

Theoretical Studies of Quadruply Ionized Radon (Rn V) for Energetically Low Lying Levels — Supplement

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Received: 22.10.2020 & Accepted: 30.01.2021

Doi: [10.12693/APhysPolA.139.132.S1](https://doi.org/10.12693/APhysPolA.139.132.S1)

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topics: HFR method, MCDF method, relativistic corrections, wavelengths

TABLE SI

New energies and Landé g -factors for Rn V. *shows the level that are not the dominant component of the eigenvector.

Levels			E [cm ⁻¹]	g -factor
Conf.	Term	J	HFR	HFR
$6s^26p(^2P)9p$	3D	1	344649.99	0.669
$6s^26p(^2P)9p$	3P	0	345503.71	0.00
$6s^26p(^2P)9p$	3D	2	347955.00	1.166
$6s^26p(^2P)9p$	$^3S^*$	1	348003.59	1.486
$6s^26p(^2P)9p$	3P	1	389542.47	1.384
$6s^26p(^2P)9p$	$^1D^*$	2	389671.32	1.182
$6s^26p(^2P)9p$	3D	3	392485.60	1.329
$6s^26p(^2P)9p$	$^1P^*$	1	392509.80	1.458
$6s^26p(^2P)9p$	3P	2	392922.89	1.277
$6s^26p(^2P)9p$	1S	0	394304.59	0.00
$6s^26p(^2P)10p$	3D	1	368102.80	0.665
$6s^26p(^2P)10p$	3P	0	368751.72	0.00
$6s^26p(^2P)10p$	$^3S^*$	1	370173.10	1.497
$6s^26p(^2P)10p$	3D	2	370241.46	1.168
$6s^26p(^2P)10p$	3P	1	412927.28	1.390
$6s^26p(^2P)10p$	$^1D^*$	2	413040.08	1.206
$6s^26p(^2P)10p$	3D	3	414718.02	1.334
$6s^26p(^2P)10p$	1P	1	414761.09	1.449
$6s^26p(^2P)10p$	3P	2	414971.10	1.292
$6s^26p(^2P)10p$	1S	0	415847.39	0.00
$6s^26p(^2P)6f$	3G	3	291043.32	0.829
$6s^26p(^2P)6f$	3F	2	292136.69	0.874
$6s^26p(^2P)6f$	3D	3	292136.89	1.194
$6s^26p(^2P)6f$	3G	4	292258.48	1.090
$6s^26p(^2P)6f$	1F	3	333794.58	0.960
$6s^26p(^2P)6f$	3F	4	334469.72	1.184
$6s^26p(^2P)6f$	$^3D^*$	2	334940.67	0.888
$6s^26p(^2P)6f$	$^3F^*$	3	335235.40	1.185

TABLE SI (cont.)

Levels			E [cm ⁻¹]	g -factor
Conf.	Term	J	HFR	HFR
$6s^26p(^2P)6f$	3G	5	336079.48	1.200
$6s^26p(^2P)6f$	1G	4	336392.31	1.028
$6s^26p(^2P)6f$	3D	1	336856.48	0.499
$6s^26p(^2P)6f$	1D	2	338434.09	0.966
$6s^26p(^2P)7f$	3G	3	337482.98	0.826
$6s^26p(^2P)7f$	$^3D^*$	2	337579.05	0.993
$6s^26p(^2P)7f$	3D	3	338077.12	1.201
$6s^26p(^2P)7f$	3G	4	338174.66	1.084
$6s^26p(^2P)7f$	3F	3	381249.02	0.962
$6s^26p(^2P)7f$	3F	4	381573.17	1.183
$6s^26p(^2P)7f$	3F	2	381928.57	0.892
$6s^26p(^2P)7f$	$^1F^*$	3	382078.61	1.177
$6s^26p(^2P)7f$	3G	5	382330.70	1.200
$6s^26p(^2P)7f$	1G	4	382427.29	1.028
$6s^26p(^2P)7f$	3D	1	382637.29	0.499
$6s^26p(^2P)7f$	1D	2	383209.10	1.066
$6s^26p(^2P)8f$	3G	3	363611.38	0.826
$6s^26p(^2P)8f$	3F	2	363791.10	0.885
$6s^26p(^2P)8f$	3D	3	363871.45	1.201
$6s^26p(^2P)8f$	3G	4	363904.15	1.085
$6s^26p(^2P)8f$	3F	3	407822.51	0.969
$6s^26p(^2P)8f$	3F	4	408011.28	1.189
$6s^26p(^2P)8f$	3D	2	408169.52	0.881
$6s^26p(^2P)8f$	$^1F^*$	3	408273.37	1.172
$6s^26p(^2P)8f$	3G	5	408475.50	1.200
$6s^26p(^2P)8f$	1G	4	408502.98	1.027
$6s^26p(^2P)8f$	3D	1	408616.78	0.499
$6s^26p(^2P)8f$	1D	2	408934.82	1.069
$6s^26p(^2P)9f$	3G	3	379902.82	0.836
$6s^26p(^2P)9f$	3F	2	379914.69	0.884
$6s^26p(^2P)9f$	3D	3	380015.68	1.195

TABLE SI (cont.)

Levels			E [cm^{-1}]	g -factor
Conf.	Term	J	HFR	HFR
$6s^2 6p(^2P)9f$	3G	4	380074.99	1.087
$6s^2 6p(^2P)9f$	3F	3	424353.07	0.970
$6s^2 6p(^2P)9f$	3F	4	424472.53	1.189
$6s^2 6p(^2P)9f$	$^3D^*$	2	424573.46	0.881
$6s^2 6p(^2P)9f$	$^1F^*$	3	424635.80	1.171
$6s^2 6p(^2P)9f$	3G	5	424759.98	1.200
$6s^2 6p(^2P)9f$	1G	4	424772.12	1.027
$6s^2 6p(^2P)9f$	3D	1	424848.30	0.499
$6s^2 6p(^2P)9f$	1D	2	425057.69	1.066
$6s^2 6p(^2P)10f$	3G	3	390837.79	0.837
$6s^2 6p(^2P)10f$	3D	3	390898.99	1.195
$6s^2 6p(^2P)10f$	3F	2	390956.70	0.924
$6s^2 6p(^2P)10f$	3G	4	390967.00	1.084
$6s^2 6p(^2P)10f$	3F	3	435365.22	0.970
$6s^2 6p(^2P)10f$	3F	4	435445.66	1.189
$6s^2 6p(^2P)10f$	$^3D^*$	2	435503.59	0.878
$6s^2 6p(^2P)10f$	$^1F^*$	3	435549.02	1.169
$6s^2 6p(^2P)10f$	3G	5	435635.49	1.200
$6s^2 6p(^2P)10f$	1G	4	435643.38	1.027
$6s^2 6p(^2P)10f$	3D	1	435694.19	0.499
$6s^2 6p(^2P)10f$	1D	2	435834.90	1.068
$6s^2 6p(^2P)6h$	3I	5	351958.00	0.885
$6s^2 6p(^2P)6h$	3I	6	351976.38	1.057
$6s^2 6p(^2P)6h$	3G	5	352005.63	1.126
$6s^2 6p(^2P)6h$	$^1G^*$	4	352011.87	0.931
$6s^2 6p(^2P)6h$	1H	5	396362.11	0.963
$6s^2 6p(^2P)6h$	3H	6	396374.08	1.123
$6s^2 6p(^2P)6h$	$^3H^*$	5	396541.67	1.093
$6s^2 6p(^2P)6h$	3H	4	396546.44	0.892
$6s^2 6p(^2P)6h$	3I	7	396898.68	1.143
$6s^2 6p(^2P)6h$	1I	6	396916.27	1.011
$6s^2 6p(^2P)6h$	3G	3	397068.98	0.749
$6s^2 6p(^2P)6h$	3G	4	397086.43	1.027
$6s^2 6p(^2P)7h$	3I	5	372477.96	0.885
$6s^2 6p(^2P)7h$	3G	5	372490.32	1.126
$6s^2 6p(^2P)7h$	3I	6	372495.77	1.056
$6s^2 6p(^2P)7h$	$^1G^*$	4	372497.62	0.932
$6s^2 6p(^2P)7h$	1H	5	417005.11	0.964
$6s^2 6p(^2P)7h$	3H	6	417014.99	1.124
$6s^2 6p(^2P)7h$	$^3H^*$	5	417114.37	1.092
$6s^2 6p(^2P)7h$	3H	4	417120.30	0.891
$6s^2 6p(^2P)7h$	3I	7	417335.42	1.143
$6s^2 6p(^2P)7h$	1I	6	417356.68	1.011
$6s^2 6p(^2P)7h$	3G	3	417446.49	0.749
$6s^2 6p(^2P)7h$	3G	4	417463.59	1.027
$6s^2 6p(^2P)8h$	3I	5	385726.39	0.884
$6s^2 6p(^2P)8h$	3I	6	385740.75	1.056
$6s^2 6p(^2P)8h$	3G	5	385757.91	1.127
$6s^2 6p(^2P)8h$	$^1G^*$	4	385768.22	0.933

