EPAPS Table I – NaK $1^3\Delta(v, N, J, e/f)$ levels studied in this work using perturbation-facilitated optical-optical double resonance spectroscopy. Ground state $1(X)^1\Sigma^+(v_X, J_X)$, intermediate state $2(A)^1\Sigma^+(v_A, J') \sim 1(b)^3\Pi(v_b, J')$, and upper state $1^3\Delta(v, N, J, e/f)$ levels are given for each transition, as well as ground state level energies (from Ref. 44), pump and probe laser frequencies, and measured upper state level energies. Mixed $2(A)^1\Sigma^+(v_A, J') \sim 1(b)^3\Pi(v_b, J')$ intermediate state levels with mostly singlet character are labeled by the quantum numbers (v_A, J'), while those with mostly triplet character are labeled with the quantum numbers (v_b, J'). Calculated $1^3\Delta(v, N, J, e/f)$ level energies are obtained using the Dunham coefficients from EPAPS Table III and A_v values from EPAPS Table II in the program LSQ (Ref. 41). $1^3\Delta$ level energies marked with an asterisk are perturbed by interactions with the $1^1\Delta$ state. Calculated energies presented here do not include this effect, but fitting of the $1^1\Delta/1^3\Delta$ coupling is described in detail in the manuscript (Sec. IV.B). $1^3\Delta(v, J \neq N)$ levels with $v \geq 50$ could not be fit with the current method, and calculated values are not reported. Calculated values for $v \geq 50$, $J = N$ levels are obtained using the Dunham coefficients only. No reliable A_v value for $v = 13$ could be obtained since the measured levels are clearly perturbed, and hence we do not report calculated level energies for $v = 13$.

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] –
v	N	J	parity	(v_A, J')	(v_b, J')	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	E[calc.] (cm^{-1})
3	37	37	*e*	11, 38	12, 38	0, 37	194.9907	12939.1903	10909.8875	-4.7455	24039.3230	24039.3272	-0.0042
3	37	38	*f*	11, 38	12, 38	0, 37	194.9907	12939.1903	10909.8402	-4.7455	24039.2757	24039.2775	-0.0018
3	38	37	*e*	11, 38	12, 38	0, 37	194.9907	12939.1903	10915.6268	-4.7455	24045.0623	24045.0694	-0.0071
3	38	38	*f*	11, 38	12, 38	0, 37	194.9907	12939.1903	10915.5833	-4.7455	24045.0188	24045.0238	-0.0050
3	38	39	*e*	11, 38	12, 38	0, 37	194.9907	12939.1903	10915.5381	-4.7455	24044.9736	24044.9754	-0.0018
3	39	38	*f*	11, 38	12, 38	0, 37	194.9907	12939.1903	10921.4722	-4.7455	24050.9077	24050.9110	-0.0033
3	39	39	*e*	11, 38	12, 38	0, 37	194.9907	12939.1903	10921.4266	-4.7455	24050.8621	24050.8665	-0.0044
4	36	37	*e*	11, 38		0, 37	194.9907	12939.1903	10989.7992		24123.9802	24123.9913	-0.0111
4	37	37	*e*	11, 38		0, 37	194.9907	12939.1903	10995.3613		24129.5423	24129.5482	-0.0059
4	37	37	*e*	11, 38		0, 37	194.9907	12939.1903	10995.3609		24129.5419	24129.5482	-0.0063
4	37	37	*e*	11, 38	12, 38	0, 37	194.9907	12939.1903	11000.1000	-4.7455	24129.5355	24129.5482	-0.0127
4	37	38	*f*	11, 38		0, 37	194.9907	12939.1903	10995.3129		24129.4939	24129.5032	-0.0093
4	37	38	*f*	11, 38		0, 37	194.9907	12939.1903	10995.3122		24129.4932	24129.5032	-0.0100
4	37	38	*f*	11, 38	12, 38	0, 37	194.9907	12939.1903	11000.0521	-4.7455	24129.4876	24129.5032	-0.0156
4	38	37	*e*	11, 38		0, 37	194.9907	12939.1903	11001.0590		24135.2400	24135.2456	-0.0056
4	38	37	*e*	11, 38		0, 37	194.9907	12939.1903	11001.0617		24135.2427	24135.2456	-0.0029
4	38	38	*f*	11, 38		0, 37	194.9907	12939.1903	11001.0196		24135.2006	24135.2044	-0.0038
4	38	38	*f*	11, 38		0, 37	194.9907	12939.1903	11001.0195		24135.2005	24135.2044	-0.0039
4	38	38	*f*	11, 38	12, 38	0, 37	194.9907	12939.1903	11005.7514	-4.7455	24135.1869	24135.2044	-0.0175
4	38	39	*e*	11, 38		0, 37	194.9907	12939.1903	11000.9729		24135.1539	24135.1607	-0.0068
4	38	39	*e*	11, 38		0, 37	194.9907	12939.1903	11000.9725		24135.1535	24135.1607	-0.0072
4	38	39	*e*	11, 38	12, 38	0, 37	194.9907	12939.1903	11005.7043	-4.7455	24135.1398	24135.1607	-0.0209
4	39	38	*f*	11, 38		0, 37	194.9907	12939.1903	11006.8675		24141.0485	24141.0461	0.0024
4	39	38	*f*	11, 38		0, 37	194.9907	12939.1903	11006.8662		24141.0472	24141.0461	0.0011
4	39	38	*f*	11, 38		0, 37	194.9907	12939.1903	11006.8573		24141.0383	24141.0461	-0.0078
4	39	39	*e*	11, 38		0, 37	194.9907	12939.1903	11006.8249		24141.0059	24141.0058	0.0001

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	(v_A, J')	(v_b, J')	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
4	39	39	e	11, 38		0, 37	194.9907	12939.1903	11006.8229		24141.0039	24141.0058	-0.0019
4	39	39	e	11, 38		0, 37	194.9907	12939.1903	11006.8147		24140.9957	24141.0058	-0.0101
4	40	39	e	11, 38		0, 37	194.9907	12939.1903	11012.8198		24147.0008	24146.9915	0.0093
4	40	39	e	11, 38		0, 37	194.9907	12939.1903	11012.8202		24147.0012	24146.9915	0.0097
5	36	37	e	11, 38		0, 37	194.9907	12939.1903	11079.0488		24213.2298	24213.2426	-0.0128
5	37	37	e	11, 38		0, 37	194.9907	12939.1903	11084.5763		24218.7573	24218.7605	-0.0032
5	37	37	e	11, 38	12, 38	0, 37	194.9907	12939.1903	11089.3069	-4.7455	24218.7424	24218.7605	-0.0181
5	37	38	f	11, 38		0, 37	194.9907	12939.1903	11084.5263		24218.7073	24218.7159	-0.0086
5	37	38	f	11, 38	12, 38	0, 37	194.9907	12939.1903	11089.2575	-4.7455	24218.6930	24218.7159	-0.0229
5	38	37	e	11, 38		0, 37	194.9907	12939.1903	11090.2292		24224.4102	24224.4181	-0.0079
5	38	37	e	11, 38		0, 37	194.9907	12939.1903	11090.2283		24224.4093	24224.4181	-0.0088
5	38	37	e	11, 38		0, 37	194.9907	12939.1903	11090.2285		24224.4095	24224.4181	-0.0086
5	38	37	e	11, 38		0, 37	194.9907	12939.1903	11090.2404		24224.4214	24224.4181	0.0033
5	38	38	f	11, 38		0, 37	194.9907	12939.1903	11090.1852		24224.3662	24224.3771	-0.0109
5	38	38	f	11, 38		0, 37	194.9907	12939.1903	11090.1844		24224.3654	24224.3771	-0.0117
5	38	38	f	11, 38		0, 37	194.9907	12939.1903	11090.1841		24224.3651	24224.3771	-0.0120
5	38	38	f	11, 38		0, 37	194.9907	12939.1903	11090.1961		24224.3771	24224.3771	-0.0000
5	38	39	e	11, 38		0, 37	194.9907	12939.1903	11090.1387		24224.3197	24224.3337	-0.0140
5	38	39	e	11, 38		0, 37	194.9907	12939.1903	11090.1377		24224.3187	24224.3337	-0.0150
5	38	39	e	11, 38		0, 37	194.9907	12939.1903	11090.1374		24224.3184	24224.3337	-0.0153
5	38	39	e	11, 38		0, 37	194.9907	12939.1903	11090.1480		24224.3290	24224.3337	-0.0047
5	39	38	f	11, 38		0, 37	194.9907	12939.1903	11095.9933		24230.1743	24230.1780	-0.0037
5	39	38	f	11, 38		0, 37	194.9907	12939.1903	11096.0072		24230.1882	24230.1780	0.0102
5	39	39	e	11, 38		0, 37	194.9907	12939.1903	11095.9510		24230.1320	24230.1381	-0.0061
5	39	39	e	11, 38		0, 37	194.9907	12939.1903	11095.9627		24230.1437	24230.1381	0.0056
6	36	37	e	11, 38		0, 37	194.9907	12939.1903	11167.2839		24301.4649	24301.4738	-0.0089
6	37	37	e	11, 38		0, 37	194.9907	12939.1903	11172.7743		24306.9553	24306.9551	0.0002
6	37	38	f	11, 38		0, 37	194.9907	12939.1903	11172.7242		24306.9052	24306.9087	-0.0035
6	38	37	e	11, 38		0, 37	194.9907	12939.1903	11178.4023		24312.5833	24312.5751	0.0082
6	38	38	f	11, 38		0, 37	194.9907	12939.1903	11178.3575		24312.5385	24312.5324	0.0061
6	38	39	e	11, 38		0, 37	194.9907	12939.1903	11178.3088		24312.4898	24312.4872	0.0026
6	39	38	f	11, 38		0, 37	194.9907	12939.1903	11184.1264		24318.3074	24318.2947	0.0127
6	39	39	e	11, 38		0, 37	194.9907	12939.1903	11184.0829		24318.2639	24318.2531	0.0108
6	40	39	e	11, 38		0, 37	194.9907	12939.1903	11189.9972		24324.1782	24324.1575	0.0207
7	36	37	e	11, 38		0, 37	194.9907	12939.1903	11254.4895		24388.6705	24388.6749	-0.0044
7	37	37	e	11, 38		0, 37	194.9907	12939.1903	11259.9399		24394.1209	24394.1177	0.0032
7	37	38	f	11, 38		0, 37	194.9907	12939.1903	11259.8902		24394.0712	24394.0713	-0.0001
7	38	37	e	11, 38		0, 37	194.9907	12939.1903	11265.5257		24399.7067	24399.6981	0.0086

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
7	38	37	*e*	11, 38		0, 37	194.9907	12939.1903	11265.5266		24399.7076	24399.6981	0.0095
7	38	37	*e*	11, 38		0, 39	209.5189	12924.6638	11265.5256		24399.7083	24399.6981	0.0102
7	38	38	*f*	11, 38		0, 37	194.9907	12939.1903	11265.4809		24399.6619	24399.6556	0.0063
7	38	38	*f*	11, 38		0, 37	194.9907	12939.1903	11265.4818		24399.6628	24399.6556	0.0072
7	38	38	*f*	11, 38		0, 37	194.9907	12939.1903	11265.4695		24399.6505	24399.6556	-0.0051
7	38	38	*f*	11, 38		0, 39	209.5189	12924.6638	11265.4806		24399.6633	24399.6556	0.0077
7	38	39	*e*	11, 38		0, 37	194.9907	12939.1903	11265.4327		24399.6137	24399.6104	0.0033
7	38	39	*e*	11, 38		0, 37	194.9907	12939.1903	11265.4328		24399.6138	24399.6104	0.0034
7	38	39	*e*	11, 38		0, 37	194.9907	12939.1903	11265.4223		24399.6033	24399.6104	-0.0071
7	38	39	*e*	11, 38		0, 39	209.5189	12924.6638	11265.4320		24399.6147	24399.6104	0.0043
7	39	38	*f*	11, 38		0, 37	194.9907	12939.1903	11271.2112		24405.3922	24405.3774	0.0148
7	39	38	*f*	11, 38	12, 38	0, 37	194.9907	12939.1903	11275.9513	-4.7455	24405.3868	24405.3774	0.0094
7	39	39	*e*	11, 38		0, 37	194.9907	12939.1903	11271.1673		24405.3483	24405.3359	0.0124
7	39	39	*e*	11, 38	12, 38	0, 37	194.9907	12939.1903	11275.9058	-4.7455	24405.3413	24405.3359	0.0054
8	13	14	*e*		15, 15	0, 14	81.7995	13269.6738	11039.6561		24391.1294	24391.1293	0.0001
8	14	14	*e*		15, 15	0, 14	81.7995	13269.6738	11041.8359		24393.3092	24393.3138	-0.0046
8	14	15	*f*		15, 15	0, 14	81.7995	13269.6738	11041.7037		24393.1770	24393.1816	-0.0046
8	15	14	*e*		15, 15	0, 14	81.7995	13269.6738	11044.1312		24395.6045	24395.6097	-0.0052
8	15	15	*f*		15, 15	0, 14	81.7995	13269.6738	11044.0237		24395.4970	24395.5021	-0.0051
8	15	16	*e*		15, 15	0, 14	81.7995	13269.6738	11043.9006		24395.3739	24395.3784	-0.0045
8	16	15	*f*		15, 15	0, 14	81.7995	13269.6738	11046.4563		24397.9296	24397.9377	-0.0081
8	16	16	*e*		15, 15	0, 14	81.7995	13269.6738	11046.3552		24397.8285	24397.8360	-0.0075
8	17	16	*e*		15, 15	0, 14	81.7995	13269.6738	11048.9303		24400.4036	24400.4120	-0.0084
8	17	16	*e*		15, 15	0, 14	81.7995	13269.6738	11048.9300		24400.4033	24400.4120	-0.0087
8	36	37	*e*	11, 38		0, 37	194.9907	12939.1903	11340.6375		24474.8185	24474.8223	-0.0038
8	37	37	*e*	11, 38		0, 37	194.9907	12939.1903	11346.0469		24480.2279	24480.2305	-0.0026
8	37	37	*e*	11, 38	12, 38	0, 37	194.9907	12939.1903	11350.7841	-4.7455	24480.2196	24480.2305	-0.0109
8	37	38	*f*	11, 38		0, 37	194.9907	12939.1903	11345.9973		24480.1783	24480.1800	-0.0017
8	37	38	*f*	11, 38	12, 38	0, 37	194.9907	12939.1903	11350.7363	-4.7455	24480.1718	24480.1800	-0.0082
8	38	37	*e*	11, 38		0, 37	194.9907	12939.1903	11351.5922		24485.7732	24485.7749	-0.0017
8	38	37	*e*	11, 38	12, 38	0, 37	194.9907	12939.1903	11356.3329	-4.7455	24485.7684	24485.7749	-0.0065
8	38	38	*f*	11, 38		0, 37	194.9907	12939.1903	11351.5477		24485.7287	24485.7286	0.0001
8	38	38	*f*	11, 38	12, 38	0, 37	194.9907	12939.1903	11356.2844	-4.7455	24485.7199	24485.7286	-0.0087
8	38	39	*e*	11, 38		0, 37	194.9907	12939.1903	11351.4992		24485.6802	24485.6793	0.0009
8	38	39	*e*	11, 38	12, 38	0, 37	194.9907	12939.1903	11356.2367	-4.7455	24485.6722	24485.6793	-0.0071
8	39	38	*f*	11, 38		0, 37	194.9907	12939.1903	11357.2349		24491.4159	24491.4132	0.0027
8	39	39	*e*	11, 38		0, 37	194.9907	12939.1903	11357.1915		24491.3725	24491.3681	0.0044
8	40	39	*e*	11, 38		0, 37	194.9907	12939.1903	11363.0232		24497.2042	24497.1929	0.0113
9	13	14	*e*		15, 15	0, 14	81.7995	13269.6738	11125.3575		24476.8308	24476.8346	-0.0038

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
9	14	14	e		15, 15	0, 14	81.7995	13269.6738	11127.5251		24478.9984	24479.0048	-0.0064
9	14	15	f		15, 15	0, 14	81.7995	13269.6738	11127.3935		24478.8668	24478.8715	-0.0047
9	15	14	e		15, 15	0, 14	81.7995	13269.6738	11129.8043		24481.2776	24481.2849	-0.0073
9	15	15	f		15, 15	0, 14	81.7995	13269.6738	11129.6961		24481.1694	24481.1766	-0.0072
9	15	16	e		15, 15	0, 14	81.7995	13269.6738	11129.5725		24481.0458	24481.0519	-0.0061
9	16	15	f		15, 15	0, 14	81.7995	13269.6738	11132.1107		24483.5840	24483.5953	-0.0113
9	16	16	e		15, 15	0, 14	81.7995	13269.6738	11132.0108		24483.4841	24483.4928	-0.0087
9	17	16	e		15, 15	0, 14	81.7995	13269.6738	11134.5697		24486.0430	24486.0509	-0.0079
9	36	37	e	11, 38		0, 37	194.9907	12939.1903	11425.7184		24559.8994	24559.9046	-0.0052
9	37	37	e	11, 38		0, 37	194.9907	12939.1903	11431.0895		24565.2705	24565.2737	-0.0032
9	37	37	e	11, 38		0, 37	194.9907	12939.1903	11431.0864		24565.2674	24565.2737	-0.0063
9	37	37	e		12, 38	0, 37	194.9907	12934.4448	11435.8280		24565.2635	24565.2737	-0.0102
9	37	37	e	11, 38	12, 38	0, 37	194.9907	12939.1903	11435.8253	-4.7455	24565.2608	24565.2737	-0.0129
9	37	38	f	11, 38		0, 37	194.9907	12939.1903	11431.0394		24565.2204	24565.2228	-0.0024
9	37	38	f	11, 38		0, 37	194.9907	12939.1903	11431.0364		24565.2174	24565.2228	-0.0054
9	37	38	f		12, 38	0, 37	194.9907	12934.4448	11435.7781		24565.2136	24565.2228	-0.0092
9	37	38	f	11, 38	12, 38	0, 37	194.9907	12939.1903	11435.7765	-4.7455	24565.2120	24565.2228	-0.0108
9	38	37	e	11, 38		0, 37	194.9907	12939.1903	11436.5921		24570.7731	24570.7779	-0.0048
9	38	37	e	11, 38		0, 37	194.9907	12939.1903	11436.5925		24570.7735	24570.7779	-0.0044
9	38	37	e	11, 38		0, 37	194.9907	12939.1903	11436.5893		24570.7703	24570.7779	-0.0076
9	38	37	e	11, 38		0, 37	194.9907	12939.1903	11436.5872		24570.7682	24570.7779	-0.0097
9	38	37	e	11, 38		0, 39	209.5189	12924.6638	11436.5882		24570.7709	24570.7779	-0.0070
9	38	38	f	11, 38		0, 37	194.9907	12939.1903	11436.5482		24570.7292	24570.7312	-0.0020
9	38	38	f	11, 38		0, 37	194.9907	12939.1903	11436.5483		24570.7293	24570.7312	-0.0019
9	38	38	f	11, 38		0, 37	194.9907	12939.1903	11436.5460		24570.7270	24570.7312	-0.0042
9	38	38	f	11, 38		0, 37	194.9907	12939.1903	11436.5442		24570.7252	24570.7312	-0.0060
9	38	38	f	11, 38		0, 39	209.5189	12924.6638	11436.5447		24570.7274	24570.7312	-0.0038
9	38	39	e	11, 38		0, 37	194.9907	12939.1903	11436.4987		24570.6797	24570.6816	-0.0019
9	38	39	e	11, 38		0, 37	194.9907	12939.1903	11436.4986		24570.6796	24570.6816	-0.0020
9	38	39	e	11, 38		0, 37	194.9907	12939.1903	11436.4965		24570.6775	24570.6816	-0.0041
9	38	39	e	11, 38		0, 37	194.9907	12939.1903	11436.4957		24570.6767	24570.6816	-0.0049
9	38	39	e	11, 38		0, 39	209.5189	12924.6638	11436.4957		24570.6784	24570.6816	-0.0032
9	39	38	f	11, 38		0, 37	194.9907	12939.1903	11442.1959		24576.3769	24576.3747	0.0022
9	39	38	f	11, 38		0, 37	194.9907	12939.1903	11442.1974		24576.3784	24576.3747	0.0037
9	39	39	e	11, 38		0, 37	194.9907	12939.1903	11442.1502		24576.3312	24576.3292	0.0020
9	39	39	e	11, 38		0, 37	194.9907	12939.1903	11442.1523		24576.3333	24576.3292	0.0041
10	13	14	e		15, 15	0, 14	81.7995	13269.6738	11209.9849		24561.4582	24561.4620	-0.0038
10	14	14	e		15, 15	0, 14	81.7995	13269.6738	11212.1361		24563.6094	24563.6171	-0.0077
10	14	15	f		15, 15	0, 14	81.7995	13269.6738	11212.0040		24563.4773	24563.4833	-0.0060
10	15	14	e		15, 15	0, 14	81.7995	13269.6738	11214.3995		24565.8728	24565.8810	-0.0082

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	(v_A, J')	(v_b, J')	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
10	15	15	*f*		15, 15	0, 14	81.7995	13269.6738	11214.2897		24565.7630	24565.7722	-0.0092
10	15	16	*e*		15, 15	0, 14	81.7995	13269.6738	11214.1656		24565.6389	24565.6470	-0.0081
10	16	15	*f*		15, 15	0, 14	81.7995	13269.6738	11216.6915		24568.1648	24568.1735	-0.0087
10	16	16	*e*		15, 15	0, 14	81.7995	13269.6738	11216.5882		24568.0615	24568.0706	-0.0091
10	17	16	*e*		15, 15	0, 14	81.7995	13269.6738	11219.1285		24570.6018	24570.6101	-0.0083
10	24	25	*e*		17, 26	0, 25	123.5164	13488.0442	10979.9604		24591.5210	24591.5290	-0.0080
10	25	25	*e*		17, 26	0, 25	123.5164	13488.0442	10983.6196		24595.1802	24595.1914	-0.0112
10	25	26	*f*		17, 26	0, 25	123.5164	13488.0442	10983.5471		24595.1077	24595.1158	-0.0081
10	26	25	*e*		17, 26	0, 25	123.5164	13488.0442	10987.4123		24598.9729	24598.9838	-0.0109
10	26	26	*f*		17, 26	0, 25	123.5164	13488.0442	10987.3457		24598.9063	24598.9172	-0.0109
10	26	27	*e*		17, 26	0, 25	123.5164	13488.0442	10987.2762		24598.8368	24598.8444	-0.0076
10	27	26	*f*		17, 26	0, 25	123.5164	13488.0442	10991.2780		24602.8386	24602.8492	-0.0106
10	27	27	*e*		17, 26	0, 25	123.5164	13488.0442	10991.2122		24602.7728	24602.7848	-0.0120
10	28	27	*e*		17, 26	0, 25	123.5164	13488.0442	10995.2835		24606.8441	24606.8564	-0.0123
10	36	37	*e*	11, 38		0, 37	194.9907	12939.1903	11509.7115		24643.8925	24643.8973	-0.0048
10	36	37	*e*	11, 38	12, 38	0, 37	194.9907	12939.1903	11514.4493	-4.7455	24643.8848	24643.8973	-0.0125
10	36	37	*e*		12, 38	0, 39	209.5189	12919.9178	11514.4505		24643.8872	24643.8973	-0.0101
10	37	37	*e*	11, 38		0, 37	194.9907	12939.1903	11515.0406		24649.2216	24649.2262	-0.0046
10	37	37	*e*	11, 38	12, 38	0, 37	194.9907	12939.1903	11519.7791	-4.7455	24649.2146	24649.2262	-0.0116
10	37	37	*e*		12, 38	0, 39	209.5189	12919.9178	11519.7799		24649.2166	24649.2262	-0.0096
10	37	38	*f*	11, 38		0, 37	194.9907	12939.1903	11514.9896		24649.1706	24649.1751	-0.0045
10	37	38	*f*	11, 38	12, 38	0, 37	194.9907	12939.1903	11519.7301	-4.7455	24649.1656	24649.1751	-0.0095
10	37	38	*f*		12, 38	0, 39	209.5189	12919.9178	11519.7297		24649.1664	24649.1751	-0.0087
10	38	37	*e*	11, 38		0, 37	194.9907	12939.1903	11520.5050		24654.6860	24654.6892	-0.0032
10	38	37	*e*	11, 38		0, 37	194.9907	12939.1903	11520.5035		24654.6845	24654.6892	-0.0047
10	38	37	*e*	11, 38		0, 39	209.5189	12924.6638	11520.4999		24654.6826	24654.6892	-0.0066
10	38	37	*e*		12, 38	0, 39	209.5189	12919.9178	11525.2402		24654.6769	24654.6892	-0.0123
10	38	37	*e*		12, 38	0, 39	209.5189	12919.9178	11525.2419		24654.6786	24654.6892	-0.0106
10	38	38	*f*	11, 38		0, 37	194.9907	12939.1903	11520.4588		24654.6398	24654.6423	-0.0025
10	38	38	*f*	11, 38		0, 37	194.9907	12939.1903	11520.4578		24654.6388	24654.6423	-0.0035
10	38	38	*f*	11, 38		0, 39	209.5189	12924.6638	11520.4544		24654.6371	24654.6423	-0.0052
10	38	38	*f*		12, 38	0, 39	209.5189	12919.9178	11525.1955		24654.6322	24654.6423	-0.0101
10	38	38	*f*		12, 38	0, 39	209.5189	12919.9178	11525.1963		24654.6330	24654.6423	-0.0093
10	38	39	*e*	11, 38		0, 37	194.9907	12939.1903	11520.4082		24654.5892	24654.5925	-0.0033
10	38	39	*e*	11, 38		0, 37	194.9907	12939.1903	11520.4075		24654.5885	24654.5925	-0.0040
10	38	39	*e*	11, 38		0, 39	209.5189	12924.6638	11520.4051		24654.5878	24654.5925	-0.0047
10	38	39	*e*		12, 38	0, 39	209.5189	12919.9178	11525.1470		24654.5837	24654.5925	-0.0088
10	38	39	*e*		12, 38	0, 39	209.5189	12919.9178	11525.1473		24654.5840	24654.5925	-0.0085
10	39	38	*f*	11, 38		0, 37	194.9907	12939.1903	11526.0615		24660.2425	24660.2436	-0.0011
10	39	38	*f*	11, 38	12, 38	0, 37	194.9907	12939.1903	11530.8016	-4.7455	24660.2371	24660.2436	-0.0065
10	39	38	*f*		12, 38	0, 39	209.5189	12919.9178	11530.8018		24660.2385	24660.2436	-0.0051

