^{3\Sigma^+,3\Pi}_{106}$	$\mu^{3\Sigma^+,3\Pi}_{107}$
2.540	−0.34447	0.65623	−0.52996	0.20998	0.53770	0.44413	−1.97997
2.646	−0.29662	0.42459	−0.46125	0.16101	0.57906	0.41464	−2.03004
2.752	−0.25958	0.29199	−0.45284	0.13183	0.53318	0.38483	−2.36770
2.858	−0.23326	0.22297	−0.56248	0.12085	0.34022	0.57895	−3.31249
2.963	−0.16900	0.16481	−0.62511	0.09409	−0.09681	1.01580	−4.08946
3.069	−0.11006	0.12435	−0.62276	0.06525	−0.48508	1.53539	−4.48240
3.175	−0.06757	0.09247	−0.60485	0.03347	−0.77253	2.18167	−4.69846
3.281	−0.03818	0.06071	−0.57465	−0.00574	−0.94605	2.91512	−4.71446
3.387	−0.01702	0.02400	−0.53531	−0.05534	−1.02018	3.57469	−4.61024
3.493	0.00412	−0.02523	−0.49277	−0.11840	−1.05776	3.92025	−4.65027
3.598	0.03590	−0.09213	−0.45001	−0.19869	−1.15587	3.61121	−5.26926
3.704	0.08762	−0.14004	−0.37948	−0.26053	−1.39092	1.91967	−6.96690
3.810	0.12692	−0.10638	−0.25884	−0.23332	−1.50814	−0.31040	−8.33637
3.916	0.14227	−0.07572	−0.16584	−0.20484	−1.46316	−1.26994	−8.73872
4.022	0.15220	−0.06382	−0.09548	−0.19530	−1.39032	−1.62948	−8.92171
4.128	0.16131	−0.06031	−0.03252	−0.19439	−1.31271	−1.79414	−9.04034
4.233	0.17055	−0.06038	0.02859	−0.19813	−1.23510	−1.88596	−9.11652
4.339	0.18036	−0.06210	0.09008	−0.20647	−1.16071	−1.94660	−9.15152
4.445	0.19103	−0.06374	0.15223	−0.22301	−1.09239	−1.98915	−9.13514
4.551	0.20259	−0.06645	0.21331	−0.24922	−1.03268	−2.01841	−9.07720
4.657	0.21546	−0.06952	0.26843	−0.29348	−0.98524	−2.03553	−8.95304
4.763	0.22986	−0.07268	0.30810	−0.36543	−0.95113	−2.03414	−8.68643
4.868	0.24600	−0.07538	0.31566	−0.47114	−0.93879	−2.01640	−8.16954
4.974	0.26410	−0.07813	0.29507	−0.59436	−0.95129	−1.97579	−7.03793
5.080	0.28429	−0.08117	0.27165	−0.71743	−0.99371	−1.90915	−4.61331
5.186	0.30696	−0.08528	0.26334	−0.83218	−1.07284	−1.81682	−1.73931
5.292	0.33226	−0.09088	0.27388	−0.93950	−1.19284	−1.69559	−0.10443
5.398	0.35978	−0.09970	0.29994	−1.03377	−1.35883	−1.55666	0.69560
5.503	0.38940	−0.11335	0.33794	−1.10541	−1.57419	−1.41190	1.17526
5.609	0.41973	−0.13441	0.38451	−1.14870	−1.83268	−1.28220	1.55617
5.715	0.44863	−0.16716	0.43461	−1.14976	−2.11981	−1.20790	1.92383
5.821	0.47162	−0.21787	0.48083	−1.10096	−2.39749	−1.26262	2.27201
5.927	0.47622	−0.29685	0.51074	−0.99737	−2.56662	−2.14501	1.99913
6.033	0.42898	−0.41967	0.49809	−0.83953	−2.37283	−2.72567	1.40009
6.138	0.26622	−0.56895	0.37842	−0.65583	−1.36216	−1.59213	−2.33715
6.244	0.04767	−0.62673	0.13272	−0.56856	−0.03963	0.19513	−3.11170
6.350	−0.11614	−0.59105	0.15284	−0.64022	1.07832	1.73524	−3.58777
6.456	−0.29487	−0.48677	0.43469	−0.80261	2.18260	3.59877	−3.81172
6.562	−0.51341	−0.28764	0.52771	−0.93701	3.42046	5.83542	−3.38699
6.668	−0.61950	−0.13245	0.39372	−1.03326	3.85866	6.84439	−2.84027
6.773	−0.64991	−0.06781	0.21017	−1.16754	3.82342	7.01361	−2.75000
6.879	−0.65293	−0.05047	0.01086	−1.32484	3.63791	6.78582	−2.99999
6.985	−0.63693	−0.05672	−0.18824	−1.48455	3.37528	6.23947	−3.42917
7.091	−0.60265	−0.07232	−0.35987	−1.63058	3.06425	5.42378	−3.86643
7.197	−0.55375	−0.08743	−0.48182	−1.75328	2.73829	4.44669	−4.18535
7.303	−0.49664	−0.09744	−0.55136	−1.84953	2.42905	3.44640	−4.33146
7.408	−0.43680	−0.10161	−0.58025	−1.91997	2.15432	2.53303	−4.30583
7.514	−0.37775	−0.10110	−0.58317	−1.96656	1.91909	1.76965	−4.14656
7.620	−0.32159	−0.09720	−0.57159	−1.99315	1.72243	1.17074	−3.90816
7.726	−0.26924	−0.09101	−0.55407	−2.00339	1.55993	0.71521	−3.63634
7.832	−0.22145	−0.08329	−0.53605	−2.00169	1.42879	0.37439	−3.36277
7.938	−0.17861	−0.07464	−0.52152	−1.99212	1.32610	0.11936	−3.10461
8.043	−0.14092	−0.06545	−0.51325	−1.97806	1.25026	−0.07123	−2.86938
8.149	−0.10837	−0.05604	−0.51393	−1.96205	1.20059	−0.21382	−2.66002
8.255	−0.08089	−0.04671	−0.52603	−1.94511	1.17786	−0.31865	−2.47725
8.361	−0.05829	−0.03785	−0.55316	−1.92720	1.18492	−0.39419	−2.32069
8.467	−0.04060	−0.02986	−0.60030	−1.90648	1.22836	−0.44594	−2.19134
8.573	−0.02766	−0.02334	−0.67535	−1.87799	1.31927	−0.47740	−2.08935
8.679	−0.01962	−0.01929	−0.79133	−1.83121	1.47729	−0.48994	−2.01691
8.784	−0.01695	−0.01946	−0.96707	−1.74363	1.73216	−0.48131	−1.97492
8.890	−0.01974	−0.02629	−1.21537	−1.57427	2.10733	−0.44497	−1.95328
8.996	−0.02528	−0.04077	−1.49475	−1.28975	2.54900	−0.37620	−1.91441
9.102	−0.02712	−0.05835	−1.69839	−0.95210	2.90530	−0.29370	−1.82854
9.208	−0.02230	−0.07346	−1.78800	−0.67117	3.11664	−0.22598	−1.72519
9.314	−0.01293	−0.08493	−1.80566	−0.47410	3.23640	−0.18002	−1.63387
9.419	−0.00141	−0.09355	−1.78929	−0.33963	3.31310	−0.15023	−1.55909
9.525	0.01093	−0.10005	−1.75751	−0.24556	3.36979	−0.13104	−1.49585
9.631	0.02338	−0.10487	−1.71862	−0.17745	3.41644	−0.11881	−1.43860
9.737	0.03571	−0.10835	−1.67664	−0.12680	3.45713	−0.11227	−1.38412
9.843	0.04767	−0.11064	−1.63344	−0.08815	3.49441	−0.11043	−1.32898
9.949	0.05933	−0.11194	−1.59009	−0.05817	3.52876	−0.11490	−1.27065
10.054	0.07048	−0.11226	−1.54707	−0.03446	3.56191	−0.13255	−1.20818
10.160	0.08133	−0.11177	−1.50483	−0.01585	3.59216	−0.19950	−1.13171
10.266	0.09179	−0.11048	−1.46349	−0.00113	3.62028	−1.01900	−0.34797
10.372	0.10190	−0.10848	−1.42311	0.01053	3.64602	−0.99864	−0.01584

(*continued on next page*)

Table 45 (*continued*)

R	$\mu^{3\Sigma^+ 3\Pi}_{101}$	$\mu^{3\Sigma^+ 3\Pi}_{102}$	$\mu^{3\Sigma^+ 3\Pi}_{103}$	$\mu^{3\Sigma^+ 3\Pi}_{104}$	$\mu^{3\Sigma^+ 3\Pi}_{105}$	$\mu^{3\Sigma^+ 3\Pi}_{106}$	$\mu^{3\Sigma^+ 3\Pi}_{107}$
10.478	0.11168	−0.10589	−1.38376	0.01966	3.66904	−0.91532	0.02364
10.584	0.12117	−0.10276	−1.34542	0.02675	3.68889	−0.82680	0.03900
10.848	0.14369	−0.09293	−1.25382	0.03760	3.72183	−0.59261	0.05588
11.113	0.16470	−0.08111	−1.16794	0.04209	3.72723	−0.36679	0.07014
11.377	0.18437	−0.06814	−1.08724	0.04264	3.70482	−0.20078	0.11838
11.642	0.20266	−0.05480	−1.01139	0.04084	3.66040	−0.12825	0.23625
11.906	0.21957	−0.04176	−0.94012	0.03764	3.60186	−0.10213	0.37445
12.171	0.23500	−0.02956	−0.87305	0.03401	3.53638	−0.08942	0.49421
12.436	0.24888	−0.01857	−0.81006	0.03046	3.46980	−0.08002	0.59170
12.700	0.26125	−0.00895	−0.75105	0.02706	3.40538	−0.07195	0.66828
12.965	0.27206	−0.00082	−0.69556	0.02411	3.34533	−0.06492	0.72950
13.229	0.28130	0.00577	−0.64351	0.02156	3.29191	−0.05823	0.77658
13.494	0.28903	0.01091	−0.59475	0.01940	3.24581	−0.05252	0.81102
13.759	0.29534	0.01476	−0.54894	0.01758	3.20763	−0.04714	0.83237
14.023	0.30032	0.01739	−0.50605	0.01599	3.17817	−0.04267	0.84080
14.288	0.30406	0.01900	−0.46572	0.01478	3.15740	−0.03884	0.83553
14.552	0.30659	0.01971	−0.42791	0.01376	3.14546	−0.03513	0.82016
14.817	0.30815	0.01962	−0.39243	0.01292	3.14203	−0.03237	0.79044
15.082	0.30875	0.01890	−0.35916	0.01226	3.14677	−0.03004	0.75284
15.346	0.30848	0.01763	−0.32807	0.01173	3.15927	−0.02817	0.70966
15.611	0.30750	0.01591	−0.29920	0.01126	3.17874	−0.02699	0.66053
15.875	0.30574	0.01390	−0.27205	0.01094	3.20500	−0.02517	0.61155
16.140	0.30345	0.01160	−0.24688	0.01058	3.23651	−0.02403	0.56076
16.404	0.30066	0.00909	−0.22350	0.01025	3.27259	−0.02305	0.51071
16.934	0.29392	0.00365	−0.18189	0.00958	3.35460	−0.02196	0.41794
17.463	0.28620	−0.00202	−0.14679	0.00896	3.44286	−0.02080	0.33460
17.992	0.27810	−0.00764	−0.11769	0.00837	3.53150	−0.01995	0.26424
18.521	0.27011	−0.01299	−0.09393	0.00773	3.61510	−0.01897	0.20679
19.050	0.26263	−0.01789	−0.07483	0.00710	3.69065	−0.01798	0.16097
19.580	0.25598	−0.02221	−0.05965	0.00650	3.75673	−0.01685	0.12501
20.109	0.25031	−0.02586	−0.04768	0.00592	3.81331	−0.01570	0.09711
20.638	0.24571	−0.02882	−0.03831	0.00537	3.86109	−0.01450	0.07575
21.167	0.24217	−0.03111	−0.03096	0.00472	3.90113	−0.01296	0.05628
22.225	0.23787	−0.03396	−0.02068	0.00357	3.96231	−0.01236	0.03483
23.284	0.23621	−0.03475	−0.01437	0.00264	4.00504	−0.00775	0.02309
24.342	0.23636	−0.03445	−0.01023	0.00307	4.03487	−0.00652	0.01575
25.401	0.23784	−0.03347	−0.00760	0.00217	4.05568	−0.00613	0.01152
26.459	0.23976	−0.03190	−0.00580	0.00196	4.07071	−0.00398	0.00948
27.517	0.24189	−0.03022	−0.00456	0.00162	4.08147	−0.00193	0.00720
28.576	0.24427	−0.02855	−0.00366	0.00098	4.08922	−0.00226	0.00615
29.634	0.24657	−0.02685	−0.00296	0.00093	4.09498	−0.00176	0.00549
30.692	0.24880	−0.02519	−0.00242	0.00078	4.09933	−0.00142	0.00491
31.751	0.25091	−0.02360	−0.00200	0.00061	4.10268	−0.00121	0.00438
37.042	0.25961	−0.01694	−0.00088	0.00049	4.11111	−0.00013	0.00281
42.334	0.26557	−0.01230	−0.00044	0.00044	4.11411	0.00015	0.00155
47.626	0.26960	−0.00915	−0.00023	0.00001	4.11549	0.00019	0.00079
50.272	0.27112	−0.00794	−0.00017	−0.00001	4.11591	0.00014	0.00058
51.859	0.27190	−0.00730	−0.00014	−0.00002	4.11611	0.00012	0.00049

