^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 110, 999 (2009)	1-Nov-2008

Others: 1997Bo14, 1992Be17, 1989BoYT, 1973PrZI, 1971PrZJ, 1969BoZN, 1967Pr09, 1967Sp03, 1966Pr10 and 1962Tr04.

2008Bo26, 1997Bo14: 99.8% enriched metallic ^{186}W; Projectile: Thermal neutron; Detector: HPGE and planer HPGE (1997Bo14), HPGE and Ge(Li) (2008Bo26); Measured: Eγ, Iγ, $\gamma\gamma$-coin. In 1997Bo14, Iγ is reported relative to Iγ=100 of 5321γ and reported level scheme upto 2275-keV. 2008Bo26 constracted level scheme upto 2352-keV. The high γ-ray are systematically higher by 0.5-keV than that reported by 1997Bo14. (n,γ) of 2008Bo26 is an in-depth revision of 1997Bo14 data by the same group.

2008SuZW: Same as 2008Bo26. Extracted 2-step cascades from the $\gamma\gamma$ coin and constructed level scheme upto 3035-keV. Similar work from this group: 2005Su21, 2004Su11.

1973PrYV: ^{186}W(n,γ), 96.9% enriched ^{186}W, E=thermal; Detector: Two Ge(Li) and one planer Ge(Li); Measured Eγ, Iγ, $\gamma\gamma$-coin, conversion electron.

1992Be17: Target: 99.8% enriched metallic ^{186}W; Projectile: thermal neutron; Detector: HPGe, Ge(Li); Measured Eγ, Iγ, and $\gamma\gamma$ coin.

1972St06: ^{186}W(pol n,γ), natural W target, E=thermal; Ge(Li) detector; Measured Eγ, deduced level energy, J$^{\pi}$.

2008Bo26, 2008SuZW, 1997Bo14, 1992Be17, 1989BoYT, 1971PrZJ, 1973PrZI, 1969BoZN – from the same group.

^{187}W Levels

E(level)[†]	J$^{\pi}$[&]	T$_{1/2}$	Comments
0.0[a]	3/2$^-$		
77.287[a] *10*	5/2$^-$		
145.849[‡b] *9*	1/2$^-$		
201.448[a] *9*	7/2$^-$		
204.902[‡b] *9*	3/2$^-$		
303.352[b] *10*	5/2$^-$		
330.97[a] *5*	9/2$^-$		
350.428[c] *13*	7/2$^-$	5 ns *1*	T$_{1/2}$: from Adopted Levels.
364.21[f] *4*	9/2$^-$		
410.04[d] *4*	11/2$^+$	1.31 μs *8*	T$_{1/2}$: from $\gamma\gamma$(t) (2008Bo26).
432.277 *25*	7/2$^-$		
522.19[c] *7*	9/2$^-$		
640.488[g] *16*	5/2$^-$		
741.07[e] *4*	7/2$^+$		
762.146 *20*	1/2$^-$		
775.62[‡g] *14*	7/2$^-$		
782.290[h] *18*	1/2$^-$		
803.369 *22*	3/2$^-$		
811.7 *5*			
816.256[j] *18*	3/2$^-$		
840.208[‡] *15*	1/2$^-$		
852.41[k] *3*	3/2$^-$		
860.75[h] *4*	3/2$^-$		
863.33 *4*	5/2$^-$		
866.66 *4*	1/2$^-$,3/2$^-$		
881.77 *5*	5/2$^{(+)}$		
884.10[‡e] *4*	7/2$^+$		
891.93[l] *3*	3/2$^-$		
901.0 *4*			
908.96 *4*	1/2,(3/2)		
910.5 *4*			

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^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

^{187}W Levels (continued)

E(level)†	Jπ&	Comments
914.68[j] 4	5/2−	
960.57[k] 4	5/2−	
971.91[l] 4	5/2−	
979.44[m] 4	3/2−	
989.15 7	3/2−	
996.5? 6		
1018.53 5	3/2−	
1082.32 4	1/2−,(3/2)	
1086.3 4		
1094.24 5	1/2−,3/2−	
1135.18 3	3/2−	
1138.16 6	5/2	Jπ: Jπ=5/2± (2008Bo26).
1217.127 24	3/2−	
1267.49 12	5/2−,(7/2−)	
1272.39 5	1/2−,3/2−	
1306.81 8	(5/2)	
1308.22 4	3/2+	
1312.80[n] 7	3/2−	
1322.0 5		
1328.7 5		
1330.91 4	3/2+	
1347.56[i] 5	1/2−	
1363.1 5		
1373.61 5	3/2+	
1384.24[o] 5	3/2−	
1415.24[i] 7	3/2−	
1431.70 5	5/2(+)	
1441.8 5		
1444.2 5		
1450.85 8	1/2,(3/2)	
1487.12 9	3/2−	
1501.85 4	3/2+	
1533.91 15	5/2+	
1545.97 9	1/2,3/2	
1549.32 9	1/2,3/2	
1564.79 6	1/2,3/2−	
1589.04 18	5/2+	
1595.15 11	3/2+	
1612.87 10	3/2+	
1619.21 5	3/2−	
1643.52 24	1/2,3/2	
1648.73 19	5/2+	
1663.23 7	3/2−	
1674.39 17	3/2(−)	
1691.88 6	3/2+	
1706.05 6	1/2,3/2	
1711.35 15	(3/2−,5/2)	
1719.26 14	3/2−	
1726.85 11	3/2−	
1728.91 12	1/2,3/2	
1734.0 4		
1754.8 5		
1759.57 16	1/2,3/2	
1770.89 18	1/2−,3/2−	
1816.29 21	3/2(−)	

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^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

^{187}W Levels (continued)

E(level)†	Jπ&	E(level)†	Jπ&	E(level)†	E(level)†	Jπ&
1824.62 *22*	3/2⁻	2194.8 *3*		2436.2 *5*	2661.04 *19*	
1827.2 *5*		2198.5 *4*	1/2,3/2	2438.3 *4*	2678.8 *3*	
1845.53 *14*	1/2⁻,3/2	2203.9 *3*		2447.91 *12*	2680.48 *10*	
1857.83 *13*	1/2,3/2	2208.37 *21*	1/2,3/2	2457.4 *4*	2685.6 *3*	
1887.74 *14*	3/2⁻	2228.60 *19*	1/2,3/2	2461.11 *14*	2689.63 *16*	
1891.10 *16*	1/2(⁻),3/2	2232.83 *18*	1/2,3/2	2471.12 *24*	2697.42 *14*	
1897.2 *5*		2234.6 *5*		2476.3 *4*	2706.40 *9*	
1905.66[p] *6*	3/2⁻	2241.66 *14*	1/2⁻,3/2⁻	2480.0[@] *16*	2714.5 *3*	
1931.74[#] *11*	1/2⁻,3/2⁻	2258.2 *4*		2485.02 *9*	2717.38 *23*	
1936.86[p] *11*	3/2⁻	2260.12[#] *7*	1/2⁻,3/2⁻	2492.14 *18*	2722.15 *16*	
1943.80 *24*	(3/2)	2266.8 *4*		2496.9 *4*	2725.7 *5*	
1950.27 *20*	(1/2⁻),3/2	2269.1 *5*		2503.4 *4*	2728.2 *3*	
1956.21 *6*	(1/2⁻),3/2⁻	2272.6 *4*	1/2,3/2	2509.4 *5*	2732.3 *4*	
1961.81 *23*		2275.89 *13*	1/2⁻,3/2⁻	2511.67 *23*	2733.7 *5*	
1965.9 *5*		2281.7 *6*	1/2,3/2	2514.57 *17*	2736.75 *20*	
1973.65[#] *7*	3/2	2283.10 *16*	1/2,3/2	2528.33 *21*	2747.5 *5*	
1980.56 *13*	3/2⁺	2287.8 *4*		2531.7 *3*	2759.2 *4*	
1997.11[q] *5*	3/2⁻	2293.12 *22*	1/2,3/2	2534.1 *3*	2762.50 *21*	
2001.26? *17*		2296.5 *5*		2545.8 *3*	2778.3 *5*	
2014.4 *5*		2300.0 *5*		2552.54 *14*	2780.98 *22*	
2023.22 *15*	3/2(+)	2301.9 *7*	1/2,3/2	2556.36 *23*	2789.9[@] *6*	
2029.7 *5*		2306.45 *14*	1/2,3/2	2558.9 *4*	2796.6 *3*	
2044.60 *16*	1/2⁻,3/2⁻	2315.43[#] *17*	1/2,3/2	2562.4 *5*	2805.91 *18*	
2059.0 *5*	1/2,3/2	2322.3 *5*	1/2,3/2	2564.05 *13*	2820.4? *8*	
2062.1 *5*	1/2,3/2	2344.43 *20*	1/2,3/2	2571.6 *4*	2833.6 *4*	
2063.07 *24*	1/2,3/2	2346.6 *5*		2574.0 *5*	2834.8 *4*	
2070.08[#] *22*	1/2,3/2	2352.02 *9*	1/2⁻,3/2⁻	2583.90 *15*	2837.52 *21*	
2083.5 *4*		2356.79 *12*		2589.87 *13*	2844.8? *3*	
2090.33 *13*	1/2⁻,3/2⁻	2367.5 *4*		2600.8 *4*	2865.14[@] *12*	
2117.28 *10*	1/2,3/2	2370.0 *3*		2606.5 *4*	2871.1 *3*	
2124.32 *18*	1/2,3/2	2375.1 *5*		2613.63 *17*	2882.32 *7*	
2130.0 *5*		2381.14 *21*		2617.84 *6*	2896.7 *3*	
2136.7 *6*	1/2,3/2	2385.4 *4*		2624.11 *9*	2909.73 *10*	
2138.67 *20*	1/2,3/2	2393.8 *4*		2627.58 *11*	2929.83 *18*	
2142.59 *24*	1/2,3/2	2399.3 *5*		2636.2 *4*	3035.7 *4*	
2150.31 *23*	1/2,3/2	2411.40 *9*		2636.37 *13*	3144.80 *8*	
2153.42 *19*	1/2,3/2	2415.19 *16*		2640.8 *5*	3171.6[@] *6*	
2168.9 *3*	1/2,3/2	2426.88 *14*		2647.44 *15*	3176.6 *4*	
2172.2 *3*	1/2,3/2	2429.5 *5*		2650.5 *5*	3342.07 *10*	
2180.47 *25*	1/2,3/2	2433.9 *3*		2653.5 *3*	(5466.908 *17*)	1/2⁺

† From a least-squares adjustment to the γ-ray energies. The 2699.6γ (from 2699.6-keV level), 2462.5γ (from 3342.18-keV level), and 2738.69 (from 5466.9 keV level) were avoided in the least-squares adjustment to reduce the χ^2 value. For missing γ-ray uncertainties ΔE=0.5 is assumed by the evaluator in the least-squares adjustment.

‡ Also reported in (pol n,γ) (1972St06).

Unresolved doublet.

@ Not in the adopted level. γ-ray feeding from the capture state.

& From band assignment, (n,γ) population-depopulation data, band assignment, γ-ray multipolarity, etc. by 2008Bo26 including the data of (d,p) study by 2008Bo26, except otherwise noted.

[a] 3/2⁻[512].

[b] 1/2⁻[510].

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^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

^{187}W Levels (continued)

[c] 7/2$^-$[503].
[d] 11/2$^+$[615].
[e] 7/2$^+$ (vibration).
[f] 9/2$^-$[505].
[g] 5/2$^-$[503].
[h] 1/2$^-$[501] based on 782 level.
[i] 1/2$^-$[501] based on 1348 level.
[j] 3/2$^-$[501] + vibration based on 816 level.
[k] 3/2$^-$[501] + vibration based on 852 level.
[l] 3/2$^-$[501] + vibration based on 892 level.
[m] 3/2$^-$[501] + vibration based on 979 level.
[n] 3/2$^-$[501] + vibration based on 1313 level.
[o] 3/2$^-$[501] + vibration based on 1384 level.
[p] 3/2$^-$[501] + vibration based on 1906 level.
[q] 3/2$^-$[501] + vibration based on 1997 level.

γ(^{187}W)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.#	δ@	α k	Iγ% f	Comments
77.287	5/2−	77.28 *4*	100	0.0	3/2−	M1+E2	0.45 *2*	10.17		L1:L2:L3=0.7 *2*:1.2 *2*:1 (1973PrYV) α(K)=7.03 *14*; α(L)=2.40 *9*; α(M)=0.580 *23*; α(N+..)=0.159 *6* α(N)=0.138 *6*; α(O)=0.0204 *7*; α(P)=0.000722 *14*
145.849	1/2−	145.86 *1*	100	0.0	3/2−	M1		1.617	0.021 h *4*	K/L1=5.9 *7*; L1/L2=13 *6* (1973PrYV) α(K)=1.342 *19*; α(L)=0.213 *3*; α(M)=0.0484 *7*; α(N+..)=0.01371 *20* α(N)=0.01167 *17*; α(O)=0.00190 *3*; α(P)=0.0001354 *19*
201.448	7/2−	124.23 *3*	12.6 *2*	77.287	5/2−	M1+E2	1.3 *+5−3*	2.01 *13*		α(K)exp=1.2 *3*; α(L2)exp=0.38 *8*; α(L3)exp=0.21 *4* (1973PrYV) α(K)=1.14 *22*; α(L)=0.66 *7*; α(M)=0.162 *19*; α(N+..)=0.044 *5* α(N)=0.038 *5*; α(O)=0.0055 *6*; α(P)=0.000106 *24*
		201.42 *1*	100 *3*	0.0	3/2−					α(K)exp=0.058 *11*; α(L3)exp=0.022 *7* (1973PrYV) Mult.: α(K)exp=0.058 *11* is consistent with E1, level scheme requires E2.
204.902	3/2−	59.2 *1*		145.849	1/2−	M1		3.73	122 *30*	L1:L2:L3=1:0.09 *8*:0.007 *6* (1973PrYV) ce(L)/(γ+ce)=0.610 *6*; ce(M)/(γ+ce)=0.1390 *24*; ce(N+)/(γ+ce)=0.0393 *8* ce(N)/(γ+ce)=0.0335 *7*; ce(O)/(γ+ce)=0.00546 *11*; ce(P)/(γ+ce)=0.000387 *8* E_γ: From 1973PrYV. Iγ%: deduced by the evaluator from conversion electron intensities (1973PrYV) and the adopted multipolarity.
		127.57 *2*	75 *2*	77.287	5/2−	M1+E2	1.2 *5*	1.87 *23*		α(K)exp=1.1 *3*; α(L1)exp=0.17 *5* (1973PrYV) α(K)=1.1 *4*; α(L)=0.57 *12*; α(M)=0.14 *3*; α(N+..)=0.038 *8* α(N)=0.033 *8*; α(O)=0.0048 *9*; α(P)=0.00010 *5*
		204.92 *1*	100 *2*	0.0	3/2−				0.090 h *6*	α(K)exp=0.069 *21* (1973PrYV) Mult.: α(K)exp value is consistent with E1.
303.352	5/2−	98.47 *16* 101.83 *2*	3 *1* 27 *2*	204.902 201.448	3/2− 7/2−	M1		4.51		α(K)exp=7.9 *39*; α(L1)exp=0.58 *23* (1971PrZJ) α(K)=3.74 *6*; α(L)=0.596 *9*; α(M)=0.1357 *19*; α(N+..)=0.0384 *6* α(N)=0.0327 *5*; α(O)=0.00533 *8*; α(P)=0.000379 *6*
		157.53 *2* 226.08 *1*	27 *3* 100 *4*	145.849 77.287	1/2− 5/2−	M1+E2	2.5 *6*	0.243 *22*		α(K)exp=0.16 *5* (1973PrYV) α(K)=0.159 *22*; α(L)=0.0638 *9*; α(M)=0.0156 *3*; α(N+..)=0.00426 *7* α(N)=0.00371 *6*; α(O)=0.000537 *8*; α(P)=1.39×10^{-5} *24*
330.97	9/2−	303.37 *2* 129 *2* 253.68 *5*	66 *5* 4 *3* 100 *9*	0.0 201.448 77.287	3/2− 7/2− 5/2−					

$^{187}_{74}W_{113}$-5

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[#]	δ[@]	α[k]	Comments
350.428	7/2⁻	(≈19)	3[d] *1*	330.97	9/2⁻				
		148.96 *4*	11.4 *3*	201.448	7/2⁻	E2(+M1)	3.6 *6*	0.908 *23*	α(K)exp=0.43 *13* (1973PrYV) α(K)=0.43 *3*; α(L)=0.363 *8*; α(M)=0.0908 *19*; α(N+..)=0.0245 *5* α(N)=0.0214 *5*; α(O)=0.00299 *6*; α(P)=3.5×10^{-5} *3*
		273.14 *1*	100 *1*	77.287	5/2⁻	E2(+M1)	3.6 *6*	0.125 *6*	α(K)exp=0.084 *14* (1971PrZJ) α(K)=0.085 *5*; α(L)=0.0309 *5*; α(M)=0.00753 *11*; α(N+..)=0.00206 *3* α(N)=0.00179 *3*; α(O)=0.000261 *5*; α(P)=7.4×10^{-6} *5*
		350.40 *11*	2.5 *2*	0.0	3/2⁻				
364.21	9/2⁻	(≈14)	100[d] *2*	350.428	7/2⁻				
		162.7 *3*	≤3	201.448	7/2⁻				
		286.88 *15*	5 *1*	77.287	5/2⁻				
410.04	11/2⁺	(≈46)	100	364.21	9/2⁻				
432.277	7/2⁻	(≈101)	≤8[d]	330.97	9/2⁻				
		128.92 *12*	41 *3*	303.352	5/2⁻				
		227.45 *9*	30 *4*	204.902	3/2⁻				α(K)exp=0.19 *7* (1973PrYV) Mult.: α(K)exp indicates M1+E2 (δ=1.6 *2*), decay scheme requires E2.
		230.9 *5*	7 *2*	201.448	7/2⁻				
		355.02 *3*	100 *3*	77.287	5/2⁻				
		432.4 *5*	5.4 *15*	0.0	3/2⁻				
522.19	9/2⁻	171.78 *8*	100	350.428	7/2⁻	M1(+E2)	1.3 *7*	0.71 *19*	α(K)exp=0.47 *19* (1971PrZJ) α(K)=0.47 *22*; α(L)=0.177 *25*; α(M)=0.043 *8*; α(N+..)=0.0118 *19* α(N)=0.0102 *17*; α(O)=0.00149 *18*; α(P)=4.4×10^{-5} *24*
640.488	5/2⁻	276.25 *10*	24 *3*	364.21	9/2⁻				α(K)exp=0.16 *6* (1971PrZJ) E_γ: Placement was from 9/2⁻ state at 916.5-keV (1997Bo14). Mult.: α(K)exp=0.16 *6* is consistent with M1+E2, decay scheme requires E2.
		290.06 *1*	100 *4*	350.428	7/2⁻	M1+E2	1.0 *6*	0.17 *6*	α(K)exp=0.13 *4* (1971PrZJ) α(K)=0.13 *5*; α(L)=0.028 *3*; α(M)=0.0065 *5*; α(N+..)=0.00181 *15* α(N)=0.00156 *12*; α(O)=0.00024 *3*; α(P)=1.3×10^{-5} *6*
		438.9[l]	5 *1*	201.448	7/2⁻				
		563.3 *4*	14 *4*	77.287	5/2⁻				
		640.23 *22*	22 *4*	0.0	3/2⁻				
741.07	7/2⁺	218.86 *13*	8 *2*	522.19	9/2⁻				
		330.99 *7*	42 *4*	410.04	11/2⁺				
		376.86 *2*	100 *2*	364.21	9/2⁻				
		390.67 *6*	38 *3*	350.428	7/2⁻				
		539.4 *3*	5 *1*	201.448	7/2⁻				
		663.8 *5*	42 *2*	77.287	5/2⁻				
762.146	1/2⁻	557.25 *2*	100 *2*	204.902	3/2⁻	(M1+E2)	1.3 *7*	0.026 *10*	α(K)=0.021 *9*; α(L)=0.0038 *10*; α(M)=0.00087 *22*; α(N+..)=0.00024 *7*

$^{187}_{74}W_{113}$-6

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[#]	δ[@]	α[k]	Iγ%[f]	Comments
										α(N)=0.00021 *6*; α(O)=3.3×10^{-5} *9*; α(P)=2.0×10^{-6} *9* α(K)exp=0.021 *7* (deduced by the evaluator using the ce data of 1973PrYV).
762.146	1/2$^-$	616.40 *9*	51 *2*	145.849	1/2$^-$					
		762.0 *5*	5 *1*	0.0	3/2$^-$					
775.62	7/2$^-$	253.50 *16*	100 *13*	522.19	9/2$^-$					
		411.28 *23*	80 *10*	364.21	9/2$^-$					
782.290	1/2$^-$	141[cl]	≈0.3	640.488	5/2$^-$					
		577.39 *2*	100 *1*	204.902	3/2$^-$	(M1+E2)	0.7 *9*	0.031 *10*	1.22[h] *3*	α(K)=0.026 *9*; α(L)=0.0042 *10*; α(M)=0.00095 *22*; α(N+..)=0.00027 *7* α(N)=0.00023 *6*; α(O)=3.7×10^{-5} *9*; α(P)=2.5×10^{-6} *9* α(K)exp=0.026 *8* (deduced by the evaluator using the ce data of 1973PrYV).
		636.5 *3*	4.3 *4*	145.849	1/2$^-$				0.042[h] *6*	
		704.9 *4*	1.5 *2*	77.287	5/2$^-$					
		782.25 *6*	69 *1*	0.0	3/2$^-$				0.753[h] *16*	
803.369	3/2$^-$	500.07 *4*	36 *4*	303.352	5/2$^-$	(M1)		0.0564		α(K)=0.0471 *7*; α(L)=0.00725 *11*; α(M)=0.001645 *23*; α(N+..)=0.000466 *7* α(N)=0.000396 *6*; α(O)=6.48×10^{-5} *9*; α(P)=4.66×10^{-6} *7* α(K)exp=0.048 *15* (deduced by the evaluator using the ce data of 1973PrYV).
		598.54 *8*	19 *2*	204.902	3/2$^-$				0.017[h] *8*	
		657.52 *4*	100 *2*	145.849	1/2$^-$				0.041[h] *6*	
		725.99 *4*	26 *1*	77.287	5/2$^-$					
		803.35 *7*	14 *8*	0.0	3/2$^-$					
811.7		734.4[‡]		77.287	5/2$^-$				0.020[h] *4*	
816.256	3/2$^-$	176.6 *6*	2 *1*	640.488	5/2$^-$					
		384.3 *6*	2 *1*	432.277	7/2$^-$					
		465.78 *11*	13 *2*	350.428	7/2$^-$					
		512.7 *3*	15 *5*	303.352	5/2$^-$					
		611.31 *3*	68 *2*	204.902	3/2$^-$	(M1)		0.0336	0.114[h] *11*	α(K)=0.0280 *4*; α(L)=0.00429 *6*; α(M)=0.000972 *14*; α(N+..)=0.000275 *4* α(N)=0.000234 *4*; α(O)=3.83×10^{-5} *6*; α(P)=2.76×10^{-6} *4* α(K)exp=0.051 *15* (deduced by the evaluator using the ce data of 1973PrYV).
		670.41 *4*	54 *2*	145.849	1/2$^-$				0.172[h] *10*	
		738.95 *5*	43 *2*	77.287	5/2$^-$				0.086[h] *6*	
		816.31 *4*	100 *2*	0.0	3/2$^-$				0.166[h] *16*	
840.208	1/2$^-$	536.9 *4*	1.8 *4*	303.352	5/2$^-$					
		635.40 *12*	16 *1*	204.902	3/2$^-$				0.188[h] *14*	
		694.38 *3*	33 *1*	145.849	1/2$^-$				0.416[h] *15*	