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	(v_A, J')	(v_b, J')	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
10	39	39	e	11, 38		0, 37	194.9907	12939.1903	11526.0155		24660.1965	24660.1979	-0.0014
10	39	39	e	11, 38	12, 38	0, 37	194.9907	12939.1903	11530.7556	-4.7455	24660.1911	24660.1979	-0.0068
10	39	39	e		12, 38	0, 39	209.5189	12919.9178	11530.7563		24660.1930	24660.1979	-0.0049
10	40	39	e	11, 38		0, 37	194.9907	12939.1903	11531.7624		24665.9434	24665.9374	0.0060
10	40	39	e		12, 38	0, 39	209.5189	12919.9178	11536.5009		24665.9376	24665.9374	0.0002
10	40	39	e		12, 38	0, 39	209.5189	12919.9178	11536.5016		24665.9383	24665.9374	0.0009
11	13	14	e		15, 15	0, 14	81.7995	13269.6738	11293.5199		24644.9932	24644.9910	0.0022
11	14	14	e		15, 15	0, 14	81.7995	13269.6738	11295.6526		24647.1259	24647.1313	-0.0054
11	14	15	f		15, 15	0, 14	81.7995	13269.6738	11295.5164		24646.9897	24646.9964	-0.0067
11	15	14	e		15, 15	0, 14	81.7995	13269.6738	11297.8986		24649.3719	24649.3789	-0.0070
11	15	15	f		15, 15	0, 14	81.7995	13269.6738	11297.7884		24649.2617	24649.2693	-0.0076
11	15	16	e		15, 15	0, 14	81.7995	13269.6738	11297.6649		24649.1382	24649.1431	-0.0049
11	16	15	f		15, 15	0, 14	81.7995	13269.6738	11300.1713		24651.6446	24651.6532	-0.0086
11	16	16	e		15, 15	0, 14	81.7995	13269.6738	11300.0681		24651.5414	24651.5495	-0.0081
11	17	16	e		15, 15	0, 14	81.7995	13269.6738	11302.5887		24654.0620	24654.0704	-0.0084
11	24	25	e		17, 26	0, 25	123.5164	13488.0442	11063.2543		24674.8149	24674.8210	-0.0061
11	25	25	e		17, 26	0, 25	123.5164	13488.0442	11066.8858		24678.4464	24678.4558	-0.0094
11	25	26	f		17, 26	0, 25	123.5164	13488.0442	11066.8126		24678.3732	24678.3795	-0.0063
11	26	25	e		17, 26	0, 25	123.5164	13488.0442	11070.6476		24682.2082	24682.2194	-0.0112
11	26	25	e		17, 26	0, 25	123.5164	13488.0442	11070.6497		24682.2103	24682.2194	-0.0091
11	26	26	f		17, 26	0, 25	123.5164	13488.0442	11070.5811		24682.1417	24682.1522	-0.0105
11	26	26	f		17, 26	0, 25	123.5164	13488.0442	11070.5828		24682.1434	24682.1522	-0.0088
11	26	27	e		17, 26	0, 25	123.5164	13488.0442	11070.5093		24682.0699	24682.0788	-0.0089
11	26	27	e		17, 26	0, 25	123.5164	13488.0442	11070.5118		24682.0724	24682.0788	-0.0064
11	27	26	f		17, 26	0, 25	123.5164	13488.0442	11074.4846		24686.0452	24686.0542	-0.0090
11	27	27	e		17, 26	0, 25	123.5164	13488.0442	11074.4191		24685.9797	24685.9893	-0.0096
11	28	27	e		17, 26	0, 25	123.5164	13488.0442	11078.4596		24690.0202	24690.0299	-0.0097
11	37	37	e	11, 38		0, 37	194.9907	12939.1903	11597.8796		24732.0606	24732.0658	-0.0052
11	37	38	f	11, 38		0, 37	194.9907	12939.1903	11597.8286		24732.0096	24732.0142	-0.0046
11	38	37	e	11, 38		0, 37	194.9907	12939.1903	11603.2992		24737.4802	24737.4867	-0.0065
11	38	38	f	11, 38		0, 37	194.9907	12939.1903	11603.2518		24737.4328	24737.4395	-0.0067
11	38	39	e	11, 38		0, 37	194.9907	12939.1903	11603.1990		24737.3800	24737.3893	-0.0093
11	39	38	f	11, 38		0, 37	194.9907	12939.1903	11608.8144		24742.9954	24742.9977	-0.0023
11	39	38	f		12, 38	0, 39	209.5189	12919.9178	11613.5538		24742.9905	24742.9977	-0.0072
11	39	39	e	11, 38		0, 37	194.9907	12939.1903	11608.7664		24742.9474	24742.9516	-0.0042
11	39	39	e		12, 38	0, 39	209.5189	12919.9178	11613.5071		24742.9438	24742.9516	-0.0078
12	13	14	e		15, 15	0, 14	81.7995	13269.6738	11375.9215		24727.3948	24727.4005	-0.0057
12	13	14	e		15, 15	0, 14	81.7995	13269.6738	11375.9226		24727.3959	24727.4005	-0.0046
12	14	14	e		15, 15	0, 14	81.7995	13269.6738	11378.0469		24729.5202	24729.5262	-0.0060

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
12	14	15	*f*		15, 15	0, 14	81.7995	13269.6738	11377.9120		24729.3853	24729.3896	-0.0043
12	15	14	*e*		15, 15	0, 14	81.7995	13269.6738	11380.2758		24731.7491	24731.7577	-0.0086
12	15	15	*f*		15, 15	0, 14	81.7995	13269.6738	11380.1662		24731.6395	24731.6467	-0.0072
12	15	16	*e*		15, 15	0, 14	81.7995	13269.6738	11380.0399		24731.5132	24731.5189	-0.0057
12	16	15	*f*		15, 15	0, 14	81.7995	13269.6738	11382.5322		24734.0055	24734.0133	-0.0078
12	16	16	*e*		15, 15	0, 14	81.7995	13269.6738	11382.4262		24733.8995	24733.9083	-0.0088
12	17	16	*e*		15, 15	0, 14	81.7995	13269.6738	11384.9305		24736.4038	24736.4106	-0.0068
12	24	25	*e*		17, 26	0, 25	123.5164	13488.0442	11145.4238		24756.9844	24756.9883	-0.0039
12	24	25	*e*		17, 26	0, 25	123.5164	13488.0442	11145.4200		24756.9806	24756.9883	-0.0077
12	25	25	*e*		17, 26	0, 25	123.5164	13488.0442	11149.0264		24760.5870	24760.5952	-0.0082
12	25	25	*e*		17, 26	0, 25	123.5164	13488.0442	11149.0223		24760.5829	24760.5952	-0.0123
12	25	26	*f*		17, 26	0, 25	123.5164	13488.0442	11148.9522		24760.5128	24760.5179	-0.0051
12	25	26	*f*		17, 26	0, 25	123.5164	13488.0442	11148.9497		24760.5103	24760.5179	-0.0076
12	26	25	*e*		17, 26	0, 25	123.5164	13488.0442	11152.7605		24764.3211	24764.3295	-0.0084
12	26	25	*e*		17, 26	0, 25	123.5164	13488.0442	11152.7505		24764.3111	24764.3295	-0.0184
12	26	26	*f*		17, 26	0, 25	123.5164	13488.0442	11152.6924		24764.2530	24764.2614	-0.0084
12	26	26	*f*		17, 26	0, 25	123.5164	13488.0442	11152.6839		24764.2445	24764.2614	-0.0169
12	26	27	*e*		17, 26	0, 25	123.5164	13488.0442	11152.6204		24764.1810	24764.1871	-0.0061
12	26	27	*e*		17, 26	0, 25	123.5164	13488.0442	11152.6150		24764.1756	24764.1871	-0.0115
12	27	26	*f*		17, 26	0, 25	123.5164	13488.0442	11156.5657		24768.1263	24768.1331	-0.0068
12	27	26	*f*		17, 26	0, 25	123.5164	13488.0442	11156.5599		24768.1205	24768.1331	-0.0126
12	27	27	*e*		17, 26	0, 25	123.5164	13488.0442	11156.4989		24768.0595	24768.0673	-0.0078
12	27	27	*e*		17, 26	0, 25	123.5164	13488.0442	11156.4920		24768.0526	24768.0673	-0.0147
12	28	27	*e*		17, 26	0, 25	123.5164	13488.0442	11160.5081		24772.0687	24772.0763	-0.0076
12	28	27	*e*		17, 26	0, 25	123.5164	13488.0442	11160.5066		24772.0672	24772.0763	-0.0091
12	43	44	*e*		18, 45	0, 46	266.2096	13572.0030	11009.5463		24847.7589	24847.7598	-0.0009
12	44	44	*e*		18, 45	0, 46	266.2096	13572.0030	11015.7462		24853.9588	24853.9550	0.0038
12	44	45	*f*		18, 45	0, 46	266.2096	13572.0030	11015.7075		24853.9201	24853.9110	0.0091
12	45	44	*e*		18, 45	0, 46	266.2096	13572.0030	11022.0804		24860.2930	24860.2816	0.0114
12	45	45	*f*		18, 45	0, 46	266.2096	13572.0030	11022.0361		24860.2487	24860.2408	0.0079
12	45	46	*e*		18, 45	0, 46	266.2096	13572.0030	11021.9893		24860.2019	24860.1978	0.0041
12	46	45	*f*		18, 45	0, 46	266.2096	13572.0030	11028.5010		24866.7136	24866.7021	0.0115
12	46	46	*e*		18, 45	0, 46	266.2096	13572.0030	11028.4688		24866.6814	24866.6622	0.0192
12	47	46	*e*		18, 45	0, 46	266.2096	13572.0030	11035.0647		24873.2773	24873.2577	0.0196
13	24	25	*e*		17, 26	0, 25	123.5164	13488.0442	11226.4416		24838.0022		
13	25	25	*e*		17, 26	0, 25	123.5164	13488.0442	11230.0087		24841.5693		
13	25	26	*f*		17, 26	0, 25	123.5164	13488.0442	11229.9380		24841.4986		
13	26	25	*e*		17, 26	0, 25	123.5164	13488.0442	11233.7220		24845.2826		
13	26	25	*e*		17, 26	0, 25	123.5164	13488.0442	11233.7211		24845.2817		
13	26	26	*f*		17, 26	0, 25	123.5164	13488.0442	11233.6847		24845.2453		

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	(v_A, J')	(v_b, J')	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
13	26	26	f		17, 26	0, 25	123.5164	13488.0442	11233.6835		24845.2441		
13	26	27	e		17, 26	0, 25	123.5164	13488.0442	11233.5704		24845.1310		
13	26	27	e		17, 26	0, 25	123.5164	13488.0442	11233.5694		24845.1300		
13	28	27	e		17, 26	0, 25	123.5164	13488.0442	11241.4102		24852.9708		
13	40	39	e		12, 38	0, 37	194.9907	12934.4448	11781.1690		24910.6045		
13	43	44	e		18, 45	0, 46	266.2096	13572.0030	11089.7819		24927.9945		
13	45	44	e		18, 45	0, 46	266.2096	13572.0030	11102.2549		24940.4675		
13	45	45	f		18, 45	0, 46	266.2096	13572.0030	11102.1850		24940.3976		
14	13	14	e		15, 15	0, 14	81.7995	13269.6738	11537.2991		24888.7724	24888.7750	-0.0026
14	14	14	e		15, 15	0, 14	81.7995	13269.6738	11539.3891		24890.8624	24890.8676	-0.0052
14	14	15	f		15, 15	0, 14	81.7995	13269.6738	11539.2535		24890.7268	24890.7304	-0.0036
14	15	14	e		15, 15	0, 14	81.7995	13269.6738	11541.5823		24893.0556	24893.0633	-0.0077
14	15	15	f		15, 15	0, 14	81.7995	13269.6738	11541.4701		24892.9434	24892.9519	-0.0085
14	15	16	e		15, 15	0, 14	81.7995	13269.6738	11541.3434		24892.8167	24892.8235	-0.0068
14	16	15	f		15, 15	0, 14	81.7995	13269.6738	11543.8014		24895.2747	24895.2803	-0.0056
14	16	16	e		15, 15	0, 14	81.7995	13269.6738	11543.6941		24895.1674	24895.1748	-0.0074
14	17	16	e		15, 15	0, 14	81.7995	13269.6738	11546.1590		24897.6323	24897.6365	-0.0042
14	24	25	e		17, 26	0, 25	123.5164	13488.0442	11306.2930		24917.8536	24917.8589	-0.0053
14	25	25	e		17, 26	0, 25	123.5164	13488.0442	11309.8374		24921.3980	24921.4059	-0.0079
14	25	26	f		17, 26	0, 25	123.5164	13488.0442	11309.7609		24921.3215	24921.3283	-0.0068
14	26	25	e		17, 26	0, 25	123.5164	13488.0442	11313.5062		24925.0668	24925.0780	-0.0112
14	26	25	e		17, 26	0, 25	123.5164	13488.0442	11313.5067		24925.0673	24925.0780	-0.0107
14	26	26	f		17, 26	0, 25	123.5164	13488.0442	11313.4352		24924.9958	24925.0096	-0.0138
14	26	26	f		17, 26	0, 25	123.5164	13488.0442	11313.4355		24924.9961	24925.0096	-0.0135
14	26	27	e		17, 26	0, 25	123.5164	13488.0442	11313.3624		24924.9230	24924.9349	-0.0119
14	26	27	e		17, 26	0, 25	123.5164	13488.0442	11313.3642		24924.9248	24924.9349	-0.0101
14	27	26	f		17, 26	0, 25	123.5164	13488.0442	11317.2419		24928.8025	24928.8166	-0.0141
14	27	27	e		17, 26	0, 25	123.5164	13488.0442	11317.1737		24928.7343	24928.7505	-0.0162
14	28	27	e		17, 26	0, 25	123.5164	13488.0442	11321.1380		24932.6986	24932.6925	0.0061
14	28	27	e		17, 26	0, 25	123.5164	13488.0442	11321.1360		24932.6966	24932.6925	0.0041
14	43	44	e		18, 45	0, 46	266.2096	13572.0030	11168.8744		25007.0870	25007.0820	0.0050
14	44	44	e		18, 45	0, 46	266.2096	13572.0030	11174.9621		25013.1747	25013.1725	0.0022
14	44	45	f		18, 45	0, 46	266.2096	13572.0030	11174.9201		25013.1327	25013.1283	0.0044
14	45	44	e		18, 45	0, 46	266.2096	13572.0030	11181.1631		25019.3757	25019.3920	-0.0163
14	45	44	e		18, 45	0, 46	266.2096	13572.0030	11181.1585		25019.3711	25019.3920	-0.0209
14	45	45	f		18, 45	0, 46	266.2096	13572.0030	11181.1308		25019.3434	25019.3510	-0.0076
14	45	45	f		18, 45	0, 46	266.2096	13572.0030	11181.1275		25019.3401	25019.3510	-0.0109
14	45	46	e		18, 45	0, 46	266.2096	13572.0030	11181.0931		25019.3057	25019.3078	-0.0021
14	45	46	e		18, 45	0, 46	266.2096	13572.0030	11181.0906		25019.3032	25019.3078	-0.0046
14	46	45	f		18, 45	0, 46	266.2096	13572.0030	11187.4823		25025.6949	25025.7030	-0.0081

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	(v_A, J')	(v_b, J')	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
14	47	46	e		18, 45	0, 46	266.2096	13572.0030	11193.9791		25032.1917	25032.1467	0.0450
15	13	14	e		15, 15	0, 14	81.7995	13269.6738	11616.2099		24967.6832	24967.6885	-0.0053
15	14	14	e		15, 15	0, 14	81.7995	13269.6738	11618.2864		24969.7597	24969.7658	-0.0061
15	14	15	f		15, 15	0, 14	81.7995	13269.6738	11618.1490		24969.6223	24969.6264	-0.0041
15	15	14	e		15, 15	0, 14	81.7995	13269.6738	11620.4655		24971.9388	24971.9445	-0.0057
15	15	15	f		15, 15	0, 14	81.7995	13269.6738	11620.3533		24971.8266	24971.8312	-0.0046
15	15	16	e		15, 15	0, 14	81.7995	13269.6738	11620.2219		24971.6952	24971.7008	-0.0056
15	16	15	f		15, 15	0, 14	81.7995	13269.6738	11622.6631		24974.1364	24974.1412	-0.0048
15	16	16	e		15, 15	0, 14	81.7995	13269.6738	11622.5545		24974.0278	24974.0341	-0.0063
15	17	16	e		15, 15	0, 14	81.7995	13269.6738	11624.9977		24976.4710	24976.4761	-0.0051
15	24	25	e		17, 26	0, 25	123.5164	13488.0442	11384.9308		24996.4914	24996.5110	-0.0196
15	24	25	e		17, 26	0, 25	123.5164	13488.0442	11384.9494		24996.5100	24996.5110	-0.0010
15	25	25	e		17, 26	0, 25	123.5164	13488.0442	11388.4618		25000.0224	25000.0281	-0.0057
15	25	26	f		17, 26	0, 25	123.5164	13488.0442	11388.3855		24999.9461	24999.9492	-0.0031
15	26	25	e		17, 26	0, 25	123.5164	13488.0442	11392.1023		25003.6629	25003.6687	-0.0058
15	26	26	f		17, 26	0, 25	123.5164	13488.0442	11392.0336		25003.5942	25003.5992	-0.0050
15	26	26	e		15, 27	0, 26	128.4408	13269.6738	11605.4817		25003.5963	25003.5992	-0.0029
15	26	26	e		15, 27	0, 26	128.4408	13269.6738	11605.4852		25003.5998	25003.5992	0.0006
15	26	27	e		17, 26	0, 25	123.5164	13488.0442	11391.9613		25003.5219	25003.5233	-0.0014
15	26	27	f		15, 27	0, 26	128.4408	13269.6738	11605.4118		25003.5264	25003.5233	0.0031
15	26	27	f		15, 27	0, 26	128.4408	13269.6738	11605.4135		25003.5281	25003.5233	0.0048
15	27	26	f		17, 26	0, 25	123.5164	13488.0442	11395.8063		25007.3669	25007.3734	-0.0065
15	27	27	e		17, 26	0, 25	123.5164	13488.0442	11395.7375		25007.2981	25007.3063	-0.0082
15	28	27	e		17, 26	0, 25	123.5164	13488.0442	11399.6476		25011.2082	25011.2142	-0.0060
15	28	27	e		17, 26	0, 25	123.5164	13488.0442	11399.6497		25011.2103	25011.2142	-0.0039
16	24	25	e		17, 26	0, 25	123.5164	13488.0442	11462.3851		25073.9457	25073.9439	0.0018
16	25	25	e		17, 26	0, 25	123.5164	13488.0442	11465.8674		25077.4280	25077.4263	0.0017
16	25	26	f		17, 26	0, 25	123.5164	13488.0442	11465.7907		25077.3513	25077.3497	0.0016
16	26	25	e		17, 26	0, 25	123.5164	13488.0442	11469.4688		25081.0294	25081.0313	-0.0019
16	26	26	f		17, 26	0, 25	123.5164	13488.0442	11469.4018		25080.9624	25080.9639	-0.0015
16	26	27	e		17, 26	0, 25	123.5164	13488.0442	11469.3274		25080.8880	25080.8902	-0.0022
16	27	26	f		17, 26	0, 25	123.5164	13488.0442	11473.1453		25084.7059	25084.7013	0.0046
16	27	27	e		17, 26	0, 25	123.5164	13488.0442	11473.0762		25084.6368	25084.6362	0.0006
16	28	27	e		17, 26	0, 25	123.5164	13488.0442	11476.9579		25088.5185	25088.5061	0.0124
16	43	44	e		18, 45	0, 46	266.2096	13572.0030	11323.3208		25161.5334	25161.5250	0.0084
16	44	44	e		18, 45	0, 46	266.2096	13572.0030	11329.2934		25167.5060	25167.5031	0.0029
16	44	45	f		18, 45	0, 46	266.2096	13572.0030	11329.2525		25167.4651	25167.4595	0.0056
16	45	44	e		18, 45	0, 46	266.2096	13572.0030	11335.3960		25173.6086	25173.6077	0.0009
16	45	45	f		18, 45	0, 46	266.2096	13572.0030	11335.3573		25173.5699	25173.5673	0.0026

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
16	45	46	e		18, 45	0, 46	266.2096	13572.0030	11335.3158		25173.5284	25173.5247	0.0037
16	46	45	f		18, 45	0, 46	266.2096	13572.0030	11341.5885		25179.8011	25179.8019	-0.0008
16	46	45	f		18, 45	0, 46	266.2096	13572.0030	11341.5837		25179.7963	25179.8019	-0.0056
16	46	46	e		18, 45	0, 46	266.2096	13572.0030	11341.5481		25179.7607	25179.7623	-0.0016
16	46	46	e		18, 45	0, 46	266.2096	13572.0030	11341.5446		25179.7572	25179.7623	-0.0051
16	47	46	e		18, 45	0, 46	266.2096	13572.0030	11347.9131		25186.1257	25186.1263	-0.0006
16	47	46	e		18, 45	0, 46	266.2096	13572.0030	11347.9145		25186.1271	25186.1263	0.0008
17	13	14	e		15, 15	0, 14	81.7995	13269.6738	11770.3549		25121.8282	25121.8408	-0.0126
17	14	14	e		15, 15	0, 14	81.7995	13269.6738	11772.3990		25123.8723	25123.8862	-0.0139
17	14	14	e		15, 15	0, 14	81.7995	13269.6738	11772.3999		25123.8732	25123.8862	-0.0130
17	14	15	f		15, 15	0, 14	81.7995	13269.6738	11772.2582		25123.7315	25123.7424	-0.0109
17	14	15	f		15, 15	0, 14	81.7995	13269.6738	11772.2621		25123.7354	25123.7424	-0.0070
17	15	14	e		15, 15	0, 14	81.7995	13269.6738	11774.5489		25126.0222	25126.0291	-0.0069
17	15	15	f		15, 15	0, 14	81.7995	13269.6738	11774.4197		25125.8930	25125.9124	-0.0194
17	15	16	e		15, 15	0, 14	81.7995	13269.6738	11774.2932		25125.7665	25125.7778	-0.0113
17	16	15	f		15, 15	0, 14	81.7995	13269.6738	11776.7025		25128.1758	25128.1838	-0.0080
17	16	16	e		15, 15	0, 14	81.7995	13269.6738	11776.6012		25128.0745	25128.0734	0.0011
17	17	16	e		15, 15	0, 14	81.7995	13269.6738	11778.9920		25130.4653	25130.4741	-0.0088
17	24	25	e		17, 26	0, 25	123.5164	13488.0442	11538.5422		25150.1028	25150.1189	-0.0161
17	25	25	e		17, 26	0, 25	123.5164	13488.0442	11542.0160		25153.5766	25153.5733	0.0033
17	25	26	f		17, 26	0, 25	123.5164	13488.0442	11541.9425		25153.5031	25153.4918	0.0113
17	26	25	e		17, 26	0, 25	123.5164	13488.0442	11545.5884		25157.1490	25157.1481	0.0009
17	26	26	f		17, 26	0, 25	123.5164	13488.0442	11545.5171		25157.0777	25157.0764	0.0013
17	26	27	e		17, 26	0, 25	123.5164	13488.0442	11545.4426		25157.0032	25156.9980	0.0052
17	27	26	f		17, 26	0, 25	123.5164	13488.0442	11549.2229		25160.7835	25160.7821	0.0014
17	27	27	e		17, 26	0, 25	123.5164	13488.0442	11549.1536		25160.7142	25160.7129	0.0013
17	28	27	e		17, 26	0, 25	123.5164	13488.0442	11552.9903		25164.5509	25164.5496	0.0013
17	37	37	e		12, 38	0, 37	194.9907	12934.4448	12074.9318		25204.3673	25204.3773	-0.0100
17	37	38	f		12, 38	0, 37	194.9907	12934.4448	12074.8750		25204.3105	25204.3222	-0.0117
17	38	37	e		12, 38	0, 37	194.9907	12934.4448	12080.0662		25209.5017	25209.5199	-0.0182
17	38	38	f		12, 38	0, 37	194.9907	12934.4448	12080.0168		25209.4523	25209.4695	-0.0172
17	38	39	e		12, 38	0, 37	194.9907	12934.4448	12079.9650		25209.4005	25209.4158	-0.0153
17	39	38	f		12, 38	0, 37	194.9907	12934.4448	12085.3141		25214.7496	25214.7419	0.0077
17	39	39	e		12, 38	0, 37	194.9907	12934.4448	12085.2378		25214.6733	25214.6927	-0.0194
17	40	39	e		12, 38	0, 37	194.9907	12934.4448	12090.6362		25220.0717	25220.0948	-0.0231
17	43	44	e		18, 45	0, 46	266.2096	13572.0030	11398.6138		25236.8264	25236.8438	-0.0174
17	45	44	e		18, 45	0, 46	266.2096	13572.0030	11410.6055		25248.8181	25248.8134	0.0047
17	45	45	f		18, 45	0, 46	266.2096	13572.0030	11410.5739		25248.7865	25248.7704	0.0161
17	45	46	e		18, 45	0, 46	266.2096	13572.0030	11410.5248		25248.7374	25248.7250	0.0124
17	46	45	f		18, 45	0, 46	266.2096	13572.0030	11416.7334		25254.9460	25254.9462	-0.0002

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
17	46	45	f		18, 45	0, 46	266.2096	13572.0030	11416.7299		25254.9425	25254.9462	-0.0037
17	46	46	e		18, 45	0, 46	266.2096	13572.0030	11416.6976		25254.9102	25254.9041	0.0061
17	46	46	e		18, 45	0, 46	266.2096	13572.0030	11416.6938		25254.9064	25254.9041	0.0023
17	47	46	e		18, 45	0, 46	266.2096	13572.0030	11422.9964		25261.2090	25261.2079	0.0011
17	47	46	e		18, 45	0, 46	266.2096	13572.0030	11422.9942		25261.2068	25261.2079	-0.0011
18	13	14	e		15, 15	0, 14	81.7995	13269.6738	11845.5403		25197.0136	25197.0250	-0.0114
18	13	14	e		15, 15	0, 14	81.7995	13269.6738	11845.5416		25197.0149	25197.0250	-0.0101
18	14	14	e		15, 15	0, 14	81.7995	13269.6738	11847.5633		25199.0366	25199.0519	-0.0153
18	14	14	e		15, 15	0, 14	81.7995	13269.6738	11847.5657		25199.0390	25199.0519	-0.0129
18	14	15	f		15, 15	0, 14	81.7995	13269.6738	11847.4221		25198.8954	25198.9076	-0.0122
18	14	15	f		15, 15	0, 14	81.7995	13269.6738	11847.4248		25198.8981	25198.9076	-0.0095
18	15	14	e		15, 15	0, 14	81.7995	13269.6738	11849.6881		25201.1614	25201.1749	-0.0135
18	15	14	e		15, 15	0, 14	81.7995	13269.6738	11849.6912		25201.1645	25201.1749	-0.0104
18	15	14	e		15, 15	0, 14	81.7995	13269.6738	11849.6892		25201.1625	25201.1749	-0.0124
18	15	14	e		15, 15	0, 16	87.6831	13263.7904	11849.6895		25201.1630	25201.1749	-0.0119
18	15	15	f		15, 15	0, 14	81.7995	13269.6738	11849.5711		25201.0444	25201.0577	-0.0133
18	15	15	f		15, 15	0, 14	81.7995	13269.6738	11849.5742		25201.0475	25201.0577	-0.0102
18	15	15	f		15, 15	0, 14	81.7995	13269.6738	11849.5728		25201.0461	25201.0577	-0.0116
18	15	15	f		15, 15	0, 16	87.6831	13263.7904	11849.5724		25201.0459	25201.0577	-0.0118
18	15	16	e		15, 15	0, 14	81.7995	13269.6738	11849.4371		25200.9104	25200.9226	-0.0122
18	15	16	e		15, 15	0, 14	81.7995	13269.6738	11849.4401		25200.9134	25200.9226	-0.0092
18	15	16	e		15, 15	0, 14	81.7995	13269.6738	11849.4393		25200.9126	25200.9226	-0.0100
18	15	16	e		15, 15	0, 16	87.6831	13263.7904	11849.4386		25200.9121	25200.9226	-0.0105
18	16	15	f		15, 15	0, 14	81.7995	13269.6738	11851.8226		25203.2959	25203.3078	-0.0119
18	16	15	f		15, 15	0, 14	81.7995	13269.6738	11851.8234		25203.2967	25203.3078	-0.0111
18	16	16	e		15, 15	0, 14	81.7995	13269.6738	11851.7110		25203.1843	25203.1969	-0.0126
18	16	16	e		15, 15	0, 14	81.7995	13269.6738	11851.7126		25203.1859	25203.1969	-0.0110
18	17	16	e		15, 15	0, 14	81.7995	13269.6738	11854.0899		25205.5632	25205.5749	-0.0117
18	17	16	e		15, 15	0, 14	81.7995	13269.6738	11854.0921		25205.5654	25205.5749	-0.0095
18	24	25	e		17, 26	0, 25	123.5164	13488.0442	11613.4524		25225.0130	25225.0187	-0.0057
18	24	25	e		17, 26	0, 25	123.5164	13488.0442	11613.4574		25225.0180	25225.0187	-0.0007
18	25	25	e		17, 26	0, 25	123.5164	13488.0442	11616.8728		25228.4334	25228.4394	-0.0060
18	25	25	e		17, 26	0, 25	123.5164	13488.0442	11616.8770		25228.4376	25228.4394	-0.0018
18	25	25	e		17, 26	0, 25	123.5164	13488.0442	11616.8769		25228.4375	25228.4394	-0.0019
18	25	25	e		17, 26	0, 25	123.5164	13488.0442	11616.8803		25228.4409	25228.4394	0.0015
18	25	26	f		17, 26	0, 25	123.5164	13488.0442	11616.7977		25228.3583	25228.3575	0.0008
18	25	26	f		17, 26	0, 25	123.5164	13488.0442	11616.8020		25228.3626	25228.3575	0.0051
18	25	26	f		17, 26	0, 25	123.5164	13488.0442	11616.8030		25228.3636	25228.3575	0.0061
18	25	26	f		17, 26	0, 25	123.5164	13488.0442	11616.8035		25228.3641	25228.3575	0.0066
18	26	25	e		17, 26	0, 25	123.5164	13488.0442	11620.4121		25231.9727	25231.9790	-0.0063

