

EPAPS Table 2

v	N	J	parity	intermediate $A^1\Sigma^+$ (v, J)	state level ~ $b^3\Pi$ (v, J)	ground state level $X^1\Sigma^+$ (v, J)	ground state level energy ( $\text{cm}^{-1}$ )	PUMP frequency ( $\text{cm}^{-1}$ )	PROBE frequency ( $\text{cm}^{-1}$ )	collisional energy transfer ( $\text{cm}^{-1}$ ) (if any)	$E[1^3\Delta(v,N,J,e/f)]$ ( $\text{cm}^{-1}$ ) measured value	$E[1^3\Delta(v,N,J,e/f)]$ ( $\text{cm}^{-1}$ ) calculated value	$E[\text{meas.}] -$ $E[\text{calc.}]$ ( $\text{cm}^{-1}$ )
3	37	37	e	11, 38		0, 37	195.0080	12939.1903	10909.8875	-4.7372	24039.3486	24039.3459	0.0027
3	37	38	f	11, 38		0, 37	195.0080	12939.1903	10909.8402	-4.7372	24039.3013	24039.2988	0.0025
3	38	37	e	11, 38		0, 37	195.0080	12939.1903	10915.6268	-4.7372	24045.0879	24045.0871	0.0008
3	38	38	f	11, 38		0, 37	195.0080	12939.1903	10915.5833	-4.7372	24045.0444	24045.0439	0.0005
3	38	39	e	11, 38		0, 37	195.0080	12939.1903	10915.5381	-4.7372	24044.9992	24044.9981	0.0011
3	39	38	f	11, 38		0, 37	195.0080	12939.1903	10921.4722	-4.7372	24050.9333	24050.9313	0.0020
3	39	39	e	11, 38		0, 37	195.0080	12939.1903	10921.4266	-4.7372	24050.8877	24050.8891	-0.0014
4	36	37	e	11, 38		0, 37	195.0080	12939.1903	10989.7992		24123.9975	24123.9986	-0.0011
4	37	37	e	11, 38		0, 37	195.0080	12939.1903	10995.3609		24129.5592	24129.5605	-0.0013
4	37	37	e	11, 38		0, 37	195.0080	12939.1903	10995.3613		24129.5596	24129.5605	-0.0009
4	37	37	e	11, 38		0, 37	195.0080	12939.1903	11000.1000	-4.7372	24129.5611	24129.5605	0.0006
4	37	38	f	11, 38		0, 37	195.0080	12939.1903	10995.3122		24129.5105	24129.5130	-0.0025
4	37	38	f	11, 38		0, 37	195.0080	12939.1903	10995.3129		24129.5112	24129.5130	-0.0018
4	37	38	f	11, 38		0, 37	195.0080	12939.1903	11000.0521	-4.7372	24129.5132	24129.5130	0.0002
4	38	37	e	11, 38		0, 37	195.0080	12939.1903	11001.0590		24135.2573	24135.2637	-0.0064
4	38	37	e	11, 38		0, 37	195.0080	12939.1903	11001.0617		24135.2600	24135.2637	-0.0037
4	38	38	f	11, 38		0, 37	195.0080	12939.1903	11005.7514	-4.7372	24135.2125	24135.2201	-0.0076
4	38	38	f	11, 38		0, 37	195.0080	12939.1903	11001.0195		24135.2178	24135.2201	-0.0023
4	38	38	f	11, 38		0, 37	195.0080	12939.1903	11001.0196		24135.2179	24135.2201	-0.0022
4	38	39	e	11, 38		0, 37	195.0080	12939.1903	11005.7043	-4.7372	24135.1654	24135.1737	-0.0083
4	38	39	e	11, 38		0, 37	195.0080	12939.1903	11000.9725		24135.1708	24135.1737	-0.0029
4	38	39	e	11, 38		0, 37	195.0080	12939.1903	11000.9729		24135.1712	24135.1737	-0.0025
4	39	38	f	11, 38		0, 37	195.0080	12939.1903	11006.8573		24141.0556	24141.0684	-0.0128
4	39	38	f	11, 38		0, 37	195.0080	12939.1903	11006.8662		24141.0645	24141.0684	-0.0039
4	39	38	f	11, 38		0, 37	195.0080	12939.1903	11006.8675		24141.0658	24141.0684	-0.0026
4	39	39	e	11, 38		0, 37	195.0080	12939.1903	11006.8147		24141.0130	24141.0258	-0.0128
4	39	39	e	11, 38		0, 37	195.0080	12939.1903	11006.8229		24141.0212	24141.0258	-0.0046
4	39	39	e	11, 38		0, 37	195.0080	12939.1903	11006.8249		24141.0232	24141.0258	-0.0026
4	40	39	e	11, 38		0, 37	195.0080	12939.1903	11012.8198		24147.0181	24147.0192	-0.0011
4	40	39	e	11, 38		0, 37	195.0080	12939.1903	11012.8202		24147.0185	24147.0192	-0.0007
5	36	37	e	11, 38		0, 37	195.0080	12939.1903	11079.0488		24213.2471	24213.2491	-0.0020
5	37	37	e	11, 38		0, 37	195.0080	12939.1903	11089.3069	-4.7372	24218.7680	24218.7737	-0.0057
5	37	37	e	11, 38		0, 37	195.0080	12939.1903	11084.5763		24218.7746	24218.7737	0.0009
5	37	38	f	11, 38		0, 37	195.0080	12939.1903	11089.2575	-4.7372	24218.7186	24218.7256	-0.0070
5	37	38	f	11, 38		0, 37	195.0080	12939.1903	11084.5263		24218.7246	24218.7256	-0.0010
5	38	37	e	11, 38		0, 37	195.0080	12939.1903	11090.2283		24224.4266	24224.4385	-0.0119
5	38	37	e	11, 38		0, 37	195.0080	12939.1903	11090.2285		24224.4268	24224.4385	-0.0117
5	38	37	e	11, 38		0, 37	195.0080	12939.1903	11090.2292		24224.4275	24224.4385	-0.0110
5	38	37	e	11, 38		0, 37	195.0080	12939.1903	11090.2404		24224.4387	24224.4385	0.0002
5	38	38	f	11, 38		0, 37	195.0080	12939.1903	11090.1841		24224.3824	24224.3944	-0.0120

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
5	38	38	f	11, 38		0, 37	195.0080	12939.1903	11090.1844		24224.3827	24224.3944	-0.0117
5	38	38	f	11, 38		0, 37	195.0080	12939.1903	11090.1852		24224.3835	24224.3944	-0.0109
5	38	38	f	11, 38		0, 37	195.0080	12939.1903	11090.1961		24224.3944	24224.3944	0.0000
5	38	39	e	11, 38		0, 37	195.0080	12939.1903	11090.1374		24224.3357	24224.3476	-0.0119
5	38	39	e	11, 38		0, 37	195.0080	12939.1903	11090.1377		24224.3360	24224.3476	-0.0116
5	38	39	e	11, 38		0, 37	195.0080	12939.1903	11090.1387		24224.3370	24224.3476	-0.0106
5	38	39	e	11, 38		0, 37	195.0080	12939.1903	11090.1480		24224.3463	24224.3476	-0.0013
5	39	38	f	11, 38		0, 37	195.0080	12939.1903	11095.9933		24230.1916	24230.2033	-0.0117
5	39	38	f	11, 38		0, 37	195.0080	12939.1903	11096.0072		24230.2055	24230.2033	0.0022
5	39	39	e	11, 38		0, 37	195.0080	12939.1903	11095.9510		24230.1493	24230.1603	-0.0110
5	39	39	e	11, 38		0, 37	195.0080	12939.1903	11095.9627		24230.1610	24230.1603	0.0007
6	36	37	e	11, 38		0, 37	195.0080	12939.1903	11167.2839		24301.4822	24301.4832	-0.0010
6	37	37	e	11, 38		0, 37	195.0080	12939.1903	11172.7743		24306.9726	24306.9701	0.0025
6	37	38	f	11, 38		0, 37	195.0080	12939.1903	11172.7242		24306.9225	24306.9215	0.0010
6	38	37	e	11, 38		0, 37	195.0080	12939.1903	11178.4023		24312.6006	24312.5960	0.0046
6	38	38	f	11, 38		0, 37	195.0080	12939.1903	11178.3575		24312.5558	24312.5514	0.0044
6	38	39	e	11, 38		0, 37	195.0080	12939.1903	11178.3088		24312.5071	24312.5041	0.0030
6	39	38	f	11, 38		0, 37	195.0080	12939.1903	11184.1264		24318.3247	24318.3204	0.0043
6	39	39	e	11, 38		0, 37	195.0080	12939.1903	11184.0829		24318.2812	24318.2769	0.0043
6	40	39	e	11, 38		0, 37	195.0080	12939.1903	11189.9972		24324.1955	24324.1889	0.0066
7	36	37	e	11, 38		0, 37	195.0080	12939.1903	11254.4895		24388.6878	24388.6847	0.0031
7	37	37	e	11, 38		0, 37	195.0080	12939.1903	11259.9399		24394.1382	24394.1332	0.0050
7	37	38	f	11, 38		0, 37	195.0080	12939.1903	11259.8902		24394.0885	24394.0841	0.0044
7	38	37	e	11, 38		0, 37	195.0080	12939.1903	11265.5124		24399.7107	24399.7197	-0.0090
7	38	37	e	11, 38		0, 39	209.5345	12924.6638	11265.5256		24399.7239	24399.7197	0.0042
7	38	37	e	11, 38		0, 37	195.0080	12939.1903	11265.5257		24399.7240	24399.7197	0.0043
7	38	37	e	11, 38		0, 37	195.0080	12939.1903	11265.5266		24399.7249	24399.7197	0.0052
7	38	38	f	11, 38		0, 37	195.0080	12939.1903	11265.4695		24399.6678	24399.6746	-0.0068
7	38	38	f	11, 38		0, 39	209.5345	12924.6638	11265.4806		24399.6789	24399.6746	0.0043
7	38	38	f	11, 38		0, 37	195.0080	12939.1903	11265.4809		24399.6792	24399.6746	0.0046
7	38	38	f	11, 38		0, 37	195.0080	12939.1903	11265.4818		24399.6801	24399.6746	0.0055
7	38	39	e	11, 38		0, 37	195.0080	12939.1903	11265.4223		24399.6206	24399.6268	-0.0062
7	38	39	e	11, 38		0, 39	209.5345	12924.6638	11265.4320		24399.6303	24399.6268	0.0035
7	38	39	e	11, 38		0, 37	195.0080	12939.1903	11265.4327		24399.6310	24399.6268	0.0042
7	38	39	e	11, 38		0, 37	195.0080	12939.1903	11265.4328		24399.6311	24399.6268	0.0043
7	39	38	f	11, 38		0, 37	195.0080	12939.1903	11271.2112		24405.4095	24405.4031	0.0064
7	39	38	f	11, 38		0, 37	195.0080	12939.1903	11275.9513	-4.7372	24405.4124	24405.4031	0.0093
7	39	39	e	11, 38		0, 37	195.0080	12939.1903	11271.1673		24405.3656	24405.3591	0.0065
7	39	39	e	11, 38		0, 37	195.0080	12939.1903	11275.9058	-4.7372	24405.3669	24405.3591	0.0078