TABLE SI (cont.)

Levels			E [cm^{-1}]	g -factor
Conf.	Term	J	HFR	HFR
$6s^2 6p(^2P)8h$	1H	5	430326.61	0.964
$6s^2 6p(^2P)8h$	3H	6	430334.10	1.124
$6s^2 6p(^2P)8h$	$^3H^*$	5	430398.09	1.092
$6s^2 6p(^2P)8h$	3H	4	430403.67	0.891
$6s^2 6p(^2P)8h$	3I	7	430542.60	1.143
$6s^2 6p(^2P)8h$	1I	6	430561.79	1.011
$6s^2 6p(^2P)8h$	3G	3	430619.09	0.749
$6s^2 6p(^2P)8h$	3G	4	430633.41	1.026
$6s^2 6p(^2P)9h$	3I	5	394821.41	0.886
$6s^2 6p(^2P)9h$	3G	5	394828.60	1.126
$6s^2 6p(^2P)9h$	3I	6	394832.00	1.056
$6s^2 6p(^2P)9h$	$^1G^*$	4	394834.27	0.932
$6s^2 6p(^2P)9h$	1H	5	439471.50	0.964
$6s^2 6p(^2P)9h$	3H	6	439477.15	1.124
$6s^2 6p(^2P)9h$	$^3H^*$	5	439520.70	1.092
$6s^2 6p(^2P)9h$	3H	4	439525.45	0.891
$6s^2 6p(^2P)9h$	3I	7	439620.21	1.143
$6s^2 6p(^2P)9h$	1I	6	439636.20	1.011
$6s^2 6p(^2P)9h$	3G	3	439675.24	0.749
$6s^2 6p(^2P)9h$	3G	4	439687.00	1.026
$6s^2 6p(^2P)10h$	3I	5	401327.86	0.884
$6s^2 6p(^2P)10h$	3G	5	401335.18	1.127
$6s^2 6p(^2P)10h$	3I	6	401336.92	1.056
$6s^2 6p(^2P)10h$	$^1G^*$	4	401340.66	0.933
$6s^2 6p(^2P)10h$	1H	5	445999.87	0.964
$6s^2 6p(^2P)10h$	3H	6	446003.93	1.124
$6s^2 6p(^2P)10h$	$^3H^*$	5	446034.52	1.092
$6s^2 6p(^2P)10h$	3H	4	446038.42	0.891
$6s^2 6p(^2P)10h$	3I	7	446106.08	1.143
$6s^2 6p(^2P)10h$	1I	6	446119.41	1.011
$6s^2 6p(^2P)10h$	3G	3	446147.64	0.749
$6s^2 6p(^2P)10h$	3G	4	446156.96	1.026
$6s^2 6p(^2P)9s$	$^3P^o$	0	335813.99	0.00
$6s^2 6p(^2P)9s$	$^3P^o$	1	336667.58	1.154
$6s^2 6p(^2P)9s$	$^3P^o$	2	380449.90	1.458
$6s^2 6p(^2P)9s$	$^1P^o$	1	380535.28	1.210
$6s^2 6p(^2P)10s$	$^3P^o$	0	362702.69	0.00
$6s^2 6p(^2P)10s$	$^3P^o$	1	362827.10	1.312
$6s^2 6p(^2P)10s$	$^3P^o$	2	407416.90	1.442
$6s^2 6p(^2P)10s$	$^1P^o$	1	407483.80	1.216
$6s^2 6p(^2P)8d$	$^3F^o$	2	334173.89	0.766
$6s^2 6p(^2P)8d$	$^3D^o$	1	335490.22	1.026
$6s^2 6p(^2P)8d$	$^3P^o$	2	335558.61	1.286
$6s^2 6p(^2P)8d$	$^3F^o$	3	336217.78	1.109
$6s^2 6p(^2P)8d$	$^1D^o$	2	378615.60	0.987
$6s^2 6p(^2P)8d$	$^3D^o*$	3	379010.27	1.137
$6s^2 6p(^2P)9d$	$^3F^o$	2	362057.30	0.742
$6s^2 6p(^2P)8d$	$^3P^o$	1	379554.02	1.071
$6s^2 6p(^2P)8d$	$^3F^o$	4	379566.90	1.250

TABLE SI (cont.)