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	(v_A, J')	(v_b, J')	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
18	26	26	f		17, 26	0, 25	123.5164	13488.0442	11620.3399		25231.9005	25231.9070	-0.0065
18	26	27	e		17, 26	0, 25	123.5164	13488.0442	11620.2636		25231.8242	25231.8283	-0.0041
18	27	26	f		17, 26	0, 25	123.5164	13488.0442	11624.0095		25235.5701	25235.5762	-0.0061
18	27	27	e		17, 26	0, 25	123.5164	13488.0442	11623.9385		25235.4991	25235.5066	-0.0075
18	28	27	e		17, 26	0, 25	123.5164	13488.0442	11627.7408		25239.3014	25239.3054	-0.0040
19	13	14	e		15, 15	0, 16	87.6831	13263.7902	11919.4224		25270.8957	25270.9137	-0.0180
19	14	14	e		15, 15	0, 16	87.6831	13263.7902	11921.4291		25272.9024	25272.9143	-0.0119
19	14	14	e		15, 15	0, 16	87.6831	13263.7902	11921.4271		25272.9004	25272.9143	-0.0139
19	14	15	f		15, 15	0, 16	87.6831	13263.7902	11921.2848		25272.7581	25272.7764	-0.0183
19	15	14	e		15, 15	0, 16	87.6831	13263.7902	11923.5309		25275.0042	25275.0110	-0.0068
19	15	15	f		15, 15	0, 16	87.6831	13263.7902	11923.4131		25274.8864	25274.8991	-0.0127
19	15	16	e		15, 15	0, 16	87.6831	13263.7902	11923.2805		25274.7538	25274.7701	-0.0163
19	16	15	f		15, 15	0, 16	87.6831	13263.7902	11925.6388		25277.1121	25277.1219	-0.0098
19	16	16	e		15, 15	0, 16	87.6831	13263.7902	11925.5327		25277.0060	25277.0160	-0.0100
19	17	16	e		15, 15	0, 16	87.6831	13263.7902	11927.8856		25279.3589	25279.3655	-0.0066
19	23	22	e		17, 23	0, 22	109.8732	13485.4653	11700.2579		25295.5964	25295.6009	-0.0045
19	23	22	e		17, 23	0, 24	118.7802	13476.5547	11700.2584		25295.5933	25295.6009	-0.0076
19	23	23	f		17, 23	0, 22	109.8732	13485.4653	11700.1758		25295.5143	25295.5240	-0.0097
19	23	23	f		17, 23	0, 24	118.7802	13476.5547	11700.1757		25295.5106	25295.5240	-0.0134
19	24	23	e		17, 22	0, 23	114.2325	13477.4460	11707.0862		25298.7647	25298.7674	-0.0027
19	24	24	f		17, 24	0, 25	123.5164	13475.4716	11699.7030		25298.6910	25298.6935	-0.0025
19	24	24	f		17, 24	0, 25	123.5164	13475.4716	11699.6950		25298.6830	25298.6935	-0.0105
19	24	25	e		17, 24	0, 25	123.5164	13475.4716	11699.6091		25298.5971	25298.6122	-0.0151
19	24	25	e		17, 26	0, 25	123.5164	13488.0442	11687.0457		25298.6063	25298.6122	-0.0059
19	24	25	e		17, 26	0, 25	123.5164	13488.0442	11687.0458		25298.6064	25298.6122	-0.0058
19	25	24	e		17, 25	0, 24	118.7802	13488.6821	11694.6052		25302.0675	25302.0650	0.0025
19	25	24	e		17, 25	0, 24	118.7802	13488.6821	11694.6118		25302.0741	25302.0650	0.0091
19	25	24	e		17, 25	0, 24	118.7802	13488.6821	11694.6150		25302.0773	25302.0650	0.0123
19	25	24	e		17, 25	0, 24	118.7802	13488.6821	11694.6133		25302.0756	25302.0650	0.0106
19	25	24	f		17, 24	0, 25	123.5164	13475.4716	11703.0815		25302.0695	25302.0650	0.0045
19	25	24	e		17, 25	0, 26	128.4408	13479.0254	11694.6062		25302.0724	25302.0650	0.0074
19	25	25	f		17, 25	0, 24	118.7802	13488.6821	11694.5215		25301.9838	25301.9938	-0.0100
19	25	25	f		17, 25	0, 24	118.7802	13488.6821	11694.5344		25301.9967	25301.9938	0.0029
19	25	25	f		17, 25	0, 24	118.7802	13488.6821	11694.5327		25301.9950	25301.9938	0.0012
19	25	25	f		17, 25	0, 24	118.7802	13488.6821	11694.5362		25301.9985	25301.9938	0.0047
19	25	25	e		17, 24	0, 25	123.5164	13475.4716	11703.0072		25301.9952	25301.9938	0.0014
19	25	25	e		17, 26	0, 25	123.5164	13488.0442	11690.4264		25301.9870	25301.9938	-0.0068
19	25	25	e		17, 26	0, 25	123.5164	13488.0442	11690.4296		25301.9902	25301.9938	-0.0036
19	25	25	e		17, 26	0, 25	123.5164	13488.0442	11690.4321		25301.9927	25301.9938	-0.0011
19	25	25	f		17, 25	0, 26	128.4408	13479.0254	11694.5274		25301.9936	25301.9938	-0.0002

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
19	25	26	e		17, 25	0, 24	118.7802	13488.6821	11694.4472		25301.9095	25301.9157	-0.0062
19	25	26	e		17, 25	0, 24	118.7802	13488.6821	11694.4558		25301.9181	25301.9157	0.0024
19	25	26	e		17, 25	0, 24	118.7802	13488.6821	11694.4573		25301.9196	25301.9157	0.0039
19	25	26	e		17, 25	0, 24	118.7802	13488.6821	11694.4585		25301.9208	25301.9157	0.0051
19	25	26	f		17, 26	0, 25	123.5164	13488.0442	11690.3463		25301.9069	25301.9157	-0.0088
19	25	26	f		17, 26	0, 25	123.5164	13488.0442	11690.3508		25301.9114	25301.9157	-0.0043
19	25	26	f		17, 26	0, 25	123.5164	13488.0442	11690.3523		25301.9129	25301.9157	-0.0028
19	25	26	e		17, 25	0, 26	128.4408	13479.0254	11694.4491		25301.9153	25301.9157	-0.0004
19	26	25	f		17, 25	0, 24	118.7802	13488.6821	11698.0285		25305.4908	25305.4937	-0.0029
19	26	26	e		17, 25	0, 24	118.7802	13488.6821	11697.9519		25305.4142	25305.4249	-0.0107
19	26	26	f		17, 26	0, 25	123.5164	13488.0442	11693.8572		25305.4178	25305.4249	-0.0071
19	26	26	f		17, 26	0, 25	123.5164	13488.0442	11693.8604		25305.4210	25305.4249	-0.0039
19	26	27	e		17, 26	0, 25	123.5164	13488.0442	11693.7805		25305.3411	25305.3498	-0.0087
19	26	27	e		17, 26	0, 25	123.5164	13488.0442	11693.7836		25305.3442	25305.3498	-0.0056
19	27	26	f		17, 26	0, 25	123.5164	13488.0442	11697.4893		25309.0499	25309.0530	-0.0031
19	27	26	f		17, 26	0, 25	123.5164	13488.0442	11697.4938		25309.0544	25309.0530	0.0014
19	27	26	f		17, 26	0, 25	123.5164	13488.0442	11697.4957		25309.0563	25309.0530	0.0033
19	27	26	f		17, 26	0, 25	123.5164	13488.0442	11697.4948		25309.0554	25309.0530	0.0024
19	27	26	f		17, 26	0, 27	133.5534	13478.0078	11697.4963		25309.0575	25309.0530	0.0045
19	27	26	e		17, 27	0, 28	138.8539	13477.1090	11693.0947		25309.0576	25309.0530	0.0046
19	27	27	e		17, 26	0, 25	123.5164	13488.0442	11697.4197		25308.9803	25308.9866	-0.0063
19	27	27	e		17, 26	0, 25	123.5164	13488.0442	11697.4250		25308.9856	25308.9866	-0.0010
19	27	27	e		17, 26	0, 25	123.5164	13488.0442	11697.4256		25308.9862	25308.9866	-0.0004
19	27	27	e		17, 26	0, 25	123.5164	13488.0442	11697.4251		25308.9857	25308.9866	-0.0009
19	27	27	e		17, 26	0, 27	133.5534	13478.0078	11697.4276		25308.9888	25308.9866	0.0022
19	27	27	e		17, 28	0, 27	133.5534	13487.1007	11688.3460		25309.0001	25308.9866	0.0135
19	27	27	e		17, 28	0, 27	133.5534	13487.1007	11688.3492		25309.0033	25308.9866	0.0167
19	27	27	e		17, 28	0, 29	144.3422	13476.3037	11688.3509		25308.9968	25308.9866	0.0102
19	27	28	f		17, 28	0, 27	133.5534	13487.1007	11688.2725		25308.9266	25308.9143	0.0123
19	27	28	f		17, 28	0, 27	133.5534	13487.1007	11688.2718		25308.9259	25308.9143	0.0116
19	27	28	f		17, 28	0, 29	144.3422	13476.3037	11688.2768		25308.9227	25308.9143	0.0084
19	28	27	e		17, 26	0, 25	123.5164	13488.0442	11701.1812		25312.7418	25312.7430	-0.0012
19	28	27	e		17, 28	0, 27	133.5534	13487.1007	11692.1078		25312.7619	25312.7430	0.0189
19	28	28	f		17, 28	0, 27	133.5534	13487.1007	11692.0382		25312.6923	25312.6788	0.0135
19	28	29	e		17, 28	0, 27	133.5534	13487.1007	11691.9639		25312.6180	25312.6090	0.0090
19	29	28	f		17, 28	0, 27	133.5534	13487.1007	11695.9290		25316.5831	25316.5635	0.0196
19	29	29	e		17, 28	0, 27	133.5534	13487.1007	11695.8629		25316.5170	25316.5013	0.0157
19	36	37	e		12, 38	0, 37	194.9907	12934.4448	12217.3996		25346.8351	25346.8365	-0.0014
19	37	37	e		12, 38	0, 37	194.9907	12934.4448	12222.3130		25351.7485	25351.7485	0.0000
19	37	38	f		12, 38	0, 37	194.9907	12934.4448	12222.2563		25351.6918	25351.6957	-0.0039
19	38	37	e		12, 38	0, 37	194.9907	12934.4448	12227.3504		25356.7859	25356.7832	0.0027

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
19	38	38	f		12, 38	0, 37	194.9907	12934.4448	12227.2982		25356.7337	25356.7348	-0.0011
19	38	39	e		12, 38	0, 37	194.9907	12934.4448	12227.2438		25356.6793	25356.6834	-0.0041
19	39	38	f		12, 38	0, 37	194.9907	12934.4448	12232.4606		25361.8961	25361.8965	-0.0004
19	39	39	e		12, 38	0, 37	194.9907	12934.4448	12232.4111		25361.8466	25361.8494	-0.0028
19	43	44	e		18, 45	0, 46	266.2096	13572.0030	11545.3234		25383.5360	25383.5391	-0.0031
19	43	44	e		18, 45	0, 46	266.2096	13572.0030	11545.3204		25383.5330	25383.5391	-0.0061
19	44	44	e		18, 45	0, 46	266.2096	13572.0030	11551.1175		25389.3301	25389.3365	-0.0064
19	44	44	e		18, 45	0, 46	266.2096	13572.0030	11551.1199		25389.3325	25389.3365	-0.0040
19	44	45	f		18, 45	0, 46	266.2096	13572.0030	11551.0723		25389.2849	25389.2920	-0.0071
19	44	45	f		18, 45	0, 46	266.2096	13572.0030	11551.0732		25389.2858	25389.2920	-0.0062
19	45	44	e		18, 45	0, 46	266.2096	13572.0030	11557.0356		25395.2482	25395.2561	-0.0079
19	45	44	e		18, 45	0, 46	266.2096	13572.0030	11557.0387		25395.2513	25395.2561	-0.0048
19	45	45	f		18, 45	0, 46	266.2096	13572.0030	11556.9930		25395.2056	25395.2148	-0.0092
19	45	45	f		18, 45	0, 46	266.2096	13572.0030	11556.9949		25395.2075	25395.2148	-0.0073
19	45	46	e		18, 45	0, 46	266.2096	13572.0030	11556.9487		25395.1613	25395.1713	-0.0100
19	45	46	e		18, 45	0, 46	266.2096	13572.0030	11556.9480		25395.1606	25395.1713	-0.0107
19	46	45	f		18, 45	0, 46	266.2096	13572.0030	11563.0372		25401.2498	25401.2601	-0.0103
19	46	46	e		18, 45	0, 46	266.2096	13572.0030	11562.9958		25401.2084	25401.2197	-0.0113
19	47	46	e		18, 45	0, 46	266.2096	13572.0030	11569.1658		25407.3784	25407.3901	-0.0117
20	13	14	e		15, 15	0, 14	81.7995	13269.6738	11991.9641		25343.4374	25343.4538	-0.0164
20	13	14	e		15, 15	0, 16	87.6831	13263.7902	11991.9661		25343.4394	25343.4538	-0.0144
20	14	14	e		15, 15	0, 14	81.7995	13269.6738	11993.9533		25345.4266	25345.4438	-0.0172
20	14	14	e		15, 15	0, 16	87.6831	13263.7902	11993.9538		25345.4271	25345.4438	-0.0167
20	14	15	f		15, 15	0, 14	81.7995	13269.6738	11993.8051		25345.2784	25345.2968	-0.0184
20	14	15	f		15, 15	0, 16	87.6831	13263.7902	11993.8094		25345.2827	25345.2968	-0.0141
20	15	14	e		15, 15	0, 14	81.7995	13269.6738	11996.0376		25347.5109	25347.5262	-0.0153
20	15	14	e		15, 15	0, 16	87.6831	13263.7902	11996.0363		25347.5096	25347.5262	-0.0166
20	15	15	f		15, 15	0, 14	81.7995	13269.6738	11995.9178		25347.3911	25347.4070	-0.0159
20	15	15	f		15, 15	0, 16	87.6831	13263.7902	11995.9170		25347.3903	25347.4070	-0.0167
20	15	15	f		15, 15	0, 16	87.6831	13263.7902	11995.9172		25347.3905	25347.4070	-0.0165
20	15	16	e		15, 15	0, 14	81.7995	13269.6738	11995.7805		25347.2538	25347.2694	-0.0156
20	15	16	e		15, 15	0, 16	87.6831	13263.7902	11995.7849		25347.2582	25347.2694	-0.0112
20	16	15	f		15, 15	0, 14	81.7995	13269.6738	11998.1258		25349.5991	25349.6136	-0.0145
20	16	15	f		15, 15	0, 16	87.6831	13263.7902	11998.1240		25349.5973	25349.6136	-0.0163
20	16	16	e		15, 15	0, 14	81.7995	13269.6738	11998.0127		25349.4860	25349.5008	-0.0148
20	17	16	e		15, 15	0, 14	81.7995	13269.6738	12000.3465		25351.8198	25351.8324	-0.0126
20	17	16	e		15, 15	0, 16	87.6831	13263.7902	12000.3511		25351.8244	25351.8324	-0.0080
20	24	25	e		17, 26	0, 25	123.5164	13488.0442	11759.2953		25370.8559	25370.8545	0.0014
20	24	25	e		17, 26	0, 25	123.5164	13488.0442	11759.2941		25370.8547	25370.8545	0.0002
20	25	25	e		17, 26	0, 25	123.5164	13488.0442	11762.6426		25374.2032	25374.2056	-0.0024

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
20	25	25	e		17, 26	0, 25	123.5164	13488.0442	11762.6452		25374.2058	25374.2056	0.0002
20	25	26	f		17, 26	0, 25	123.5164	13488.0442	11762.5631		25374.1237	25374.1222	0.0015
20	25	26	f		17, 26	0, 25	123.5164	13488.0442	11762.5646		25374.1252	25374.1222	0.0030
20	26	25	e		17, 26	0, 25	123.5164	13488.0442	11766.1116		25377.6722	25377.6724	-0.0002
20	26	25	e		17, 26	0, 25	123.5164	13488.0442	11766.1123		25377.6729	25377.6724	0.0005
20	26	26	f		17, 26	0, 25	123.5164	13488.0442	11766.0370		25377.5976	25377.5991	-0.0015
20	26	26	f		17, 26	0, 25	123.5164	13488.0442	11766.0379		25377.5985	25377.5991	-0.0006
20	26	26	e		15, 27	0, 26	128.4408	13269.6738	11979.4839		25377.5985	25377.5991	-0.0006
20	26	27	e		17, 26	0, 25	123.5164	13488.0442	11765.9581		25377.5187	25377.5188	-0.0001
20	26	27	e		17, 26	0, 25	123.5164	13488.0442	11765.9585		25377.5191	25377.5188	0.0003
20	26	27	f		15, 27	0, 26	128.4408	13269.6738	11979.4061		25377.5207	25377.5188	0.0019
20	27	26	f		17, 26	0, 25	123.5164	13488.0442	11769.6323		25381.1929	25381.1925	0.0004
20	27	26	e		15, 27	0, 26	128.4408	13269.6738	11983.0767		25381.1913	25381.1925	-0.0012
20	27	27	e		17, 26	0, 25	123.5164	13488.0442	11769.5608		25381.1214	25381.1217	-0.0003
20	27	27	f		15, 27	0, 26	128.4408	13269.6738	11983.0079		25381.1225	25381.1217	0.0008
20	27	28	e		15, 27	0, 26	128.4408	13269.6738	11982.9350		25381.0496	25381.0444	0.0052
20	36	37	e		12, 38	0, 37	194.9907	12934.4448	12289.1157		25418.5512	25418.5494	0.0018
20	36	37	e		12, 38	0, 37	194.9907	12934.4448	12289.1157		25418.5512	25418.5494	0.0018
20	37	37	e		12, 38	0, 37	194.9907	12934.4448	12293.9712		25423.4067	25423.4112	-0.0045
20	37	37	e		12, 38	0, 37	194.9907	12934.4448	12293.9742		25423.4097	25423.4112	-0.0015
20	37	37	e		12, 38	0, 37	194.9907	12934.4448	12293.9728		25423.4083	25423.4112	-0.0029
20	37	38	f		12, 38	0, 37	194.9907	12934.4448	12293.9168		25423.3523	25423.3548	-0.0025
20	37	38	f		12, 38	0, 37	194.9907	12934.4448	12293.9196		25423.3551	25423.3548	0.0003
20	37	38	f		12, 38	0, 37	194.9907	12934.4448	12293.9198		25423.3553	25423.3548	0.0005
20	38	37	e		12, 38	0, 37	194.9907	12934.4448	12298.9528		25428.3883	25428.3937	-0.0054
20	38	37	e		12, 38	0, 37	194.9907	12934.4448	12298.9517		25428.3872	25428.3937	-0.0065
20	38	38	f		12, 38	0, 37	194.9907	12934.4448	12298.9010		25428.3365	25428.3421	-0.0056
20	38	38	f		12, 38	0, 37	194.9907	12934.4448	12298.9021		25428.3376	25428.3421	-0.0045
20	38	39	e		12, 38	0, 37	194.9907	12934.4448	12298.8495		25428.2850	25428.2871	-0.0021
20	38	39	e		12, 38	0, 37	194.9907	12934.4448	12298.8504		25428.2859	25428.2871	-0.0012
20	39	38	f		12, 38	0, 37	194.9907	12934.4448	12304.0095		25433.4450	25433.4500	-0.0050
20	39	38	f		12, 38	0, 37	194.9907	12934.4448	12304.0161		25433.4516	25433.4500	0.0016
20	39	39	e		12, 38	0, 37	194.9907	12934.4448	12303.9621		25433.3976	25433.3996	-0.0020
20	39	39	e		12, 38	0, 37	194.9907	12934.4448	12303.9683		25433.4038	25433.3996	0.0042
20	40	39	e		12, 38	0, 37	194.9907	12934.4448	12309.1906		25438.6261	25438.6329	-0.0068
20	43	44	e		18, 45	0, 46	266.2096	13572.0030	11616.6332		25454.8458	25454.8432	0.0026
20	44	44	e		18, 45	0, 46	266.2096	13572.0030	11622.3626		25460.5752	25460.5792	-0.0040
20	44	45	f		18, 45	0, 46	266.2096	13572.0030	11622.3185		25460.5311	25460.5316	-0.0005
20	45	44	e		18, 45	0, 46	266.2096	13572.0030	11628.2158		25466.4284	25466.4355	-0.0071
20	45	45	f		18, 45	0, 46	266.2096	13572.0030	11628.1732		25466.3858	25466.3914	-0.0056
20	45	46	e		18, 45	0, 46	266.2096	13572.0030	11628.1287		25466.3413	25466.3449	-0.0036

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
20	46	45	f		18, 45	0, 46	266.2096	13572.0030	11634.1487		25472.3613	25472.3719	-0.0106
20	46	46	e		18, 45	0, 46	266.2096	13572.0030	11634.1058		25472.3184	25472.3287	-0.0103
20	47	46	e		18, 45	0, 46	266.2096	13572.0030	11640.2105		25478.4231	25478.4326	-0.0095
21	13	14	e		15, 15	0, 14	81.7995	13269.6738	12063.1388		25414.6121	25414.6404	-0.0283
21	13	14	e		15, 15	0, 14	81.7995	13269.6738	12063.1391		25414.6124	25414.6404	-0.0280
21	14	14	e		15, 15	0, 14	81.7995	13269.6738	12065.1130		25416.5863	25416.6051	-0.0188
21	14	15	f		15, 15	0, 14	81.7995	13269.6738	12064.9486		25416.4219	25416.4625	-0.0406
21	14	15	f		15, 15	0, 14	81.7995	13269.6738	12064.9494		25416.4227	25416.4625	-0.0398
21	15	14	e		15, 15	0, 14	81.7995	13269.6738	12067.1751		25418.6484	25418.6619	-0.0135
21	15	15	f		15, 15	0, 14	81.7995	13269.6738	12067.0549		25418.5282	25418.5462	-0.0180
21	15	15	f		15, 15	0, 14	81.7995	13269.6738	12067.0551		25418.5284	25418.5462	-0.0178
21	15	15	f		15, 15	0, 16	87.6831	13263.7902	12067.0570		25418.5303	25418.5462	-0.0159
21	15	16	e		15, 15	0, 14	81.7995	13269.6738	12066.9268		25418.4001	25418.4126	-0.0125
21	15	16	e		15, 15	0, 14	81.7995	13269.6738	12066.9272		25418.4005	25418.4126	-0.0121
21	15	16	e		15, 15	0, 16	87.6831	13263.7902	12066.9289		25418.4022	25418.4126	-0.0104
21	16	15	f		15, 15	0, 14	81.7995	13269.6738	12069.2412		25420.7145	25420.7258	-0.0113
21	16	15	f		15, 15	0, 14	81.7995	13269.6738	12069.2459		25420.7192	25420.7258	-0.0066
21	16	16	e		15, 15	0, 14	81.7995	13269.6738	12069.1242		25420.5975	25420.6163	-0.0188
21	16	16	e		15, 15	0, 14	81.7995	13269.6738	12069.1278		25420.6011	25420.6163	-0.0152
21	17	16	e		15, 15	0, 14	81.7995	13269.6738	12071.4369		25422.9102	25422.9196	-0.0094
21	17	16	e		15, 15	0, 14	81.7995	13269.6738	12071.4411		25422.9144	25422.9196	-0.0052
21	17	16	e		15, 15	0, 14	81.7995	13269.6738	12071.4370		25422.9103	25422.9196	-0.0093
21	17	16	e		15, 15	0, 16	87.6831	13263.7902	12071.4381		25422.9114	25422.9196	-0.0082
21	24	25	e		17, 26	0, 25	123.5164	13488.0442	11830.1688		25441.7294	25441.7293	0.0001
21	25	25	e		17, 26	0, 25	123.5164	13488.0442	11833.4807		25445.0413	25445.0405	0.0008
21	25	26	f		17, 26	0, 25	123.5164	13488.0442	11833.4008		25444.9614	25444.9595	0.0019
21	25	26	e		15, 27	0, 26	128.4408	13269.6738	12046.8494		25444.9640	25444.9595	0.0045
21	25	26	e		15, 27	0, 26	128.4408	13269.6738	12046.8442		25444.9588	25444.9595	-0.0007
21	25	26	e		15, 27	0, 26	128.4408	13269.6738	12046.8474		25444.9620	25444.9595	0.0025
21	25	26	e		15, 27	0, 26	128.4408	13269.6738	12046.8465		25444.9611	25444.9595	0.0016
21	26	25	e		17, 26	0, 25	123.5164	13488.0442	11836.9123		25448.4729	25448.4664	0.0065
21	26	26	f		17, 26	0, 25	123.5164	13488.0442	11836.8367		25448.3973	25448.3952	0.0021
21	26	26	e		15, 27	0, 26	128.4408	13269.6738	12050.2810		25448.3956	25448.3952	0.0004
21	26	26	e		15, 27	0, 26	128.4408	13269.6738	12050.2843		25448.3989	25448.3952	0.0037
21	26	26	e		15, 27	0, 26	128.4408	13269.6738	12050.2825		25448.3971	25448.3952	0.0019
21	26	27	e		17, 26	0, 25	123.5164	13488.0442	11836.7575		25448.3181	25448.3174	0.0007
21	26	27	f		15, 27	0, 26	128.4408	13269.6738	12050.2059		25448.3205	25448.3174	0.0031
21	26	27	f		15, 27	0, 26	128.4408	13269.6738	12050.2086		25448.3232	25448.3174	0.0058
21	26	27	f		15, 27	0, 26	128.4408	13269.6738	12050.2072		25448.3218	25448.3174	0.0044
21	27	26	f		17, 26	0, 25	123.5164	13488.0442	11840.3925		25451.9531	25451.9463	0.0068

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
21	27	26	e		15, 27	0, 26	128.4408	13269.6738	12053.8365		25451.9511	25451.9463	0.0048
21	27	26	e		15, 27	0, 26	128.4408	13269.6738	12053.8332		25451.9478	25451.9463	0.0015
21	27	27	e		17, 26	0, 25	123.5164	13488.0442	11840.3193		25451.8799	25451.8776	0.0023
21	27	27	f		15, 27	0, 26	128.4408	13269.6738	12053.7670		25451.8816	25451.8776	0.0040
21	27	27	f		15, 27	0, 26	128.4408	13269.6738	12053.7653		25451.8799	25451.8776	0.0023
21	27	28	e		15, 27	0, 26	128.4408	13269.6738	12053.6933		25451.8079	25451.8026	0.0053
21	27	28	e		15, 27	0, 26	128.4408	13269.6738	12053.6926		25451.8072	25451.8026	0.0046
21	28	27	e		17, 26	0, 25	123.5164	13488.0442	11844.0029		25455.5635	25455.5539	0.0096
21	28	27	f		15, 27	0, 26	128.4408	13269.6738	12057.4445		25455.5591	25455.5539	0.0052
21	28	28	e		15, 27	0, 26	128.4408	13269.6738	12057.3746		25455.4892	25455.4874	0.0018
21	36	37	e		12, 38	0, 37	194.9907	12934.4448	12359.4393		25488.8748	25488.8758	-0.0010
21	37	37	e		12, 38	0, 37	194.9907	12934.4448	12364.2420		25493.6775	25493.6802	-0.0027
21	37	38	f		12, 38	0, 37	194.9907	12934.4448	12364.1867		25493.6222	25493.6255	-0.0033
21	38	37	e		12, 38	0, 37	194.9907	12934.4448	12369.1633		25498.5988	25498.6039	-0.0051
21	38	38	f		12, 38	0, 37	194.9907	12934.4448	12369.1141		25498.5496	25498.5539	-0.0043
21	38	39	e		12, 38	0, 37	194.9907	12934.4448	12369.0663		25498.5018	25498.5005	0.0013
21	39	38	f		12, 38	0, 37	194.9907	12934.4448	12374.1612		25503.5967	25503.6015	-0.0048
21	39	39	e		12, 38	0, 37	194.9907	12934.4448	12374.1124		25503.5479	25503.5526	-0.0047
21	40	39	e		12, 38	0, 37	194.9907	12934.4448	12379.2860		25508.7215	25508.7240	-0.0025
22	13	14	e		15, 15	0, 14	81.7995	13269.6738	12132.9199		25484.3932	25484.4147	-0.0215
22	14	14	e		15, 15	0, 14	81.7995	13269.6738	12134.8721		25486.3454	25486.3665	-0.0211
22	14	15	f		15, 15	0, 14	81.7995	13269.6738	12134.7206		25486.1939	25486.2158	-0.0219
22	15	14	e		15, 15	0, 14	81.7995	13269.6738	12136.9129		25488.3862	25488.4068	-0.0206
22	15	15	f		15, 15	0, 14	81.7995	13269.6738	12136.7903		25488.2636	25488.2846	-0.0210
22	15	16	e		15, 15	0, 14	81.7995	13269.6738	12136.6505		25488.1238	25488.1435	-0.0197
22	16	15	f		15, 15	0, 14	81.7995	13269.6738	12138.9545		25490.4278	25490.4460	-0.0182
22	16	16	e		15, 15	0, 14	81.7995	13269.6738	12138.8372		25490.3105	25490.3303	-0.0198
22	17	16	e		15, 15	0, 14	81.7995	13269.6738	12141.1235		25492.5968	25492.6134	-0.0166
22	24	25	e		17, 26	0, 25	123.5164	13488.0442	11899.6264		25511.1870	25511.1871	-0.0001
22	25	25	e		17, 26	0, 25	123.5164	13488.0442	11902.9005		25514.4611	25514.4648	-0.0037
22	25	25	e		17, 26	0, 25	123.5164	13488.0442	11902.9039		25514.4645	25514.4648	-0.0003
22	25	26	f		17, 26	0, 25	123.5164	13488.0442	11902.8170		25514.3776	25514.3792	-0.0016
22	25	26	f		17, 26	0, 25	123.5164	13488.0442	11902.8179		25514.3785	25514.3792	-0.0007
22	26	25	e		17, 26	0, 25	123.5164	13488.0442	11906.2974		25517.8580	25517.8549	0.0031
22	26	26	f		17, 26	0, 25	123.5164	13488.0442	11906.2181		25517.7787	25517.7796	-0.0009
22	26	26	e		15, 27	0, 26	128.4408	13269.6738	12119.6584		25517.7730	25517.7796	-0.0066
22	26	27	e		17, 26	0, 25	123.5164	13488.0442	11906.1353		25517.6959	25517.6973	-0.0014
22	26	27	f		15, 27	0, 26	128.4408	13269.6738	12119.5811		25517.6957	25517.6973	-0.0016
22	27	26	f		17, 26	0, 25	123.5164	13488.0442	11909.7343		25521.2949	25521.2931	0.0018
22	27	26	e		15, 27	0, 26	128.4408	13269.6738	12123.1718		25521.2864	25521.2931	-0.0067