Table 46
Transition dipole moments between the (1-4)$^1\Pi$ and (1-3)$^1\Delta$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu_{11}^{^1\Pi\text{-}^1\Delta}$	$\mu_{12}^{^1\Pi\text{-}^1\Delta}$	$\mu_{13}^{^1\Pi\text{-}^1\Delta}$	$\mu_{21}^{^1\Pi\text{-}^1\Delta}$	$\mu_{22}^{^1\Pi\text{-}^1\Delta}$	$\mu_{23}^{^1\Pi\text{-}^1\Delta}$	$\mu_{31}^{^1\Pi\text{-}^1\Delta}$	$\mu_{32}^{^1\Pi\text{-}^1\Delta}$	$\mu_{33}^{^1\Pi\text{-}^1\Delta}$	$\mu_{41}^{^1\Pi\text{-}^1\Delta}$	$\mu_{42}^{^1\Pi\text{-}^1\Delta}$	$\mu_{43}^{^1\Pi\text{-}^1\Delta}$
2.540	−0.23739	2.24693	0.62041	−0.59341	−1.51499	−1.91403	−0.98285	0.54007	1.48833	0.39229	−1.32190	−1.58495
2.646	−0.29052	2.32636	0.54103	−0.54218	−1.39390	−2.10252	−1.08949	0.84978	1.36657	0.43764	−1.43618	−1.74559
2.752	−0.37548	2.38325	0.46598	−0.50873	−1.25821	−2.24463	−1.17450	1.10335	1.26007	0.49007	−1.61058	−1.91240
2.858	−0.48612	2.41994	0.39842	−0.48531	−1.12329	−2.35658	−1.24540	1.31995	1.16289	0.54751	−1.83030	−2.08068
2.963	−0.61565	2.43807	0.34047	−0.46696	−0.99728	−2.44792	−1.30527	1.51157	1.07387	0.60941	−2.08547	−2.24258
3.069	−0.75727	2.43979	0.29219	−0.45098	−0.88413	−2.52454	−1.35545	1.68609	0.99307	0.67592	−2.36593	−2.38820
3.175	−0.90463	2.42657	0.25347	−0.43614	−0.78561	−2.59018	−1.39677	1.84797	0.92028	0.74729	−2.66099	−2.50733
3.281	−1.05227	2.40096	0.22264	−0.42221	−0.70100	−2.64645	−1.42996	1.99867	0.85426	0.82345	−2.95293	−2.59646
3.387	−1.19583	2.36496	0.19947	−0.40903	−0.63008	−2.69495	−1.45549	2.13677	0.79388	0.90309	−3.22585	−2.65475
3.493	−1.33226	2.32120	0.18410	−0.39679	−0.57355	−2.73590	−1.47371	2.25853	0.73907	0.98472	−3.46269	−2.69113
3.598	−1.45958	2.27077	0.18843	−0.38550	−0.54662	−2.76692	−1.48461	2.35551	0.70222	1.06658	−3.63947	−2.73627
3.704	−1.57673	0.05113	2.22506	−0.37513	−2.82083	−0.34699	−1.48779	0.50782	2.46661	1.14709	−2.52602	−3.94275
3.810	−1.68316	0.10039	2.16925	−0.36551	−2.83440	−0.38487	−1.48250	0.51149	2.50043	1.22564	−2.62951	−3.98595
3.916	−1.77909	0.09433	2.11514	−0.35634	−2.85307	−0.35759	−1.46777	0.45000	2.51561	1.30085	−2.63729	−4.05509
4.022	−1.86492	0.08226	2.06167	−0.34728	−2.86848	−0.32735	−1.44258	0.37711	2.49730	1.37177	−2.63833	−4.09821
4.128	−1.94128	0.06719	2.00986	−0.33787	−2.88068	−0.29714	−1.40602	0.29615	2.44363	1.43742	−2.63699	−4.11178
4.233	−2.00893	0.04889	1.95966	−0.32746	−2.88993	−0.26730	−1.35751	0.20806	2.35510	1.49626	−2.63324	−4.09794
4.339	−2.06869	0.02637	1.91112	−0.31513	−2.89661	−0.23727	−1.29710	0.11398	2.23423	1.54650	−2.62516	−4.05753
4.445	−2.12139	−0.00199	1.86426	−0.29958	−2.90116	−0.20583	−1.22570	0.01576	2.08614	1.58623	−2.60994	−3.98929
4.551	−2.16788	−0.03885	1.81895	−0.27875	−2.90351	−0.17148	−1.14509	−0.08345	1.91750	1.61333	−2.58520	−3.89352
4.657	−2.20904	−0.08841	1.77464	−0.24933	−2.90374	−0.13217	−1.05815	−0.18037	1.73597	1.62624	−2.54998	−3.77234
4.763	−2.24565	−0.15756	1.73125	−0.20568	−2.90123	−0.08370	−0.96821	−0.27083	1.55148	1.62434	−2.50282	−3.62476
4.868	−2.27811	−0.25892	1.68759	−0.13753	−2.89370	−0.01962	−0.87877	−0.35138	1.37191	1.60804	−2.44467	−3.45621
4.974	−2.30519	−0.41654	1.64088	−0.02464	−2.87439	0.07248	−0.79294	−0.41937	1.20333	1.57852	−2.37786	−3.27413
5.080	−2.31829	−0.67804	1.58242	0.17406	−2.82285	0.21738	−0.71304	−0.47326	1.05048	1.53815	−2.30422	−3.08340
5.186	−2.28003	−1.12288	1.48333	0.53231	−2.67522	0.45612	−0.64052	−0.51273	0.91534	1.48945	−2.22598	−2.89191
5.292	−2.09713	−1.75238	1.28398	1.07263	−2.30942	0.78655	−0.57599	−0.53829	0.79817	1.43481	−2.14583	−2.70500
5.398	−1.79013	−2.26723	1.01784	1.55010	−1.80205	1.04560	−0.51944	−0.55141	0.69802	1.37612	−2.06558	−2.52639
5.503	−1.54936	−2.51962	0.81477	1.80587	−1.42079	1.15294	−0.47044	−0.55372	0.61322	1.31450	−1.98665	−2.35834
5.609	−1.41410	−2.62946	0.68946	1.92740	−1.19478	1.17618	−0.42836	−0.54733	0.54103	1.25034	−1.90998	−2.20222
5.715	−1.34860	−2.67913	0.61184	1.98757	−1.06467	1.16286	−0.39239	−0.53402	0.48131	1.18365	−1.83556	−2.05387
5.821	−1.32555	−2.70049	0.56152	2.01783	−0.99062	1.13194	−0.36173	−0.51526	0.43149	1.11371	−1.76318	−1.91187
5.927	−1.32990	−2.70624	0.52766	2.03165	−0.95167	1.09090	−0.33560	−0.49280	0.38945	1.03987	−1.69222	−1.77483
6.033	−1.35327	−2.70184	0.50448	2.03550	−0.93660	1.04307	−0.31332	−0.46811	0.35324	0.96149	−1.62178	−1.64102
6.138	−1.39061	−2.68987	0.48833	2.03270	−0.93919	0.99053	−0.29416	−0.44208	0.32276	0.87848	−1.55027	−1.50555
6.244	−1.43852	−2.67170	0.47736	2.02522	−0.95546	0.93377	−0.27759	−0.41575	0.29521	0.79090	−1.47681	−1.37061
6.350	−1.49451	−2.64805	0.46982	2.01423	−0.98284	0.87349	−0.26310	−0.38962	0.27159	0.69969	−1.39999	−1.23139
6.456	−1.55642	−2.61959	0.46478	2.00052	−1.01929	0.80988	−0.25028	−0.36430	0.25046	0.60636	−1.31932	−1.08982
6.562	−1.62235	−2.58691	0.46141	1.98465	−1.06313	0.74318	−0.23876	−0.34016	0.23125	0.51297	−1.23471	−0.94728
6.668	−1.69053	−2.55071	0.45901	1.96711	−1.11282	0.67364	−0.22827	−0.31739	0.21359	0.42194	−1.14674	−0.80604
6.773	−1.75933	−2.51172	0.45681	1.94827	−1.16693	0.60155	−0.21858	−0.29607	0.19754	0.33567	−1.05648	−0.66833
6.879	−1.82736	−2.47085	0.45459	1.92858	−1.22415	0.52784	−0.20947	−0.27637	0.18250	0.25639	−0.96594	−0.53815
6.985	−1.89342	−2.42887	0.45197	1.90839	−1.28327	0.45314	−0.20082	−0.25816	0.16825	0.18568	−0.87688	−0.41772
7.091	−1.95657	−2.38661	0.44842	1.88809	−1.34325	0.37840	−0.19257	−0.24139	0.15513	0.12435	−0.79111	−0.30884
7.197	−2.01619	−2.34475	0.44382	1.86796	−1.40314	0.30493	−0.18465	−0.22600	0.14292	0.07264	−0.71023	−0.21244
7.303	−2.07189	−2.30389	0.43814	1.84828	−1.46223	0.23381	−0.17702	−0.21179	0.13189	0.03017	−0.63524	−0.12853
7.408	−2.12351	−2.26449	0.43141	1.82927	−1.51999	0.16620	−0.16965	−0.19869	0.12186	−0.00384	−0.56683	−0.05695
7.514	−2.17109	−2.22685	0.42382	1.81107	−1.57599	0.10303	−0.16252	−0.18657	0.11278	−0.03042	−0.50522	−0.00318
7.620	−2.21477	−2.19112	0.41546	1.79376	−1.62994	0.04508	−0.15567	−0.17535	0.10438	−0.05072	−0.45031	0.05231
7.726	−2.25478	−2.15740	0.40670	1.77735	−1.68170	−0.00732	−0.14903	−0.16488	0.09707	−0.06565	−0.40174	0.09268
7.832	−2.29143	−2.12566	0.39768	1.76184	−1.73116	−0.05399	−0.14262	−0.15510	0.09056	−0.07625	−0.35901	0.12505
7.938	−2.32502	−2.09580	0.38862	1.74718	−1.77832	−0.09498	−0.13644	−0.14594	0.08471	−0.08341	−0.32158	0.15062
8.043	−2.35586	−2.06772	0.37968	1.73330	−1.82320	−0.13054	−0.13052	−0.13735	0.07959	−0.08784	−0.28882	0.17000
8.149	−2.38424	−2.04129	0.37111	1.72011	−1.86586	−0.16112	−0.12487	−0.12925	0.07551	−0.09015	−0.26017	0.18448
8.255	−2.41051	−2.01629	0.36265	1.70754	−1.90644	−0.18692	−0.11938	−0.12167	0.07156	−0.09083	−0.23511	0.19407
8.361	−2.43486	−1.99259	0.35483	1.69547	−1.94503	−0.20863	−0.11411	−0.11452	0.06803	−0.09027	−0.21317	0.19972
8.467	−2.45754	−1.97003	0.34751	1.68381	−1.98175	−0.22668	−0.10907	−0.10780	0.06481	−0.08879	−0.19392	0.20217
8.573	−2.47879	−1.94848	0.34069	1.67248	−2.01671	−0.24160	−0.10425	−0.10146	0.06186	−0.08663	−0.17701	0.20199
8.679	−2.49876	−1.92777	0.33439	1.66138	−2.05009	−0.25371	−0.09965	−0.09549	0.05916	−0.08398	−0.16208	0.19957
8.784	−2.51758	−1.90776	0.32865	1.65041	−2.08198	−0.26337	−0.09528	−0.08990	0.05671	−0.08102	−0.14889	0.19531
8.890	−2.53552	−1.88839	0.32331	1.63957	−2.11248	−0.27141	−0.09109	−0.08460	0.05427	−0.07781	−0.13720	0.18976
8.996	−2.55260	−1.86951	0.31852	1.62875	−2.14173	−0.27787	−0.08711	−0.07965	0.05224	−0.07449	−0.12680	0.18330
9.102	−2.56898	−1.85102	0.31396	1.61790	−2.16983	−0.28290	−0.08332	−0.07499	0.05000	−0.07113	−0.11749	0.17577
9.208	−2.58474	−1.83285	0.30972	1.60697	−2.19686	−0.28697	−0.07971	−0.07061	0.04785	−0.06778	−0.10916	0.16769
9.314	−2.59994	−1.81492	0.30576	1.59590	−2.22293	−0.29022	−0.07628	−0.06639	0.04581	−0.06450	−0.10169	0.15936
9.419	−2.61470	−1.79717	0.30206	1.58470	−2.24810	−0.29304	−0.07302	−0.06255	0.04385	−0.06127	−0.09497	0.15081
9.525	−2.62905	−1.77954	0.29858	1.57332	−2.27245	−0.29549	−0.06992	−0.05896	0.04198	−0.05814	−0.08890	0.14226
9.631	−2.64304	−1.76199	0.29529	1.56173	−2.29604	−0.29771	−0.06698	−0.05561	0.04020	−0.05512	−0.08341	0.13382
9.737	−2.65670	−1.74448	0.29215	1.54991	−2.31893	−0.29980	−0.06417	−0.05238	0.03868	−0.05221	−0.07842	0.12568
9.843	−2.67007	−1.72698	0.28914	1.53783	−2.34116	−0.30187	−0.06151	−0.04946	0.03709	−0.04946	−0.07390	0.11770
9.949	−2.68318	−1.70945	0.28624	1.52550	−2.36278	−0.30398	−0.05899	−0.04673	0.03560	−0.04683	−0.06978	0.11003
10.054	−2.69603	−1.69208	0.28346	1.51287	−2.38368	−0.30623	−0.05656	−0.04438	0.03401	−0.04429	−0.06606	0.10250
10.160	−2.70880	−1.67445	0.28073	1.50007	−2.40417	−0.30849	−0.05435	−0.04200	0.03271	−0.04198	−0.06263	0.09593
10.266	−2.72128	−1.65671	0.27803	1.48695	−2.42418	−0.31088	−0.05223	−0.03977	0.03145	−0.03981	−0.05954	0.08929
10.372	−2.73359	−1.63898	0.27535	1.47358	−2.44361	−0.31341	−0.05019	−0.03767	0.03032	−0.03769	−0.05653	0.08307

(*continued on next page*)

Table 46 (*continued*)