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
8	13	14	e		15, 15	0, 14	81.8245	13269.6738	11039.6561		24391.1544	24391.1621	-0.0077
8	14	14	e		15, 15	0, 14	81.8245	13269.6738	11041.8359		24393.3342	24393.3428	-0.0086
8	14	15	f		15, 15	0, 14	81.8245	13269.6738	11041.7037		24393.2020	24393.2127	-0.0107
8	15	14	e		15, 15	0, 14	81.8245	13269.6738	11044.1312		24395.6295	24395.6353	-0.0058
8	15	15	f		15, 15	0, 14	81.8245	13269.6738	11044.0237		24395.5220	24395.5295	-0.0075
8	15	16	e		15, 15	0, 14	81.8245	13269.6738	11043.9006		24395.3989	24395.4078	-0.0089
8	16	15	f		15, 15	0, 14	81.8245	13269.6738	11046.4563		24397.9546	24397.9619	-0.0073
8	16	16	e		15, 15	0, 14	81.8245	13269.6738	11046.3552		24397.8535	24397.8618	-0.0083
8	17	16	e		15, 15	0, 14	81.8245	13269.6738	11048.9300		24400.4283	24400.4346	-0.0063
8	17	16	e		15, 15	0, 14	81.8245	13269.6738	11048.9303		24400.4286	24400.4346	-0.0060
8	36	37	e	11, 38		0, 37	195.0080	12939.1903	11340.6375		24474.8358	24474.8355	0.0003
8	37	37	e	11, 38		0, 37	195.0080	12939.1903	11346.0469		24480.2452	24480.2451	0.0001
8	37	37	e	11, 38		0, 37	195.0080	12939.1903	11350.7841	-4.7372	24480.2452	24480.2451	0.0001
8	37	38	f	11, 38		0, 37	195.0080	12939.1903	11345.9973		24480.1956	24480.1955	0.0001
8	37	38	f	11, 38		0, 37	195.0080	12939.1903	11350.7363	-4.7372	24480.1974	24480.1955	0.0019
8	38	37	e	11, 38		0, 37	195.0080	12939.1903	11351.5922		24485.7905	24485.7914	-0.0009
8	38	37	e	11, 38		0, 37	195.0080	12939.1903	11356.3329	-4.7372	24485.7940	24485.7914	0.0026
8	38	38	f	11, 38		0, 37	195.0080	12939.1903	11356.2844	-4.7372	24485.7455	24485.7459	-0.0004
8	38	38	f	11, 38		0, 37	195.0080	12939.1903	11351.5477		24485.7460	24485.7459	0.0001
8	38	39	e	11, 38		0, 37	195.0080	12939.1903	11351.4992		24485.6975	24485.6975	0.0000
8	38	39	e	11, 38		0, 37	195.0080	12939.1903	11356.2367	-4.7372	24485.6978	24485.6975	0.0003
8	39	38	f	11, 38		0, 37	195.0080	12939.1903	11357.2349		24491.4332	24491.4331	0.0001
8	39	39	e	11, 38		0, 37	195.0080	12939.1903	11357.1915		24491.3898	24491.3887	0.0011
8	40	39	e	11, 38		0, 37	195.0080	12939.1903	11363.0232		24497.2215	24497.2168	0.0047
9	13	14	e		15, 15	0, 14	81.8245	13269.6738	11125.3575		24476.8558	24476.8662	-0.0104
9	14	14	e		15, 15	0, 14	81.8245	13269.6738	11127.5251		24479.0234	24479.0331	-0.0097
9	14	15	f		15, 15	0, 14	81.8245	13269.6738	11127.3935		24478.8918	24478.9017	-0.0099
9	15	14	e		15, 15	0, 14	81.8245	13269.6738	11129.8043		24481.3026	24481.3105	-0.0079
9	15	15	f		15, 15	0, 14	81.8245	13269.6738	11129.6961		24481.1944	24481.2036	-0.0092
9	15	16	e		15, 15	0, 14	81.8245	13269.6738	11129.5725		24481.0708	24481.0807	-0.0099
9	16	15	f		15, 15	0, 14	81.8245	13269.6738	11132.1107		24483.6090	24483.6198	-0.0108
9	16	16	e		15, 15	0, 14	81.8245	13269.6738	11132.0108		24483.5091	24483.5187	-0.0096
9	17	16	e		15, 15	0, 14	81.8245	13269.6738	11134.5697		24486.0680	24486.0740	-0.0060
9	36	37	e	11, 38		0, 37	195.0080	12939.1903	11425.7184		24559.9167	24559.9168	-0.0001
9	37	37	e	11, 38		0, 37	195.0080	12939.1903	11431.0864		24565.2847	24565.2867	-0.0020
9	37	37	e	11, 38		0, 37	195.0080	12939.1903	11435.8253	-4.7372	24565.2864	24565.2867	-0.0003
9	37	37	e	11, 38		0, 37	195.0080	12939.1903	11431.0895		24565.2878	24565.2867	0.0011
9	37	38	f	11, 38		0, 37	195.0080	12939.1903	11431.0364		24565.2347	24565.2365	-0.0018
9	37	38	f	11, 38		0, 37	195.0080	12939.1903	11435.7765	-4.7372	24565.2376	24565.2365	0.0011
9	37	38	f	11, 38		0, 37	195.0080	12939.1903	11431.0394		24565.2377	24565.2365	0.0012
9	38	37	e	11, 38		0, 37	195.0080	12939.1903	11436.5872		24570.7855	24570.7921	-0.0066

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
9	38	37	e	11, 38		0, 39	209.5345	12924.6638	11436.5882		24570.7865	24570.7921	-0.0056
9	38	37	e	11, 38		0, 37	195.0080	12939.1903	11436.5893		24570.7876	24570.7921	-0.0045
9	38	37	e	11, 38		0, 37	195.0080	12939.1903	11436.5921		24570.7904	24570.7921	-0.0017
9	38	37	e	11, 38		0, 37	195.0080	12939.1903	11436.5925		24570.7908	24570.7921	-0.0013
9	38	38	f	11, 38		0, 37	195.0080	12939.1903	11436.5442		24570.7425	24570.7461	-0.0036
9	38	38	f	11, 38		0, 39	209.5345	12924.6638	11436.5447		24570.7430	24570.7461	-0.0031
9	38	38	f	11, 38		0, 37	195.0080	12939.1903	11436.5460		24570.7443	24570.7461	-0.0018
9	38	38	f	11, 38		0, 37	195.0080	12939.1903	11436.5482		24570.7465	24570.7461	0.0004
9	38	38	f	11, 38		0, 37	195.0080	12939.1903	11436.5483		24570.7466	24570.7461	0.0005
9	38	39	e	11, 38		0, 37	195.0080	12939.1903	11436.4957		24570.6940	24570.6973	-0.0033
9	38	39	e	11, 38		0, 39	209.5345	12924.6638	11436.4957		24570.6940	24570.6973	-0.0033
9	38	39	e	11, 38		0, 37	195.0080	12939.1903	11436.4965		24570.6948	24570.6973	-0.0025
9	38	39	e	11, 38		0, 37	195.0080	12939.1903	11436.4986		24570.6969	24570.6973	-0.0004
9	38	39	e	11, 38		0, 37	195.0080	12939.1903	11436.4987		24570.6970	24570.6973	-0.0003
9	39	38	f	11, 38		0, 37	195.0080	12939.1903	11442.1959		24576.3942	24576.3914	0.0028
9	39	38	f	11, 38		0, 37	195.0080	12939.1903	11442.1974		24576.3957	24576.3914	0.0043
9	39	39	e	11, 38		0, 37	195.0080	12939.1903	11442.1502		24576.3485	24576.3465	0.0020
9	39	39	e	11, 38		0, 37	195.0080	12939.1903	11442.1523		24576.3506	24576.3465	0.0041
10	13	14	e		15, 15	0, 14	81.8245	13269.6738	11209.9849		24561.4832	24561.4928	-0.0096
10	14	14	e		15, 15	0, 14	81.8245	13269.6738	11212.1361		24563.6344	24563.6458	-0.0114
10	14	15	f		15, 15	0, 14	81.8245	13269.6738	11212.0040		24563.5023	24563.5130	-0.0107
10	15	14	e		15, 15	0, 14	81.8245	13269.6738	11214.3995		24565.8978	24565.9078	-0.0100
10	15	15	f		15, 15	0, 14	81.8245	13269.6738	11214.2897		24565.7880	24565.7998	-0.0118
10	15	16	e		15, 15	0, 14	81.8245	13269.6738	11214.1656		24565.6639	24565.6755	-0.0116
10	16	15	f		15, 15	0, 14	81.8245	13269.6738	11216.6915		24568.1898	24568.1993	-0.0095
10	16	16	e		15, 15	0, 14	81.8245	13269.6738	11216.5882		24568.0865	24568.0972	-0.0107
10	17	16	e		15, 15	0, 14	81.8245	13269.6738	11219.1285		24570.6268	24570.6347	-0.0079
10	24	25	e		17, 26	0, 25	123.5397	13488.0442	10979.9604		24591.5443	24591.5464	-0.0021
10	25	25	e		17, 26	0, 25	123.5397	13488.0442	10983.6196		24595.2035	24595.2071	-0.0036
10	25	26	f		17, 26	0, 25	123.5397	13488.0442	10983.5471		24595.1310	24595.1320	-0.0010
10	26	25	e		17, 26	0, 25	123.5397	13488.0442	10987.4123		24598.9962	24598.9979	-0.0017
10	26	26	f		17, 26	0, 25	123.5397	13488.0442	10987.3457		24598.9296	24598.9318	-0.0022
10	26	27	e		17, 26	0, 25	123.5397	13488.0442	10987.2762		24598.8601	24598.8596	0.0005
10	27	26	f		17, 26	0, 25	123.5397	13488.0442	10991.2780		24602.8619	24602.8623	-0.0004
10	27	27	e		17, 26	0, 25	123.5397	13488.0442	10991.2122		24602.7961	24602.7984	-0.0023
10	28	27	e		17, 26	0, 25	123.5397	13488.0442	10995.2835		24606.8674	24606.8687	-0.0013
10	36	37	e		12, 38	0, 39	209.5345	12919.9178	11514.4505		24643.9028	24643.9085	-0.0057
10	36	37	e	11, 38		0, 37	195.0080	12939.1903	11509.7115		24643.9098	24643.9085	0.0013
10	36	37	e	11, 38		0, 37	195.0080	12939.1903	11514.4493	-4.7372	24643.9104	24643.9085	0.0019
10	37	37	e		12, 38	0, 39	209.5345	12919.9178	11519.7799		24649.2322	24649.2379	-0.0057
10	37	37	e	11, 38		0, 37	195.0080	12939.1903	11515.0406		24649.2389	24649.2379	0.0010

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
10	37	37	e	11, 38		0, 37	195.0080	12939.1903	11519.7791	-4.7372	24649.2402	24649.2379	0.0023
10	37	38	f		12, 38	0, 39	209.5345	12919.9178	11519.7297		24649.1820	24649.1872	-0.0052
10	37	38	f	11, 38		0, 37	195.0080	12939.1903	11514.9896		24649.1879	24649.1872	0.0007
10	37	38	f	11, 38		0, 37	195.0080	12939.1903	11519.7301	-4.7372	24649.1912	24649.1872	0.0040
10	38	37	e		12, 38	0, 39	209.5345	12919.9178	11520.4963	4.7372	24654.6858	24654.7016	-0.0158
10	38	37	e		12, 38	0, 37	195.0080	12934.4448	11520.4988	4.7372	24654.6888	24654.7016	-0.0128
10	38	37	e		12, 38	0, 39	209.5345	12919.9178	11525.2387		24654.6910	24654.7016	-0.0106
10	38	37	e		12, 38	0, 37	195.0080	12934.4448	11525.2391		24654.6919	24654.7016	-0.0097
10	38	37	e		12, 38	0, 39	209.5345	12919.9178	11525.2402		24654.6925	24654.7016	-0.0091
10	38	37	e		12, 38	0, 37	195.0080	12934.4448	11525.2400		24654.6928	24654.7016	-0.0088
10	38	37	e		12, 38	0, 39	209.5345	12919.9178	11525.2419		24654.6942	24654.7016	-0.0074
10	38	37	e	11, 38		0, 39	209.5345	12924.6638	11520.4972		24654.6955	24654.7016	-0.0061
10	38	37	e	11, 38		0, 39	209.5345	12924.6638	11520.4985		24654.6968	24654.7016	-0.0048
10	38	37	e	11, 38		0, 39	209.5345	12924.6638	11520.4993		24654.6976	24654.7016	-0.0040
10	38	37	e	11, 38		0, 39	209.5345	12924.6638	11520.4999		24654.6982	24654.7016	-0.0034
10	38	37	e	11, 38		0, 39	209.5345	12924.6638	11520.4999		24654.6982	24654.7016	-0.0034
10	38	37	e	11, 38		0, 39	209.5345	12924.6638	11525.2389	-4.7372	24654.7000	24654.7016	-0.0016
10	38	37	e	11, 38		0, 37	195.0080	12939.1903	11520.5035		24654.7018	24654.7016	0.0002
10	38	37	e	11, 38		0, 37	195.0080	12939.1903	11525.2421	-4.7372	24654.7032	24654.7016	0.0016
10	38	37	e	11, 38		0, 37	195.0080	12939.1903	11520.5050		24654.7033	24654.7016	0.0017
10	38	37	e	11, 38		0, 39	209.5345	12924.6638	11525.2425	-4.7372	24654.7036	24654.7016	0.0020
10	38	37	e	11, 38		0, 39	209.5345	12924.6638	11525.2427	-4.7372	24654.7038	24654.7016	0.0022
10	38	37	e	11, 38		0, 37	195.0080	12939.1903	11525.2457	-4.7372	24654.7068	24654.7016	0.0052
10	38	37	e	11, 38		0, 37	195.0080	12939.1903	11525.2471	-4.7372	24654.7082	24654.7016	0.0066
10	38	38	f		12, 38	0, 39	209.5345	12919.9178	11520.4515	4.7372	24654.6410	24654.6552	-0.0142
10	38	38	f		12, 38	0, 37	195.0080	12934.4448	11520.4526	4.7372	24654.6426	24654.6552	-0.0126
10	38	38	f		12, 38	0, 39	209.5345	12919.9178	11525.1938		24654.6461	24654.6552	-0.0091
10	38	38	f		12, 38	0, 37	195.0080	12934.4448	11525.1946		24654.6474	24654.6552	-0.0078
10	38	38	f		12, 38	0, 39	209.5345	12919.9178	11525.1955		24654.6478	24654.6552	-0.0074
10	38	38	f		12, 38	0, 37	195.0080	12934.4448	11525.1953		24654.6481	24654.6552	-0.0071
10	38	38	f		12, 38	0, 39	209.5345	12919.9178	11525.1963		24654.6486	24654.6552	-0.0066
10	38	38	f	11, 38		0, 39	209.5345	12924.6638	11520.4531		24654.6514	24654.6552	-0.0038
10	38	38	f	11, 38		0, 39	209.5345	12924.6638	11520.4535		24654.6518	24654.6552	-0.0034
10	38	38	f	11, 38		0, 39	209.5345	12924.6638	11520.4538		24654.6521	24654.6552	-0.0031
10	38	38	f	11, 38		0, 39	209.5345	12924.6638	11520.4544		24654.6527	24654.6552	-0.0025
10	38	38	f	11, 38		0, 39	209.5345	12924.6638	11520.4547		24654.6530	24654.6552	-0.0022
10	38	38	f	11, 38		0, 37	195.0080	12939.1903	11525.1933	-4.7372	24654.6544	24654.6552	-0.0008
10	38	38	f	11, 38		0, 39	209.5345	12924.6638	11525.1933	-4.7372	24654.6544	24654.6552	-0.0008
10	38	38	f	11, 38		0, 39	209.5345	12924.6638	11525.1946	-4.7372	24654.6557	24654.6552	0.0005
10	38	38	f	11, 38		0, 37	195.0080	12939.1903	11520.4578		24654.6561	24654.6552	0.0009
10	38	38	f	11, 38		0, 39	209.5345	12924.6638	11525.1958	-4.7372	24654.6569	24654.6552	0.0017
10	38	38	f	11, 38		0, 37	195.0080	12939.1903	11520.4588		24654.6571	24654.6552	0.0019

