

I. Observed and least squares fitted gnd state 2-line combination differences
only from JILA measured nu_3 and nu_4 bands

Residual std dev: 0.0024

J'	Ka'	Kc'	J''	Ka''	Kc''	Observed [cm ⁻¹]	Calculated [cm ⁻¹]	Obs-Calc [cm ⁻¹]	Weighting factors
nu_3:									
6	0	6	4	0	4	1.46496	1.4638	0.00116	0.5
6	1	6	4	1	4	1.445925	1.444591	0.001334	0.5
7	0	7	5	0	5	1.702813	1.701469	0.001344	0.5
7	1	7	5	1	5	1.692413	1.691619	0.000795	0.5
8	0	8	6	0	6	1.942707	1.940987	0.00172	0.5
8	1	7	6	1	5	2.212585	2.216772	-0.00419	0.5
8	1	8	6	1	6	1.93902	1.936358	0.002662	0.5
8	2	7	6	2	4	2.147983	2.154073	-0.00609	0.5
9	0	9	7	0	7	2.183923	2.181906	0.002018	0.5
9	1	8	7	1	6	2.449707	2.44883	0.000876	0.5
9	1	9	7	1	7	2.179843	2.179851	-7.5E-06	0.5
9	2	8	7	2	6	2.409523	2.409884	-0.00036	0.5
10	0	10	8	0	8	2.427263	2.423615	0.003648	0.5
10	1	9	8	1	7	2.68759	2.681769	0.005821	0.5
10	1	10	8	1	8	2.424633	2.422738	0.001895	0.5
10	2	9	8	2	7	2.66341	2.660264	0.003146	0.5
11	0	11	9	0	9	2.667087	2.665727	0.001359	1
11	1	10	9	1	8	2.919247	2.917947	0.0013	0.5
11	1	11	9	1	9	2.667087	2.665363	0.001723	1
11	2	10	9	2	8	2.90644	2.907029	-0.00059	0.5
12	0	12	10	0	10	2.910623	2.908043	0.00258	1
12	1	11	10	1	9	3.15835	3.156876	0.001474	0.5
12	1	12	10	1	10	2.910623	2.907895	0.002728	1
12	2	11	10	2	9	3.147187	3.151649	-0.00446	0.5
13	0	13	11	0	11	3.15222	3.150468	0.001752	1
13	1	12	11	1	10	3.39597	3.397527	-0.00156	0.5
13	1	13	11	1	11	3.15222	3.150409	0.001811	1
13	2	12	11	2	10	3.394762	3.395129	-0.00037	0.5
14	0	14	12	0	12	3.394573	3.392959	0.001614	1
14	1	13	12	1	11	3.63947	3.639134	0.000336	0.5
14	1	14	12	1	12	3.394573	3.392936	0.001637	1
14	2	13	12	2	11	3.637897	3.638069	-0.00017	0.5
15	0	15	13	0	13	3.637343	3.635499	0.001845	1

