

## Table 2: $\nu_2$ Band System of Monochloroacetylene

Observed transitions are listed for the different bands according to the running variable  $m$ . This relates to the rotational quantum number  $J$  such that  $m = -J''$  for  $P$  branches and  $m = J'' + 1$  for  $R$  branches. Observed and calculated transitions are given in wavenumbers [ $\text{cm}^{-1}$ ], differences in  $10^4 \text{ cm}^{-1}$ .

$^{35}\text{Cl} : 0000^0_0, \Sigma^+, e$

m	observed	calculated	diff.
65	2134.71159	2134.71178	-1.87
64	2134.44772	2134.44790	-1.78
63	2134.18234	2134.18222	1.22
61	2133.64541	2133.64546	-0.53
60	2133.37521	2133.37439	8.22
59	2133.10118	2133.10152	-3.36
58	2132.82657	2132.82685	-2.78
57	2132.55058	2132.55038	1.96
56	2132.27145	2132.27212	-6.74
55	2131.99204	2131.99207	-0.31
53	2131.42567	2131.42658	-9.13
48	2129.98225	2129.98151	7.40
47	2129.68775	2129.68713	6.23
46	2129.39118	2129.39096	2.24
45	2129.09342	2129.09300	4.22
44	2128.79273	2128.79325	-5.23
43	2128.49241	2128.49172	6.87
42	2128.18793	2128.18841	-4.78
34	2125.69763	2125.69774	-1.07
33	2125.37950	2125.37840	11.00
32	2125.05792	2125.05728	6.41
31	2124.73542	2124.73439	10.30
30	2124.41035	2124.40972	6.31
29	2124.08469	2124.08328	14.10
28	2123.75499	2123.75506	-0.73
27	2123.42503	2123.42508	-0.47
26	2123.09405	2123.09332	7.31
25	2122.76056	2122.75979	7.68
24	2122.42494	2122.42450	4.45
23	2122.08693	2122.08743	-5.00
22	2121.74874	2121.74860	1.43
21	2121.40850	2121.40800	5.02
20	2121.06521	2121.06563	-4.23
19	2120.72239	2120.72150	8.87
18	2120.37526	2120.37561	-3.50
17	2120.02761	2120.02796	-3.45
7	2116.45386	2116.45467	-8.10
6	2116.08710	2116.08769	-5.92
5	2115.71854	2115.71896	-4.22
4	2115.34890	2115.34848	4.16
3	2114.97655	2114.97626	2.93
2	2114.60251	2114.60228	2.27
-4	2112.32245	2112.32181	6.42
-5	2111.93512	2111.93563	-5.14
-7	2111.15819	2111.15807	1.18
-8	2110.76616	2110.76669	-5.27
-9	2110.37333	2110.37357	-2.37
-10	2109.97861	2109.97871	-1.03
-11	2109.58225	2109.58213	1.23
-12	2109.18503	2109.18381	12.20
-16	2107.57347	2107.57325	2.22
-17	2107.16647	2107.16629	1.78
-18	2106.75712	2106.75761	-4.91
-21	2105.52091	2105.52124	-3.28
-22	2105.10551	2105.10567	-1.63
-23	2104.68817	2104.68839	-2.21
-24	2104.26919	2104.26939	-2.02
-25	2103.84790	2103.84868	-7.78
-26	2103.42614	2103.42625	-1.10
-27	2103.00252	2103.00211	4.11
-30	2101.71879	2101.71942	-6.33
-31	2101.28831	2101.28844	-1.34
-32	2100.85592	2100.85576	1.61
-33	2100.42124	2100.42137	-1.29
-34	2099.98506	2099.98528	-2.16
-35	2099.54710	2099.54748	-3.80
-36	2099.10815	2099.10798	1.66
-37	2098.66648	2098.66679	-3.09
-38	2098.22245	2098.22390	-14.50
-39	2097.77874	2097.77931	-5.65
-40	2097.33223	2097.33302	-7.89
-41	2096.88466	2096.88504	-3.80
-42	2096.43523	2096.43537	-1.38
-43	2095.98410	2095.98401	0.95
-44	2095.53063	2095.53095	-3.22
-45	2095.07597	2095.07621	-2.42
-46	2094.61979	2094.61978	0.06
-47	2094.16170	2094.16167	0.29
-48	2093.70163	2093.70187	-2.44
-49	2093.23971	2093.24040	-6.85
-50	2092.77700	2092.77723	-2.34
-52	2091.84578	2091.84588	-0.96
-53	2091.37712	2091.37768	-5.62
-54	2090.90780	2090.90781	-0.12
-55	2090.43622	2090.43627	-0.49
-56	2089.96330	2089.96305	2.46
-57	2089.48882	2089.48817	6.52
-58	2089.01039	2089.01161	-12.20
-59	2088.53423	2088.53339	8.40
-61	2087.57274	2087.57195	7.92
-62	2087.08795	2087.08873	-7.82
-63	2086.60347	2086.60386	-3.85
-64	2086.11738	2086.11732	0.62
-65	2085.62978	2085.62912	6.57
-66	2085.13938	2085.13927	1.09
-67	2084.64801	2084.64776	2.46
-69	2083.66036	2083.65979	5.70
-70	2083.16364	2083.16333	3.12
-71	2082.66523	2082.66522	0.14
-72	2082.16490	2082.16546	-5.58
-73	2081.66412	2081.66405	0.66
-74	2081.16163	2081.16101	6.24
-75	2080.65589	2080.65632	-4.26
-76	2080.15066	2080.14999	6.74
-77	2079.64208	2079.64202	0.63
-78	2079.13420	2079.13241	17.90
-79	2078.62014	2078.62117	-10.30
-80	2078.10795	2078.10829	-3.43
-85	2075.51968	2075.51947	2.14
-86	2074.99626	2074.99682	-5.63
-88	2073.94608	2073.94667	-5.93
-96	2069.68124	2069.68148	-2.38
-99	2068.05583	2068.05551	3.19