$^{187}_{74}W_{113}$-7

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Iγ%[f]
840.208	1/2$^-$	762.87 *4*	28 *1*	77.287	5/2$^-$	0.282[h] *11*
		840.20 *2*	100 *2*	0.0	3/2$^-$	0.88[h] *3*
852.41	3/2$^-$	502.0 *6*	7 *3*	350.428	7/2$^-$	
		549.0 *5*	10 *4*	303.352	5/2$^-$	
		647.64 *10*	46 *4*	204.902	3/2$^-$	
		651.0 *5*	7 *3*	201.448	7/2$^-$	
		706.58 *4*	100 *3*	145.849	1/2$^-$	
		775.10 *5*	88 *3*	77.287	5/2$^-$	
		852.41 *8*	82 *3*	0.0	3/2$^-$	
860.75	3/2$^-$	428.47 *7*	32 *2*	432.277	7/2$^-$	
		655.90 *6*	100 *2*	204.902	3/2$^-$	
		659.20 *12*	44 *5*	201.448	7/2$^-$	
		783.5 *4*	39 *5*	77.287	5/2$^-$	
		860.85 *14*	39 *4*	0.0	3/2$^-$	
863.33	5/2$^-$	≈513	24 *10*	350.428	7/2$^-$	
		532.41 *7*	39 *10*	330.97	9/2$^-$	
		560.07 *12*	49 *14*	303.352	5/2$^-$	
		658.0 *3*	17 *8*	204.902	3/2$^-$	
		661.86 *6*	38 *14*	201.448	7/2$^-$	
		717.52 *5*	21 *8*	145.849	1/2$^-$	
		785.8 *4*	33 *10*	77.287	5/2$^-$	
		863.4 *3*	100 *12*	0.0	3/2$^-$	
866.66	1/2$^-$,3/2$^-$	563.51 *6*	10 *5*	303.352	5/2$^-$	
		661.6 *6*	29 *8*	204.902	3/2$^-$	
		789.23 *7*	100 *2*	77.287	5/2$^-$	
		866.59 *20*	95 *2*	0.0	3/2$^-$	
881.77	5/2$^{(+)}$	140.7 *3*	14 *2*	741.07	7/2$^+$	
		449.1 *4*	4 *2*	432.277	7/2$^-$	
		531.31 *11*	94 *8*	350.428	7/2$^-$	
		676.96 *15*	34 *7*	204.902	3/2$^-$	
		680.36 *7*	11 *4*	201.448	7/2$^-$	
		803.7 *4*	≈8	77.287	5/2$^-$	
		881.74 *12*	100 *8*	0.0	3/2$^-$	
884.10	7/2$^+$	143.12 *9*	14 *1*	741.07	7/2$^+$	
		243.6 *6*	≈1	640.488	5/2$^-$	
		451.6 *7*	2.2 *7*	432.277	7/2$^-$	
		474.07 *2*	100 *2*	410.04	11/2$^+$	
		533.69 *8*	32 *1*	350.428	7/2$^-$	
891.93	3/2$^-$	460.1 *8*	1.7 *6*	432.277	7/2$^-$	
		541.46 *13*	14 *1*	350.428	7/2$^-$	
		588.67 *11*	20 *1*	303.352	5/2$^-$	0.199[h] *20*
		687.1[‡]		204.902	3/2$^-$	0.015[h] *6*
891.93	3/2$^-$	690.5 *7*	2 *1*	201.448	7/2$^-$	
		746.10 *10*	44 *2*	145.849	1/2$^-$	0.268[h] *12*
		814.72 *14*	30 *2*	77.287	5/2$^-$	0.112[h] *7*
		891.93 *7*	100 *2*	0.0	3/2$^-$	0.453[h] *25*
901.0		597.7[‡]		303.352	5/2$^-$	0.075[h] *14*
		823.6[‡]		77.287	5/2$^-$	0.051[h] *10*
908.96	1/2,(3/2)	605.64 *12*	11 *2*	303.352	5/2$^-$	
		704.2 *7*	7 *2*	204.902	3/2$^-$	
		831.69 *6*	49 *3*	77.287	5/2$^-$	0.088[h] *10*
		908.98 *14*	100 *4*	0.0	3/2$^-$	0.102[h] *18*
910.5		910.8[‡]		0.0	3/2$^-$	0.047[h] *11*
914.68	5/2$^-$	392.5 *4*	3 *1*	522.19	9/2$^-$	
		564.4 *3*	11 *5*	350.428	7/2$^-$	
		611.35 *23*	89 *7*	303.352	5/2$^-$	
		709.5 *3*	41 *5*	204.902	3/2$^-$	
		713.10 *19*	39 *5*	201.448	7/2$^-$	
		768.9 *3*	12 *5*	145.849	1/2$^-$	
		837.43 *5*	49 *10*	77.287	5/2$^-$	
		914.67 *14*	100 *7*	0.0	3/2$^-$	
960.57	5/2$^-$	528.36 *6*	100 *10*	432.277	7/2$^-$	
		628.7 *3*	20 *9*	330.97	9/2$^-$	
		657.3 *3*	19 *12*	303.352	5/2$^-$	
		755.9 *3*	22 *9*	204.902	3/2$^-$	
		759.11 *5*	44 *10*	201.448	7/2$^-$	
		960.47 *18*	25 *9*	0.0	3/2$^-$	
971.91	5/2$^-$	449.9 *3*	17 *8*	522.19	9/2$^-$	
		539.77 *8*	54 *8*	432.277	7/2$^-$	
		621.44 *5*	45 *8*	350.428	7/2$^-$	
		640.99 *21*	9 *2*	330.97	9/2$^-$	
		668.57 *20*	18 *7*	303.352	5/2$^-$	
		767.0 *3*	41 *8*	204.902	3/2$^-$	
		770.48 *21*	67 *9*	201.448	7/2$^-$	
		894.59 *10*	100 *9*	77.287	5/2$^-$	
		972.0 *6*	23 *9*	0.0	3/2$^-$	
979.44	3/2$^-$	628.97 *6*	85 *4*	350.428	7/2$^-$	
		774.6 *3*	25 *7*	204.902	3/2$^-$	0.018[h] *5*
		778.0 *3*	11 *5*	201.448	7/2$^-$	
		833.57 *24*	100 *7*	145.849	1/2$^-$	0.064[h] *10*
		901.9 *9*	≈8	77.287	5/2$^-$	
		979.39 *7*	74 *3*	0.0	3/2$^-$	0.040[h] *7*
989.15	3/2$^-$	557.0 *6*	25 *7*	432.277	7/2$^-$	
		784.4[‡]		204.902	3/2$^-$	0.026[h] *5*

$^{187}_{74}W_{113}$-8

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Iγ% f
989.15	3/2⁻	787.69 *18*	100 *9*	201.448	7/2⁻	0.023 h *5*
		911.87 *23*	74 *9*	77.287	5/2⁻	
		989.18 *9*	87 *10*	0.0	3/2⁻	0.047 h *7*
1018.53	3/2⁻	715.16 *24*	15 *2*	303.352	5/2⁻	0.057 h *6*
		813.61 *17*	53 *3*	204.902	3/2⁻	0.107 h *11*
		817.1 *5*	19 *3*	201.448	7/2⁻	
		872.69 *8*	100 *2*	145.849	1/2⁻	0.212 h *16*
		941.24 *17*	33 *2*	77.287	5/2⁻	0.066 h *5*
		1018.45 *11*	82 *2*	0.0	3/2⁻	0.159 h *11*
1082.32	1/2⁻,(3/2)	190.4 *6*	1.9 *5*	891.93	3/2⁻	
		215.7 *3*	3.8 *5*	866.66	1/2⁻,3/2⁻	
		242.4 *5*	3.6 *6*	840.208	1/2⁻	
		266.5 *7*	1.9 *5*	816.256	3/2⁻	
		778.9 *6*	4.6 *11*	303.352	5/2⁻	
		877.42 *6*	54 *2*	204.902	3/2⁻	0.230 h *15*
		936.4 *5*	9 *1*	145.849	1/2⁻	0.043 h *8*
		1082.27 *10*	100 *3*	0.0	3/2⁻	0.353 h *17*
1086.3		782.3 ‡		303.352	5/2⁻	0.099 h *13*
1094.24	1/2⁻,3/2⁻	253.9 *8*	10 *3*	840.208	1/2⁻	
		790.6 *4*	12 *3*	303.352	5/2⁻	0.044 h *11*
		889.40 *7*	100 *3*	204.902	3/2⁻	0.057 h *8*
		949 *1*	≈9	145.849	1/2⁻	
		1016.6 *3*	16 *5*	77.287	5/2⁻	
		1094.19 *8*	74 *4*	0.0	3/2⁻	0.028 h *6*
1135.18	3/2⁻	244 *1*	4 *1*	891.93	3/2⁻	
		268.5 *4*	7 *1*	866.66	1/2⁻,3/2⁻	
		295.0 *3*	13 *2*	840.208	1/2⁻	
		702.9 *4*	3 *1*	432.277	7/2⁻	
		831.80 *24*	18 *4*	303.352	5/2⁻	0.057 h *18*
		930.3 *3*	24 *4*	204.902	3/2⁻	0.037 h *8*
		933.69 *7*	15 *2*	201.448	7/2⁻	
		989.39 *7*	42 *3*	145.849	1/2⁻	0.082 h *8*
		1057.88 *5*	100 *4*	77.287	5/2⁻	0.177 h *6*
		1135.15 *21*	59 *3*	0.0	3/2⁻	0.104 h *9*
1138.16	5/2	254.0 *3*	≈2	884.10	7/2⁺	
		787.77 *23*	13 *2*	350.428	7/2⁻	
		936.70 *7*	43 *6*	201.448	7/2⁻	
		1060.86 *14*	94 *18*	77.287	5/2⁻	
		1138.4 *4*	100 *12*	0.0	3/2⁻	

$^{187}_{74}W_{113}$-9

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Iγ%[f]
1217.127	3/2⁻	237.7 *9*	1.0 *4*	979.44	3/2⁻	
		325.2 *4*	2.6 *4*	891.93	3/2⁻	
		364.9 *8*	1.5 *4*	852.41	3/2⁻	
		376.93 *14*	9.8 *16*	840.208	1/2⁻	
		400.6 *7*	2.1 *4*	816.256	3/2⁻	
		434.8 *8*	1.7 *4*	782.290	1/2⁻	
		577.0 *5*	4.0 *15*	640.488	5/2⁻	
		913.7 *3*	9.5 *6*	303.352	5/2⁻	
		1012.29 *4*	64 *1*	204.902	3/2⁻	0.414[h] *15*
		1015.6 *4*	8.3 *8*	201.448	7/2⁻	
		1071.24 *3*	100 *2*	145.849	1/2⁻	0.701[h] *23*
		1139.73 *20*	25 *2*	77.287	5/2⁻	0.146[h] *12*
		1216.9 *5*	4.6 *7*	0.0	3/2⁻	
1267.49	5/2⁻,(7/2⁻)	835.20 *13*	96 *9*	432.277	7/2⁻	
		917.2 *4*	23 *7*	350.428	7/2⁻	
		1066.1 *3*	100 *17*	201.448	7/2⁻	
		1190.0 *6*	93 *40*	77.287	5/2⁻	
1272.39	1/2⁻,3/2⁻	363.43 *15*	25 *3*	908.96	1/2,(3/2)	
		380.51 *7*	54 *6*	891.93	3/2⁻	
		405.78 *13*	28 *3*	866.66	1/2⁻,3/2⁻	
		420.02 *9*	45 *4*	852.41	3/2⁻	
		456.2 *3*	23 *5*	816.256	3/2⁻	
		469.03 *15*	20 *5*	803.369	3/2⁻	
		1067.53 *24*	79 *12*	204.902	3/2⁻	
		1126.5 *4*	47 *7*	145.849	1/2⁻	
		1193.8 *8*	22 *5*	77.287	5/2⁻	
		1272.18 *11*	100 *7*	0.0	3/2⁻	
1306.81	(5/2)	874.67 *20*	48 *6*	432.277	7/2⁻	
		956.27 *12*	54 *5*	350.428	7/2⁻	
		1105.41 *12*	66 *5*	201.448	7/2⁻	
		1307.0[l]	100 *11*	0.0	3/2⁻	
1308.22	3/2⁺	393.6 *4*	5 *2*	914.68	5/2⁻	
		424.00 *10*	100 *3*	884.10	7/2⁺	
		441.8 *6*	≈2	866.66	1/2⁻,3/2⁻	
		447.4 *3*	4 *2*	860.75	3/2⁻	
		468.0 *3*	4 *2*	840.208	1/2⁻	
		525.9 *3*	11 *2*	782.290	1/2⁻	
		546.16 *5*	30 *2*	762.146	1/2⁻	
		567.14 *5*	21 *2*	741.07	7/2⁺	
		1004.3 *3*	8 *2*	303.352	5/2⁻	0.042[h] *12*
		1103.3 *3*	10 *2*	204.902	3/2⁻	
		1162.33 *20*	9 *2*	145.849	1/2⁻	

$^{187}_{74}W_{113}$-10

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Iγ%[f]
1308.22	3/2$^+$	1231.2 *3*	23 *3*	77.287	5/2$^-$	0.036[h] *7*
1312.80	3/2$^-$	450.0 *3*	9 *2*	863.33	5/2$^-$	
		451.9 *3*	7 *2*	860.75	3/2$^-$	
		1009.2 *5*	3 *1*	303.352	5/2$^-$	
		1107.87 *9*	100 *6*	204.902	3/2$^-$	0.041[h] *6*
		1111.36 *11*	8 *3*	201.448	7/2$^-$	
		1235.9 *5*	11 *4*	77.287	5/2$^-$	
		1313.2[cl]	15 *3*	0.0	3/2$^-$	
1322.0		1018.6[‡]		303.352	5/2$^-$	0.032[h] *9*
1328.7		1025.3[‡]		303.352	5/2$^-$	0.144[h] *14*
1330.91	3/2$^+$	446.75 *7*	40 *4*	884.10	7/2$^+$	
		464.4 *3*	14 *3*	866.66	1/2$^-$,3/2$^-$	
		467.73 *10*	45 *4*	863.33	5/2$^-$	
		527.69 *15*	15 *4*	803.369	3/2$^-$	
		548.65 *5*	100 *8*	782.290	1/2$^-$	
		568.76 *17*	17 *4*	762.146	1/2$^-$	
		589.7 *4*	7 *2*	741.07	7/2$^+$	
		1027.39 *15*	84 *8*	303.352	5/2$^-$	
		1184.80 *11*	63 *7*	145.849	1/2$^-$	
		1330 *1*	40 *13*	0.0	3/2$^-$	
1347.56	1/2$^-$	368.1 *8*	5 *2*	979.44	3/2$^-$	
		455.6 *6*	7 *2*	891.93	3/2$^-$	
		483.6 *7*	4 *2*	863.33	5/2$^-$	
		495.21 *6*	59 *3*	852.41	3/2$^-$	
		507.3 *4*	11 *4*	840.208	1/2$^-$	
		531.28 *7*	100 *4*	816.256	3/2$^-$	
		565.22 *23*	24 *3*	782.290	1/2$^-$	
		706.85 *12*	60 *8*	640.488	5/2$^-$	
		1142.3 *9*	8 *5*	204.902	3/2$^-$	
		1201.6 *6*	11 *3*	145.849	1/2$^-$	0.019[h] *8*
		1270.4 *9*	6 *2*	77.287	5/2$^-$	
		1347.5 *3*	34 *4*	0.0	3/2$^-$	0.060[h] *4*
1363.1		1285.8[‡]		77.287	5/2$^-$	0.012[h] *7*
1373.61	3/2$^+$	464.6 *3*	11 *3*	908.96	1/2,(3/2)	
		489.51 *4*	100 *5*	884.10	7/2$^+$	
		570.7 *7*	4 *2*	803.369	3/2$^-$	
		632.4 *3*	11 *3*	741.07	7/2$^+$	
		1297.1 *8*	38 *16*	77.287	5/2$^-$	
		1373.6[cl]		0.0	3/2$^-$	
1384.24	3/2$^-$	469.6 *4*	31 *4*	914.68	5/2$^-$	
		492.3 *5*	24 *5*	891.93	3/2$^-$	

$^{187}_{74}$W$_{113}$-11

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Iγ%[f]
1384.24	3/2⁻	517.6 *4*	30 *4*	866.66	1/2⁻,3/2⁻	
		531.8 *4*	16 *4*	852.41	3/2⁻	
		601.92 *10*	90 *6*	782.290	1/2⁻	
		744.2 *8*	9 *4*	640.488	5/2⁻	
		1033.83 *13*	80 *6*	350.428	7/2⁻	
		1080.8 *9*	25 *6*	303.352	5/2⁻	
		1179.31 *22*	100 *7*	204.902	3/2⁻	0.082 *5*
		1238.3 *4*	69 *8*	145.849	1/2⁻	0.052 *8*
		1306.7 *6*	33 *6*	77.287	5/2⁻	0.018 *4*
		1384.2 *8*	33 *7*	0.0	3/2⁻	0.032 *4*
1415.24	3/2⁻	500.69 *9*	100 *7*	914.68	5/2⁻	
		562.64 *24*	26 *5*	852.41	3/2⁻	
		598.86 *10*	46 *10*	816.256	3/2⁻	
		632.77 *24*	22 *3*	782.290	1/2⁻	
		774.91 *23*	34 *5*	640.488	5/2⁻	
1431.70	5/2⁽⁺⁾	547.59 *3*	100 *4*	884.10	7/2⁺	
		690.61 *22*	10 *2*	741.07	7/2⁺	
		791.34 *23*	14 *2*	640.488	5/2⁻	
1441.8		1138.4[‡]		303.352	5/2⁻	0.038[h] *10*
1444.2		1366.9[‡]		77.287	5/2⁻	0.014[h] *4*
1450.85	1/2,(3/2)	810.8 *4*	≈2	640.488	5/2⁻	
		1147.4 *9*	≈6	303.352	5/2⁻	
		1305.0 *9*	6 *2*	145.849	1/2⁻	0.019[h] *4*
		1373.5 *4*	17 *3*	77.287	5/2⁻	0.026[h] *4*
		1450.75 *13*	100 *7*	0.0	3/2⁻	0.152[h] *7*
1487.12	3/2⁻	528.0 *5*	8 *3*	960.57	5/2⁻	
		578.3 *9*	≈11	908.96	1/2,(3/2)	
		595.4 *8*	7 *3*	891.93	3/2⁻	
		1282.6 *7*	100 *24*	204.902	3/2⁻	
		1286.4 *4*	27 *6*	201.448	7/2⁻	
		1341.17 *9*	53 *10*	145.849	1/2⁻	
		1409.4 *4*	35 *16*	77.287	5/2⁻	
		1487.6 *4*	77 *30*	0.0	3/2⁻	
1501.85	3/2⁺	170.8 *9*	5 *2*	1330.91	3/2⁺	
		189.3 *5*	10 *2*	1312.80	3/2⁻	
		229.7 *5*	13 *2*	1272.39	1/2⁻,3/2⁻	
		522.14 *19*	18 *3*	979.44	3/2⁻	
		592.90 *8*	20 *3*	908.96	1/2,(3/2)	
		617.83 *5*	56 *5*	884.10	7/2⁺	
		635.0 *6*	15 *4*	866.66	1/2⁻,3/2⁻	
		661.73 *20*	8 *1*	840.208	1/2⁻	
		719.49 *12*	20 *3*	782.290	1/2⁻	

$^{187}_{74}W_{113}$-12

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Iγ%[f]
1501.85	3/2$^+$	739.6 *3*	15 *5*	762.146	1/2$^-$	
		760.71 *21*	8 *1*	741.07	7/2$^+$	
		1198.7 *5*	12 *2*	303.352	5/2$^-$	
		1296.97 *12*	100 *7*	204.902	3/2$^-$	0.083[h] *6*
		1355.95 *13*	39 *3*	145.849	1/2$^-$	0.040[h] *4*
		1501.8 *3*	35 *3*	0.0	3/2$^-$	0.018[h] *3*
1533.91	5/2$^+$	625.0 *5*	4 *2*	908.96	1/2,(3/2)	
		892.2 *4*	6 *2*	640.488	5/2$^-$	
		1329.28 *20*	100 *11*	204.902	3/2$^-$	
		1332.6 *3*	7 *2*	201.448	7/2$^-$	
		1533.4 *8*	40 *6*	0.0	3/2$^-$	0.012[h] *4*
1545.97	1/2,3/2	653.8 *4*	3 *1*	891.93	3/2$^-$	
		679.58 *17*	7 *2*	866.66	1/2$^-$,3/2$^-$	
		729.0 *9*	≈3	816.256	3/2$^-$	
		763.2 *9*	5 *2*	782.290	1/2$^-$	
		783.0 *9*	4 *2*	762.146	1/2$^-$	
		1341.11 *21*	30 *4*	204.902	3/2$^-$	0.053[h] *5*
		1400.19 *22*	100 *5*	145.849	1/2$^-$	0.196[h] *10*
		1545.9 *5*	17 *4*	0.0	3/2$^-$	0.019[h] *3*
1549.32	1/2,3/2	657.7 *3*	7 *3*	891.93	3/2$^-$	
		709.1 *4*	8 *3*	840.208	1/2$^-$	
		787.2 *7*	≈3	762.146	1/2$^-$	
		1245.5 *9*	19 *11*	303.352	5/2$^-$	
		1344.3 *5*	55 *11*	204.902	3/2$^-$	
		1403.43 *10*	100 *7*	145.849	1/2$^-$	
		1472.1 *6*	23 *8*	77.287	5/2$^-$	
		1549 *2*	≈15	0.0	3/2$^-$	
1564.79	1/2,3/2$^-$	672.97 *21*	7 *2*	891.93	3/2$^-$	
		698.25 *22*	7 *2*	866.66	1/2$^-$,3/2$^-$	
		748.53 *11*	32 *4*	816.256	3/2$^-$	
		760.6 *5*	2 *1*	803.369	3/2$^-$	
		782.3[cl]	≈4	782.290	1/2$^-$	
		1359.95 *12*	100 *5*	204.902	3/2$^-$	0.150[h] *7*
		1418.9 *9*	6 *3*	145.849	1/2$^-$	0.025[h] *8*
		1564.7 *9*	9 *3*	0.0	3/2$^-$	
1589.04	5/2$^+$	280 *1*	19 *9*	1308.22	3/2$^+$	
		772 *2*	22 *17*	816.256	3/2$^-$	
		1286 *2*	34 *25*	303.352	5/2$^-$	
		1383.97 *22*	100 *22*	204.902	3/2$^-$	
		1588.5 *6*	60 *22*	0.0	3/2$^-$	
1595.15	3/2$^+$	711 *1*	4 *2*	884.10	7/2$^+$	

$^{187}_{74}W_{113}$-13

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Iγ%[f]
1595.15	3/2+	833 *1*	≈3	762.146	1/2−	
		1390.2 *6*	8 *4*	204.902	3/2−	
		1449.31 *12*	100 *6*	145.849	1/2−	0.017[h] *4*
1612.87	3/2+	641.1 *3*	10 *4*	971.91	5/2−	
		704.3 *3*	8 *2*	908.96	1/2,(3/2)	
		729.2 *3*	30 *4*	884.10	7/2+	
		730.9 *6*	26 *4*	881.77	5/2(+)	
		871.6 *3*	10 *4*	741.07	7/2+	
		1309.3 *3*	20 *4*	303.352	5/2−	
		1407.9 *3*	100 *9*	204.902	3/2−	0.017[h] *5*
		1466.7 *3*	42 *8*	145.849	1/2−	
		1535.8 *8*	23 *4*	77.287	5/2−	0.013[h] *4*
		1612.8 *8*	53 *15*	0.0	3/2−	0.025[h] *5*
1619.21	3/2−	640.0 *6*	2 *1*	979.44	3/2−	
		802.7 *3*	3 *1*	816.256	3/2−	
		815.0 *4*	2 *1*	803.369	3/2−	
		1269.2 *7*	2 *1*	350.428	7/2−	
		1414.37 *7*	100 *4*	204.902	3/2−	0.436[h] *11*
		1473.3 *4*	6 *1*	145.849	1/2−	0.018[h] *5*
		1542.0 *6*	6 *2*	77.287	5/2−	0.031[h] *4*
		1619.2 *3*	17 *2*	0.0	3/2−	0.063[h] *5*
1643.52	1/2,3/2	1438.6 *3*	100 *28*	204.902	3/2−	
		1497.9 *8*	40 *20*	145.849	1/2−	0.023[h] *5*
		1566.4 *9*	30 *15*	77.287	5/2−	
		1643.5 *9*	23 *6*	0.0	3/2−	
1648.73	5/2+	340.7 *3*	58 *13*	1308.22	3/2+	
		764.5 *3*	51 *10*	884.10	7/2+	
		1216.5 *4*	47 *15*	432.277	7/2−	
		1345.1 *9*	100 *24*	303.352	5/2−	0.035[h] *9*
1663.23	3/2−	796.7 *5*	12 *5*	866.66	1/2−,3/2−	
		859.9 *5*	≈8	803.369	3/2−	
		880.95 *10*	69 *9*	782.290	1/2−	
		901.0 *4*	12 *5*	762.146	1/2−	
		1230.6 *6*	10 *5*	432.277	7/2−	
		1360.1 *9*	10 *7*	303.352	5/2−	
		1458.6 *3*	76 *10*	204.902	3/2−	0.031[h] *5*
		1517.5 *3*	100 *10*	145.849	1/2−	0.044[h] *4*
		1586.0 *6*	76 *9*	77.287	5/2−	0.038[h] *4*
		1663.2 *9*	32 *10*	0.0	3/2−	
1674.39	3/2(−)	913.0 *8*	8 *4*	762.146	1/2−	