v	N	J	parity	intermediate $A^1\Sigma^+$ (v, J)	state level ~ $b^3\Pi$ (v, J)	ground state level $X^1\Sigma^+$ (v, J)	ground state level energy ( $\text{cm}^{-1}$ )	PUMP frequency ( $\text{cm}^{-1}$ )	PROBE frequency ( $\text{cm}^{-1}$ )	collisional energy transfer ( $\text{cm}^{-1}$ ) (if any)	$E[1^3\Delta(v,N,J,e/f)]$ ( $\text{cm}^{-1}$ ) measured value	$E[1^3\Delta(v,N,J,e/f)]$ ( $\text{cm}^{-1}$ ) calculated value	$E[\text{meas.}] -$ $E[\text{calc.}]$ ( $\text{cm}^{-1}$ )
10	38	38	f	11, 38		0, 37	195.0080	12939.1903	11525.1970	-4.7372	24654.6581	24654.6552	0.0029
10	38	38	f	11, 38		0, 37	195.0080	12939.1903	11525.1981	-4.7372	24654.6592	24654.6552	0.0040
10	38	39	e		12, 38	0, 37	195.0080	12934.4448	11520.4016	4.7372	24654.5916	24654.6057	-0.0141
10	38	39	e		12, 38	0, 39	209.5345	12919.9178	11520.4023	4.7372	24654.5918	24654.6057	-0.0139
10	38	39	e		12, 38	0, 39	209.5345	12919.9178	11525.1454		24654.5977	24654.6057	-0.0080
10	38	39	e		12, 38	0, 37	195.0080	12934.4448	11525.1462		24654.5990	24654.6057	-0.0067
10	38	39	e		12, 38	0, 39	209.5345	12919.9178	11525.1470		24654.5993	24654.6057	-0.0064
10	38	39	e		12, 38	0, 39	209.5345	12919.9178	11525.1473		24654.5996	24654.6057	-0.0061
10	38	39	e		12, 38	0, 37	195.0080	12934.4448	11525.1470		24654.5998	24654.6057	-0.0059
10	38	39	e	11, 38		0, 39	209.5345	12924.6638	11520.4037		24654.6020	24654.6057	-0.0037
10	38	39	e	11, 38		0, 39	209.5345	12924.6638	11520.4041		24654.6024	24654.6057	-0.0033
10	38	39	e	11, 38		0, 39	209.5345	12924.6638	11520.4046		24654.6029	24654.6057	-0.0028
10	38	39	e	11, 38		0, 39	209.5345	12924.6638	11520.4051		24654.6034	24654.6057	-0.0023
10	38	39	e	11, 38		0, 39	209.5345	12924.6638	11520.4061		24654.6044	24654.6057	-0.0013
10	38	39	e	11, 38		0, 37	195.0080	12939.1903	11520.4075		24654.6058	24654.6057	0.0001
10	38	39	e	11, 38		0, 37	195.0080	12939.1903	11525.1451	-4.7372	24654.6062	24654.6057	0.0005
10	38	39	e	11, 38		0, 37	195.0080	12939.1903	11520.4082		24654.6065	24654.6057	0.0008
10	38	39	e	11, 38		0, 39	209.5345	12924.6638	11525.1455	-4.7372	24654.6066	24654.6057	0.0009
10	38	39	e	11, 38		0, 39	209.5345	12924.6638	11525.1462	-4.7372	24654.6073	24654.6057	0.0016
10	38	39	e	11, 38		0, 39	209.5345	12924.6638	11525.1473	-4.7372	24654.6084	24654.6057	0.0027
10	38	39	e	11, 38		0, 37	195.0080	12939.1903	11525.1483	-4.7372	24654.6094	24654.6057	0.0037
10	38	39	e	11, 38		0, 37	195.0080	12939.1903	11525.1492	-4.7372	24654.6103	24654.6057	0.0046
10	39	38	f		12, 38	0, 39	209.5345	12919.9178	11530.8018		24660.2541	24660.2576	-0.0035
10	39	38	f	11, 38		0, 37	195.0080	12939.1903	11526.0615		24660.2598	24660.2576	0.0022
10	39	38	f	11, 38		0, 37	195.0080	12939.1903	11530.8016	-4.7372	24660.2627	24660.2576	0.0051
10	39	39	e		12, 38	0, 39	209.5345	12919.9178	11530.7563		24660.2086	24660.2122	-0.0036
10	39	39	e	11, 38		0, 37	195.0080	12939.1903	11526.0155		24660.2138	24660.2122	0.0016
10	39	39	e	11, 38		0, 37	195.0080	12939.1903	11530.7556	-4.7372	24660.2167	24660.2122	0.0045
10	40	39	e		12, 38	0, 39	209.5345	12919.9178	11536.5009		24665.9532	24665.9532	0.0000
10	40	39	e		12, 38	0, 39	209.5345	12919.9178	11536.5016		24665.9539	24665.9532	0.0007
10	40	39	e	11, 38		0, 37	195.0080	12939.1903	11531.7624		24665.9607	24665.9532	0.0075
10	40	39	e	11, 38		0, 37	195.0080	12939.1903	11536.5028	-4.7372	24665.9639	24665.9532	0.0107
11	13	14	e		15, 15	0, 14	81.8245	13269.6738	11293.5199		24645.0182	24645.0219	-0.0037
11	14	14	e		15, 15	0, 14	81.8245	13269.6738	11295.6526		24647.1509	24647.1606	-0.0097
11	14	15	f		15, 15	0, 14	81.8245	13269.6738	11295.5164		24647.0147	24647.0264	-0.0117
11	15	14	e		15, 15	0, 14	81.8245	13269.6738	11297.8986		24649.3969	24649.4068	-0.0099
11	15	15	f		15, 15	0, 14	81.8245	13269.6738	11297.7884		24649.2867	24649.2977	-0.0110
11	15	16	e		15, 15	0, 14	81.8245	13269.6738	11297.6649		24649.1632	24649.1721	-0.0089
11	16	15	f		15, 15	0, 14	81.8245	13269.6738	11300.1713		24651.6696	24651.6803	-0.0107
11	16	16	e		15, 15	0, 14	81.8245	13269.6738	11300.0681		24651.5664	24651.5770	-0.0106
11	17	16	e		15, 15	0, 14	81.8245	13269.6738	11302.5887		24654.0870	24654.0965	-0.0095

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
11	24	25	e		17, 26	0, 25	123.5397	13488.0442	11063.2543		24674.8382	24674.8406	-0.0024
11	25	25	e		17, 26	0, 25	123.5397	13488.0442	11066.8858		24678.4697	24678.4740	-0.0043
11	25	26	f		17, 26	0, 25	123.5397	13488.0442	11066.8126		24678.3965	24678.3981	-0.0016
11	26	25	e		17, 26	0, 25	123.5397	13488.0442	11070.6476		24682.2315	24682.2362	-0.0047
11	26	25	e		17, 26	0, 25	123.5397	13488.0442	11070.6497		24682.2336	24682.2362	-0.0026
11	26	26	f		17, 26	0, 25	123.5397	13488.0442	11070.5811		24682.1650	24682.1693	-0.0043
11	26	26	f		17, 26	0, 25	123.5397	13488.0442	11070.5828		24682.1667	24682.1693	-0.0026
11	26	27	e		17, 26	0, 25	123.5397	13488.0442	11070.5093		24682.0932	24682.0963	-0.0031
11	26	27	e		17, 26	0, 25	123.5397	13488.0442	11070.5118		24682.0957	24682.0963	-0.0006
11	27	26	f		17, 26	0, 25	123.5397	13488.0442	11074.4846		24686.0685	24686.0701	-0.0016
11	27	27	e		17, 26	0, 25	123.5397	13488.0442	11074.4191		24686.0030	24686.0055	-0.0025
11	28	27	e		17, 26	0, 25	123.5397	13488.0442	11078.4596		24690.0435	24690.0448	-0.0013
11	37	37	e	11, 38		0, 37	195.0080	12939.1903	11597.8796		24732.0779	24732.0771	0.0008
11	37	38	f	11, 38		0, 37	195.0080	12939.1903	11597.8286		24732.0269	24732.0258	0.0011
11	38	37	e	11, 38		0, 37	195.0080	12939.1903	11603.2992		24737.4975	24737.4982	-0.0007
11	38	38	f	11, 38		0, 37	195.0080	12939.1903	11603.2518		24737.4501	24737.4512	-0.0011
11	38	39	e	11, 38		0, 37	195.0080	12939.1903	11603.1990		24737.3973	24737.4013	-0.0040
11	39	38	f	11, 38		0, 37	195.0080	12939.1903	11608.8144		24743.0127	24743.0099	0.0028
11	39	39	e	11, 38		0, 37	195.0080	12939.1903	11608.7664		24742.9647	24742.9640	0.0007
12	13	14	e		15, 15	0, 14	81.8245	13269.6738	11375.9215		24727.4198	24727.4319	-0.0121
12	13	14	e		15, 15	0, 14	81.8245	13269.6738	11375.9226		24727.4209	24727.4319	-0.0110
12	14	14	e		15, 15	0, 14	81.8245	13269.6738	11378.0469		24729.5452	24729.5560	-0.0108
12	14	15	f		15, 15	0, 14	81.8245	13269.6738	11377.9120		24729.4103	24729.4204	-0.0101
12	15	14	e		15, 15	0, 14	81.8245	13269.6738	11380.2758		24731.7741	24731.7861	-0.0120
12	15	15	f		15, 15	0, 14	81.8245	13269.6738	11380.1662		24731.6645	24731.6758	-0.0113
12	15	16	e		15, 15	0, 14	81.8245	13269.6738	11380.0399		24731.5382	24731.5489	-0.0107
12	16	15	f		15, 15	0, 14	81.8245	13269.6738	11382.5322		24734.0305	24734.0411	-0.0106
12	16	16	e		15, 15	0, 14	81.8245	13269.6738	11382.4262		24733.9245	24733.9368	-0.0123
12	17	16	e		15, 15	0, 14	81.8245	13269.6738	11384.9305		24736.4288	24736.4377	-0.0089
12	24	25	e		17, 26	0, 25	123.5397	13488.0442	11145.4238		24757.0077	24757.0105	-0.0028
12	25	25	e		17, 26	0, 25	123.5397	13488.0442	11149.0264		24760.6103	24760.6159	-0.0056
12	25	26	f		17, 26	0, 25	123.5397	13488.0442	11148.9522		24760.5361	24760.5392	-0.0031
12	26	25	e		17, 26	0, 25	123.5397	13488.0442	11152.7605		24764.3444	24764.3489	-0.0045
12	26	26	f		17, 26	0, 25	123.5397	13488.0442	11152.6924		24764.2763	24764.2813	-0.0050
12	26	27	e		17, 26	0, 25	123.5397	13488.0442	11152.6204		24764.2043	24764.2075	-0.0032
12	27	26	f		17, 26	0, 25	123.5397	13488.0442	11156.5657		24768.1496	24768.1516	-0.0020
12	27	27	e		17, 26	0, 25	123.5397	13488.0442	11156.4989		24768.0828	24768.0863	-0.0035
12	28	27	e		17, 26	0, 25	123.5397	13488.0442	11160.5066		24772.0905	24772.0939	-0.0034
12	28	27	e		17, 26	0, 25	123.5397	13488.0442	11160.5081		24772.0920	24772.0939	-0.0019
12	43	44	e		18, 45	0, 46	266.2174	13572.0030	11009.5463		24847.7667	24847.7741	-0.0074
12	44	44	e		18, 45	0, 46	266.2174	13572.0030	11015.7462		24853.9666	24853.9701	-0.0035