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
22	27	27	*e*		17, 26	0, 25	123.5164	13488.0442	11909.6581		25521.2187	25521.2205	-0.0018
22	27	27	*f*		15, 27	0, 26	128.4408	13269.6738	12123.0995		25521.2141	25521.2205	-0.0064
22	27	28	*e*		15, 27	0, 26	128.4408	13269.6738	12123.0243		25521.1389	25521.1411	-0.0022
22	28	27	*e*		17, 26	0, 25	123.5164	13488.0442	11913.3009		25524.8615	25524.8575	0.0040
22	36	37	*e*		12, 38	0, 37	194.9907	12934.4448	12428.3371		25557.7726	25557.7702	0.0024
22	37	37	*e*		12, 38	0, 37	194.9907	12934.4448	12433.0822		25562.5177	25562.5205	-0.0028
22	37	38	*f*		12, 38	0, 37	194.9907	12934.4448	12433.0239		25562.4594	25562.4625	-0.0031
22	39	38	*f*		12, 38	0, 37	194.9907	12934.4448	12442.8870		25572.3225	25572.3248	-0.0023
22	43	44	*e*		18, 45	0, 46	266.2096	13572.0030	11754.9982		25593.2108	25593.2050	0.0058
22	43	44	*e*		18, 45	0, 46	266.2096	13572.0030	11754.9959		25593.2085	25593.2050	0.0035
22	44	44	*e*		18, 45	0, 46	266.2096	13572.0030	11760.5947		25598.8073	25598.8066	0.0007
22	44	45	*f*		18, 45	0, 46	266.2096	13572.0030	11760.5496		25598.7622	25598.7578	0.0044
22	45	44	*e*		18, 45	0, 46	266.2096	13572.0030	11766.3070		25604.5196	25604.5252	-0.0056
22	45	45	*f*		18, 45	0, 46	266.2096	13572.0030	11766.2641		25604.4767	25604.4800	-0.0033
22	45	46	*e*		18, 45	0, 46	266.2096	13572.0030	11766.2192		25604.4318	25604.4322	-0.0004
22	46	45	*f*		18, 45	0, 46	266.2096	13572.0030	11772.1004		25610.3130	25610.3193	-0.0063
22	46	45	*f*		18, 45	0, 46	266.2096	13572.0030	11772.1008		25610.3134	25610.3193	-0.0059
22	46	46	*e*		18, 45	0, 46	266.2096	13572.0030	11772.0580		25610.2706	25610.2750	-0.0044
22	46	46	*e*		18, 45	0, 46	266.2096	13572.0030	11772.0544		25610.2670	25610.2750	-0.0080
22	47	46	*e*		18, 45	0, 46	266.2096	13572.0030	11778.0146		25616.2272	25616.2346	-0.0074
23	13	14	*e*		15, 15	0, 14	81.7995	13269.6738	12201.2678		25552.7411	25552.7588	-0.0177
23	14	14	*e*		15, 15	0, 14	81.7995	13269.6738	12203.1970		25554.6703	25554.6914	-0.0211
23	14	15	*f*		15, 15	0, 14	81.7995	13269.6738	12203.0460		25554.5193	25554.5381	-0.0188
23	15	14	*e*		15, 15	0, 14	81.7995	13269.6738	12205.2170		25556.6903	25556.7102	-0.0199
23	15	15	*f*		15, 15	0, 14	81.7995	13269.6738	12205.0927		25556.5660	25556.5859	-0.0199
23	15	16	*e*		15, 15	0, 14	81.7995	13269.6738	12204.9521		25556.4254	25556.4423	-0.0169
23	16	15	*f*		15, 15	0, 14	81.7995	13269.6738	12207.2327		25558.7060	25558.7240	-0.0180
23	16	16	*e*		15, 15	0, 14	81.7995	13269.6738	12207.1150		25558.5883	25558.6064	-0.0181
23	17	16	*e*		15, 15	0, 14	81.7995	13269.6738	12209.3704		25560.8437	25560.8646	-0.0209
23	25	25	*e*		17, 26	0, 25	123.5164	13488.0442	11970.8806		25582.4412	25582.4425	-0.0013
23	25	26	*f*		17, 26	0, 25	123.5164	13488.0442	11970.7965		25582.3571	25582.3553	0.0018
23	25	26	*e*		15, 27	0, 26	128.4408	13269.6738	12184.2392		25582.3538	25582.3553	-0.0015
23	26	26	*f*		17, 26	0, 25	123.5164	13488.0442	11974.1539		25585.7145	25585.7161	-0.0016
23	26	27	*e*		17, 26	0, 25	123.5164	13488.0442	11974.0735		25585.6341	25585.6322	0.0019
23	27	26	*f*		17, 26	0, 25	123.5164	13488.0442	11977.6366		25589.1972	25589.1880	0.0092
23	27	27	*e*		17, 26	0, 25	123.5164	13488.0442	11977.5541		25589.1147	25589.1140	0.0007
23	43	44	*e*		18, 45	0, 46	266.2096	13572.0030	11821.9816		25660.1942	25660.1870	0.0072
23	43	44	*e*		18, 45	0, 46	266.2096	13572.0030	11821.9841		25660.1967	25660.1870	0.0097
23	44	44	*e*		18, 45	0, 46	266.2096	13572.0030	11827.5078		25665.7204	25665.7182	0.0022
23	44	44	*e*		18, 45	0, 46	266.2096	13572.0030	11827.5097		25665.7223	25665.7182	0.0041

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
23	44	45	*f*		18, 45	0, 46	266.2096	13572.0030	11827.4620		25665.6746	25665.6685	0.0061
23	44	45	*f*		18, 45	0, 46	266.2096	13572.0030	11827.4629		25665.6755	25665.6685	0.0070
23	45	44	*e*		18, 45	0, 46	266.2096	13572.0030	11833.1481		25671.3607	25671.3646	-0.0039
23	45	44	*e*		18, 45	0, 46	266.2096	13572.0030	11833.1513		25671.3639	25671.3646	-0.0007
23	45	45	*f*		18, 45	0, 46	266.2096	13572.0030	11833.1050		25671.3176	25671.3185	-0.0009
23	45	45	*f*		18, 45	0, 46	266.2096	13572.0030	11833.1078		25671.3204	25671.3185	0.0019
23	45	46	*e*		18, 45	0, 46	266.2096	13572.0030	11833.0591		25671.2717	25671.2698	0.0019
23	45	46	*e*		18, 45	0, 46	266.2096	13572.0030	11833.0612		25671.2738	25671.2698	0.0040
23	46	45	*f*		18, 45	0, 46	266.2096	13572.0030	11838.8687		25677.0813	25677.0839	-0.0026
23	46	45	*f*		18, 45	0, 46	266.2096	13572.0030	11838.8713		25677.0839	25677.0839	0.0000
23	46	46	*e*		18, 45	0, 46	266.2096	13572.0030	11838.8221		25677.0347	25677.0388	-0.0041
23	46	46	*e*		18, 45	0, 46	266.2096	13572.0030	11838.8252		25677.0378	25677.0388	-0.0010
23	47	46	*e*		18, 45	0, 46	266.2096	13572.0030	11844.7050		25682.9176	25682.9226	-0.0050
23	47	46	*e*		18, 45	0, 46	266.2096	13572.0030	11844.7062		25682.9188	25682.9226	-0.0038
24	24	25	*e*		17, 26	0, 25	123.5164	13488.0442	12034.1767		25645.7373	25645.7363	0.0010
24	24	25	*e*		17, 26	0, 25	123.5164	13488.0442	12034.1738		25645.7344	25645.7363	-0.0019
24	25	25	*e*		17, 26	0, 25	123.5164	13488.0442	12037.3731		25648.9337	25648.9364	-0.0027
24	25	25	*e*		17, 26	0, 25	123.5164	13488.0442	12037.3792		25648.9398	25648.9364	0.0034
24	25	26	*f*		17, 26	0, 25	123.5164	13488.0442	12037.2831		25648.8437	25648.8481	-0.0044
24	25	26	*f*		17, 26	0, 25	123.5164	13488.0442	12037.2894		25648.8500	25648.8481	0.0019
24	26	25	*e*		17, 26	0, 25	123.5164	13488.0442	12040.6855		25652.2461	25652.2450	0.0011
24	26	25	*e*		17, 26	0, 25	123.5164	13488.0442	12040.6905		25652.2511	25652.2450	0.0061
24	26	26	*f*		17, 26	0, 25	123.5164	13488.0442	12040.6030		25652.1636	25652.1675	-0.0039
24	26	26	*f*		17, 26	0, 25	123.5164	13488.0442	12040.6076		25652.1682	25652.1675	0.0007
24	26	27	*e*		17, 26	0, 25	123.5164	13488.0442	12040.5190		25652.0796	25652.0825	-0.0029
24	26	27	*e*		17, 26	0, 25	123.5164	13488.0442	12040.5235		25652.0841	25652.0825	0.0016
24	27	26	*f*		17, 26	0, 25	123.5164	13488.0442	12044.0370		25655.5976	25655.5962	0.0014
24	27	27	*e*		17, 26	0, 25	123.5164	13488.0442	12043.9573		25655.5179	25655.5212	-0.0033
24	28	27	*e*		17, 26	0, 25	123.5164	13488.0442	12047.5117		25659.0723	25659.0701	0.0022
24	36	37	*e*		12, 38	0, 37	194.9907	12934.4448	12561.6954		25691.1309	25691.1349	-0.0040
24	43	44	*e*		18, 45	0, 46	266.2096	13572.0030	11887.4452		25725.6578	25725.6522	0.0056
24	43	44	*e*		18, 45	0, 46	266.2096	13572.0030	11887.4446		25725.6572	25725.6522	0.0050
24	44	44	*e*		18, 45	0, 46	266.2096	13572.0030	11892.8982		25731.1108	25731.1103	0.0005
24	44	44	*e*		18, 45	0, 46	266.2096	13572.0030	11892.8988		25731.1114	25731.1103	0.0011
24	44	45	*f*		18, 45	0, 46	266.2096	13572.0030	11892.8506		25731.0632	25731.0598	0.0034
24	44	45	*f*		18, 45	0, 46	266.2096	13572.0030	11892.8508		25731.0634	25731.0598	0.0036
24	45	44	*e*		18, 45	0, 46	266.2096	13572.0030	11898.4653		25736.6779	25736.6817	-0.0038
24	45	45	*f*		18, 45	0, 46	266.2096	13572.0030	11898.4198		25736.6324	25736.6350	-0.0026
24	45	46	*e*		18, 45	0, 46	266.2096	13572.0030	11898.3726		25736.5852	25736.5856	-0.0004
24	46	45	*f*		18, 45	0, 46	266.2096	13572.0030	11904.1050		25742.3176	25742.3236	-0.0060

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
24	46	45	f		18, 45	0, 46	266.2096	13572.0030	11904.1065		25742.3191	25742.3236	-0.0045
24	46	46	e		18, 45	0, 46	266.2096	13572.0030	11904.0602		25742.2728	25742.2778	-0.0050
24	46	46	e		18, 45	0, 46	266.2096	13572.0030	11904.0616		25742.2742	25742.2778	-0.0036
24	47	46	e		18, 45	0, 46	266.2096	13572.0030	11909.8668		25748.0794	25748.0830	-0.0036
25	13	14	e		15, 15	0, 14	81.7995	13269.6738	12333.5015		25684.9748	25684.9944	-0.0196
25	14	14	e		15, 15	0, 14	81.7995	13269.6738	12335.3906		25686.8639	25686.8861	-0.0222
25	14	15	f		15, 15	0, 14	81.7995	13269.6738	12335.2347		25686.7080	25686.7278	-0.0198
25	15	14	e		15, 15	0, 14	81.7995	13269.6738	12337.3652		25688.8385	25688.8595	-0.0210
25	15	15	f		15, 15	0, 14	81.7995	13269.6738	12337.2389		25688.7122	25688.7312	-0.0190
25	15	16	e		15, 15	0, 14	81.7995	13269.6738	12337.0923		25688.5656	25688.5828	-0.0172
25	16	15	f		15, 15	0, 14	81.7995	13269.6738	12339.3312		25690.8045	25690.8203	-0.0158
25	16	15	f		15, 15	0, 14	81.7995	13269.6738	12339.3252		25690.7985	25690.8203	-0.0218
25	16	15	f		15, 15	0, 14	81.7995	13269.6738	12339.3325		25690.8058	25690.8203	-0.0145
25	16	15	f		15, 15	0, 14	81.7995	13269.6738	12339.3293		25690.8026	25690.8203	-0.0177
25	16	15	f		15, 15	0, 14	81.7995	13269.6738	12339.3294		25690.8027	25690.8203	-0.0176
25	16	15	f		15, 15	0, 16	87.6831	13263.7902	12339.3295		25690.8028	25690.8203	-0.0175
25	16	15	f		15, 15	0, 16	87.6831	13263.7902	12339.3309		25690.8042	25690.8203	-0.0161
25	16	15	f		15, 15	0, 16	87.6831	13263.7902	12339.3310		25690.8043	25690.8203	-0.0160
25	16	15	f		15, 15	0, 16	87.6831	13263.7902	12339.3317		25690.8050	25690.8203	-0.0153
25	16	15	f		15, 15	0, 16	87.6831	13263.7902	12339.3270		25690.8003	25690.8203	-0.0200
25	16	16	e		15, 15	0, 14	81.7995	13269.6738	12339.2069		25690.6802	25690.6989	-0.0187
25	16	16	e		15, 15	0, 14	81.7995	13269.6738	12339.2091		25690.6824	25690.6989	-0.0165
25	16	16	e		15, 15	0, 14	81.7995	13269.6738	12339.2098		25690.6831	25690.6989	-0.0158
25	16	16	e		15, 15	0, 14	81.7995	13269.6738	12339.2081		25690.6814	25690.6989	-0.0175
25	16	16	e		15, 15	0, 14	81.7995	13269.6738	12339.2067		25690.6800	25690.6989	-0.0189
25	16	16	e		15, 15	0, 16	87.6831	13263.7902	12339.2085		25690.6818	25690.6989	-0.0171
25	16	16	e		15, 15	0, 16	87.6831	13263.7902	12339.2091		25690.6824	25690.6989	-0.0165
25	16	16	e		15, 15	0, 16	87.6831	13263.7902	12339.2094		25690.6827	25690.6989	-0.0162
25	16	16	e		15, 15	0, 16	87.6831	13263.7902	12339.2100		25690.6833	25690.6989	-0.0156
25	16	16	e		15, 15	0, 16	87.6831	13263.7902	12339.2072		25690.6805	25690.6989	-0.0184
25	17	16	e		15, 15	0, 14	81.7995	13269.6738	12341.4157		25692.8890	25692.9046	-0.0156
25	24	25	e		17, 26	0, 25	123.5164	13488.0442	12099.1871		25710.7477	25710.7490	-0.0013
25	24	25	e		17, 26	0, 25	123.5164	13488.0442	12099.1872		25710.7478	25710.7490	-0.0012
25	24	25	e		17, 26	0, 25	123.5164	13488.0442	12099.1842		25710.7448	25710.7490	-0.0042
25	24	25	e		17, 26	0, 25	123.5164	13488.0442	12099.1828		25710.7434	25710.7490	-0.0056
25	24	25	e		17, 26	0, 25	123.5164	13488.0442	12099.1812		25710.7418	25710.7490	-0.0072
25	25	25	e		17, 26	0, 25	123.5164	13488.0442	12102.3439		25713.9045	25713.9088	-0.0043
25	25	26	f		17, 26	0, 25	123.5164	13488.0442	12102.2587		25713.8193	25713.8186	0.0007
25	26	25	e		17, 26	0, 25	123.5164	13488.0442	12105.6097		25717.1703	25717.1751	-0.0048
25	26	25	e		17, 26	0, 25	123.5164	13488.0442	12105.6111		25717.1717	25717.1751	-0.0034

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
25	26	25	e		17, 26	0, 25	123.5164	13488.0442	12105.6133		25717.1739	25717.1751	-0.0012
25	26	25	e		17, 26	0, 25	123.5164	13488.0442	12105.6121		25717.1727	25717.1751	-0.0024
25	26	25	e		17, 26	0, 25	123.5164	13488.0442	12105.6120		25717.1726	25717.1751	-0.0025
25	26	26	f		17, 26	0, 25	123.5164	13488.0442	12105.5310		25717.0916	25717.0959	-0.0043
25	26	26	f		17, 26	0, 25	123.5164	13488.0442	12105.5296		25717.0902	25717.0959	-0.0057
25	26	26	f		17, 26	0, 25	123.5164	13488.0442	12105.5313		25717.0919	25717.0959	-0.0040
25	26	26	f		17, 26	0, 25	123.5164	13488.0442	12105.5307		25717.0913	25717.0959	-0.0046
25	26	26	f		17, 26	0, 25	123.5164	13488.0442	12105.5324		25717.0930	25717.0959	-0.0029
25	26	26	e		15, 27	0, 26	128.4408	13269.6738	12318.9736		25717.0882	25717.0959	-0.0077
25	26	27	e		17, 26	0, 25	123.5164	13488.0442	12105.4487		25717.0093	25717.0091	0.0002
25	26	27	e		17, 26	0, 25	123.5164	13488.0442	12105.4438		25717.0044	25717.0091	-0.0047
25	26	27	e		17, 26	0, 25	123.5164	13488.0442	12105.4456		25717.0062	25717.0091	-0.0029
25	26	27	e		17, 26	0, 25	123.5164	13488.0442	12105.4456		25717.0062	25717.0091	-0.0029
25	26	27	e		17, 26	0, 25	123.5164	13488.0442	12105.4457		25717.0063	25717.0091	-0.0028
25	26	27	f		15, 27	0, 26	128.4408	13269.6738	12318.8913		25717.0059	25717.0091	-0.0032
25	27	26	f		17, 26	0, 25	123.5164	13488.0442	12108.9152		25720.4758	25720.4804	-0.0046
25	27	27	e		17, 26	0, 25	123.5164	13488.0442	12108.8383		25720.3989	25720.4040	-0.0051
25	28	27	e		17, 26	0, 25	123.5164	13488.0442	12112.3470		25723.9076	25723.9069	0.0007
25	36	37	e		12, 38	0, 37	194.9907	12934.4448	12626.0902		25755.5257	25755.5256	0.0001
25	37	37	e	11, 38	12, 38	0, 37	194.9907	12934.4448	12625.9173	4.7455	25760.0983	25760.0949	0.0034
25	37	38	f	11, 38	12, 38	0, 37	194.9907	12934.4448	12625.8736	4.7455	25760.0546	25760.0337	0.0209
25	43	44	e		18, 45	0, 46	266.2096	13572.0030	11951.3531		25789.5657	25789.5601	0.0056
25	44	44	e		18, 45	0, 46	266.2096	13572.0030	11956.7299		25794.9425	25794.9430	-0.0005
25	44	45	f		18, 45	0, 46	266.2096	13572.0030	11956.6800		25794.8926	25794.8914	0.0012
25	45	44	e		18, 45	0, 46	266.2096	13572.0030	11962.2232		25800.4358	25800.4371	-0.0013
25	45	45	f		18, 45	0, 46	266.2096	13572.0030	11962.1739		25800.3865	25800.3894	-0.0029
25	45	46	e		18, 45	0, 46	266.2096	13572.0030	11962.1269		25800.3395	25800.3390	0.0005
25	46	45	f		18, 45	0, 46	266.2096	13572.0030	11967.7807		25805.9933	25805.9988	-0.0055
25	46	46	e		18, 45	0, 46	266.2096	13572.0030	11967.7343		25805.9469	25805.9520	-0.0051
26	13	14	e		15, 15	0, 14	81.7995	13269.6738	12397.3203		25748.7936	25748.8097	-0.0161
26	14	14	e		15, 15	0, 14	81.7995	13269.6738	12399.1894		25750.6627	25750.6804	-0.0177
26	14	15	f		15, 15	0, 14	81.7995	13269.6738	12399.0271		25750.5004	25750.5191	-0.0187
26	15	14	e		15, 15	0, 14	81.7995	13269.6738	12401.1387		25752.6120	25752.6302	-0.0182
26	15	14	e		15, 15	0, 14	81.7995	13269.6738	12401.1366		25752.6099	25752.6302	-0.0203
26	15	15	f		15, 15	0, 14	81.7995	13269.6738	12401.0086		25752.4819	25752.4995	-0.0176
26	15	15	f		15, 15	0, 14	81.7995	13269.6738	12401.0084		25752.4817	25752.4995	-0.0178
26	15	16	e		15, 15	0, 14	81.7995	13269.6738	12400.8580		25752.3313	25752.3483	-0.0170
26	15	16	e		15, 15	0, 14	81.7995	13269.6738	12400.8599		25752.3332	25752.3483	-0.0151
26	16	15	f		15, 15	0, 14	81.7995	13269.6738	12403.0740		25754.5473	25754.5632	-0.0159
26	16	15	f		15, 15	0, 14	81.7995	13269.6738	12403.0701		25754.5434	25754.5632	-0.0198

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
26	16	16	e		15, 15	0, 14	81.7995	13269.6738	12402.9495		25754.4228	25754.4394	-0.0166
26	16	16	e		15, 15	0, 14	81.7995	13269.6738	12402.9493		25754.4226	25754.4394	-0.0168
26	17	16	e		15, 15	0, 14	81.7995	13269.6738	12405.1300		25756.6033	25756.6179	-0.0146
26	17	16	e		15, 15	0, 14	81.7995	13269.6738	12405.1266		25756.5999	25756.6179	-0.0180
26	24	25	e		17, 26	0, 25	123.5164	13488.0442	12162.6372		25774.1978	25774.2025	-0.0047
26	25	25	e		17, 26	0, 25	123.5164	13488.0442	12165.7545		25777.3151	25777.3206	-0.0055
26	25	26	f		17, 26	0, 25	123.5164	13488.0442	12165.6652		25777.2258	25777.2285	-0.0027
26	25	26	e		15, 27	0, 26	128.4408	13269.6738	12379.1167		25777.2313	25777.2285	0.0028
26	26	25	e		17, 26	0, 25	123.5164	13488.0442	12168.9712		25780.5318	25780.5429	-0.0111
26	26	26	f		17, 26	0, 25	123.5164	13488.0442	12168.8985		25780.4591	25780.4622	-0.0031
26	26	26	e		15, 27	0, 26	128.4408	13269.6738	12382.3439		25780.4585	25780.4622	-0.0037
26	26	27	e		17, 26	0, 25	123.5164	13488.0442	12168.8148		25780.3754	25780.3737	0.0017
26	26	27	f		15, 27	0, 26	128.4408	13269.6738	12382.2605		25780.3751	25780.3737	0.0014
26	27	26	f		17, 26	0, 25	123.5164	13488.0442	12172.2352		25783.7958	25783.8010	-0.0052
26	27	26	e		15, 27	0, 26	128.4408	13269.6738	12385.6799		25783.7945	25783.8010	-0.0065
26	27	27	e		17, 26	0, 25	123.5164	13488.0442	12172.1586		25783.7192	25783.7230	-0.0038
26	27	27	f		15, 27	0, 26	128.4408	13269.6738	12385.6067		25783.7213	25783.7230	-0.0017
26	27	28	e		15, 27	0, 26	128.4408	13269.6738	12385.5233		25783.6379	25783.6377	0.0002
26	28	27	e		17, 26	0, 25	123.5164	13488.0442	12175.6205		25787.1811	25787.1783	0.0028
26	28	27	f		15, 27	0, 26	128.4408	13269.6738	12389.0764		25787.1910	25787.1783	0.0127
26	38	37	e		12, 38	0, 37	194.9907	12934.4448	12698.0565		25827.4920	25827.4548	0.0372
26	38	37	e		12, 38	0, 37	194.9907	12934.4448	12698.0564		25827.4919	25827.4548	0.0371
26	38	38	f		12, 38	0, 37	194.9907	12934.4448	12697.9645		25827.4000	25827.3978	0.0022
26	38	38	f		12, 38	0, 37	194.9907	12934.4448	12697.9642		25827.3997	25827.3978	0.0019
26	38	39	e		12, 38	0, 37	194.9907	12934.4448	12697.9013		25827.3368	25827.3370	-0.0002
26	38	39	e		12, 38	0, 37	194.9907	12934.4448	12697.9016		25827.3371	25827.3370	0.0001
26	39	38	f		12, 38	0, 37	194.9907	12934.4448	12702.6946		25832.1301	25832.1272	0.0029
26	39	39	e		12, 38	0, 37	194.9907	12934.4448	12702.6323		25832.0678	25832.0716	-0.0038
26	43	44	e		18, 45	0, 46	266.2096	13572.0030	12013.6656		25851.8782	25851.8703	0.0079
26	44	44	e		18, 45	0, 46	266.2096	13572.0030	12018.9625		25857.1751	25857.1750	0.0001
26	44	44	e		18, 45	0, 46	266.2096	13572.0030	12018.9659		25857.1785	25857.1750	0.0035
26	44	45	f		18, 45	0, 46	266.2096	13572.0030	12018.9171		25857.1297	25857.1224	0.0073
26	44	45	f		18, 45	0, 46	266.2096	13572.0030	12018.9211		25857.1337	25857.1224	0.0113
26	45	44	e		18, 45	0, 46	266.2096	13572.0030	12024.3782		25862.5908	25862.5890	0.0018
26	45	45	f		18, 45	0, 46	266.2096	13572.0030	12024.3287		25862.5413	25862.5403	0.0010
26	45	46	e		18, 45	0, 46	266.2096	13572.0030	12024.2807		25862.4933	25862.4889	0.0044
26	46	45	f		18, 45	0, 46	266.2096	13572.0030	12029.8524		25868.0650	25868.0676	-0.0026
26	46	46	e		18, 45	0, 46	266.2096	13572.0030	12029.8063		25868.0189	25868.0199	-0.0010
27	13	14	e		15, 15	0, 14	81.7995	13269.6738	12459.5524		25811.0257	25811.0400	-0.0143
27	14	14	e		15, 15	0, 14	81.7995	13269.6738	12461.3979		25812.8712	25812.8870	-0.0158