Levels			E [cm ⁻¹]	g -factor
Conf.	Term	J	HFR	HFR
$6s^26p(^2P)8d$	$^3P^o$	0	379760.89	0.00
$6s^26p(^2P)8d$	$^3D^{o*}$	2	379861.07	1.331
$6s^26p(^2P)8d$	$^1F^o$	3	380841.47	1.099
$6s^26p(^2P)8d$	$^1P^o$	1	381732.82	1.031
$6s^26p(^2P)9d$	$^3D^o$	1	362446.70	0.850
$6s^26p(^2P)9d$	$^3P^o$	2	362658.69	1.280
$6s^26p(^2P)9d$	$^3F^o$	3	362814.78	1.112
$6s^26p(^2P)9d$	$^3D^{o*}$	2	406470.61	0.993
$6s^26p(^2P)9d$	$^3D^o$	3	406768.96	1.193
$6s^26p(^2P)9d$	$^3P^o$	1	406888.37	1.071
$6s^26p(^2P)9d$	$^3F^o$	4	407041.12	1.250
$6s^26p(^2P)9d$	$^1D^{o*}$	2	407095.47	1.347
$6s^26p(^2P)9d$	$^3P^o$	0	407105.11	0.00
$6s^26p(^2P)9d$	$^1F^o$	3	407600.64	1.111
$6s^26p(^2P)9d$	$^1P^o$	1	408135.57	1.052
$6s^26p(^2P)10d$	$^3F^o$	2	378903.38	0.789
$6s^26p(^2P)10d$	$^3D^o$	1	379019.91	0.859
$6s^26p(^2P)10d$	$^3P^o$	2	379295.19	1.273
$6s^26p(^2P)10d$	$^3F^{o*}$	3	379445.72	1.179
$6s^26p(^2P)10d$	$^3D^o$	2	423548.21	0.995
$6s^26p(^2P)10d$	$^3D^o$	3	423733.00	1.191
$6s^26p(^2P)10d$	$^3P^o$	1	423832.67	1.097
$6s^26p(^2P)10d$	$^3F^o$	4	423916.79	1.251
$6s^26p(^2P)10d$	$^3P^o$	0	423941.01	0.00
$6s^26p(^2P)10d$	$^1D^{o*}$	2	423997.60	1.285
$6s^26p(^2P)10d$	$^1F^o$	3	424245.28	1.114
$6s^26p(^2P)10d$	$^1P^o$	1	424525.79	1.074
$6s^26p(^2P)5g$	$^3H^o$	4	315811.72	0.867
$6s^26p(^2P)5g$	$^3F^o$	4	315985.88	1.147
$6s^26p(^2P)5g$	$^3H^o$	5	316170.71	1.071
$6s^26p(^2P)5g$	$^1F^{o*}$	3	316303.36	0.907
$6s^26p(^2P)5g$	$^1G^o$	4	359474.58	0.957
$6s^26p(^2P)5g$	$^3G^o$	5	359639.62	1.147
$6s^26p(^2P)5g$	$^3G^{o*}$	4	360212.19	1.129
$6s^26p(^2P)5g$	$^3F^{o*}$	3	360389.68	0.892
$6s^26p(^2P)5g$	$^3H^o$	6	360866.38	1.167
$6s^26p(^2P)5g$	$^1H^o$	5	361447.72	1.015
$6s^26p(^2P)5g$	$^3F^o$	2	361575.70	0.697
$6s^26p(^2P)5g$	$^3F^o$	3	362081.08	1.036
$6s^26p(^2P)6g$	$^3H^o$	4	350683.82	0.868
$6s^26p(^2P)6g$	$^3F^o$	4	350805.98	1.147
$6s^26p(^2P)6g$	$^3H^o$	5	350924.26	1.069
$6s^26p(^2P)6g$	$^3G^o$	3	350993.91	0.911
$6s^26p(^2P)6g$	$^1G^o$	4	394898.76	0.953
$6s^26p(^2P)6g$	$^3G^o$	5	395017.53	1.136
$6s^26p(^2P)6g$	$^3G^{o*}$	4	395329.30	1.128
$6s^26p(^2P)6g$	$^3F^{o*}$	3	395482.01	0.903
$6s^26p(^2P)6g$	$^3H^o$	6	395552.37	1.167
$6s^26p(^2P)6g$	$^1H^o$	5	396038.65	1.019

TABLE SI (cont.)

Levels			E [cm ⁻¹]	g -factor
Conf.	Term	J	HFR	HFR
$6s^26p(^2P)6g$	$^3F^o$	2	396050.80	0.666
$6s^26p(^2P)6g$	$^1F^o$	3	396347.73	1.024
$6s^26p(^2P)7g$	$^3H^o$	4	371620.50	0.861
$6s^26p(^2P)7g$	$^3F^o$	4	371732.69	1.154
$6s^26p(^2P)7g$	$^3H^o$	5	371812.78	1.068
$6s^26p(^2P)7g$	$^3F^{o*}$	3	371885.10	0.914
$6s^26p(^2P)7g$	$^1G^o$	4	416005.59	0.960
$6s^26p(^2P)7g$	$^3G^o$	5	416073.50	1.148
$6s^26p(^2P)7g$	$^3G^{o*}$	4	416242.21	1.124
$6s^26p(^2P)7g$	$^3G^o$	3	416326.48	0.893
$6s^26p(^2P)7g$	$^3H^o$	6	416402.19	1.167
$6s^26p(^2P)7g$	$^3F^o$	2	416718.70	0.666
$6s^26p(^2P)7g$	$^1H^o$	5	416724.09	1.018
$6s^26p(^2P)7g$	$^1F^o$	3	416922.80	1.026
$6s^26p(^2P)8g$	$^3H^o$	4	385144.49	0.863
$6s^26p(^2P)8g$	$^3F^o$	4	385212.96	1.153
$6s^26p(^2P)8g$	$^3H^o$	5	385266.62	1.068
$6s^26p(^2P)8g$	$^3F^{o*}$	3	385321.81	0.915
$6s^26p(^2P)8g$	$^1G^o$	4	429662.10	0.961
$6s^26p(^2P)8g$	$^3G^o$	5	429706.80	1.148
$6s^26p(^2P)8g$	$^3G^{o*}$	4	429813.41	1.124
$6s^26p(^2P)8g$	$^3G^o$	3	429868.27	0.893
$6s^26p(^2P)8g$	$^3H^o$	6	429912.49	1.167
$6s^26p(^2P)8g$	$^3F^o$	2	430125.11	0.666
$6s^26p(^2P)8g$	$^1H^o$	5	430138.58	1.018
$6s^26p(^2P)8g$	$^1F^o$	3	430275.39	1.025
$6s^26p(^2P)9g$	$^3H^o$	4	394344.20	0.962
$6s^26p(^2P)9g$	$^3G^o$	4	394375.26	1.059
$6s^26p(^2P)9g$	$^3F^{o*}$	3	394395.02	0.910
$6s^26p(^2P)9g$	$^3H^o$	5	394398.69	1.075
$6s^26p(^2P)9g$	$^1G^o$	4	438983.29	0.961
$6s^26p(^2P)9g$	$^3G^o$	5	439013.71	1.148
$6s^26p(^2P)9g$	$^3F^o$	4	439084.11	1.123
$6s^26p(^2P)9g$	$^3G^o$	3	439122.96	0.893
$6s^26p(^2P)9g$	$^3H^o$	6	439150.79	1.167
$6s^26p(^2P)9g$	$^3F^o$	2	439300.51	0.666
$6s^26p(^2P)9g$	$^1H^o$	5	439315.38	1.019
$6s^26p(^2P)9g$	$^1F^o$	3	439410.70	1.024
$6s^26p(^2P)10g$	$^3H^o$	4	401024.60	0.860
$6s^26p(^2P)10g$	$^3F^o$	4	401067.30	1.156
$6s^26p(^2P)10g$	$^3H^o$	5	401098.21	1.067
$6s^26p(^2P)10g$	$^3F^{o*}$	3	401128.26	0.915
$6s^26p(^2P)10g$	$^1G^o$	4	445661.10	0.961
$6s^26p(^2P)10g$	$^3G^o$	5	445682.21	1.148
$6s^26p(^2P)10g$	$^3G^o$	4	445730.86	1.123
$6s^26p(^2P)10g$	$^3G^{o*}$	3	445758.81	0.893
$6s^26p(^2P)10g$	$^3H^o$	6	445777.38	1.167
$6s^26p(^2P)10g$	$^3F^o$	2	445888.20	0.666
$6s^26p(^2P)10g$	$^1H^o$	5	445901.90	1.019

TABLE SI (cont.)