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
12	44	45	f		18, 45	0, 46	266.2174	13572.0030	11015.7075		24853.9279	24853.9264	0.0015
12	45	44	e		18, 45	0, 46	266.2174	13572.0030	11022.0804		24860.3008	24860.2980	0.0028
12	45	45	f		18, 45	0, 46	266.2174	13572.0030	11022.0361		24860.2565	24860.2575	-0.0010
12	45	46	e		18, 45	0, 46	266.2174	13572.0030	11021.9893		24860.2097	24860.2148	-0.0051
12	46	45	f		18, 45	0, 46	266.2174	13572.0030	11028.5010		24866.7214	24866.7203	0.0011
12	46	46	e		18, 45	0, 46	266.2174	13572.0030	11028.4688		24866.6892	24866.6806	0.0086
12	47	46	e		18, 45	0, 46	266.2174	13572.0030	11035.0647		24873.2851	24873.2782	0.0069
13	24	25	e		17, 26	0, 25	123.5397	13488.0442	11226.4416		24838.0255	24838.0334	-0.0079
13	25	25	e		17, 26	0, 25	123.5397	13488.0442	11230.0087		24841.5926	24841.6101	-0.0175
13	25	26	f		17, 26	0, 25	123.5397	13488.0442	11229.9380		24841.5219	24841.5325	-0.0106
13	26	25	e		17, 26	0, 25	123.5397	13488.0442	11233.7211		24845.3050	24845.3130	-0.0080
13	26	25	e		17, 26	0, 25	123.5397	13488.0442	11233.7220		24845.3059	24845.3130	-0.0071
13	26	26	f		17, 26	0, 25	123.5397	13488.0442	11233.6835		24845.2674	24845.2447	0.0227
13	26	26	f		17, 26	0, 25	123.5397	13488.0442	11233.6847		24845.2686	24845.2447	0.0239
13	26	27	e		17, 26	0, 25	123.5397	13488.0442	11233.5694		24845.1533	24845.1701	-0.0168
13	26	27	e		17, 26	0, 25	123.5397	13488.0442	11233.5704		24845.1543	24845.1701	-0.0158
13	28	27	e		17, 26	0, 25	123.5397	13488.0442	11241.4102		24852.9941	24852.9930	0.0011
13	43	44	e		18, 45	0, 46	266.2174	13572.0030	11089.7819		24928.0023	24928.0296	-0.0273
13	45	44	e		18, 45	0, 46	266.2174	13572.0030	11102.2549		24940.4753	24940.4479	0.0274
13	45	45	f		18, 45	0, 46	266.2174	13572.0030	11102.1850		24940.4054	24940.4069	-0.0015
14	13	14	e		15, 15	0, 14	81.8245	13269.6738	11537.2991		24888.7974	24888.8038	-0.0064
14	14	14	e		15, 15	0, 14	81.8245	13269.6738	11539.3891		24890.8874	24890.8978	-0.0104
14	14	15	f		15, 15	0, 14	81.8245	13269.6738	11539.2535		24890.7518	24890.7591	-0.0073
14	15	14	e		15, 15	0, 14	81.8245	13269.6738	11541.5823		24893.0806	24893.0944	-0.0138
14	15	15	f		15, 15	0, 14	81.8245	13269.6738	11541.4701		24892.9684	24892.9818	-0.0134
14	15	16	e		15, 15	0, 14	81.8245	13269.6738	11541.3434		24892.8417	24892.8520	-0.0103
14	16	15	f		15, 15	0, 14	81.8245	13269.6738	11543.8014		24895.2997	24895.3111	-0.0114
14	16	16	e		15, 15	0, 14	81.8245	13269.6738	11543.6941		24895.1924	24895.2046	-0.0122
14	17	16	e		15, 15	0, 14	81.8245	13269.6738	11546.1590		24897.6573	24897.6670	-0.0097
14	24	25	e		17, 26	0, 25	123.5397	13488.0442	11306.2930		24917.8769	24917.8846	-0.0077
14	25	25	e		17, 26	0, 25	123.5397	13488.0442	11309.8374		24921.4213	24921.4320	-0.0107
14	25	26	f		17, 26	0, 25	123.5397	13488.0442	11309.7609		24921.3448	24921.3535	-0.0087
14	26	25	e		17, 26	0, 25	123.5397	13488.0442	11313.5062		24925.0901	24925.1042	-0.0141
14	26	26	f		17, 26	0, 25	123.5397	13488.0442	11313.4352		24925.0191	24925.0351	-0.0160
14	26	27	e		17, 26	0, 25	123.5397	13488.0442	11313.3624		24924.9463	24924.9596	-0.0133
14	27	26	f		17, 26	0, 25	123.5397	13488.0442	11317.2419		24928.8258	24928.8421	-0.0163
14	27	27	e		17, 26	0, 25	123.5397	13488.0442	11317.1737		24928.7576	24928.7754	-0.0178
14	28	27	e		17, 26	0, 25	123.5397	13488.0442	11321.1380		24932.7219	24932.7173	0.0046
14	43	44	e		18, 45	0, 46	266.2174	13572.0030	11168.8744		25007.0948	25007.0933	0.0015
14	44	44	e		18, 45	0, 46	266.2174	13572.0030	11174.9621		25013.1825	25013.1837	-0.0012

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
14	44	45	f		18, 45	0, 46	266.2174	13572.0030	11174.9201		25013.1405	25013.1390	0.0015
14	45	44	e		18, 45	0, 46	266.2174	13572.0030	11181.1631		25019.3835	25019.4033	-0.0198
14	45	45	f		18, 45	0, 46	266.2174	13572.0030	11181.1308		25019.3512	25019.3619	-0.0107
14	45	46	e		18, 45	0, 46	266.2174	13572.0030	11181.0931		25019.3135	25019.3182	-0.0047
14	46	45	f		18, 45	0, 46	266.2174	13572.0030	11187.4823		25025.7027	25025.7139	-0.0112
14	47	46	e		18, 45	0, 46	266.2174	13572.0030	11193.9791		25032.1995	25032.1576	0.0419
15	13	14	e		15, 15	0, 14	81.8245	13269.6738	11616.2099		24967.7082	24967.7170	-0.0088
15	14	14	e		15, 15	0, 14	81.8245	13269.6738	11618.2864		24969.7847	24969.7952	-0.0105
15	14	15	f		15, 15	0, 14	81.8245	13269.6738	11618.1490		24969.6473	24969.6550	-0.0077
15	15	14	e		15, 15	0, 14	81.8245	13269.6738	11620.4655		24971.9638	24971.9745	-0.0107
15	15	15	f		15, 15	0, 14	81.8245	13269.6738	11620.3533		24971.8516	24971.8606	-0.0090
15	15	16	e		15, 15	0, 14	81.8245	13269.6738	11620.2219		24971.7202	24971.7294	-0.0092
15	16	15	f		15, 15	0, 14	81.8245	13269.6738	11622.6631		24974.1614	24974.1713	-0.0099
15	16	16	e		15, 15	0, 14	81.8245	13269.6738	11622.5545		24974.0528	24974.0636	-0.0108
15	17	16	e		15, 15	0, 14	81.8245	13269.6738	11624.9977		24976.4960	24976.5061	-0.0101
15	24	25	e		17, 26	0, 25	123.5397	13488.0442	11384.9308		24996.5147	24996.5390	-0.0243
15	24	25	e		17, 26	0, 25	123.5397	13488.0442	11384.9494		24996.5333	24996.5390	-0.0057
15	25	25	e		17, 26	0, 25	123.5397	13488.0442	11388.4618		25000.0457	25000.0562	-0.0105
15	25	26	f		17, 26	0, 25	123.5397	13488.0442	11388.3855		24999.9694	24999.9768	-0.0074
15	26	25	e		17, 26	0, 25	123.5397	13488.0442	11392.1023		25003.6862	25003.6968	-0.0106
15	26	26	f		17, 26	0, 25	123.5397	13488.0442	11392.0336		25003.6175	25003.6269	-0.0094
15	26	27	e		17, 26	0, 25	123.5397	13488.0442	11391.9613		25003.5452	25003.5506	-0.0054
15	27	26	f		17, 26	0, 25	123.5397	13488.0442	11395.8063		25007.3902	25007.4011	-0.0109
15	27	27	e		17, 26	0, 25	123.5397	13488.0442	11395.7375		25007.3214	25007.3336	-0.0122
15	28	27	e		17, 26	0, 25	123.5397	13488.0442	11399.6476		25011.2315	25011.2413	-0.0098
15	28	27	e		17, 26	0, 25	123.5397	13488.0442	11399.6497		25011.2336	25011.2413	-0.0077
16	24	25	e		17, 26	0, 25	123.5397	13488.0442	11462.3851		25073.9690	25073.9697	-0.0007
16	25	25	e		17, 26	0, 25	123.5397	13488.0442	11465.8674		25077.4513	25077.4559	-0.0046
16	25	26	f		17, 26	0, 25	123.5397	13488.0442	11465.7907		25077.3746	25077.3756	-0.0010
16	26	25	e		17, 26	0, 25	123.5397	13488.0442	11469.4688		25081.0527	25081.0640	-0.0113
16	26	26	f		17, 26	0, 25	123.5397	13488.0442	11469.4018		25080.9857	25080.9933	-0.0076
16	26	27	e		17, 26	0, 25	123.5397	13488.0442	11469.3274		25080.9113	25080.9161	-0.0048
16	27	26	f		17, 26	0, 25	123.5397	13488.0442	11473.1453		25084.7292	25084.7337	-0.0045
16	27	27	e		17, 26	0, 25	123.5397	13488.0442	11473.0762		25084.6601	25084.6654	-0.0053
16	28	27	e		17, 26	0, 25	123.5397	13488.0442	11476.9579		25088.5418	25088.5381	0.0037
16	43	44	e		18, 45	0, 46	266.2174	13572.0030	11323.3208		25161.5412	25161.5374	0.0038
16	44	44	e		18, 45	0, 46	266.2174	13572.0030	11329.2934		25167.5138	25167.5161	-0.0023
16	44	45	f		18, 45	0, 46	266.2174	13572.0030	11329.2525		25167.4729	25167.4703	0.0026
16	45	44	e		18, 45	0, 46	266.2174	13572.0030	11335.3960		25173.6164	25173.6213	-0.0049
16	45	45	f		18, 45	0, 46	266.2174	13572.0030	11335.3573		25173.5777	25173.5789	-0.0012