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
27	14	15	f		15, 15	0, 14	81.7995	13269.6738	12461.2317		25812.7050	25812.7244	-0.0194
27	15	14	e		15, 15	0, 14	81.7995	13269.6738	12463.3226		25814.7959	25814.8109	-0.0150
27	15	15	f		15, 15	0, 14	81.7995	13269.6738	12463.1919		25814.6652	25814.6792	-0.0140
27	15	16	e		15, 15	0, 14	81.7995	13269.6738	12463.0411		25814.5144	25814.5268	-0.0124
27	16	15	f		15, 15	0, 14	81.7995	13269.6738	12465.2287		25816.7020	25816.7152	-0.0132
27	16	16	e		15, 15	0, 14	81.7995	13269.6738	12465.1021		25816.5754	25816.5905	-0.0151
27	17	16	e		15, 15	0, 14	81.7995	13269.6738	12467.2556		25818.7289	25818.7394	-0.0105
27	24	25	e		17, 26	0, 25	123.5164	13488.0442	12224.4947		25836.0553	25836.0578	-0.0025
27	25	25	e		17, 26	0, 25	123.5164	13488.0442	12227.5711		25839.1317	25839.1315	0.0002
27	25	26	f		17, 26	0, 25	123.5164	13488.0442	12227.4813		25839.0419	25839.0387	0.0032
27	25	26	e		15, 27	0, 26	128.4408	13269.6738	12440.9276		25839.0422	25839.0387	0.0035
27	26	25	e		17, 26	0, 25	123.5164	13488.0442	12230.7498		25842.3104	25842.3075	0.0029
27	26	26	f		17, 26	0, 25	123.5164	13488.0442	12230.6676		25842.2282	25842.2261	0.0021
27	26	26	e		15, 27	0, 26	128.4408	13269.6738	12444.1107		25842.2253	25842.2261	-0.0008
27	26	27	e		17, 26	0, 25	123.5164	13488.0442	12230.5816		25842.1422	25842.1368	0.0054
27	26	27	f		15, 27	0, 26	128.4408	13269.6738	12444.0271		25842.1417	25842.1368	0.0049
27	27	26	f		17, 26	0, 25	123.5164	13488.0442	12233.9598		25845.5204	25845.5166	0.0038
27	27	26	e		15, 27	0, 26	128.4408	13269.6738	12447.3953		25845.5099	25845.5166	-0.0067
27	27	27	e		17, 26	0, 25	123.5164	13488.0442	12233.8796		25845.4402	25845.4380	0.0022
27	27	27	f		15, 27	0, 26	128.4408	13269.6738	12447.3222		25845.4368	25845.4380	-0.0012
27	27	28	e		15, 27	0, 26	128.4408	13269.6738	12447.2414		25845.3560	25845.3520	0.0040
27	28	27	e		17, 26	0, 25	123.5164	13488.0442	12237.2807		25848.8413	25848.8431	-0.0018
27	28	27	f		15, 27	0, 26	128.4408	13269.6738	12450.7222		25848.8368	25848.8431	-0.0063
27	28	27	f		15, 27	0, 26	128.4408	13269.6738	12450.7214		25848.8360	25848.8431	-0.0071
27	28	28	e		15, 27	0, 26	128.4408	13269.6738	12450.6490		25848.7636	25848.7670	-0.0034
27	28	28	e		15, 27	0, 26	128.4408	13269.6738	12450.6514		25848.7660	25848.7670	-0.0010
27	29	28	e		15, 27	0, 26	128.4408	13269.6738	12454.1718		25852.2864	25852.2867	-0.0003
27	36	37	e		12, 38	0, 37	194.9907	12934.4448	12750.0843		25879.5198	25879.5243	-0.0045
27	37	37	e		12, 38	0, 37	194.9907	12934.4448	12754.5215		25883.9570	25883.9616	-0.0046
27	37	38	f		12, 38	0, 37	194.9907	12934.4448	12754.4592		25883.8947	25883.8987	-0.0040
27	38	37	e		12, 38	0, 37	194.9907	12934.4448	12759.0659		25888.5014	25888.5065	-0.0051
27	38	38	f		12, 38	0, 37	194.9907	12934.4448	12759.0022		25888.4377	25888.4490	-0.0113
27	38	39	e		12, 38	0, 37	194.9907	12934.4448	12758.9471		25888.3826	25888.3877	-0.0051
27	39	38	f		12, 38	0, 37	194.9907	12934.4448	12763.6598		25893.0953	25893.1069	-0.0116
27	39	39	e		12, 38	0, 37	194.9907	12934.4448	12763.6176		25893.0531	25893.0508	0.0023
27	40	39	e		12, 38	0, 37	194.9907	12934.4448	12768.3895		25897.8250	25897.8214	0.0036
27	43	44	e		18, 45	0, 46	266.2096	13572.0030	12074.3325		25912.5451	25912.5409	0.0042
27	44	44	e		18, 45	0, 46	266.2096	13572.0030	12079.5491		25917.7617	25917.7642	-0.0025
27	44	45	f		18, 45	0, 46	266.2096	13572.0030	12079.4915		25917.7041	25917.7111	-0.0070
27	45	44	e		18, 45	0, 46	266.2096	13572.0030	12084.8824		25923.0950	25923.0944	0.0006
27	45	45	f		18, 45	0, 46	266.2096	13572.0030	12084.8286		25923.0412	25923.0453	-0.0041

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
27	45	46	e		18, 45	0, 46	266.2096	13572.0030	12084.8027		25923.0153	25922.9934	0.0219
27	46	45	f		18, 45	0, 46	266.2096	13572.0030	12090.2724		25928.4850	25928.4869	-0.0019
27	46	46	e		18, 45	0, 46	266.2096	13572.0030	12090.2316		25928.4442	25928.4388	0.0054
27	86	86	e		22, 87	4, 88	1263.5860	13456.6522	11510.4699		26230.7081	26230.7305	-0.0224
27	87	87	f		22, 87	4, 88	1263.5860	13456.6522	11520.0554		26240.2936	26240.2832	0.0104
27	87	87	f		22, 87	4, 88	1263.5860	13456.6522	11520.0569		26240.2951	26240.2832	0.0119
28	13	14	e		15, 15	0, 14	81.7995	13269.6738	12520.1593		25871.6326	25871.6393	-0.0067
28	13	14	e		15, 15	0, 14	81.7995	13269.6738	12520.1595		25871.6328	25871.6393	-0.0065
28	14	14	e		15, 15	0, 14	81.7995	13269.6738	12521.9805		25873.4538	25873.4661	-0.0123
28	14	15	f		15, 15	0, 14	81.7995	13269.6738	12521.8271		25873.3004	25873.2981	0.0023
28	15	14	e		15, 15	0, 14	81.7995	13269.6738	12523.8800		25875.3533	25875.3666	-0.0133
28	15	14	e		15, 15	0, 14	81.7995	13269.6738	12523.8843		25875.3576	25875.3666	-0.0090
28	15	15	f		15, 15	0, 14	81.7995	13269.6738	12523.7448		25875.2181	25875.2305	-0.0124
28	15	15	f		15, 15	0, 14	81.7995	13269.6738	12523.7463		25875.2196	25875.2305	-0.0109
28	15	16	e		15, 15	0, 14	81.7995	13269.6738	12523.5889		25875.0622	25875.0730	-0.0108
28	15	16	e		15, 15	0, 14	81.7995	13269.6738	12523.5918		25875.0651	25875.0730	-0.0079
28	16	15	f		15, 15	0, 14	81.7995	13269.6738	12525.7480		25877.2213	25877.2410	-0.0197
28	16	15	f		15, 15	0, 14	81.7995	13269.6738	12525.7575		25877.2308	25877.2410	-0.0102
28	16	15	f		15, 15	0, 14	81.7995	13269.6738	12525.7555		25877.2288	25877.2410	-0.0122
28	16	16	e		15, 15	0, 14	81.7995	13269.6738	12525.6271		25877.1004	25877.1121	-0.0117
28	16	16	e		15, 15	0, 14	81.7995	13269.6738	12525.6301		25877.1034	25877.1121	-0.0087
28	16	16	e		15, 15	0, 14	81.7995	13269.6738	12525.6300		25877.1033	25877.1121	-0.0088
28	17	16	e		15, 15	0, 14	81.7995	13269.6738	12527.7494		25879.2227	25879.2334	-0.0107
28	17	16	e		15, 15	0, 14	81.7995	13269.6738	12527.7537		25879.2270	25879.2334	-0.0064
28	17	16	e		15, 15	0, 14	81.7995	13269.6738	12527.7521		25879.2254	25879.2334	-0.0080
28	25	26	e		15, 27	0, 26	128.4408	13269.6738	12501.0930		25899.2076	25899.2047	0.0029
28	26	26	e		15, 27	0, 26	128.4408	13269.6738	12504.2377		25902.3523	25902.3466	0.0057
28	26	27	f		15, 27	0, 26	128.4408	13269.6738	12504.1433		25902.2579	25902.2542	0.0037
28	27	26	e		15, 27	0, 26	128.4408	13269.6738	12507.4738		25905.5884	25905.5892	-0.0008
28	27	27	f		15, 27	0, 26	128.4408	13269.6738	12507.3969		25905.5115	25905.5078	0.0037
28	27	28	e		15, 27	0, 26	128.4408	13269.6738	12507.3074		25905.4220	25905.4188	0.0032
28	28	27	f		15, 27	0, 26	128.4408	13269.6738	12510.7482		25908.8628	25908.8630	-0.0002
28	28	28	e		15, 27	0, 26	128.4408	13269.6738	12510.6726		25908.7872	25908.7843	0.0029
28	29	28	e		15, 27	0, 26	128.4408	13269.6738	12514.1368		25912.2514	25912.2520	-0.0006
28	43	44	e		18, 45	0, 46	266.2096	13572.0030	12133.3187		25971.5313	25971.5268	0.0045
28	44	44	e		18, 45	0, 46	266.2096	13572.0030	12138.4533		25976.6659	25976.6669	-0.0010
28	44	44	e		18, 45	0, 46	266.2096	13572.0030	12138.4513		25976.6639	25976.6669	-0.0030
28	44	45	f		18, 45	0, 46	266.2096	13572.0030	12138.4010		25976.6136	25976.6119	0.0017
28	44	45	f		18, 45	0, 46	266.2096	13572.0030	12138.4012		25976.6138	25976.6119	0.0019
28	45	44	e	20, 45	18, 45	0, 46	266.2096	13572.0030	12148.1946	-4.4991	25981.9081	25981.9117	-0.0036

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
28	45	44	e		18, 45	0, 46	266.2096	13572.0030	12143.6962		25981.9088	25981.9117	-0.0029
28	45	44	e		18, 45	0, 46	266.2096	13572.0030	12143.6960		25981.9086	25981.9117	-0.0031
28	45	44	e		18, 45	0, 46	266.2096	13572.0030	12143.6955		25981.9081	25981.9117	-0.0036
28	45	45	f	20, 45	18, 45	0, 46	266.2096	13572.0030	12148.1451	-4.4991	25981.8586	25981.8608	-0.0022
28	45	45	f		18, 45	0, 46	266.2096	13572.0030	12143.6428		25981.8554	25981.8608	-0.0054
28	45	45	f		18, 45	0, 46	266.2096	13572.0030	12143.6429		25981.8555	25981.8608	-0.0053
28	45	45	f		18, 45	0, 46	266.2096	13572.0030	12143.6431		25981.8557	25981.8608	-0.0051
28	45	46	e	20, 45	18, 45	0, 46	266.2096	13572.0030	12148.1003	-4.4991	25981.8138	25981.8070	0.0068
28	45	46	e		18, 45	0, 46	266.2096	13572.0030	12143.5917		25981.8043	25981.8070	-0.0027
28	45	46	e		18, 45	0, 46	266.2096	13572.0030	12143.5923		25981.8049	25981.8070	-0.0021
28	45	46	e		18, 45	0, 46	266.2096	13572.0030	12143.5942		25981.8068	25981.8070	-0.0002
28	46	45	f		18, 45	0, 46	266.2096	13572.0030	12148.9821		25987.1947	25987.2147	-0.0200
28	46	45	f		18, 45	0, 46	266.2096	13572.0030	12148.9826		25987.1952	25987.2147	-0.0195
28	46	46	e		18, 45	0, 46	266.2096	13572.0030	12148.9490		25987.1616	25987.1649	-0.0033
28	46	46	e		18, 45	0, 46	266.2096	13572.0030	12148.9502		25987.1628	25987.1649	-0.0021
28	47	46	e		18, 45	0, 46	266.2096	13572.0030	12154.4104		25992.6230	25992.6272	-0.0042
28	85	86	e		22, 87	4, 86	1232.1940	13488.0442	11554.3819		26274.6201	26274.6360	-0.0159
28	85	86	e		22, 87	4, 88	1263.5860	13456.6522	11554.4028		26274.6410	26274.6360	0.0050
28	85	86	e		22, 87	4, 88	1263.5860	13456.6522	11554.4031		26274.6413	26274.6360	0.0053
28	86	86	e		22, 87	4, 86	1232.1940	13488.0442	11563.6876		26283.9258	26283.9408	-0.0150
28	86	86	e		22, 87	4, 88	1263.5860	13456.6522	11563.6909		26283.9291	26283.9408	-0.0117
28	86	86	e		22, 87	4, 88	1263.5860	13456.6522	11563.6919		26283.9301	26283.9408	-0.0107
28	87	87	f		22, 87	4, 86	1232.1940	13488.0442	11573.0572		26293.2954	26293.3015	-0.0061
28	87	87	f		22, 87	4, 86	1232.1940	13488.0442	11573.0569		26293.2951	26293.3015	-0.0064
28	87	87	f		22, 87	4, 88	1263.5860	13456.6522	11573.0596		26293.2978	26293.3015	-0.0037
28	87	87	f		22, 87	4, 88	1263.5860	13456.6522	11573.0615		26293.2997	26293.3015	-0.0018
28	87	87	f		22, 87	4, 88	1263.5860	13456.6522	11573.0662		26293.3044	26293.3015	0.0029
28	87	87	f		22, 87	4, 88	1263.5860	13456.6522	11573.0657		26293.3039	26293.3015	0.0024
28	87	87	f		22, 87	4, 88	1263.5860	13456.6522	11573.0670		26293.3052	26293.3015	0.0037
28	88	88	e		22, 87	4, 86	1232.1940	13488.0442	11582.5125		26302.7507	26302.7465	0.0042
28	88	88	e		22, 87	4, 88	1263.5860	13456.6522	11582.5133		26302.7515	26302.7465	0.0050
28	88	88	e		22, 87	4, 88	1263.5860	13456.6522	11582.5135		26302.7517	26302.7465	0.0052
28	88	88	e		22, 87	4, 88	1263.5860	13456.6522	11582.5132		26302.7514	26302.7465	0.0049
28	88	88	e		22, 87	4, 88	1263.5860	13456.6522	11582.5145		26302.7527	26302.7465	0.0062
29	14	14	e		15, 15	0, 14	81.7995	13269.6738	12580.8909		25932.3642	25932.3764	-0.0122
29	14	15	f		15, 15	0, 14	81.7995	13269.6738	12580.7251		25932.1984	25932.2045	-0.0061
29	15	14	e		15, 15	0, 14	81.7995	13269.6738	12582.7658		25934.2391	25934.2512	-0.0121
29	15	14	e		15, 15	0, 14	81.7995	13269.6738	12582.7650		25934.2383	25934.2512	-0.0129
29	15	15	f		15, 15	0, 14	81.7995	13269.6738	12582.6295		25934.1028	25934.1120	-0.0092
29	15	15	f		15, 15	0, 14	81.7995	13269.6738	12582.6300		25934.1033	25934.1120	-0.0087

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
29	15	16	e		15, 15	0, 14	81.7995	13269.6738	12582.4745		25933.9478	25933.9508	-0.0030
29	16	15	f		15, 15	0, 14	81.7995	13269.6738	12584.6089		25936.0822	25936.0947	-0.0125
29	16	16	e		15, 15	0, 14	81.7995	13269.6738	12584.4782		25935.9515	25935.9629	-0.0114
29	17	16	e		15, 15	0, 14	81.7995	13269.6738	12586.5731		25938.0464	25938.0543	-0.0079
29	24	25	e		17, 26	0, 25	123.5164	13488.0442	12343.2336		25954.7942	25954.8023	-0.0081
29	25	25	e		17, 26	0, 25	123.5164	13488.0442	12346.2232		25957.7838	25957.7865	-0.0027
29	25	25	e		17, 26	0, 25	123.5164	13488.0442	12346.2168		25957.7774	25957.7865	-0.0091
29	25	26	f		17, 26	0, 25	123.5164	13488.0442	12346.1284		25957.6890	25957.6881	0.0009
29	25	26	f		17, 26	0, 25	123.5164	13488.0442	12346.1254		25957.6860	25957.6881	-0.0021
29	26	25	e		17, 26	0, 25	123.5164	13488.0442	12349.3054		25960.8660	25960.8681	-0.0021
29	26	26	f		17, 26	0, 25	123.5164	13488.0442	12349.2186		25960.7792	25960.7819	-0.0027
29	26	27	e		17, 26	0, 25	123.5164	13488.0442	12349.1267		25960.6873	25960.6872	0.0001
29	29	28	e		15, 27	0, 26	128.4408	13269.6738	12572.4080		25970.5226	25970.5254	-0.0028
30	24	25	e		17, 26	0, 25	123.5164	13488.0442	12400.0497		26011.6103	26011.6108	-0.0005
30	25	25	e		17, 26	0, 25	123.5164	13488.0442	12402.9827		26014.5433	26014.5459	-0.0026
30	25	26	f		17, 26	0, 25	123.5164	13488.0442	12402.8854		26014.4460	26014.4464	-0.0004
30	26	25	e		17, 26	0, 25	123.5164	13488.0442	12406.0141		26017.5747	26017.5761	-0.0014
30	26	26	f		17, 26	0, 25	123.5164	13488.0442	12405.9267		26017.4873	26017.4889	-0.0016
30	26	27	e		17, 26	0, 25	123.5164	13488.0442	12405.8339		26017.3945	26017.3932	0.0013
30	27	26	f		17, 26	0, 25	123.5164	13488.0442	12409.0656		26020.6262	26020.6274	-0.0012
30	27	27	e		17, 26	0, 25	123.5164	13488.0442	12408.9802		26020.5408	26020.5432	-0.0024
30	28	27	e		17, 26	0, 25	123.5164	13488.0442	12412.2298		26023.7904	26023.7901	0.0003
30	43	44	e		18, 45	0, 46	266.2096	13572.0030	12246.0603		26084.2729	26084.2733	-0.0004
30	44	44	e		18, 45	0, 46	266.2096	13572.0030	12251.0230		26089.2356	26089.2354	0.0002
30	44	44	e		18, 45	0, 46	266.2096	13572.0030	12251.0198		26089.2324	26089.2354	-0.0030
30	44	45	f		18, 45	0, 46	266.2096	13572.0030	12250.9688		26089.1814	26089.1783	0.0031
30	44	45	f		18, 45	0, 46	266.2096	13572.0030	12250.9663		26089.1789	26089.1783	0.0006
31	13	14	e		15, 15	0, 14	81.7995	13269.6738	12691.7880		26043.2613	26043.2686	-0.0073
31	14	14	e		15, 15	0, 14	81.7995	13269.6738	12693.5421		26045.0154	26045.0231	-0.0077
31	14	15	f		15, 15	0, 14	81.7995	13269.6738	12693.3585		26044.8318	26044.8445	-0.0127
31	15	14	e		15, 15	0, 14	81.7995	13269.6738	12695.3636		26046.8369	26046.8426	-0.0057
31	15	15	f		15, 15	0, 14	81.7995	13269.6738	12695.2179		26046.6912	26046.6979	-0.0067
31	15	16	e		15, 15	0, 14	81.7995	13269.6738	12695.0492		26046.5225	26046.5303	-0.0078
31	16	15	f		15, 15	0, 14	81.7995	13269.6738	12697.1398		26048.6131	26048.6209	-0.0078
31	16	16	e		15, 15	0, 14	81.7995	13269.6738	12697.0031		26048.4764	26048.4839	-0.0075
31	17	16	e		15, 15	0, 14	81.7995	13269.6738	12699.0308		26050.5041	26050.5113	-0.0072
31	24	25	e		17, 26	0, 25	123.5164	13488.0442	12455.0868		26066.6474	26066.6504	-0.0030
31	25	25	e		17, 26	0, 25	123.5164	13488.0442	12457.9690		26069.5296	26069.5365	-0.0069
31	25	26	f		17, 26	0, 25	123.5164	13488.0442	12457.8710		26069.4316	26069.4339	-0.0023

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
31	26	25	e		17, 26	0, 25	123.5164	13488.0442	12460.9466		26072.5072	26072.5149	-0.0077
31	26	26	f		17, 26	0, 25	123.5164	13488.0442	12460.8581		26072.4187	26072.4251	-0.0064
31	26	27	e		17, 26	0, 25	123.5164	13488.0442	12460.7630		26072.3236	26072.3264	-0.0028
31	27	26	f		17, 26	0, 25	123.5164	13488.0442	12463.9319		26075.4925	26075.5097	-0.0172
31	27	27	e		17, 26	0, 25	123.5164	13488.0442	12463.8551		26075.4157	26075.4229	-0.0072
31	28	27	e		17, 26	0, 25	123.5164	13488.0442	12467.0454		26078.6060	26078.6135	-0.0075
32	13	14	e		15, 15	0, 14	81.7995	13269.6738	12745.4665		26096.9398	26096.9459	-0.0061
32	14	14	e		15, 15	0, 14	81.7995	13269.6738	12747.1924		26098.6657	26098.6752	-0.0095
32	14	15	f		15, 15	0, 14	81.7995	13269.6738	12747.0141		26098.4874	26098.4920	-0.0046
32	15	14	e		15, 15	0, 14	81.7995	13269.6738	12748.9834		26100.4567	26100.4663	-0.0096
32	15	15	f		15, 15	0, 14	81.7995	13269.6738	12748.8360		26100.3093	26100.3179	-0.0086
32	15	16	e		15, 15	0, 14	81.7995	13269.6738	12748.6682		26100.1415	26100.1460	-0.0045
32	16	15	f		15, 15	0, 14	81.7995	13269.6738	12750.7287		26102.2020	26102.2102	-0.0082
32	16	15	f		15, 15	0, 14	81.7995	13269.6738	12750.7267		26102.2000	26102.2102	-0.0102
32	16	16	e		15, 15	0, 14	81.7995	13269.6738	12750.5869		26102.0602	26102.0696	-0.0094
32	16	16	e		15, 15	0, 14	81.7995	13269.6738	12750.5817		26102.0550	26102.0696	-0.0146
32	17	16	e		15, 15	0, 14	81.7995	13269.6738	12752.5817		26104.0550	26104.0639	-0.0089
32	17	16	e		15, 15	0, 14	81.7995	13269.6738	12752.5796		26104.0529	26104.0639	-0.0110
32	24	25	e		17, 26	0, 25	123.5164	13488.0442	12508.3131		26119.8737	26119.8798	-0.0061
32	24	25	e		17, 26	0, 25	123.5164	13488.0442	12508.3138		26119.8744	26119.8798	-0.0054
32	25	25	e		17, 26	0, 25	123.5164	13488.0442	12511.1480		26122.7086	26122.7147	-0.0061
32	25	25	e		17, 26	0, 25	123.5164	13488.0442	12511.1492		26122.7098	26122.7147	-0.0049
32	25	25	e		17, 26	0, 25	123.5164	13488.0442	12511.1504		26122.7110	26122.7147	-0.0037
32	25	25	e		17, 26	0, 25	123.5164	13488.0442	12511.1490		26122.7096	26122.7147	-0.0051
32	25	26	f		17, 26	0, 25	123.5164	13488.0442	12511.0416		26122.6022	26122.6093	-0.0071
32	25	26	f		17, 26	0, 25	123.5164	13488.0442	12511.0391		26122.5997	26122.6093	-0.0096
32	25	26	f		17, 26	0, 25	123.5164	13488.0442	12511.0400		26122.6006	26122.6093	-0.0087
32	25	26	f		17, 26	0, 25	123.5164	13488.0442	12511.0414		26122.6020	26122.6093	-0.0073
32	25	26	e		15, 27	0, 26	128.4408	13269.6738	12724.4855		26122.6001	26122.6093	-0.0092
32	26	25	e		17, 26	0, 25	123.5164	13488.0442	12514.0714		26125.6320	26125.6392	-0.0072
32	26	25	e		17, 26	0, 25	123.5164	13488.0442	12514.0755		26125.6361	26125.6392	-0.0031
32	26	25	e		17, 26	0, 25	123.5164	13488.0442	12514.0771		26125.6377	26125.6392	-0.0015
32	26	26	f		17, 26	0, 25	123.5164	13488.0442	12513.9778		26125.5384	26125.5470	-0.0086
32	26	26	f		17, 26	0, 25	123.5164	13488.0442	12513.9829		26125.5435	26125.5470	-0.0035
32	26	26	f		17, 26	0, 25	123.5164	13488.0442	12513.9823		26125.5429	26125.5470	-0.0041
32	26	26	e		15, 27	0, 26	128.4408	13269.6738	12727.4198		26125.5344	26125.5470	-0.0126
32	26	27	e		17, 26	0, 25	123.5164	13488.0442	12513.8754		26125.4360	26125.4455	-0.0095
32	26	27	e		17, 26	0, 25	123.5164	13488.0442	12513.8783		26125.4389	26125.4455	-0.0066
32	26	27	e		17, 26	0, 25	123.5164	13488.0442	12513.8766		26125.4372	26125.4455	-0.0083
32	26	27	f		15, 27	0, 26	128.4408	13269.6738	12727.3205		26125.4351	26125.4455	-0.0104

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	(v_A, J')	(v_b, J')	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
32	27	26	f		17, 26	0, 25	123.5164	13488.0442	12517.0059		26128.5665	26128.5752	-0.0087
32	27	26	f		17, 26	0, 25	123.5164	13488.0442	12517.0057		26128.5663	26128.5752	-0.0089
32	27	26	f		17, 26	0, 25	123.5164	13488.0442	12517.0090		26128.5696	26128.5752	-0.0056
32	27	27	e		17, 26	0, 25	123.5164	13488.0442	12516.9195		26128.4801	26128.4860	-0.0059
32	27	27	e		17, 26	0, 25	123.5164	13488.0442	12516.9195		26128.4801	26128.4860	-0.0059
32	27	27	e		17, 26	0, 25	123.5164	13488.0442	12516.9205		26128.4811	26128.4860	-0.0049
32	28	27	e		17, 26	0, 25	123.5164	13488.0442	12520.0479		26131.6085	26131.6180	-0.0095
32	28	27	e		17, 26	0, 25	123.5164	13488.0442	12520.0522		26131.6128	26131.6180	-0.0052
32	44	44	e		18, 45	0, 46	266.2096	13572.0030	12356.3027		26194.5153	26194.5195	-0.0042
32	44	45	f		18, 45	0, 46	266.2096	13572.0030	12356.2438		26194.4564	26194.4589	-0.0025
32	46	45	f		18, 45	0, 46	266.2096	13572.0030	12366.0773		26204.2899	26204.2954	-0.0055
32	46	46	e		18, 45	0, 46	266.2096	13572.0030	12366.0203		26204.2329	26204.2405	-0.0076
33	24	25	e		17, 26	0, 25	123.5164	13488.0442	12559.6878		26171.2484	26171.2581	-0.0097
33	25	25	e		17, 26	0, 25	123.5164	13488.0442	12562.4641		26174.0247	26174.0374	-0.0127
33	25	26	f		17, 26	0, 25	123.5164	13488.0442	12562.3607		26173.9213	26173.9313	-0.0100
33	26	25	e		17, 26	0, 25	123.5164	13488.0442	12565.3292		26176.8898	26176.9038	-0.0140
33	26	26	f		17, 26	0, 25	123.5164	13488.0442	12565.2374		26176.7980	26176.8111	-0.0131
33	26	27	e		17, 26	0, 25	123.5164	13488.0442	12565.1379		26176.6985	26176.7091	-0.0106
33	27	26	f		17, 26	0, 25	123.5164	13488.0442	12568.2035		26179.7641	26179.7789	-0.0148
33	27	26	e		15, 27	0, 26	128.4408	13269.6738	12781.6488		26179.7634	26179.7789	-0.0155
33	27	26	e		15, 27	0, 26	128.4408	13269.6738	12781.6499		26179.7645	26179.7789	-0.0144
33	27	27	e		17, 26	0, 25	123.5164	13488.0442	12568.1145		26179.6751	26179.6893	-0.0142
33	27	27	f		15, 27	0, 26	128.4408	13269.6738	12781.5526		26179.6672	26179.6893	-0.0221
33	27	27	f		15, 27	0, 26	128.4408	13269.6738	12781.5567		26179.6713	26179.6893	-0.0180
33	27	28	e		15, 27	0, 26	128.4408	13269.6738	12781.4591		26179.5737	26179.5909	-0.0172
33	27	28	e		15, 27	0, 26	128.4408	13269.6738	12781.4650		26179.5796	26179.5909	-0.0113
33	28	27	e		17, 26	0, 25	123.5164	13488.0442	12571.1829		26182.7435	26182.7585	-0.0150
33	28	27	f		15, 27	0, 26	128.4408	13269.6738	12784.6275		26182.7421	26182.7585	-0.0164
33	28	27	f		15, 27	0, 26	128.4408	13269.6738	12784.6283		26182.7429	26182.7585	-0.0156
33	28	28	e		15, 27	0, 26	128.4408	13269.6738	12784.5348		26182.6494	26182.6717	-0.0223
33	28	28	e		15, 27	0, 26	128.4408	13269.6738	12784.5374		26182.6520	26182.6717	-0.0197
33	29	28	e		15, 27	0, 26	128.4408	13269.6738	12787.7098		26185.8244	26185.8423	-0.0179
33	29	28	e		15, 27	0, 26	128.4408	13269.6738	12787.7104		26185.8250	26185.8423	-0.0173
33	43	44	e		18, 45	0, 46	266.2096	13572.0030	12401.3913		26239.6039	26239.6468	-0.0429
33	43	44	e		18, 45	0, 46	266.2096	13572.0030	12401.3916		26239.6042	26239.6468	-0.0426
33	43	44	e		18, 45	0, 46	266.2096	13572.0030	12401.3873		26239.5999	26239.6468	-0.0469
33	45	44	e		18, 45	0, 46	266.2096	13572.0030	12410.8522		26249.0648	26249.0769	-0.0121
33	45	44	e		18, 45	0, 46	266.2096	13572.0030	12410.8582		26249.0708	26249.0769	-0.0061
33	45	44	e		18, 45	0, 46	266.2096	13572.0030	12410.8558		26249.0684	26249.0769	-0.0085
33	45	45	f		18, 45	0, 46	266.2096	13572.0030	12410.8249		26249.0375	26249.0206	0.0169