Levels			E [cm^{-1}]	g -factor
Conf.	Term	J	HFR	HFR
$6s^2 6p(^2P)10g$	$^1F^o$	3	445974.30	1.024
$6s^2 6p(^2P)7i$	$^3K^o$	6	372758.11	0.901
$6s^2 6p(^2P)7i$	$^3K^o$	7	372761.10	1.048
$6s^2 6p(^2P)7i$	$^1H^{o*}$	5	372768.40	0.944
$6s^2 6p(^2P)7i$	$^3H^o$	6	372769.37	1.107
$6s^2 6p(^2P)7i$	$^1I^o$	6	417385.70	0.967
$6s^2 6p(^2P)7i$	$^3I^o$	7	417388.41	1.105
$6s^2 6p(^2P)7i$	$^3I^o$	5	417436.98	0.905
$6s^2 6p(^2P)7i$	$^3I^{o*}$	6	417439.33	1.073
$6s^2 6p(^2P)7i$	$^1K^o$	7	417591.08	1.008
$6s^2 6p(^2P)7i$	$^3K^o$	8	417593.08	1.125
$6s^2 6p(^2P)7i$	$^3H^o$	4	417641.50	0.800
$6s^2 6p(^2P)7i$	$^3H^o$	5	417644.48	1.018
$6s^2 6p(^2P)8i$	$^3K^o$	6	385916.11	0.901
$6s^2 6p(^2P)8i$	$^3K^o$	7	385917.94	0.944
$6s^2 6p(^2P)8i$	$^1H^{o*}$	5	385921.20	1.107
$6s^2 6p(^2P)8i$	$^3H^o$	6	385921.64	1.048
$6s^2 6p(^2P)8i$	$^1I^o$	6	430583.05	0.967
$6s^2 6p(^2P)8i$	$^3I^o$	7	430584.56	1.105
$6s^2 6p(^2P)8i$	$^3I^o$	5	430617.68	0.904
$6s^2 6p(^2P)8i$	$^3I^{o*}$	6	430618.70	1.073
$6s^2 6p(^2P)8i$	$^1K^o$	7	430721.41	1.008
$6s^2 6p(^2P)8i$	$^3K^o$	8	430721.86	1.125
$6s^2 6p(^2P)8i$	$^3H^o$	4	430755.53	0.800
$6s^2 6p(^2P)8i$	$^3H^o$	5	430757.40	1.018
$6s^2 6p(^2P)9i$	$^1H^{o*}$	5	394950.99	0.947
$6s^2 6p(^2P)9i$	$^3K^o$	6	394951.95	0.927
$6s^2 6p(^2P)9i$	$^3H^o$	6	394952.30	1.082
$6s^2 6p(^2P)9i$	$^3K^o$	7	394953.85	1.048
$6s^2 6p(^2P)9i$	$^1I^o$	6	439643.59	0.967
$6s^2 6p(^2P)9i$	$^3I^o$	7	439645.10	1.105
$6s^2 6p(^2P)9i$	$^3I^o$	5	439667.90	0.904
$6s^2 6p(^2P)9i$	$^3I^{o*}$	6	439668.92	1.073
$6s^2 6p(^2P)9i$	$^1K^o$	7	439740.93	1.008
$6s^2 6p(^2P)9i$	$^3K^o$	8	439741.34	1.125
$6s^2 6p(^2P)9i$	$^3H^o$	4	439765.08	0.800
$6s^2 6p(^2P)9i$	$^3H^o$	5	439766.97	1.018
$6s^2 6p(^2P)10i$	$^3K^o$	6	401414.45	0.901
$6s^2 6p(^2P)10i$	$^3K^o$	7	401415.60	1.048
$6s^2 6p(^2P)10i$	$^3H^o$	6	401417.56	1.107
$6s^2 6p(^2P)10i$	$^1H^{o*}$	5	401417.99	0.944
$6s^2 6p(^2P)10i$	$^1I^o$	6	446122.40	0.967
$6s^2 6p(^2P)10i$	$^3I^o$	7	446123.25	1.105
$6s^2 6p(^2P)10i$	$^3I^o$	5	446139.97	0.904
$6s^2 6p(^2P)10i$	$^3I^{o*}$	6	446140.41	1.073
$6s^2 6p(^2P)10i$	$^3K^o$	8	446193.13	1.125
$6s^2 6p(^2P)10i$	$^1K^o$	7	446193.28	1.008
$6s^2 6p(^2P)10i$	$^3H^o$	4	446211.13	0.800
$6s^2 6p(^2P)10i$	$^3H^o$	5	446212.36	1.018

TABLE SII

The wavelengths, λ , logarithmic weighted oscillator strengths, $\log(gf)$, and transition probabilities, A_{ji} , for E1 transitions in Rn V. Numbers in brackets represent powers of 10.