$^{187}_{74}W_{113}$-14

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Iγ% [f]
1674.39	3/2(−)	1371.43 *20*	100 *11*	303.352	5/2−	
		1471.7 *4*	15 *4*			
		1472.2 *5*	94 *32*	201.448	7/2−	
		1595 *2*	≈28	77.287	5/2−	0.032 [h] *4*
1691.88	3/2+	383.88 *13*	50 *5*	1308.22	3/2+	
		807.85 *10*	64 *11*	884.10	7/2+	
		875.9 *3*	32 *5*	816.256	3/2−	
		888.8 *3*	12 *3*	803.369	3/2−	
		929.63 *24*	16 *3*	762.146	1/2−	
		1051.26 *22*	17 *3*	640.488	5/2−	
		1388.4 *8*	30 *9*	303.352	5/2−	0.029 [h] *8*
		1486.8 *4*	88 *16*	204.902	3/2−	0.022 [h] *4*
		1614.5 *7*	50 *9*	77.287	5/2−	0.016 [h] *4*
		1691.8 *3*	100 *17*	0.0	3/2−	0.023 [h] *3*
1706.05	1/2,3/2	611.9 *4*	≈7	1094.24	1/2−,3/2−	
		797.5 *5*	7 *2*	908.96	1/2,(3/2)	
		865.89 *6*	84 *6*	840.208	1/2−	
		1501.2 *7*	22 *6*	204.902	3/2−	0.020 [h] *4*
		1629 *1*	≈10	77.287	5/2−	0.009 [h] *4*
		1706.00 *19*	100 *9*	0.0	3/2−	0.066 [h] *4*
1711.35	(3/2−,5/2)	802.8 *9*	≈6	908.96	1/2,(3/2)	
		1360.94 *15*	53 *5*	350.428	7/2−	
		1634 *1*	≈47	77.287	5/2−	
		1711 *1*	≈100	0.0	3/2−	0.018 [h] *3*
1719.26	3/2−	747 *2*	27 *16*	971.91	5/2−	
		1287.2 *3*	100 *24*	432.277	7/2−	
		1415.8 *3*	85 *22*	303.352	5/2−	0.045 [h] *9*
		1514.4 *4*	71 *25*	204.902	3/2−	
		1573.4 *6*	≤38	145.849	1/2−	
		1641.9 *8*	54 *23*	77.287	5/2−	
1726.85	3/2−	708 *1*	9 *3*	1018.53	3/2−	
		818.1 *8*	13 *3*	908.96	1/2,(3/2)	
		887.3 *9*	12 *4*	840.208	1/2−	
		910.4 *3*	≈11	816.256	3/2−	
		1086.5 *9*	11 *3*	640.488	5/2−	
		1423.4 *4*	72 *13*	303.352	5/2−	0.081 [h] *10*
		1522.2 *3*	65 *8*	204.902	3/2−	0.078 [h] *5*
		1524.8 *3*	14 *3*	201.448	7/2−	
		1581.17 *16*	100 *11*	145.849	1/2−	0.103 [h] *7*
		1649 *2*	≈7	77.287	5/2−	0.015 [h] *3*

$^{187}_{74}W_{113}$-15

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Iγ%[f]
1726.85	3/2⁻	1726.9 *9*	38 *7*	0.0	3/2⁻	0.039[h] *4*
1728.91	1/2,3/2	416.3 *4*	20 *6*	1312.80	3/2⁻	
		739.9 *8*	24 *6*	989.15	3/2⁻	
		913.3 *3*	28 *5*	816.256	3/2⁻	
		967.0 *3*	16 *6*	762.146	1/2⁻	
		1425.5 *8*	62 *10*	303.352	5/2⁻	0.069[h] *9*
		1524.5 *8*	80 *29*	204.902	3/2⁻	0.067[h] *5*
		1583.5 *6*	100 *12*	145.849	1/2⁻	0.068[h] *6*
		1651.7 *8*	20 *6*	77.287	5/2⁻	
		1729.3 *7*	75 *11*	0.0	3/2⁻	0.046[h] *4*
1734.0		1734.6[‡]		0.0	3/2⁻	0.035[h] *3*
1754.8		1754.8[‡]		0.0	3/2⁻	0.014[h] *3*
1759.57	1/2,3/2	892.9 *6*	5 *3*	866.66	1/2⁻,3/2⁻	
		956.3 *3*	8 *3*	803.369	3/2⁻	
		997.5 *4*	7 *3*	762.146	1/2⁻	
		1554.4 *5*	29 *10*	204.902	3/2⁻	
		1613.9 *3*	100 *17*	145.849	1/2⁻	
1770.89	1/2⁻,3/2⁻	688.6 *6*	≈7	1082.32	1/2⁻,(3/2)	
		954.7 *5*	35 *6*	816.256	3/2⁻	
		1566.1[‡] *6*	67 *8*	204.902	3/2⁻	0.029 *4*
		1771.0[‡] *5*	100 *10*	0.0	3/2⁻	0.038 *4*
1816.29	3/2(⁻)	1012.6 *5*	≈13	803.369	3/2⁻	
		1054.2 *5*	22 *8*	762.146	1/2⁻	
		1465.9 *3*	42 *11*	350.428	7/2⁻	
		1611.5 *5*	100 *24*	204.902	3/2⁻	
1824.62	3/2⁻	1184.4 *3*	77 *33*	640.488	5/2⁻	
		1622.5 *6*	11 *5*	201.448	7/2⁻	
		1825 *1*	100 *36*	0.0	3/2⁻	
1827.2		1827.2[‡]		0.0	3/2⁻	0.010[h] *4*
1845.53	1/2⁻,3/2	936.3 *6*	53 *15*	908.96	1/2,(3/2)	
		1042.0 *4*	32 *11*	803.369	3/2⁻	
		1083.3 *3*	84 *16*	762.146	1/2⁻	
		1205.1 *3*	28 *10*	640.488	5/2⁻	
		1543.8[‡]		303.352	5/2⁻	0.020[h] *6*
		1640.7 *7*	100 *18*	204.902	3/2⁻	0.024[h] *4*
		1699.4 *9*	36 *15*	145.849	1/2⁻	
		1845.2 *9*	≈24	0.0	3/2⁻	
1857.83	1/2,3/2	775.4 *3*	23 *6*	1082.32	1/2⁻,(3/2)	
		965.7 *3*	23 *6*	891.93	3/2⁻	
		1017.4 *4*	23 *6*	840.208	1/2⁻	

$^{187}_{74}W_{113}$-16

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Iγ%[f]
1857.83	1/2,3/2	1711.7 *3*	100 *14*	145.849	1/2⁻	
1887.74	3/2⁻	436.4 *4*	13 *4*	1450.85	1/2,(3/2)	
		979.8 *5*	12 *5*	908.96	1/2,(3/2)	
		1027.3 *3*	45 *26*	860.75	3/2⁻	
		1083.9 *3*	47 *14*	803.369	3/2⁻	
		1124.9 *4*	100 *17*	762.146	1/2⁻	
		1585.2[‡]		303.352	5/2⁻	0.021[h] *6*
		1687.2 *6*	13 *6*	201.448	7/2⁻	
		1742.2 *7*	42 *10*	145.849	1/2⁻	
		1810.1 *9*	48 *21*	77.287	5/2⁻	
		1887.7 *9*	33 *15*	0.0	3/2⁻	
1891.10	1/2(⁻),3/2	911.0 *8*	18 *6*	979.44	3/2⁻	
		998.9 *6*	23 *9*	891.93	3/2⁻	
		1025.2 *6*	35 *5*	866.66	1/2⁻,3/2⁻	
		1050.8 *6*	31 *4*	840.208	1/2⁻	
		1074.4 *8*	27 *5*	816.256	3/2⁻	
		1108.5 *9*	14 *3*	782.290	1/2⁻	
		1588 *1*	26 *6*	303.352	5/2⁻	0.029[h] *6*
		1686.2 *4*	100 *11*	204.902	3/2⁻	0.043[h] *4*
		1745.1 *9*	18 *7*	145.849	1/2⁻	
		1813.8[‡]		77.287	5/2⁻	0.008[h] *3*
		1891 *2*	23 *13*	0.0	3/2⁻	
1897.2		1897.2[‡]		0.0	3/2⁻	0.017[h] *4*
1905.66	3/2⁻	286 *1*	≈2	1619.21	3/2⁻	
		521.4 *9*	≈3	1384.24	3/2⁻	
		926.3 *9*	5 *2*	979.44	3/2⁻	
		990.9 *9*	≈5	914.68	5/2⁻	
		1013.7 *9*	7 *2*	891.93	3/2⁻	
		1039.2 *9*	4 *2*	866.66	1/2⁻,3/2⁻	
		1052.8 *9*	4 *2*	852.41	3/2⁻	
		1089.3 *7*	12 *3*	816.256	3/2⁻	
		1102.1 *9*	6 *3*	803.369	3/2⁻	
		1123.4 *5*	20 *3*	782.290	1/2⁻	
		1555.2 *9*	8 *3*	350.428	7/2⁻	
		1602.5 *8*	16 *3*	303.352	5/2⁻	0.057 *6*
		1700.9 *3*	70 *4*	204.902	3/2⁻	0.154 *6*
		1759.9 *3*	100 *6*	145.849	1/2⁻	0.237 *8*
		1828.2 *6*	21 *3*	77.287	5/2⁻	0.034 *4*
		1905.6 *5*	31 *3*	0.0	3/2⁻	0.056 *5*
1931.74	1/2⁻,3/2⁻	659.2[&] *5*	11 *3*	1272.39	1/2⁻,3/2⁻	
		848.3[&] *9*	≈2	1082.32	1/2⁻,(3/2)	

$^{187}_{74}W_{113}$-17

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Iγ% [f]
1931.74	1/2⁻,3/2⁻	943.1 [a] 4	8 3	989.15	3/2⁻	
		1022.2 [&] 4	7 3	908.96	1/2,(3/2)	
		1065.9 [a] 9	8 4	866.66	1/2⁻,3/2⁻	
		1071.4 [a] 3	62 5	860.75	3/2⁻	
		1092.3 [a] 9	11 4	840.208	1/2⁻	
		1115.0 [&] 6	22 4	816.256	3/2⁻	
		1149.2 [&] 9	6 3	782.290	1/2⁻	
		1169.3 [&] 3	100 5	762.146	1/2⁻	
		1292.3 [a] 9	8 4	640.488	5/2⁻	
		1628.8 [a] 4	39 4	303.352	5/2⁻	0.041 14
		1726.1 [&] 9	24 7	204.902	3/2⁻	0.042 5
		1728.6 [a] 9	18 6	201.448	7/2⁻	
		1784.8 [&] 7	37 17			
		1786.8 [a] 7	32 18	145.849	1/2⁻	
		1932.5 [a] 6	34 4	0.0	3/2⁻	
1936.86	3/2⁻	719.9 5	40 7	1217.127	3/2⁻	
		947.5 8	19 8	989.15	3/2⁻	
		957.7 8	18 8	979.44	3/2⁻	
		965.3 6	28 9	971.91	5/2⁻	
		976.5 9	21 9	960.57	5/2⁻	
		1070.3 4	29 6	866.66	1/2⁻,3/2⁻	
		1084.8 4	15 8	852.41	3/2⁻	
		1096.8 7	13 7	840.208	1/2⁻	
		1120.6 4	51 9	816.256	3/2⁻	
		1154.7 6	23 5	782.290	1/2⁻	
		1161.4 9	14 5	775.62	7/2⁻	
		1175.2 4	25 6	762.146	1/2⁻	
		1296.5 3	91 10	640.488	5/2⁻	
		1505 1	29 9	432.277	7/2⁻	
		1586.5 4	49 11	350.428	7/2⁻	
		1633.5 3	100 13	303.352	5/2⁻	0.080 [h] 7
		1731.9 9	41 16	204.902	3/2⁻	0.020 [h] 4
		1791.0 9	30 16	145.849	1/2⁻	0.013 [h] 4
		1859.5 7	81 12	77.287	5/2⁻	0.038 [h] 4
		1937.0 8	64 13	0.0	3/2⁻	0.022 [h] 4
1943.80	(3/2)	570 1	18 7	1373.61	3/2⁺	
		613.0 3	100 20	1330.91	3/2⁺	
		1640.6 5	72 24	303.352	5/2⁻	0.029 [h] 6
1950.27	(1/2⁻),3/2	1041.2 8	22 5	908.96	1/2,(3/2)	
		1083 1	≈8	866.66	1/2⁻,3/2⁻	

$^{187}_{74}W_{113}$-18

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Iγ%[f]
1950.27	(1/2⁻),3/2	1147.2 *6*	18 *6*	803.369	3/2⁻	
		1188.3 *9*	10 *6*	762.146	1/2⁻	
		1647.0 *3*	100 *18*	303.352	5/2⁻	0.063[h] *7*
		1873.0 *8*	20 *13*	77.287	5/2⁻	
		1950 *2*	≤8	0.0	3/2⁻	
1956.21	(1/2⁻),3/2⁻	995.5 *5*	34 *6*	960.57	5/2⁻	
		1041.6 *5*	42 *9*	914.68	5/2⁻	
		1093.2 *7*	44 *13*	863.33	5/2⁻	
		1115.9 *5*	18 *5*	840.208	1/2⁻	
		1140.0 *3*	93 *7*	816.256	3/2⁻	
		1152.7 *3*	12 *5*	803.369	3/2⁻	
		1174.1 *5*	19 *6*	782.290	1/2⁻	
		1193.9 *3*	14 *4*	762.146	1/2⁻	
		1316 *1*	15 *5*	640.488	5/2⁻	
		1652.9 *3*	84 *8*	303.352	5/2⁻	0.093[h] *8*
		1751.4 *7*	39 *7*	204.902	3/2⁻	0.024[h] *5*
		1810.1 *9*	19 *6*	145.849	1/2⁻	
		1878.9 *5*	64 *8*	77.287	5/2⁻	0.035[h] *4*
		1956.3 *4*	100 *10*	0.0	3/2⁻	0.060[h] *5*
1961.81		1816.4[‡]		145.849	1/2⁻	0.017[h] *5*
		1884.7[‡]		77.287	5/2⁻	0.014[h] *4*
1965.9		1965.9[‡]		0.0	3/2⁻	0.010[h] *4*
1973.65	3/2	599.8 *8*	11[e] *3*	1373.61	3/2⁺	
		625.0[&] *8*	11 *4*	1347.56	1/2⁻	
		879.7[a] *7*	26 *6*	1094.24	1/2⁻,3/2⁻	
		891.7[a] *6*	16 *3*	1082.32	1/2⁻,(3/2)	
		995[a] *1*	18 *4*	979.44	3/2⁻	
		1002[a] *1*	17 *4*	971.91	5/2⁻	
		1063.7[&] *7*	16 *5*	910.5		
		1089.7[a] *6*	8 *3*	884.10	7/2⁺	
		1113.5[a] *4*	25 *5*	860.75	3/2⁻	
		1133.5 *4*	60[e] *5*	840.208	1/2⁻	
		1158.0[a] *4*	38 *5*	816.256	3/2⁻	
		1169.3[&] *3*	57 *7*	803.369	3/2⁻	
		1210.7[&] *3*	64 *5*	762.146	1/2⁻	
		1670.0 *5*	17[e] *7*	303.352	5/2⁻	0.039[h] *6*
		1769.4[a] *7*	53 *9*	204.902	3/2⁻	0.022[h] *5*
		1825[&] *1*	24 *9*			

$^{187}_{74}W_{113}$-19

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Iγ%[f]
1973.65	3/2	1828.5[a] *7*	62 *9*	145.849	1/2$^-$	0.050[h] *5*
		1896.7[a] *5*	100 *8*	77.287	5/2$^-$	0.070[h] *5*
		1974.0[a] *5*	74 *8*	0.0	3/2$^-$	0.039[h] *4*
1980.56	3/2$^+$	992.0 *8*	23 *10*	989.15	3/2$^-$	
		1020.3 *6*	16 *5*	960.57	5/2$^-$	
		1071.7 *4*	10 *3*	908.96	1/2,(3/2)	
		1096.7 *4*	22 *3*	884.10	7/2$^+$	
		1164.6 *4*	29 *6*	816.256	3/2$^-$	
		1218.8 *3*	28 *4*	762.146	1/2$^-$	
		1677.5 *6*	100 *15*	303.352	5/2$^-$	0.074[h] *7*
		1775.5 *9*	≤14	204.902	3/2$^-$	
		1980.4 *9*	37 *13*	0.0	3/2$^-$	
1997.11	3/2$^-$	546.6 *9*	5 *2*	1450.85	1/2,(3/2)	
		729.8 *7*	8 *2*	1267.49	5/2$^-$,(7/2$^-$)	
		862.0 *3*	48 *3*	1135.18	3/2$^-$	
		979 *1*	≈2	1018.53	3/2$^-$	
		1017.7 *3*	30 *4*	979.44	3/2$^-$	
		1025.2 *3*	30 *3*	971.91	5/2$^-$	
		1037.3 *9*	5 *2*	960.57	5/2$^-$	
		1082.5 *8*	11 *2*	914.68	5/2$^-$	
		1105.3 *3*	33 *2*	891.93	3/2$^-$	
		1130.6 *5*	18 *2*	866.66	1/2$^-$,3/2$^-$	
		1134.2 *4*	26 *3*	863.33	5/2$^-$	
		1156.9 *3*	32 *3*	840.208	1/2$^-$	
		1180.9 *3*	30 *3*	816.256	3/2$^-$	
		1214.9 *3*	17 *2*	782.290	1/2$^-$	
		1564.8 *3*	39 *4*	432.277	7/2$^-$	
		1646.7 *3*	31 *3*	350.428	7/2$^-$	
		1693.9 *8*	13 *2*	303.352	5/2$^-$	0.054[h] *7*
		1792.3 *3*	100 *4*	204.902	3/2$^-$	0.199[h] *8*
		1851.2 *5*	10 *4*	145.849	1/2$^-$	0.016[h] *5*
		1920.0 *4*	60 *3*	77.287	5/2$^-$	0.088[h] *5*
		1997.1 *5*	35 *2*	0.0	3/2$^-$	0.056[h] *5*
2014.4		1868.5[‡]		145.849	1/2$^-$	0.022[h] *5*
2023.22	3/2$^{(+)}$	715.0 *7*	30 *10*	1308.22	3/2$^+$	
		1107.7 *6*	40 *16*	914.68	5/2$^-$	
		1281.0 *9*	40 *16*	741.07	7/2$^+$	
		1718.6 *5*	100 *24*	303.352	5/2$^-$	
		1817.4 *9*	41 *19*	204.902	3/2$^-$	
		1878 *2*	60 *23*	145.849	1/2$^-$	
		2023 *2*	48 *24*	0.0	3/2$^-$	

$^{187}_{74}W_{113}$-20

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV (continued)

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Iγ%[f]	Comments
2029.7		1726.4[‡]		303.352	5/2⁻	0.024[h] 6	
2044.60	1/2⁻,3/2⁻	1055.6 4	27 8	989.15	3/2⁻		
		1083.5 9	≤8	960.57	5/2⁻		
		1129.8 9	18 10	914.68	5/2⁻		
		1135.7 4	38 10	908.96	1/2,(3/2)		
		1241.4 3	26 9	803.369	3/2⁻		
		1741.4 9	40 10	303.352	5/2⁻	0.047[h] 6	
		1839.8 9	23 8	204.902	3/2⁻		
		1898.7 9	≤28	145.849	1/2⁻		
		1967.5 6	100 13	77.287	5/2⁻	0.039[h] 5	
		2044.8 6	66 12	0.0	3/2⁻	0.120[g] 16	
2059.0	1/2,3/2	1854.1 9	56 20	204.902	3/2⁻	0.012[h] 5	
		1913.5 9	≈28	145.849	1/2⁻		
		1981.8 8	100 30	77.287	5/2⁻	0.021[h] 5	
2062.1	1/2,3/2	1984.9 9	100 40	77.287	5/2⁻	0.011[h] 4	
		2061.7 9	≈80	0.0	3/2⁻		
2063.07	1/2,3/2	1153.9 3	125 40	908.96	1/2,(3/2)		I_γ: part of intensity is due to contribution by γ-ray de-exciting the 2061.7 level.
		1260.1 9	68 24	803.369	3/2⁻		
		1759.7 6	91 35	303.352	5/2⁻		I_γ: part of intensity is due to contribution by γ-ray de-exciting the 2061.7 level.
		1986.7 9	≈32	77.287	5/2⁻		
		2063.6 9	100 30	0.0	3/2⁻		
2070.08	1/2,3/2	618.1[&] 4	9 4	1450.85	1/2,(3/2)		
		1766.1[&] 8	30 12	303.352	5/2⁻	0.020[h] 6	
		1924.8[a] 3	100 26	145.849	1/2⁻	0.016[h] 5	
		2070.5 9	≤13	0.0	3/2⁻	0.010[h] 4	
2083.5		1937.6[‡]		145.849	1/2⁻	0.025[h] 5	
2090.33	1/2⁻,3/2⁻	1287.0 7	7 2	803.369	3/2⁻		
		1328.4 3	18 3	762.146	1/2⁻		
		1449.9 6	20 6	640.488	5/2⁻		
		1786 2	≤4	303.352	5/2⁻	0.032[h] 7	
		1885.4 5	34 10	204.902	3/2⁻	0.057[h] 5	
		1944.9 9	13 3	145.849	1/2⁻	0.035[h] 6	
		2013.3 9		77.287	5/2⁻	0.033 14	E_γ: from table 1 of 2008Bo26, not in authors′ table 2.
		2090.4 3	100 5	0.0	3/2⁻	0.18 6	
2117.28	1/2,3/2	1256.9 5	24 6	860.75	3/2⁻		
		1314.2 9	12 5	803.369	3/2⁻		
		1335.3 6	20 5	782.290	1/2⁻		
		1355.5 4	34 5	762.146	1/2⁻		
		1814 1	40 7	303.352	5/2⁻	0.051[h] 8	
		1912.8 9	18 11	204.902	3/2⁻		

$^{187}_{74}W_{113}$-21

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Iγ% f
2117.28	1/2,3/2	1971.7 *9*	28 *5*	145.849	1/2⁻	
		2117.6 *5*	100 *11*	0.0	3/2⁻	0.089 g *7*
2124.32	1/2,3/2	1919.5 *5*	54 *13*	204.902	3/2⁻	0.024 h *5*
		1978.6 *6*	100 *12*	145.849	1/2⁻	0.029 h *6*
		2048 *1*	35 *12*	77.287	5/2⁻	0.027 *11*
		2124.5 *8*	54 *11*	0.0	3/2⁻	
2130.0		1925.1 ‡		204.902	3/2⁻	0.029 h *5*
2136.7	1/2,3/2	1147 *1*	77 *14*	989.15	3/2⁻	
		2059.7 *9*	54 *17*	77.287	5/2⁻	
		2136.9 *9*	100 *19*	0.0	3/2⁻	
2138.67	1/2,3/2	1335.6 *4*	17 *7*	803.369	3/2⁻	
		1934.0 *9*	24 *7*	204.902	3/2⁻	0.016 h *5*
		1993.3 *9*	19 *7*	145.849	1/2⁻	
		2062.1 *9*	23 *11*	77.287	5/2⁻	0.021 h *4*
		2139.1 *4*	100 *14*	0.0	3/2⁻	0.119 *12*
2142.59	1/2,3/2	641.0 *3*	30 *14*	1501.85	3/2⁺	
		1937.4 ‡		204.902	3/2⁻	0.014 h *5*
		1997.9 *9*	100 *37*	145.849	1/2⁻	
		2064.2 *9*	87 *37*	77.287	5/2⁻	0.09 g *3*
2150.31	1/2,3/2	1170.1 *9*	27 *9*	979.44	3/2⁻	
		1847.2 *6*	25 *10*	303.352	5/2⁻	0.029 h *8*
		1945.6 *4*	100 *17*	204.902	3/2⁻	0.040 h *5*
		2004.6 *7*	77 *18*	145.849	1/2⁻	0.038 h *6*
		2151 *2*	8 *4*	0.0	3/2⁻	
2153.42	1/2,3/2	1181.6 *5*	47 *15*	971.91	5/2⁻	
		1286.8 *9*	≈40	866.66	1/2⁻,3/2⁻	
		1371.4 *4*	88 *17*	782.290	1/2⁻	
		1390.4 *9*	37 *11*	762.146	1/2⁻	
		1851 *2*	22 *10*	303.352	5/2⁻	
		1948.7 *9*	53 *21*	204.902	3/2⁻	
		2076.2 *7*	100 *22*	77.287	5/2⁻	0.088 g *10*
		2153.4 *9*	81 *22*	0.0	3/2⁻	0.053 g *12*
2168.9	1/2,3/2	1866 *1*	30 *8*	303.352	5/2⁻	
		1964.2 *8*	42 *14*	204.902	3/2⁻	
		2022.9 *4*	65 *14*	145.849	1/2⁻	0.064 g *6*
		2091.5 *8*	77 *17*	77.287	5/2⁻	0.015 h *5*
		2168.9 *6*	100 *18*	0.0	3/2⁻	0.071 g *12*
2172.2	1/2,3/2	841.1 *3*	50 *17*	1330.91	3/2⁺	
		1868.8 *9*	≈30	303.352	5/2⁻	
		2026.6 *6*	100 *56*	145.849	1/2⁻	
2180.47	1/2,3/2	1975.9 *9*	100 *29*	204.902	3/2⁻	0.019 h *5*