$^{35}\text{Cl} : 0000^0 1^1, \Pi, e$ 

m	observed	calculated	diff.				
79	2129.13024	2129.13014	0.97	-14	2099.13768	2099.13752	1.13
78	2128.88914	2128.88860	5.37	-15	2098.73372	2098.73368	0.36
77	2128.64518	2128.64528	-0.98	-16	2098.32759	2098.32815	-5.62
76	2128.40009	2128.40017	-0.79	-17	2097.92125	2097.92093	3.25
66	2125.85093	2125.85110	-1.67	-18	2097.51203	2097.51201	0.27
65	2125.58583	2125.58641	-5.78	-19	2097.10082	2097.10139	-5.72
64	2125.32017	2125.31994	2.27	-20	2096.68943	2096.68909	3.43
62	2124.78241	2124.78169	7.19	-21	2096.27392	2096.27509	-11.70
61	2124.51060	2124.50991	6.95	-22	2095.85969	2095.85941	2.81
60	2124.23706	2124.23635	7.13	-23	2095.44120	2095.44204	-8.38
59	2123.96030	2123.96102	-7.17	-24	2095.02271	2095.02298	-2.71
57	2123.40520	2123.40505	1.55	-25	2094.60206	2094.60224	-1.79
56	2123.12500	2123.12441	5.95	-26	2094.17991	2094.17981	0.97
55	2122.84350	2122.84200	15.00	-27	2093.75544	2093.75571	-2.65
53	2122.27250	2122.27188	6.22	-28	2093.32975	2093.32992	-1.65
52	2121.98451	2121.98417	3.41	-29	2092.90210	2092.90245	-3.46
51	2121.69359	2121.69470	-11.10	-31	2092.04256	2092.04247	0.87
49	2121.11106	2121.11046	6.03	-32	2091.60944	2091.60997	-5.31
48	2120.81674	2120.81569	10.50	-33	2091.17543	2091.17580	-3.65
46	2120.22078	2120.22088	-1.01	-34	2090.73974	2090.73995	-2.06
45	2119.92121	2119.92084	3.75	-35	2090.30298	2090.30243	5.55
44	2119.61885	2119.61903	-1.80	-36	2089.86220	2089.86323	-10.30
36	2117.14222	2117.14137	8.49	-38	2088.97932	2088.97984	-5.21
34	2116.50340	2116.50443	-10.30	-39	2088.53423	2088.53565	-14.20
33	2116.18270	2116.18333	-6.34	-41	2087.64272	2087.64226	4.62
32	2115.86015	2115.86049	-3.40	-42	2087.19255	2087.19307	-5.19
31	2115.53628	2115.53590	3.80	-43	2086.74234	2086.74222	1.20
30	2115.21050	2115.20956	9.37	-44	2086.28911	2086.28971	-6.00
29	2114.88068	2114.88148	-8.02	-45	2085.83539	2085.83554	-1.52
28	2114.55186	2114.55166	2.05	-46	2085.38007	2085.37972	3.53
27	2114.22012	2114.22009	0.34	-47	2084.92175	2084.92224	-4.86
26	2113.88641	2113.88677	-3.64	-48	2084.46396	2084.46310	8.59
21	2112.19470	2112.19412	5.84	-50	2083.53955	2083.53987	-3.23
20	2111.85033	2111.85037	-0.41	-51	2083.07599	2083.07578	2.07
19	2111.50506	2111.50489	1.69	-52	2082.60966	2082.61004	-3.84
18	2111.15835	2111.15768	2.13	-53	2082.14161	2082.14266	-10.50
17	2110.80838	2110.80873	-3.49	-55	2081.20271	2081.20295	-2.40
16	2110.45829	2110.45805	2.41	-56	2080.72975	2080.73063	-8.80
15	2110.10590	2110.10564	2.62	-57	2080.25670	2080.25667	0.31
14	2109.75270	2109.75150	12.00	-58	2079.78080	2079.78107	-2.68
13	2109.39710	2109.39563	10.40	-59	2079.30378	2079.30383	-0.49
8	2107.59301	2107.59038	18.60	-60	2078.82491	2078.82495	-0.42
7	2107.22675	2107.22415	18.40	-61	2078.34599	2078.34444	15.50
6	2106.85740	2106.85621	8.42	-65	2076.40592	2076.40606	-1.41
5	2106.48799	2106.48654	10.20	-66	2075.91678	2075.91739	-6.12
3	2105.74341	2105.74206	9.56	-67	2075.42716	2075.42710	0.64
2	2105.36690	2105.36724	-2.39	-68	2074.93558	2074.93518	4.05
-3	2103.46680	2103.46742	-4.40	-69	2074.44168	2074.44163	0.50
-4	2103.08220	2103.08232	-0.88	-70	2073.94608	2073.94646	-3.83
-8	2101.52321	2101.52485	-11.60	-77	2070.43466	2070.43500	-3.38
-9	2101.13013	2101.13121	-7.67	-78	2069.92709	2069.92691	1.82
-11	2100.33803	2100.33884	-5.72	-82	2067.87883	2067.87848	3.50
-12	2099.93977	2099.94010	-2.32	-83	2067.36222	2067.36236	-1.44
				-84	2066.84378	2066.84465	-8.68