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
33	45	45	f		18, 45	0, 46	266.2096	13572.0030	12410.8205		26249.0331	26249.0206	0.0125
33	45	46	e		18, 45	0, 46	266.2096	13572.0030	12410.7472		26248.9598	26248.9609	-0.0011
33	46	45	f		18, 45	0, 46	266.2096	13572.0030	12415.6744		26253.8870	26253.8785	0.0085
33	46	46	e		18, 45	0, 46	266.2096	13572.0030	12415.6127		26253.8253	26253.8233	0.0020
34	15	14	e		15, 15	0, 14	81.7995	13269.6738	12850.6729		26202.1462	26202.1491	-0.0029
34	15	14	e		15, 15	0, 14	81.7995	13269.6738	12850.6729		26202.1462	26202.1491	-0.0029
34	15	14	e		15, 15	0, 16	87.6831	13263.7902	12850.6743		26202.1476	26202.1491	-0.0015
34	15	15	f		15, 15	0, 14	81.7995	13269.6738	12850.5198		26201.9931	26201.9991	-0.0060
34	15	15	f		15, 15	0, 14	81.7995	13269.6738	12850.5185		26201.9918	26201.9991	-0.0073
34	15	15	f		15, 15	0, 16	87.6831	13263.7902	12850.5230		26201.9963	26201.9991	-0.0028
34	15	16	e		15, 15	0, 14	81.7995	13269.6738	12850.3325		26201.8058	26201.8254	-0.0196
34	16	15	f		15, 15	0, 14	81.7995	13269.6738	12852.3406		26203.8139	26203.8204	-0.0065
34	16	16	e		15, 15	0, 14	81.7995	13269.6738	12852.1927		26203.6660	26203.6783	-0.0123
34	17	16	e		15, 15	0, 14	81.7995	13269.6738	12854.1170		26205.5903	26205.5970	-0.0067
34	24	25	e		17, 26	0, 25	123.5164	13488.0442	12609.1586		26220.7192	26220.7400	-0.0208
34	24	25	e		17, 26	0, 25	123.5164	13488.0442	12609.1622		26220.7228	26220.7400	-0.0172
34	25	25	e		17, 26	0, 25	123.5164	13488.0442	12611.8885		26223.4491	26223.4616	-0.0125
34	25	26	f		17, 26	0, 25	123.5164	13488.0442	12611.8370		26223.3976	26223.3549	0.0427
34	25	26	e		15, 27	0, 26	128.4408	13269.6738	12825.2730		26223.3876	26223.3549	0.0327
34	26	26	e		15, 27	0, 26	128.4408	13269.6738	12828.0369		26226.1515	26226.1746	-0.0231
34	26	27	f		15, 27	0, 26	128.4408	13269.6738	12827.9509		26226.0655	26226.0718	-0.0063
34	43	44	e		18, 45	0, 46	266.2096	13572.0030	12449.3704		26287.5830	26287.5921	-0.0091
34	44	44	e		18, 45	0, 46	266.2096	13572.0030	12453.9388		26292.1514	26292.1548	-0.0034
34	44	45	f		18, 45	0, 46	266.2096	13572.0030	12453.8737		26292.0863	26292.0933	-0.0070
34	45	44	e		18, 45	0, 46	266.2096	13572.0030	12458.5909		26296.8035	26296.8067	-0.0032
34	45	45	f		18, 45	0, 46	266.2096	13572.0030	12458.5300		26296.7426	26296.7500	-0.0074
34	45	46	e		18, 45	0, 46	266.2096	13572.0030	12458.4683		26296.6809	26296.6898	-0.0089
34	46	45	f		18, 45	0, 46	266.2096	13572.0030	12463.2831		26301.4957	26301.4961	-0.0004
34	46	46	e		18, 45	0, 46	266.2096	13572.0030	12463.2209		26301.4335	26301.4404	-0.0069
34	47	46	e		18, 45	0, 46	266.2096	13572.0030	12468.0661		26306.2787	26306.2798	-0.0011
35	13	14	e		15, 15	0, 16	87.6831	13263.7902	12895.3083		26246.7816	26246.7875	-0.0059
35	14	14	e		15, 15	0, 16	87.6831	13263.7902	12896.9492		26248.4225	26248.4397	-0.0172
35	14	15	f		15, 15	0, 16	87.6831	13263.7902	12896.7539		26248.2272	26248.2377	-0.0105
35	15	14	e		15, 15	0, 16	87.6831	13263.7902	12898.6518		26250.1251	26250.1422	-0.0171
35	15	15	f		15, 15	0, 16	87.6831	13263.7902	12898.4865		26249.9598	26249.9784	-0.0186
35	15	15	f		15, 15	0, 16	87.6831	13263.7902	12898.4865		26249.9598	26249.9784	-0.0186
35	15	16	e		15, 15	0, 16	87.6831	13263.7902	12898.3025		26249.7758	26249.7887	-0.0129
35	16	15	f		15, 15	0, 16	87.6831	13263.7902	12900.2824		26251.7557	26251.7745	-0.0188
35	16	15	f		15, 15	0, 16	87.6831	13263.7902	12900.2838		26251.7571	26251.7745	-0.0174

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
35	16	16	e		15, 15	0, 16	87.6831	13263.7902	12900.1296		26251.6029	26251.6192	-0.0163
35	17	16	e		15, 15	0, 16	87.6831	13263.7902	12902.0141		26253.4874	26253.5096	-0.0222
35	27	26	e		15, 27	0, 26	128.4408	13269.6738	12878.2995		26276.4141	26276.4442	-0.0301
35	27	27	f		15, 27	0, 26	128.4408	13269.6738	12878.2084		26276.3230	26276.3453	-0.0223
35	27	28	e		15, 27	0, 26	128.4408	13269.6738	12878.1076		26276.2222	26276.2367	-0.0145
35	43	44	e		18, 45	0, 46	266.2096	13572.0030	12495.3280		26333.5406	26333.5348	0.0058
35	43	44	e		18, 45	0, 46	266.2096	13572.0030	12495.3227		26333.5353	26333.5348	0.0005
35	44	44	e		18, 45	0, 46	266.2096	13572.0030	12499.7801		26337.9927	26337.9928	-0.0001
35	44	44	e		18, 45	0, 46	266.2096	13572.0030	12499.7759		26337.9885	26337.9928	-0.0043
35	44	45	f		18, 45	0, 46	266.2096	13572.0030	12499.7161		26337.9287	26337.9251	0.0036
35	44	45	f		18, 45	0, 46	266.2096	13572.0030	12499.7117		26337.9243	26337.9251	-0.0008
35	45	44	e		18, 45	0, 46	266.2096	13572.0030	12504.3191		26342.5317	26342.5365	-0.0048
35	45	45	f		18, 45	0, 46	266.2096	13572.0030	12504.2578		26342.4704	26342.4741	-0.0037
35	45	46	e		18, 45	0, 46	266.2096	13572.0030	12504.1941		26342.4067	26342.4079	-0.0012
35	46	45	f		18, 45	0, 46	266.2096	13572.0030	12508.8890		26347.1016	26347.1090	-0.0074
35	46	46	e		18, 45	0, 46	266.2096	13572.0030	12508.8315		26347.0441	26347.0479	-0.0038
35	47	46	e		18, 45	0, 46	266.2096	13572.0030	12513.5588		26351.7714	26351.7732	-0.0018
36	13	14	e		15, 15	0, 16	87.6831	13263.7902	12941.3770		26292.8503	26292.8767	-0.0264
36	14	14	e		15, 15	0, 16	87.6831	13263.7902	12943.0406		26294.5139	26294.4927	0.0212
36	14	14	e		15, 15	0, 16	87.6831	13263.7902	12943.0407		26294.5140	26294.4927	0.0213
36	14	15	f		15, 15	0, 16	87.6831	13263.7902	12942.8029		26294.2762	26294.2921	-0.0159
36	14	15	f		15, 15	0, 16	87.6831	13263.7902	12942.7991		26294.2724	26294.2921	-0.0197
36	14	15	f		15, 15	0, 16	87.6831	13263.7902	12942.7987		26294.2720	26294.2921	-0.0201
36	14	15	f		15, 15	0, 16	87.6831	13263.7902	12942.7990		26294.2723	26294.2921	-0.0198
36	15	14	e		15, 15	0, 16	87.6831	13263.7902	12944.6717		26296.1450	26296.1570	-0.0120
36	15	14	e		15, 15	0, 16	87.6831	13263.7902	12944.6676		26296.1409	26296.1570	-0.0161
36	15	15	f		15, 15	0, 16	87.6831	13263.7902	12944.5103		26295.9836	26295.9943	-0.0107
36	15	15	f		15, 15	0, 16	87.6831	13263.7902	12944.5102		26295.9835	26295.9943	-0.0108
36	15	15	f		15, 15	0, 16	87.6831	13263.7902	12944.5014		26295.9747	26295.9943	-0.0196
36	15	15	f		15, 15	0, 16	87.6831	13263.7902	12944.5031		26295.9764	26295.9943	-0.0179
36	15	16	e		15, 15	0, 16	87.6831	13263.7902	12944.3170		26295.7903	26295.8057	-0.0154
36	15	16	e		15, 15	0, 16	87.6831	13263.7902	12944.3077		26295.7810	26295.8057	-0.0247
36	16	15	f		15, 15	0, 16	87.6831	13263.7902	12946.2656		26297.7389	26297.7496	-0.0107
36	16	15	f		15, 15	0, 16	87.6831	13263.7902	12946.2578		26297.7311	26297.7496	-0.0185
36	16	16	e		15, 15	0, 16	87.6831	13263.7902	12946.1101		26297.5834	26297.5953	-0.0119
36	16	16	e		15, 15	0, 16	87.6831	13263.7902	12946.1010		26297.5743	26297.5953	-0.0210
36	26	26	e		15, 27	0, 26	128.4408	13269.6738	12920.9013		26319.0159	26319.0339	-0.0180
36	26	27	f		15, 27	0, 26	128.4408	13269.6738	12920.7899		26318.9045	26318.9218	-0.0173
36	43	44	e		18, 45	0, 46	266.2096	13572.0030	12539.2203		26377.4329	26377.4446	-0.0117
36	43	44	e		18, 45	0, 46	266.2096	13572.0030	12539.2235		26377.4361	26377.4446	-0.0085

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
36	44	44	e		18, 45	0, 46	266.2096	13572.0030	12543.5740		26381.7866	26381.7870	-0.0004
36	44	44	e		18, 45	0, 46	266.2096	13572.0030	12543.5741		26381.7867	26381.7870	-0.0003
36	44	44	e		18, 45	0, 46	266.2096	13572.0030	12543.5734		26381.7860	26381.7870	-0.0010
36	44	44	e		18, 45	0, 46	266.2096	13572.0030	12543.5731		26381.7857	26381.7870	-0.0013
36	44	44	e		18, 45	0, 46	266.2096	13572.0030	12543.5731		26381.7857	26381.7870	-0.0013
36	44	45	f		18, 45	0, 46	266.2096	13572.0030	12543.4985		26381.7111	26381.7197	-0.0086
36	44	45	f		18, 45	0, 46	266.2096	13572.0030	12543.4975		26381.7101	26381.7197	-0.0096
36	44	45	f		18, 45	0, 46	266.2096	13572.0030	12543.4959		26381.7085	26381.7197	-0.0112
36	44	45	f		18, 45	0, 46	266.2096	13572.0030	12543.4954		26381.7080	26381.7197	-0.0117
36	44	45	f		18, 45	0, 46	266.2096	13572.0030	12543.4960		26381.7086	26381.7197	-0.0111
36	45	44	e		18, 45	0, 46	266.2096	13572.0030	12548.0022		26386.2148	26386.2123	0.0025
36	45	44	e		18, 45	0, 46	266.2096	13572.0030	12548.0027		26386.2153	26386.2123	0.0030
36	45	45	f		18, 45	0, 46	266.2096	13572.0030	12547.9348		26386.1474	26386.1502	-0.0028
36	45	45	f		18, 45	0, 46	266.2096	13572.0030	12547.9381		26386.1507	26386.1502	0.0005
36	45	46	e		18, 45	0, 46	266.2096	13572.0030	12547.8564		26386.0690	26386.0843	-0.0153
36	45	46	e		18, 45	0, 46	266.2096	13572.0030	12547.8579		26386.0705	26386.0843	-0.0138
36	46	45	f		18, 45	0, 46	266.2096	13572.0030	12552.4532		26390.6658	26390.6637	0.0021
36	46	45	f		18, 45	0, 46	266.2096	13572.0030	12552.4554		26390.6680	26390.6637	0.0043
36	46	46	e		18, 45	0, 46	266.2096	13572.0030	12552.3900		26390.6026	26390.6028	-0.0002
36	46	46	e		18, 45	0, 46	266.2096	13572.0030	12552.3921		26390.6047	26390.6028	0.0019
36	47	46	e		18, 45	0, 46	266.2096	13572.0030	12556.9983		26395.2109	26395.2037	0.0072
36	47	46	e		18, 45	0, 46	266.2096	13572.0030	12556.9972		26395.2098	26395.2037	0.0061
37	15	14	e		15, 15	0, 16	87.6831	13263.7902	12988.7011		26340.1744	26340.1789	-0.0045
37	15	14	e		15, 15	0, 16	87.6831	13263.7902	12988.7039		26340.1772	26340.1789	-0.0017
37	15	15	f		15, 15	0, 16	87.6831	13263.7902	12988.5264		26339.9997	26340.0107	-0.0110
37	15	15	f		15, 15	0, 16	87.6831	13263.7902	12988.5257		26339.9990	26340.0107	-0.0117
37	15	15	f		15, 15	0, 16	87.6831	13263.7902	12988.5278		26340.0011	26340.0107	-0.0096
37	16	15	f		15, 15	0, 16	87.6831	13263.7902	12990.2443		26341.7176	26341.7300	-0.0124
37	16	15	f		15, 15	0, 16	87.6831	13263.7902	12990.2501		26341.7234	26341.7300	-0.0066
37	16	16	e		15, 15	0, 16	87.6831	13263.7902	12990.0791		26341.5524	26341.5704	-0.0180
37	16	16	e		15, 15	0, 16	87.6831	13263.7902	12990.0856		26341.5589	26341.5704	-0.0115
37	17	16	e		15, 15	0, 16	87.6831	13263.7902	12991.8926		26343.3659	26343.3788	-0.0129
37	24	25	e		17, 26	0, 25	123.5164	13488.0442	12745.8097		26357.3703	26357.3867	-0.0164
37	25	25	e		17, 26	0, 25	123.5164	13488.0442	12748.3603		26359.9209	26359.9340	-0.0131
37	25	26	f		17, 26	0, 25	123.5164	13488.0442	12748.2363		26359.7969	26359.8134	-0.0165
37	26	25	e		17, 26	0, 25	123.5164	13488.0442	12750.9857		26362.5463	26362.5558	-0.0095
37	26	26	f		17, 26	0, 25	123.5164	13488.0442	12750.8756		26362.4362	26362.4504	-0.0142
37	26	27	e		17, 26	0, 25	123.5164	13488.0442	12750.7554		26362.3160	26362.3342	-0.0182
37	27	26	f		17, 26	0, 25	123.5164	13488.0442	12753.5921		26365.1527	26365.1628	-0.0101
37	27	27	e		17, 26	0, 25	123.5164	13488.0442	12753.4849		26365.0455	26365.0608	-0.0153

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
37	43	44	e		18, 45	0, 46	266.2096	13572.0030	12581.0372		26419.2498	26419.2727	-0.0229
37	44	44	e		18, 45	0, 46	266.2096	13572.0030	12585.3083		26423.5209	26423.4981	0.0228
37	44	45	f		18, 45	0, 46	266.2096	13572.0030	12585.2208		26423.4334	26423.4281	0.0053
37	45	44	e		18, 45	0, 46	266.2096	13572.0030	12589.5948		26427.8074	26427.8031	0.0043
37	45	45	f		18, 45	0, 46	266.2096	13572.0030	12589.5294		26427.7420	26427.7386	0.0034
37	45	45	f		18, 45	0, 46	266.2096	13572.0030	12589.5288		26427.7414	26427.7386	0.0028
37	45	46	e		18, 45	0, 46	266.2096	13572.0030	12589.4601		26427.6727	26427.6701	0.0026
37	45	46	e		18, 45	0, 46	266.2096	13572.0030	12589.4594		26427.6720	26427.6701	0.0019
37	46	45	f		18, 45	0, 46	266.2096	13572.0030	12593.9226		26432.1352	26432.1287	0.0065
37	46	46	e		18, 45	0, 46	266.2096	13572.0030	12593.8554		26432.0680	26432.0654	0.0026
37	47	46	e		18, 45	0, 46	266.2096	13572.0030	12598.3372		26436.5498	26436.5398	0.0100
38	14	14	e		15, 15	0, 16	87.6831	13263.7902	13029.0812		26380.5545	26380.5691	-0.0146
38	14	14	e		15, 15	0, 16	87.6831	13263.7902	13029.0823		26380.5556	26380.5691	-0.0135
38	14	15	f		15, 15	0, 16	87.6831	13263.7902	13028.8744		26380.3477	26380.3535	-0.0058
38	15	14	e		15, 15	0, 16	87.6831	13263.7902	13030.6779		26382.1512	26382.1670	-0.0158
38	15	15	f		15, 15	0, 16	87.6831	13263.7902	13030.5032		26381.9765	26381.9919	-0.0154
38	15	15	f		15, 15	0, 16	87.6831	13263.7902	13030.5056		26381.9789	26381.9919	-0.0130
38	16	15	f		15, 15	0, 16	87.6831	13263.7902	13032.1893		26383.6626	26383.6751	-0.0125
38	16	16	e		15, 15	0, 16	87.6831	13263.7902	13032.0207		26383.4940	26383.5089	-0.0149
38	16	16	e		15, 15	0, 16	87.6831	13263.7902	13032.0214		26383.4947	26383.5089	-0.0142
38	17	16	e		15, 15	0, 16	87.6831	13263.7902	13033.7891		26385.2624	26385.2781	-0.0157
38	17	16	e		15, 15	0, 16	87.6831	13263.7902	13033.7871		26385.2604	26385.2781	-0.0177
38	24	25	e		17, 26	0, 25	123.5164	13488.0442	12787.2897		26398.8503	26398.8787	-0.0284
38	25	25	e		17, 26	0, 25	123.5164	13488.0442	12789.7802		26401.3408	26401.3639	-0.0231
38	25	26	f		17, 26	0, 25	123.5164	13488.0442	12789.6633		26401.2239	26401.2379	-0.0140
38	25	26	f		17, 26	0, 25	123.5164	13488.0442	12789.6630		26401.2236	26401.2379	-0.0143
38	26	25	e		17, 26	0, 25	123.5164	13488.0442	12792.3411		26403.9017	26403.9197	-0.0180
38	26	26	f		17, 26	0, 25	123.5164	13488.0442	12792.2232		26403.7838	26403.8098	-0.0260
38	26	27	e		17, 26	0, 25	123.5164	13488.0442	12792.1059		26403.6665	26403.6885	-0.0220
38	44	44	e		18, 45	0, 46	266.2096	13572.0030	12624.8722		26463.0848	26463.0892	-0.0044
38	44	45	f		18, 45	0, 46	266.2096	13572.0030	12624.7989		26463.0115	26463.0160	-0.0045
40	27	26	f		17, 26	0, 27	133.5534	13478.0078	12871.1466		26482.7078	26482.7402	-0.0324
40	27	27	e		17, 26	0, 27	133.5534	13478.0078	12871.0257		26482.5869	26482.6169	-0.0300
40	28	27	e		17, 26	0, 27	133.5534	13478.0078	12873.6112		26485.1724	26485.2042	-0.0318
41	24	25	e		17, 26	0, 27	133.5534	13478.0078	12899.1567		26510.7179	26510.7408	-0.0229
41	25	25	e		17, 26	0, 27	133.5534	13478.0078	12901.4403		26513.0015	26513.0298	-0.0283
41	25	26	f		17, 26	0, 27	133.5534	13478.0078	12901.2994		26512.8606	26512.8833	-0.0227
41	26	25	e		17, 26	0, 27	133.5534	13478.0078	12903.7889		26515.3501	26515.3769	-0.0268

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
41	26	26	f		17, 26	0, 27	133.5534	13478.0078	12903.6592		26515.2204	26515.2492	-0.0288
41	26	27	e		17, 26	0, 27	133.5534	13478.0078	12903.5207		26515.0819	26515.1081	-0.0262
41	27	26	f		17, 26	0, 27	133.5534	13478.0078	12906.0895		26517.6507	26517.6744	-0.0237
41	27	27	e		17, 26	0, 27	133.5534	13478.0078	12905.9620		26517.5232	26517.5508	-0.0276
41	28	27	e		17, 26	0, 27	133.5534	13478.0078	12908.4692		26520.0304	26520.0541	-0.0237
42	14	14	e		15, 15	0, 16	87.6831	13263.7902	13176.2682		26527.7415	26527.7548	-0.0133
42	14	14	e		15, 15	0, 16	87.6831	13263.7902	13176.2663		26527.7396	26527.7548	-0.0152
42	15	14	e		15, 15	0, 16	87.6831	13263.7902	13177.7267		26529.2000	26529.2270	-0.0270
42	15	14	e		15, 15	0, 16	87.6831	13263.7902	13177.7268		26529.2001	26529.2270	-0.0269
42	15	14	e		15, 15	0, 16	87.6831	13263.7902	13177.7257		26529.1990	26529.2270	-0.0280
42	15	15	f		15, 15	0, 16	87.6831	13263.7902	13177.5121		26528.9854	26529.0031	-0.0177
42	15	15	f		15, 15	0, 16	87.6831	13263.7902	13177.5090		26528.9823	26529.0031	-0.0208
42	16	15	f		15, 15	0, 16	87.6831	13263.7902	13179.0451		26530.5184	26530.5466	-0.0282
42	16	15	f		15, 15	0, 16	87.6831	13263.7902	13179.0450		26530.5183	26530.5466	-0.0283
42	16	15	f		15, 15	0, 16	87.6831	13263.7902	13179.0471		26530.5204	26530.5466	-0.0262
42	16	16	e		15, 15	0, 16	87.6831	13263.7902	13178.8450		26530.3183	26530.3336	-0.0153
42	16	16	e		15, 15	0, 16	87.6831	13263.7902	13178.8442		26530.3175	26530.3336	-0.0161
42	16	16	e		15, 15	0, 16	87.6831	13263.7902	13178.8456		26530.3189	26530.3336	-0.0147
42	17	16	e		15, 15	0, 16	87.6831	13263.7902	13180.4506		26531.9239	26531.9494	-0.0255
42	17	16	e		15, 15	0, 16	87.6831	13263.7902	13180.4519		26531.9252	26531.9494	-0.0242
42	17	16	e		15, 15	0, 16	87.6831	13263.7902	13180.4509		26531.9242	26531.9494	-0.0252
42	24	25	e		17, 26	0, 25	123.5164	13488.0442	12932.1731		26543.7337	26543.7428	-0.0091
42	25	25	e		17, 26	0, 25	123.5164	13488.0442	12934.3888		26545.9494	26545.9723	-0.0229
42	25	26	f		17, 26	0, 25	123.5164	13488.0442	12934.2412		26545.8018	26545.8087	-0.0069
42	26	25	e		17, 26	0, 25	123.5164	13488.0442	12936.6667		26548.2273	26548.2541	-0.0268
42	26	26	f		17, 26	0, 25	123.5164	13488.0442	12936.5277		26548.0883	26548.1113	-0.0230
42	26	27	e		17, 26	0, 25	123.5164	13488.0442	12936.3802		26547.9408	26547.9534	-0.0126
42	26	27	e		17, 26	0, 25	123.5164	13488.0442	12936.3826		26547.9432	26547.9534	-0.0102
42	27	26	f		17, 26	0, 25	123.5164	13488.0442	12938.8813		26550.4419	26550.4674	-0.0255
42	27	27	e		17, 26	0, 25	123.5164	13488.0442	12938.7465		26550.3071	26550.3291	-0.0220
42	28	27	e		17, 26	0, 25	123.5164	13488.0442	12941.1760		26552.7366	26552.7596	-0.0230
42	43	44	e		18, 45	0, 46	266.2096	13572.0030	12757.8940		26596.1066	26596.0944	0.0122
42	44	44	e		18, 45	0, 46	266.2096	13572.0030	12761.4714		26599.6840	26599.6821	0.0019
42	44	45	f		18, 45	0, 46	266.2096	13572.0030	12761.4106		26599.6232	26599.5854	0.0378
42	45	44	e		18, 45	0, 46	266.2096	13572.0030	12765.1285		26603.3411	26603.3295	0.0116
42	45	45	f		18, 45	0, 46	266.2096	13572.0030	12765.0333		26603.2459	26603.2405	0.0054
42	45	46	e		18, 45	0, 46	266.2096	13572.0030	12764.9505		26603.1631	26603.1458	0.0173
42	46	45	f		18, 45	0, 46	266.2096	13572.0030	12768.7513		26606.9639	26606.9556	0.0083
42	46	46	e		18, 45	0, 46	266.2096	13572.0030	12768.6598		26606.8724	26606.8682	0.0042
42	47	46	e		18, 45	0, 46	266.2096	13572.0030	12772.4446		26610.6572	26610.6498	0.0074