$^{187}_{74}W_{113}$-22

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Iγ%[f]
2180.47	1/2,3/2	2035.0 *9*	86 *35*	145.849	1/2⁻	
2194.8		2194.8 *3*		0.0	3/2⁻	0.073[g] *7*
2198.5	1/2,3/2	1358.3 *7*	≈18	840.208	1/2⁻	
		1394.7 *8*	66 *14*	803.369	3/2⁻	
		1896 *2*	34 *17*	303.352	5/2⁻	
		2198.4 *6*	100 *27*	0.0	3/2⁻	0.153 *8*
2203.9		2004.3[‡]		201.448	7/2⁻	0.011[h] *4*
2208.37	1/2,3/2	2003.5 *9*	40 *23*	204.902	3/2⁻	
		2062.3 *3*	100 *25*	145.849	1/2⁻	0.10[g] *3*
		2209.2[‡]		0.0	3/2⁻	0.016[h] *4*
2228.60	1/2,3/2	1412.7 *7*	45 *10*	816.256	3/2⁻	
		2083.1 *4*	46 *13*	145.849	1/2⁻	0.143[g] *13*
		2151.7 *7*	100 *12*	77.287	5/2⁻	0.146[g] *12*
		2229.1 *9*	≈10	0.0	3/2⁻	
2232.83	1/2,3/2	1341.1 *9*	≈13	891.93	3/2⁻	
		1416.4 *6*	30 *10*	816.256	3/2⁻	
		1470.6 *4*	16 *3*	762.146	1/2⁻	
		2028.3 *3*	100 *14*	204.902	3/2⁻	0.152[g] *19*
		2087.2 *9*	39 *13*	145.849	1/2⁻	
2234.6		2088.7[‡]		145.849	1/2⁻	0.015[h] *6*
2241.66	1/2⁻,3/2⁻	244.9 *9*	6 *2*	1997.11	3/2⁻	
		1401.3 *6*	7 *3*	840.208	1/2⁻	
		1460 *2*	6 *3*	782.290	1/2⁻	
		1482 *2*	6 *3*	762.146	1/2⁻	
		1938.4 *4*	26 *4*	303.352	5/2⁻	0.116[h] *10*
		2036.9 *3*	75 *5*	204.902	3/2⁻	0.176 *13*
		2095.9 *3*	100 *6*	145.849	1/2⁻	0.170 *18*
		2242 *2*	7 *3*	0.0	3/2⁻	
2258.2		2180.8[‡]		77.287	5/2⁻	0.020[h] *4*
		2258.2[‡]		0.0	3/2⁻	0.024[h] *6*
2260.12	1/2⁻,3/2⁻	647.3 *3*	51 *4*	1612.87	3/2⁺	
		665.0 *4*	45 *11*	1595.15	3/2⁺	
		714.4 *3*	59 *4*	1545.97	1/2,3/2	
		1407.6 *9*	≤7	852.41	3/2⁻	
		1420.0 *9*	≈10	840.208	1/2⁻	
		1443.9 *9*	17 *6*	816.256	3/2⁻	
		1477.9 *3*	16 *5*	782.290	1/2⁻	
		1498.0 *3*	23 *6*	762.146	1/2⁻	
		1957 *2*	≈8	303.352	5/2⁻	
		2054.8 *9*	24 *6*	204.902	3/2⁻	0.027 *11*
		2114.2 *9*	14 *5*	145.849	1/2⁻	
		2182.8 *9*	16 *5*	77.287	5/2⁻	

$^{187}_{74}W_{113}$-23

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Iγ%[f]	Comments
2260.12	1/2$^-$,3/2$^-$	2260.0 *5*	100 *10*	0.0	3/2$^-$	0.064 *8*	
2266.8		1963.5[‡]		303.352	5/2$^-$	0.033[h] *8*	
2269.1		2064.2[‡]		204.902	3/2$^-$	0.013[h] *4*	
2272.6	1/2,3/2	2067.5 *9*	≈14	204.902	3/2$^-$		
		2126.3 *9*	41 *19*	145.849	1/2$^-$	0.077[g] *7*	
		2272.7 *9*	100 *20*	0.0	3/2$^-$	0.118[g] *16*	
2275.89	1/2$^-$,3/2$^-$	861.1 *5*	34 *4*	1415.24	3/2$^-$		
		928.5 *8*	19 *3*	1347.56	1/2$^-$		
		1059 *1*	≈20	1217.127	3/2$^-$		I_γ: corrected for coincidence with γ-ray from 1135 level.
		1140.9 *8*	20 *5*	1135.18	3/2$^-$		
		1384.1 *3*	100 *6*	891.93	3/2$^-$		
		1409.2 *4*	17 *5*	866.66	1/2$^-$,3/2$^-$		
		1435.0 *5*	21 *6*	840.208	1/2$^-$		
		1973 *2*	≈9	303.352	5/2$^-$		
		2071.3 *4*	89 *6*	204.902	3/2$^-$	0.079 *7*	
		2199 *2*	11 *7*	77.287	5/2$^-$	0.017[h] *4*	
		2276.1 *9*	31 *7*	0.0	3/2$^-$	0.056[g] *12*	
2281.7	1/2,3/2	1979 *2*	55 *19*	303.352	5/2$^-$		I_γ: normalized to 737.5γ from 2283.4 level.
		2135.6 *9*	69 *18*	145.849	1/2$^-$	0.044[g] *9*	I_γ: normalized to 737.5γ from 2283.4 level.
		2204.4 *9*	42 *19*	77.287	5/2$^-$	0.015 *8*	I_γ: normalized to 737.5γ from 2283.4 level.
2283.10	1/2,3/2	737.5 *5*	100 *14*	1545.97	1/2,3/2		
		2079.4 *9*	≈15	204.902	3/2$^-$		
		2137.6 *9*	88 *19*	145.849	1/2$^-$	0.134[g] *12*	
		2283.5 *9*	≈17	0.0	3/2$^-$		
2287.8		2083.1[‡]		204.902	3/2$^-$	0.035[h] *5*	
2293.12	1/2,3/2	1476.4 *5*	62 *23*	816.256	3/2$^-$		
		2088.8 *9*	100 *23*	204.902	3/2$^-$	0.18[g] *7*	
		2293.1 *9*	51 *18*	0.0	3/2$^-$		
2296.5		2296.5[‡]		0.0	3/2$^-$	0.018[h] *4*	
2300.0		2095.1[‡]		204.902	3/2$^-$	0.015[h] *5*	
2301.9	1/2,3/2	2156 *1*	46 *27*	145.849	1/2$^-$		
		2302 *1*	100 *30*	0.0	3/2$^-$	0.047[g] *11*	
2306.45	1/2,3/2	1439.5 *6*	38 *9*	866.66	1/2$^-$,3/2$^-$		
		1524 *1*	52 *15*	782.290	1/2$^-$		
		2102 *1*	64 *13*	204.902	3/2$^-$	0.094[g] *14*	E_γ: From Table 2. E=2100.23 *16* in Table 1 (2008Bo26).
		2160.4 *4*	100 *17*	145.849	1/2$^-$	0.071[g] *9*	
		2229 *1*	61 *21*	77.287	5/2$^-$	0.014[h] *4*	E_γ: In 2008SuZW 2229γ is placed from 2306.9 keV level.
2315.43	1/2,3/2	769.7 *9*	43 *16*	1545.97	1/2,3/2		
		1400 *1*	46 *23*	914.68	5/2$^-$		
		1421 *1*	40 *15*				
		1423 *1*	≈21	891.93	3/2$^-$		
		1449 *1*	51 *20*	866.66	1/2$^-$,3/2$^-$		

$^{187}_{74}W_{113}$-24

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Iγ%[f]
2315.43	1/2,3/2	2111.3 *9*	100 *21*	204.902	3/2$^-$	0.074[g] *18*
		2170 *2*	≈11	145.849	1/2$^-$	
		2316 *1*	73 *23*	0.0	3/2$^-$	0.065[g] *14*
2322.3	1/2,3/2	1014.3 *7*	24 *11*	1308.22	3/2$^+$	
		2019 *1*	28 *12*	303.352	5/2$^-$	0.042[g] *6*
		2118 *2*	15 *8*	204.902	3/2$^-$	
		2176 *1*	36 *11*	145.849	1/2$^-$	
		2322.0 *8*	100 *12*	0.0	3/2$^-$	0.047[h] *4*
2344.43	1/2,3/2	1127.5 *6*	44 *15*	1217.127	3/2$^-$	
		1452.6 *7*	41 *21*	891.93	3/2$^-$	
		1478.0 *5*	41 *17*	866.66	1/2$^-$,3/2$^-$	
		1528 *2*	29 *18*	816.256	3/2$^-$	
		1562 *1*	58 *18*	782.290	1/2$^-$	
		1583 *2*	≈22	762.146	1/2$^-$	
		2139 *1*	86 *19*	204.902	3/2$^-$	0.048[h] *5*
		2198.6 *3*	100 *16*	145.849	1/2$^-$	0.036[h] *5*
		2266 *1*	56 *17*	77.287	5/2$^-$	0.014[h] *4*
		2344 *1*	81 *19*	0.0	3/2$^-$	0.018[h] *4*
2346.6		2346.6[‡]		0.0	3/2$^-$	0.009[h] *4*
2352.02	1/2$^-$,3/2$^-$	1135.1 *5*	13 *4*	1217.127	3/2$^-$	
		1333.6 *9*	18 *6*	1018.53	3/2$^-$	
		1485.5 *3*	100 *7*	866.66	1/2$^-$,3/2$^-$	
		1511.8 *3*	36 *7*	840.208	1/2$^-$	
		1536.0 *3*	56 *7*	816.256	3/2$^-$	
		1548.2 *6*	22 *6*	803.369	3/2$^-$	
		1569.7 *3*	27 *7*	782.290	1/2$^-$	
		2147.6 *9*	20 *6*	204.902	3/2$^-$	0.054[g] *25*
		2206 *2*	14 *6*	145.849	1/2$^-$	
		2273 *2*	18 *8*	77.287	5/2$^-$	
		2352 *3*	≈5	0.0	3/2$^-$	0.012[h] *4*
2356.79		2210.87 *12*		145.849	1/2$^-$	0.112[g] *23*
2367.5		2162.6[‡]		204.902	3/2$^-$	0.021[h] *5*
		2221.7[‡]		145.849	1/2$^-$	0.029[h] *5*
2370.0		2224.4[‡]		145.849	1/2$^-$	0.035[h] *5*
		2292.7[‡]		77.287	5/2$^-$	0.032[h] *5*
		2371.4 *13*		0.0	3/2$^-$	0.04 *3*
2375.1		2229.3[‡]		145.849	1/2$^-$	0.020[h] *5*
2381.14		2176.18 *22*		204.902	3/2$^-$	0.089[g] *18*
2385.4		2239.5 *4*		145.849	1/2$^-$	0.061[g] *12*
2393.8		2248.4[‡]		145.849	1/2$^-$	0.020[h] *5*

$^{187}_{74}$W$_{113}$-25

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ †	E_f	J_f^π	Iγ% f
2399.3		2322.0‡	77.287	5/2−	0.020 h 4
2411.40		2108.1 7	303.352	5/2−	0.083 g 20
		2265.7‡	145.849	1/2−	0.022 h 5
		2333.5 13	77.287	5/2−	0.048 17
2415.19		2210.0‡	204.902	3/2−	0.019 h 5
		2269.1‡	145.849	1/2−	0.034 h 5
		2337.4‡	77.287	5/2−	0.013 h 4
		2414.9 3	0.0	3/2−	0.072 g 8
2426.88		2123.5‡	303.352	5/2−	0.022 h 7
		2222.0‡	204.902	3/2−	0.029 h 5
2429.5		2283.6‡	145.849	1/2−	0.020 h 6
2433.9		2228.9 3	204.902	3/2−	0.119 g 16
2436.2		2290.3‡	145.849	1/2−	0.028 h 6
2438.3		2292.6‡	145.849	1/2−	0.025 h 6
		2360.9‡	77.287	5/2−	0.012 h 4
2447.91		2242.75 15	204.902	3/2−	0.025 g 5
2457.4		2457.6‡	0.0	3/2−	0.024 h 4
2461.11		2157.7 4	303.352	5/2−	0.097 g 9
		2256.8‡	204.902	3/2−	0.028 h 5
		2315.9‡	145.849	1/2−	0.017 h 5
2471.12		2266.1‡	204.902	3/2−	0.029 h 5
		2325.2‡	145.849	1/2−	0.025 h 5
		2394.8 5	77.287	5/2−	0.039 15
2476.3		2172.9 4	303.352	5/2−	0.059 g 9
2485.02		2181.44 13	303.352	5/2−	0.131 g 12
		2283.93 14	201.448	7/2−	0.12 g 3
		2484.3 3	0.0	3/2−	0.158 g 23
2492.14		2287.2‡	204.902	3/2−	0.043 h 6
		2346.3 3	145.849	1/2−	0.153 g 13
		2414.6‡	77.287	5/2−	0.021 h 4
		2492.6 6	0.0	3/2−	0.068 g 15
2496.9		2291.7 6	204.902	3/2−	0.15 g 4
		2419.8‡	77.287	5/2−	0.012 h 4
2503.4		2503.1‡	0.0	3/2−	0.009 h 4
2509.4		2363.5‡	145.849	1/2−	0.030 h 5
2511.67		2511.74 24	0.0	3/2−	0.033 g 5
2514.57		2210.7‡	303.352	5/2−	0.027 h 7
		2368.8 6	145.849	1/2−	0.06 g 3
2514.57		2515.5 4	0.0	3/2−	0.076 g 11
2528.33		2322.8‡	204.902	3/2−	0.101 h 7
		2381.9‡	145.849	1/2−	0.018 h 5
		2451.7 3	77.287	5/2−	0.106 g 11
		2527.6‡	0.0	3/2−	0.015 h 4
2531.7		2326.8‡	204.902	3/2−	0.014 h 5
		2385.9‡	145.849	1/2−	0.029 h 6
		2454.2‡	77.287	5/2−	0.027 h 4
2534.1		2388.6 3	145.849	1/2−	0.047 7
		2455.8 5	77.287	5/2−	0.058 g 12
2545.8		2242.3‡	303.352	5/2−	0.064 h 7
2552.54		2248.88 16	303.352	5/2−	0.126 g 10
		2475.8‡	77.287	5/2−	0.011 h 4
		2553.2‡	0.0	3/2−	0.066 h 5
2556.36		2252.9‡	303.352	5/2−	0.067 h 8
		2410.5‡	145.849	1/2−	0.023 h 5
2558.9		2480.2‡	77.287	5/2−	0.011 h 4
2562.4		2562.4‡	0.0	3/2−	0.024 h 4
2564.05		2361.8 3	201.448	7/2−	0.069 g 11
		2487.3	77.287	5/2−	0.014 h 4
		2563.63 24	0.0	3/2−	0.086 g 10
2571.6		2268.3‡	303.352	5/2−	0.029 h 7
		2425.9‡	145.849	1/2−	0.017 h 5
2574.0		2369.1‡	204.902	3/2−	0.020 h 5
2583.90		2377.4 4	204.902	3/2−	0.049 g 16
2589.87		2513.1‡	77.287	5/2−	0.014 h 4
		2589.95 15	0.0	3/2−	0.124 g 9
2600.8		2298.2 6	303.352	5/2−	0.073 g 13
		2395.8‡	204.902	3/2−	0.023 h 5
2606.5		2606.9‡	0.0	3/2−	0.021 h 5
2613.63		2408.71 17	204.902	3/2−	0.096 g 11
2617.84		2472.2 6	145.849	1/2−	0.19 6
		2617.75 23	0.0	3/2−	0.179 16
2624.11		2419.6 3	204.902	3/2−	0.143 g 14
		2624.0‡	0.0	3/2−	0.016 h 4
2627.58		2324.6‡	303.352	5/2−	0.039 h 8
		2422.63 18	204.902	3/2−	0.178 g 14
		2481.58 22	145.849	1/2−	0.245 g 23

$^{187}_{74}W_{113}$-26

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ †	E_f	J_f^π	Iγ% f
2627.58		2627.1 *8*	0.0	3/2−	0.036 *14*
2636.2		2332.9‡	303.352	5/2−	0.035 h *8*
		2636.2‡	0.0	3/2−	0.031 h *5*
2636.37		2431.45 *13*	204.902	3/2−	0.257 g *11*
2640.8		2563.5‡	77.287	5/2−	0.012 h *4*
2647.44		2442.71 *18*	204.902	3/2−	0.088 g *11*
		2568.8‡	77.287	5/2−	0.022 h *4*
2650.5		2347.1‡	303.352	5/2−	0.040 h *9*
2653.5		2349.6 *17*	303.352	5/2−	0.149 g *13*
		2576.8‡	77.287	5/2−	0.012 h *4*
2661.04		2660.7‡	0.0	3/2−	0.028 h *4*
2678.8		2375.5‡	303.352	5/2−	0.027 h *8*
		2474.0‡	204.902	3/2−	0.012 h *4*
		2601.4‡	77.287	5/2−	0.020 h *4*
2680.48		2681.3‡	0.0	3/2−	0.040 h *5*
2685.6		2481.5‡	204.902	3/2−	0.014 h *5*
2689.63		2689.80 i *18*	0.0	3/2−	0.165 g *12*
2697.42		2699.6‡	0.0	3/2−	0.044 h *5*
2706.40		2707.1‡	0.0	3/2−	0.075 h *6*
2714.5		2509.6‡	204.902	3/2−	0.024 h *5*
		2637.0‡	77.287	5/2−	0.014 h *4*
2717.38		2572.0‡	145.849	1/2−	0.019 h *7*
		2717.7‡	0.0	3/2−	0.032 h *5*
2722.15		2419.3‡	303.352	5/2−	0.033 h *9*
		2576.9‡	145.849	1/2−	0.020 h *5*
		2645.2‡	77.287	5/2−	0.035 h *4*
2725.7		2520.8‡	204.902	3/2−	0.135 *12*
2728.2		2424.9‡	303.352	5/2−	0.027 h *8*
		2650.8‡	77.287	5/2−	0.012 h *4*
		2728.2‡	0.0	3/2−	0.040 h *6*
2732.3		2586.5‡	145.849	1/2−	0.017 h *6*
		2732.2‡	0.0	3/2−	0.022 h *6*
2733.7		2528.8‡	204.902	3/2−	0.027 h *5*
2736.75		2591.2‡	145.849	1/2−	0.020 h *5*
		2735.5 i *7*	0.0	3/2−	0.084 g *20*
2747.5		2601.6‡	145.849	1/2−	0.020 h *5*
2759.2		2554.3‡	204.902	3/2−	0.031 h *5*
		2613.4‡	145.849	1/2−	0.028 h *5*
2762.50		2617.6‡	145.849	1/2−	0.014 h *5*
2778.3		2573.4‡	204.902	3/2−	0.014 h *5*
2780.98		2576.2‡	204.902	3/2−	0.024 h *5*
		2635.3‡	145.849	1/2−	0.020 h *5*
		2703.6‡	77.287	5/2−	0.011 h *4*
		2781.0‡	0.0	3/2−	0.047 h *5*
2796.6		2591.9‡	204.902	3/2−	0.016 h *5*
		2651.0‡	145.849	1/2−	0.018 h *5*
2805.91		2601.5‡	204.902	3/2−	0.063 h *5*
2833.6		2530.0‡	303.352	5/2−	0.024 h *8*
2834.8		2689.1‡	145.849	1/2−	0.044 h *6*
		2757.4‡	77.287	5/2−	0.014 h *5*
2837.52		2534.3‡	303.352	5/2−	0.024 h *8*
		2691.9‡	145.849	1/2−	0.021 h *6*
		2760.2‡	77.287	5/2−	0.022 h *4*
2871.1		2666.5‡	204.902	3/2−	0.018 h *5*
		2871.3‡	0.0	3/2−	0.009 h *4*
2882.32		2677.4‡	204.902	3/2−	0.026 h *5*
		2736.5‡	145.849	1/2−	0.073 h *7*
		2804.8‡	77.287	5/2−	0.013 h *4*
		2882.2‡	0.0	3/2−	0.076 h *6*
2896.7		2691.6‡	204.902	3/2−	0.013 h *5*
		2750.7‡	145.849	1/2−	0.052 h *7*
2909.73		2606.09 *16*	303.352	5/2−	0.070 g *6*
		2704.9‡	204.902	3/2−	0.020 h *5*
		2831.7 *8*	77.287	5/2−	0.06 *3*
		2909.7‡	0.0	3/2−	0.058 h *5*
2929.83		2784.5‡	145.849	1/2−	0.020 h *5*
		2930.2‡	0.0	3/2−	0.014 h *4*
3035.7		2830.9‡	204.902	3/2−	0.033 h *13*
		2958.3‡	77.287	5/2−	0.029 h *4*
3144.80		2343.6 *6*	803.369	3/2−	0.072 g *12*
		2939.35 *17*	204.902	3/2−	0.227 g *13*
		3145.2 *4*	0.0	3/2−	0.051 g *12*