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
16	45	46	e		18, 45	0, 46	266.2174	13572.0030	11335.3158		25173.5362	25173.5341	0.0021
16	46	45	f		18, 45	0, 46	266.2174	13572.0030	11341.5885		25179.8089	25179.8138	-0.0049
16	46	46	e		18, 45	0, 46	266.2174	13572.0030	11341.5481		25179.7685	25179.7722	-0.0037
16	47	46	e		18, 45	0, 46	266.2174	13572.0030	11347.9131		25186.1335	25186.1366	-0.0031
16	47	46	e		18, 45	0, 46	266.2174	13572.0030	11347.9145		25186.1349	25186.1366	-0.0017
17	13	14	e		15, 15	0, 14	81.8245	13269.6738	11770.3549		25121.8532	25121.8664	-0.0132
17	14	14	e		15, 15	0, 14	81.8245	13269.6738	11772.3990		25123.8973	25123.9118	-0.0145
17	14	15	f		15, 15	0, 14	81.8245	13269.6738	11772.2582		25123.7565	25123.7684	-0.0119
17	15	14	e		15, 15	0, 14	81.8245	13269.6738	11774.5489		25126.0472	25126.0548	-0.0076
17	15	15	f		15, 15	0, 14	81.8245	13269.6738	11774.4197		25125.9180	25125.9385	-0.0205
17	15	16	e		15, 15	0, 14	81.8245	13269.6738	11774.2932		25125.7915	25125.8043	-0.0128
17	16	15	f		15, 15	0, 14	81.8245	13269.6738	11776.7025		25128.2008	25128.2102	-0.0094
17	16	16	e		15, 15	0, 14	81.8245	13269.6738	11776.6012		25128.0995	25128.1001	-0.0006
17	17	16	e		15, 15	0, 14	81.8245	13269.6738	11778.9920		25130.4903	25130.5009	-0.0106
17	24	25	e		17, 26	0, 25	123.5397	13488.0442	11538.5422		25150.1261	25150.1488	-0.0227
17	25	25	e		17, 26	0, 25	123.5397	13488.0442	11542.0160		25153.5999	25153.6031	-0.0032
17	25	26	f		17, 26	0, 25	123.5397	13488.0442	11541.9425		25153.5264	25153.5218	0.0046
17	26	25	e		17, 26	0, 25	123.5397	13488.0442	11545.5884		25157.1723	25157.1778	-0.0055
17	26	26	f		17, 26	0, 25	123.5397	13488.0442	11545.5171		25157.1010	25157.1063	-0.0053
17	26	27	e		17, 26	0, 25	123.5397	13488.0442	11545.4426		25157.0265	25157.0281	-0.0016
17	27	26	f		17, 26	0, 25	123.5397	13488.0442	11549.2229		25160.8068	25160.8118	-0.0050
17	27	27	e		17, 26	0, 25	123.5397	13488.0442	11549.1536		25160.7375	25160.7428	-0.0053
17	28	27	e		17, 26	0, 25	123.5397	13488.0442	11552.9903		25164.5742	25164.5792	-0.0050
17	43	44	e		18, 45	0, 46	266.2174	13572.0030	11398.6138		25236.8342	25236.8598	-0.0256
17	45	44	e		18, 45	0, 46	266.2174	13572.0030	11410.6055		25248.8259	25248.8256	0.0003
17	45	45	f		18, 45	0, 46	266.2174	13572.0030	11410.5739		25248.7943	25248.7827	0.0116
17	45	46	e		18, 45	0, 46	266.2174	13572.0030	11410.5248		25248.7452	25248.7374	0.0078
17	46	45	f		18, 45	0, 46	266.2174	13572.0030	11416.7334		25254.9538	25254.9564	-0.0026
17	46	46	e		18, 45	0, 46	266.2174	13572.0030	11416.6976		25254.9180	25254.9144	0.0036
17	47	46	e		18, 45	0, 46	266.2174	13572.0030	11422.9964		25261.2168	25261.2161	0.0007
18	13	14	e		15, 15	0, 14	81.8245	13269.6738	11845.5403		25197.0386	25197.0466	-0.0080
18	13	14	e		15, 15	0, 14	81.8245	13269.6738	11845.5416		25197.0399	25197.0466	-0.0067
18	14	14	e		15, 15	0, 14	81.8245	13269.6738	11847.5633		25199.0616	25199.0749	-0.0133
18	14	14	e		15, 15	0, 14	81.8245	13269.6738	11847.5657		25199.0640	25199.0749	-0.0109
18	14	15	f		15, 15	0, 14	81.8245	13269.6738	11847.4221		25198.9204	25198.9299	-0.0095
18	14	15	f		15, 15	0, 14	81.8245	13269.6738	11847.4248		25198.9231	25198.9299	-0.0068
18	15	14	e		15, 15	0, 14	81.8245	13269.6738	11849.6881		25201.1864	25201.1990	-0.0126
18	15	14	e		15, 15	0, 14	81.8245	13269.6738	11849.6892		25201.1875	25201.1990	-0.0115
18	15	14	e		15, 15	0, 16	87.7079	13263.7904	11849.6895		25201.1878	25201.1990	-0.0112
18	15	14	e		15, 15	0, 14	81.8245	13269.6738	11849.6912		25201.1895	25201.1990	-0.0095

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
18	15	15	f		15, 15	0, 14	81.8245	13269.6738	11849.5711		25201.0694	25201.0813	-0.0119
18	15	15	f		15, 15	0, 16	87.7079	13263.7904	11849.5724		25201.0707	25201.0813	-0.0106
18	15	15	f		15, 15	0, 14	81.8245	13269.6738	11849.5728		25201.0711	25201.0813	-0.0102
18	15	15	f		15, 15	0, 14	81.8245	13269.6738	11849.5742		25201.0725	25201.0813	-0.0088
18	15	16	e		15, 15	0, 14	81.8245	13269.6738	11849.4371		25200.9354	25200.9456	-0.0102
18	15	16	e		15, 15	0, 16	87.7079	13263.7904	11849.4386		25200.9369	25200.9456	-0.0087
18	15	16	e		15, 15	0, 14	81.8245	13269.6738	11849.4393		25200.9376	25200.9456	-0.0080
18	15	16	e		15, 15	0, 14	81.8245	13269.6738	11849.4401		25200.9384	25200.9456	-0.0072
18	16	15	f		15, 15	0, 14	81.8245	13269.6738	11851.8226		25203.3209	25203.3327	-0.0118
18	16	15	f		15, 15	0, 14	81.8245	13269.6738	11851.8234		25203.3217	25203.3327	-0.0110
18	16	16	e		15, 15	0, 14	81.8245	13269.6738	11851.7110		25203.2093	25203.2213	-0.0120
18	16	16	e		15, 15	0, 14	81.8245	13269.6738	11851.7126		25203.2109	25203.2213	-0.0104
18	17	16	e		15, 15	0, 14	81.8245	13269.6738	11854.0899		25205.5882	25205.6004	-0.0122
18	17	16	e		15, 15	0, 14	81.8245	13269.6738	11854.0921		25205.5904	25205.6004	-0.0100
18	24	25	e		17, 26	0, 25	123.5397	13488.0442	11613.4524		25225.0363	25225.0472	-0.0109
18	25	25	e		17, 26	0, 25	123.5397	13488.0442	11616.8728		25228.4567	25228.4687	-0.0120
18	25	26	f		17, 26	0, 25	123.5397	13488.0442	11616.7977		25228.3816	25228.3864	-0.0048
18	26	25	e		17, 26	0, 25	123.5397	13488.0442	11620.4121		25231.9960	25232.0089	-0.0129
18	26	26	f		17, 26	0, 25	123.5397	13488.0442	11620.3399		25231.9238	25231.9366	-0.0128
18	26	27	e		17, 26	0, 25	123.5397	13488.0442	11620.2636		25231.8475	25231.8575	-0.0100
18	27	26	f		17, 26	0, 25	123.5397	13488.0442	11624.0095		25235.5934	25235.6063	-0.0129
18	27	27	e		17, 26	0, 25	123.5397	13488.0442	11623.9385		25235.5224	25235.5364	-0.0140
18	28	27	e		17, 26	0, 25	123.5397	13488.0442	11627.7408		25239.3247	25239.3356	-0.0109
19	24	25	e		17, 26	0, 25	123.5397	13488.0442	11687.0457		25298.6296	25298.6346	-0.0050
19	25	25	e		17, 26	0, 25	123.5397	13488.0442	11690.4264		25302.0103	25302.0221	-0.0118
19	25	26	f		17, 26	0, 25	123.5397	13488.0442	11690.3463		25301.9302	25301.9388	-0.0086
19	26	26	f		17, 26	0, 25	123.5397	13488.0442	11693.8572		25305.4411	25305.4537	-0.0126
19	26	27	e		17, 26	0, 25	123.5397	13488.0442	11693.7805		25305.3644	25305.3736	-0.0092
19	27	26	f		17, 26	0, 25	123.5397	13488.0442	11697.4893		25309.0732	25309.0864	-0.0132
19	27	27	e		17, 26	0, 25	123.5397	13488.0442	11697.4197		25309.0036	25309.0157	-0.0121
19	28	27	e		17, 26	0, 25	123.5397	13488.0442	11701.1812		25312.7651	25312.7765	-0.0114
19	43	44	e		18, 45	0, 46	266.2174	13572.0030	11545.3234		25383.5438	25383.5528	-0.0090
19	44	44	e		18, 45	0, 46	266.2174	13572.0030	11551.1175		25389.3379	25389.3511	-0.0132
19	44	45	f		18, 45	0, 46	266.2174	13572.0030	11551.0723		25389.2927	25389.3036	-0.0109
19	45	44	e		18, 45	0, 46	266.2174	13572.0030	11557.0356		25395.2560	25395.2713	-0.0153
19	45	45	f		18, 45	0, 46	266.2174	13572.0030	11556.9930		25395.2134	25395.2273	-0.0139
19	45	46	e		18, 45	0, 46	266.2174	13572.0030	11556.9487		25395.1691	25395.1808	-0.0117
19	46	45	f		18, 45	0, 46	266.2174	13572.0030	11563.0372		25401.2576	25401.2728	-0.0152
19	46	46	e		18, 45	0, 46	266.2174	13572.0030	11562.9958		25401.2162	25401.2297	-0.0135
19	47	46	e		18, 45	0, 46	266.2174	13572.0030	11569.1658		25407.3862	25407.4003	-0.0141

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
20	13	14	e		15, 15	0, 14	81.8245	13269.6738	11991.9641		25343.4624	25343.4684	-0.0060
20	14	14	e		15, 15	0, 14	81.8245	13269.6738	11993.9533		25345.4516	25345.4609	-0.0093
20	14	15	f		15, 15	0, 14	81.8245	13269.6738	11993.8051		25345.3034	25345.3124	-0.0090
20	15	14	e		15, 15	0, 14	81.8245	13269.6738	11996.0376		25347.5359	25347.5454	-0.0095
20	15	15	f		15, 15	0, 14	81.8245	13269.6738	11995.9178		25347.4161	25347.4250	-0.0089
20	15	16	e		15, 15	0, 14	81.8245	13269.6738	11995.7805		25347.2788	25347.2860	-0.0072
20	16	15	f		15, 15	0, 14	81.8245	13269.6738	11998.1258		25349.6241	25349.6338	-0.0097
20	16	16	e		15, 15	0, 14	81.8245	13269.6738	11998.0127		25349.5110	25349.5198	-0.0088
20	17	16	e		15, 15	0, 14	81.8245	13269.6738	12000.3465		25351.8448	25351.8533	-0.0085
20	24	25	e		17, 26	0, 25	123.5397	13488.0442	11759.2953		25370.8792	25370.8792	0.0000
20	25	25	e		17, 26	0, 25	123.5397	13488.0442	11762.6426		25374.2265	25374.2318	-0.0053
20	25	26	f		17, 26	0, 25	123.5397	13488.0442	11762.5631		25374.1470	25374.1475	-0.0005
20	26	25	e		17, 26	0, 25	123.5397	13488.0442	11766.1116		25377.6955	25377.6999	-0.0044
20	26	25	e		17, 26	0, 25	123.5397	13488.0442	11766.1123		25377.6962	25377.6999	-0.0037
20	26	26	f		17, 26	0, 25	123.5397	13488.0442	11766.0370		25377.6209	25377.6258	-0.0049
20	26	26	f		17, 26	0, 25	123.5397	13488.0442	11766.0379		25377.6218	25377.6258	-0.0040
20	26	27	e		17, 26	0, 25	123.5397	13488.0442	11765.9581		25377.5420	25377.5447	-0.0027
20	26	27	e		17, 26	0, 25	123.5397	13488.0442	11765.9585		25377.5424	25377.5447	-0.0023
20	27	26	f		17, 26	0, 25	123.5397	13488.0442	11769.6323		25381.2162	25381.2205	-0.0043
20	27	27	e		17, 26	0, 25	123.5397	13488.0442	11769.5608		25381.1447	25381.1489	-0.0042
20	43	44	e		18, 45	0, 46	266.2174	13572.0030	11616.6332		25454.8536	25454.8582	-0.0046
20	44	44	e		18, 45	0, 46	266.2174	13572.0030	11622.3626		25460.5830	25460.5925	-0.0095
20	44	45	f		18, 45	0, 46	266.2174	13572.0030	11622.3185		25460.5389	25460.5444	-0.0055
20	45	44	e		18, 45	0, 46	266.2174	13572.0030	11628.2158		25466.4362	25466.4470	-0.0108
20	45	45	f		18, 45	0, 46	266.2174	13572.0030	11628.1732		25466.3936	25466.4025	-0.0089
20	45	46	e		18, 45	0, 46	266.2174	13572.0030	11628.1287		25466.3491	25466.3555	-0.0064
20	46	45	f		18, 45	0, 46	266.2174	13572.0030	11634.1487		25472.3691	25472.3808	-0.0117
20	46	46	e		18, 45	0, 46	266.2174	13572.0030	11634.1058		25472.3262	25472.3372	-0.0110
20	47	46	e		18, 45	0, 46	266.2174	13572.0030	11640.2105		25478.4309	25478.4389	-0.0080
21	13	14	e		15, 15	0, 14	81.8245	13269.6738	12063.1388		25414.6371	25414.6466	-0.0095
21	14	14	e		15, 15	0, 14	81.8245	13269.6738	12065.1130		25416.6113	25416.6203	-0.0090
21	14	15	f		15, 15	0, 14	81.8245	13269.6738	12064.9486		25416.4469	25416.4700	-0.0231
21	15	14	e		15, 15	0, 14	81.8245	13269.6738	12067.1751		25418.6734	25418.6840	-0.0106
21	15	15	f		15, 15	0, 14	81.8245	13269.6738	12067.0549		25418.5532	25418.5621	-0.0089
21	15	16	e		15, 15	0, 14	81.8245	13269.6738	12066.9268		25418.4251	25418.4214	0.0037
21	16	15	f		15, 15	0, 14	81.8245	13269.6738	12069.2412		25420.7395	25420.7486	-0.0091
21	16	16	e		15, 15	0, 14	81.8245	13269.6738	12069.1242		25420.6225	25420.6333	-0.0108
21	17	16	e		15, 15	0, 14	81.8245	13269.6738	12071.4369		25422.9352	25422.9430	-0.0078
21	24	25	e		17, 26	0, 25	123.5397	13488.0442	11830.1688		25441.7527	25441.7482	0.0045
21	25	25	e		17, 26	0, 25	123.5397	13488.0442	11833.4807		25445.0646	25445.0647	-0.0001
21	25	26	f		17, 26	0, 25	123.5397	13488.0442	11833.4008		25444.9847	25444.9793	0.0054