R	$\mu_{11}^{1\Pi\text{-}^1\Delta}$	$\mu_{12}^{1\Pi\text{-}^1\Delta}$	$\mu_{13}^{1\Pi\text{-}^1\Delta}$	$\mu_{21}^{1\Pi\text{-}^1\Delta}$	$\mu_{22}^{1\Pi\text{-}^1\Delta}$	$\mu_{23}^{1\Pi\text{-}^1\Delta}$	$\mu_{31}^{1\Pi\text{-}^1\Delta}$	$\mu_{32}^{1\Pi\text{-}^1\Delta}$	$\mu_{33}^{1\Pi\text{-}^1\Delta}$	$\mu_{41}^{1\Pi\text{-}^1\Delta}$	$\mu_{42}^{1\Pi\text{-}^1\Delta}$	$\mu_{43}^{1\Pi\text{-}^1\Delta}$
10.478	−2.74567	−1.62107	0.27269	1.45992	−2.46267	−0.31607	−0.04825	−0.03572	0.02926	−0.03571	−0.05386	0.07728
10.584	−2.75758	−1.60306	0.27003	1.44599	−2.48128	−0.31888	−0.04641	−0.03390	0.02828	−0.03385	−0.05140	0.07184
10.848	−2.78662	−1.55760	0.26335	1.41008	−2.52598	−0.32641	−0.04216	−0.02984	0.02614	−0.02968	−0.04591	0.05967
11.113	−2.81479	−1.51170	0.25658	1.37287	−2.56812	−0.33454	−0.03842	−0.02641	0.02444	−0.02608	−0.04147	0.04985
11.377	−2.84178	−1.46524	0.24967	1.33439	−2.60796	−0.34287	−0.03510	−0.02350	0.02291	−0.02305	−0.03775	0.04157
11.642	−2.86772	−1.41847	0.24270	1.29495	−2.64555	−0.35110	−0.03217	−0.02102	0.02163	−0.02047	−0.03461	0.03481
11.906	−2.89265	−1.37158	0.23574	1.25487	−2.68096	−0.35895	−0.02954	−0.01889	0.02053	−0.01825	−0.03190	0.02929
12.171	−2.91638	−1.32478	0.22889	1.21430	−2.71427	−0.36610	−0.02720	−0.01707	0.01949	−0.01636	−0.02944	0.02484
12.436	−2.93895	−1.27819	0.22229	1.17353	−2.74555	−0.37234	−0.02511	−0.01549	0.01855	−0.01474	−0.02739	0.02122
12.700	−2.96034	−1.23203	0.21607	1.13280	−2.77484	−0.37745	−0.02323	−0.01410	0.01770	−0.01335	−0.02556	0.01830
12.965	−2.98054	−1.18650	0.21031	1.09233	−2.80222	−0.38135	−0.02153	−0.01289	0.01689	−0.01213	−0.02393	0.01590
13.229	−2.99954	−1.14176	0.20512	1.05230	−2.82775	−0.38396	−0.01999	−0.01182	0.01611	−0.01106	−0.02246	0.01394
13.494	−3.01737	−1.09793	0.20061	1.01289	−2.85151	−0.38516	−0.01860	−0.01087	0.01539	−0.01013	−0.02111	0.01234
13.759	−3.03404	−1.05515	0.19680	0.97425	−2.87359	−0.38518	−0.01732	−0.01002	0.01470	−0.00930	−0.01987	0.01101
14.023	−3.04959	−1.01353	0.19375	0.93649	−2.89406	−0.38393	−0.01615	−0.00926	0.01404	−0.00855	−0.01873	0.00990
14.288	−3.06406	−0.97313	0.19150	0.89974	−2.91302	−0.38155	−0.01509	−0.00857	0.01335	−0.00790	−0.01766	0.00895
14.552	−3.07750	−0.93403	0.19001	0.86406	−2.93055	−0.37812	−0.01410	−0.00795	0.01271	−0.00731	−0.01666	0.00812
14.817	−3.08996	−0.89626	0.18934	0.82952	−2.94675	−0.37371	−0.01320	−0.00739	0.01205	−0.00679	−0.01573	0.00738
15.082	−3.10150	−0.85986	0.18940	0.79616	−2.96170	−0.36845	−0.01237	−0.00688	0.01142	−0.00632	−0.01484	0.00678
15.346	−3.11216	−0.82484	0.19017	0.76400	−2.97549	−0.36246	−0.01160	−0.00642	0.01082	−0.00588	−0.01402	0.00636
15.611	−3.12201	−0.79121	0.19161	0.73306	−2.98821	−0.35585	−0.01089	−0.00599	0.01024	−0.00549	−0.01325	0.00589
15.875	−3.13106	−0.75895	0.19367	0.70333	−2.99991	−0.34871	−0.01023	−0.00560	0.00966	−0.00512	−0.01252	0.00548
16.140	−3.13944	−0.72804	0.19630	0.67483	−3.01071	−0.34114	−0.00963	−0.00524	0.00914	−0.00478	−0.01184	0.00512
16.404	−3.14717	−0.69846	0.19943	0.64752	−3.02065	−0.33324	−0.00907	−0.00491	0.00862	−0.00447	−0.01117	0.00476
16.934	−3.16088	−0.64313	0.20699	0.59639	−3.03827	−0.31677	−0.00805	−0.00433	0.00765	−0.00393	−0.01002	0.00418
17.463	−3.17253	−0.59266	0.21593	0.54969	−3.05325	−0.29988	−0.00718	−0.00383	0.00680	−0.00347	−0.00899	0.00367
17.992	−3.18245	−0.54671	0.22583	0.50713	−3.06600	−0.28298	−0.00641	−0.00340	0.00604	−0.00308	−0.00809	0.00327
18.521	−3.19092	−0.50492	0.23636	0.46838	−3.07690	−0.26642	−0.00574	−0.00303	0.00537	−0.00273	−0.00730	0.00292
19.050	−3.19816	−0.46691	0.24723	0.43313	−3.08622	−0.25040	−0.00515	−0.00271	0.00480	−0.00244	−0.00659	0.00261
19.580	−3.20437	−0.43235	0.25821	0.40106	−3.09424	−0.23509	−0.00464	−0.00243	0.00429	−0.00219	−0.00596	0.00235
20.109	−3.20971	−0.40090	0.26912	0.37187	−3.10116	−0.22056	−0.00418	−0.00219	0.00383	−0.00197	−0.00540	0.00213
20.638	−3.21433	−0.37226	0.27979	0.34530	−3.10714	−0.20686	−0.00378	−0.00197	0.00344	−0.00177	−0.00490	0.00193
21.167	−3.21833	−0.34616	0.29019	0.32107	−3.11234	−0.19401	−0.00343	−0.00178	0.00309	−0.00161	−0.00447	0.00175
22.225	−3.22485	−0.30060	0.30962	0.27877	−3.12084	−0.17076	−0.00284	−0.00147	0.00266	−0.00133	−0.00372	0.00146
23.284	−3.22985	−0.26247	0.32748	0.24337	−3.12740	−0.15064	−0.00237	−0.00122	0.00221	−0.00110	−0.00313	0.00122
24.342	−3.23402	−0.23039	0.34355	0.21360	−3.13248	−0.13327	−0.00197	−0.00102	0.00186	−0.00091	−0.00264	0.00103
25.401	−3.23709	−0.20324	0.35790	0.18841	−3.13656	−0.11831	−0.00167	−0.00086	0.00118	−0.00077	−0.00224	0.00089
26.459	−3.23955	−0.18014	0.37062	0.16697	−3.13984	−0.10537	−0.00142	−0.00073	0.00092	−0.00065	−0.00191	0.00076
27.517	−3.24153	−0.16038	0.38189	0.14863	−3.14250	−0.09418	−0.00122	−0.00063	0.00072	−0.00056	−0.00164	0.00065
28.576	−3.24316	−0.14338	0.39186	0.13286	−3.14470	−0.08448	−0.00105	−0.00054	0.00055	−0.00048	−0.00142	0.00056
29.634	−3.24450	−0.12868	0.40069	0.11922	−3.14652	−0.07603	−0.00091	−0.00047	0.00042	−0.00042	−0.00123	0.00049
30.692	−3.24562	−0.11591	0.40855	0.10738	−3.14804	−0.06864	−0.00079	−0.00040	0.00032	−0.00036	−0.00108	0.00042
31.751	−3.24656	−0.10477	0.41551	0.09705	−3.14932	−0.06217	−0.00070	−0.00035	0.00024	−0.00032	−0.00095	0.00037
37.042	−3.24957	−0.06611	0.44051	0.06122	−3.15348	−0.03952	−0.00038	−0.00019	−0.00002	−0.00017	−0.00053	0.00021
42.334	−3.25109	−0.04433	0.45512	0.04104	−3.15563	−0.02663	−0.00023	−0.00011	−0.00025	−0.00010	−0.00031	0.00012
47.626	−3.25195	−0.03115	0.46421	0.02884	−3.15685	−0.01878	−0.00014	−0.00007	−0.00016	−0.00006	−0.00020	0.00008
50.272	−3.25224	−0.02649	0.46747	0.02452	−3.15727	−0.01599	−0.00011	−0.00006	−0.00013	−0.00005	−0.00016	0.00006
51.859	−3.25239	−0.02414	0.46912	0.02234	−3.15748	−0.01457	−0.00010	−0.00005	−0.00012	−0.00004	−0.00014	0.00005

Table 47
Transition dipole moments between the (5-7)$^1\Pi$ and (1-3)$^1\Delta$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu_{51}^{^1\Pi-^1\Delta}$	$\mu_{52}^{^1\Pi-^1\Delta}$	$\mu_{53}^{^1\Pi-^1\Delta}$	$\mu_{61}^{^1\Pi-^1\Delta}$	$\mu_{62}^{^1\Pi-^1\Delta}$	$\mu_{63}^{^1\Pi-^1\Delta}$	$\mu_{71}^{^1\Pi-^1\Delta}$	$\mu_{72}^{^1\Pi-^1\Delta}$	$\mu_{73}^{^1\Pi-^1\Delta}$
2.540	−0.90788	−5.18877	−2.35865	−0.26478	−0.51357	2.06125	0.56988	0.01149	0.55907
2.646	−0.88948	−5.28956	−2.05219	−0.28473	−0.47891	2.26076	0.57310	0.19960	0.84631
2.752	−0.87539	−5.39209	−1.68138	−0.30513	−0.44661	2.40090	0.57343	0.38805	1.13124
2.858	−0.86577	−5.47625	−1.27545	−0.33163	−0.43637	2.46713	0.57035	0.57538	1.41760
2.963	−0.86075	−5.52931	−0.85795	−0.36704	−0.46590	2.44815	0.56142	0.75860	1.70628
3.069	−0.86020	−5.54305	−0.44958	−0.41063	−0.54806	2.34004	0.54435	0.92816	1.98747
3.175	−0.86387	−5.51651	−0.06396	−0.45669	−0.67970	2.16338	0.51982	1.07817	2.23331
3.281	−0.87122	−5.45643	0.28701	−0.49851	−0.84860	1.96495	0.49200	1.20319	2.42033
3.387	−0.88351	−5.37426	0.59281	−0.52909	−1.02929	1.78964	0.46769	1.31223	2.53211
3.493	−0.90162	−5.28476	0.84006	−0.54713	−1.20262	1.66435	0.45052	1.41194	2.58166
3.598	−0.92705	−5.20886	0.99263	−0.55317	−1.36454	1.58739	0.44179	1.49952	2.59445
3.704	−0.96107	1.41713	−5.07231	−0.54909	1.65548	−1.39496	0.44090	2.46805	1.75703
3.810	−1.00486	1.36275	−5.06706	−0.53538	1.65323	−1.52848	0.44489	2.45268	1.81584
3.916	−1.05900	1.38453	−5.05917	−0.51359	1.71998	−1.58970	0.45251	2.37549	1.94829
4.022	−1.12369	1.37409	−5.07790	−0.48496	1.81368	−1.61612	0.46129	2.27890	2.09973
4.128	−1.19861	1.32873	−5.12463	−0.45113	1.91961	−1.61645	0.46823	2.16699	2.25680
4.233	−1.28311	1.25251	−5.19595	−0.41396	2.02578	−1.59888	0.47090	2.04633	2.41677
4.339	−1.37605	1.15064	−5.28692	−0.37526	2.12278	−1.57232	0.46724	1.92371	2.57711
4.445	−1.47568	1.02784	−5.39249	−0.33652	2.20493	−1.54614	0.45534	1.80377	2.73235
4.551	−1.57987	0.89055	−5.50563	−0.29882	2.26781	−1.52774	0.43467	1.69346	2.88675
4.657	−1.68592	0.74386	−5.61853	−0.26228	2.31139	−1.52118	0.40472	1.59655	3.04701
4.763	−1.79073	0.59219	−5.72613	−0.22674	2.33592	−1.53132	0.36455	1.51212	3.20668
4.868	−1.89113	0.43999	−5.82144	−0.19195	2.34253	−1.55809	0.31369	1.44185	3.36959
4.974	−1.98430	0.29138	−5.89906	−0.15626	2.33483	−1.60108	0.25243	1.38493	3.53716
5.080	−2.06769	0.14897	−5.95655	−0.11916	2.31375	−1.66303	0.18069	1.34147	3.70978
5.186	−2.13940	0.01380	−5.99270	−0.07967	2.28153	−1.74258	0.09910	1.31068	3.87893
5.292	−2.19848	−0.11280	−6.00737	−0.03686	2.23912	−1.83984	0.00923	1.29136	4.04889
5.398	−2.24453	−0.23131	−6.00295	0.01009	2.18875	−1.95138	−0.08698	1.28212	4.20649
5.503	−2.27786	−0.34258	−5.98280	0.06169	2.13210	−2.07468	−0.18659	1.28128	4.34897
5.609	−2.29917	−0.44797	−5.95057	0.11844	2.07192	−2.20264	−0.28620	1.28783	4.47334
5.715	−2.30951	−0.54883	−5.91134	0.17891	2.00857	−2.33147	−0.38308	1.29784	4.57171
5.821	−2.31005	−0.64651	−5.86949	0.24253	1.94400	−2.45528	−0.47441	1.30822	4.64620
5.927	−2.30186	−0.74228	−5.82794	0.30727	1.87993	−2.56157	−0.55859	1.31562	4.70292
6.033	−2.28591	−0.83675	−5.78914	0.37125	1.81756	−2.63992	−0.63420	1.31737	4.74926
6.138	−2.26288	−0.93027	−5.75630	0.43173	1.75531	−2.69211	−0.70216	1.30742	4.77816
6.244	−2.23332	−1.02234	−5.72942	0.48744	1.69245	−2.70440	−0.76249	1.28199	4.80374
6.350	−2.19754	−1.11206	−5.70980	0.53657	1.62553	−2.68866	−0.81640	1.23125	4.81291
6.456	−2.15586	−1.19790	−5.69676	0.57840	1.55234	−2.64560	−0.86437	1.14308	4.80112
6.562	−2.10872	−1.27793	−5.68947	0.61301	1.47212	−2.58365	−0.90536	0.99984	4.74756
6.668	−2.05683	−1.35011	−5.68687	0.64146	1.38683	−2.51338	−0.93561	0.78684	4.61878
6.773	−2.00123	−1.41238	−5.68788	0.66563	1.30018	−2.44669	−0.95079	0.51410	4.39189
6.879	−1.94345	−1.46357	−5.69169	0.68720	1.21769	−2.38838	−0.95176	0.22482	4.09299
6.985	−1.88517	−1.50263	−5.69778	0.70791	1.14303	−2.34321	−0.94556	−0.03572	3.77985
7.091	−1.82823	−1.52941	−5.70578	0.72889	1.07947	−2.31505	−0.93770	−0.24899	3.49359
7.197	−1.77436	−1.54425	−5.71621	0.75092	1.02844	−2.30135	−0.92858	−0.42129	3.23553
7.303	−1.72512	−1.54812	−5.72914	0.77431	0.99149	−2.30230	−0.91677	−0.56096	3.00410
7.408	−1.68174	−1.54210	−5.74538	0.79920	0.96940	−2.31537	−0.90018	−0.67667	2.78947
7.514	−1.64515	−1.52744	−5.76590	0.82541	0.96317	−2.33741	−0.87673	−0.77495	2.58167
7.620	−1.61583	−1.50533	−5.79186	0.85270	0.97373	−2.36508	−0.84522	−0.85837	2.37744
7.726	−1.59436	−1.47664	−5.82350	0.87962	1.00155	−2.39580	−0.80388	−0.92969	2.16885
7.832	−1.58066	−1.44219	−5.86176	0.90496	1.04713	−2.42414	−0.75256	−0.98902	1.95525
7.938	−1.57461	−1.40251	−5.90727	0.92664	1.11027	−2.44278	−0.69143	−1.03682	1.73397
8.043	−1.57582	−1.35793	−5.95968	0.94219	1.18957	−2.44588	−0.62181	−1.07311	1.50576
8.149	−1.58368	−1.30857	−6.01803	0.94927	1.28225	−2.42898	−0.54599	−1.09777	1.27780
8.255	−1.59742	−1.25454	−6.08347	0.94531	1.38562	−2.38167	−0.46686	−1.11227	1.05316
8.361	−1.61599	−1.19589	−6.15318	0.92945	1.49550	−2.30556	−0.38796	−1.11735	0.84034
8.467	−1.63817	−1.13291	−6.22563	0.90169	1.60817	−2.20059	−0.31220	−1.11445	0.64540
8.573	−1.66262	−1.06610	−6.29828	0.86307	1.72037	−2.07050	−0.24179	−1.10470	0.47321
8.679	−1.68804	−0.99624	−6.36921	0.81555	1.82930	−1.92126	−0.17826	−1.08858	0.32483
8.784	−1.71322	−0.92439	−6.43635	0.76173	1.93299	−1.75807	−0.12249	−1.06616	0.20017
8.890	−1.73710	−0.85195	−6.49723	0.70319	2.02961	−1.59098	−0.07442	−1.03775	0.10150
8.996	−1.75904	−0.78017	−6.55168	0.64287	2.11806	−1.42414	−0.03440	−1.00293	0.02518
9.102	−1.77854	−0.71026	−6.59916	0.58268	2.19762	−1.26181	−0.00178	−0.96238	−0.03111
9.208	−1.79549	−0.64332	−6.63967	0.52423	2.26803	−1.10883	0.02380	−0.91694	−0.06945
9.314	−1.80999	−0.58017	−6.67369	0.46886	2.32937	−0.96891	0.04290	−0.86842	−0.09228
9.419	−1.82211	−0.52127	−6.70198	0.41704	2.38212	−0.84125	0.05653	−0.81722	−0.10338
9.525	−1.83220	−0.46693	−6.72533	0.36941	2.42690	−0.72731	0.06541	−0.76532	−0.10517
9.631	−1.84054	−0.41722	−6.74456	0.32614	2.46456	−0.62678	0.07041	−0.71403	−0.10017
9.737	−1.84742	−0.37203	−6.76061	0.28705	2.49593	−0.54018	0.07232	−0.66483	−0.08987
9.843	−1.85310	−0.33118	−6.77380	0.25224	2.52207	−0.46396	0.07190	−0.61755	−0.07733
9.949	−1.85782	−0.29441	−6.78483	0.22127	2.54372	−0.39802	0.06981	−0.57314	−0.06357
10.054	−1.86070	−0.26000	−6.79406	0.19367	2.56171	−0.33700	0.06648	−0.53076	−0.05009
10.160	−1.86561	−0.23003	−6.80207	0.16968	2.57662	−0.28799	0.06296	−0.49259	−0.03704
10.266	−1.86916	−0.20370	−6.80889	0.14838	2.58896	−0.24575	0.05913	−0.45752	−0.02564
10.372	−1.87226	−0.17952	−6.81497	0.12955	2.59925	−0.20955	0.05543	−0.42515	−0.01681