<sup>35</sup>Cl : 0000<sup>0</sup>1<sup>1</sup>, Π, f

m	observed	calculated	diff.
79	2129.18733	2129.18706	2.74
76	2128.45476	2128.45442	3.44
65	2125.63080	2125.63116	-3.59
64	2125.36492	2125.36386	10.70
62	2124.82484	2124.82393	9.06
61	2124.55133	2124.55132	0.10
60	2124.27683	2124.27694	-1.08
59	2124.00192	2124.00079	11.30
58	2123.72235	2123.72287	-5.22
57	2123.44310	2123.44319	-0.90
56	2123.16250	2123.16174	7.57
55	2122.87970	2122.87853	11.70
53	2122.30813	2122.30682	13.10
52	2122.01813	2122.01832	-1.94
51	2121.72755	2121.72807	-5.16
50	2121.43697	2121.43605	9.22
49	2121.14090	2121.14227	-13.70
48	2120.84730	2120.84674	5.62
47	2120.54978	2120.54945	3.34
46	2120.24952	2120.25040	-8.79
44	2119.64729	2119.64704	2.50
36	2117.16397	2117.16354	4.26
34	2116.52430	2116.52519	-8.92
33	2116.20280	2116.20340	-6.00
32	2115.87946	2115.87987	-4.06
31	2115.55492	2115.55459	3.31
30	2115.22830	2115.22757	7.29
29	2114.89905	2114.89881	2.37
28	2114.56879	2114.56832	4.73
27	2114.23573	2114.23608	-3.52
26	2113.90135	2113.90211	-7.60
21	2112.20682	2112.20623	5.88
20	2111.86189	2111.86186	0.30
19	2111.51586	2111.51576	1.02
18	2111.16851	2111.16793	5.83
16	2110.46706	2110.46708	-0.22
15	2110.11420	2110.11407	1.29
14	2109.75970	2109.75934	3.64
13	2109.40380	2109.40288	6.53
8	2107.59301	2107.59477	-12.40
7	2107.22675	2107.22799	-8.75
6	2106.85845	2106.85949	-7.38
5	2106.48799	2106.48929	-9.16
3	2105.74341	2105.74373	-2.26
2	2105.36690	2105.36838	-10.50
-3	2103.46680	2103.46602	5.51
-4	2103.08220	2103.08043	12.50
-8	2101.52321	2101.52104	15.30
-9	2101.12780	2101.12695	6.02
-10	2100.73248	2100.73115	9.38
-11	2100.33451	2100.33366	5.98
-12	2099.93512	2099.93448	4.54
-14	2099.13217	2099.13103	8.09
-15	2098.72695	2098.72676	1.88
-16	2098.32021	2098.32081	-5.98
-17	2097.91347	2097.91317	3.05
-18	2097.50360	2097.50383	-2.33
-19	2097.09274	2097.09282	-0.75
-20	2096.68089	2096.68011	7.78
-21	2096.26481	2096.26572	-9.14
-22	2095.85005	2095.84965	3.97
-23	2095.43130	2095.43190	-6.01
-24	2095.01226	2095.01247	-2.08
-25	2094.59147	2094.59136	1.15
-29	2092.89027	2092.89014	1.31
-26	2094.16813	2094.16857	-4.35
-27	2093.74383	2093.74410	-2.68
-28	2093.31777	2093.31796	-1.86
-31	2092.02963	2092.02949	1.41
-32	2091.59579	2091.59666	-8.68
-33	2091.16123	2091.16216	-9.28
-34	2090.72637	2090.72599	3.80
-35	2090.28897	2090.28816	8.14
-36	2089.84799	2089.84866	-6.67
-38	2088.96444	2088.96467	-2.28
-39	2088.51942	2088.52018	-7.62
-41	2087.62734	2087.62623	11.10
-42	2087.17611	2087.17677	-6.60
-43	2086.72582	2086.72565	1.68
-44	2086.27221	2086.27288	-6.71
-45	2085.81843	2085.81846	-0.26
-46	2085.36280	2085.36238	4.20
-47	2084.90418	2084.90465	-4.73
-48	2084.44635	2084.44528	10.70
-50	2083.52117	2083.52159	-4.16
-51	2083.05741	2083.05727	1.38
-52	2082.59113	2082.59132	-1.85
-53	2082.12263	2082.12372	-10.90
-54	2081.65535	2081.65448	8.74
-55	2081.18367	2081.18360	0.73
-56	2080.71018	2080.71108	-9.01
-57	2080.23716	2080.23693	2.32
-58	2079.76043	2079.76114	-7.11
-59	2079.28345	2079.28372	-2.70
-60	2078.80467	2078.80467	0.03
-61	2078.32498	2078.32398	9.96
-65	2076.38486	2076.38497	-1.13
-66	2075.89551	2075.89616	-6.49
-68	2074.91379	2074.91367	1.24
-69	2074.41987	2074.41999	-1.21
-70	2073.92448	2073.92470	-2.18
-78	2069.90331	2069.90431	-10.00
-82	2067.85470	2067.85558	-8.80
-83	2067.34004	2067.33940	6.41

$^{35}\text{Cl} : 0001^1 0^0, \Pi, e$ 

m	observed	calculated	diff.
80	2128.86552	2128.86598	-4.58
77	2128.15305	2128.15419	-11.40
67	2125.66201	2125.66266	-6.50
65	2125.14307	2125.14245	6.24
64	2124.88067	2124.87961	10.60
63	2124.61448	2124.61494	-4.64
59	2123.53750	2123.53810	-6.04
57	2122.98978	2122.98878	10.00
54	2122.15116	2122.15118	-0.20
53	2121.86900	2121.86835	6.47
52	2121.58338	2121.58372	-3.35
48	2120.42647	2120.42706	-5.90
47	2120.13327	2120.13338	-1.06
46	2119.83782	2119.83789	-0.65
37	2117.09877	2117.09732	14.50
35	2116.46785	2116.46851	-6.57
34	2116.15142	2116.15141	0.12
33	2115.83241	2115.83252	-1.05
32	2115.51227	2115.51183	4.43
31	2115.19027	2115.18935	9.23
30	2114.86552	2114.86508	4.44
29	2114.53983	2114.53901	8.17
28	2114.21134	2114.21116	1.79
22	2112.20682	2112.20652	3.03
20	2111.52455	2111.52403	3.68
19	2111.18139	2111.18011	9.03
18	2110.83528	2110.83442	6.09
17	2110.48778	2110.48694	5.91
15	2109.78788	2109.78666	8.61
14	2109.43589	2109.43386	14.40
8	2107.28054	2107.27980	5.23
7	2106.91558	2106.91460	6.96
3	2105.43740	2105.43612	9.09
-2	2103.54898	2103.54836	4.40
-7	2101.61638	2101.61667	-2.02
-8	2101.22547	2101.22507	2.84
-9	2100.83174	2100.83172	0.14
-10	2100.43503	2100.43662	-11.30
-11	2100.03872	2100.03978	-7.46
-12	2099.64097	2099.64118	-1.50
-13	2099.24080	2099.24084	-0.30
-14	2098.83735	2098.83876	-9.96
-15	2098.43351	2098.43493	-10.00
-16	2098.02856	2098.02936	-5.66
-18	2097.21021	2097.21300	-19.70
-19	2096.79999	2096.80221	-15.70
-20	2096.38735	2096.38968	-16.50
-22	2095.55877	2095.55942	-6.45
-24	2094.72200	2094.72221	-2.14
-25	2094.30156	2094.30102	5.44
-26	2093.87755	2093.87809	-5.37
-27	2093.45328	2093.45343	-1.49
-28	2093.02683	2093.02704	-2.13
-31	2091.73746	2091.73753	-0.69
-32	2091.30356	2091.30424	-6.83
-33	2090.86926	2090.86924	0.25
-35	2089.99408	2089.99406	0.20
-36	2089.55366	2089.55390	-2.35
-38	2088.66920	2088.66842	7.85
-41	2087.32719	2087.32734	-1.53
-42	2086.87686	2086.87690	-0.37
-43	2086.42463	2086.42474	-1.12
-44	2085.97033	2085.97088	-5.48
-45	2085.51495	2085.51531	-3.59
-46	2085.05845	2085.05804	4.15
-47	2084.59926	2084.59906	2.04
-50	2083.21216	2083.21191	2.48
-52	2082.27904	2082.27866	3.85
-53	2081.80967	2081.80948	1.87
-54	2081.33856	2081.33862	-0.56
-55	2080.86568	2080.86606	-3.75
-58	2079.43812	2079.43823	-1.10
-59	2078.95909	2078.95891	1.79
-60	2078.47797	2078.47791	0.64
-65	2076.04713	2076.04764	-5.06
-66	2075.55654	2075.55654	-0.03
-67	2075.06338	2075.06377	-3.93
-68	2074.56913	2074.56933	-1.99
-69	2074.07278	2074.07321	-4.31
-77	2070.04484	2070.04419	6.53
-78	2069.53309	2069.53307	0.20
-82	2067.47256	2067.47203	5.31
-83	2066.95353	2066.95263	8.98