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
21	26	25	e		17, 26	0, 25	123.5397	13488.0442	11836.9123		25448.4962	25448.4951	0.0011
21	26	26	f		17, 26	0, 25	123.5397	13488.0442	11836.8367		25448.4206	25448.4200	0.0006
21	26	27	e		17, 26	0, 25	123.5397	13488.0442	11836.7575		25448.3414	25448.3379	0.0035
21	27	26	f		17, 26	0, 25	123.5397	13488.0442	11840.3925		25451.9764	25451.9754	0.0010
21	27	27	e		17, 26	0, 25	123.5397	13488.0442	11840.3193		25451.9032	25451.9029	0.0003
21	28	27	e		17, 26	0, 25	123.5397	13488.0442	11844.0029		25455.5868	25455.5832	0.0036
22	13	14	e		15, 15	0, 14	81.8245	13269.6738	12132.9199		25484.4182	25484.4253	-0.0071
22	14	14	e		15, 15	0, 14	81.8245	13269.6738	12134.8721		25486.3704	25486.3796	-0.0092
22	14	15	f		15, 15	0, 14	81.8245	13269.6738	12134.7206		25486.2189	25486.2274	-0.0085
22	15	14	e		15, 15	0, 14	81.8245	13269.6738	12136.9129		25488.4112	25488.4219	-0.0107
22	15	15	f		15, 15	0, 14	81.8245	13269.6738	12136.7903		25488.2886	25488.2985	-0.0099
22	15	16	e		15, 15	0, 14	81.8245	13269.6738	12136.6505		25488.1488	25488.1560	-0.0072
22	16	15	f		15, 15	0, 14	81.8245	13269.6738	12138.9545		25490.4528	25490.4620	-0.0092
22	16	16	e		15, 15	0, 14	81.8245	13269.6738	12138.8372		25490.3355	25490.3452	-0.0097
22	17	16	e		15, 15	0, 14	81.8245	13269.6738	12141.1235		25492.6218	25492.6303	-0.0085
22	24	25	e		17, 26	0, 25	123.5397	13488.0442	11899.6264		25511.2103	25511.2077	0.0026
22	25	25	e		17, 26	0, 25	123.5397	13488.0442	11902.9005		25514.4844	25514.4870	-0.0026
22	25	25	e		17, 26	0, 25	123.5397	13488.0442	11902.9039		25514.4878	25514.4870	0.0008
22	25	26	f		17, 26	0, 25	123.5397	13488.0442	11902.8170		25514.4009	25514.4005	0.0004
22	25	26	f		17, 26	0, 25	123.5397	13488.0442	11902.8179		25514.4018	25514.4005	0.0013
22	26	25	e		17, 26	0, 25	123.5397	13488.0442	11906.2974		25517.8813	25517.8783	0.0030
22	26	26	f		17, 26	0, 25	123.5397	13488.0442	11906.2181		25517.8020	25517.8023	-0.0003
22	26	27	e		17, 26	0, 25	123.5397	13488.0442	11906.1353		25517.7192	25517.7191	0.0001
22	27	26	f		17, 26	0, 25	123.5397	13488.0442	11909.7343		25521.3182	25521.3170	0.0012
22	27	27	e		17, 26	0, 25	123.5397	13488.0442	11909.6581		25521.2420	25521.2436	-0.0016
22	28	27	e		17, 26	0, 25	123.5397	13488.0442	11913.3009		25524.8848	25524.8817	0.0031
22	43	44	e		18, 45	0, 46	266.2174	13572.0030	11754.9982		25593.2186	25593.2155	0.0031
22	44	44	e		18, 45	0, 46	266.2174	13572.0030	11760.5947		25598.8151	25598.8153	-0.0002
22	44	45	f		18, 45	0, 46	266.2174	13572.0030	11760.5496		25598.7700	25598.7659	0.0041
22	45	44	e		18, 45	0, 46	266.2174	13572.0030	11766.3070		25604.5274	25604.5320	-0.0046
22	45	45	f		18, 45	0, 46	266.2174	13572.0030	11766.2641		25604.4845	25604.4863	-0.0018
22	45	46	e		18, 45	0, 46	266.2174	13572.0030	11766.2192		25604.4396	25604.4380	0.0016
22	46	45	f		18, 45	0, 46	266.2174	13572.0030	11772.1004		25610.3208	25610.3234	-0.0026
22	46	46	e		18, 45	0, 46	266.2174	13572.0030	11772.0580		25610.2784	25610.2786	-0.0002
22	47	46	e		18, 45	0, 46	266.2174	13572.0030	11778.0146		25616.2350	25616.2360	-0.0010
23	13	14	e		15, 15	0, 14	81.8245	13269.6738	12201.2678		25552.7661	25552.7697	-0.0036
23	14	14	e		15, 15	0, 14	81.8245	13269.6738	12203.1970		25554.6953	25554.7039	-0.0086
23	14	15	f		15, 15	0, 14	81.8245	13269.6738	12203.0460		25554.5443	25554.5498	-0.0055
23	15	14	e		15, 15	0, 14	81.8245	13269.6738	12205.2170		25556.7153	25556.7241	-0.0088
23	15	15	f		15, 15	0, 14	81.8245	13269.6738	12205.0927		25556.5910	25556.5992	-0.0082

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
23	15	16	e		15, 15	0, 14	81.8245	13269.6738	12204.9521		25556.4504	25556.4549	-0.0045
23	16	15	f		15, 15	0, 14	81.8245	13269.6738	12207.2327		25558.7310	25558.7389	-0.0079
23	16	16	e		15, 15	0, 14	81.8245	13269.6738	12207.1150		25558.6133	25558.6206	-0.0073
23	17	16	e		15, 15	0, 14	81.8245	13269.6738	12209.3704		25560.8687	25560.8802	-0.0115
23	25	25	e		17, 26	0, 25	123.5397	13488.0442	11970.8806		25582.4645	25582.4632	0.0013
23	25	26	f		17, 26	0, 25	123.5397	13488.0442	11970.7965		25582.3804	25582.3755	0.0049
23	26	26	f		17, 26	0, 25	123.5397	13488.0442	11974.1539		25585.7378	25585.7372	0.0006
23	26	27	e		17, 26	0, 25	123.5397	13488.0442	11974.0735		25585.6574	25585.6528	0.0046
23	43	44	e		18, 45	0, 46	266.2174	13572.0030	11821.9816		25660.2020	25660.1950	0.0070
23	44	44	e		18, 45	0, 46	266.2174	13572.0030	11827.5078		25665.7282	25665.7242	0.0040
23	44	45	f		18, 45	0, 46	266.2174	13572.0030	11827.4620		25665.6824	25665.6742	0.0082
23	45	44	e		18, 45	0, 46	266.2174	13572.0030	11833.1481		25671.3685	25671.3685	0.0000
23	45	45	f		18, 45	0, 46	266.2174	13572.0030	11833.1050		25671.3254	25671.3222	0.0032
23	45	46	e		18, 45	0, 46	266.2174	13572.0030	11833.0591		25671.2795	25671.2732	0.0063
23	46	45	f		18, 45	0, 46	266.2174	13572.0030	11838.8687		25677.0891	25677.0852	0.0039
23	46	46	e		18, 45	0, 46	266.2174	13572.0030	11838.8221		25677.0425	25677.0398	0.0027
23	47	46	e		18, 45	0, 46	266.2174	13572.0030	11844.7050		25682.9254	25682.9212	0.0042
24	24	25	e		17, 26	0, 25	123.5397	13488.0442	12034.1738		25645.7577	25645.7555	0.0022
24	24	25	e		17, 26	0, 25	123.5397	13488.0442	12034.1767		25645.7606	25645.7555	0.0051
24	25	25	e		17, 26	0, 25	123.5397	13488.0442	12037.3731		25648.9570	25648.9566	0.0004
24	25	25	e		17, 26	0, 25	123.5397	13488.0442	12037.3792		25648.9631	25648.9566	0.0065
24	25	26	f		17, 26	0, 25	123.5397	13488.0442	12037.2831		25648.8670	25648.8677	-0.0007
24	25	26	f		17, 26	0, 25	123.5397	13488.0442	12037.2894		25648.8733	25648.8677	0.0056
24	26	25	e		17, 26	0, 25	123.5397	13488.0442	12040.6855		25652.2694	25652.2659	0.0035
24	26	25	e		17, 26	0, 25	123.5397	13488.0442	12040.6905		25652.2744	25652.2659	0.0085
24	26	26	f		17, 26	0, 25	123.5397	13488.0442	12040.6030		25652.1869	25652.1879	-0.0010
24	26	26	f		17, 26	0, 25	123.5397	13488.0442	12040.6076		25652.1915	25652.1879	0.0036
24	26	27	e		17, 26	0, 25	123.5397	13488.0442	12040.5190		25652.1029	25652.1024	0.0005
24	26	27	e		17, 26	0, 25	123.5397	13488.0442	12040.5235		25652.1074	25652.1024	0.0050
24	27	26	f		17, 26	0, 25	123.5397	13488.0442	12044.0370		25655.6209	25655.6173	0.0036
24	27	27	e		17, 26	0, 25	123.5397	13488.0442	12043.9573		25655.5412	25655.5419	-0.0007
24	28	27	e		17, 26	0, 25	123.5397	13488.0442	12047.5117		25659.0956	25659.0913	0.0043
24	43	44	e		18, 45	0, 46	266.2174	13572.0030	11887.4452		25725.6656	25725.6581	0.0075
24	44	44	e		18, 45	0, 46	266.2174	13572.0030	11892.8982		25731.1186	25731.1143	0.0043
24	44	45	f		18, 45	0, 46	266.2174	13572.0030	11892.8506		25731.0710	25731.0636	0.0074
24	45	44	e		18, 45	0, 46	266.2174	13572.0030	11898.4653		25736.6857	25736.6838	0.0019
24	45	45	f		18, 45	0, 46	266.2174	13572.0030	11898.4198		25736.6402	25736.6368	0.0034
24	45	46	e		18, 45	0, 46	266.2174	13572.0030	11898.3726		25736.5930	25736.5871	0.0059
24	46	45	f		18, 45	0, 46	266.2174	13572.0030	11904.1050		25742.3254	25742.3231	0.0023
24	46	46	e		18, 45	0, 46	266.2174	13572.0030	11904.0602		25742.2806	25742.2771	0.0035