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ †	E_f	J_f^π	Iγ% f
3176.6		2971.4 *7*	204.902	3/2−	0.067 g *16*
3342.07		2354.8 *6*	989.15	3/2−	0.057 g *13*
		2462.5 *4*	881.77	5/2(+)	0.011 *6*
		2475.7 *6*	866.66	1/2−,3/2−	0.042 g *12*
(5466.908)	1/2+	2124.89 *10*	3342.07		0.228 *19*
		2290.1 *5*	3176.6		0.17 *3*
		2295.3 *6*	3171.6		0.086 g *16*
		2322.03 *8*	3144.80		0.335 g *15*
		2537.22 *21*	2929.83		0.228 *19*
		2556.94 *14*	2909.73		0.259 *13*
		2570.0 *4*	2896.7		0.051 g *11*
		2584.56 *7*	2882.32		0.400 *13*
		2596.2 *4*	2871.1		0.022 *6*
		2601.75 *11*	2865.14		0.185 *7*
		2622.1 l *3*	2844.8?		0.036 *6*
		2629.5 *3*	2837.52		0.082 *16*
		2633.2 j *4*	2833.6		0.041 *8*
		2646.5 l *8*	2820.4?		0.088 *25*
		2661.05 j *19*	2805.91		0.087 *9*
		2670.9 *5*	2796.6		0.036 *13*
		2677.0 *6*	2789.9		0.09 *3*
		2686.1 *4*	2780.98		0.113 *11*
		2704.57 *22*	2762.50		0.122 *12*
		2708.5 *13*	2759.2		0.288 *11*
		2730.08 *22*	2736.75		0.08 *3*
		2738.68 *17*	2728.2		0.304 *20*
		2744.95 *19*	2722.15		0.135 *11*
		2749.8 *3*	2717.38		0.12 *3*
		2752.3 j *4*	2714.5		0.05 *3*
		2760.51 j *9*	2706.40		0.266 *9*
		2769.47 *14*	2697.42		0.131 *10*
		2777.8 j *3*	2689.63		0.083 *10*
		2781.6 j *3*	2685.6		0.043 *9*
		2786.44 *10*	2680.48		0.217 *9*
		2805.79 *20*	2661.04		0.157 *14*
		2813.6 *3*	2653.5		0.097 *12*
		2819.5 *3*	2647.44		0.032 *10*
		2839.22 *18*	2627.58		0.163 *11*
		2842.81 *9*	2624.11		0.317 *10*
		2849.04 *5*	2617.84		0.359 *8*
		2860.9 j *5*	2606.5		0.052 *11*
		2867.1 *7*	2600.8		0.026 *10*
		2877.6 *3*	2589.87		0.26 *3*
(5466.908)		2882.76 *15*	2583.90		0.089 *10*
		2896.1 *12*	2571.6		0.055 *20*
		2902.35 *19*	2564.05		0.224 g *12*
		2906.5 *5*	2558.9		0.070 *8*
		2910.5 *3*	2556.36		0.19 *3*
		2913.3 *4*	2552.54		0.17 *3*
		2921.0 j *3*	2545.8		0.058 *8*
		2934.5 *14*	2531.7		0.08 *4*
		2952.49 *21*	2514.57		0.173 *13*
		2956.2 *8*	2511.67		0.13 g *4*
		2963.3 j *4*	2503.4		0.074 *16*
		2974.8 *3*	2492.14		0.122 g *16*
		2980.8 j *11*	2485.02		≈0.067
		2986.9 *16*	2480.0		0.040 *13*
		2996.3 *4*	2471.12		0.24 *3*
		3005.89 *16*	2461.11		0.156 *19*
		3009.8 *6*	2457.4		0.060 *25*
		3018.63 *18*	2447.91		0.062 *12*
		3028.7 *9*	2438.3		0.046 *14*
		3032.6 *9*	2433.9		0.047 *16*
		3040.00 *15*	2426.88		0.143 *10*
		3051.28 *24*	2415.19		0.16 *3*
		3055.49 *9*	2411.40		0.287 *8*
		3073.5 *5*	2393.8		0.038 *7*
		3085.4 *6*	2381.14		0.035 *9*
		3092.4 *30*	2375.1		≈0.019
		3095.7 *11*	2370.0		0.12 *11*
		3097.8 *6*	2367.5		≈0.065
		3109.5 j *4*	2356.79		0.035 *11*
		3114.91 *11*	2352.02	1/2−,3/2−	0.263 *12*
		3122.4 *9*	2344.43	1/2,3/2	0.13 *7*
		3151.39 *19*	2315.43	1/2,3/2	0.099 *9*
		3160.38 *16*	2306.45	1/2,3/2	0.118 *10*
		3173.69 *25*	2293.12	1/2,3/2	0.066 *7*
		3179.3 b j *5*	2287.8		0.023 *6*
		3183.89 b *17*	2283.10	1/2,3/2	0.073 *6*
		3191.11 *18*	2275.89	1/2−,3/2−	0.317 *21*
		3194.1 *5*	2272.6	1/2,3/2	0.107 g *21*
		3200.2 j *5*	2266.8		0.019 *11*
		3206.78 *8*	2260.12	1/2−,3/2−	0.274 *7*
		3225.44 *23*	2241.66	1/2−,3/2−	0.66 *6*
		3234.4 *3*	2232.83	1/2,3/2	0.138 *13*
		3238.54 *24*	2228.60	1/2,3/2	0.144 *14*

$^{187}_{74}W_{113}$-28

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ †	E_f	J_f^π	Iγ% f
(5466.908)	1/2+	3258.7 *4*	2208.37	1/2,3/2	0.051 *8*
		3263.7 j *3*	2203.9		0.029 *13*
		3267.9 *12*	2198.5	1/2,3/2	0.07 *4*
		3286.47 *26*	2180.47	1/2,3/2	0.064 *11*
		3293.0 *10*	2172.2	1/2,3/2	0.013 *9*
		3298.0 *8*	2168.9	1/2,3/2	0.13 *5*
		3313.6 *3*	2153.42	1/2,3/2	0.163 *16*
		3316.8 *4*	2150.31	1/2,3/2	0.117 *16*
		3325.8 *9*	2142.59	1/2,3/2	0.059 *22*
		3328.8 *3*	2138.67	1/2,3/2	0.174 *20*
		3342.65 *21*	2124.32	1/2,3/2	0.095 g *12*
		3349.69 *11*	2117.28	1/2,3/2	0.141 *11*
		3376.70 *19*	2090.33	1/2−,3/2−	0.33 *7*
		3383.3 j *7*	2083.5		0.031 *22*
		3395.5 *11*	2070.08	1/2,3/2	0.022 *8*
		3404.7 *7*	2062.1	1/2,3/2	0.032 *13*
		3408.3 *10*	2059.0	1/2,3/2	≈0.016
		3422.9 *4*	2044.60	1/2−,3/2−	0.217 *10*
		3437.5 *10*	2029.7		0.019 *10*
		3443.37 *17*	2023.22	3/2(+)	0.102 *7*
		3465.60 l *17*	2001.26?		0.090 *9*
		3469.79 *5*	1997.11	3/2−	1.200 *10*
		3486.69 *19*	1980.56	3/2+	0.166 *12*
		3493.17 *8*	1973.65	3/2	0.521 *13*
		3505.3 *3*	1961.81		0.014 *8*
		3510.66 *6*	1956.21	(1/2−),3/2−	0.420 *9*
		3516.8 *4*	1950.27	(1/2−),3/2	0.054 *12*
		3524.2 *8*	1943.80	(3/2)	0.025 *14*
		3530.68 *24*	1936.86	3/2−	0.35 *7*
		3535.19 *17*	1931.74	1/2−,3/2−	0.67 *4*
		3561.22 *6*	1905.66	3/2−	0.673 *9*
		3575.70 *27*	1891.10	1/2(−),3/2	0.189 *12*
		3579.6 *6*	1887.74	3/2−	0.044 *12*
		3608.66 *22*	1857.83	1/2,3/2	0.082 *15*
		3621.7 *3*	1845.53	1/2−,3/2	0.084 *9*
		3642.5 *4*	1824.62	3/2−	0.032 *8*
		3650.4 *18*	1816.29	3/2(−)	0.036 *24*
		3696.04 *24*	1770.89	1/2−,3/2−	0.078 *7*
		3708.0 *5*	1759.57	1/2,3/2	0.039 *7*
		3734.0 j *7*	1734.0		0.064 *20*
		3738.32 *16*	1728.91	1/2,3/2	0.18 *10*
		3740.2 *4*	1726.85	3/2−	0.44 *9*
		3747.67 *22*	1719.26	3/2−	0.116 *12*
(5466.908)	1/2+	3756.2 *8*	1711.35	(3/2−,5/2)	0.031 *9*
		3761.07 *13*	1706.05	1/2,3/2	0.183 *8*
		3775.14 *9*	1691.88	3/2+	0.220 *7*
		3803.69 *11*	1663.23	3/2−	0.187 *7*
		3818.8 *11*	1648.73	5/2+	0.034 *12*
		3823.5 *6*	1643.52	1/2,3/2	0.081 *16*
		3847.68 *6*	1619.21	3/2−	0.546 *9*
		3854.05 *23*	1612.87	3/2+	0.095 *10*
		3871.9 *7*	1595.15	3/2+	0.015 *5*
		3876.9 *4*	1589.04	5/2+	0.046 *6*
		3902.12 *9*	1564.79	1/2,3/2−	0.237 *7*
		3917.4 *5*	1549.32	1/2,3/2	0.084 *13*
		3921.05 *20*	1545.97	1/2,3/2	0.222 *14*
		3933.1 *9*	1533.91	5/2+	0.046 *12*
		3965.27 *12*	1501.85	3/2+	0.332 *16*
		3981.0 *23*	1487.12	3/2−	≈0.013
		4016.08 *11*	1450.85	1/2,(3/2)	0.198 *7*
		4051.3 *5*	1415.24	3/2−	0.026 *5*
		4082.61 *7*	1384.24	3/2−	0.349 *7*
		4094.0 *5*	1373.61	3/2+	0.027 *5*
		4119.10 *16*	1347.56	1/2−	0.61 *3*
		4135.3 *4*	1330.91	3/2+	0.103 *11*
		4154.0 *4*	1312.80	3/2−	0.092 *10*
		4158.67 *11*	1308.22	3/2+	0.369 *11*
		4194.4 *5*	1272.39	1/2−,3/2−	0.012 *6*
		4249.72 *12*	1217.127	3/2−	1.18 *5*
		4331.69 *7*	1135.18	3/2−	0.414 *9*
		4372.5 *4*	1094.24	1/2−,3/2−	0.074 *10*
		4379.7 *6*	1086.3		0.047 *7*
		4384.54 *6*	1082.32	1/2−,(3/2)	0.654 *10*
		4448.27 *11*	1018.53	3/2−	0.546 *16*
		4470.3 l *6*	996.5?		0.033 *10*
		4477.64 *13*	989.15	3/2−	0.159 *8*
		4487.20 *12*	979.44	3/2−	0.178 *7*
		4494.1 *20*	971.91	5/2−	≈0.007
		4506.3 *17*	960.57	5/2−	≈0.005
		4551.6 *27*	914.68	5/2−	≈0.007
		4557.88 *10*	908.96	1/2,(3/2)	0.265 *8*
		4574.92 *5*	891.93	3/2−	0.923 *11*
		4585.7 *6*	881.77	5/2(+)	0.013 *5*
		4602.6 *15*	863.33	5/2−	0.06 *3*
		4606.6 *11*	860.75	3/2−	0.040 *15*
		4615.3 *7*	852.41	3/2−	0.013 *3*

$^{187}_{74}$W$_{113}$-29

γ(^{187}W) (continued)

E_i(level)	J_i^π	E_γ †	E_f	J_f^π	Iγ% [f]	E_i(level)	J_i^π	E_γ †	E_f	J_f^π	Iγ% [f]
(5466.908)	1/2+	4626.57 *5*	840.208	1/2−	1.470 *17*	(5466.908)	1/2+	5163.5 [b] *4*	303.352	5/2−	0.034 *5*
		4650.54 *6*	816.256	3/2−	0.518 *8*			5261.81 *7*	204.902	3/2−	5.83 *6*
		4662.8 *3*	803.369	3/2−	0.058 *7*			5320.84 *7*	145.849	1/2−	4.12 *5*
		4684.53 *5*	782.290	1/2−	1.750 *16*			5388.85 *26*	77.287	5/2−	0.036 *3*
		4704.8 *4*	762.146	1/2−	0.023 *3*			5466.63 *9*	0.0	3/2−	0.256 *4*
		4826.0 *10*	640.488	5/2−	0.012 *3*						

† From 2008Bo26, except otherwise noted. Eγ is not recoil corrected.
‡ From 2008SuZW.
# From conversion electron subshell ratios and internal conversion coefficients of 1971PrZJ and 1973PrYY. Additional values were deduced by the evaluator using the electron intensities and γ-ray intensities of 1973PrYY normalized to the 145.8-keV K and L1 conversion electrons assuming M1 multipolarity. For the deduced values a 30% uncertainty is assigned by the evaluator.
@ Deduced by the evaluator from the conversion electron data.
& Initial level is the lower part of the unresolved doublet.
a Initial level is the upper part of the unresolved doublet.
b Observed in coincidence (2008Bo26).
c Uncertain placement and not adopted.
d Intensity is deduced from the sum of coincident γ intensities.
e Combined intensity for close doublet.
f For 100 neutron capture for γ-rays above 2000 keV (2008Bo26), except otherwise noted.
g Only part of the intensity is assigned to this transition (2008Bo26).
h From 2008SuZW. The $\Sigma I_{\gamma\gamma}$ (Iγ%) reported in 2008SuZW is normalized to the primary γ-ray Iγ%.
i γ-ray placement is confirmed by 2008SuZW.
j Feeding level is confirmed by 2008SuZW.
k Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
l Placement of transition in the level scheme is uncertain.
x γ ray not placed in level scheme.

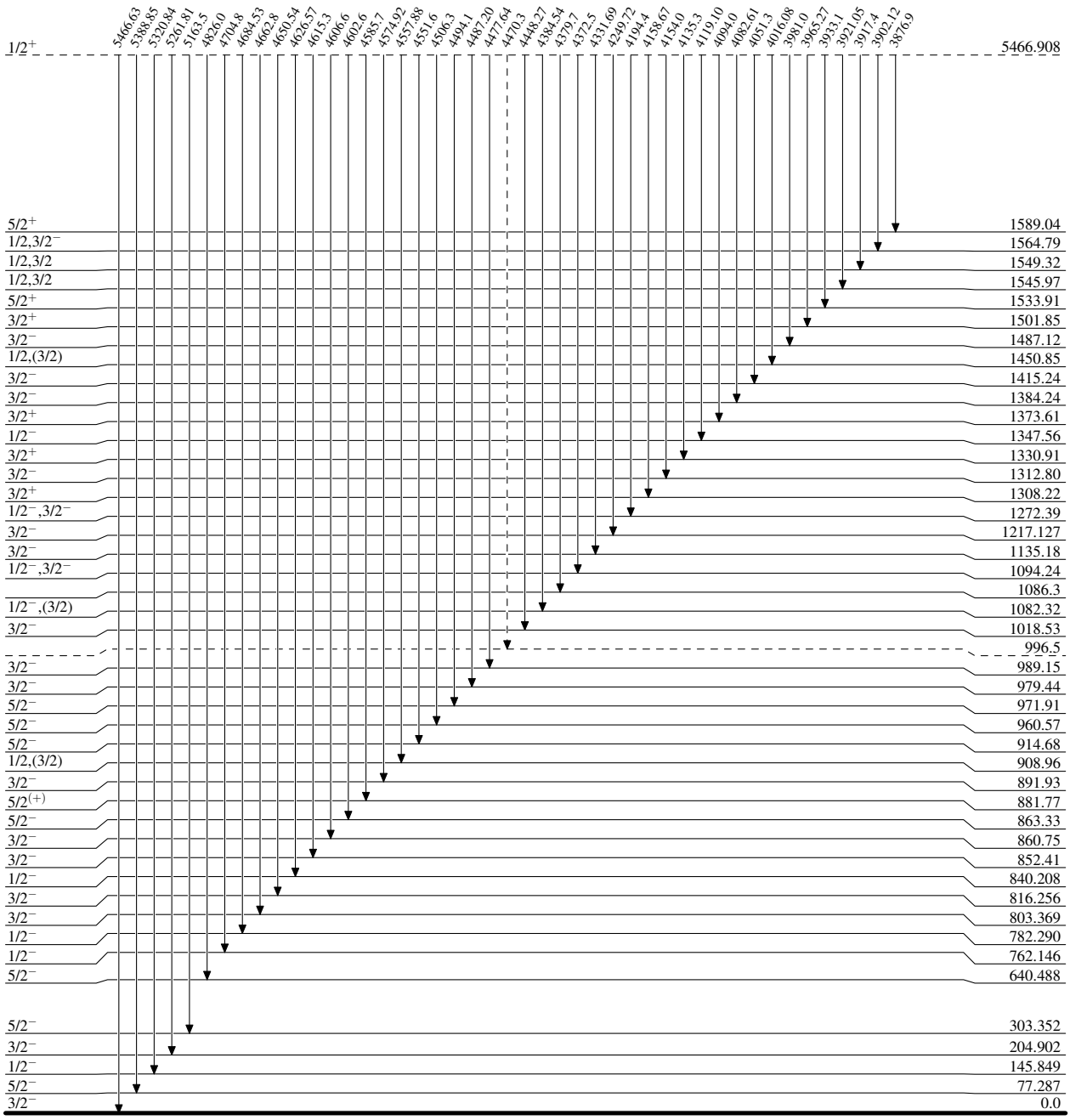
$^{187}_{74}W_{113}$-30

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



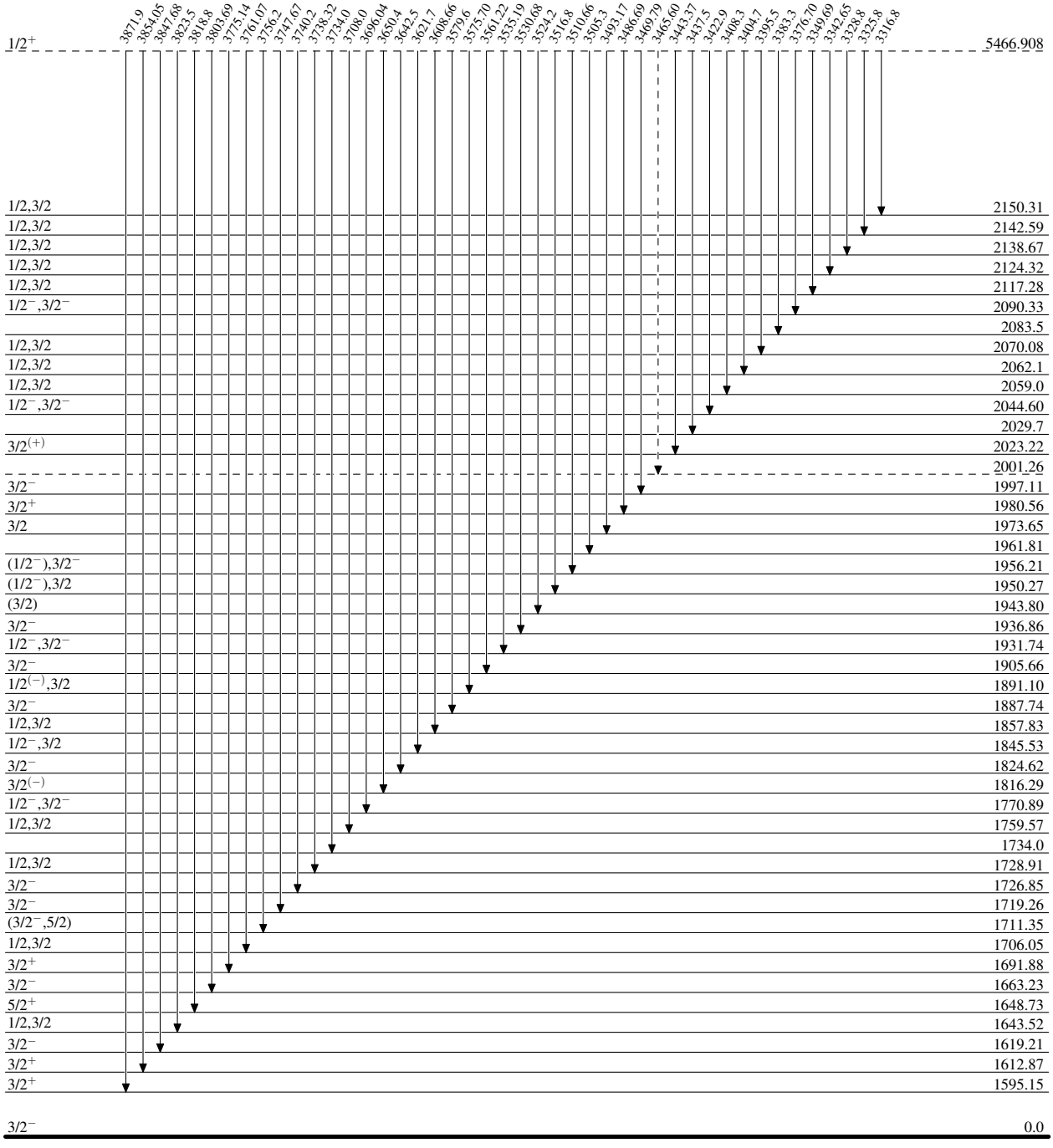
$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYY Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)

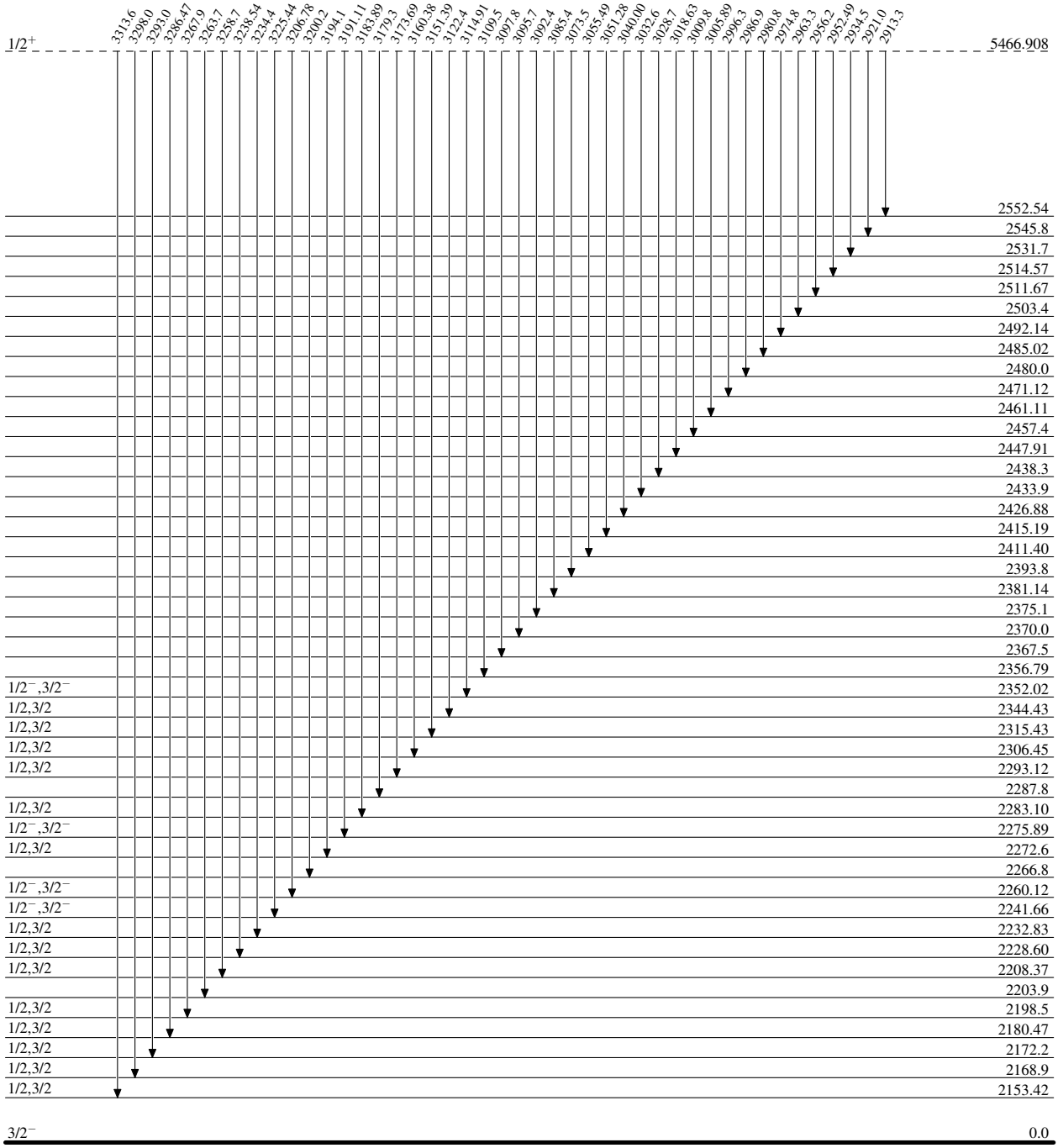


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level



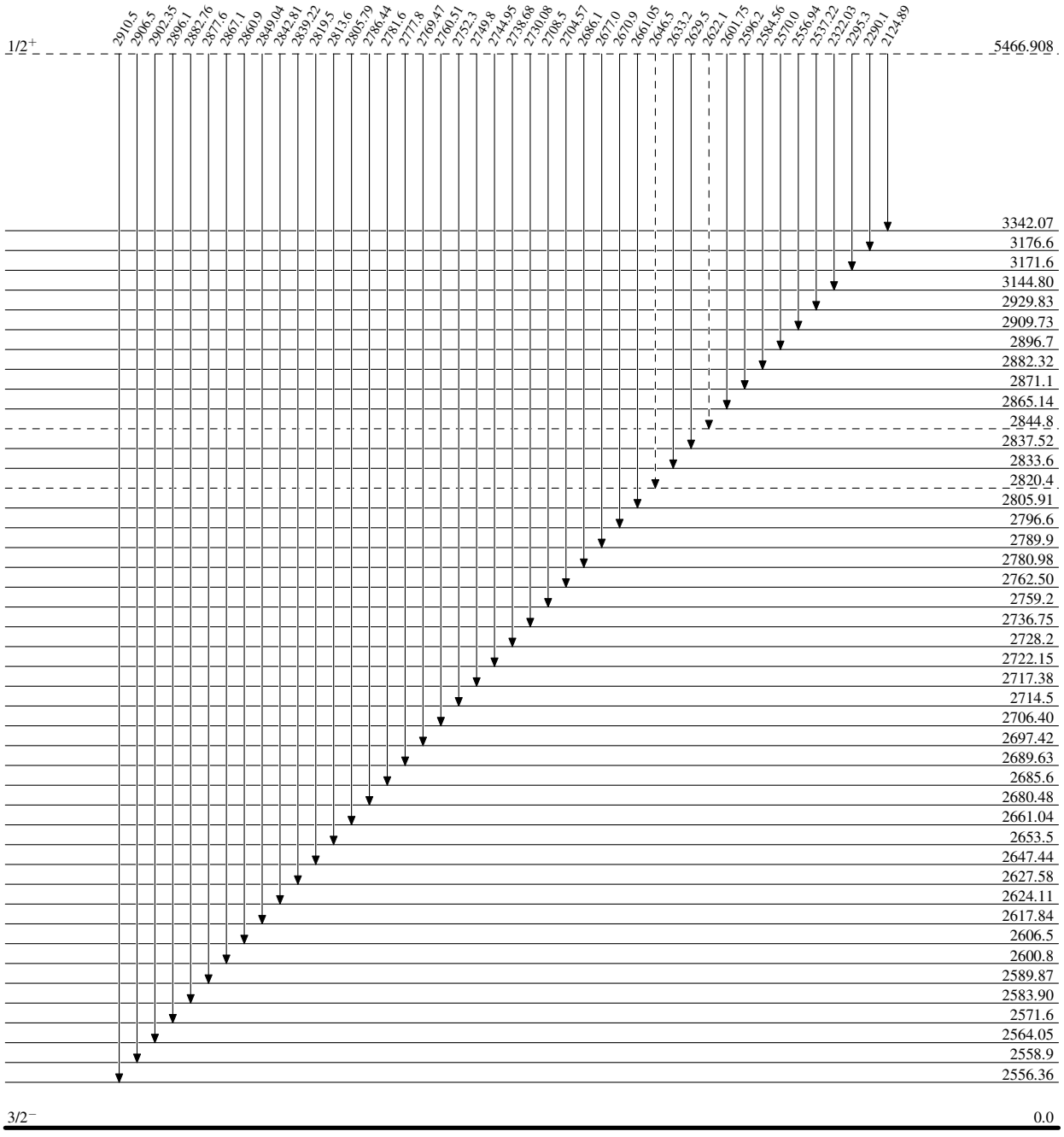
$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)