$^{35}\text{Cl} : 0001^1 0^0, \Pi, f$ 

m	observed	calculated	diff.
64	2124.90332	2124.90386	-5.40
63	2124.63894	2124.63880	1.43
60	2123.83218	2123.83269	-5.07
59	2123.56050	2123.56035	1.53
54	2122.17136	2122.17141	-0.53
53	2121.88790	2121.88819	-2.86
52	2121.60348	2121.60315	3.32
51	2121.31686	2121.31630	5.61
50	2121.02752	2121.02764	-1.21
48	2120.44478	2120.44490	-1.21
47	2120.15160	2120.15082	7.79
46	2119.85434	2119.85494	-5.95
37	2117.11167	2117.11088	7.93
35	2116.48021	2116.48131	-11.00
34	2116.16283	2116.16383	-10.00
33	2115.84360	2115.84457	-9.65
32	2115.52301	2115.52351	-4.95
22	2112.21355	2112.21459	-10.40
21	2111.87281	2111.87389	-10.80
20	2111.53155	2111.53141	1.39
19	2111.18717	2111.18715	0.17
18	2110.84001	2110.84112	-7.83
17	2110.49324	2110.49331	-0.47
15	2109.79175	2109.79236	-4.31
9	2107.64552	2107.64700	-10.50
7	2106.91558	2106.91774	-15.30
3	2105.43740	2105.43805	-4.59
-2	2103.54898	2103.54885	0.94
-7	2101.61638	2101.61579	4.19
-8	2101.22547	2101.22393	10.90
-9	2100.83174	2100.83032	10.10
-10	2100.43503	2100.43496	0.51
-11	2100.03872	2100.03786	6.11
-12	2099.64033	2099.63901	9.33
-13	2099.23788	2099.23842	-3.82
-14	2098.83735	2098.83609	8.91
-15	2098.43254	2098.43202	3.69
-16	2098.02629	2098.02621	0.59
-18	2097.21021	2097.20937	5.93
-19	2096.79999	2096.79835	11.60
-20	2096.38735	2096.38559	12.40
-22	2095.55541	2095.55488	3.77
-23	2095.13670	2095.13692	-2.22
-24	2094.71721	2094.71724	-0.27
-25	2094.29631	2094.29582	4.87
-26	2093.87284	2093.87268	1.58
-27	2093.44798	2093.44781	1.66
-31	2091.73105	2091.73110	-0.50
-32	2091.29700	2091.29762	-6.18
-33	2090.86213	2090.86242	-2.86
-34	2090.42574	2090.42550	2.44
-35	2089.98726	2089.98686	4.00
-36	2089.54616	2089.54651	-3.47
-37	2089.10481	2089.10444	3.69
-38	2088.66130	2088.66066	6.39
-40	2087.76938	2087.76797	14.10
-41	2087.31969	2087.31906	6.35
-42	2086.86805	2086.86844	-3.85
-43	2086.41518	2086.41611	-9.28
-45	2085.50642	2085.50634	0.82
-46	2085.04837	2085.04890	-5.28
-47	2084.58954	2084.58976	-2.16
-50	2083.20290	2083.20213	7.69
-51	2082.73642	2082.73619	2.26
-52	2082.26891	2082.26856	3.48
-53	2081.79887	2081.79924	-3.65
-54	2081.32816	2081.32822	-0.55
-55	2080.85502	2080.85550	-4.83
-56	2080.38109	2080.38110	-0.11
-58	2079.42699	2079.42723	-2.41
-59	2078.94834	2078.94777	5.74
-60	2078.46689	2078.46662	2.75
-65	2076.03609	2076.03563	4.61
-67	2075.05128	2075.05148	-2.04
-68	2074.55726	2074.55690	3.62
-69	2074.06127	2074.06064	6.30
-78	2069.52039	2069.51923	11.60
-82	2067.45633	2067.45761	-12.80

$^{35}\text{Cl} : 0000^0 2^2, \Delta, e/f$

m	observed	calculated	diff.
64	2116.43917	2116.43969	-5.23
62	2115.89358	2115.89344	1.39
49	2112.17628	2112.17579	4.91
35	2107.84904	2107.84868	3.58
34	2107.52698	2107.52679	1.94
33	2107.20388	2107.20318	6.97
32	2106.87742	2106.87787	-4.54
31	2106.55128	2106.55086	4.21
28	2105.56006	2105.55959	4.74
27	2105.22558	2105.22575	-1.74
26	2104.88981	2104.89022	-4.09
25	2104.55267	2104.55298	-3.12
24	2104.21397	2104.21404	-0.73
23	2103.87311	2103.87340	-2.93
22	2103.53137	2103.53106	3.08
21	2103.18744	2103.18702	4.18
20	2102.84106	2102.84128	-2.24
17	2101.79355	2101.79388	-3.31
16	2101.44147	2101.44135	1.16
15	2101.08695	2101.08713	-1.82
13	2100.37391	2100.37361	3.05
12	2100.01464	2100.01430	3.37
11	2099.65424	2099.65331	9.31
10	2099.29000	2099.29062	-6.24
8	2098.56059	2098.56019	4.05
7	2098.19100	2098.19243	-14.30
6	2097.82271	2097.82299	-2.85
5	2097.45135	2097.45187	-5.20
4	2097.08019	2097.07906	11.30
3	2096.70406	2096.70457	-5.06
-4	2094.03685	2094.03604	8.06
-5	2093.64809	2093.64812	-0.26
-6	2093.25857	2093.25851	0.55
-7	2092.86713	2092.86724	-1.11
-9	2092.08088	2092.07968	12.00
-10	2091.68305	2091.68339	-3.43
-11	2091.28528	2091.28544	-1.60
-12	2090.88599	2090.88582	1.70
-13	2090.48547	2090.48454	9.35
-15	2089.67523	2089.67697	-12.30
-17	2088.86239	2088.86277	-3.80
-21	2087.21407	2087.21447	-4.01
-22	2086.79829	2086.79826	0.29
-23	2086.37983	2086.38040	-5.70
-24	2085.96083	2085.96089	-0.60
-25	2085.53986	2085.53973	0.57
-26	2085.11638	2085.11693	-5.47
-27	2084.69264	2084.69248	1.63
-29	2083.83933	2083.83865	6.81
-30	2083.40873	2083.40927	-5.44
-31	2082.97850	2082.97826	2.40
-32	2082.54556	2082.54561	-0.50

-33	2082.11076	2082.11132	-5.65
-34	2081.67537	2081.67541	-0.36
-35	2081.23773	2081.23786	-1.26
-36	2080.79848	2080.79868	-1.95
-37	2080.35850	2080.35787	6.33
-38	2079.91479	2079.91543	-6.42
-39	2079.47163	2079.47137	2.58
-40	2079.02652	2079.02569	8.30
-41	2078.57823	2078.57839	-1.56
-42	2078.12951	2078.12946	0.47
-46	2076.31663	2076.31762	-9.89
-47	2075.86059	2075.86063	-0.38
-65	2067.36222	2067.36187	3.53