Transitions				λ [Å]		$\log(gf)$		A_{ji} [s^{-1}]	
Lower level	Term	Upper level	Term	HFR	MCDF	HFR	MCDF	HFR	MCDF
$6s^26p^2$	3P_0	$6s^26p(^2P)6d$	$^3D_1^o$	555.51	554.41	0.402	0.374	1.82(10)	1.71(10)
$6s^26p^2$	3P_1	$6s^26p(^2P)6d$	$^3P_1^o$	541.22	536.58	0.293	0.214	1.49(10)	1.26(10)
$6s^26p^2$	3P_1	$6s^26p(^2P)6d$	$^3P_2^o$	693.57	687.87	0.491	0.521	8.59(9)	9.36(9)
$6s^26p^2$	3P_1	$6s^26p(^2P)6d$	$^1D_2^o$	558.86	561.02	0.271	0.236	7.96(9)	7.30(9)
$6s^26p^2$	3P_1	$6s^26p(^2P)6d$	$^3P_0^o$	541.78	538.10	-0.106	-0.176	1.78(10)	1.54(10)
$6s^26p^2$	3P_1	$6s^26p(^2P)7s$	$^3P_2^o$	511.31	515.81	-0.176	-0.446	3.40(9)	1.80(9)
$6s^26p^2$	3P_1	$6s^26p(^2P)6d$	$^3P_2^o$	536.68	531.96	-0.320	-0.332	2.22(9)	2.19(9)
$6s^26p^2$	3P_1	$6s^26p(^2P)7s$	$^3P_0^o$	657.15	663.03	-0.367	-0.269	6.64(9)	8.16(9)
$6s^26p^2$	3P_1	$6s^26p(^2P)6d$	$^3D_1^o$	688.62	678.64	-0.348	-0.321	2.10(9)	2.30(9)
$6s^26p^2$	3P_1	$6s^26p(^2P)7s$	$^3P_1^o$	651.85	658.87	-1.008	-0.767	5.14(8)	8.75(8)
$6s^26p^2$	3P_1	$6s^26p(^2P)6d$	$^3F_2^o$	751.72	753.78	-1.384	-1.380	9.75(7)	9.80(7)
$6s^26p^2$	1D_2	$6s^26p(^2P)6d$	$^3D_3^o$	562.39	564.69	0.760	0.729	1.73(10)	1.60(10)
$6s^26p^2$	1D_2	$6s^26p(^2P)6d$	$^1F_3^o$	522.98	512.36	0.282	0.208	6.66(9)	5.86(9)
$6s^26p^2$	1D_2	$6s^26p(^2P)6d$	$^3F_3^o$	719.87	725.90	0.477	0.478	5.52(9)	5.43(9)
$6s^26p^2$	1D_2	$6s^26p(^2P)6d$	$^1D_2^o$	575.48	583.07	0.082	-0.107	4.87(9)	3.07(9)
$6s^26p^2$	1D_2	$6s^26p(^2P)6d$	$^3P_2^o$	551.99	551.75	0.023	0.120	4.61(9)	5.71(9)
$6s^26p^2$	1D_2	$6s^26p(^2P)7s$	$^3P_2^o$	525.18	534.40	-0.133	-0.263	3.56(9)	2.55(9)
$6s^26p^2$	1D_2	$6s^26p(^2P)7s$	$^3P_1^o$	674.57	689.49	-0.014	0.095	4.73(9)	5.82(9)
$6s^26p^2$	1D_2	$6s^26p(^2P)7s$	$^1P_1^o$	504.48	538.47	-0.385	-0.883	3.60(9)	1.00(9)
$6s^26p^2$	1D_2	$6s^26p(^2P)6d$	$^3P_1^o$	556.79	556.72	-0.400	-0.439	2.86(9)	2.61(9)
$6s^26p^2$	1D_2	$6s^26p(^2P)6d$	$^3P_2^o$	719.36	721.31	-0.305	-0.241	1.28(9)	1.47(9)
$6s^26p^2$	1D_2	$6s^26p(^2P)6d$	$^1P_1^o$	532.28	495.99	-0.658	-0.653	1.72(9)	2.01(9)
$6s^26p^2$	1D_2	$6s^26p(^2P)6d$	$^3F_2^o$	782.10	794.14	-0.336	-0.304	1.01(9)	1.05(9)
$6s^26p^2$	3P_2	$6s^26p(^2P)6d$	$^1F_3^o$	657.70	634.59	0.924	0.958	1.85(10)	2.15(10)
$6s^26p^2$	3P_2	$6s^26p(^2P)6d$	$^3P_2^o$	704.25	696.14	0.467	0.459	7.88(9)	7.93(9)
$6s^26p^2$	3P_2	$6s^26p(^2P)7s$	$^1P_1^o$	628.70	675.14	-0.048	-0.242	5.03(9)	2.79(9)
$6s^26p^2$	3P_2	$6s^26p(^2P)6d$	$^3D_3^o$	721.26	716.88	-0.043	0.043	1.66(9)	2.05(9)
$6s^26p^2$	3P_2	$6s^26p(^2P)7s$	$^3P_2^o$	661.19	668.74	-0.146	-0.039	2.18(9)	2.73(9)
$6s^26p^2$	3P_2	$6s^26p(^2P)6d$	$^3P_1^o$	712.08	704.08	-0.271	-0.208	2.35(9)	2.78(9)
$6s^26p^2$	3P_2	$6s^26p(^2P)6d$	$^1P_1^o$	672.48	609.67	-0.563	-0.039	1.35(9)	5.47(9)
$6s^26p^2$	3P_2	$6s^26p(^2P)6d$	$^1D_2^o$	742.93	746.75	-0.784	-0.599	3.98(8)	6.02(8)
$6s^26p^2$	3P_2	$6s^26p(^2P)6d$	$^3P_2^o$	1001.55	989.68	-1.788	-1.564	2.17(7)	3.71(7)
$6s^26p^2$	3P_2	$6s^26p(^2P)6d$	$^3D_1^o$	991.23	970.68	-1.870	-1.634	3.05(7)	5.48(7)
$6s^26p^2$	3P_2	$6s^26p(^2P)6d$	$^3F_2^o$	1127.48	1132.10	-1.839	-1.566	1.52(7)	2.83(7)
$6s^26p(^2P)6d$	$^3F_2^o$	$6s^26p(^2P)7p$	3D_1	1857.23	1945.60	0.064	0.134	7.47(8)	8.00(8)
$6s^26p(^2P)7s$	$^3P_1^o$	$6s^26p(^2P)7p$	3D_1	2988.37	3097.10	-0.169	-0.111	1.69(8)	1.79(8)
$6s^26p(^2P)6d$	$^3D_1^o$	$6s^26p(^2P)7p$	3D_1	2400.81	2724.10	-0.363	-0.420	1.67(8)	1.14(8)
$6s^26p(^2P)7s$	$^3P_0^o$	$6s^26p(^2P)7p$	3D_1	2881.83	3008.40	-0.356	-0.348	1.18(8)	1.10(8)
$6s^26p(^2P)7s$	$^3P_1^o$	$6s^26p(^2P)7p$	3P_0	2570.38	2577.10	-0.175	-0.205	6.74(8)	6.27(8)
$6s^26p(^2P)6d$	$^3D_1^o$	$6s^26p(^2P)7p$	3P_0	2123.39	2313.50	-0.573	-0.448	3.95(8)	4.44(8)
$6s^26p(^2P)6d$	$^3P_2^o$	$6s^26p(^2P)7p$	3P_1	1772.61	1910.00	0.155	0.138	10.1(8)	8.41(8)
$6s^26p(^2P)7s$	$^3P_0^o$	$6s^26p(^2P)7p$	3P_1	2065.17	2130.00	0.093	0.075	6.45(8)	5.85(8)
$6s^26p(^2P)7s$	$^3P_1^o$	$6s^26p(^2P)7p$	3P_1	2119.31	2170.00	-0.326	-0.300	2.34(8)	2.37(8)
$6s^26p(^2P)6d$	$^3D_1^o$	$6s^26p(^2P)7p$	3P_1	1805.88	1980.00	-0.547	-0.700	1.93(8)	1.13(8)
$6s^26p(^2P)6d$	$^3F_2^o$	$6s^26p(^2P)7p$	3P_1	1480.03	1540.00	-1.510	-1.545	3.17(7)	2.69(7)
$6s^26p(^2P)6d$	$^3F_3^o$	$6s^26p(^2P)7p$	3D_2	1759.84	1860.00	0.329	0.312	9.18(8)	7.94(8)
$6s^26p(^2P)7s$	$^3P_1^o$	$6s^26p(^2P)7p$	3D_2	2105.47	2140.00	0.470	0.456	8.88(8)	8.29(8)
$6s^26p(^2P)6d$	$^3F_2^o$	$6s^26p(^2P)7p$	3D_2	1473.27	1520.00	-0.581	-0.614	1.61(8)	1.40(8)

TABLE SII (cont.)