(*continued on next page*)

Table 47 (*continued*)

R	$\mu_{51}^{1\Pi\text{-}1\Delta}$	$\mu_{52}^{1\Pi\text{-}1\Delta}$	$\mu_{53}^{1\Pi\text{-}1\Delta}$	$\mu_{61}^{1\Pi\text{-}1\Delta}$	$\mu_{62}^{1\Pi\text{-}1\Delta}$	$\mu_{63}^{1\Pi\text{-}1\Delta}$	$\mu_{71}^{1\Pi\text{-}1\Delta}$	$\mu_{72}^{1\Pi\text{-}1\Delta}$	$\mu_{73}^{1\Pi\text{-}1\Delta}$
10.478	−1.87459	−0.15871	−6.82032	0.11296	2.60795	−0.17882	0.05218	−0.39524	−0.01088
10.584	−1.87657	−0.14021	−6.82520	0.09836	2.61544	−0.15214	0.04976	−0.36727	−0.00874
10.848	−1.88046	−0.10251	−6.83580	0.06915	2.62971	−0.10098	0.04968	−0.30162	−0.02477
11.113	−1.88447	−0.07379	−6.84453	0.04810	2.64005	−0.06605	0.06323	−0.22832	−0.08854
11.377	−1.88709	−0.05305	−6.85195	0.03290	2.64813	−0.04233	0.08636	−0.13484	−0.18907
11.642	−1.88941	−0.03776	−6.85922	0.02205	2.65479	−0.02698	0.09804	−0.05753	−0.25329
11.906	−1.89203	−0.02646	−6.86602	0.01430	2.66048	−0.01653	0.09808	−0.01540	−0.27120
12.171	−1.89423	−0.01803	−6.87243	0.00883	2.66552	−0.00963	0.09380	0.00613	−0.26807
12.436	−1.89630	−0.01210	−6.87866	0.00502	2.67006	−0.00522	0.08810	0.01718	−0.25644
12.700	−1.89832	−0.00783	−6.88467	0.00243	2.67417	−0.00242	0.08205	0.02263	−0.24166
12.965	−1.90026	−0.00477	−6.89084	0.00069	2.67800	−0.00084	0.07600	0.02491	−0.22451
13.229	−1.90215	−0.00261	−6.89707	−0.00045	2.68150	−0.00008	0.07001	0.02532	−0.20696
13.494	−1.90391	−0.00109	−6.90332	−0.00114	2.68472	0.00019	0.06441	0.02462	−0.19013
13.759	−1.90559	−0.00006	−6.90979	−0.00155	2.68771	0.00047	0.05906	0.02326	−0.17346
14.023	−1.90723	0.00064	−6.91598	−0.00177	2.69051	0.00028	0.05394	0.02157	−0.15852
14.288	−1.90872	0.00109	−6.92267	−0.00186	2.69315	0.00015	0.04927	0.01973	−0.14380
14.552	−1.91013	0.00136	−6.92935	−0.00183	2.69550	−0.00002	0.04491	0.01786	−0.13072
14.817	−1.91145	0.00152	−6.93625	−0.00173	2.69769	−0.00017	0.04094	0.01602	−0.11811
15.082	−1.91267	0.00159	−6.94324	−0.00162	2.69977	−0.00014	0.03733	0.01428	−0.10659
15.346	−1.91383	0.00160	−6.95020	−0.00148	2.70166	−0.00017	0.03400	0.01266	−0.09645
15.611	−1.91494	0.00158	−6.95699	−0.00132	2.70342	−0.00019	0.03097	0.01118	−0.08704
15.875	−1.91575	0.00160	−6.96400	−0.00117	2.70506	−0.00023	0.02817	0.00983	−0.07855
16.140	−1.91669	0.00153	−6.97092	−0.00101	2.70661	−0.00025	0.02575	0.00863	−0.07102
16.404	−1.91758	0.00146	−6.97770	−0.00089	2.70811	−0.00024	0.02346	0.00756	−0.06456
16.934	−1.91921	0.00131	−6.99091	−0.00066	2.71072	−0.00027	0.01955	0.00575	−0.05319
17.463	−1.92066	0.00116	−7.00334	−0.00048	2.71304	−0.00033	0.01640	0.00435	−0.04453
17.992	−1.92197	0.00104	−7.01500	−0.00035	2.71510	−0.00030	0.01380	0.00327	−0.03744
18.521	−1.92314	0.00093	−7.02572	−0.00024	2.71695	−0.00025	0.01170	0.00245	−0.03184
19.050	−1.92420	0.00084	−7.03553	−0.00016	2.71863	−0.00022	0.00998	0.00183	−0.02757
19.580	−1.92515	0.00076	−7.04452	−0.00011	2.72012	−0.00022	0.00858	0.00136	−0.02395
20.109	−1.92601	0.00069	−7.05265	−0.00006	2.72147	−0.00020	0.00743	0.00101	−0.02101
20.638	−1.92679	0.00063	−7.06006	−0.00003	2.72269	−0.00043	0.00649	0.00074	−0.01859
21.167	−1.92752	0.00058	−7.06667	−0.00002	2.72378	−0.00042	0.00578	0.00055	−0.01659
22.225	−1.92876	0.00049	−7.07793	0.00001	2.72571	−0.00011	0.00455	0.00029	−0.01393
23.284	−1.92980	0.00043	−7.08704	0.00002	2.72732	−0.00024	0.00365	0.00014	−0.01160
24.342	−1.93266	0.00038	−7.09435	0.00002	2.72871	−0.00027	0.00297	0.00006	−0.00981
25.401	−1.93341	0.00034	−7.10153	0.00002	2.72983	−0.00026	0.00246	0.00001	−0.00553
26.459	−1.93405	0.00030	−7.10637	0.00002	2.73079	−0.00027	0.00205	−0.00001	−0.00425
27.517	−1.93460	0.00027	−7.11023	0.00002	2.73159	−0.00027	0.00173	−0.00002	−0.00343
28.576	−1.93507	0.00024	−7.11336	0.00002	2.73229	−0.00026	0.00148	−0.00002	−0.00276
29.634	−1.93547	0.00022	−7.11594	0.00001	2.73289	−0.00025	0.00127	−0.00003	−0.00220
30.692	−1.93583	0.00020	−7.11807	0.00001	2.73341	−0.00024	0.00109	−0.00002	−0.00173
31.751	−1.93614	0.00018	−7.11984	0.00001	2.73387	−0.00023	0.00095	−0.00002	−0.00133
37.042	−1.93722	0.00012	−7.12543	0.00000	2.73544	−0.00018	0.00050	−0.00001	−0.00002
42.334	−1.93784	0.00008	−7.12731	0.00000	2.73633	−0.00013	0.00029	−0.00001	0.00114
47.626	−1.93822	0.00006	−7.12889	0.00000	2.73686	−0.00010	0.00018	0.00000	0.00073
50.272	−1.93835	0.00005	−7.12942	0.00000	2.73706	−0.00008	0.00014	0.00000	0.00058
51.859	−1.93842	0.00004	−7.12970	0.00000	2.73715	−0.00008	0.00012	0.00000	0.00051