$^{35}\text{Cl} : 0000^0 2^0, \Sigma^+, e$

m	observed	calculated	diff.
77	2120.89861	2120.89811	5.02
63	2117.24374	2117.24466	-9.23
60	2116.41739	2116.41659	7.97
57	2115.57280	2115.57272	0.75
56	2115.28825	2115.28794	3.14
55	2115.00140	2115.00140	-0.02
54	2114.71329	2114.71312	1.66
53	2114.42208	2114.42310	-10.20
52	2114.13086	2114.13135	-4.87
45	2112.04054	2112.04055	-0.10
44	2111.73495	2111.73496	-0.14
42	2111.11862	2111.11864	-0.18
41	2110.80838	2110.80790	4.78
39	2110.18098	2110.18130	-3.15
38	2109.86547	2109.86543	0.41
37	2109.54741	2109.54786	-4.47
36	2109.22907	2109.22858	4.90
32	2107.93533	2107.93447	8.56
31	2107.60748	2107.60671	7.73
29	2106.94549	2106.94610	-6.08
28	2106.61328	2106.61326	0.20
24	2105.26462	2105.26506	-4.42
23	2104.92315	2104.92381	-6.60
22	2104.58016	2104.58088	-7.20
21	2104.23599	2104.23627	-2.85
20	2103.88925	2103.89000	-7.46
19	2103.54225	2103.54204	2.06
18	2103.19239	2103.19242	-0.32
17	2102.84106	2102.84113	-0.71
14	2101.77684	2101.77726	-4.23
12	2101.05994	2101.05970	2.37
11	2100.69919	2100.69843	7.56
9	2099.97141	2099.97093	4.85
8	2099.60510	2099.60469	4.11
5	2098.49499	2098.49607	-10.80
4	2098.12273	2098.12323	-4.98
-7	2093.91356	2093.91360	-0.41
-8	2093.52105	2093.52109	-0.39
-9	2093.12621	2093.12694	-7.35
-10	2092.73163	2092.73117	4.59
-12	2091.93486	2091.93474	1.20
-13	2091.53451	2091.53408	4.26
-14	2091.13151	2091.13180	-2.93
-15	2090.72667	2090.72790	-12.30
-16	2090.32225	2090.32237	-1.20
-17	2089.91550	2089.91522	2.80
-18	2089.50623	2089.50645	-2.19
-19	2089.09627	2089.09606	2.11
-20	2088.68532	2088.68405	12.70
-23	2087.43827	2087.43832	-0.50
-24	2087.01939	2087.01985	-4.56
-26	2086.17792	2086.17806	-1.38
-27	2085.75547	2085.75475	7.25

-28	2085.33023	2085.32982	4.08
-29	2084.90418	2084.90329	8.92
-30	2084.47611	2084.47514	9.65
-32	2083.61469	2083.61403	6.56
-33	2083.18131	2083.18107	2.43
-34	2082.74659	2082.74650	0.95
-35	2082.30988	2082.31032	-4.37
-36	2081.87267	2081.87253	1.35
-37	2081.43381	2081.43315	6.61
-38	2080.99180	2080.99216	-3.59
-39	2080.54911	2080.54957	-4.57
-40	2080.10540	2080.10537	0.26
-41	2079.65947	2079.65958	-1.09
-42	2079.21227	2079.21218	0.87
-43	2078.76334	2078.76319	1.52
-44	2078.31363	2078.31259	10.40
-49	2076.03566	2076.03565	0.08
-50	2075.57562	2075.57547	1.46
-51	2075.11370	2075.11370	0.00
-52	2074.64996	2074.65033	-3.70
-53	2074.18461	2074.18537	-7.57
-54	2073.71866	2073.71881	-1.49
-61	2070.40915	2070.40830	8.54
-62	2069.92824	2069.92900	-7.57
-63	2069.44750	2069.44811	-6.07
-66	2067.99548	2067.99589	-4.13
-67	2067.50893	2067.50864	2.90
-68	2067.02003	2067.01980	2.32

$^{37}\text{Cl} : 0000^0 0^0, \Sigma^+, e$			
m	observed	calculated	diff.
67	2134.52122	2134.52150	-2.83
66	2134.26609	2134.26602	0.67
64	2133.75004	2133.74979	2.55
63	2133.48970	2133.48903	6.71
62	2133.22676	2133.22652	2.44
61	2132.96241	2132.96225	1.64
60	2132.69513	2132.69622	-10.90
59	2132.42841	2132.42844	-0.27
58	2132.15929	2132.15890	3.91
57	2131.88808	2131.88761	4.72
56	2131.61521	2131.61456	6.48
55	2131.33940	2131.33976	-3.63
50	2129.93955	2129.93949	0.59
49	2129.65377	2129.65419	-4.16
48	2129.36700	2129.36713	-1.32
47	2129.07971	2129.07833	13.80
44	2128.20094	2128.20144	-5.04
35	2125.47711	2125.47662	4.87
34	2125.16510	2125.16516	-0.63
33	2124.85332	2124.85196	13.60
32	2124.53766	2124.53703	6.30
31	2124.22214	2124.22036	17.80
30	2123.90187	2123.90195	-0.84
29	2123.58172	2123.58181	-0.94
28	2123.26072	2123.25994	7.80
27	2122.93792	2122.93633	15.90
25	2122.28454	2122.28393	6.14
24	2121.95487	2121.95513	-2.57
23	2121.62486	2121.62460	2.61
22	2121.29340	2121.29234	10.60
21	2120.95786	2120.95836	-4.97
19	2120.28510	2120.28521	-1.10
18	2119.94694	2119.94605	8.91
17	2119.60589	2119.60516	7.27
7	2116.10085	2116.10171	-8.60
6	2115.74135	2115.74193	-5.75
5	2115.37962	2115.38043	-8.09
3	2114.65215	2114.65230	-1.54
2	2114.28518	2114.28568	-4.97
1	2113.91701	2113.91734	-3.32
-5	2111.67130	2111.67152	-2.24
-6	2111.29181	2111.29126	5.46
-7	2110.90851	2110.90930	-7.93
-8	2110.52554	2110.52564	-1.05
-9	2110.14004	2110.14029	-2.49
-10	2109.75252	2109.75324	-7.17
-11	2109.36516	2109.36449	6.69
-15	2107.79239	2107.79258	-1.89
-16	2107.39676	2107.39538	13.80
-17	2106.99527	2106.99648	-12.10
-18	2106.59603	2106.59591	1.24
-20	2105.79029	2105.78970	5.95
-21	2105.38319	2105.38406	-8.75
-22	2104.97690	2104.97675	1.47
-23	2104.56716	2104.56776	-6.00
-24	2104.15664	2104.15709	-4.48
-25	2103.74492	2103.74474	1.82
-26	2103.32983	2103.33071	-8.81
-27	2102.91568	2102.91501	6.72
-30	2101.65746	2101.65786	-4.01
-31	2101.23561	2101.23547	1.41
-32	2100.81200	2100.81141	5.92
-33	2100.38555	2100.38568	-1.30
-34	2099.95806	2099.95829	-2.25
-35	2099.52968	2099.52923	4.55
-36	2099.09862	2099.09850	1.19
-38	2098.23126	2098.23207	-8.08
-39	2097.79580	2097.79636	-5.62
-40	2097.35857	2097.35900	-4.26
-41	2096.91954	2096.91997	-4.34
-42	2096.47894	2096.47930	-3.57
-43	2096.03698	2096.03697	0.15
-44	2095.59242	2095.59298	-5.61
-45	2095.14666	2095.14735	-6.85
-46	2094.70052	2094.70006	4.61
-47	2094.25116	2094.25113	0.35
-48	2093.80038	2093.80054	-1.64
-49	2093.34829	2093.34832	-0.27
-52	2091.98170	2091.98178	-0.77
-53	2091.52217	2091.52298	-8.13
-54	2091.06246	2091.06255	-0.90
-56	2090.13685	2090.13677	0.75
-57	2089.67051	2089.67144	-9.26
-59	2088.73556	2088.73586	-3.03
-62	2087.31969	2087.32029	-5.97
-63	2086.84527	2086.84518	0.92
-64	2086.36903	2086.36844	5.85
-65	2085.88896	2085.89009	-11.30
-66	2085.41047	2085.41012	3.53
-70	2083.47352	2083.47405	-5.33
-71	2082.98581	2082.98600	-1.93
-72	2082.49658	2082.49634	2.37
-74	2081.51280	2081.51220	6.01
-75	2081.01782	2081.01772	1.02
-76	2080.52092	2080.52163	-7.14
-77	2080.02366	2080.02395	-2.87
-78	2079.52537	2079.52466	7.10
-80	2078.52188	2078.52129	5.89
-96	2070.26566	2070.26578	-1.20