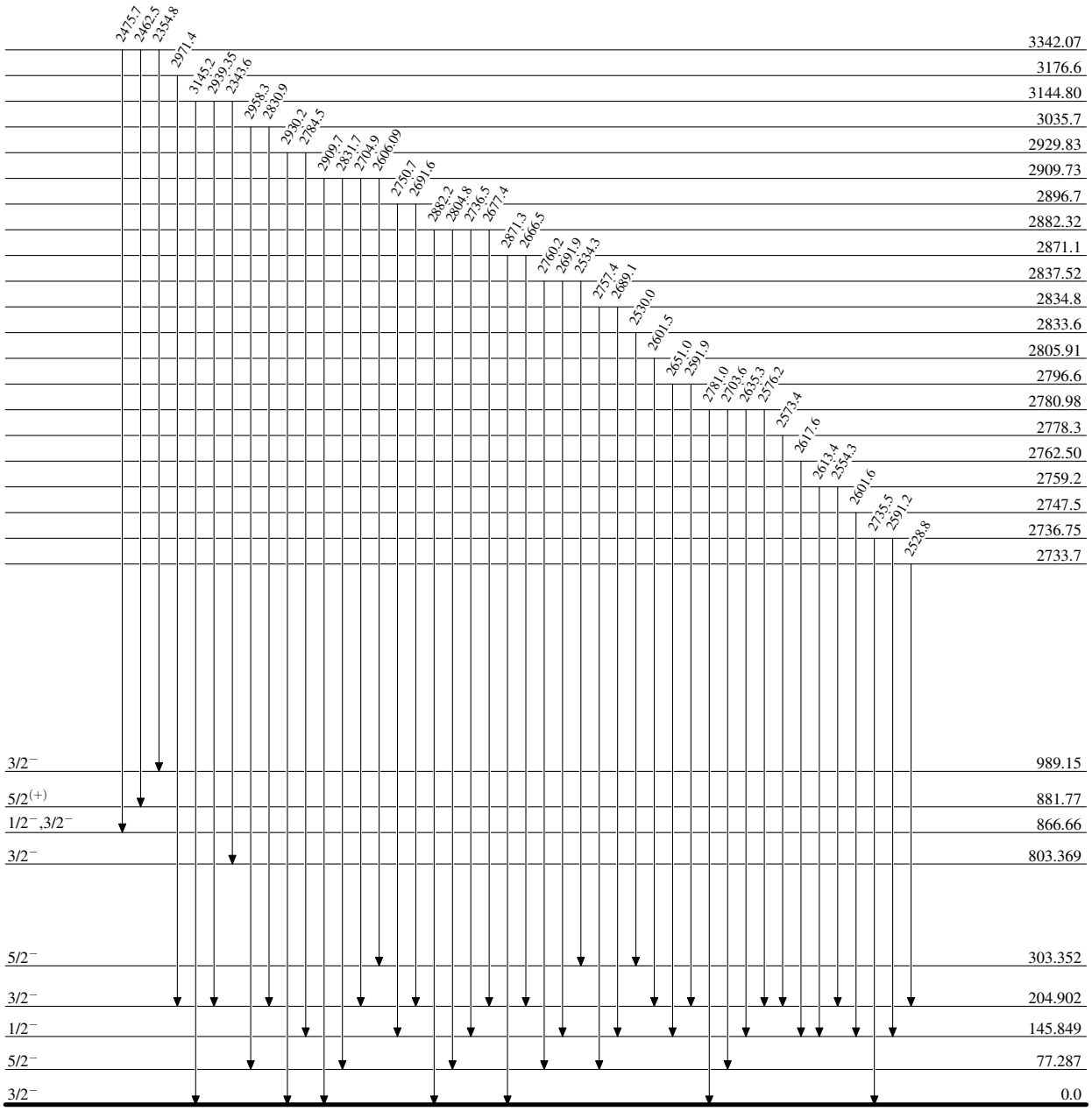


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

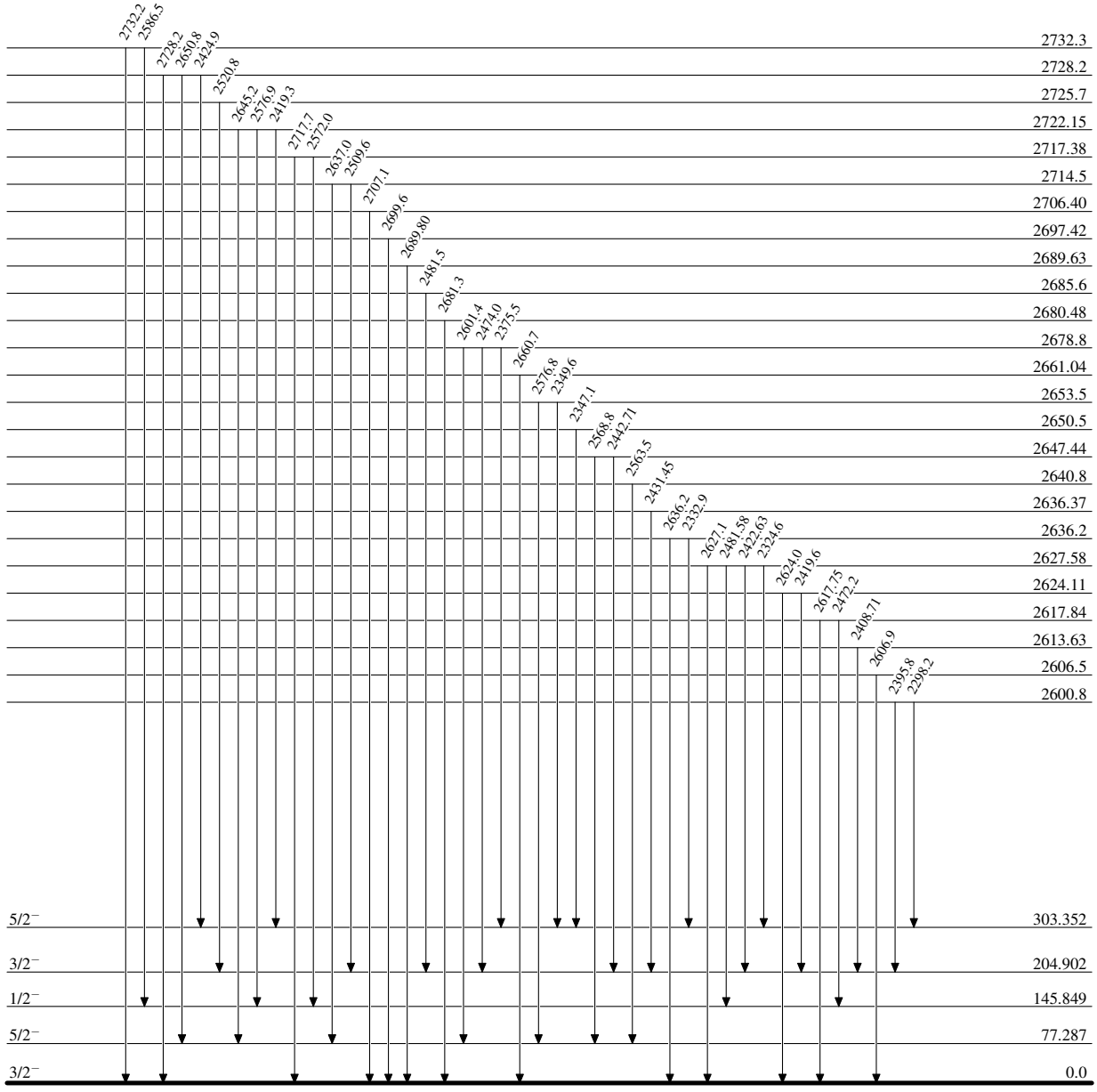


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

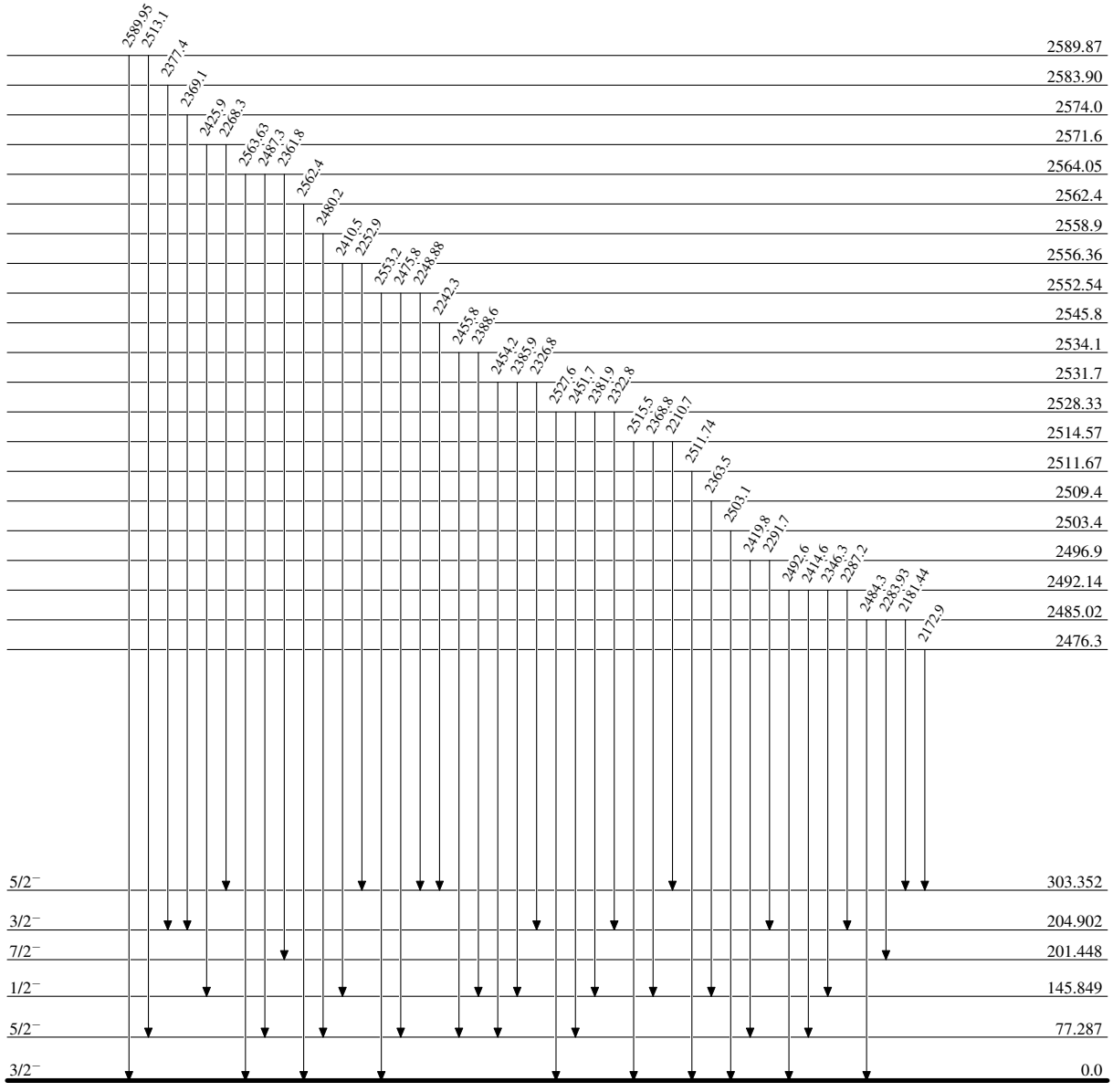


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

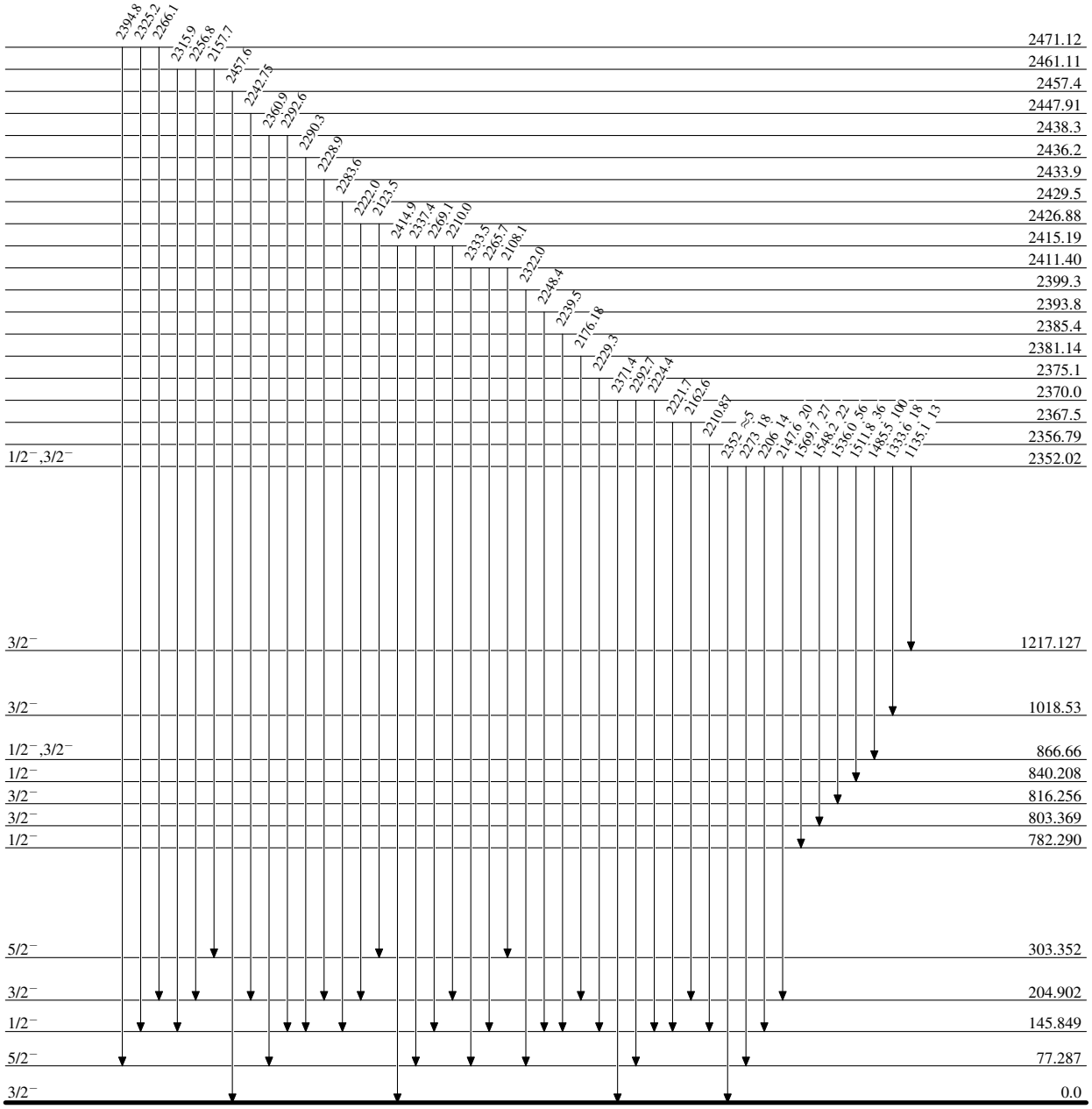


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

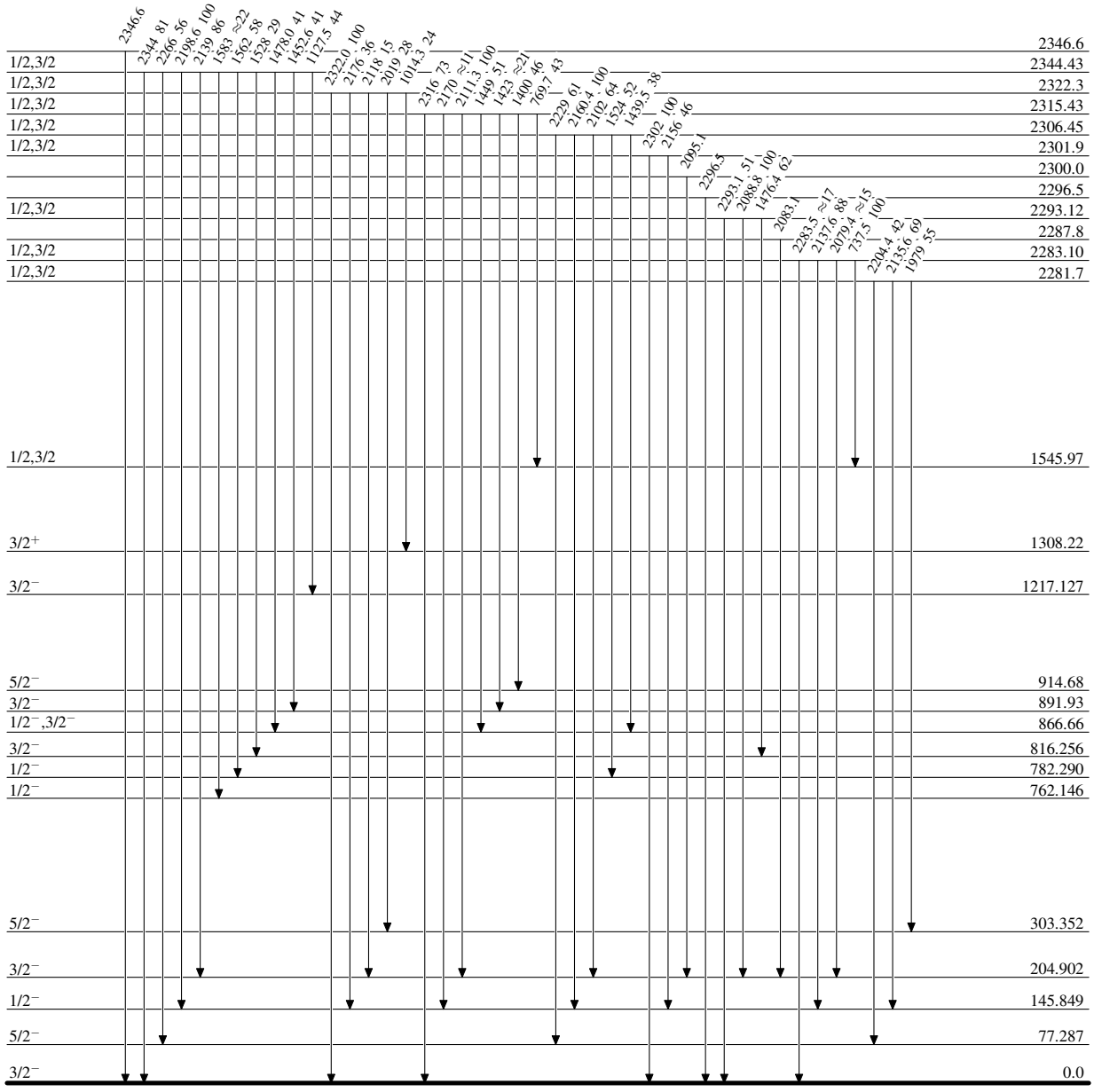


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

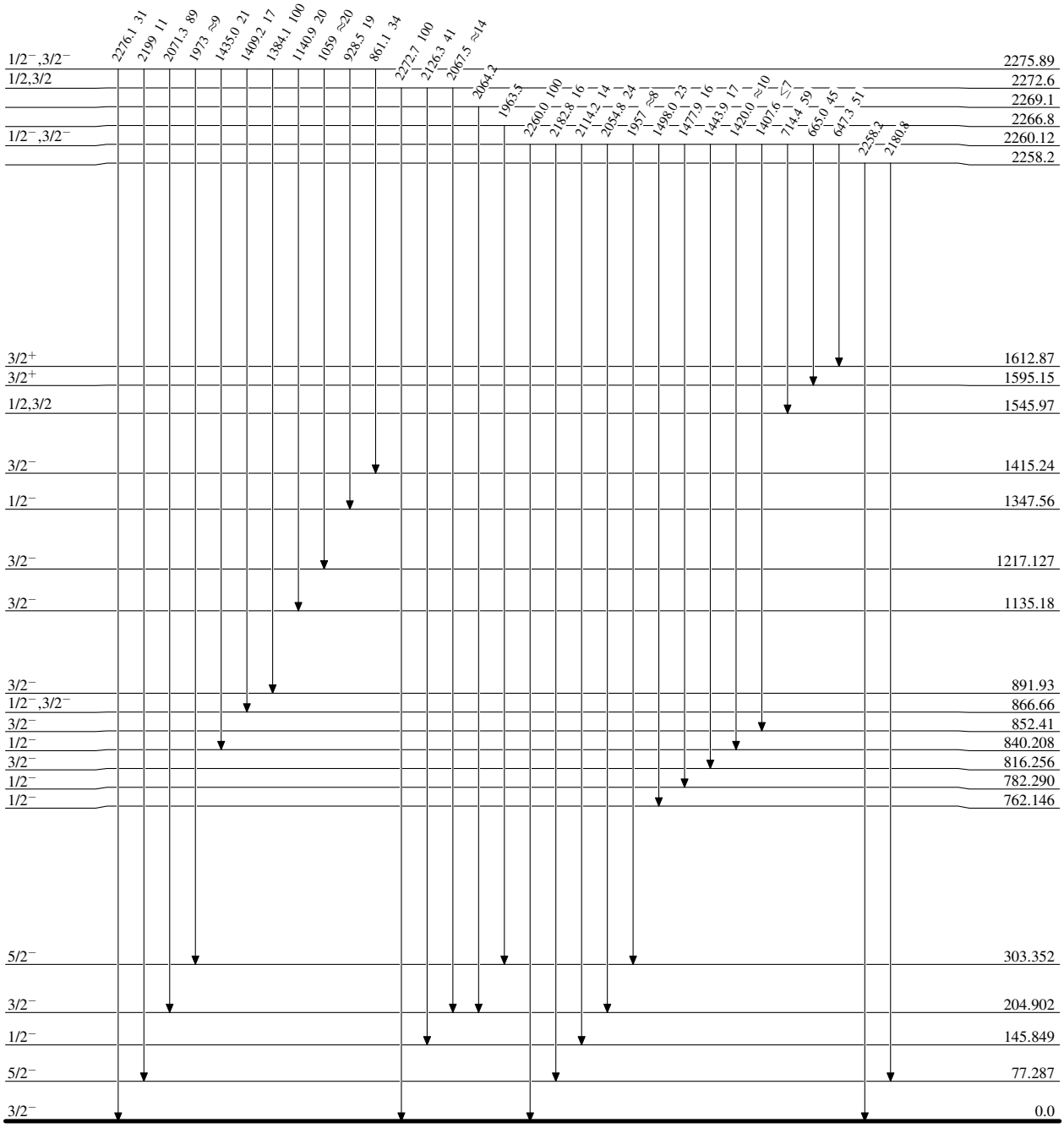


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

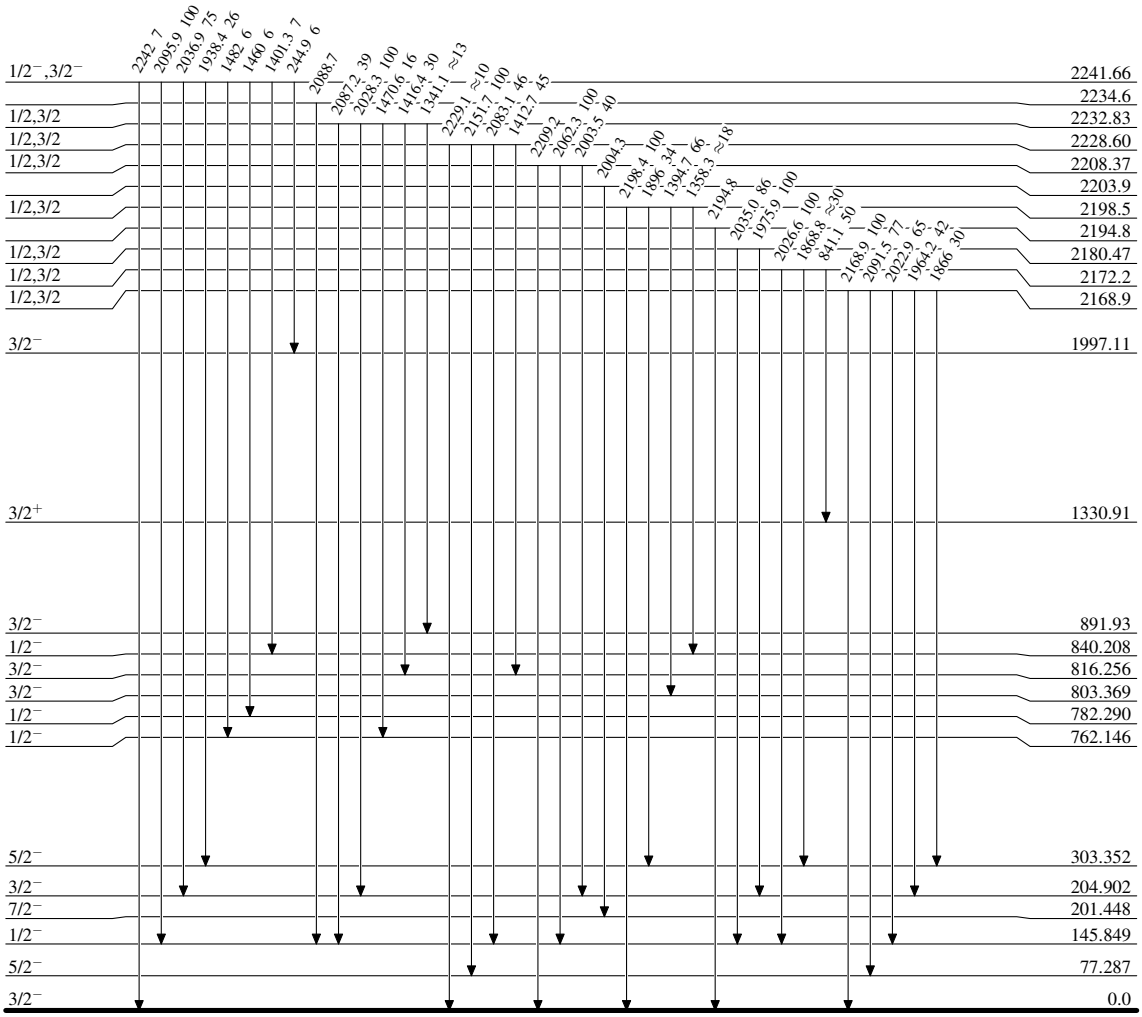


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

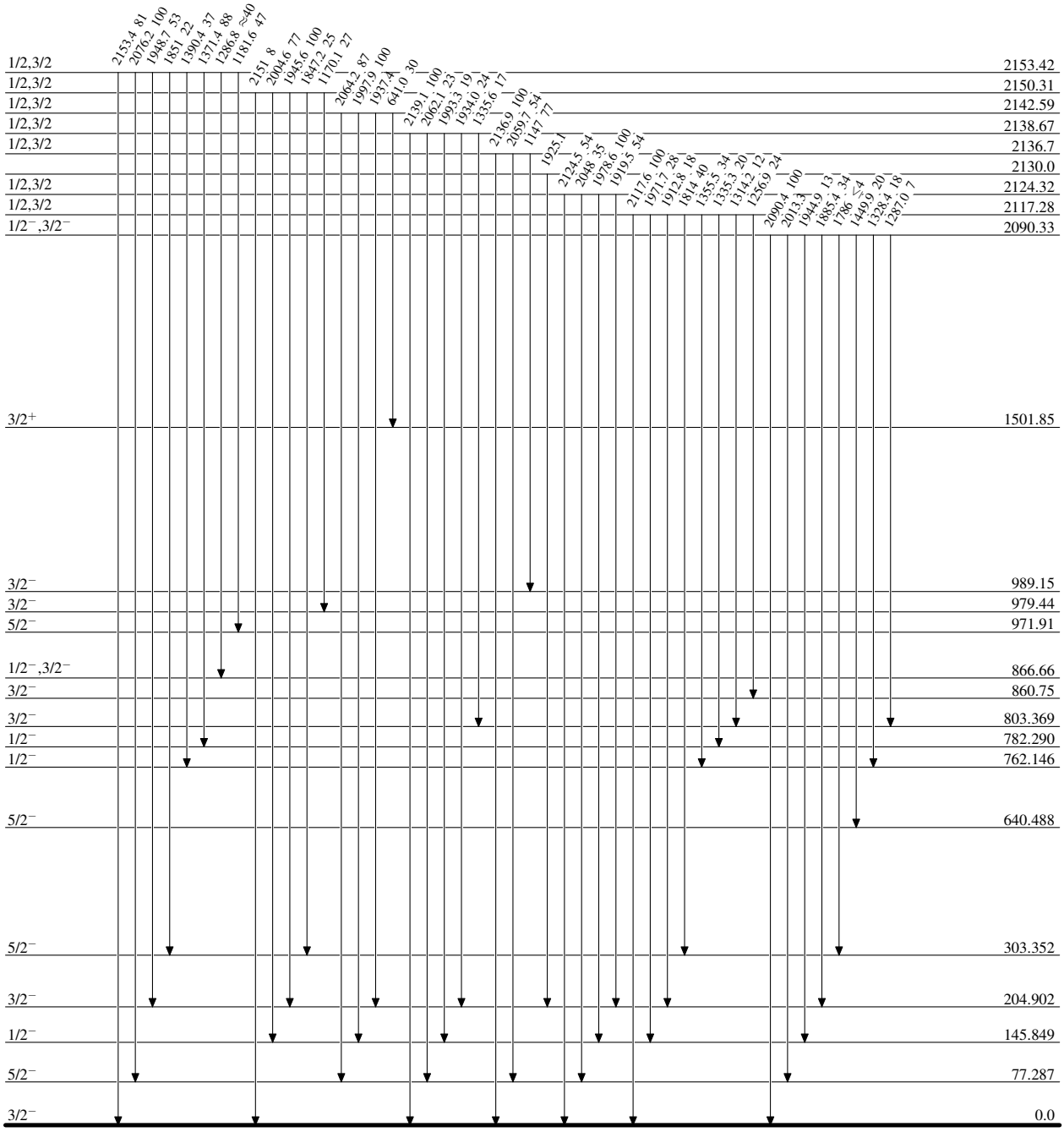