Table 48
Transition dipole moments between the (1-4)$^3\Pi$ and (1-3)$^3\Delta$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu_{11}^{^3\Pi\,^3\Delta}$	$\mu_{12}^{^3\Pi\,^3\Delta}$	$\mu_{13}^{^3\Pi\,^3\Delta}$	$\mu_{21}^{^3\Pi\,^3\Delta}$	$\mu_{22}^{^3\Pi\,^3\Delta}$	$\mu_{23}^{^3\Pi\,^3\Delta}$	$\mu_{31}^{^3\Pi\,^3\Delta}$	$\mu_{32}^{^3\Pi\,^3\Delta}$	$\mu_{33}^{^3\Pi\,^3\Delta}$	$\mu_{41}^{^3\Pi\,^3\Delta}$	$\mu_{42}^{^3\Pi\,^3\Delta}$	$\mu_{43}^{^3\Pi\,^3\Delta}$
2.540	−2.28885	0.49909	−0.38917	−0.94276	−0.16260	1.18962	−0.49785	1.64484	0.08154	0.06405	0.43698	−0.47392
2.646	−2.32657	0.45968	−0.28476	−0.96411	−0.37529	1.36346	−0.66909	1.81875	0.32757	0.08263	0.36885	−0.45761
2.752	−2.36472	0.42470	−0.18205	−0.96845	−0.59563	1.50703	−0.84196	1.97323	0.56574	0.10419	0.29149	−0.46157
2.858	−2.40253	0.38923	−0.09024	−0.96187	−0.82661	1.61486	−1.01170	2.10131	0.81004	0.12795	0.21555	−0.47580
2.963	−2.43932	0.35465	−0.01218	−0.94921	−1.06696	1.68041	−1.17569	2.19298	1.06720	0.15225	0.14880	−0.49559
3.069	−2.47461	0.32383	0.05321	−0.93358	−1.31082	1.69957	−1.33214	2.24078	1.33538	0.17597	0.09456	−0.51912
3.175	−2.50814	0.29915	0.10850	−0.91673	−1.54822	1.67437	−1.47930	2.24321	1.60412	0.19913	0.05149	−0.54611
3.281	−2.53984	0.28161	0.15619	−0.89967	−1.76798	1.61351	−1.61530	2.20608	1.85858	0.22256	0.01571	−0.57700
3.387	−2.56978	0.27091	0.19812	−0.88297	−1.96156	1.52972	−1.73849	2.14047	2.08531	0.24727	−0.01797	−0.61111
3.493	−2.59810	0.26607	0.23538	−0.86704	−2.12520	1.43544	−1.84754	2.05863	2.27638	0.27389	−0.05295	−0.64758
3.598	−2.62498	0.26596	0.26856	−0.85217	−2.25936	1.34006	−1.94158	1.97051	2.42946	0.30251	−0.09126	−0.68418
3.704	−2.65062	0.26963	0.29804	−0.83855	−2.36684	1.24954	−2.02011	1.88261	2.54591	0.33265	−0.13342	−0.71779
3.810	−2.67514	0.27637	0.32404	−0.82640	−2.45139	1.16677	−2.08282	1.79839	2.62873	0.36359	−0.17886	−0.74539
3.916	−2.69868	0.28575	0.34684	−0.81587	−2.51663	1.09276	−2.12953	1.71909	2.68108	0.39487	−0.22720	−0.76542
4.022	−2.72132	0.29750	0.36660	−0.80711	−2.56570	1.02747	−2.15999	1.64445	2.70564	0.42688	−0.27792	−0.77862
4.128	−2.74310	0.31152	0.38355	−0.80021	−2.60117	0.97028	−2.17371	1.57327	2.70411	0.46128	−0.33131	−0.78836
4.233	−2.76405	0.32777	0.39789	−0.79528	−2.62509	0.92039	−2.16974	1.50354	2.67704	0.50130	−0.38868	−0.80053
4.339	−2.78414	0.34631	0.40972	−0.79238	−2.63913	0.87688	−2.14626	1.43225	2.62348	0.55203	−0.45270	−0.82309
4.445	−2.80336	0.36728	0.41929	−0.79157	−2.64452	0.83893	−2.09977	1.35482	2.54014	0.62120	−0.52728	−0.86665
4.551	−2.82164	0.39084	0.42665	−0.79292	−2.64232	0.80569	−2.02332	1.26345	2.41974	0.72015	−0.61879	−0.94480
4.657	−2.83889	0.41716	0.43189	−0.79650	−2.63340	0.77641	−1.90291	1.14444	2.24743	0.86373	−0.73475	−1.07401
4.763	−2.85501	0.44649	0.43506	−0.80239	−2.61850	0.75036	−1.71438	0.97630	1.99835	1.06076	−0.87667	−1.26198
4.868	−2.86985	0.47909	0.43623	−0.81069	−2.59830	0.72689	−1.44090	0.74552	1.65930	1.27891	−1.01863	−1.46820
4.974	−2.88325	0.51522	0.43542	−0.82151	−2.57344	0.70537	−1.12965	0.48958	1.29022	1.42968	−1.10610	−1.59026
5.080	−2.89502	0.55518	0.43265	−0.83495	−2.54449	0.68523	−0.86888	0.27345	0.99004	1.46551	−1.12045	−1.57650
5.186	−2.90492	0.59923	0.42792	−0.85117	−2.51205	0.66598	−0.68787	0.11639	0.78554	1.41508	−1.08700	−1.46147
5.292	−2.91269	0.64760	0.42121	−0.87030	−2.47684	0.64712	−0.56939	0.00482	0.65204	1.31592	−1.02963	−1.28937
5.398	−2.91804	0.70050	0.41254	−0.89246	−2.43937	0.62834	−0.49187	−0.07649	0.56239	1.19100	−0.95995	−1.08704
5.503	−2.92066	0.75800	0.40189	−0.91779	−2.40040	0.60934	−0.44043	−0.13766	0.49807	1.05357	−0.88387	−0.86968
5.609	−2.92023	0.82011	0.38927	−0.94634	−2.36051	0.58999	−0.40569	−0.18434	0.44754	0.91218	−0.80460	−0.64841
5.715	−2.91645	0.88662	0.37466	−0.97813	−2.32029	0.57033	−0.38177	−0.21989	0.40344	0.77312	−0.72452	−0.43085
5.821	−2.90907	0.95713	0.35809	−1.01304	−2.28034	0.55019	−0.36477	−0.24639	0.36089	0.64090	−0.64567	−0.22363
5.927	−2.89794	1.03102	0.33960	−1.05083	−2.24114	0.52977	−0.35206	−0.26531	0.31663	0.51878	−0.56965	−0.03083
6.033	−2.88303	1.10741	0.31925	−1.09111	−2.20313	0.50925	−0.34173	−0.27757	0.26882	0.40875	−0.49758	0.14473
6.138	−2.86447	1.18517	0.29703	−1.13333	−2.16678	0.48879	−0.33244	−0.28418	0.21640	0.31173	−0.43028	0.30140
6.244	−2.84262	1.26303	0.27316	−1.17676	−2.13229	0.46865	−0.32327	−0.28598	0.15903	0.22784	−0.36822	0.43878
6.350	−2.81797	1.33966	0.24767	−1.22064	−2.10013	0.44897	−0.31359	−0.28387	0.09715	0.15661	−0.31153	0.55731
6.456	−2.79133	1.41362	0.22096	−1.26424	−2.07066	0.43004	−0.30306	−0.27858	0.03180	0.09708	−0.26022	0.65765
6.562	−2.76337	1.48375	0.19307	−1.30665	−2.04414	0.41185	−0.29149	−0.27079	−0.03529	0.04817	−0.21411	0.74068
6.668	−2.73500	1.54902	0.16437	−1.34728	−2.02091	0.39450	−0.27892	−0.26112	−0.10259	0.00868	−0.17297	0.80772
6.773	−2.70706	1.60865	0.13517	−1.38556	−2.00121	0.37811	−0.26548	−0.24999	−0.16828	−0.02261	−0.13637	0.86009
6.879	−2.68027	1.66219	0.10578	−1.42110	−1.98517	0.36269	−0.25137	−0.23779	−0.23066	−0.04684	−0.10398	0.89923
6.985	−2.65523	1.70946	0.07649	−1.45362	−1.97283	0.34835	−0.23678	−0.22485	−0.28804	−0.06508	−0.07538	0.92643
7.091	−2.63244	1.75047	0.04760	−1.48305	−1.96419	0.33495	−0.22207	−0.21128	−0.33956	−0.07827	−0.05031	0.94308
7.197	−2.61218	1.78546	0.01938	−1.50933	−1.95920	0.32248	−0.20742	−0.19733	−0.38403	−0.08726	−0.02846	0.95020
7.303	−2.59463	1.81476	−0.00804	−1.53253	−1.95761	0.31096	−0.19304	−0.18312	−0.42100	−0.09277	−0.00946	0.94886
7.408	−2.57982	1.83882	−0.03449	−1.55277	−1.95918	0.30020	−0.17911	−0.16887	−0.45020	−0.09546	0.00694	0.93983
7.514	−2.56772	1.85808	−0.05988	−1.57021	−1.96365	0.29022	−0.16579	−0.15464	−0.47154	−0.09583	0.02095	0.92386
7.620	−2.55823	1.87303	−0.08410	−1.58502	−1.97074	0.28083	−0.15321	−0.14056	−0.48529	−0.09438	0.03277	0.90140
7.726	−2.55121	1.88410	−0.10712	−1.59736	−1.98017	0.27204	−0.14141	−0.12678	−0.49188	−0.09140	0.04262	0.87343
7.832	−2.54648	1.89176	−0.12891	−1.60742	−1.99164	0.26347	−0.13044	−0.11339	−0.49180	−0.08726	0.05062	0.84027
7.938	−2.54385	1.89640	−0.14943	−1.61537	−2.00487	0.25520	−0.12036	−0.10051	−0.48588	−0.08222	0.05690	0.80255
8.043	−2.54313	1.89834	−0.16870	−1.62138	−2.01966	0.24693	−0.11115	−0.08819	−0.47484	−0.07650	0.06160	0.76095
8.149	−2.54412	1.89793	−0.18670	−1.62560	−2.03576	0.23853	−0.10280	−0.07654	−0.45948	−0.07030	0.06486	0.71623
8.255	−2.54664	1.89544	−0.20338	−1.62820	−2.05296	0.22987	−0.09530	−0.06562	−0.44080	−0.06377	0.06679	0.66921
8.361	−2.55051	1.89115	−0.21882	−1.62927	−2.07104	0.22073	−0.08856	−0.05550	−0.41921	−0.05711	0.06754	0.62064
8.467	−2.55557	1.88526	−0.23297	−1.62896	−2.08986	0.21101	−0.08255	−0.04616	−0.39588	−0.05044	0.06722	0.57144
8.573	−2.56168	1.87797	−0.24589	−1.62738	−2.10926	0.20058	−0.07722	−0.03763	−0.37137	−0.04386	0.06595	0.52255
8.679	−2.56870	1.86943	−0.25752	−1.62462	−2.12912	0.18936	−0.07249	−0.02991	−0.34633	−0.03751	0.06390	0.47453
8.784	−2.57650	1.85979	−0.26801	−1.62078	−2.14931	0.17732	−0.06831	−0.02298	−0.32092	−0.03144	0.06116	0.42825
8.890	−2.58499	1.84918	−0.27724	−1.61595	−2.16974	0.16439	−0.06461	−0.01681	−0.29630	−0.02575	0.05787	0.38414
8.996	−2.59409	1.83771	−0.28536	−1.61020	−2.19032	0.15056	−0.06129	−0.01131	−0.27237	−0.02045	0.05416	0.34273
9.102	−2.60366	1.82546	−0.29237	−1.60359	−2.21098	0.13587	−0.05840	−0.00650	−0.24942	−0.01561	0.05010	0.30421
9.208	−2.61365	1.81252	−0.29835	−1.59620	−2.23165	0.12035	−0.05580	−0.00229	−0.22733	−0.01122	0.04581	0.26879
9.314	−2.62400	1.79896	−0.30332	−1.58807	−2.25228	0.10408	−0.05348	0.00132	−0.20676	−0.00727	0.04141	0.23649
9.419	−2.63464	1.78483	−0.30735	−1.57927	−2.27282	0.08714	−0.05141	0.00444	−0.18753	−0.00378	0.03692	0.20724
9.525	−2.64552	1.77020	−0.31050	−1.56983	−2.29323	0.06963	−0.04954	0.00710	−0.16961	−0.00071	0.03245	0.18095
9.631	−2.65659	1.75510	−0.31269	−1.55979	−2.31348	0.05159	−0.04782	0.00935	−0.15292	0.00197	0.02804	0.15747
9.737	−2.66782	1.73959	−0.31426	−1.54921	−2.33354	0.03325	−0.04625	0.01122	−0.13756	0.00426	0.02368	0.13672
9.843	−2.67915	1.72371	−0.31512	−1.53811	−2.35338	0.01465	−0.04480	0.01279	−0.12343	0.00625	0.01958	0.11820
9.949	−2.69060	1.70749	−0.31521	−1.52652	−2.37298	−0.00410	−0.04345	0.01407	−0.11044	0.00794	0.01567	0.10186
10.054	−2.70201	1.69092	−0.31493	−1.51449	−2.39230	−0.02282	−0.04221	0.01502	−0.09881	0.00936	0.01187	0.08738
10.160	−2.71354	1.67403	−0.31399	−1.50203	−2.41140	−0.04154	−0.04101	0.01586	−0.08791	0.01051	0.00842	0.07473
10.266	−2.72505	1.65694	−0.31255	−1.48917	−2.43020	−0.06006	−0.03988	0.01649	−0.07798	0.01151	0.00525	0.06360
10.372	−2.73654	1.63958	−0.31068	−1.47593	−2.44869	−0.07839	−0.03880	0.01697	−0.06894	0.01230	0.00226	0.05387

(*continued on next page*)

Table 48 (*continued*)

