

The observed term values of the  $A(v)$   $^1\Pi$  levels of CO,  $\text{cm}^{-1}$ .

J	A(0) Level				A(1) Level			
	$\Pi^+$	$\Pi_{ext}^+$	$\Pi^-$	$\Pi_{ext}^-$	$\Pi^+$	$\Pi_{ext}^+$	$\Pi^-$	$\Pi_{ext}^-$
1	64748.08		64748.05		66236.007	66210.750	66236.009	
2	64754.28		64754.30		66242.225	66215.57	66242.176	66215.54
3	64763.78		64763.84		66251.416	66223.47	66251.440	66223.63B
4	64776.47		64776.62		66263.760	66234.30B	66263.750	66234.15
5	64792.46		64792.48		66279.195	66247.51	66279.190	66247.50
6	64811.38		64811.62	64855.68	66297.820	66263.48B	66297.823	66263.40
7	64833.26	64855.78	64833.82	64873.97	66319.618	66281.82	66319.666	
8	64857.87	64874.18	64859.17	64894.26	66344.588	66302.580	66344.586	
9	64884.21	64896.74	64887.53	64917.70	66372.746		66372.773	
10	64924.98	64910.57	64918.69	64943.43	66404.115		66404.093	
11	64958.68	64937.12	64952.41	64972.30	66438.642		66438.656	
12	64996.25		64987.92	65005.32	66476.364		66476.386	
13	65037.24		65043.38	65024.24	66517.260		66517.296	
14	65081.40	65103.91	65086.11	65061.43	66561.316		66561.336	
15	65128.37	65144.12	65132.95	65100.10	66608.538		66608.560	
16	65177.29	65189.71	65183.50		66658.937		66658.916	
17	65240.11	65226.19	65237.45		66712.423		66712.450	
18	65295.92	65275.48	65294.73		66769.090		66769.090	
19	65355.88		65355.24		66828.930		66828.860	
20	65419.38		65418.96		66891.872		66891.826	
21	65486.19		65485.89		66957.897		66957.883	
22	65556.19		65555.99		67027.087		67027.036	
23	65629.37		65629.27		67099.352		67099.083	
24	65705.84		65705.68		67174.700		67175.166	
25	65785.26		65785.18		67252.850		67253.213	
26	65867.75		65867.67		67332.735	67338.275	67355.603	
27	65950.93		65950.90	65957.15	67420.512		67420.110	
28	66043.17		66043.11		67508.138		67507.860	
29	66134.56		66134.47		67599.030		67601.526	67597.415
30	66227.67		66227.63	66247.73	67693.011		67693.070	
31	66333.97	66315.42	66334.00	66315.40	67790.100		67790.070	
32	66432.65	66396.52B	66432.63	66396.16	67890.317		67890.143	
33	66535.85	66571.04	66535.75		67993.556		67993.243	
34	66639.99	66659.43	66639.99	66659.39	68099.894		68098.946	
35	66760.59	66737.16	66760.51	66737.03	68209.276		68210.935	68198.495
36	66872.44		66872.31	66828.92	68321.686		68322.243	

J	A(0) Level				A(1) Level			
	$\Pi^+$	$\Pi_{ext}^+$	$\Pi^-$	$\Pi_{ext}^-$	$\Pi^+$	$\Pi_{ext}^+$	$\Pi^-$	$\Pi_{ext}^-$
37	66988.83		66988.70		68437.155		68437.506	
38	67108.71		67108.63		68555.634		68555.945	
39	67231.86		67232.30	66230.11	68677.150		68677.420	
40	67358.09		67358.00		68801.71		68801.943	
41	67487.24		67487.37		68929.59		68929.46	
42	67620.04		67619.65		69059.950		69059.975	
43	67755.95		67754.98		69193.47		69193.415	69223.38
44	67893.99B		67893.78		69329.99		69331.38	
45	68035.59		68035.43		69469.27B		69469.805	
46	68180.16				69611.88		69612.10	
47	68327.79				69756.82			
48	68478.45		68477.39		69906.72			
49	68632.20B		68634.49					
50	68788.44							