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
43	14	14	e		15, 15	0, 16	87.6831	13263.7902	13207.7454		26559.2187	26559.2329	-0.0142
43	14	14	e		15, 15	0, 16	87.6831	13263.7902	13207.7460		26559.2193	26559.2329	-0.0136
43	14	14	e		15, 15	0, 16	87.6831	13263.7902	13207.7427		26559.2160	26559.2329	-0.0169
43	14	15	f		15, 15	0, 16	87.6831	13263.7902	13207.4796		26558.9529	26558.9613	-0.0084
43	15	14	e		15, 15	0, 16	87.6831	13263.7902	13209.1675		26560.6408	26560.6569	-0.0161
43	15	14	e		15, 15	0, 16	87.6831	13263.7902	13209.1677		26560.6410	26560.6569	-0.0159
43	15	14	e		15, 15	0, 16	87.6831	13263.7902	13209.1657		26560.6390	26560.6569	-0.0179
43	15	14	e		15, 15	0, 16	87.6831	13263.7902	13209.1682		26560.6415	26560.6569	-0.0154
43	15	14	e		15, 15	0, 16	87.6831	13263.7902	13209.1653		26560.6386	26560.6569	-0.0183
43	15	15	f		15, 15	0, 16	87.6831	13263.7902	13208.9479		26560.4212	26560.4341	-0.0129
43	15	15	f		15, 15	0, 16	87.6831	13263.7902	13208.9450		26560.4183	26560.4341	-0.0158
43	15	15	f		15, 15	0, 16	87.6831	13263.7902	13208.9461		26560.4194	26560.4341	-0.0147
43	15	15	f		15, 15	0, 16	87.6831	13263.7902	13208.9473		26560.4206	26560.4341	-0.0135
43	16	15	f		15, 15	0, 16	87.6831	13263.7902	13210.4370		26561.9103	26561.9263	-0.0160
43	16	15	f		15, 15	0, 16	87.6831	13263.7902	13210.4387		26561.9120	26561.9263	-0.0143
43	16	16	e		15, 15	0, 16	87.6831	13263.7902	13210.2237		26561.6970	26561.7144	-0.0174
43	16	16	e		15, 15	0, 16	87.6831	13263.7902	13210.2260		26561.6993	26561.7144	-0.0151
43	16	16	e		15, 15	0, 16	87.6831	13263.7902	13210.2263		26561.6996	26561.7144	-0.0148
43	17	16	e		15, 15	0, 16	87.6831	13263.7902	13211.7854		26563.2587	26563.2758	-0.0171
43	17	16	e		15, 15	0, 16	87.6831	13263.7902	13211.7845		26563.2578	26563.2758	-0.0180
43	17	16	e		15, 15	0, 16	87.6831	13263.7902	13211.7867		26563.2600	26563.2758	-0.0158
43	26	25	e		17, 26	0, 25	123.5164	13488.0442	12967.3730		26578.9336	26578.9534	-0.0198
43	26	25	e		17, 26	0, 25	123.5164	13488.0442	12967.3702		26578.9308	26578.9534	-0.0226
43	26	26	f		17, 26	0, 25	123.5164	13488.0442	12967.2271		26578.7877	26578.8110	-0.0233
43	26	26	f		17, 26	0, 25	123.5164	13488.0442	12967.2239		26578.7845	26578.8110	-0.0265
43	26	27	e		17, 26	0, 25	123.5164	13488.0442	12967.0742		26578.6348	26578.6537	-0.0189
43	26	27	e		17, 26	0, 25	123.5164	13488.0442	12967.0737		26578.6343	26578.6537	-0.0194
43	43	44	e		18, 45	0, 46	266.2096	13572.0030	12786.6550		26624.8676	26624.8574	0.0102
43	44	44	e		18, 45	0, 46	266.2096	13572.0030	12790.0898		26628.3024	26628.2988	0.0036
43	44	45	f		18, 45	0, 46	266.2096	13572.0030	12790.0009		26628.2135	26628.2021	0.0114
43	45	44	e		18, 45	0, 46	266.2096	13572.0030	12793.5992		26631.8118	26631.7962	0.0156
43	45	45	f		18, 45	0, 46	266.2096	13572.0030	12793.4998		26631.7124	26631.7072	0.0052
43	45	46	e		18, 45	0, 46	266.2096	13572.0030	12793.4133		26631.6259	26631.6125	0.0134
43	46	45	f		18, 45	0, 46	266.2096	13572.0030	12797.0692		26635.2818	26635.2685	0.0133
43	46	46	e		18, 45	0, 46	266.2096	13572.0030	12796.9722		26635.1848	26635.1811	0.0037
43	47	46	e		18, 45	0, 46	266.2096	13572.0030	12800.6079		26638.8205	26638.8052	0.0153
43	47	46	e		18, 45	0, 46	266.2096	13572.0030	12800.6103		26638.8229	26638.8052	0.0177
44	15	14	e		15, 15	0, 16	87.6831	13263.7902	13238.4829		26589.9562	26589.9659	-0.0097
44	15	15	f		15, 15	0, 16	87.6831	13263.7902	13238.2369		26589.7102	26589.7264	-0.0162
44	16	15	f		15, 15	0, 16	87.6831	13263.7902	13239.6964		26591.1697	26591.1829	-0.0132

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
44	16	16	e		15, 15	0, 16	87.6831	13263.7902	13239.4646		26590.9379	26590.9550	-0.0171
44	17	16	e		15, 15	0, 16	87.6831	13263.7902	13240.9894		26592.4627	26592.4767	-0.0140
44	25	25	e		17, 26	0, 25	123.5164	13488.0442	12993.8063		26605.3669	26605.3799	-0.0130
44	26	25	e		17, 26	0, 25	123.5164	13488.0442	12995.9306		26607.4912	26607.5046	-0.0134
44	26	26	f		17, 26	0, 25	123.5164	13488.0442	12995.7772		26607.3378	26607.3506	-0.0128
44	26	26	f		17, 26	0, 25	123.5164	13488.0442	12995.7762		26607.3368	26607.3506	-0.0138
44	26	26	f		17, 26	0, 25	123.5164	13488.0442	12995.7750		26607.3356	26607.3506	-0.0150
44	26	27	e		17, 26	0, 25	123.5164	13488.0442	12995.6169		26607.1775	26607.1805	-0.0030
44	26	27	e		17, 26	0, 25	123.5164	13488.0442	12995.6192		26607.1798	26607.1805	-0.0007
44	27	26	f		17, 26	0, 25	123.5164	13488.0442	12997.9726		26609.5332	26609.5426	-0.0094
44	27	27	e		17, 26	0, 25	123.5164	13488.0442	12997.8217		26609.3823	26609.3935	-0.0112
44	28	27	e		17, 26	0, 25	123.5164	13488.0442	13000.0846		26611.6452	26611.6528	-0.0076
44	43	44	e		18, 45	0, 46	266.2096	13572.0030	12813.2000		26651.4126*	26651.3958*	0.0168*
44	43	44	e		18, 45	0, 46	266.2096	13572.0030	12813.2005		26651.4131*	26651.3958*	0.0173*
44	44	44	e		18, 45	0, 46	266.2096	13572.0030	12816.4856		26654.6982	26654.6954	0.0028
44	44	45	f		18, 45	0, 46	266.2096	13572.0030	12816.3956		26654.6082*	26654.5902*	0.0180*
44	45	44	e		18, 45	0, 46	266.2096	13572.0030	12819.8440		26658.0566	26658.0464	0.0102
44	45	45	f		18, 45	0, 46	266.2096	13572.0030	12819.7362		26657.9488	26657.9495	-0.0007
44	45	46	e		18, 45	0, 46	266.2096	13572.0030	12819.6483		26657.8609*	26657.8465*	0.0144*
44	46	45	f		18, 45	0, 46	266.2096	13572.0030	12823.1573		26661.3699	26661.3603	0.0096
44	46	46	e		18, 45	0, 46	266.2096	13572.0030	12823.0530		26661.2656	26661.2652	0.0004
44	47	46	e		18, 45	0, 46	266.2096	13572.0030	12826.5329		26664.7455	26664.7347	0.0108
45	14	14	e		15, 15	0, 16	87.6831	13263.7902	13264.2986		26615.7719	26615.7844	-0.0125
45	15	14	e		15, 15	0, 16	87.6831	13263.7902	13265.6437		26617.1170	26617.1357	-0.0187
45	15	15	f		15, 15	0, 16	87.6831	13263.7902	13265.4006		26616.8739	26616.8874	-0.0135
45	16	15	f		15, 15	0, 16	87.6831	13263.7902	13266.8094		26618.2827	26618.2994	-0.0167
45	16	16	e		15, 15	0, 16	87.6831	13263.7902	13266.5761		26618.0494	26618.0629	-0.0135
45	17	16	e		15, 15	0, 16	87.6831	13263.7902	13268.0479		26619.5212	26619.5365	-0.0153
45	24	25	e		17, 26	0, 25	123.5164	13488.0442	13018.2994		26629.8600	26629.8517	0.0083
45	25	25	e		17, 26	0, 25	123.5164	13488.0442	13020.2865		26631.8471	26631.8563	-0.0092
45	25	26	f		17, 26	0, 25	123.5164	13488.0442	13020.1142		26631.6748	26631.6727	0.0021
45	26	25	e		17, 26	0, 25	123.5164	13488.0442	13022.3351		26633.8957	26633.8998	-0.0041
45	26	26	f		17, 26	0, 25	123.5164	13488.0442	13022.1672		26633.7278	26633.7395	-0.0117
45	26	26	f		17, 26	0, 25	123.5164	13488.0442	13022.1707		26633.7313	26633.7395	-0.0082
45	26	27	e		17, 26	0, 25	123.5164	13488.0442	13022.0008		26633.5614	26633.5622	-0.0008
45	27	26	f		17, 26	0, 25	123.5164	13488.0442	13024.2798		26635.8404	26635.8467	-0.0063
45	27	27	e		17, 26	0, 25	123.5164	13488.0442	13024.1207		26635.6813	26635.6913	-0.0100
45	28	27	e		17, 26	0, 25	123.5164	13488.0442	13026.2972		26637.8578	26637.8621	-0.0043
45	43	44	e		18, 45	0, 46	266.2096	13572.0030	12837.5469		26675.7595*	26675.7342*	0.0253*
45	44	44	e		18, 45	0, 46	266.2096	13572.0030	12840.6738		26678.8864	26678.8843	0.0021

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	(v_A, J')	(v_b, J')	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
45	44	45	*f*		18, 45	0, 46	266.2096	13572.0030	12840.5846		26678.7972*	26678.7741*	0.0231*
45	45	44	*e*		18, 45	0, 46	266.2096	13572.0030	12843.8814		26682.0940	26682.0814	0.0126
45	45	44	*e*		18, 45	0, 46	266.2096	13572.0030	12843.8813		26682.0939	26682.0814	0.0125
45	45	45	*f*		18, 45	0, 46	266.2096	13572.0030	12843.7666		26681.9792	26681.9800	-0.0008
45	45	45	*f*		18, 45	0, 46	266.2096	13572.0030	12843.7665		26681.9791	26681.9800	-0.0009
45	45	46	*e*		18, 45	0, 46	266.2096	13572.0030	12843.6775		26681.8901*	26681.8720*	0.0181*
45	45	46	*e*		18, 45	0, 46	266.2096	13572.0030	12843.6800		26681.8926	26681.8720	0.0206
45	46	45	*f*		18, 45	0, 46	266.2096	13572.0030	12847.0302		26685.2428	26685.2328	0.0100
45	46	46	*e*		18, 45	0, 46	266.2096	13572.0030	12846.9159		26685.1285	26685.1332	-0.0047
45	47	46	*e*		18, 45	0, 46	266.2096	13572.0030	12850.2415		26688.4541	26688.4407	0.0134
45	47	46	*e*		18, 45	0, 46	266.2096	13572.0030	12850.2420		26688.4546	26688.4407	0.0139
46	15	14	*e*		15, 15	0, 16	87.6831	13263.7902	13290.7012		26642.1745	26642.2012	-0.0267
46	15	15	*f*		15, 15	0, 16	87.6831	13263.7902	13290.4468		26641.9201	26641.9373	-0.0172
46	43	44	*e*		18, 45	0, 46	266.2096	13572.0030	12859.7042		26697.9168*	26697.8889*	0.0279*
46	43	44	*e*		18, 45	0, 46	266.2096	13572.0030	12859.7086		26697.9212*	26697.8889*	0.0323*
46	44	44	*e*		18, 45	0, 46	266.2096	13572.0030	12862.6746		26700.8872	26700.8893	-0.0021
46	44	45	*f*		18, 45	0, 46	266.2096	13572.0030	12862.5901		26700.8027*	26700.7707*	0.0320*
46	45	44	*e*		18, 45	0, 46	266.2096	13572.0030	12865.7333		26703.9459	26703.9319	0.0140
46	45	44	*e*		18, 45	0, 46	266.2096	13572.0030	12865.7288		26703.9414	26703.9319	0.0095
46	45	45	*f*		18, 45	0, 46	266.2096	13572.0030	12865.6050		26703.8176	26703.8226	-0.0050
46	45	45	*f*		18, 45	0, 46	266.2096	13572.0030	12865.6033		26703.8159	26703.8226	-0.0067
46	45	46	*e*		18, 45	0, 46	266.2096	13572.0030	12865.5246		26703.7372*	26703.7063*	0.0309*
46	45	46	*e*		18, 45	0, 46	266.2096	13572.0030	12865.5263		26703.7389*	26703.7063*	0.0326*
46	46	45	*f*		18, 45	0, 46	266.2096	13572.0030	12868.7103		26706.9229	26706.9167	0.0062
46	46	46	*e*		18, 45	0, 46	266.2096	13572.0030	12868.5861		26706.7987	26706.8093	-0.0106
46	47	46	*e*		18, 45	0, 46	266.2096	13572.0030	12871.7434		26709.9560	26709.9539	0.0021
47	14	14	*e*		15, 15	0, 16	87.6831	13263.7902	13312.4147		26663.8880	26663.9059	-0.0179
47	14	14	*e*		15, 15	0, 16	87.6831	13263.7902	13312.4152		26663.8885	26663.9059	-0.0174
47	15	14	*e*		15, 15	0, 16	87.6831	13263.7902	13313.6851		26665.1584	26665.1865	-0.0281
47	15	14	*e*		15, 15	0, 16	87.6831	13263.7902	13313.6860		26665.1593	26665.1865	-0.0272
47	15	15	*f*		15, 15	0, 16	87.6831	13263.7902	13313.4148		26664.8881	26664.9060	-0.0179
47	15	15	*f*		15, 15	0, 16	87.6831	13263.7902	13313.4123		26664.8856	26664.9060	-0.0204
47	15	15	*f*		15, 15	0, 16	87.6831	13263.7902	13313.4119		26664.8852	26664.9060	-0.0208
47	16	15	*f*		15, 15	0, 16	87.6831	13263.7902	13314.7396		26666.2129	26666.2393	-0.0264
47	16	15	*f*		15, 15	0, 16	87.6831	13263.7902	13314.7396		26666.2129	26666.2393	-0.0264
47	16	16	*e*		15, 15	0, 16	87.6831	13263.7902	13314.4796		26665.9529	26665.9716	-0.0187
47	16	16	*e*		15, 15	0, 16	87.6831	13263.7902	13314.4777		26665.9510	26665.9716	-0.0206
47	17	16	*e*		15, 15	0, 16	87.6831	13263.7902	13315.8612		26667.3345	26667.3584	-0.0239
47	17	16	*e*		15, 15	0, 16	87.6831	13263.7902	13315.8615		26667.3348	26667.3584	-0.0236

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
47	25	25	e		17, 26	0, 25	123.5164	13488.0442	13066.8878		26678.4484	26678.4570	-0.0086
47	25	25	e		17, 26	0, 25	123.5164	13488.0442	13066.8866		26678.4472	26678.4570	-0.0098
47	25	26	f		17, 26	0, 25	123.5164	13488.0442	13066.6965		26678.2571	26678.2472	0.0099
47	26	25	e		17, 26	0, 25	123.5164	13488.0442	13068.7781		26680.3387	26680.3425	-0.0038
47	26	25	e		17, 26	0, 25	123.5164	13488.0442	13068.7839		26680.3445	26680.3425	0.0020
47	26	26	f		17, 26	0, 25	123.5164	13488.0442	13068.5863		26680.1469	26680.1589	-0.0120
47	26	26	f		17, 26	0, 25	123.5164	13488.0442	13068.5894		26680.1500	26680.1589	-0.0089
47	27	26	f		17, 26	0, 25	123.5164	13488.0442	13070.5331		26682.0937	26682.1002	-0.0065
47	27	27	e		17, 26	0, 25	123.5164	13488.0442	13070.3517		26681.9123	26681.9221	-0.0098
47	28	27	e		17, 26	0, 25	123.5164	13488.0442	13072.3544		26683.9150	26683.9191	-0.0041
47	43	44	e		18, 45	0, 46	266.2096	13572.0030	12879.7370		26717.9496*	26717.8976*	0.0520*
47	43	44	e		18, 45	0, 46	266.2096	13572.0030	12879.7354		26717.9480*	26717.8976*	0.0504*
47	44	44	e		18, 45	0, 46	266.2096	13572.0030	12882.5367		26720.7493	26720.7456	0.0037
47	44	45	f		18, 45	0, 46	266.2096	13572.0030	12882.4587		26720.6713*	26720.6176*	0.0537*
47	45	44	e		18, 45	0, 46	266.2096	13572.0030	12885.4347		26723.6473	26723.6308	0.0165
47	45	44	e		18, 45	0, 46	266.2096	13572.0030	12885.4365		26723.6491	26723.6308	0.0183
47	45	45	f		18, 45	0, 46	266.2096	13572.0030	12885.2952		26723.5078	26723.5129	-0.0051
47	45	45	f		18, 45	0, 46	266.2096	13572.0030	12885.2970		26723.5096	26723.5129	-0.0033
47	45	46	e		18, 45	0, 46	266.2096	13572.0030	12885.2250		26723.4376*	26723.3873*	0.0503*
47	45	46	e		18, 45	0, 46	266.2096	13572.0030	12885.2247		26723.4373*	26723.3873*	0.0500*
47	46	45	f		18, 45	0, 46	266.2096	13572.0030	12888.2371		26726.4497	26726.4453	0.0044
47	46	46	e		18, 45	0, 46	266.2096	13572.0030	12888.1031		26726.3157	26726.3294	-0.0137
47	47	46	e		18, 45	0, 46	266.2096	13572.0030	12891.0939		26729.3065	26729.3079	-0.0014
48	14	14	e		15, 15	0, 16	87.6831	13263.7902	13333.3896		26684.8629	26684.8870	-0.0241
48	14	14	e		15, 15	0, 16	87.6831	13263.7902	13333.3928		26684.8661	26684.8870	-0.0209
48	14	14	e		15, 15	0, 16	87.6831	13263.7902	13333.3917		26684.8650	26684.8870	-0.0220
48	15	14	e		15, 15	0, 16	87.6831	13263.7902	13334.6235		26686.0968	26686.1275	-0.0307
48	15	14	e		15, 15	0, 16	87.6831	13263.7902	13334.6240		26686.0973	26686.1275	-0.0302
48	15	14	e		15, 15	0, 16	87.6831	13263.7902	13334.6212		26686.0945	26686.1275	-0.0330
48	15	15	f		15, 15	0, 16	87.6831	13263.7902	13334.3412		26685.8145	26685.8342	-0.0197
48	15	15	f		15, 15	0, 16	87.6831	13263.7902	13334.3378		26685.8111	26685.8342	-0.0231
48	15	15	f		15, 15	0, 16	87.6831	13263.7902	13334.3370		26685.8103	26685.8342	-0.0239
48	15	16	e		15, 15	0, 16	87.6831	13263.7902	13334.0007		26685.4740	26685.5013	-0.0273
48	16	15	f		15, 15	0, 16	87.6831	13263.7902	13335.6220		26687.0953	26687.1234	-0.0281
48	16	15	f		15, 15	0, 16	87.6831	13263.7902	13335.6210		26687.0943	26687.1234	-0.0291
48	16	15	f		15, 15	0, 16	87.6831	13263.7902	13335.6200		26687.0933	26687.1234	-0.0301
48	16	16	e		15, 15	0, 16	87.6831	13263.7902	13335.3483		26686.8216	26686.8432	-0.0216
48	16	16	e		15, 15	0, 16	87.6831	13263.7902	13335.3457		26686.8190	26686.8432	-0.0242
48	17	16	e		15, 15	0, 16	87.6831	13263.7902	13336.6800		26688.1533	26688.1820	-0.0287
48	17	16	e		15, 15	0, 16	87.6831	13263.7902	13336.6817		26688.1550	26688.1820	-0.0270

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
48	25	25	e		17, 26	0, 25	123.5164	13488.0442	13087.0855		26698.6461	26698.6547	-0.0086
48	25	25	e		17, 26	0, 25	123.5164	13488.0442	13087.0847		26698.6453	26698.6547	-0.0094
48	25	26	f		17, 26	0, 25	123.5164	13488.0442	13086.8842		26698.4448	26698.4342	0.0106
48	25	26	f		17, 26	0, 25	123.5164	13488.0442	13086.8800		26698.4406	26698.4342	0.0064
48	26	25	e		17, 26	0, 25	123.5164	13488.0442	13088.9010		26700.4616	26700.4567	0.0049
48	26	26	f		17, 26	0, 25	123.5164	13488.0442	13088.6878		26700.2484	26700.2632	-0.0148
48	26	26	f		17, 26	0, 25	123.5164	13488.0442	13088.6947		26700.2553	26700.2632	-0.0079
48	27	26	f		17, 26	0, 25	123.5164	13488.0442	13090.5638		26702.1244	26702.1169	0.0075
48	27	27	e		17, 26	0, 25	123.5164	13488.0442	13090.3548		26701.9154	26701.9293	-0.0139
48	28	27	e		17, 26	0, 25	123.5164	13488.0442	13092.2760		26703.8366	26703.8347	0.0019
48	43	44	e		18, 45	0, 46	266.2096	13572.0030	12897.6812		26735.8938*	26735.8094*	0.0844*
48	44	44	e		18, 45	0, 46	266.2096	13572.0030	12900.2869		26738.4995	26738.5003	-0.0008
48	44	45	f		18, 45	0, 46	266.2096	13572.0030	12900.2362		26738.4488*	26738.3644*	0.0844*
48	45	44	e		18, 45	0, 46	266.2096	13572.0030	12903.0282		26741.2408	26741.2235	0.0173
48	45	44	e		18, 45	0, 46	266.2096	13572.0030	12903.0257		26741.2383	26741.2235	0.0148
48	45	45	f		18, 45	0, 46	266.2096	13572.0030	12902.8807		26741.0933	26741.0982	-0.0049
48	45	45	f		18, 45	0, 46	266.2096	13572.0030	12902.8783		26741.0909	26741.0982	-0.0073
48	45	46	e		18, 45	0, 46	266.2096	13572.0030	12902.8399		26741.0525*	26740.9648*	0.0877*
48	45	46	e		18, 45	0, 46	266.2096	13572.0030	12902.8372		26741.0498*	26740.9648*	0.0850*
48	46	45	f		18, 45	0, 46	266.2096	13572.0030	12905.6609		26743.8735	26743.8643	0.0092
48	46	46	e		18, 45	0, 46	266.2096	13572.0030	12905.5147		26743.7273	26743.7410	-0.0137
48	47	46	e		18, 45	0, 46	266.2096	13572.0030	12908.3268		26746.5394	26746.5488	-0.0094
48	47	46	e		18, 45	0, 46	266.2096	13572.0030	12908.3266		26746.5392	26746.5488	-0.0096
49	14	14	e		15, 15	0, 16	87.6831	13263.7902	13352.3822		26703.8555	26703.8823	-0.0268
49	14	14	e		15, 15	0, 16	87.6831	13263.7902	13352.3806		26703.8539	26703.8823	-0.0284
49	14	14	e		15, 15	0, 16	87.6831	13263.7902	13352.3825		26703.8558	26703.8823	-0.0265
49	15	14	e		15, 15	0, 16	87.6831	13263.7902	13353.5724		26705.0457	26705.1033	-0.0576
49	15	14	e		15, 15	0, 16	87.6831	13263.7902	13353.5751		26705.0484	26705.1033	-0.0549
49	15	15	f		15, 15	0, 16	87.6831	13263.7902	13353.2742		26704.7475	26704.7756	-0.0281
49	15	15	f		15, 15	0, 16	87.6831	13263.7902	13353.2731		26704.7464	26704.7756	-0.0292
49	15	15	f		15, 15	0, 16	87.6831	13263.7902	13353.2751		26704.7484	26704.7756	-0.0272
49	16	15	f		15, 15	0, 16	87.6831	13263.7902	13354.5130		26705.9863	26706.0406	-0.0543
49	16	15	f		15, 15	0, 16	87.6831	13263.7902	13354.5125		26705.9858	26706.0406	-0.0548
49	16	16	e		15, 15	0, 16	87.6831	13263.7902	13354.2258		26705.6991	26705.7271	-0.0280
49	16	16	e		15, 15	0, 16	87.6831	13263.7902	13354.2261		26705.6994	26705.7271	-0.0277
49	17	16	e		15, 15	0, 16	87.6831	13263.7902	13355.5138		26706.9871	26707.0370	-0.0499
49	17	16	e		15, 15	0, 16	87.6831	13263.7902	13355.5109		26706.9842	26707.0370	-0.0528
49	25	25	e		17, 26	0, 25	123.5164	13488.0442	13105.2831		26716.8437	26716.8533	-0.0096
49	25	25	e		17, 26	0, 25	123.5164	13488.0442	13105.2869		26716.8475	26716.8533	-0.0058
49	26	25	e		17, 26	0, 25	123.5164	13488.0442	13107.0197		26718.5803	26718.5856	-0.0053

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
49	26	25	e		17, 26	0, 25	123.5164	13488.0442	13107.0162		26718.5768	26718.5856	-0.0088
49	26	26	f		17, 26	0, 25	123.5164	13488.0442	13106.8039		26718.3645	26718.3667	-0.0022
49	26	26	f		17, 26	0, 25	123.5164	13488.0442	13106.8092		26718.3698	26718.3667	0.0031
49	27	26	f		17, 26	0, 25	123.5164	13488.0442	13108.5850		26720.1456	26720.1464	-0.0008
49	27	26	f		17, 26	0, 25	123.5164	13488.0442	13108.5843		26720.1449	26720.1464	-0.0015
49	27	27	e		17, 26	0, 25	123.5164	13488.0442	13108.3719		26719.9325	26719.9339	-0.0014
49	27	27	e		17, 26	0, 25	123.5164	13488.0442	13108.3687		26719.9293	26719.9339	-0.0046
49	28	27	e		17, 26	0, 25	123.5164	13488.0442	13110.2036		26721.7642	26721.7609	0.0033
49	28	27	e		17, 26	0, 25	123.5164	13488.0442	13110.2058		26721.7664	26721.7609	0.0055
49	44	44	e		18, 45	0, 46	266.2096	13572.0030	12915.9972		26754.2098	26754.2132	-0.0034
49	44	44	e		18, 45	0, 46	266.2096	13572.0030	12915.9970		26754.2096	26754.2132	-0.0036
49	44	45	f		18, 45	0, 46	266.2096	13572.0030	12916.0310		26754.2436*	26754.0576*	0.1860*
49	44	45	f		18, 45	0, 46	266.2096	13572.0030	12916.0293		26754.2419*	26754.0576*	0.1843*
49	45	44	e		18, 45	0, 46	266.2096	13572.0030	12918.5830		26756.7956	26756.7823	0.0133
49	45	44	e		18, 45	0, 46	266.2096	13572.0030	12918.5777		26756.7903	26756.7823	0.0080
49	45	44	e		18, 45	0, 46	266.2096	13572.0030	12918.5819		26756.7945	26756.7823	0.0122
49	45	45	f		18, 45	0, 46	266.2096	13572.0030	12918.4161		26756.6287	26756.6387	-0.0100
49	45	45	f		18, 45	0, 46	266.2096	13572.0030	12918.4153		26756.6279	26756.6387	-0.0108
49	45	45	f		18, 45	0, 46	266.2096	13572.0030	12918.4147		26756.6273	26756.6387	-0.0114
49	45	46	e		18, 45	0, 46	266.2096	13572.0030	12918.4685		26756.6811*	26756.4858*	0.1953*
49	45	46	e		18, 45	0, 46	266.2096	13572.0030	12918.4684		26756.6810*	26756.4858*	0.1952*
49	45	46	e		18, 45	0, 46	266.2096	13572.0030	12918.4680		26756.6806*	26756.4858*	0.1948*
49	46	45	f		18, 45	0, 46	266.2096	13572.0030	12921.0375		26759.2501	26759.2461	0.0040
49	46	46	e		18, 45	0, 46	266.2096	13572.0030	12920.8715		26759.0841	26759.1048	-0.0207
49	47	46	e		18, 45	0, 46	266.2096	13572.0030	12923.5236		26761.7362	26761.7493	-0.0131
50	14	14	e		15, 15	0, 16	87.6831	13263.7902	13369.4465		26720.9198	26720.9267	-0.0069
50	15	14	e		15, 15	0, 16	87.6831	13263.7902	13370.5943		26722.0676		
50	15	15	f		15, 15	0, 16	87.6831	13263.7902	13370.2848		26721.7581	26721.7671	-0.0090
50	16	15	f		15, 15	0, 16	87.6831	13263.7902	13371.4802		26722.9535		
50	16	15	f		15, 15	0, 16	87.6831	13263.7902	13371.4779		26722.9512		
50	16	16	e		15, 15	0, 16	87.6831	13263.7902	13371.1818		26722.6551	26722.6618	-0.0067
50	16	16	e		15, 15	0, 16	87.6831	13263.7902	13371.1811		26722.6544	26722.6618	-0.0074
50	17	16	e		15, 15	0, 16	87.6831	13263.7902	13372.4157		26723.8890		
50	17	16	e		15, 15	0, 16	87.6831	13263.7902	13372.4161		26723.8894		
50	44	44	e		18, 45	0, 46	266.2096	13572.0030	12929.7503		26767.9629	26767.9499	0.0130
50	44	44	e		18, 45	0, 46	266.2096	13572.0030	12929.7499		26767.9625	26767.9499	0.0126
50	44	44	e		18, 45	0, 46	266.2096	13572.0030	12929.7537		26767.9663	26767.9499	0.0164
50	44	45	f		18, 45	0, 46	266.2096	13572.0030	12929.9158		26768.1284		
50	44	45	f		18, 45	0, 46	266.2096	13572.0030	12929.9200		26768.1326		
50	45	44	e		18, 45	0, 46	266.2096	13572.0030	12932.1666		26770.3792		