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

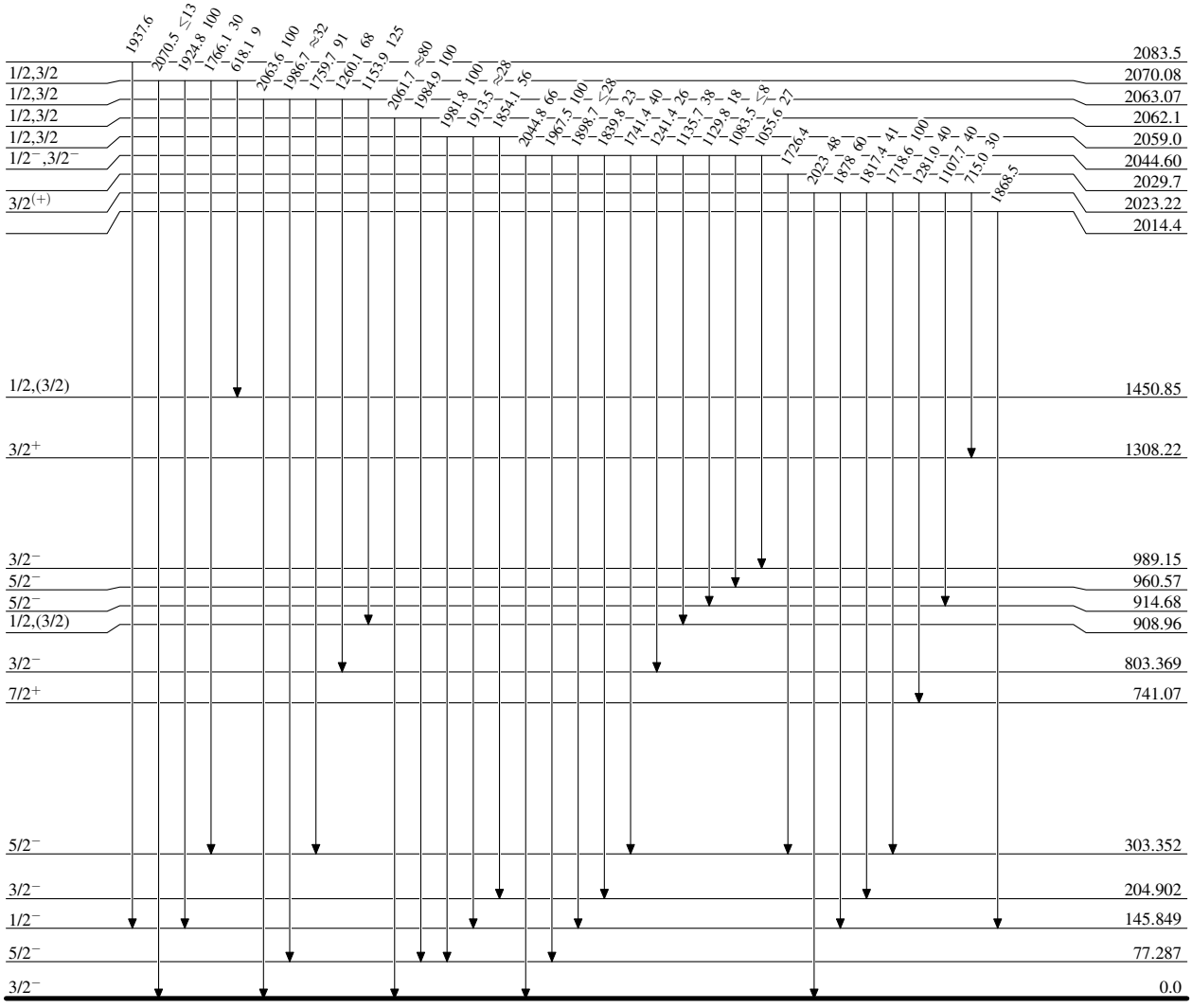


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

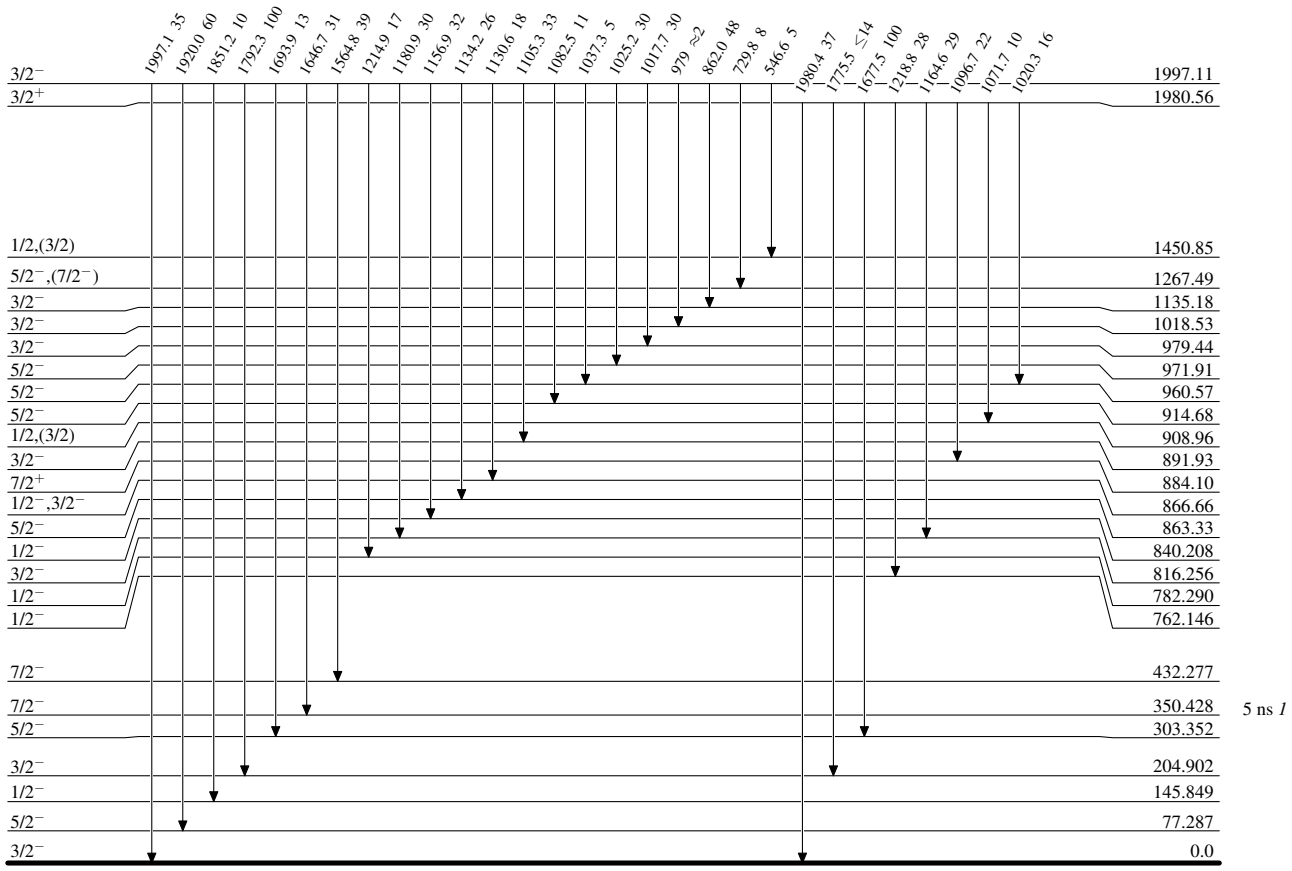


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

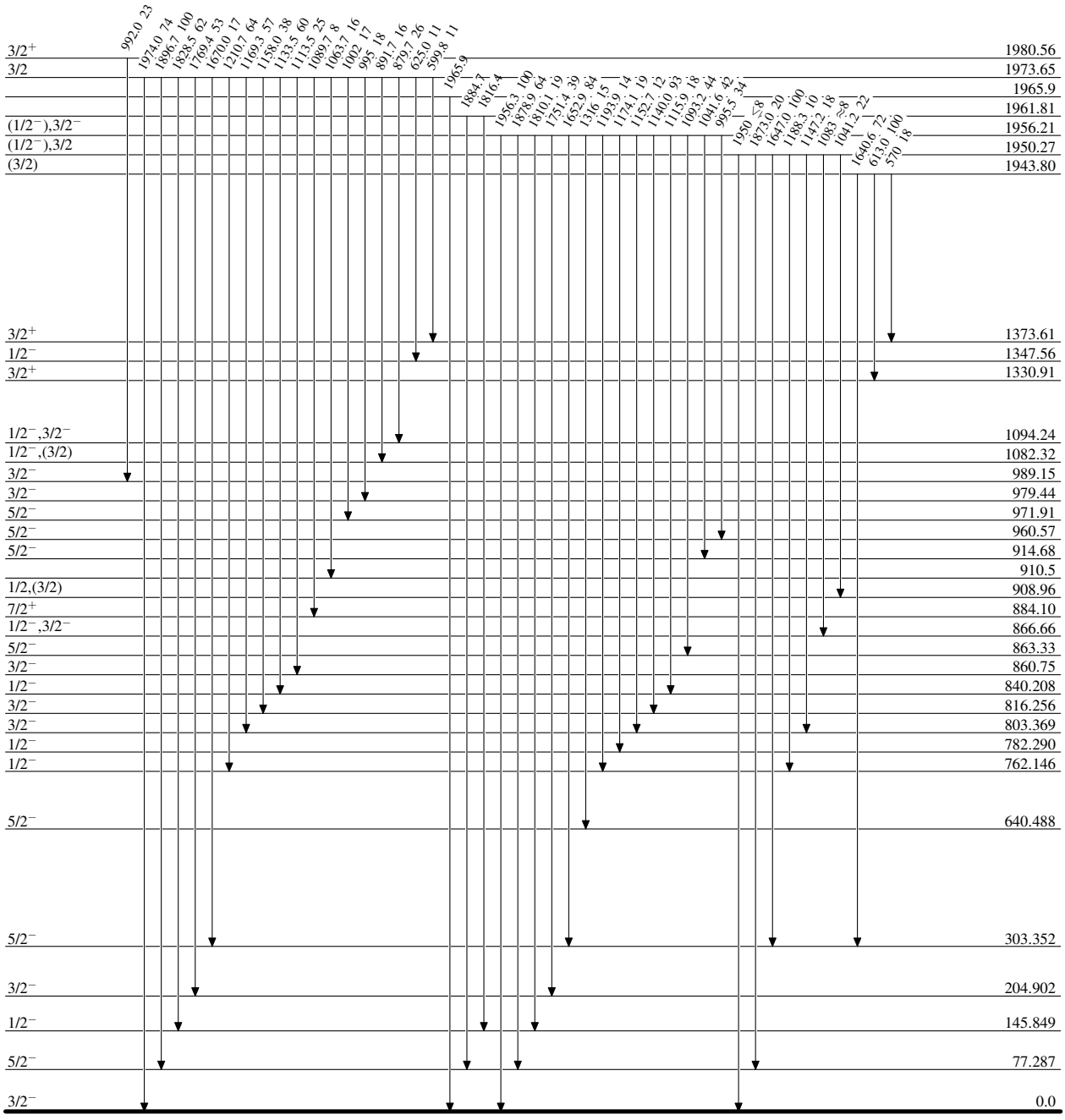


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

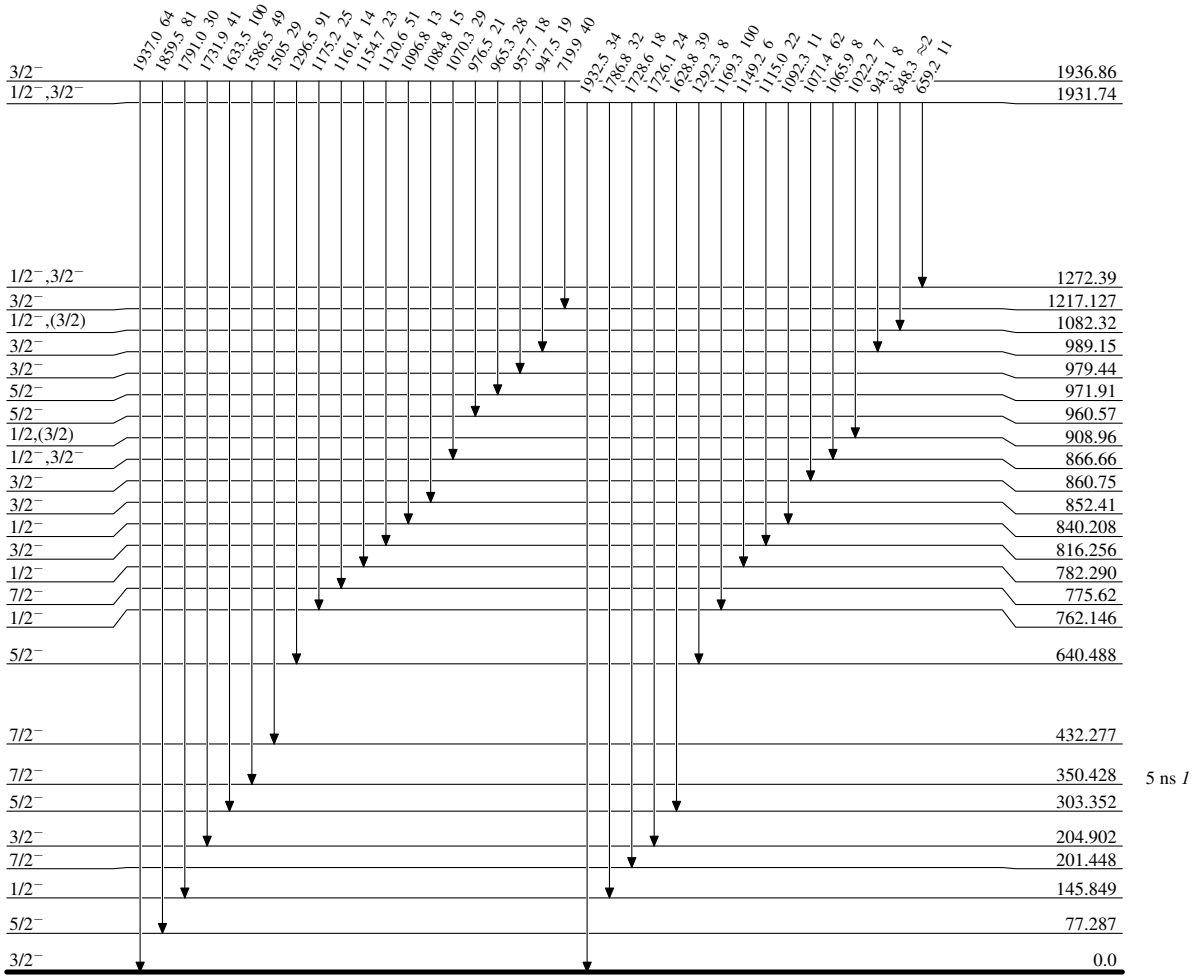


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

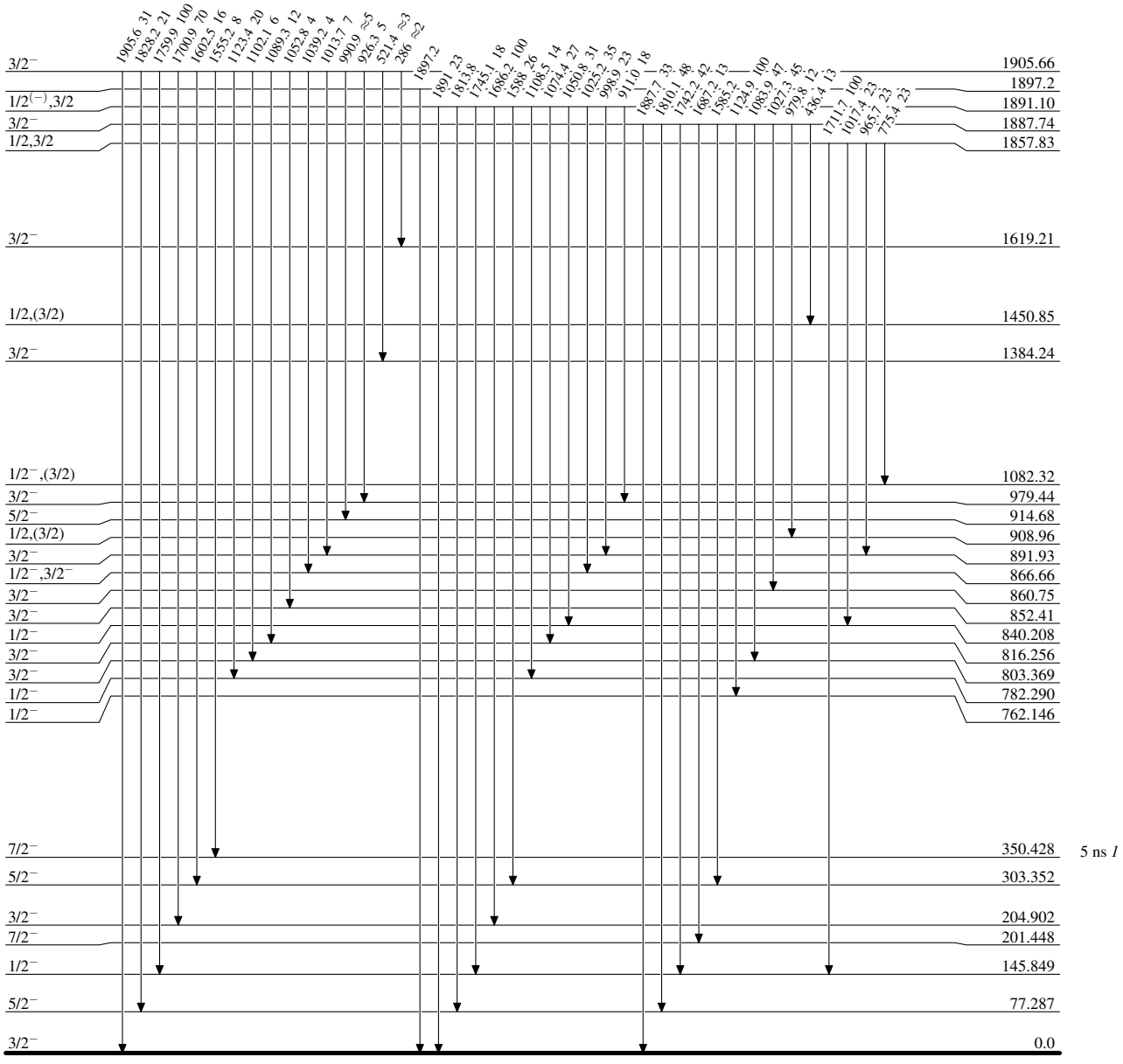


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

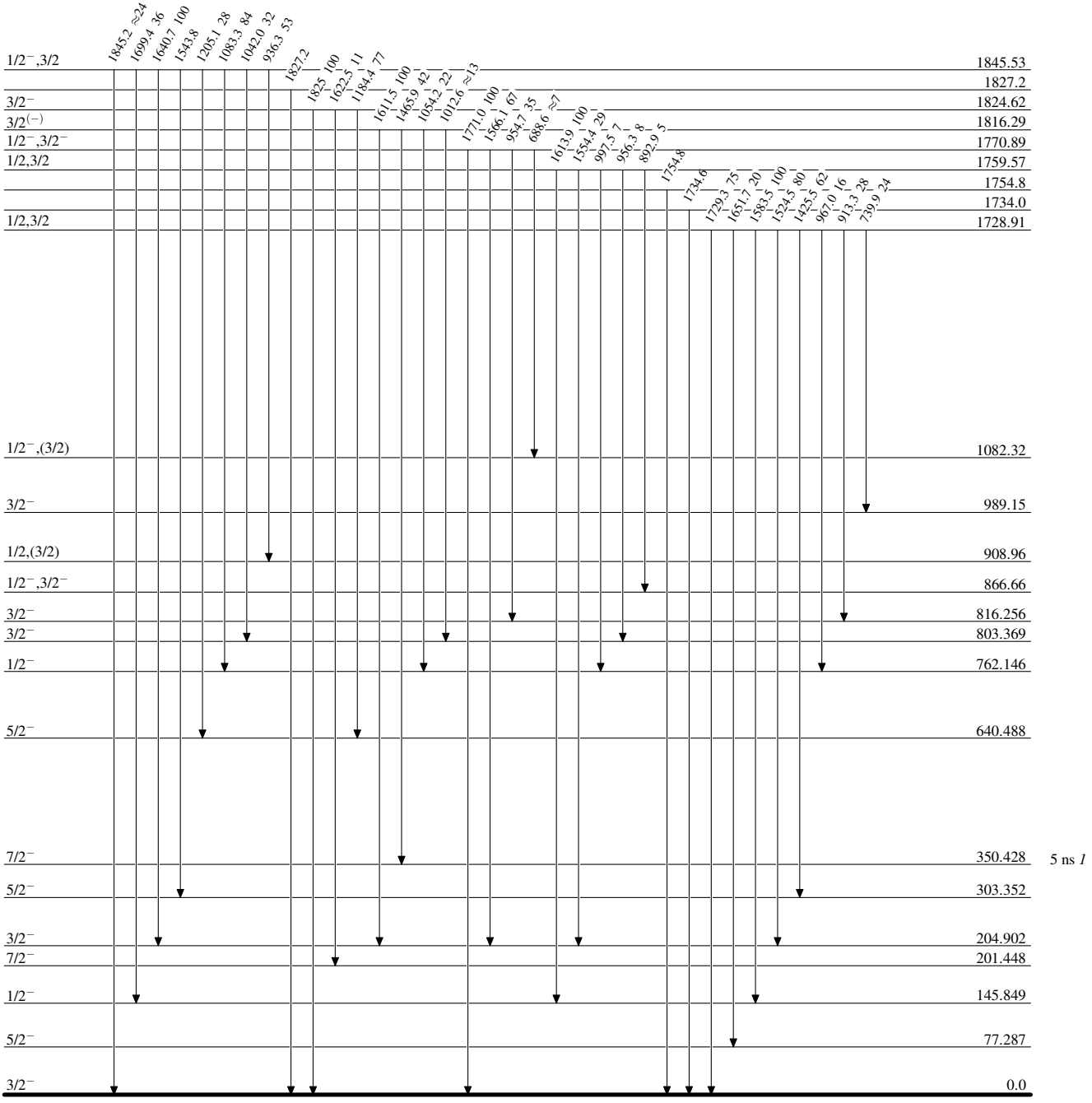


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

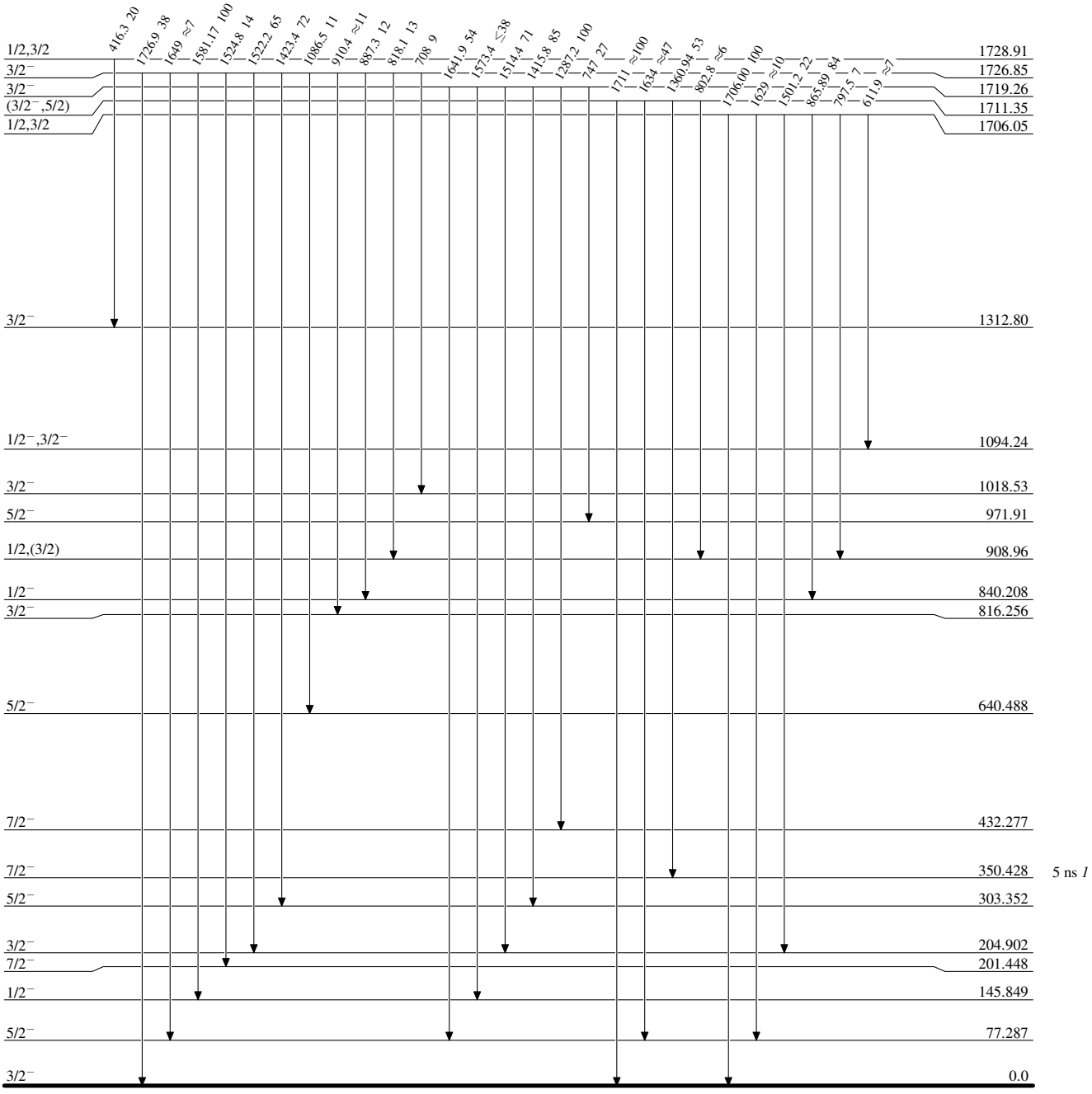