$^{37}\text{Cl} : 0000^0 1^1, \Pi, e$ 

m	observed	calculated	diff.
68	2125.67563	2125.67501	6.21
64	2124.63894	2124.63926	-3.19
61	2123.84470	2123.84424	4.56
59	2123.30580	2123.30558	2.23
58	2123.03380	2123.03365	1.52
55	2122.20690	2122.20749	-5.89
53	2121.64756	2121.64808	-5.21
51	2121.08088	2121.08177	-8.91
50	2120.79685	2120.79603	8.20
38	2117.23262	2117.23297	-3.46
35	2116.30290	2116.30360	-6.95
34	2115.98980	2115.99038	-5.83
33	2115.67560	2115.67546	1.40
32	2115.35910	2115.35883	2.72
31	2115.03917	2115.04049	-13.20
30	2114.72080	2114.72044	3.58
29	2114.39887	2114.39869	1.81
28	2114.07529	2114.07523	0.59
22	2112.09967	2112.09872	9.50
21	2111.76385	2111.76335	5.00
20	2111.42628	2111.42628	-0.02
19	2111.08801	2111.08752	4.92
18	2110.74702	2110.74706	-0.37
17	2110.40550	2110.40490	5.98
16	2110.06090	2110.06105	-1.52
15	2109.71630	2109.71551	7.90
14	2109.36900	2109.36828	5.12
7	2106.89188	2106.89034	10.90
6	2106.53206	2106.52961	17.30
3	2105.43757	2105.43731	1.81
2	2105.07067	2105.06986	5.76
-2	2103.58473	2103.58325	10.50
-7	2101.68662	2101.68732	-4.98
-9	2100.91616	2100.91727	-7.83
-10	2100.52919	2100.52974	-3.88
-11	2100.13954	2100.14055	-7.11
-12	2099.74962	2099.74969	-0.48
-13	2099.35767	2099.35717	3.56
-14	2098.96434	2098.96298	9.58
-15	2098.56700	2098.56714	-1.42
-16	2098.16864	2098.16964	-10.00
-17	2097.77038	2097.77048	-1.00
-18	2097.36941	2097.36966	-2.53
-19	2096.96607	2096.96719	-11.20
-20	2096.56273	2096.56306	-3.32
-21	2096.15696	2096.15728	-3.22
-22	2095.74971	2095.74985	-1.39
-23	2095.34104	2095.34076	2.75
-24	2094.93006	2094.93003	0.29
-25	2094.51687	2094.51765	-7.79
-26	2094.10368	2094.10362	0.60
-27	2093.68799	2093.68794	0.45
-28	2093.27015	2093.27062	-4.75
-29	2092.85134	2092.85166	-3.21
-31	2092.00910	2092.00881	2.91
-32	2091.58413	2091.58492	-7.93
-35	2090.30350	2090.30344	0.60
-36	2089.87206	2089.87301	-9.48
-39	2088.57199	2088.57192	0.71
-41	2087.69701	2087.69638	6.32
-42	2087.25562	2087.25617	-5.47
-43	2086.81423	2086.81433	-1.00
-45	2085.92537	2085.92579	-4.18
-46	2085.47904	2085.47908	-0.44
-47	2085.03021	2085.03076	-5.51
-48	2084.58113	2084.58082	3.11
-50	2083.67679	2083.67609	7.04
-51	2083.22118	2083.22130	-1.17
-52	2082.76502	2082.76490	1.24
-53	2082.30750	2082.30688	6.17
-54	2081.84769	2081.84726	4.29
-55	2081.38673	2081.38603	7.01
-58	2079.99311	2079.99270	4.12
-60	2079.05689	2079.05579	11.00
-66	2076.20668	2076.20673	-0.51
-67	2075.72658	2075.72631	2.70
-68	2075.24409	2075.24430	-2.09
-69	2074.76071	2074.76070	0.09
-70	2074.27496	2074.27552	-5.55
-71	2073.78869	2073.78874	-0.55
-78	2070.33686	2070.33710	-2.40
-79	2069.83696	2069.83771	-7.45
-83	2067.82544	2067.82443	10.10
-84	2067.31661	2067.31719	-5.85