R	$\mu_{11}^{^3\Pi\text{-}^3\Delta}$	$\mu_{12}^{^3\Pi\text{-}^3\Delta}$	$\mu_{13}^{^3\Pi\text{-}^3\Delta}$	$\mu_{21}^{^3\Pi\text{-}^3\Delta}$	$\mu_{22}^{^3\Pi\text{-}^3\Delta}$	$\mu_{23}^{^3\Pi\text{-}^3\Delta}$	$\mu_{31}^{^3\Pi\text{-}^3\Delta}$	$\mu_{32}^{^3\Pi\text{-}^3\Delta}$	$\mu_{33}^{^3\Pi\text{-}^3\Delta}$	$\mu_{41}^{^3\Pi\text{-}^3\Delta}$	$\mu_{42}^{^3\Pi\text{-}^3\Delta}$	$\mu_{43}^{^3\Pi\text{-}^3\Delta}$
10.478	−2.74799	1.62205	−0.30841	−1.46234	−2.46689	−0.09639	−0.03778	0.01729	−0.06069	0.01296	−0.00040	0.04539
10.584	−2.75941	1.60426	−0.30578	−1.44845	−2.48480	−0.11401	−0.03679	0.01752	−0.05323	0.01348	−0.00283	0.03798
10.848	−2.78756	1.55912	−0.29792	−1.41241	−2.52819	−0.15599	−0.03445	0.01768	−0.03738	0.01428	−0.00799	0.02340
11.113	−2.81509	1.51311	−0.28874	−1.37484	−2.56959	−0.19452	−0.03230	0.01737	−0.02504	0.01444	−0.01197	0.01306
11.377	−2.84183	1.46655	−0.27875	−1.33605	−2.60892	−0.22913	−0.03028	0.01680	−0.01549	0.01428	−0.01485	0.00586
11.642	−2.86768	1.41957	−0.26836	−1.29632	−2.64617	−0.25965	−0.02837	0.01609	−0.00820	0.01392	−0.01694	0.00092
11.906	−2.89253	1.37245	−0.25795	−1.25592	−2.68138	−0.28610	−0.02658	0.01527	−0.00260	0.01338	−0.01830	−0.00248
12.171	−2.91628	1.32540	−0.24793	−1.21511	−2.71456	−0.30852	−0.02491	0.01441	0.00157	0.01274	−0.01911	−0.00477
12.436	−2.93888	1.27865	−0.23830	−1.17415	−2.74575	−0.32716	−0.02334	0.01354	0.00471	0.01205	−0.01949	−0.00631
12.700	−2.96028	1.23236	−0.22942	−1.13328	−2.77499	−0.34223	−0.02186	0.01268	0.00702	0.01137	−0.01952	−0.00719
12.965	−2.98053	1.18673	−0.22131	−1.09269	−2.80231	−0.35410	−0.02049	0.01185	0.00866	0.01068	−0.01931	−0.00759
13.229	−2.99955	1.14192	−0.21415	−1.05258	−2.82783	−0.36297	−0.01919	0.01106	0.00971	0.01001	−0.01894	−0.00782
13.494	−3.01739	1.09805	−0.20799	−1.01309	−2.85158	−0.36898	−0.01799	0.01032	0.01038	0.00934	−0.01841	−0.00779
13.759	−3.03409	1.05522	−0.20238	−0.97440	−2.87364	−0.37322	−0.01685	0.00962	0.01077	0.00873	−0.01782	−0.00740
14.023	−3.04968	1.01357	−0.19823	−0.93663	−2.89410	−0.37495	−0.01579	0.00897	0.01094	0.00815	−0.01712	−0.00714
14.288	−3.06416	0.97315	−0.19500	−0.89984	−2.91306	−0.37483	−0.01481	0.00837	0.01095	0.00761	−0.01644	−0.00687
14.552	−3.07759	0.93402	−0.19274	−0.86414	−2.93059	−0.37309	−0.01388	0.00781	0.01080	0.00709	−0.01573	−0.00658
14.817	−3.09006	0.89625	−0.19139	−0.82959	−2.94678	−0.36999	−0.01304	0.00729	0.01057	0.00662	−0.01498	−0.00621
15.082	−3.10160	0.85984	−0.19095	−0.79621	−2.96173	−0.36570	−0.01224	0.00681	0.01026	0.00619	−0.01428	−0.00590
15.346	−3.11227	0.82482	−0.19134	−0.76405	−2.97550	−0.36044	−0.01150	0.00637	0.00989	0.00578	−0.01359	−0.00559
15.611	−3.12213	0.79119	−0.19248	−0.73310	−2.98822	−0.35437	−0.01082	0.00596	0.00950	0.00541	−0.01292	−0.00529
15.875	−3.13122	0.75892	−0.19430	−0.70339	−2.99993	−0.34764	−0.01018	0.00558	0.00907	0.00507	−0.01227	−0.00499
16.140	−3.13961	0.72801	−0.19674	−0.67488	−3.01073	−0.34038	−0.00958	0.00523	0.00865	0.00475	−0.01165	−0.00472
16.404	−3.14734	0.69842	−0.19973	−0.64757	−3.02067	−0.33271	−0.00902	0.00491	0.00823	0.00445	−0.01105	−0.00446
16.934	−3.16106	0.64311	−0.20711	−0.59643	−3.03829	−0.31653	−0.00803	0.00433	0.00741	0.00391	−0.00995	−0.00397
17.463	−3.17271	0.59263	−0.21594	−0.54972	−3.05326	−0.29979	−0.00715	0.00383	0.00664	0.00347	−0.00897	−0.00355
17.992	−3.18263	0.54667	−0.22577	−0.50716	−3.06601	−0.28298	−0.00639	0.00340	0.00594	0.00308	−0.00808	−0.00318
18.521	−3.19110	0.50488	−0.23626	−0.46841	−3.07690	−0.26645	−0.00572	0.00303	0.00532	0.00275	−0.00729	−0.00286
19.050	−3.19835	0.46688	−0.24709	−0.43316	−3.08624	−0.25044	−0.00514	0.00271	0.00476	0.00245	−0.00659	−0.00258
19.580	−3.20456	0.43233	−0.25806	−0.40108	−3.09427	−0.23513	−0.00463	0.00243	0.00427	0.00219	−0.00595	−0.00235
20.109	−3.20991	0.40088	−0.26896	−0.37189	−3.10118	−0.22061	−0.00419	0.00219	0.00382	0.00196	−0.00540	−0.00212
20.638	−3.21452	0.37224	−0.27965	−0.34532	−3.10716	−0.20691	−0.00379	0.00197	0.00344	0.00177	−0.00490	−0.00192
21.167	−3.21853	0.34613	−0.29005	−0.32110	−3.11235	−0.19406	−0.00343	0.00178	0.00311	0.00161	−0.00445	−0.00176
22.225	−3.22505	0.30056	−0.30962	−0.27880	−3.12085	−0.17086	−0.00284	0.00147	0.00266	0.00132	−0.00372	−0.00150
23.284	−3.23006	0.26244	−0.32750	−0.24340	−3.12742	−0.15073	−0.00237	0.00122	0.00220	0.00109	−0.00313	−0.00127
24.342	−3.23401	0.23033	−0.34356	−0.21360	−3.13250	−0.13335	−0.00197	0.00102	0.00185	0.00091	−0.00264	−0.00104
25.401	−3.23708	0.20318	−0.35788	−0.18840	−3.13658	−0.11837	−0.00167	0.00086	0.00157	0.00077	−0.00225	−0.00090
26.459	−3.23954	0.18008	−0.37060	−0.16697	−3.13986	−0.10543	−0.00142	0.00073	0.00135	0.00066	−0.00192	−0.00077
27.517	−3.24153	0.16031	−0.38188	−0.14863	−3.14253	−0.09423	−0.00122	0.00062	0.00116	0.00056	−0.00164	−0.00065
28.576	−3.24315	0.14331	−0.39185	−0.13286	−3.14472	−0.08452	−0.00105	0.00054	0.00101	0.00048	−0.00142	−0.00055
29.634	−3.24449	0.12861	−0.40068	−0.11922	−3.14654	−0.07607	−0.00091	0.00047	0.00088	0.00042	−0.00123	−0.00048
30.692	−3.24561	0.11587	−0.40851	−0.10738	−3.14805	−0.06868	−0.00079	0.00041	0.00078	0.00036	−0.00108	−0.00041
31.751	−3.24655	0.10474	−0.41546	−0.09705	−3.14933	−0.06221	−0.00070	0.00035	0.00069	0.00032	−0.00094	−0.00036
37.042	−3.24956	0.06611	−0.44044	−0.06122	−3.15349	−0.03955	−0.00038	0.00019	0.00040	0.00017	−0.00053	−0.00020
42.334	−3.25109	0.04433	−0.45512	−0.04104	−3.15563	−0.02665	−0.00023	0.00011	0.00024	0.00010	−0.00031	−0.00012
47.626	−3.25195	0.03115	−0.46421	−0.02884	−3.15685	−0.01880	−0.00014	0.00007	0.00015	0.00006	−0.00020	−0.00007
50.272	−3.25224	0.02649	−0.46747	−0.02452	−3.15727	−0.01601	−0.00011	0.00006	0.00013	0.00005	−0.00016	−0.00006
51.859	−3.25239	0.02414	−0.46912	−0.02234	−3.15748	−0.01460	−0.00010	0.00005	0.00011	0.00004	−0.00014	−0.00005

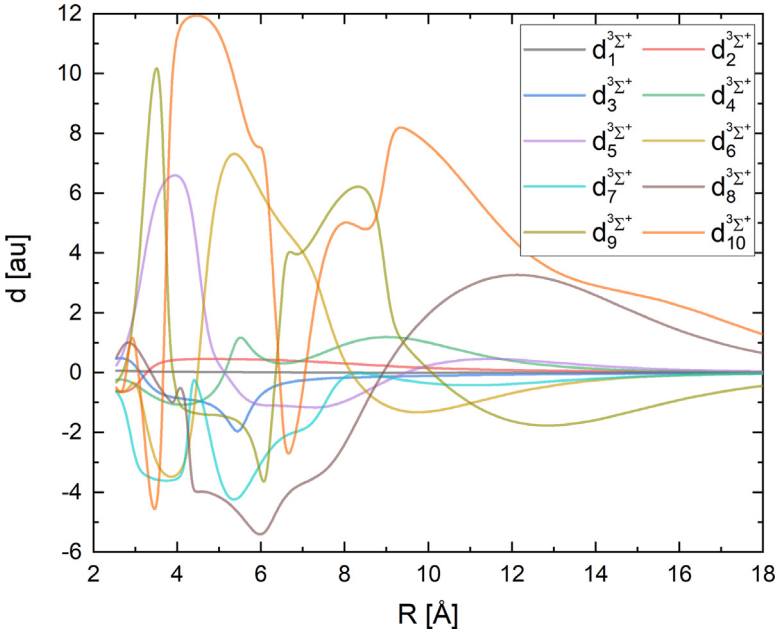
Table 49
Transition dipole moments between the (5-7)$^3\Pi$ and (1-3)$^3\Delta$ electronic states of the KRb molecule. See the explanation of the table.

R	$\mu_{51}^{^3\Pi\,^3\Delta}$	$\mu_{52}^{^3\Pi\,^3\Delta}$	$\mu_{53}^{^3\Pi\,^3\Delta}$	$\mu_{61}^{^3\Pi\,^3\Delta}$	$\mu_{62}^{^3\Pi\,^3\Delta}$	$\mu_{63}^{^3\Pi\,^3\Delta}$	$\mu_{71}^{^3\Pi\,^3\Delta}$	$\mu_{72}^{^3\Pi\,^3\Delta}$	$\mu_{73}^{^3\Pi\,^3\Delta}$
2.540	−0.92327	−3.44181	5.25917	0.02099	−1.70166	−1.35472			
2.646	−1.00000	−3.37701	5.41230	0.04024	−1.86201	−1.56576	0.12704	−0.90383	−0.03293
2.752	−1.08382	−3.37253	5.51126	0.05782	−2.01487	−1.78914	0.21475	−1.03138	−0.21251
2.858	−1.17314	−3.34648	5.60296	0.07046	−2.17131	−1.99472	0.28206	−1.15744	−0.41561
2.963	−1.26580	−3.25931	5.70580	0.07752	−2.33805	−2.16090	0.32950	−1.27811	−0.65028
3.069	−1.35975	−3.10161	5.82046	0.07928	−2.51557	−2.27624	0.36132	−1.38038	−0.91835
3.175	−1.45336	−2.88706	5.93501	0.07623	−2.69684	−2.34084	0.38137	−1.45242	−1.21325
3.281	−1.54556	−2.64243	6.03410	0.06903	−2.87044	−2.36419	0.39257	−1.48846	−1.52231
3.387	−1.63558	−2.39687	6.10798	0.05843	−3.02536	−2.35968	0.39711	−1.49033	−1.82944
3.493	−1.72323	−2.17153	6.15410	0.04527	−3.15461	−2.34009	0.39685	−1.46440	−2.12070
3.598	−1.80859	−1.97772	6.17607	0.03040	−3.25568	−2.31475	0.39334	−1.41870	−2.38613
3.704	−1.89198	−1.81855	6.18034	0.01450	−3.32937	−2.28861	0.38788	−1.36034	−2.61922
3.810	−1.97389	−1.69241	6.17359	−0.00183	−3.37787	−2.26433	0.38150	−1.29449	−2.81657
3.916	−2.05487	−1.59556	6.16157	−0.01815	−3.40399	−2.24296	0.37516	−1.22538	−2.97736
4.022	−2.13534	−1.52406	6.14857	−0.03417	−3.41056	−2.22480	0.36954	−1.15510	−3.10021
4.128	−2.21554	−1.47432	6.13723	−0.04972	−3.40013	−2.20986	0.36526	−1.08490	−3.18450
4.233	−2.29546	−1.44323	6.12905	−0.06471	−3.37497	−2.19798	0.36290	−1.01534	−3.22871
4.339	−2.37488	−1.42813	6.12432	−0.07914	−3.33748	−2.18918	0.36318	−0.94685	−3.22966
4.445	−2.45326	−1.42693	6.12381	−0.09302	−3.28869	−2.18256	0.36686	−0.87806	−3.18189
4.551	−2.52993	−1.43774	6.12677	−0.10642	−3.23056	−2.17795	0.37535	−0.80819	−3.07453
4.657	−2.60389	−1.45897	6.13235	−0.11938	−3.16459	−2.17479	0.39099	−0.73505	−2.88632
4.763	−2.67380	−1.48929	6.13922	−0.13199	−3.09219	−2.17231	0.41849	−0.65432	−2.57275
4.868	−2.73796	−1.52718	6.14554	−0.14431	−3.01476	−2.16984	0.46788	−0.55578	−2.02781
4.974	−2.79422	−1.57142	6.14890	−0.15640	−2.93371	−2.16626	0.56070	−0.41340	−0.99539
5.080	−2.84008	−1.62015	6.14653	−0.16820	−2.84997	−2.15991	0.71298	−0.18370	0.84408
5.186	−2.87267	−1.67151	6.13516	−0.17985	−2.76565	−2.15015	0.86162	0.06083	2.64755
5.292	−2.88906	−1.72372	6.11134	−0.19129	−2.68190	−2.13344	0.98060	0.21170	3.55443
5.398	−2.88648	−1.77444	6.07169	−0.20216	−2.59994	−2.10862	1.09497	0.30726	3.97539
5.503	−2.86267	−1.82131	6.01372	−0.21185	−2.52173	−2.07126	1.20966	0.38518	4.22686
5.609	−2.81624	−1.86197	5.93554	−0.21872	−2.44880	−2.01487	1.32423	0.45552	4.42314
5.715	−2.74692	−1.89420	5.83636	−0.21782	−2.38415	−1.92297	1.43699	0.51709	4.61151
5.821	−2.65559	−1.91609	5.71684	−0.18685	−2.33746	−1.72612	1.54810	0.54043	4.82978
5.927	−2.54438	−1.92608	5.57832	−0.32897	−2.36692	−0.00288	1.62453	0.11449	5.26171
6.033	−2.41644	−1.92305	5.42349	1.67894	1.06950	4.85523	−0.47786	−2.09416	−2.34706
6.138	−2.27578	−1.90650	5.25490	1.77102	1.06325	5.13047	−0.42516	−2.08788	−2.05005
6.244	−2.12689	−1.87640	5.07680	1.83409	1.12508	5.31894	−0.42861	−2.05285	−1.90730
6.350	−1.97443	−1.83348	4.89309	1.87869	1.19679	5.47776	−0.44838	−2.01211	−1.80588
6.456	−1.82262	−1.77930	4.70873	1.90606	1.26577	5.61077	−0.47933	−1.96512	−1.73477
6.562	−1.67566	−1.71544	4.52652	1.91662	1.32694	5.71596	−0.52275	−1.90405	−1.70614
6.668	−1.53661	−1.64421	4.35046	1.91040	1.37773	5.78707	−0.58280	−1.81478	−1.74274
6.773	−1.40777	−1.56791	4.18359	1.88677	1.41736	5.81552	−0.66481	−1.67821	−1.87490
6.879	−1.29058	−1.48879	4.02820	1.84373	1.44589	5.78934	−0.77206	−1.48000	−2.12777
6.985	−1.18577	−1.40887	3.88557	1.77757	1.46359	5.69206	−0.90303	−1.23223	−2.50403
7.091	−1.09328	−1.32985	3.75710	1.68348	1.46997	5.50386	−1.05245	−0.97045	−2.97861
7.197	−1.01274	−1.25302	3.64274	1.55832	1.46341	5.21065	−1.21220	−0.72709	−3.51424
7.303	−0.94343	−1.17934	3.54237	1.40587	1.44227	4.81955	−1.36802	−0.51941	−4.05381
7.408	−0.88454	−1.10952	3.45553	1.23972	1.40797	4.36886	−1.50284	−0.35645	−4.53680
7.514	−0.83507	−1.04387	3.38135	1.07767	1.36659	3.91550	−1.60674	−0.24175	−4.92397
7.620	−0.79407	−0.98252	3.31901	0.93287	1.32505	3.50220	−1.67982	−0.17128	−5.21018
7.726	−0.76065	−0.92550	3.26777	0.81034	1.28856	3.14760	−1.72814	−0.13685	−5.41196
7.832	−0.73402	−0.87262	3.22634	0.70944	1.25929	2.85210	−1.75874	−0.12817	−5.55279
7.938	−0.71339	−0.82368	3.19415	0.62718	1.23795	2.60776	−1.77726	−0.13680	−5.65171
8.043	−0.69812	−0.77839	3.17032	0.55997	1.22406	2.40565	−1.78768	−0.15615	−5.72272
8.149	−0.68764	−0.73648	3.15422	0.50484	1.21697	2.23653	−1.79266	−0.18171	−5.77528
8.255	−0.68144	−0.69764	3.14562	0.45929	1.21592	2.09348	−1.79389	−0.21034	−5.81490
8.361	−0.67916	−0.66156	3.14362	0.42146	1.22024	1.97055	−1.79247	−0.24007	−5.84596
8.467	−0.68043	−0.62795	3.14853	0.38980	1.22949	1.86378	−1.78908	−0.26934	−5.87013
8.573	−0.68498	−0.59653	3.16019	0.36318	1.24318	1.77002	−1.78419	−0.29735	−5.88861
8.679	−0.69259	−0.56713	3.17892	0.34073	1.26096	1.68648	−1.77808	−0.32409	−5.90090
8.784	−0.70310	−0.53951	3.20411	0.32175	1.28255	1.61203	−1.77085	−0.34877	−5.90902
8.890	−0.71638	−0.51346	3.23728	0.30569	1.30774	1.54526	−1.76261	−0.37156	−5.91073
8.996	−0.73238	−0.48882	3.27820	0.29206	1.33647	1.48505	−1.75327	−0.39254	−5.90647
9.102	−0.75097	−0.46548	3.32718	0.28061	1.36838	1.43049	−1.74294	−0.41182	−5.89596
9.208	−0.77221	−0.44328	3.38414	0.27097	1.40344	1.38073	−1.73140	−0.42957	−5.87941
9.314	−0.79601	−0.42217	3.45072	0.26289	1.44154	1.33552	−1.71863	−0.44602	−5.85438
9.419	−0.82244	−0.40199	3.52626	0.25606	1.48257	1.29409	−1.70442	−0.46127	−5.82193
9.525	−0.85151	−0.38266	3.61127	0.25023	1.52639	1.25560	−1.68860	−0.47545	−5.78111
9.631	−0.88323	−0.36410	3.70596	0.24500	1.57289	1.21957	−1.67099	−0.48853	−5.73153
9.737	−0.91761	−0.34618	3.81043	0.23974	1.62192	1.18258	−1.65143	−0.50019	−5.67257
9.843	−0.95462	−0.32887	3.92467	0.23329	1.67355	1.14137	−1.62983	−0.50947	−5.60430
9.949	−0.99421	−0.31204	4.04837	0.22276	1.72841	1.08627	−1.60630	−0.51327	−5.52792
10.054	−1.03624	−0.29579	4.18236	0.19900	1.78862	0.98556	−1.58182	−0.50076	−5.44628
10.160	−1.08061	−0.27971	4.32393	0.10766	1.86931	0.65173	−1.56002	−0.40457	−5.38553
10.266	−1.12700	−0.26395	4.47313	−1.27530	1.30596	−4.26955	−0.84521	1.47207	−3.14340
10.372	−1.17512	−0.24835	4.62859	−1.43084	−0.83491	−4.87615	0.42568	1.84222	1.70488