Transitions				λ [Å]		$\log(gf)$		A_{ji} [s ⁻¹]	
Lower level	Term	Upper level	Term	HFR	MCDF	HFR	MCDF	HFR	MCDF
$6s^26p(^2P)6d$	$^3P_2^o$	$6s^26p(^2P)7p$	3D_2	1762.92	1890.00	-0.814	-0.817	6.59(7)	5.72(7)
$6s^26p(^2P)6d$	$^3D_3^o$	$6s^26p(^2P)7p$	1D_2	1971.70	2112.00	0.084	0.100	4.17(8)	3.76(8)
$6s^26p(^2P)6d$	$^1D_2^o$	$6s^26p(^2P)7p$	1D_2	1825.20	1889.30	-0.367	-0.430	1.72(8)	1.39(8)
$6s^26p(^2P)6d$	$^3P_2^o$	$6s^26p(^2P)7p$	1D_2	2109.97	2315.20	-0.517	-0.399	9.10(7)	9.92(7)
$6s^26p(^2P)6d$	$^1F_3^o$	$6s^26p(^2P)7p$	1D_2	2677.04	3417.60	-0.520	-0.679	5.62(7)	3.35(7)
$6s^26p(^2P)6d$	$^3D_1^o$	$6s^26p(^2P)7p$	1D_2	1129.88	1193.00	-1.285	-1.854	5.42(7)	1.31(7)
$6s^26p(^2P)6d$	$^3F_3^o$	$6s^26p(^2P)7p$	1D_2	1115.53	1153.70	-1.396	-0.998	4.31(7)	1.01(8)
$6s^26p(^2P)6d$	$^3P_1^o$	$6s^26p(^2P)7p$	1D_2	2042.61	2231.60	-1.115	-1.047	2.45(7)	2.40(7)
$6s^26p(^2P)6d$	$^3P_2^o$	$6s^26p(^2P)7p$	1D_2	1116.76	1165.50	-1.786	-1.704	1.75(7)	1.94(7)
$6s^26p(^2P)7s$	$^3P_1^o$	$6s^26p(^2P)7p$	1D_2	1245.09	1259.40	-2.365	-2.207	3.71(6)	5.22(6)
$6s^26p(^2P)6d$	$^3F_4^o$	$6s^26p(^2P)7p$	3D_3	1560.54	1610.00	0.465	0.455	1.14(9)	1.05(9)
$6s^26p(^2P)7s$	$^3P_2^o$	$6s^26p(^2P)7p$	3D_3	2111.99	2190.00	0.623	0.601	8.98(8)	7.93(8)
$6s^26p(^2P)6d$	$^3D_3^o$	$6s^26p(^2P)7p$	3D_3	1668.20	1800.00	-0.134	-0.142	2.52(8)	2.13(8)
$6s^26p(^2P)6d$	$^3P_2^o$	$6s^26p(^2P)7p$	3D_3	1012.70	1060.00	-1.317	-0.831	4.47(7)	1.24(8)
$6s^26p(^2P)6d$	$^1D_2^o$	$6s^26p(^2P)7p$	3D_3	1562.74	1630.00	-1.481	-1.264	1.29(7)	1.96(7)
$6s^26p(^2P)6d$	$^1F_3^o$	$6s^26p(^2P)7p$	3D_3	2148.34	2660.00	-1.264	-1.328	11.2(6)	6.33(6)
$6s^26p(^2P)6d$	$^3P_2^o$	$6s^26p(^2P)7p$	3D_3	1766.92	1939.80	-1.534	-1.627	8.93(6)	5.98(6)
$6s^26p(^2P)6d$	$^3F_3^o$	$6s^26p(^2P)7p$	3D_3	1011.69	1050.00	-2.630	-2.642	2.18(6)	1.96(6)
$6s^26p(^2P)6d$	$^1D_2^o$	$6s^26p(^2P)7p$	3S_1	1545.73	1600.00	-0.351	-0.409	4.15(8)	3.38(8)
$6s^26p(^2P)6d$	$^3P_2^o$	$6s^26p(^2P)7p$	3S_1	1745.21	1896.20	-0.291	-0.294	3.74(8)	3.14(8)
$6s^26p(^2P)7s$	$^3P_2^o$	$6s^26p(^2P)7p$	3S_1	2081.04	2130.00	-0.207	-0.137	3.19(8)	3.55(8)
$6s^26p(^2P)6d$	$^3P_0^o$	$6s^26p(^2P)7p$	3S_1	1693.39	1820.00	-0.959	-0.917	8.52(7)	8.09(7)
$6s^26p(^2P)6d$	$^3P_1^o$	$6s^26p(^2P)7p$	3S_1	1698.87	1840.00	-0.960	-0.790	8.45(7)	10.6(7)
$6s^26p(^2P)7s$	$^3P_1^o$	$6s^26p(^2P)7p$	3S_1	1108.39	1120.00	-2.667	-2.437	3.90(6)	6.44(6)
$6s^26p(^2P)6d$	$^3P_2^o$	$6s^26p(^2P)7p$	3S_1	1005.53	1050.00	-2.853	-2.447	3.08(6)	7.22(6)
$6s^26p(^2P)6d$	$^3D_1^o$	$6s^26p(^2P)7p$	3S_1	1016.15	1070.00	-3.201	-2.732	1.35(6)	3.59(6)
$6s^26p(^2P)7s$	$^3P_0^o$	$6s^26p(^2P)7p$	3S_1	1093.39	1110.00	-3.194	-3.095	1.19(6)	1.44(6)
$6s^26p(^2P)6d$	$^1F_3^o$	$6s^26p(^2P)7p$	3P_2	2001.68	2392.40	0.240	0.204	5.79(8)	3.73(8)
$6s^26p(^2P)7s$	$^3P_2^o$	$6s^26p(^2P)7p$	3P_2	1970.09	2006.20	0.091	0.001	4.24(8)	3.32(8)
$6s^26p(^2P)6d$	$^3P_2^o$	$6s^26p(^2P)7p$	3P_2	1666.50	1794.30	-0.147	-0.284	3.42(8)	2.15(8)
$6s^26p(^2P)7s$	$^1P_1^o$	$6s^26p(^2P)7p$	3P_2	2328.59	1950.70	-0.057	0.070	2.16(8)	4.12(8)
$6s^26p(^2P)6d$	$^3D_1^o$	$6s^26p(^2P)7p$	3P_2	988.95	1037.80	-1.010	-1.702	1.33(8)	2.46(7)
$6s^26p(^2P)6d$	$^3D_3^o$	$6s^26p(^2P)7p$	3P_2	1578.40	1669.80	-0.718	-0.806	1.02(8)	7.49(7)
$6s^26p(^2P)6d$	$^3P_1^o$	$6s^26p(^2P)7p$	3P_2	1624.19	1743.70	-0.770	-0.871	8.60(7)	5.91(7)
$6s^26p(^2P)6d$	$^1D_2^o$	$6s^26p(^2P)7p$	3P_2	1483.67	1527.50	-1.328	-1.018	2.85(7)	5.48(7)
$6s^26p(^2P)6d$	$^3F_3^o$	$6s^26p(^2P)7p$	3P_2	977.94	1007.90	-1.842	-1.834	2.06(7)	1.92(7)
$6s^26p(^2P)6d$	$^3D_1^o$	$6s^26p(^2P)7p$	1S_0	934.96	967.37	-2.087	-2.465	6.24(7)	2.44(7)

TABLE VIII

The wavelengths, λ , logarithmic weighted oscillator strengths, $\log(gf)$, and transition probabilities, A_{ji} , for some E2 and M1 transitions in Rn V. Numbers in brackets represent powers of 10.