$^{37}\text{Cl} : 0000^0 1^1, \Pi, f$

m	observed	calculated	diff.
68	2125.71961	2125.72033	-7.24
65	2124.94370	2124.94370	0.01
64	2124.68149	2124.68136	1.31
61	2123.88504	2123.88397	10.70
59	2123.34410	2123.34373	3.65
58	2123.07237	2123.07103	13.40
55	2122.24209	2122.24257	-4.77
53	2121.68083	2121.68164	-8.14
50	2120.82840	2120.82735	10.50
49	2120.53906	2120.53915	-0.91
48	2120.24904	2120.24923	-1.90
38	2117.25536	2117.25573	-3.67
35	2116.32340	2116.32432	-9.20
34	2116.01000	2116.01044	-4.37
33	2115.69490	2115.69485	0.50
31	2115.05728	2115.05856	-12.80
30	2114.73797	2114.73787	1.03
29	2114.41543	2114.41547	-0.39
28	2114.09130	2114.09137	-0.70
22	2112.11190	2112.11112	7.80
21	2111.77583	2111.77514	6.86
20	2111.43680	2111.43748	-6.76
19	2111.09829	2111.09812	1.74
18	2110.75743	2110.75706	3.65
17	2110.41490	2110.41432	5.76
16	2110.07010	2110.06989	2.06
15	2109.72410	2109.72378	2.29
14	2109.37680	2109.37597	5.86
7	2106.89188	2106.89419	-16.40
6	2106.53206	2106.53293	-6.17
-7	2101.68662	2101.68427	16.70
-8	2101.29956	2101.29962	-0.41
-9	2100.91440	2100.91331	7.73
-10	2100.52676	2100.52534	10.10
-11	2100.13681	2100.13571	7.81
-12	2099.74563	2099.74442	8.58
-13	2099.35334	2099.35147	13.20
-14	2098.95740	2098.95687	5.32
-15	2098.56059	2098.56061	-0.20
-16	2098.16174	2098.16270	-9.59
-17	2097.76269	2097.76313	-4.45
-18	2097.36151	2097.36192	-4.09
-19	2096.95845	2096.95905	-6.03
-20	2096.55506	2096.55454	5.22
-21	2096.14811	2096.14838	-2.65
-22	2095.74058	2095.74057	0.14
-23	2095.33144	2095.33111	3.29
-24	2094.91981	2094.92001	-2.02
-25	2094.50675	2094.50727	-5.21
-26	2094.09282	2094.09289	-0.67
-27	2093.67651	2093.67686	-3.53
-28	2093.25857	2093.25920	-6.30
-29	2092.83955	2092.83990	-3.49

-31	2091.99641	2091.99639	0.21
-32	2091.57185	2091.57218	-3.32
-35	2090.28950	2090.28977	-2.69
-38	2088.99204	2088.99270	-6.56
-39	2088.55675	2088.55709	-3.36
-41	2087.68171	2087.68100	7.12
-42	2087.23966	2087.24052	-8.62
-43	2086.79829	2086.79843	-1.36
-44	2086.35454	2086.35471	-1.72
-45	2085.90912	2085.90938	-2.60
-46	2085.46284	2085.46243	4.06
-47	2085.01352	2085.01387	-3.53
-48	2084.56438	2084.56370	6.81
-51	2083.20290	2083.20351	-6.14
-52	2082.74659	2082.74690	-3.13
-53	2082.28965	2082.28869	9.64
-54	2081.82935	2081.82886	4.86
-55	2081.36755	2081.36744	1.11
-58	2079.97324	2079.97356	-3.21
-60	2079.03768	2079.03632	13.60
-66	2076.18525	2076.18637	-11.20
-67	2075.70635	2075.70582	5.26
-68	2075.22413	2075.22369	4.39
-69	2074.74052	2074.73997	5.45
-70	2074.25417	2074.25468	-5.08
-71	2073.76680	2073.76780	-10.00
-78	2070.31536	2070.31556	-1.98
-84	2067.29524	2067.29535	-1.05

$^{37}\text{Cl} : 0001^1 0^0, \Pi, e$ 

m	observed	calculated	diff.
68	2125.19348	2125.19356	-0.78
55	2121.77051	2121.77095	-4.43
54	2121.49695	2121.49524	17.10
51	2120.65730	2120.65745	-1.52
36	2116.23018	2116.23001	1.70
35	2115.92057	2115.92076	-1.88
31	2114.66663	2114.66620	4.29
30	2114.34877	2114.34818	5.91
29	2114.02858	2114.02841	1.74
23	2112.07439	2112.07304	13.50
22	2111.74171	2111.74104	6.71
21	2111.40771	2111.40729	4.19
20	2111.07283	2111.07180	10.30
10	2107.62208	2107.62127	8.07
2	2104.73688	2104.73614	7.38
1	2104.36696	2104.36774	-7.76
-1	2103.62638	2103.62576	6.20
-6	2101.74003	2101.74074	-7.10
-7	2101.35804	2101.35859	-3.88
-8	2100.97403	2100.97472	-4.90
-9	2100.58880	2100.58915	-2.45
-10	2100.20148	2100.20186	-2.67
-11	2099.81276	2099.81286	-0.71
-12	2099.42222	2099.42215	0.48
-14	2098.63522	2098.63562	-2.80
-16	2097.84200	2097.84226	-1.82
-17	2097.44349	2097.44302	3.30
-18	2097.04110	2097.04209	-6.98
-19	2096.63961	2096.63945	1.14
-20	2096.23410	2096.23511	-7.15
-21	2095.82752	2095.82907	-11.00
-22	2095.42123	2095.42134	-1.11
-27	2093.35642	2093.35725	-8.29
-28	2092.93900	2092.93935	-3.54
-31	2091.67428	2091.67554	-12.60
-32	2091.25086	2091.25089	-0.24
-33	2090.82583	2090.82456	12.70
-36	2089.53492	2089.53548	-5.59
-41	2087.35372	2087.35342	2.09
-42	2086.91154	2086.91199	-3.17
-43	2086.46812	2086.46888	-5.36
-44	2086.02287	2086.02410	-8.68
-45	2085.57792	2085.57765	2.72
-46	2085.12911	2085.12953	-4.19
-47	2084.67967	2084.67974	-0.72
-49	2083.77512	2083.77517	-0.36
-50	2083.32024	2083.32039	-1.06
-51	2082.86485	2082.86395	6.39
-52	2082.40506	2082.40584	-5.52
-57	2080.08978	2080.09044	-6.64
-58	2079.62123	2079.62240	-11.70
-59	2079.15333	2079.15270	6.28
-65	2076.29987	2076.29990	-0.27
-67	2075.33643	2075.33580	6.25
-68	2074.85103	2074.85130	-2.68
-69	2074.36633	2074.36515	11.80
-70	2073.87605	2073.87737	-13.20