15	1	14	13	1	12	3.879737	3.881251	-0.00151	1
15	1	15	13	1	13	3.637343	3.63549	0.001854	1
15	2	14	13	2	12	3.87857	3.880789	-0.00222	1
16	0	16	14	0	14	3.880077	3.878077	0.001999	1
16	1	15	14	1	13	4.123405	4.123641	-0.00024	1
16	1	16	14	1	14	3.880077	3.878074	0.002003	1
16	2	15	14	2	13	4.123405	4.123446	-4.1E-05	1
17	0	17	15	0	15	4.12204	4.120691	0.001349	1
17	1	16	15	1	14	4.366495	4.36619	0.000305	1
17	1	17	15	1	15	4.12204	4.12069	0.00135	1
17	2	16	15	2	14	4.366495	4.366108	0.000387	1
18	0	18	16	0	16	4.364675	4.363339	0.001336	1
18	1	18	16	1	16	4.364675	4.363338	0.001337	1
19	0	19	17	0	17	4.6071	4.606019	0.001081	1
19	1	19	17	1	17	4.6071	4.606019	0.001081	1
20	0	20	18	0	18	4.84885	4.848731	0.000119	1
20	1	20	18	1	18	4.84885	4.848731	0.000119	1
21	0	21	19	0	19	5.091115	5.091474	-0.00036	1
21	1	21	19	1	19	5.091115	5.091474	-0.00036	1
22	0	22	20	0	20	5.3303	5.334249	-0.00395	1
22	1	22	20	1	20	5.3303	5.334249	-0.00395	1
23	0	23	21	0	21	5.57387	5.577055	-0.00318	1
23	1	23	21	1	21	5.57387	5.577055	-0.00318	1
24	0	24	22	0	22	5.819075	5.819891	-0.00082	1
24	1	24	22	1	22	5.819075	5.819891	-0.00082	1
25	0	25	23	0	23	6.062015	6.062759	-0.00074	1
25	1	25	23	1	23	6.062015	6.062759	-0.00074	1
26	0	26	24	0	24	6.30444	6.305657	-0.00122	1
26	1	26	24	1	24	6.30444	6.305657	-0.00122	1
									#DIV/0!
nu_4:									#DIV/0!
5	0	5	3	0	3	1.229	1.226549	0.002451	1
5	1	5	3	1	3	1.197	1.193866	0.003134	1
6	0	6	4	0	4	1.4663	1.4638	0.0025	1
6	1	5	4	1	3	1.6208	1.619537	0.001263	1
6	1	6	4	1	4	1.4464	1.444591	0.001809	1
7	0	7	5	0	5	1.7035	1.701469	0.002031	1
7	1	6	5	1	4	1.8911	1.891042	5.77E-05	1
7	1	7	5	1	5	1.6938	1.691619	0.002181	1
7	2	6	5	2	4	1.9784	1.977941	0.000459	1
8	0	8	6	0	6	1.9445	1.940987	0.003513	1
8	1	7	6	1	5	2.1518	2.154073	-0.00227	1
8	1	8	6	1	6	1.9381	1.936358	0.001742	1

8	2	7	6	2	5	2.217	2.216772	0.000228	1
9	0	9	7	0	7	2.1824	2.181906	0.000494	2
9	1	8	7	1	6	2.4119	2.409884	0.002016	1
9	1	9	7	1	7	2.1824	2.179851	0.002549	2
9	2	8	7	2	6	2.4483	2.44883	-0.00053	1
10	0	10	8	0	8	2.42446	2.423615	0.000845	2
10	1	9	8	1	7	2.6589	2.660264	-0.00136	1
10	1	10	8	1	8	2.42446	2.422738	0.001722	2
10	2	9	8	2	7	2.6822	2.681769	0.000431	1
11	0	11	9	0	9	2.6683	2.665727	0.002573	2
11	1	10	9	1	8	2.90435	2.907029	-0.00268	1
11	1	11	9	1	9	2.6683	2.665363	0.002937	2
12	0	12	10	0	10	2.911	2.908043	0.002957	2
12	1	11	10	1	9	3.1546	3.156876	-0.00228	2
12	1	12	10	1	10	2.911	2.907895	0.003105	2
13	2	12	10	2	9	3.3923	3.395129	-0.00283	2
13	0	13	11	0	11	3.1525	3.150468	0.002032	2
13	1	12	11	1	10	3.39909	3.397527	0.001563	2
13	1	13	11	1	11	3.1525	3.150409	0.002091	2
14	0	14	12	0	12	3.39481	3.392959	0.001851	2
14	1	13	12	1	11	3.6373	3.639134	-0.00183	2
14	1	14	12	1	12	3.39481	3.392936	0.001874	2
14	2	13	12	2	10	3.6373	3.638069	-0.00077	2
15	0	15	13	0	13	3.6396	3.635499	0.004101	2
15	1	14	13	1	12	3.8799	3.881251	-0.00135	2
15	1	15	13	1	13	3.6396	3.63549	0.00411	2
15	2	14	13	2	12	3.8799	3.880789	-0.00089	2
16	0	16	14	0	14	3.8802	3.878077	0.002123	2
16	1	16	14	1	14	3.8802	3.878074	0.002126	2