Transitions				λ [Å]		$\log(gf)$		A_{ji} [s^{-1}]	
Lower level	Term	Upper level	Term	HFR	MCDF	HFR	MCDF	HFR	MCDF
E2									
$6s^26p^2$	3P_0	$6s^26p(^2P)7p$	3D_2	424.27	432.12	-4.884	-5.415	9.69(4)	2.75(4)
$6s^26p^2$	3P_0	$6s^26p(^2P)7p$	3P_2	355.70	361.36	-6.036	-6.420	9.70(3)	3.88(3)
$6s^26p^2$	3P_0	$6s^26p(^2P)7p$	3D_2	372.41	378.51	-6.582	-7.056	2.52(3)	0.82(3)
$6s^26p^2$	3P_1	$6s^26p(^2P)7p$	3D_3	411.65	417.48	-4.721	-4.951	1.07(5)	0.61(5)
$6s^26p^2$	3P_1	$6s^26p(^2P)7p$	3D_1	535.13	543.29	-5.261	-5.058	4.25(4)	6.59(4)
$6s^26p^2$	3P_1	$6s^26p(^2P)7p$	3P_2	405.95	410.32	-5.340	-5.599	3.70(4)	2.00(4)
$6s^26p^2$	3P_1	$6s^26p(^2P)7p$	3P_1	498.52	505.57	-5.444	-5.432	3.22(4)	3.21(4)
$6s^26p^2$	3P_1	$6s^26p(^2P)7p$	3D_2	497.75	504.03	-5.272	-5.212	2.88(4)	3.23(4)
$6s^26p^2$	3P_1	$6s^26p(^2P)7p$	3D_2	427.85	432.57	-6.790	-7.027	1.18(3)	0.67(3)
$6s^26p^2$	3P_1	$6s^26p(^2P)7p$	3P_1	429.16	434.93	-7.479	-7.547	4.00(2)	3.34(2)
$6s^26p^2$	1D_2	$6s^26p(^2P)7p$	3S_1	419.35	427.39	-5.094	-5.744	1.02(5)	0.22(5)
$6s^26p^2$	1D_2	$6s^26p(^2P)7p$	1S_0	404.85	409.86	-5.641	-6.181	9.30(4)	2.62(4)
$6s^26p^2$	1D_2	$6s^26p(^2P)7p$	3P_2	414.65	421.99	-4.969	-5.352	8.34(4)	3.33(4)
$6s^26p^2$	1D_2	$6s^26p(^2P)7p$	3D_3	420.59	429.57	-4.849	-5.096	7.62(4)	4.14(4)
$6s^26p^2$	1D_2	$6s^26p(^2P)7p$	3P_0	534.34	543.96	-5.600	-5.367	5.87(4)	9.69(4)
$6s^26p^2$	1D_2	$6s^26p(^2P)7p$	3D_2	510.89	521.76	-5.093	-5.095	4.13(4)	3.94(4)
$6s^26p^2$	1D_2	$6s^26p(^2P)7p$	3D_1	550.34	563.94	-5.255	-5.031	4.08(4)	6.51(4)
$6s^26p^2$	1D_2	$6s^26p(^2P)7p$	3P_1	511.70	523.41	-5.471	-5.438	2.87(4)	2.96(4)
$6s^26p^2$	1D_2	$6s^26p(^2P)7p$	3D_2	437.53	445.56	-6.146	-5.890	4.97(3)	8.66(3)
$6s^26p^2$	3P_2	$6s^26p(^2P)7p$	1S_0	481.14	484.51	-5.376	-5.171	1.21(5)	1.92(5)
$6s^26p^2$	3P_2	$6s^26p(^2P)7p$	3P_1	530.00	538.83	-5.126	-4.916	5.92(4)	9.30(4)
$6s^26p^2$	3P_2	$6s^26p(^2P)7p$	3D_2	528.01	535.21	-4.970	-4.720	5.12(4)	8.88(4)
$6s^26p^2$	3P_2	$6s^26p(^2P)7p$	3S_1	501.77	509.20	-5.350	-5.620	3.94(4)	2.06(4)
$6s^26p^2$	3P_2	$6s^26p(^2P)7p$	3D_3	503.55	512.30	-5.019	-4.956	3.59(4)	4.02(4)
$6s^26p^2$	3P_2	$6s^26p(^2P)7p$	3P_2	495.04	501.56	-6.626	-5.965	1.29(3)	5.75(3)
$6s^26p^2$	3P_2	$6s^26p(^2P)7p$	3P_1	639.96	651.62	-6.997	-6.736	5.47(2)	9.62(2)
$6s^26p^2$	3P_2	$6s^26p(^2P)7p$	3D_1	701.57	715.67	-7.199	-6.610	0.29(3)	1.07(3)
$6s^26p^2$	3P_2	$6s^26p(^2P)7p$	3P_0	675.77	683.79	-8.064	-8.680	1.26(2)	0.30(2)
$6s^26p^2$	3P_2	$6s^26p(^2P)7p$	3D_2	638.69	649.08	-7.559	-7.034	0.90(2)	2.93(2)
$6s^26p^2$	1S_0	$6s^26p(^2P)7p$	3P_2	531.34	541.22	-5.539	-5.231	1.37(4)	2.67(4)
$6s^26p(^2P)7p$	3D_1	$6s^26p(^2P)7p$	3D_2	2134.36	2122.60	-6.890	-7.273	3.77(1)	1.58(1)
$6s^26p(^2P)7p$	3D_1	$6s^26p(^2P)7p$	3P_1	7287.53	7281.40	-7.036	-7.036	3.85(0)	3.86(0)
$6s^26p(^2P)7p$	3D_1	$6s^26p(^2P)7p$	3D_2	7126.42	6975.60	-7.008	-6.965	2.58(0)	2.97(0)
$6s^26p(^2P)6d$	$^3F_2^o$	$6s^26p(^2P)7s$	$^3P_0^o$	5223.68	5506.90	-7.349	-7.413	1.09(1)	8.50(0)
$6s^26p(^2P)6d$	$^3F_2^o$	$6s^26p(^2P)7s$	$^3P_1^o$	4906.60	5232.50	-7.244	-7.245	5.26(0)	4.62(0)
$6s^26p(^2P)6d$	$^3F_2^o$	$6s^26p(^2P)7s$	$^3P_2^o$	1598.74	1633.90	-8.354	-7.979	2.31(0)	5.24(0)
$6s^26p(^2P)6d$	$^3F_3^o$	$6s^26p(^2P)7s$	$^3P_2^o$	1941.89	2025.60	-7.540	-7.204	1.02(1)	2.03(1)
$6s^26p(^2P)6d$	$^3F_3^o$	$6s^26p(^2P)6d$	$^3D_3^o$	2570.68	2542.70	-7.816	-7.687	2.20(0)	3.03(0)
$6s^26p(^2P)6d$	$^3P_2^o$	$6s^26p(^2P)6d$	$^1F_3^o$	1915.77	1768.70	-7.240	-7.461	1.60(1)	1.05(1)
$6s^26p(^2P)6d$	$^3P_2^o$	$6s^26p(^2P)6d$	$^1P_1^o$	2046.77	1587.80	-7.690	-7.555	1.08(1)	2.45(1)
$6s^26p(^2P)6d$	$^3D_1^o$	$6s^26p(^2P)6d$	$^1P_1^o$	2091.26	1639.20	-7.757	-8.610	8.89(0)	2.03(0)
$6s^26p(^2P)6d$	$^3D_1^o$	$6s^26p(^2P)7s$	$^1P_1^o$	1719.02	2217.50	-8.025	-7.720	7.10(0)	8.61(0)
$6s^26p(^2P)7s$	$^3P_1^o$	$6s^26p(^2P)7s$	$^1P_1^o$	2000.68	2458.50	-6.782	-7.463	9.17(1)	1.27(1)
$6s^26p(^2P)7s$	$^3P_1^o$	$6s^26p(^2P)7s$	$^3P_2^o$	2371.45	2375.70	-6.820	-6.822	3.59(1)	3.56(1)
$6s^26p(^2P)7s$	$^3P_1^o$	$6s^26p(^2P)6d$	$^1F_3^o$	2327.24	1994.40	-7.238	-6.619	1.02(1)	5.76(1)

TABLE SIII (cont.)