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
25	13	14	e		15, 15	0, 14	81.8245	13269.6738	12333.5015		25684.9998	25685.0101	-0.0103
25	14	14	e		15, 15	0, 14	81.8245	13269.6738	12335.3906		25686.8889	25686.9023	-0.0134
25	14	15	f		15, 15	0, 14	81.8245	13269.6738	12335.2347		25686.7330	25686.7441	-0.0111
25	15	14	e		15, 15	0, 14	81.8245	13269.6738	12337.3652		25688.8635	25688.8760	-0.0125
25	15	15	f		15, 15	0, 14	81.8245	13269.6738	12337.2389		25688.7372	25688.7478	-0.0106
25	15	16	e		15, 15	0, 14	81.8245	13269.6738	12337.0923		25688.5906	25688.5996	-0.0090
25	16	15	f		15, 15	0, 14	81.8245	13269.6738	12339.3312		25690.8295	25690.8375	-0.0080
25	16	16	e		15, 15	0, 14	81.8245	13269.6738	12339.2069		25690.7052	25690.7162	-0.0110
25	17	16	e		15, 15	0, 14	81.8245	13269.6738	12341.4157		25692.9140	25692.9223	-0.0083
25	24	25	e		17, 26	0, 25	123.5397	13488.0442	12099.1812		25710.7651	25710.7697	-0.0046
25	24	25	e		17, 26	0, 25	123.5397	13488.0442	12099.1828		25710.7667	25710.7697	-0.0030
25	24	25	e		17, 26	0, 25	123.5397	13488.0442	12099.1842		25710.7681	25710.7697	-0.0016
25	24	25	e		17, 26	0, 25	123.5397	13488.0442	12099.1871		25710.7710	25710.7697	0.0013
25	24	25	e		17, 26	0, 25	123.5397	13488.0442	12099.1872		25710.7711	25710.7697	0.0014
25	25	25	e		17, 26	0, 25	123.5397	13488.0442	12102.3439		25713.9278	25713.9297	-0.0019
25	25	26	f		17, 26	0, 25	123.5397	13488.0442	12102.2587		25713.8426	25713.8395	0.0031
25	26	25	e		17, 26	0, 25	123.5397	13488.0442	12105.6097		25717.1936	25717.1960	-0.0024
25	26	25	e		17, 26	0, 25	123.5397	13488.0442	12105.6111		25717.1950	25717.1960	-0.0010
25	26	25	e		17, 26	0, 25	123.5397	13488.0442	12105.6120		25717.1959	25717.1960	-0.0001
25	26	25	e		17, 26	0, 25	123.5397	13488.0442	12105.6121		25717.1960	25717.1960	0.0000
25	26	25	e		17, 26	0, 25	123.5397	13488.0442	12105.6131		25717.1970	25717.1960	0.0010
25	26	25	e		17, 26	0, 25	123.5397	13488.0442	12105.6133		25717.1972	25717.1960	0.0012
25	26	26	f		17, 26	0, 25	123.5397	13488.0442	12105.5296		25717.1135	25717.1169	-0.0034
25	26	26	f		17, 26	0, 25	123.5397	13488.0442	12105.5307		25717.1146	25717.1169	-0.0023
25	26	26	f		17, 26	0, 25	123.5397	13488.0442	12105.5310		25717.1149	25717.1169	-0.0020
25	26	26	f		17, 26	0, 25	123.5397	13488.0442	12105.5313		25717.1152	25717.1169	-0.0017
25	26	26	f		17, 26	0, 25	123.5397	13488.0442	12105.5314		25717.1153	25717.1169	-0.0016
25	26	26	f		17, 26	0, 25	123.5397	13488.0442	12105.5324		25717.1163	25717.1169	-0.0006
25	26	27	e		17, 26	0, 25	123.5397	13488.0442	12105.4438		25717.0277	25717.0302	-0.0025
25	26	27	e		17, 26	0, 25	123.5397	13488.0442	12105.4453		25717.0292	25717.0302	-0.0010
25	26	27	e		17, 26	0, 25	123.5397	13488.0442	12105.4456		25717.0295	25717.0302	-0.0007
25	26	27	e		17, 26	0, 25	123.5397	13488.0442	12105.4456		25717.0295	25717.0302	-0.0007
25	26	27	e		17, 26	0, 25	123.5397	13488.0442	12105.4457		25717.0296	25717.0302	-0.0006
25	26	27	e		17, 26	0, 25	123.5397	13488.0442	12105.4487		25717.0326	25717.0302	0.0024
25	27	26	f		17, 26	0, 25	123.5397	13488.0442	12108.9152		25720.4991	25720.5014	-0.0023
25	27	27	e		17, 26	0, 25	123.5397	13488.0442	12108.8383		25720.4222	25720.4250	-0.0028
25	28	27	e		17, 26	0, 25	123.5397	13488.0442	12112.3470		25723.9309	25723.9278	0.0031
25	43	44	e		18, 45	0, 46	266.2174	13572.0030	11951.3531		25789.5735	25789.5658	0.0077
25	44	44	e		18, 45	0, 46	266.2174	13572.0030	11956.7299		25794.9503	25794.9465	0.0038
25	44	45	f		18, 45	0, 46	266.2174	13572.0030	11956.6800		25794.9004	25794.8950	0.0054
25	45	44	e		18, 45	0, 46	266.2174	13572.0030	11962.2232		25800.4436	25800.4385	0.0051
25	45	45	f		18, 45	0, 46	266.2174	13572.0030	11962.1739		25800.3943	25800.3909	0.0034

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
25	45	46	e		18, 45	0, 46	266.2174	13572.0030	11962.1269		25800.3473	25800.3405	0.0068
25	46	45	f		18, 45	0, 46	266.2174	13572.0030	11967.7807		25806.0011	25805.9979	0.0032
25	46	46	e		18, 45	0, 46	266.2174	13572.0030	11967.7343		25805.9547	25805.9512	0.0035
26	13	14	e		15, 15	0, 14	81.8245	13269.6738	12397.3203		25748.8186	25748.8305	-0.0119
26	14	14	e		15, 15	0, 14	81.8245	13269.6738	12399.1894		25750.6877	25750.7005	-0.0128
26	14	15	f		15, 15	0, 14	81.8245	13269.6738	12399.0271		25750.5254	25750.5402	-0.0148
26	15	14	e		15, 15	0, 14	81.8245	13269.6738	12401.1387		25752.6370	25752.6498	-0.0128
26	15	15	f		15, 15	0, 14	81.8245	13269.6738	12401.0086		25752.5069	25752.5199	-0.0130
26	15	16	e		15, 15	0, 14	81.8245	13269.6738	12400.8580		25752.3563	25752.3697	-0.0134
26	16	15	f		15, 15	0, 14	81.8245	13269.6738	12403.0740		25754.5723	25754.5833	-0.0110
26	16	16	e		15, 15	0, 14	81.8245	13269.6738	12402.9495		25754.4478	25754.4604	-0.0126
26	17	16	e		15, 15	0, 14	81.8245	13269.6738	12405.1300		25756.6283	25756.6384	-0.0101
26	24	25	e		17, 26	0, 25	123.5397	13488.0442	12162.6372		25774.2211	25774.2258	-0.0047
26	25	25	e		17, 26	0, 25	123.5397	13488.0442	12165.7545		25777.3384	25777.3432	-0.0048
26	25	26	f		17, 26	0, 25	123.5397	13488.0442	12165.6652		25777.2491	25777.2518	-0.0027
26	26	25	e		17, 26	0, 25	123.5397	13488.0442	12168.9712		25780.5551	25780.5650	-0.0099
26	26	26	f		17, 26	0, 25	123.5397	13488.0442	12168.8985		25780.4824	25780.4848	-0.0024
26	26	27	e		17, 26	0, 25	123.5397	13488.0442	12168.8148		25780.3987	25780.3968	0.0019
26	27	26	f		17, 26	0, 25	123.5397	13488.0442	12172.2352		25783.8191	25783.8230	-0.0039
26	27	27	e		17, 26	0, 25	123.5397	13488.0442	12172.1586		25783.7425	25783.7455	-0.0030
26	28	27	e		17, 26	0, 25	123.5397	13488.0442	12175.6205		25787.2044	25787.2001	0.0043
26	43	44	e		18, 45	0, 46	266.2174	13572.0030	12013.6656		25851.8860	25851.8775	0.0085
26	44	44	e		18, 45	0, 46	266.2174	13572.0030	12018.9625		25857.1829	25857.1801	0.0028
26	44	44	e		18, 45	0, 46	266.2174	13572.0030	12018.9659		25857.1863	25857.1801	0.0062
26	44	45	f		18, 45	0, 46	266.2174	13572.0030	12018.9171		25857.1375	25857.1278	0.0097
26	44	45	f		18, 45	0, 46	266.2174	13572.0030	12018.9211		25857.1415	25857.1278	0.0137
26	45	44	e		18, 45	0, 46	266.2174	13572.0030	12024.3782		25862.5986	25862.5920	0.0066
26	45	45	f		18, 45	0, 46	266.2174	13572.0030	12024.3287		25862.5491	25862.5436	0.0055
26	45	46	e		18, 45	0, 46	266.2174	13572.0030	12024.2807		25862.5011	25862.4925	0.0086
26	46	45	f		18, 45	0, 46	266.2174	13572.0030	12029.8524		25868.0728	25868.0686	0.0042
26	46	46	e		18, 45	0, 46	266.2174	13572.0030	12029.8063		25868.0267	25868.0212	0.0055
27	13	14	e		15, 15	0, 14	81.8245	13269.6738	12459.5524		25811.0507	25811.0651	-0.0144
27	14	14	e		15, 15	0, 14	81.8245	13269.6738	12461.3979		25812.8962	25812.9122	-0.0160
27	14	15	f		15, 15	0, 14	81.8245	13269.6738	12461.2317		25812.7300	25812.7497	-0.0197
27	15	14	e		15, 15	0, 14	81.8245	13269.6738	12463.3226		25814.8209	25814.8363	-0.0154
27	15	15	f		15, 15	0, 14	81.8245	13269.6738	12463.1919		25814.6902	25814.7046	-0.0144
27	15	16	e		15, 15	0, 14	81.8245	13269.6738	12463.0411		25814.5394	25814.5523	-0.0129
27	16	15	f		15, 15	0, 14	81.8245	13269.6738	12465.2287		25816.7270	25816.7409	-0.0139
27	16	16	e		15, 15	0, 14	81.8245	13269.6738	12465.1021		25816.6004	25816.6162	-0.0158
27	17	16	e		15, 15	0, 14	81.8245	13269.6738	12467.2556		25818.7539	25818.7652	-0.0113