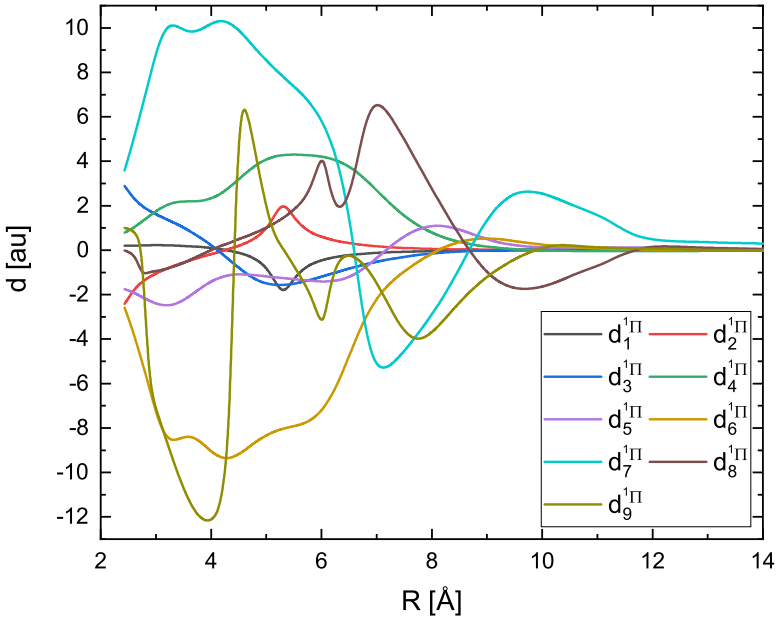
(*continued on next page*)

Table 49 (*continued*)

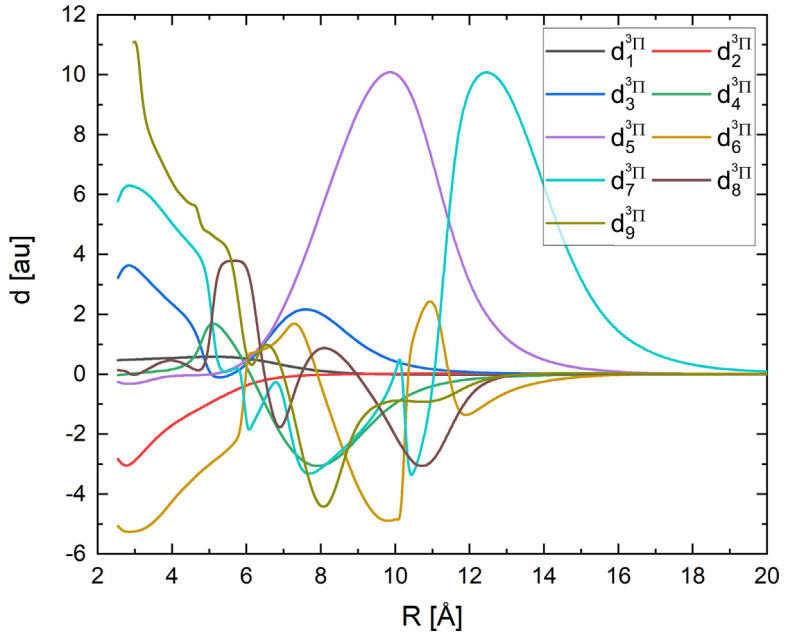
R	$\mu_{51}^{^3\Pi\text{-}^3\Delta}$	$\mu_{52}^{^3\Pi\text{-}^3\Delta}$	$\mu_{53}^{^3\Pi\text{-}^3\Delta}$	$\mu_{61}^{^3\Pi\text{-}^3\Delta}$	$\mu_{62}^{^3\Pi\text{-}^3\Delta}$	$\mu_{63}^{^3\Pi\text{-}^3\Delta}$	$\mu_{71}^{^3\Pi\text{-}^3\Delta}$	$\mu_{72}^{^3\Pi\text{-}^3\Delta}$	$\mu_{73}^{^3\Pi\text{-}^3\Delta}$
10.478	−1.22449	−0.23300	4.78870	−1.39983	−0.81162	−4.76961	0.38664	1.91101	1.55250
10.584	−1.27454	−0.21779	4.95156	−1.35459	−0.83809	−4.60637	0.38486	1.95627	1.52737
10.848	−1.39854	−0.18079	5.35529	−1.20742	−1.00982	−4.06940	0.43864	2.00824	1.66185
11.113	−1.51286	−0.14607	5.72562	−0.99491	−1.38169	−3.30130	0.57205	1.89933	2.05827
11.377	−1.60978	−0.11501	6.03623	−0.66208	−1.97695	−2.13436	0.75915	1.41237	2.61499
11.642	−1.68640	−0.08867	6.27789	−0.34825	−2.36310	−1.07063	0.80075	0.79177	2.68059
11.906	−1.74419	−0.06742	6.45611	−0.18927	−2.50015	−0.54920	0.72735	0.44729	2.38492
12.171	−1.78672	−0.05085	6.58426	−0.11323	−2.56093	−0.30852	0.63459	0.27659	2.04028
12.436	−1.81779	−0.03827	6.67545	−0.07267	−2.59660	−0.18541	0.54718	0.18372	1.72393
12.700	−1.84062	−0.02881	6.74040	−0.04895	−2.62081	−0.11654	0.46943	0.12851	1.44721
12.965	−1.85755	−0.02182	6.78764	−0.03414	−2.63846	−0.07614	0.40132	0.09341	1.21000
13.229	−1.87031	−0.01658	6.82222	−0.02445	−2.65195	−0.05082	0.34183	0.07004	1.00722
13.494	−1.88009	−0.01267	6.84878	−0.01788	−2.66240	−0.03462	0.29002	0.05387	0.83448
13.759	−1.88768	−0.00983	6.87052	−0.01330	−2.67074	−0.00930	0.24490	0.04238	0.68779
14.023	−1.89366	−0.00766	6.88768	−0.01004	−2.67758	−0.00864	0.20594	0.03397	0.56465
14.288	−1.89851	−0.00606	6.90194	−0.00769	−2.68314	−0.00807	0.17265	0.02768	0.46218
14.552	−1.90245	−0.00487	6.91428	−0.00595	−2.68780	−0.00757	0.14438	0.02289	0.37798
14.817	−1.90569	−0.00397	6.92507	−0.00465	−2.69181	−0.00711	0.12065	0.01919	0.30936
15.082	−1.90841	−0.00328	6.93502	−0.00367	−2.69519	−0.00671	0.10095	0.01624	0.25376
15.346	−1.91072	−0.00276	6.94421	−0.00292	−2.69812	−0.00635	0.08467	0.01386	0.20896
15.611	−1.91270	−0.00235	6.95284	−0.00234	−2.70068	−0.00601	0.07123	0.01190	0.17292
15.875	−1.91443	−0.00203	6.96101	−0.00189	−2.70295	−0.00571	0.06006	0.01028	0.14381
16.140	−1.91594	−0.00178	6.96879	−0.00154	−2.70497	−0.00543	0.05094	0.00889	0.12048
16.404	−1.91729	−0.00158	6.97610	−0.00126	−2.70679	−0.00516	0.04343	0.00772	0.10183
16.934	−1.91958	−0.00127	6.99013	−0.00086	−2.70993	−0.00469	0.03189	0.00582	0.07408
17.463	−1.92149	−0.00110	7.00306	−0.00059	−2.71256	−0.00428	0.02410	0.00437	0.05562
17.992	−1.92309	−0.00096	7.01495	−0.00040	−2.71481	−0.00392	0.01863	0.00330	0.04305
18.521	−1.92450	−0.00086	7.02578	−0.00028	−2.71678	−0.00360	0.01469	0.00250	0.03412
19.050	−1.92569	−0.00075	7.03576	−0.00019	−2.71851	−0.00332	0.01189	0.00188	0.02795
19.580	−1.92675	−0.00066	7.04477	−0.00012	−2.72008	−0.00306	0.00978	0.00140	0.02336
20.109	−1.92768	−0.00061	7.05291	−0.00007	−2.72144	−0.00283	0.00819	0.00106	0.02008
20.638	−1.92853	−0.00057	7.06024	−0.00004	−2.72267	−0.00263	0.00697	0.00079	0.01755
21.167	−1.92930	−0.00055	7.06684	−0.00002	−2.72379	−0.00243	0.00606	0.00056	0.01542
22.225	−1.93062	−0.00048	7.07807	0.00001	−2.72572	−0.00212	0.00466	0.00030	0.01243
23.284	−1.93171	−0.00043	7.08712	0.00003	−2.72733	−0.00185	0.00370	0.00015	0.01039
24.342	−1.93257	−0.00043	7.09440	0.00002	−2.72871	−0.00160	0.00298	0.00008	0.00903
25.401	−1.93334	−0.00039	7.10029	0.00002	−2.72983	−0.00141	0.00246	0.00002	0.00770
26.459	−1.93399	−0.00036	7.10504	0.00002	−2.73078	−0.00125	0.00206	0.00000	0.00668
27.517	−1.93455	−0.00033	7.10890	0.00002	−2.73160	−0.00115	0.00173	−0.00001	0.00580
28.576	−1.93503	−0.00031	7.11208	0.00001	−2.73230	−0.00103	0.00148	−0.00002	0.00506
29.634	−1.93545	−0.00029	7.11470	0.00001	−2.73289	−0.00092	0.00127	−0.00002	0.00443
30.692	−1.93580	−0.00006	7.11688	0.00001	−2.73341	−0.00083	0.00109	−0.00003	0.00388
31.751	−1.93612	0.00005	7.11870	0.00001	−2.73386	−0.00073	0.00095	−0.00002	0.00341
37.042	−1.93721	0.00011	7.12445	0.00000	−2.73544	−0.00050	0.00050	−0.00001	0.00190
42.334	−1.93783	0.00008	7.12729	0.00000	−2.73633	−0.00034	0.00029	−0.00001	0.00114
47.626	−1.93821	0.00006	7.12888	0.00000	−2.73686	−0.00023	0.00018	0.00000	0.00073
50.272	−1.93835	0.00005	7.12942	0.00000	−2.73706	−0.00020	0.00014	0.00000	0.00058
51.859	−1.93842	0.00004	7.12968	0.00000	−2.73715	−0.00018	0.00012	0.00000	0.00051