J	A(2) Level				A(3) Level			
	$\Pi^+$	$\Pi_{ext}^+$	$\Pi^-$	$\Pi_{ext}^-$	$\Pi^+$	$\Pi_{ext}^+$	$\Pi^-$	$\Pi_{ext}^-$
1	67678.78B		67678.800		69091.542		69091.507	
2	67685.500		67685.012		69097.671		69097.630	
3	67694.341		67694.332		69106.880		69106.882	
4	67706.812		67706.813		69119.154		69119.143	
5	67722.406		67722.373		69134.496		69134.483	
6	67741.077		67741.042		69152.882		69152.886	
7	67762.870		67762.635		69174.355		69174.352	
8	67787.750		67787.935		69198.891		69198.890	
9	67815.792		67815.883		69226.472		69226.472	
10	67846.928		67846.987		69257.127		69257.145	
11	67881.154		67881.207		69290.857		69290.853	
12	67918.501		67918.547		69327.636		69327.627	
13	67958.933		67958.972		69367.468		69367.468	
14	68002.466		68002.512		69410.351		69410.355	
15	68049.090		68049.130		69456.273		69456.275	
16	68098.808		68098.832		69505.256		69505.265	
17	68151.611		68151.652		69557.276		69557.290	
18	68207.502		68207.557		69612.367		69612.380	
19	68266.470		68266.530		69670.456		69670.450	

J	A(2) Level				A(3) Level			
	$\Pi^+$	$\Pi_{ext}^+$	$\Pi^-$	$\Pi_{ext}^-$	$\Pi^+$	$\Pi_{ext}^+$	$\Pi^-$	$\Pi_{ext}^-$
20	68328.488		68328.575		69731.603		69731.602	
21	68393.583		68393.696		69795.770		69795.765	
22	68461.721		68461.873		69863.004		69863.007	
23	68532.815		68533.110		69933.195		69933.195	
24	68606.717		68607.347		70006.418		70006.435	
25	68681.765	68693.08	68684.600		70082.662		70082.645	
26	68767.223		68764.780		70161.987		70161.925	
27	68849.880		68847.580		70244.158		70244.033	
28	68936.141		68931.597		70329.372		70327.965	
29	69025.518		69029.165	70009.67	70417.500		70418.195	
30	69117.888		69119.917		70508.148		70509.242	
31	69212.906		69215.002		70604.815		70603.385	
32	69307.578	69318.12	69313.423		70701.030		70700.462	
33	69415.876		69414.996		70801.130		70800.292	
34	69519.945		69519.600		70904.184		70904.626	
35	69627.323		69627.170		71010.236		71010.355	
36	69738.445		69738.360		71119.281		71119.336	
37	69851.765		69851.696		71231.307		71231.276	
38	69968.095		69968.060		71346.225		71346.220	
39	70083.977	70092.11	70083.925		71464.096		71464.050	
40	70211.450		70211.400		71584.840		71584.615	
41	70336.640		70336.486		71708.523		71708.830	
42	70464.390		70464.853		71835.15		71835.29	
43	70597.937		70598.210		71964.710		71964.826	
44	70730.685		70731.983		72097.04		72097.226	
45	70869.620		70869.196		72232.150		72232.485	
46	71009.695		71009.515		72368.695		72370.59	
47	71153.45		71153.15B		72512.600		72511.455	
48	71299.20		71299.23		72656.09			
49			71447.96		72802.75			
50	71600.17		71599.77B					
51	71755.02		71754.52		73104.47			
52			71911.24				73259.38	
53			72024.81				73417.87B	
54			72237.30				73579.33	
55			72403.42				73741.92	
56			72572.38					
57			72744.20					