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	$(v_A,\ J')$	$(v_b,\ J')$	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
50	45	44	e		18, 45	0, 46	266.2096	13572.0030	12932.1625		26770.3751		
50	45	45	f		18, 45	0, 46	266.2096	13572.0030	12931.9881		26770.2007	26770.2007	0.0000
50	45	45	f		18, 45	0, 46	266.2096	13572.0030	12931.9891		26770.2017	26770.2007	0.0010
50	45	45	f		18, 45	0, 46	266.2096	13572.0030	12931.9927		26770.2053	26770.2007	0.0046
50	46	45	f		18, 45	0, 46	266.2096	13572.0030	12934.4383		26772.6509		
50	46	45	f		18, 45	0, 46	266.2096	13572.0030	12934.4426		26772.6552		
50	46	45	f		18, 45	0, 46	266.2096	13572.0030	12934.4399		26772.6525		
50	46	46	e		18, 45	0, 46	266.2096	13572.0030	12934.2604		26772.4730	26772.4876	-0.0146
50	46	46	e		18, 45	0, 46	266.2096	13572.0030	12934.2637		26772.4763	26772.4876	-0.0113
50	46	46	e		18, 45	0, 46	266.2096	13572.0030	12934.2627		26772.4753	26772.4876	-0.0123
50	47	46	e		18, 45	0, 46	266.2096	13572.0030	12936.7440		26774.9566		
51	14	14	e		15, 15	0, 16	87.6831	13263.7902	13384.6702		26736.1435	26736.1483	-0.0048
51	15	14	e		15, 15	0, 16	87.6831	13263.7902	13385.7655		26737.2388		
51	15	15	f		15, 15	0, 16	87.6831	13263.7902	13385.4530		26736.9263	26736.9334	-0.0071
51	16	15	f		15, 15	0, 16	87.6831	13263.7902	13386.5923		26738.0656		
51	16	16	e		15, 15	0, 16	87.6831	13263.7902	13386.2886		26737.7619	26737.7691	-0.0072
51	17	16	e		15, 15	0, 16	87.6831	13263.7902	13387.4691		26738.9424		
51	43	44	e		18, 45	0, 46	266.2096	13572.0030	12938.9887		26777.2013		
51	44	44	e		18, 45	0, 46	266.2096	13572.0030	12941.6077		26779.8203	26779.8041	0.0162
51	44	45	f		18, 45	0, 46	266.2096	13572.0030	12941.0489		26779.2615		
51	45	44	e		18, 45	0, 46	266.2096	13572.0030	12944.5228		26782.7354		
51	45	45	f		18, 45	0, 46	266.2096	13572.0030	12943.6750		26781.8876	26781.8779	0.0097
51	45	46	e		18, 45	0, 46	266.2096	13572.0030	12943.1412		26781.3538		
51	46	45	f		18, 45	0, 46	266.2096	13572.0030	12945.9481		26784.1607		
51	46	46	e		18, 45	0, 46	266.2096	13572.0030	12945.7589		26783.9715	26783.9832	-0.0117
52	14	14	e		15, 15	0, 16	87.6831	13263.7902	13398.1222		26749.5955	26749.6050	-0.0095
52	15	14	e		15, 15	0, 16	87.6831	13263.7902	13399.1659		26750.6392		
52	15	15	f		15, 15	0, 16	87.6831	13263.7902	13398.8544		26750.3277	26750.3345	-0.0068
52	16	15	f		15, 15	0, 16	87.6831	13263.7902	13399.9348		26751.4081		
52	16	16	e		15, 15	0, 16	87.6831	13263.7902	13399.6353		26751.1086	26751.1107	-0.0021
52	17	16	e		15, 15	0, 16	87.6831	13263.7902	13400.7519		26752.2252		
52	43	44	e		18, 45	0, 46	266.2096	13572.0030	12949.2885		26787.5011		
52	44	44	e		18, 45	0, 46	266.2096	13572.0030	12951.6843		26789.8969	26789.8648	0.0321
52	45	44	e		18, 45	0, 46	266.2096	13572.0030	12953.7502		26791.9628		
52	45	45	f		18, 45	0, 46	266.2096	13572.0030	12953.5573		26791.7699	26791.7599	0.0100
52	45	45	f		18, 45	0, 46	266.2096	13572.0030	12953.5550		26791.7676	26791.7599	0.0077
52	45	45	f		18, 45	0, 46	266.2096	13572.0030	12953.5581		26791.7707	26791.7599	0.0108
52	45	46	e		18, 45	0, 46	266.2096	13572.0030	12953.0432		26791.2558		
52	46	45	f		18, 45	0, 46	266.2096	13572.0030	12955.6458		26793.8584		

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	(v_A, J')	(v_b, J')	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
52	46	45	f		18, 45	0, 46	266.2096	13572.0030	12955.6435		26793.8561		
52	46	46	e		18, 45	0, 46	266.2096	13572.0030	12955.4541		26793.6667	26793.6820	-0.0153
52	46	46	e		18, 45	0, 46	266.2096	13572.0030	12955.4527		26793.6653	26793.6820	-0.0167
53	14	14	e		15, 15	0, 16	87.6831	13263.7902	13409.9096		26761.3829	26761.3894	-0.0065
53	15	14	e		15, 15	0, 16	87.6831	13263.7902	13410.8881		26762.3614		
53	15	15	f		15, 15	0, 16	87.6831	13263.7902	13410.5834		26762.0567	26762.0629	-0.0062
53	16	15	f		15, 15	0, 16	87.6831	13263.7902	13411.6006		26763.0739		
53	16	16	e		15, 15	0, 16	87.6831	13263.7902	13411.2979		26762.7712	26762.7794	-0.0082
53	17	16	e		15, 15	0, 16	87.6831	13263.7902	13412.3530		26763.8263		
53	44	44	e		18, 45	0, 46	266.2096	13572.0030	12960.0497		26798.2623	26798.2349	0.0274
53	44	44	e		18, 45	0, 46	266.2096	13572.0030	12960.0533		26798.2659	26798.2349	0.0310
53	45	45	f		18, 45	0, 46	266.2096	13572.0030	12961.7389		26799.9515	26799.9503	0.0012
53	45	46	e		18, 45	0, 46	266.2096	13572.0030	12960.8278		26799.0404		
53	45	46	e		18, 45	0, 46	266.2096	13572.0030	12960.8256		26799.0382		
53	46	46	e		18, 45	0, 46	266.2096	13572.0030	12963.4410		26801.6536	26801.6881	-0.0345
54	14	14	e		15, 15	0, 16	87.6831	13263.7902	13420.1204		26771.5937	26771.6012	-0.0075
54	15	14	e		15, 15	0, 16	87.6831	13263.7902	13421.0292		26772.5025		
54	15	15	f		15, 15	0, 16	87.6831	13263.7902	13420.7448		26772.2181	26772.2187	-0.0006
54	16	15	f		15, 15	0, 16	87.6831	13263.7902	13421.6869		26773.1602		
54	16	16	e		15, 15	0, 16	87.6831	13263.7902	13421.4087		26772.8820	26772.8753	0.0067
54	17	16	e		15, 15	0, 16	87.6831	13263.7902	13422.3712		26773.8445		
54	44	44	e		18, 45	0, 46	266.2096	13572.0030	12966.8195		26805.0321	26805.0257	0.0064
54	44	44	e		18, 45	0, 46	266.2096	13572.0030	12966.8183		26805.0309	26805.0257	0.0052
54	45	45	f		18, 45	0, 46	266.2096	13572.0030	12968.3083		26806.5209	26806.5608	-0.0399
55	14	14	e		15, 15	0, 16	87.6831	13263.7902	13428.8726		26780.3459	26780.3446	0.0013
55	15	14	e		15, 15	0, 16	87.6831	13263.7902	13429.6933		26781.1666		
55	15	15	f		15, 15	0, 16	87.6831	13263.7902	13429.4419		26780.9152	26780.9063	0.0089
55	15	15	f		15, 15	0, 16	87.6831	13263.7902	13429.4395		26780.9128	26780.9063	0.0065
55	16	15	f		15, 15	0, 16	87.6831	13263.7902	13430.2913		26781.7646		
55	16	16	e		15, 15	0, 16	87.6831	13263.7902	13430.0430		26781.5163	26781.5032	0.0131
55	17	16	e		15, 15	0, 16	87.6831	13263.7902	13430.9218		26782.3951		
56	14	14	e		15, 15	0, 16	87.6831	13263.7902	13436.2553		26787.7286	26787.7265	0.0021
56	15	14	e		15, 15	0, 16	87.6831	13263.7902	13436.9837		26788.4570		
56	15	15	f		15, 15	0, 16	87.6831	13263.7902	13436.7691		26788.2424	26788.2326	0.0098
56	15	15	f		15, 15	0, 16	87.6831	13263.7902	13436.7690		26788.2423	26788.2326	0.0097
56	16	15	f		15, 15	0, 16	87.6831	13263.7902	13437.5227		26788.9960		
56	16	16	e		15, 15	0, 16	87.6831	13263.7902	13437.3134		26788.7867	26788.7702	0.0165

NaK $1^3\Delta$ level				intermediate state level $2(A)^1\Sigma^+ \sim 1(b)^3\Pi$		ground state level $1(X)^1\Sigma^+$	ground state level energy	pump laser frequency	probe laser frequency	collisional energy transfer	$E[1^3\Delta(v, N, J, e/f)]$	$E[1^3\Delta(v, N, J, e/f)]$	E[meas.] – E[calc.]
v	N	J	parity	(v_A, J')	(v_b, J')	(v_X, J_X)	(cm^{-1})	(cm^{-1})	(cm^{-1})	(if any) (cm^{-1})	(cm^{-1}) measured value	(cm^{-1}) calculated value	(cm^{-1})
56	17	16	e		15, 15	0, 16	87.6831	13263.7902	13438.0890		26789.5623		
57	14	14	e		15, 15	0, 16	87.6831	13263.7902	13442.3829		26793.8562	26793.8529	0.0033
57	15	14	e		15, 15	0, 16	87.6831	13263.7902	13443.0057		26794.4790		
57	15	15	f		15, 15	0, 16	87.6831	13263.7902	13442.8333		26794.3066	26794.3040	0.0026
57	16	15	f		15, 15	0, 16	87.6831	13263.7902	13443.4884		26794.9617		
57	16	16	e		15, 15	0, 16	87.6831	13263.7902	13443.3185		26794.7918	26794.7830	0.0088
57	17	16	e		15, 15	0, 16	87.6831	13263.7902	13443.9969		26795.4702		
58	14	14	e		15, 15	0, 16	87.6831	13263.7902	13447.3379		26798.8112	26798.8263	-0.0151
58	14	14	e		15, 15	0, 16	87.6831	13263.7902	13447.3372		26798.8105	26798.8263	-0.0158
58	14	14	e		15, 15	0, 16	87.6831	13263.7902	13447.3373		26798.8106	26798.8263	-0.0157
58	15	14	e		15, 15	0, 16	87.6831	13263.7902	13447.8755		26799.3488		
58	15	14	e		15, 15	0, 16	87.6831	13263.7902	13447.8784		26799.3517		
58	15	14	e		15, 15	0, 16	87.6831	13263.7902	13447.8788		26799.3521		
58	15	14	e		15, 15	0, 16	87.6831	13263.7902	13447.8773		26799.3506		
58	15	15	f		15, 15	0, 16	87.6831	13263.7902	13447.7443		26799.2176	26799.2232	-0.0056
58	15	15	f		15, 15	0, 16	87.6831	13263.7902	13447.7444		26799.2177	26799.2232	-0.0055
58	15	15	f		15, 15	0, 16	87.6831	13263.7902	13447.7421		26799.2154	26799.2232	-0.0078
58	15	15	f		15, 15	0, 16	87.6831	13263.7902	13447.7402		26799.2135	26799.2232	-0.0097
58	16	15	f		15, 15	0, 16	87.6831	13263.7902	13448.3032		26799.7765		
58	16	15	f		15, 15	0, 16	87.6831	13263.7902	13448.3046		26799.7779		
58	16	16	e		15, 15	0, 16	87.6831	13263.7902	13448.1704		26799.6437	26799.6443	-0.0006
58	16	16	e		15, 15	0, 16	87.6831	13263.7902	13448.1692		26799.6425	26799.6443	-0.0018
58	17	16	e		15, 15	0, 16	87.6831	13263.7902	13448.7503		26800.2236		
59	15	14	e		15, 15	0, 16	87.6831	13263.7902	13451.6934		26803.1667		
59	16	15	f		15, 15	0, 16	87.6831	13263.7902	13452.0667		26803.5400		
59	16	15	f		15, 15	0, 16	87.6831	13263.7902	13452.0668		26803.5401		
59	16	15	f		15, 15	0, 16	87.6831	13263.7902	13452.0665		26803.5398		
59	16	15	f		15, 15	0, 16	87.6831	13263.7902	13452.0664		26803.5397		
59	16	16	e		15, 15	0, 16	87.6831	13263.7902	13451.9820		26803.4553	26803.4503	0.0050
59	16	16	e		15, 15	0, 16	87.6831	13263.7902	13451.9844		26803.4577	26803.4503	0.0074
59	16	16	e		15, 15	0, 16	87.6831	13263.7902	13451.9840		26803.4573	26803.4503	0.0070
59	16	16	e		15, 15	0, 16	87.6831	13263.7902	13451.9793		26803.4526	26803.4503	0.0023
59	17	16	e		15, 15	0, 16	87.6831	13263.7902	13452.4571		26803.9304		

EPAPS Table II – b_F and A_v values (cm^{-1}) for the NaK $1^3\Delta$ state obtained in this work.

v	b_F	A_v
3	0.01106 ± 0.00042	-0.2484 ± 0.0036
4	0.01098 ± 0.00038	-0.2311 ± 0.0036
5	0.01089 ± 0.00038	-0.2295 ± 0.0036
6	0.01119 ± 0.00038	-0.2355 ± 0.0036
7	0.01111 ± 0.00038	-0.2346 ± 0.0036
8	0.01154 ± 0.00026	-0.2484 ± 0.0012
9	0.01153 ± 0.00026	-0.2491 ± 0.0012
10	0.01128 ± 0.00022	-0.2492 ± 0.0011
11	0.01127 ± 0.00022	-0.2500 ± 0.0011
12	0.01082 ± 0.00022	-0.2516 ± 0.0011
13		
14	0.01191 ± 0.00021	-0.2511 ± 0.0011
15	0.01124 ± 0.00028	-0.2532 ± 0.0012
16	0.01151 ± 0.00027	-0.2473 ± 0.0019
17	0.01172 ± 0.00022	-0.2571 ± 0.0010
18	0.01134 ± 0.00028	-0.2570 ± 0.0011
19	0.01165 ± 0.00038	-0.2482 ± 0.0038
20	0.01215 ± 0.00026	-0.2585 ± 0.0012
21	0.01143 ± 0.00042	-0.2523 ± 0.0014
22	0.01211 ± 0.00026	-0.2610 ± 0.0012
23	0.01226 ± 0.00026	-0.2631 ± 0.0011
24	0.01214 ± 0.00028	-0.2642 ± 0.0017
25	0.01198 ± 0.00023	-0.2667 ± 0.0011
26	0.01183 ± 0.00042	-0.2689 ± 0.0013
27	0.01181 ± 0.00029	-0.2690 ± 0.0010
28	0.01287 ± 0.00026	-0.2737 ± 0.0012
29	0.01220 ± 0.00041	-0.2765 ± 0.0020
30	0.01199 ± 0.00041	-0.2768 ± 0.0020
31	0.01233 ± 0.00029	-0.2805 ± 0.0010
32	0.01179 ± 0.00029	-0.2835 ± 0.0010
33	0.01238 ± 0.00041	-0.2824 ± 0.0019
34	0.01264 ± 0.00039	-0.2815 ± 0.0030
35	0.01384 ± 0.00031	-0.2961 ± 0.0013
36	0.01120 ± 0.00031	-0.2925 ± 0.0013
37	0.01307 ± 0.00028	-0.2963 ± 0.0014
38	0.01338 ± 0.00030	-0.3013 ± 0.0014
39		
40	0.01319 ± 0.00069	-0.3231 ± 0.0023
41	0.01291 ± 0.00031	-0.3194 ± 0.0010
42	0.01338 ± 0.00039	-0.3376 ± 0.0023
43	0.01339 ± 0.00040	-0.3319 ± 0.0022
44	0.01388 ± 0.00039	-0.3425 ± 0.0021
45	0.01352 ± 0.00041	-0.3451 ± 0.0021
46	0.01366 ± 0.00040	-0.3527 ± 0.0021
47	0.01352 ± 0.00040	-0.3601 ± 0.0020
48	0.01314 ± 0.00039	-0.3634 ± 0.0021
49	0.01350	-0.3820

EPAPS Table III – Molecular constants (Dunham coefficients) for the NaK $1^3\Delta$ state obtained in this work compared to values obtained from the experimental IPA potential (this work) and the theoretical results of Refs. 45 and 46 and. Note: all values are given in cm^{-1} except for the equilibrium internuclear separation, R_e, which is given in Å. The dissociation energy D_e was obtained from the expression $D_e = [D_e(X\,^1\Sigma^+) + \Delta E_{atomic} - Y_{0,0}]$ with $D_e(X\,^1\Sigma^+) = (5273.78 \pm 0.24)$ cm^{-1} from Ref. 44 and $\Delta E_{atomic} = E[Na(3S_{1/2}) + K(3D_{3/2})] - [Na(3S_{1/2}) + K(4S_{1/2})] = 21536.75$ cm^{-1} from C. E. Moore, "Atomic energy levels," National Bureau of Standards Circular 467, U.S. Government Printing Office, Washington, DC, 1949, Vol. 1. Quoted uncertainties represent 95% confidence limits. More digits are reported for the Dunham coefficients than are statistically significant to insure that the coefficients reproduce experimental energies within measurement uncertainties.

	Dunham Coefficients (this work)	IPA (this work)	Theory
R_e	3.865 ± 0.005	3.908	3.89[a,b]
D_e	3203.77 ± 0.59[c]	3203.09	3075[a,b]
$Y_{0,0}$	23606.7586 ± 0.35	23607.44	23647[a] 23653[b]
$Y_{1,0}$	95.3660 ± 0.16	94.98	93.60[a] 93.23[b]
$Y_{2,0}$	-0.61446 ± 0.039		
$Y_{3,0}$	1.90E-02 ± 5.7E-03		
$Y_{4,0}$	-1.945E-03 ± 5.2E-04		
$Y_{5,0}$	1.1903074E-04 ± 3.1E-05		
$Y_{6,0}$	-5.09E-06 ± 1.3E-06		
$Y_{7,0}$	1.47377E-07 ± 3.4E-08		
$Y_{8,0}$	-2.82513528E-09 ± 6.1E-10		
$Y_{9,0}$	3.406E-11 ± 7.0E-12		
$Y_{10,0}$	-2.313548E-13 ± 4.6E-14		
$Y_{11,0}$	6.70E-16 ± 1.3E-16		
$Y_{0,1}$	7.80494E-02 ± 2.0E-04	7.629E-02	
$Y_{1,1}$	-7.068E-04 ± 6.2E-05		
$Y_{2,1}$	3.00E-05 ± 7.6E-06		
$Y_{3,1}$	-2.48924E-06 ± 4.9E-07		
$Y_{4,1}$	9.71E-08 ± 1.8E-08		
$Y_{5,1}$	-2.186063E-09 ± 3.7E-10		
$Y_{6,1}$	2.4086E-11 ± 4.1E-12		
$Y_{7,1}$	-9.90E-14 ± 1.9E-14		
$Y_{0,2}$	-3.52E-07 ± 1.3E-08		
$Y_{1,2}$	1.55E-08 ± 1.0E-09		
$Y_{2,2}$	-4.921E-10 ± 1.6E-11		
$Y_{0,3}$	-3.00E-12 ± 4.0E-13		

a) Reference 45
b) Reference 46
c) The dissociation energy reported here corresponds to the $Na(3S_{1/2})+K(3D_{3/2})$ separated atom limit since the long-range part of the $1^3\Delta$ state potential dissociates adiabatically to this limit. This limit is 2.33 cm^{-1} higher than the $Na(3S_{1/2})+K(3D_{5/2})$ asymptote used to determine the dissociation energy in Ref. 1. See text for full explanation.

EPAPS Table IV – RKR potential for the NaK $1^3\Delta$ State

$R(a_0)$	Energy (cm^{-1})	$R(a_0)$	Energy (cm^{-1})	$R(a_0)$	Energy (cm^{-1})
5.4740	26800.4437	6.0300	24955.6705	9.8036	25110.0595
5.4749	26796.1651	6.0627	24876.6432	9.9096	25185.3651
5.4761	26790.8219	6.0971	24796.4291	10.0165	25259.3719
5.4776	26784.3202	6.1336	24715.0529	10.1245	25332.0486
5.4793	26776.5589	6.1723	24632.5380	10.2340	25403.3626
5.4813	26767.4336	6.2135	24548.9064	10.3452	25473.2802
5.4837	26756.8390	6.2576	24464.1788	10.4583	25541.7663
5.4864	26744.6722	6.3049	24378.3745	10.5736	25608.7850
5.4896	26730.8348	6.3562	24291.5110	10.6915	25674.2993
5.4942	26715.2353	6.4120	24203.6034	10.8122	25738.2710
5.4973	26697.7909	6.4737	24114.6635	10.9360	25800.6611
5.5013	26678.4283	6.5428	24024.6987	11.0634	25861.4300
5.5060	26657.0849	6.6222	23933.7089	11.1947	25920.5368
5.5114	26633.7093	6.7168	23841.6842	11.3303	25977.9403
5.5174	26608.2610	6.8379	23748.5998	11.4708	26033.5989
5.5241	26580.7108	6.8998	23711.0600	11.6167	26087.4703
5.5315	26551.0399	6.9356	23692.2226	11.7685	26139.5125
5.5395	26519.2395	6.9764	23673.3394	11.9269	26189.6838
5.5481	26485.3097	7.0244	23654.4099	12.0927	26237.9433
5.5573	26449.2591	7.0847	23635.4332	12.2665	26284.2513
5.5672	26411.1035	7.1749	23616.4087	12.4494	26328.5702
5.5777	26370.8647	7.3038	23606.8740	12.6423	26370.8647
5.5888	26328.5702	7.4394	23616.4087	12.8463	26411.1035
5.6006	26284.2513	7.5432	23635.4332	13.0628	26449.2591
5.6131	26237.9433	7.6169	23654.4099	13.2930	26485.3097
5.6263	26189.6838	7.6783	23673.3394	13.5387	26519.2395
5.6401	26139.5125	7.7323	23692.2226	13.8018	26551.0399
5.6546	26087.4703	7.7814	23711.0600	14.0842	26580.7108
5.6698	26033.5989	7.8695	23748.5998	14.3884	26608.2610
5.6857	25977.9403	8.0551	23841.6842	14.7171	26633.7093
5.7024	25920.5368	8.2132	23933.7089	15.0735	26657.0849
5.7198	25861.4300	8.3554	24024.6987	15.4613	26678.4283
5.7380	25800.6611	8.4870	24114.6635	15.8847	26697.7909
5.7569	25738.2710	8.6112	24203.6034	16.3489	26715.2353
5.7767	25674.2993	8.7299	24291.5110	16.8574	26730.8348
5.7973	25608.7850	8.8445	24378.3745	17.4203	26744.6722
5.8188	25541.7663	8.9560	24464.1788	18.0453	26756.8390
5.8412	25473.2802	9.0651	24548.9064	18.7430	26767.4336
5.8647	25403.3626	9.1725	24632.5380	19.5273	26776.5589
5.8891	25332.0486	9.2786	24715.0529	20.4169	26784.3202
5.9147	25259.3719	9.3839	24796.4291	21.4376	26790.8219
5.9415	25185.3651	9.4888	24876.6432	22.6282	26796.1651
5.9696	25110.0595	9.5935	24955.6705	24.0516	26800.4437
5.9990	25033.4850	9.6983	25033.4850		

Includes $Y_{0,0}$ correction = 0.004226 cm^{-1}.

EPAPS Table V – IPA potential for the NaK $1^3\Delta$ State

$R(a_0)$	Energy (cm^{-1})	$R(a_0)$	Energy (cm^{-1})	$R(a_0)$	Energy (cm^{-1})
5.4740	26804.8493	6.0385	24959.4028	9.8108	25108.7478
5.4749	26800.5697	6.0717	24880.3282	9.9163	25184.1244
5.4761	26795.2252	6.1070	24800.0627	10.0227	25258.1956
5.4776	26788.7220	6.1443	24718.6305	10.1303	25330.9296
5.4793	26780.9589	6.1841	24636.0541	10.2394	25402.2930
5.4813	26771.8315	6.2268	24552.3546	10.3502	25472.2517
5.4837	26761.2344	6.2726	24467.5514	10.4629	25540.7708
5.4864	26749.0647	6.3222	24381.6622	10.5778	25607.8151
5.4896	26735.2240	6.3762	24294.7022	10.6952	25673.3486
5.4953	26719.6184	6.4357	24206.6835	10.8155	25737.3346
5.4982	26702.1709	6.5019	24117.6135	10.9389	25799.7365
5.5020	26682.8043	6.5768	24027.4928	11.0660	25860.5170
5.5067	26661.4559	6.6636	23936.3103	11.1969	25919.6372
5.5121	26638.0746	6.7675	23844.0363	11.3323	25977.0581
5.5182	26612.6198	6.9003	23750.6056	11.4725	26032.7408
5.5249	26585.0625	6.9675	23712.8797	11.6182	26086.6436
5.5323	26555.3837	7.0062	23693.9324	11.7698	26138.7248
5.5403	26523.5747	7.0499	23674.9231	11.9281	26188.9430
5.5489	26489.6357	7.1009	23655.8440	12.0937	26237.2565
5.5582	26453.5751	7.1643	23636.6781	12.2674	26283.6223
5.5681	26415.4089	7.2580	23617.3697	12.4502	26327.9984
5.5786	26375.1586	7.3857	23607.4453	12.6430	26370.3464
5.5898	26332.8520	7.5169	23616.5833	12.8470	26410.6302
5.6017	26288.5201	7.6181	23635.3098	13.0633	26448.8160
5.6143	26242.1983	7.6891	23654.0841	13.2935	26484.8834
5.6276	26193.9242	7.7477	23672.8516	13.5392	26518.8203
5.6416	26143.7374	7.7993	23691.5972	13.8022	26550.6243
5.6563	26091.6788	7.8460	23710.3141	14.0846	26580.3060
5.6717	26037.7901	7.9296	23747.6497	14.3889	26607.8836
5.6879	25982.1132	8.1055	23840.3606	14.7177	26633.3822
5.7048	25924.6904	8.2554	23932.1359	15.0742	26656.8149
5.7225	25865.5632	8.3907	24022.9588	15.4621	26678.1968
5.7410	25804.7729	8.5166	24112.8173	15.8855	26697.5513
5.7603	25742.3602	8.6361	24201.6971	16.3494	26714.9258
5.7805	25678.3646	8.7509	24289.5812	16.8574	26730.4632
5.8015	25612.8251	8.8624	24376.4503	17.4203	26744.2793
5.8234	25545.7798	8.9714	24462.2837	18.0453	26756.4715
5.8463	25477.2656	9.0786	24547.0590	18.7430	26767.0433
5.8701	25407.3183	9.1845	24630.7526	19.5273	26776.1083
5.8951	25335.9728	9.2894	24713.3398	20.4169	26783.9632
5.9211	25263.2626	9.3937	24794.7950	21.4376	26790.6172
5.9484	25189.2201	9.4978	24875.0914	22.6282	26795.8325
5.9769	25113.8765	9.6018	24954.2013	24.0516	26800.1247
6.0069	25037.2612	9.7061	25032.0965		