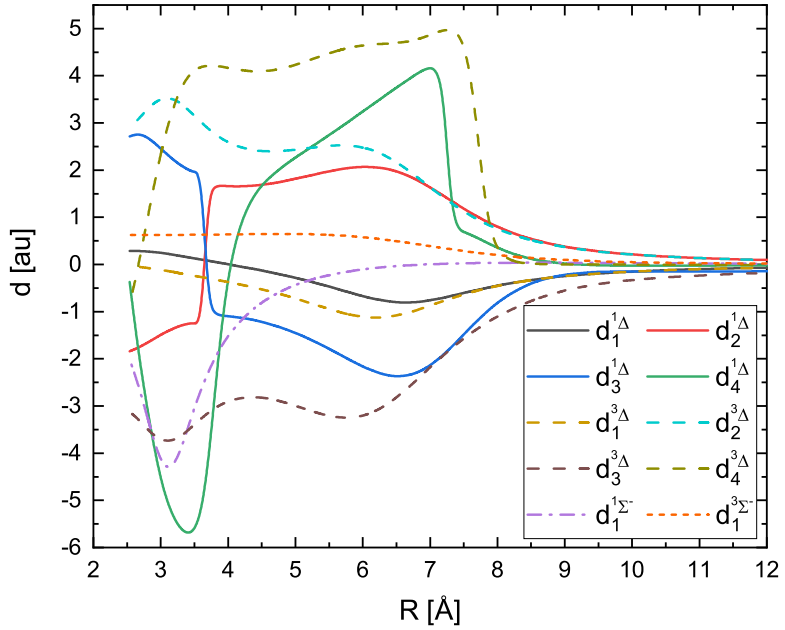
Graph 1. Permanent dipole moments for the $(1–10)^3\Sigma^+$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)



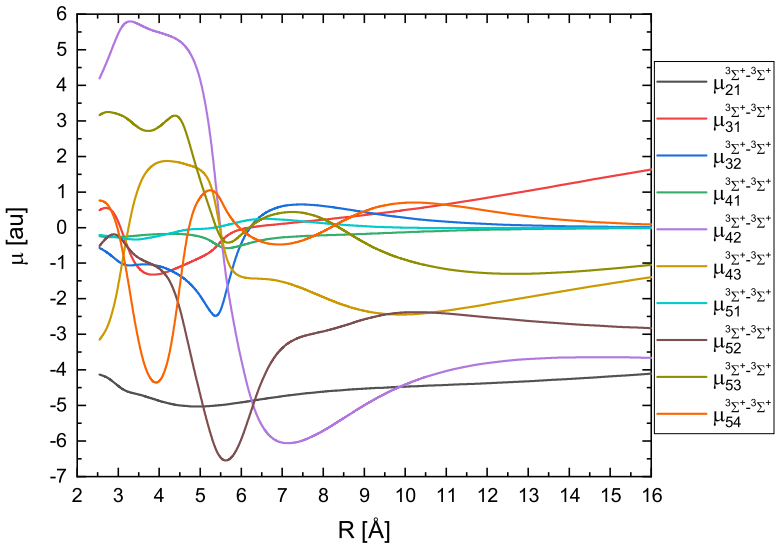
Graph 2. Permanent dipole moments for the $(1–9)^1\Pi$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)



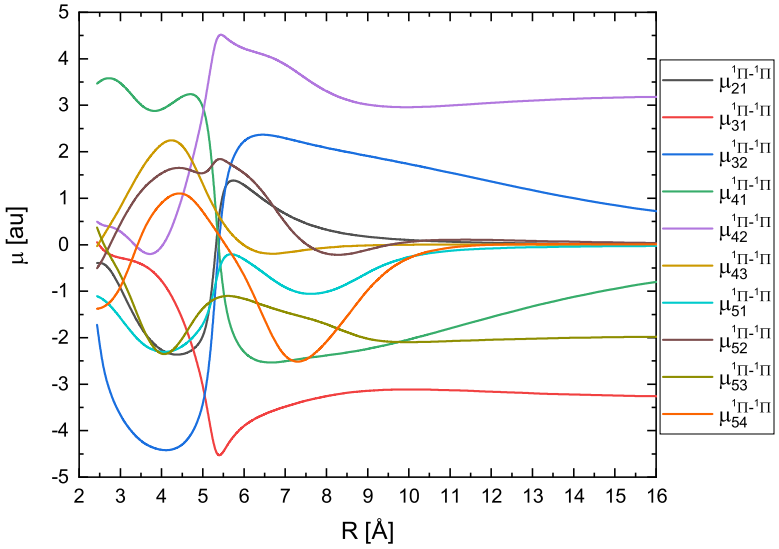
Graph 3. Permanent dipole moments for the $(1–9)^3\Pi$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)



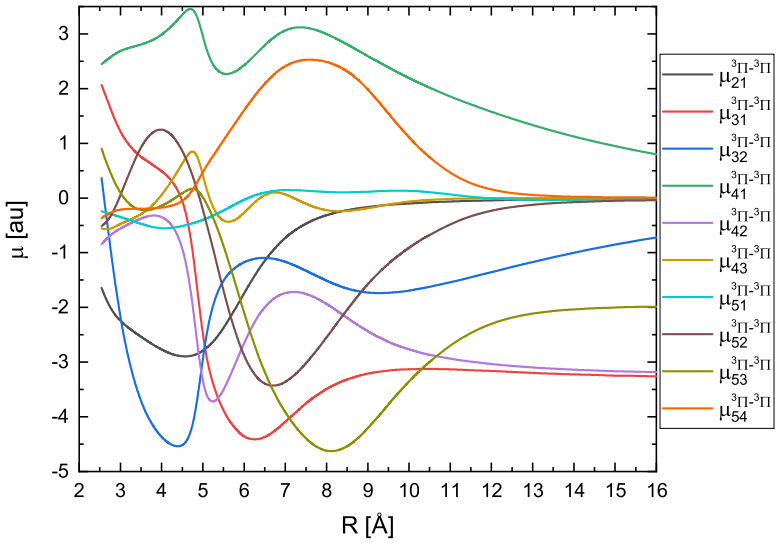
Graph 4. Permanent dipole moments for the $(1–4)^1\Delta$, $1^1\Sigma^-$, $(1–4)^3\Delta$, and $1^3\Sigma^-$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)



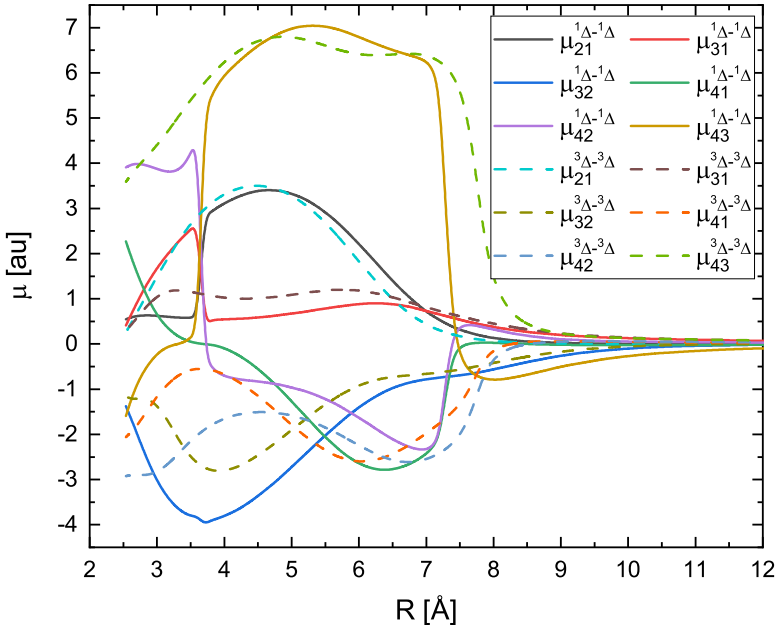
Graph 5. Transition dipole moments between the $(1–5)^3\Sigma^+$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)



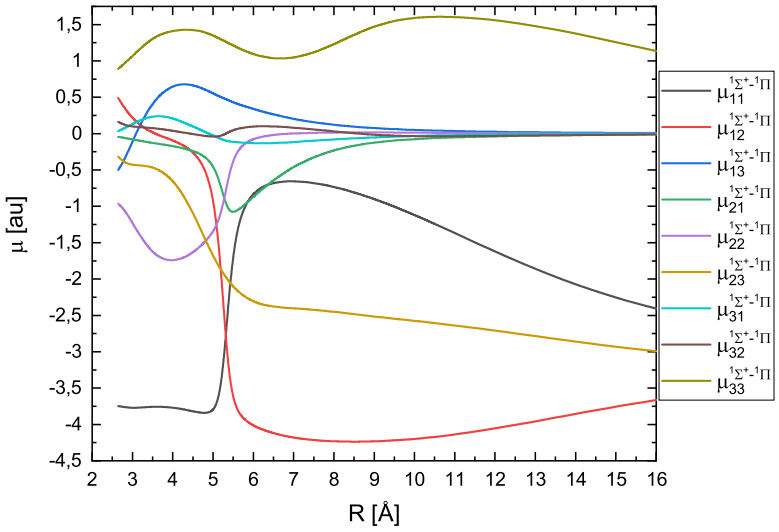
Graph 6. Transition dipole moments between the $(1–5)^1\Pi$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)



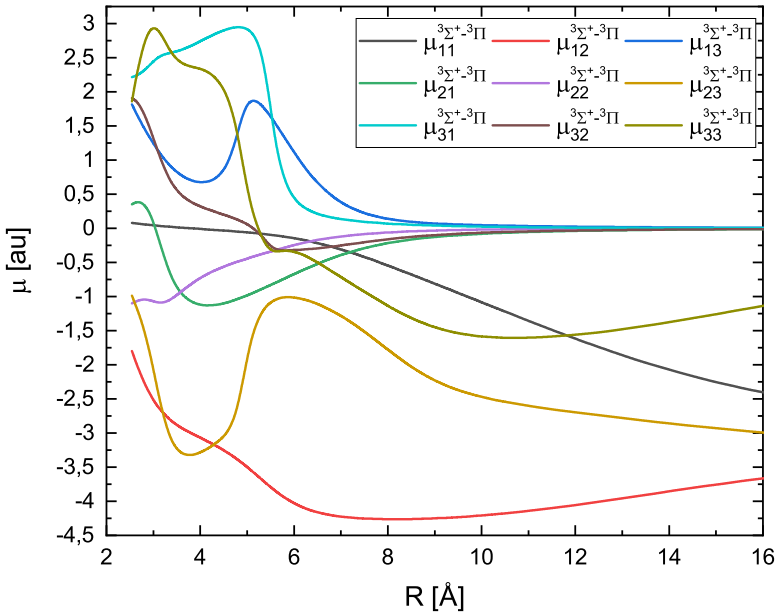
Graph 7. Transition dipole moments between the $(1–5)^3\Pi$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)



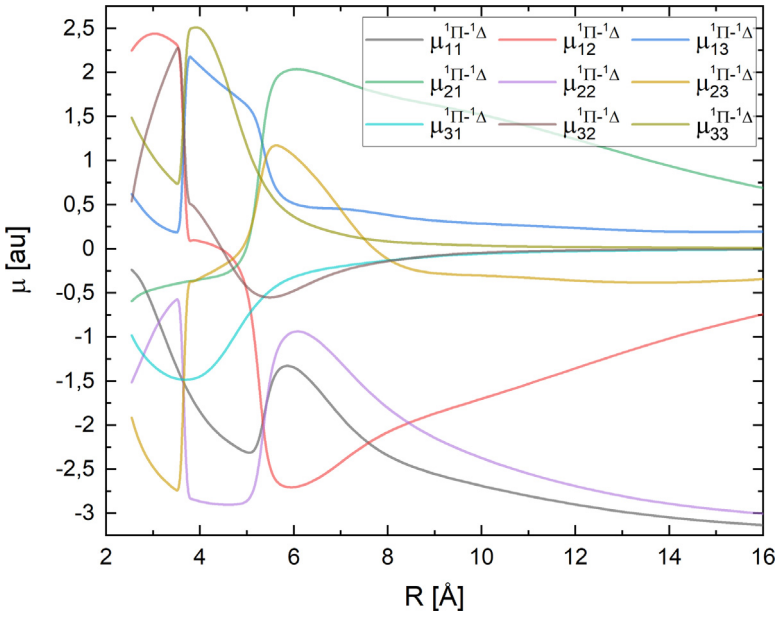
Graph 8. Transition dipole moments between the $(1–4)^1\Delta$ and between the $(1–4)^3\Delta$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)



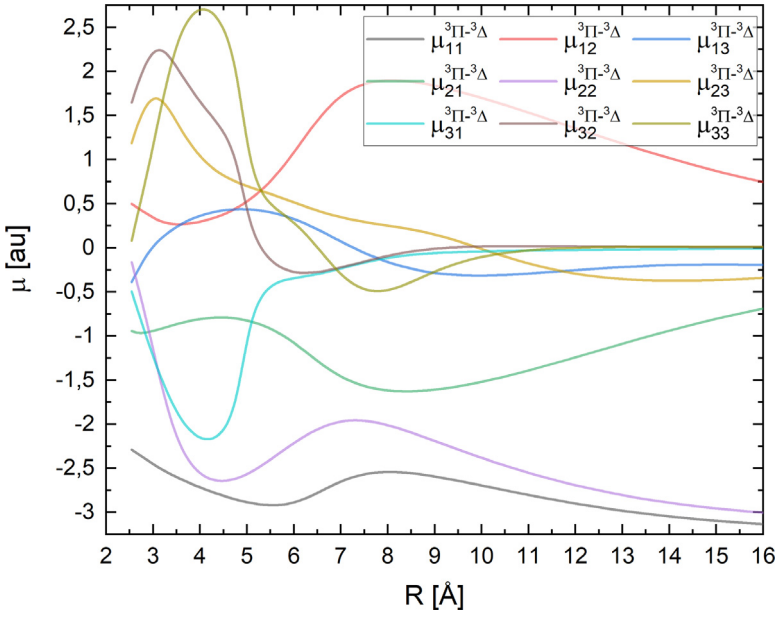
Graph 9. Transition dipole moments between the $(1–3)^1\Sigma^+$ and $(1–3)^1\Pi$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)



Graph 10. Transition dipole moments between the $(1–3)^3\Sigma^+$ and $(1–3)^3\Pi$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)



Graph 11. Transition dipole moments between the $(1\text{–}3)^1\Pi$ and $(1\text{–}3)^1\Delta$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)



Graph 12. Transition dipole moments between the $(1\text{–}3)^3\Pi$ and $(1\text{–}3)^3\Delta$ electronic states of the KRb molecule. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)