J	A(4) Level				A(5) Level			
	$\Pi^+$	$\Pi_{ext}^+$	$\Pi^-$	$\Pi_{ext}^-$	$\Pi^+$	$\Pi_{ext}^+$	$\Pi^-$	$\Pi_{ext}^-$
1	70469.818		70469.837		71811.825		71811.815	
2	70475.792		70475.827		71817.782		71817.760	
3	70484.800		70484.892		71826.714		71826.723B	
4	70496.813		70496.905		71838.620		71838.595	
5	70511.848		70511.952		71853.498		71853.475	
6	70529.916		70530.002		71871.32		71871.316	
7	70550.983		70551.083		71892.137		71892.150	
8	70575.108		70575.172		71915.920		71915.935	
9	70602.243		70602.302		71942.688		71942.692	
10	70632.417		70632.447		71972.411		71972.420	
11	70665.576		70665.617		72005.102		72005.097	
12	70701.761		70701.786		72040.742		72040.760	
13	70740.954		70741.000		72079.348		72079.387	
14	70783.181		70783.200		72120.906		72120.943	
15	70828.391		70828.407		72165.536		72165.470	
16	70876.610		70876.626		72212.934		72212.935	
17	70927.833		70927.855		72263.356		72263.357	
18	70982.040		70982.080		72316.736		72316.816	
19	71039.251		71039.270		72373.043		72373.075	
20	71099.458		71099.470		72432.293		72432.330	
21	71162.632		71162.642		72494.468		72494.500	
22	71228.801		71228.797		72559.600		72559.622	
23	71297.940		71298.493	71299.20	72627.643		72627.665	
24	71370.040		71370.090		72698.607		72698.636	
25	71445.116		71445.167		72772.485		72772.510	
26	71523.152		71523.190		72849.256		72849.305	
27	71604.142		71604.190		72928.942		72928.973	
28	71688.072		71688.136		73011.505		73011.506	
29	71774.966		71775.013		73097.188		73097.166	
30	71864.791		71864.843		73185.358		73185.296	
31	71957.530		71957.606		73276.456		73275.673	
32	72053.164		72053.296		73369.144		73369.680	73375.17
33	72151.575		72151.903		73467.505		73468.513	
34	72255.408		72255.400		73569.586		73568.070	
35	72358.253		72357.723		73670.774		73670.250	
36	72465.468		72464.720		73777.784		73776.890	
37	72575.652		72579.210		73885.742		73886.150	
38	72688.725		72689.423		73996.876		73966.985	
39	72804.630		72805.146		74110.900		74111.023	
40	72922.832		72923.950		74227.815		74227.896	
41	73045.966		73045.643		74347.575		74347.645	
42	73170.325		73170.190		74470.125		74470.240	
43	73297.697		73297.426		74595.505		74595.605	
44	73427.906		73428.530		74723.740		74723.500	
45	73560.725		73561.183				74854.895	
46	73700.42		73697.27				74988.640	
47			73836.02					

J	A(6) Level				A(7) Level			
	$\Pi^+$	$\Pi_{ext}^+$	$\Pi^-$	$\Pi_{ext}^-$	$\Pi^+$	$\Pi_{ext}^+$	$\Pi^-$	$\Pi_{ext}^-$
1	73119.372		73119.377		74394.41B		74394.40	
2	73125.203		73125.20		74400.14B		74400.11	
3	73133.960		73133.970		74408.81B		74408.76	
4	73145.631		73145.622		74420.30B		74420.29	
5	73160.148		73160.167		74434.68		74434.70	
6	73177.512		73177.513		74451.95		74451.95	
7	73201.404	73197.40	73201.26B	73197.37	74472.09		74472.10	
8	73222.260		73222.230		74495.10		74495.10	
9	73248.010		73247.900		74520.98		74521.00	
10	73276.864		73276.527		74549.73		74549.76	
11	73308.510		73311.910	73306.25	74581.36		74581.40	
12	73342.610		73344.110		74615.87		74615.89	
13	73393.650	73378.11	73380.330		74653.22		74653.29	
14	73429.597	73418.35	73428.850	73417.32	74693.47		74693.47	
15	73470.908	73454.15	73469.970	73453.93	74736.54		74736.54	
16	73516.733		73518.660	73513.26	74782.48		74782.48	
17	73565.840		73566.202		74831.27		74831.28	
18	73618.030		73618.177		74882.90		74882.91	
19	73673.270		73673.327		74937.39		74937.40	
20	73731.427		73731.470		74994.70		74994.73	
21	73792.502		73792.540		75054.85		75054.88	
22	73856.500		73856.520		75117.86		75117.89	
23	73923.404		73923.400		75183.66		75183.70	
24	73993.163		73933.210		75252.28		75252.35	
25	74065.823		74065.800		75323.69		75323.79	
26	74141.346		74141.333		75396.98	75400.65	75398.06	
27	74219.756		74219.713				75475.13	
28	74300.993		74300.923				75554.85	
29	74385.097		74384.900				75640.07	75635.05
30	74472.040		74473.090				75723.62	
31	74561.837		74562.030				75811.73	
32	74654.443		74654.585				75902.65	
33	74749.910		74750.000					
34	74848.183		74848.265					
35	74949.253		74949.325					
36	75053.125		75053.185					
37	75159.800		75159.860					
38	75269.28		75279.34					
39	75381.54		75381.625					
40			75496.63					
41			75614.415					
42			75734.94					
43			75858.265					
44			75984.13					
45			76113.705B					
46			76244.72					