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
27	24	25	e		17, 26	0, 25	123.5397	13488.0442	12224.4947		25836.0786	25836.0836	-0.0050
27	25	25	e		17, 26	0, 25	123.5397	13488.0442	12227.5711		25839.1550	25839.1571	-0.0021
27	25	26	f		17, 26	0, 25	123.5397	13488.0442	12227.4813		25839.0652	25839.0643	0.0009
27	26	25	e		17, 26	0, 25	123.5397	13488.0442	12230.7498		25842.3337	25842.3328	0.0009
27	26	26	f		17, 26	0, 25	123.5397	13488.0442	12230.6676		25842.2515	25842.2515	0.0000
27	26	27	e		17, 26	0, 25	123.5397	13488.0442	12230.5816		25842.1655	25842.1622	0.0033
27	27	26	f		17, 26	0, 25	123.5397	13488.0442	12233.9598		25845.5437	25845.5417	0.0020
27	27	27	e		17, 26	0, 25	123.5397	13488.0442	12233.8796		25845.4635	25845.4631	0.0004
27	28	27	e		17, 26	0, 25	123.5397	13488.0442	12237.2807		25848.8646	25848.8678	-0.0032
27	43	44	e		18, 45	0, 46	266.2174	13572.0030	12074.3325		25912.5529	25912.5514	0.0015
27	44	44	e		18, 45	0, 46	266.2174	13572.0030	12079.5491		25917.7695	25917.7733	-0.0038
27	44	45	f		18, 45	0, 46	266.2174	13572.0030	12079.4915		25917.7119	25917.7202	-0.0083
27	45	44	e		18, 45	0, 46	266.2174	13572.0030	12084.8824		25923.1028	25923.1023	0.0005
27	45	45	f		18, 45	0, 46	266.2174	13572.0030	12084.8286		25923.0490	25923.0532	-0.0042
27	45	46	e		18, 45	0, 46	266.2174	13572.0030	12084.8027		25923.0231	25923.0012	0.0219
27	46	45	f		18, 45	0, 46	266.2174	13572.0030	12090.2724		25928.4928	25928.4933	-0.0005
27	46	46	e		18, 45	0, 46	266.2174	13572.0030	12090.2316		25928.4520	25928.4452	0.0068
28	13	14	e		15, 15	0, 14	81.8245	13269.6738	12520.1593		25871.6576	25871.6729	-0.0153
28	14	14	e		15, 15	0, 14	81.8245	13269.6738	12521.9805		25873.4788	25873.4964	-0.0176
28	14	15	f		15, 15	0, 14	81.8245	13269.6738	12521.8271		25873.3254	25873.3315	-0.0061
28	15	14	e		15, 15	0, 14	81.8245	13269.6738	12523.8800		25875.3783	25875.3944	-0.0161
28	15	15	f		15, 15	0, 14	81.8245	13269.6738	12523.7448		25875.2431	25875.2608	-0.0177
28	15	16	e		15, 15	0, 14	81.8245	13269.6738	12523.5889		25875.0872	25875.1063	-0.0191
28	16	15	f		15, 15	0, 14	81.8245	13269.6738	12525.7480		25877.2463	25877.2690	-0.0227
28	16	16	e		15, 15	0, 14	81.8245	13269.6738	12525.6271		25877.1254	25877.1425	-0.0171
28	17	16	e		15, 15	0, 14	81.8245	13269.6738	12527.7494		25879.2477	25879.2616	-0.0139
28	43	44	e		18, 45	0, 46	266.2174	13572.0030	12133.3187		25971.5391	25971.5448	-0.0057
28	44	44	e		18, 45	0, 46	266.2174	13572.0030	12138.4533		25976.6737	25976.6830	-0.0093
28	44	45	f		18, 45	0, 46	266.2174	13572.0030	12138.4010		25976.6214	25976.6291	-0.0077
28	45	44	e		18, 45	0, 46	266.2174	13572.0030	12143.6960		25981.9164	25981.9263	-0.0099
28	45	44	e		18, 45	0, 46	266.2174	13572.0030	12143.6962		25981.9166	25981.9263	-0.0097
28	45	45	f		18, 45	0, 46	266.2174	13572.0030	12143.6428		25981.8632	25981.8764	-0.0132
28	45	45	f		18, 45	0, 46	266.2174	13572.0030	12143.6429		25981.8633	25981.8764	-0.0131
28	45	46	e		18, 45	0, 46	266.2174	13572.0030	12143.5917		25981.8121	25981.8237	-0.0116
28	45	46	e		18, 45	0, 46	266.2174	13572.0030	12143.5923		25981.8127	25981.8237	-0.0110
28	46	45	f		18, 45	0, 46	266.2174	13572.0030	12148.9821		25987.2025	25987.2288	-0.0263
28	46	46	e		18, 45	0, 46	266.2174	13572.0030	12148.9490		25987.1694	25987.1799	-0.0105
28	47	46	e		18, 45	0, 46	266.2174	13572.0030	12154.4104		25992.6308	25992.6409	-0.0101
29	14	14	e		15, 15	0, 14	81.8245	13269.6738	12580.8909		25932.3892	25932.4110	-0.0218
29	14	15	f		15, 15	0, 14	81.8245	13269.6738	12580.7251		25932.2234	25932.2437	-0.0203

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
29	15	14	e		15, 15	0, 14	81.8245	13269.6738	12582.7658		25934.2641	25934.2820	-0.0179
29	15	15	f		15, 15	0, 14	81.8245	13269.6738	12582.6295		25934.1278	25934.1465	-0.0187
29	16	15	f		15, 15	0, 14	81.8245	13269.6738	12584.6089		25936.1072	25936.1257	-0.0185
29	16	16	e		15, 15	0, 14	81.8245	13269.6738	12584.4782		25935.9765	25935.9973	-0.0208
29	17	16	e		15, 15	0, 14	81.8245	13269.6738	12586.5731		25938.0714	25938.0853	-0.0139
29	24	25	e		17, 26	0, 25	123.5397	13488.0442	12343.2336		25954.8175	25954.8376	-0.0201
29	25	25	e		17, 26	0, 25	123.5397	13488.0442	12346.2168		25957.8007	25957.8187	-0.0180
29	25	25	e		17, 26	0, 25	123.5397	13488.0442	12346.2232		25957.8071	25957.8187	-0.0116
29	25	26	f		17, 26	0, 25	123.5397	13488.0442	12346.1254		25957.7093	25957.7229	-0.0136
29	25	26	f		17, 26	0, 25	123.5397	13488.0442	12346.1284		25957.7123	25957.7229	-0.0106
29	26	25	e		17, 26	0, 25	123.5397	13488.0442	12349.3054		25960.8893	25960.8975	-0.0082
29	26	26	f		17, 26	0, 25	123.5397	13488.0442	12349.2186		25960.8025	25960.8136	-0.0111
29	26	27	e		17, 26	0, 25	123.5397	13488.0442	12349.1267		25960.7106	25960.7215	-0.0109
30	24	25	e		17, 26	0, 25	123.5397	13488.0442	12400.0497		26011.6336	26011.6473	-0.0137
30	25	25	e		17, 26	0, 25	123.5397	13488.0442	12402.9827		26014.5666	26014.5798	-0.0132
30	25	26	f		17, 26	0, 25	123.5397	13488.0442	12402.8854		26014.4693	26014.4825	-0.0132
30	26	25	e		17, 26	0, 25	123.5397	13488.0442	12406.0141		26017.5980	26017.6078	-0.0098
30	26	26	f		17, 26	0, 25	123.5397	13488.0442	12405.9267		26017.5106	26017.5225	-0.0119
30	26	27	e		17, 26	0, 25	123.5397	13488.0442	12405.8339		26017.4178	26017.4289	-0.0111
30	27	26	f		17, 26	0, 25	123.5397	13488.0442	12409.0656		26020.6495	26020.6589	-0.0094
30	27	27	e		17, 26	0, 25	123.5397	13488.0442	12408.9802		26020.5641	26020.5765	-0.0124
30	28	27	e		17, 26	0, 25	123.5397	13488.0442	12412.2298		26023.8137	26023.8213	-0.0076
31	13	14	e		15, 15	0, 14	81.8245	13269.6738	12691.7880		26043.2863	26043.3085	-0.0222
31	14	14	e		15, 15	0, 14	81.8245	13269.6738	12693.5421		26045.0404	26045.0563	-0.0159
31	14	15	f		15, 15	0, 14	81.8245	13269.6738	12693.3585		26044.8568	26044.8838	-0.0270
31	15	14	e		15, 15	0, 14	81.8245	13269.6738	12695.3636		26046.8619	26046.8707	-0.0088
31	15	15	f		15, 15	0, 14	81.8245	13269.6738	12695.2179		26046.7162	26046.7309	-0.0147
31	15	16	e		15, 15	0, 14	81.8245	13269.6738	12695.0492		26046.5475	26046.5691	-0.0216
31	16	15	f		15, 15	0, 14	81.8245	13269.6738	12697.1398		26048.6381	26048.6492	-0.0111
31	16	16	e		15, 15	0, 14	81.8245	13269.6738	12697.0031		26048.5014	26048.5168	-0.0154
31	17	16	e		15, 15	0, 14	81.8245	13269.6738	12699.0308		26050.5291	26050.5396	-0.0105
31	24	25	e		17, 26	0, 25	123.5397	13488.0442	12455.0868		26066.6707	26066.6857	-0.0150
31	25	25	e		17, 26	0, 25	123.5397	13488.0442	12457.9690		26069.5529	26069.5680	-0.0151
31	25	26	f		17, 26	0, 25	123.5397	13488.0442	12457.8710		26069.4549	26069.4691	-0.0142
31	26	25	e		17, 26	0, 25	123.5397	13488.0442	12460.9466		26072.5305	26072.5433	-0.0128
31	26	26	f		17, 26	0, 25	123.5397	13488.0442	12460.8581		26072.4420	26072.4567	-0.0147
31	26	27	e		17, 26	0, 25	123.5397	13488.0442	12460.7630		26072.3469	26072.3614	-0.0145
31	27	26	f		17, 26	0, 25	123.5397	13488.0442	12463.9319		26075.5158	26075.5382	-0.0224
31	27	27	e		17, 26	0, 25	123.5397	13488.0442	12463.8551		26075.4390	26075.4545	-0.0155
31	28	27	e		17, 26	0, 25	123.5397	13488.0442	12467.0454		26078.6293	26078.6422	-0.0129

v	N	J	parity	intermediate A <sup>1</sup> Σ <sup>+</sup> (v, J)	state level ~ b <sup>3</sup> Π (v, J)	ground state level X <sup>1</sup> Σ <sup>+</sup> (v, J)	ground state level energy (cm <sup>-1</sup> )	PUMP frequency (cm <sup>-1</sup> )	PROBE frequency (cm <sup>-1</sup> )	collisional energy transfer (cm <sup>-1</sup> ) (if any)	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) measured value	E[1 <sup>3</sup> Δ(v,N,J,e/f)] (cm <sup>-1</sup> ) calculated value	E[meas.] - E[calc.] (cm <sup>-1</sup> )
32	13	14	e		15, 15	0, 14	81.8245	13269.6738	12745.4665		26096.9648	26096.9758	-0.0110
32	14	14	e		15, 15	0, 14	81.8245	13269.6738	12747.1924		26098.6907	26098.6966	-0.0059
32	14	15	f		15, 15	0, 14	81.8245	13269.6738	12747.0141		26098.5124	26098.5213	-0.0089
32	15	14	e		15, 15	0, 14	81.8245	13269.6738	12748.9834		26100.4817	26100.4812	0.0005
32	15	15	f		15, 15	0, 14	81.8245	13269.6738	12748.8360		26100.3343	26100.3392	-0.0049
32	15	16	e		15, 15	0, 14	81.8245	13269.6738	12748.6682		26100.1665	26100.1748	-0.0083
32	16	15	f		15, 15	0, 14	81.8245	13269.6738	12750.7287		26102.2270	26102.2255	0.0015
32	16	16	e		15, 15	0, 14	81.8245	13269.6738	12750.5869		26102.0852	26102.0909	-0.0057
32	17	16	e		15, 15	0, 14	81.8245	13269.6738	12752.5817		26104.0800	26104.0794	0.0006
32	24	25	e		17, 26	0, 25	123.5397	13488.0442	12508.3131		26119.8970	26119.9067	-0.0097
32	25	25	e		17, 26	0, 25	123.5397	13488.0442	12511.1480		26122.7319	26122.7370	-0.0051
32	25	26	f		17, 26	0, 25	123.5397	13488.0442	12511.0416		26122.6255	26122.6363	-0.0108
32	26	25	e		17, 26	0, 25	123.5397	13488.0442	12514.0714		26125.6553	26125.6578	-0.0025
32	26	26	f		17, 26	0, 25	123.5397	13488.0442	12513.9778		26125.5617	26125.5697	-0.0080
32	26	27	e		17, 26	0, 25	123.5397	13488.0442	12513.8754		26125.4593	26125.4728	-0.0135
32	27	26	f		17, 26	0, 25	123.5397	13488.0442	12517.0059		26128.5898	26128.5946	-0.0048
32	27	27	e		17, 26	0, 25	123.5397	13488.0442	12516.9195		26128.5034	26128.5094	-0.0060
32	28	27	e		17, 26	0, 25	123.5397	13488.0442	12520.0479		26131.6318	26131.6382	-0.0064
33	24	25	e		17, 26	0, 25	123.5397	13488.0442	12559.6878		26171.2717	26171.2624	0.0093
33	25	25	e		17, 26	0, 25	123.5397	13488.0442	12562.4641		26174.0480	26174.0390	0.0090
33	25	26	f		17, 26	0, 25	123.5397	13488.0442	12562.3607		26173.9446	26173.9365	0.0081
33	26	25	e		17, 26	0, 25	123.5397	13488.0442	12565.3292		26176.9131	26176.9036	0.0095
33	26	26	f		17, 26	0, 25	123.5397	13488.0442	12565.2374		26176.8213	26176.8139	0.0074
33	26	27	e		17, 26	0, 25	123.5397	13488.0442	12565.1379		26176.7218	26176.7152	0.0066
33	27	26	f		17, 26	0, 25	123.5397	13488.0442	12568.2035		26179.7874	26179.7801	0.0073
33	27	27	e		17, 26	0, 25	123.5397	13488.0442	12568.1145		26179.6984	26179.6934	0.0050
33	28	27	e		17, 26	0, 25	123.5397	13488.0442	12571.1829		26182.7668	26182.7613	0.0055
36	44	44	e		18, 45	0, 46	266.2174	13572.0030	12543.5740		26381.7945	26381.7971	-0.0026
36	44	45	f		18, 45	0, 46	266.2174	13572.0030	12543.4975		26381.7179	26381.7344	-0.0165