Transitions				λ [Å]		$\log(gf)$		A_{ji} [s ⁻¹]	
Lower level	Term	Upper level	Term	HFR	MCDF	HFR	MCDF	HFR	MCDF
M1									
6s ² 6p(² P)7p	³ D ₁	6s ² 6p(² P)7p	³ S ₁	1761.86	1765.00	-7.742	-7.519	1.30(1)	2.16(1)
6s ² 6p(² P)7p	³ P ₀	6s ² 6p(² P)7p	³ P ₁	2456.96	2177.80	-5.914	-6.355	4.49(2)	3.73(2)
6s ² 6p(² P)7p	³ P ₁	6s ² 6p(² P)7p	¹ S ₀	1938.69	1889.30	-6.277	-6.332	9.38(2)	8.70(2)
6s ² 6p(² P)7p	³ P ₁	6s ² 6p(² P)7p	³ S ₁	2323.63	2329.70	-5.828	-5.865	6.12(2)	5.59(2)
6s ² 6p(² P)7p	³ P ₁	6s ² 6p(² P)7p	³ P ₂	2186.16	2177.80	-5.857	-5.877	3.88(2)	3.73(2)
6s ² 6p(² P)7p	³ D ₂	6s ² 6p(² P)7p	³ D ₃	2379.72	2431.00	-5.357	-5.384	7.39(2)	6.66(2)
6s ² 6p(² P)7p	³ D ₂	6s ² 6p(² P)7p	³ P ₂	2201.08	2206.80	-5.875	-5.897	3.67(2)	3.47(2)
6s ² 6p(² P)7p	³ D ₂	6s ² 6p(² P)7p	³ S ₁	2340.50	2362.90	-6.537	-6.570	1.18(2)	1.07(2)
6s ² 6p(² P)6d	³ F ₂ ^o	6s ² 6p(² P)6d	³ D ₃ ^o	2001.88	1954.50	-5.676	-5.764	5.02(2)	4.30(2)
6s ² 6p(² P)6d	³ F ₂ ^o	6s ² 6p(² P)6d	¹ F ₃ ^o	1578.53	1444.00	-6.134	-6.150	2.81(2)	3.23(2)
6s ² 6p(² P)6d	³ F ₂ ^o	6s ² 6p(² P)6d	¹ D ₂ ^o	2178.28	2193.80	-6.032	-6.106	2.61(2)	2.17(2)
6s ² 6p(² P)6d	³ F ₂ ^o	6s ² 6p(² P)6d	³ P ₁ ^o	1932.77	1862.20	-6.647	-6.708	1.34(2)	1.26(2)
6s ² 6p(² P)6d	³ F ₂ ^o	6s ² 6p(² P)6d	³ P ₂ ^o	1876.10	1807.70	-6.480	-6.470	1.25(2)	1.38(2)
6s ² 6p(² P)6d	³ F ₂ ^o	6s ² 6p(² P)6d	³ F ₃ ^o	9047.50	8448.60	-5.757	-5.711	2.04(1)	2.59(1)
6s ² 6p(² P)6d	³ F ₂ ^o	6s ² 6p(² P)7s	¹ P ₁ ^o	1421.19	1672.60	-8.251	-8.862	6.13(0)	1.09(0)
6s ² 6p(² P)6d	³ F ₃ ^o	6s ² 6p(² P)6d	³ F ₄ ^o	2876.48	3037.50	-5.204	-5.215	5.60(2)	4.90(2)
6s ² 6p(² P)6d	³ F ₃ ^o	6s ² 6p(² P)6d	¹ F ₃ ^o	1912.14	1741.70	-5.943	-6.028	2.97(2)	2.94(2)
6s ² 6p(² P)6d	³ F ₃ ^o	6s ² 6p(² P)6d	³ D ₃ ^o	2570.68	2542.70	-6.153	-6.150	1.04(2)	1.04(2)
6s ² 6p(² P)6d	³ F ₃ ^o	6s ² 6p(² P)6d	³ P ₂ ^o	2366.90	2299.80	-6.400	-6.487	9.49(1)	8.22(1)
6s ² 6p(² P)6d	³ P ₂ ^o	6s ² 6p(² P)7s	¹ P ₁ ^o	1688.85	2124.30	-6.263	-6.404	4.25(2)	1.94(2)
6s ² 6p(² P)6d	³ P ₂ ^o	6s ² 6p(² P)6d	¹ P ₁ ^o	2046.77	1587.80	-6.129	-6.137	3.94(2)	6.43(2)
6s ² 6p(² P)6d	³ P ₂ ^o	6s ² 6p(² P)6d	³ P ₂ ^o	2372.46	2347.10	-5.797	-5.849	3.78(2)	3.43(2)
6s ² 6p(² P)6d	³ P ₂ ^o	6s ² 6p(² P)6d	¹ F ₃ ^o	1915.77	1768.70	-6.020	-6.085	2.48(2)	2.50(2)
6s ² 6p(² P)6d	³ P ₂ ^o	6s ² 6p(² P)6d	¹ D ₂ ^o	2877.21	3042.20	-6.100	-6.046	1.28(2)	1.30(2)
6s ² 6p(² P)6d	³ P ₂ ^o	6s ² 6p(² P)6d	³ D ₃ ^o	2577.24	2600.70	-6.209	-6.189	8.86(1)	9.11(1)
6s ² 6p(² P)6d	³ P ₂ ^o	6s ² 6p(² P)6d	³ P ₁ ^o	2463.82	2439.80	-7.104	-7.041	2.88(1)	3.40(1)
6s ² 6p(² P)6d	³ D ₁ ^o	6s ² 6p(² P)6d	³ P ₀ ^o	2540.79	2598.40	-6.242	-6.254	5.92(2)	5.50(2)
6s ² 6p(² P)6d	³ D ₁ ^o	6s ² 6p(² P)6d	³ P ₁ ^o	2528.56	2563.40	-5.872	-5.877	4.67(2)	4.49(2)
6s ² 6p(² P)6d	³ D ₁ ^o	6s ² 6p(² P)6d	¹ D ₂ ^o	2965.89	3237.00	-5.926	-5.939	1.80(2)	1.46(2)
6s ² 6p(² P)6d	³ D ₁ ^o	6s ² 6p(² P)6d	³ P ₂ ^o	2432.44	2461.30	-6.361	-6.308	0.98(2)	1.08(2)
6s ² 6p(² P)6d	³ D ₁ ^o	6s ² 6p(² P)7s	³ P ₂ ^o	1985.78	2149.90	-7.024	-7.333	3.20(1)	1.34(1)
6s ² 6p(² P)6d	³ D ₃ ^o	6s ² 6p(² P)6d	¹ F ₃ ^o	7464.26	5528.80	-6.231	-6.148	1.00(1)	2.22(1)
6s ² 6p(² P)7s	³ P ₀ ^o	6s ² 6p(² P)7s	¹ P ₁ ^o	1952.35	2402.20	-6.297	-6.111	2.94(2)	2.99(2)
6s ² 6p(² P)7s	³ P ₀ ^o	6s ² 6p(² P)6d	¹ P ₁ ^o	2447.05	1738.10	-6.219	-6.539	2.24(2)	2.13(2)
6s ² 6p(² P)7s	³ P ₁ ^o	6s ² 6p(² P)7s	³ P ₂ ^o	2371.45	2375.70	-5.541	-5.558	6.83(2)	6.55(2)
6s ² 6p(² P)7s	³ P ₁ ^o	6s ² 6p(² P)7s	¹ P ₁ ^o	2000.68	2458.50	-6.687	-6.389	1.14(2)	1.50(2)
6s ² 6p(² P)7s	³ P ₁ ^o	6s ² 6p(² P)6d	¹ P ₁ ^o	2523.44	1767.30	-6.490	-6.928	1.13(2)	8.39(1)
6s ² 6p(² P)7s	³ P ₁ ^o	6s ² 6p(² P)6d	³ P ₁ ^o	3188.92	2891.10	-7.001	-7.214	2.18(1)	1.63(1)
6s ² 6p(² P)7s	³ P ₁ ^o	6s ² 6p(² P)6d	³ P ₀ ^o	3208.40	2935.60	-7.577	-7.828	1.71(1)	1.15(1)