 $^{37}\text{Cl} : 0001^1 0^0, \Pi, f$ 

m	observed	calculated	diff.
68	2125.21991	2125.21913	7.82
65	2124.45393	2124.45466	-7.31
57	2122.33903	2122.33790	11.30
55	2121.79017	2121.79098	-8.11
54	2121.51665	2121.51486	17.90
49	2120.10742	2120.10775	-3.25
36	2116.24265	2116.24294	-2.85
35	2115.93264	2115.93334	-6.97
31	2114.67742	2114.67742	0.00
30	2114.35863	2114.35906	-4.30
29	2114.03840	2114.03895	-5.54
23	2112.08176	2112.08164	1.18
22	2111.74872	2111.74932	-5.99
21	2111.41406	2111.41525	-11.90
20	2111.07895	2111.07945	-3.54
2	2104.73688	2104.73847	-11.20
-1	2103.62638	2103.62726	-6.20
-6	2101.74003	2101.74089	-6.09
-7	2101.35804	2101.35848	-3.08
-8	2100.97403	2100.97435	-2.25
-9	2100.58880	2100.58851	2.04
-10	2100.20148	2100.20097	3.64
-11	2099.81276	2099.81171	7.41
-12	2099.42222	2099.42075	10.40
-14	2098.63522	2098.63371	10.70
-16	2097.84200	2097.83986	15.10
-17	2097.43949	2097.44038	-6.29
-18	2097.04110	2097.03920	13.40
-20	2096.23410	2096.23175	16.60
-21	2095.82752	2095.82548	14.50
-28	2092.93341	2092.93417	-7.57
-32	2091.24532	2091.24485	4.69
-33	2090.81712	2090.81831	-11.90
-34	2090.38972	2090.39010	-3.75
-36	2089.52863	2089.52862	0.09
-37	2089.09627	2089.09537	9.02
-41	2087.34631	2087.34561	6.97
-42	2086.90323	2086.90399	-7.61
-43	2086.45997	2086.46070	-7.32
-44	2086.01525	2086.01574	-4.95
-45	2085.56891	2085.56912	-2.11
-47	2084.67092	2084.67088	0.42
-49	2083.76600	2083.76598	0.17
-50	2083.31115	2083.31104	1.05
-51	2082.85467	2082.85445	2.22
-52	2082.39602	2082.39619	-1.73
-54	2081.47526	2081.47472	5.45
-55	2081.01144	2081.01150	-0.56
-57	2080.07992	2080.08010	-1.81
-58	2079.61186	2079.61193	-0.69
-61	2078.19748	2078.19753	-0.49
-65	2076.28817	2076.28865	-4.83
-67	2075.32351	2075.32438	-8.70
-69	2074.35350	2074.35356	-0.64
-70	2073.86567	2073.86571	-0.36

$^{37}\text{Cl} : 0000^0 2^2, \Delta, e/f$ 

m	observed	calculated	diff.
50	2111.88312	2111.88173	13.90
42	2109.50807	2109.50856	-4.87
36	2107.65924	2107.65910	1.36
35	2107.34618	2107.34505	11.30
34	2107.02888	2107.02935	-4.65
29	2105.42556	2105.42589	-3.27
27	2104.77347	2104.77288	5.94
26	2104.44385	2104.44388	-0.28
25	2104.11291	2104.11322	-3.09
24	2103.78099	2103.78090	0.91
23	2103.44707	2103.44692	1.53
18	2101.75169	2101.75210	-4.08
17	2101.40797	2101.40815	-1.83
15	2100.71592	2100.71529	6.33
14	2100.36712	2100.36637	7.55
13	2100.01464	2100.01579	-11.50
12	2099.66241	2099.66355	-11.40
11	2099.31052	2099.30965	8.65
7	2097.87706	2097.87752	-4.62
-5	2093.42298	2093.42262	3.60
-9	2091.88520	2091.88503	1.66
-10	2091.49484	2091.49654	-17.00
-11	2091.10565	2091.10642	-7.69
-13	2090.32192	2090.32127	6.48
-14	2089.92551	2089.92625	-7.42
-15	2089.52863	2089.52960	-9.74
-20	2087.52269	2087.52199	6.96
-21	2087.11500	2087.11561	-6.10
-22	2086.70822	2086.70761	6.11
-23	2086.29736	2086.29799	-6.35
-24	2085.88842	2085.88677	16.50
-26	2085.05843	2085.05948	-10.50
-29	2083.80733	2083.80651	8.18
-30	2083.38602	2083.38565	3.68
-31	2082.96526	2082.96319	20.70
-34	2081.68548	2081.68625	-7.74
-35	2081.25745	2081.25743	0.23
-36	2080.82712	2080.82701	1.07
-37	2080.39458	2080.39502	-4.36
-38	2079.96137	2079.96144	-0.67
-40	2079.09068	2079.08954	11.40
-41	2078.65091	2078.65124	-3.27
-42	2078.21118	2078.21136	-1.77
-47	2075.98682	2075.98849	-16.70
-48	2075.53897	2075.53924	-2.70
-49	2075.08699	2075.08844	-14.50
-50	2074.63642	2074.63609	3.30
-59	2070.49575	2070.49576	-0.09
-60	2070.02893	2070.02809	8.37
-61	2069.55849	2069.55891	-4.24
-64	2068.14195	2068.14233	-3.76
-65	2067.66703	2067.66713	-0.95
-66	2067.18944	2067.19043	-9.89
-67	2066.71354	2066.71224	13.00

 $^{37}\text{Cl} : 0000^0 2^0, \Sigma^+, e$ 

m	observed	calculated	diff.
57	2115.07289	2115.07277	1.17
56	2114.79229	2114.79260	-3.13
42	2110.69399	2110.69348	5.09
23	2104.61017	2104.61003	1.41
20	2103.59421	2103.59546	-12.50
14	2101.52321	2101.52255	6.65
11	2100.46379	2100.46429	-4.97
10	2100.10894	2100.10831	6.26
8	2099.39187	2099.39155	3.23
-6	2094.19435	2094.19506	-7.10
-9	2093.04055	2093.04095	-4.01
-10	2092.65372	2092.65308	6.41
-12	2091.87272	2091.87259	1.29
-13	2091.47997	2091.47998	-0.06
-14	2091.08614	2091.08578	3.58
-15	2090.68967	2090.69001	-3.39
-17	2089.89319	2089.89373	-5.45
-24	2087.05669	2087.05720	-5.14
-25	2086.64566	2086.64570	-0.43
-26	2086.23254	2086.23263	-0.94
-27	2085.81843	2085.81800	1.93
-28	2085.40318	2085.40179	13.90
-29	2084.98335	2084.98403	-6.76
-32	2083.72242	2083.72133	10.90
-33	2083.29770	2083.29731	3.91
-34	2082.87198	2082.87172	2.58
-35	2082.44451	2082.44457	-0.64
-37	2081.58516	2081.58560	-4.37
-38	2081.15403	2081.15377	2.62
-39	2080.71942	2080.72038	-9.61
-40	2080.28565	2080.28543	2.15
-41	2079.84895	2079.84893	0.19
-42	2079.41090	2079.41087	0.31
-43	2078.97159	2078.97125	3.39
-44	2078.52992	2078.53008	-1.57
-45	2078.08621	2078.08735	-11.40
-50	2075.85163	2075.85037	12.60
-51	2075.39950	2075.39832	5.29
-52	2074.94324	2074.94471	-6.56
-53	2074.48877	2074.48954	-7.75
-54	2074.03307	2074.03283	2.40
-62	2070.32276	2070.32326	-5.04
-63	2069.85248	2069.85259	-1.10
-67	2067.95490	2067.95439	5.07