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYY

Level Scheme (continued)

Intensities: Relative photon branching from each level

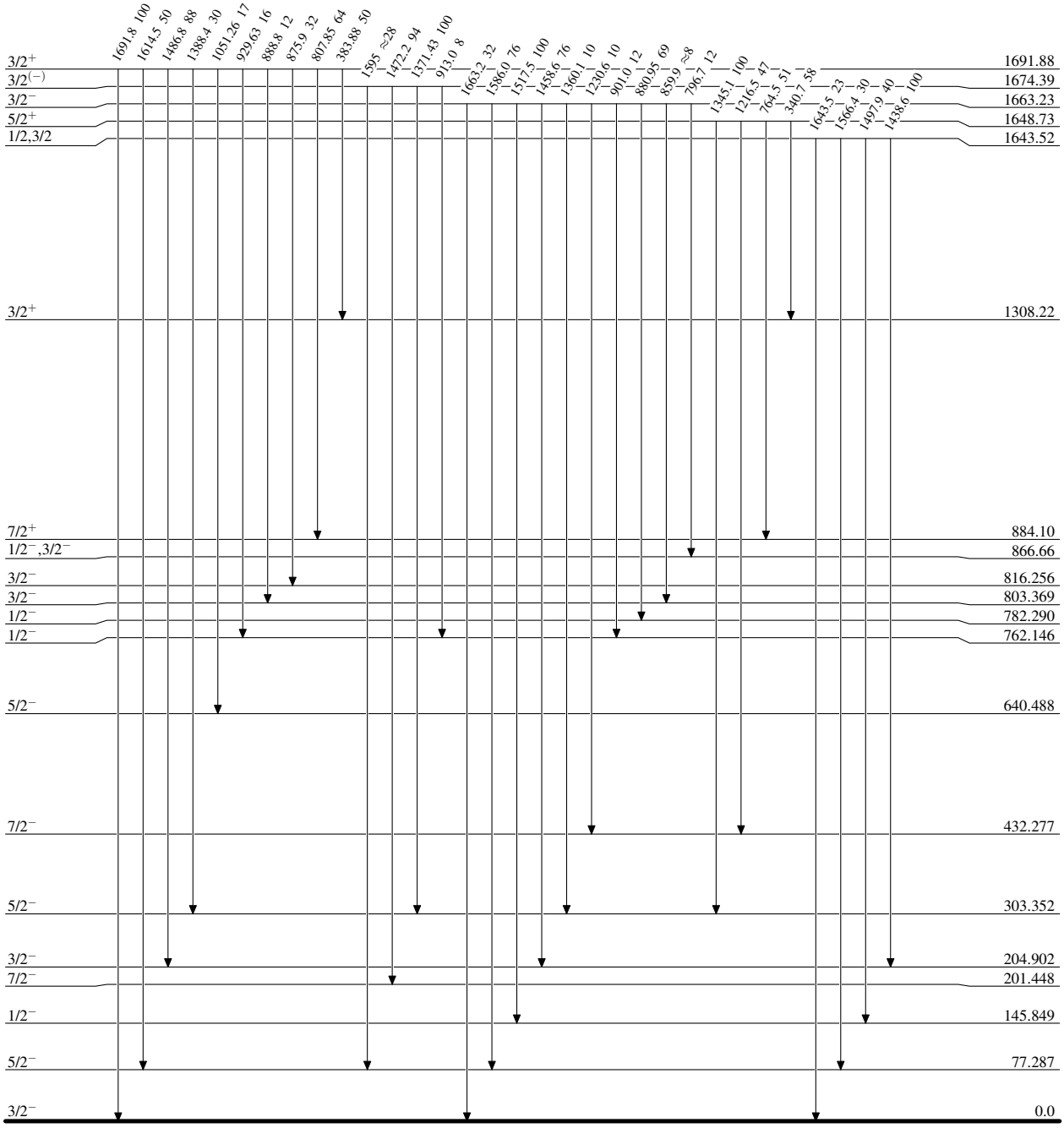


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYY

Level Scheme (continued)

Intensities: Relative photon branching from each level



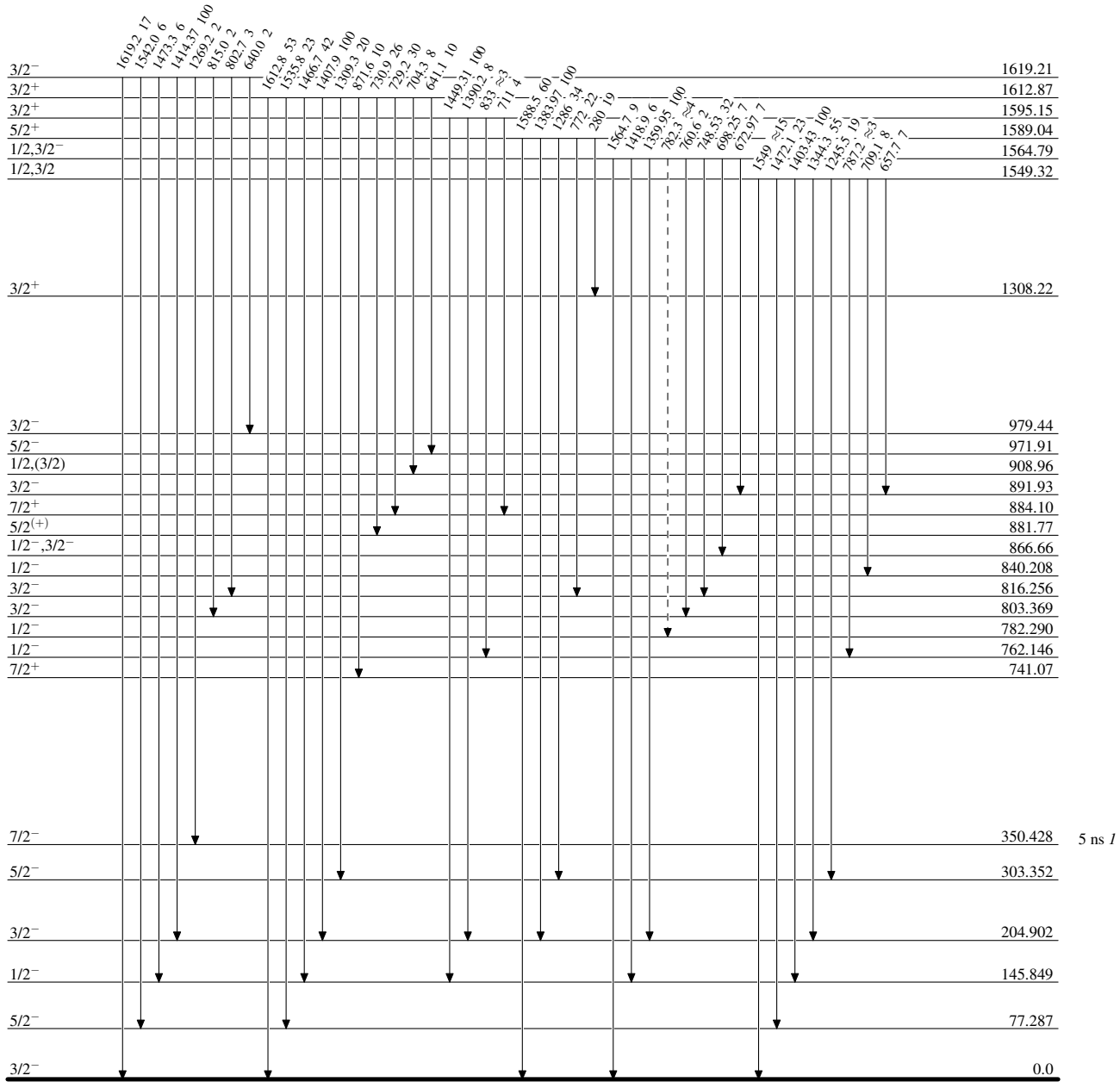
$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

– – – – – – ► γ Decay (Uncertain)

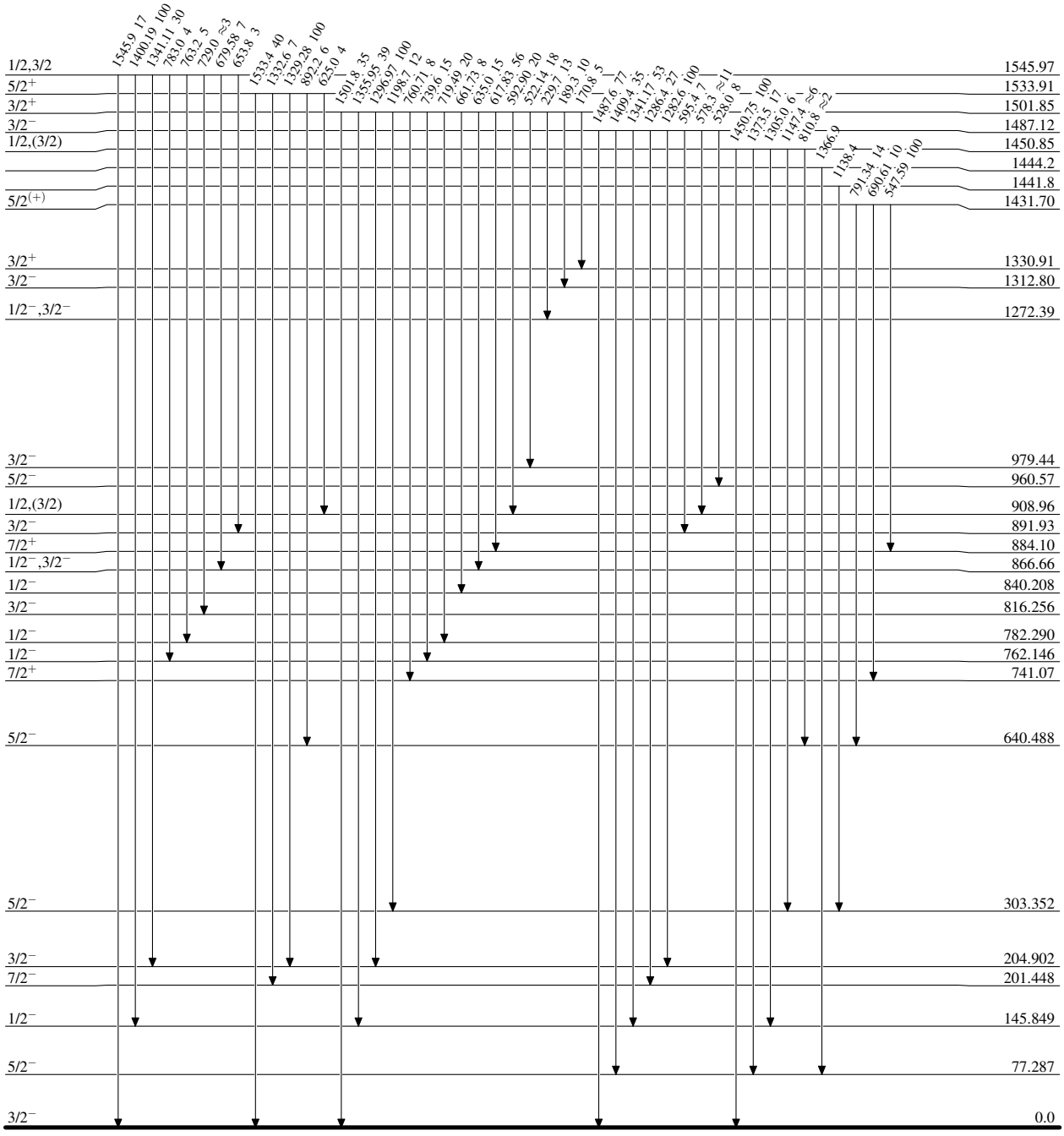


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level



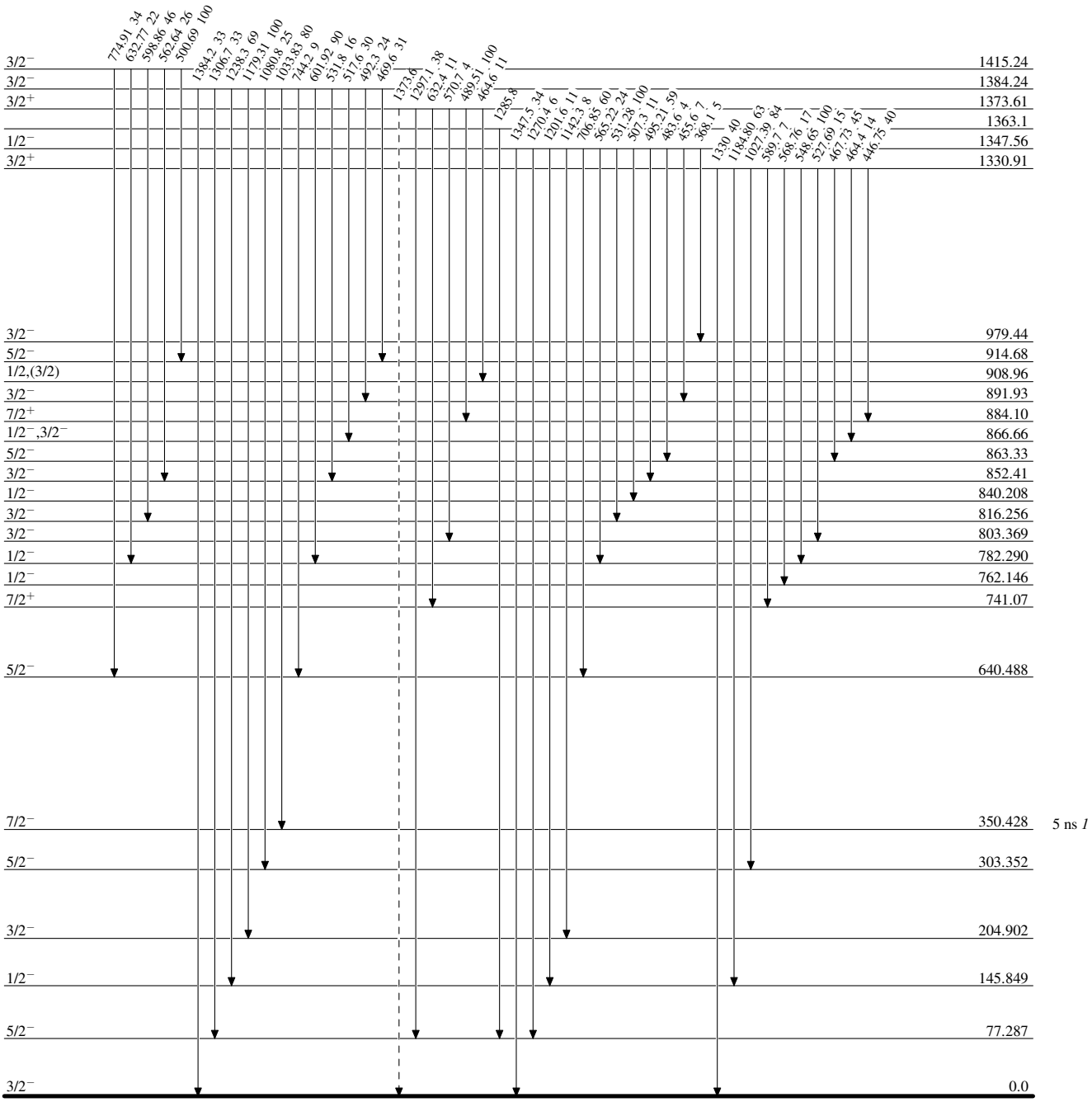
$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYY Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

– – – – – – ► γ Decay (Uncertain)



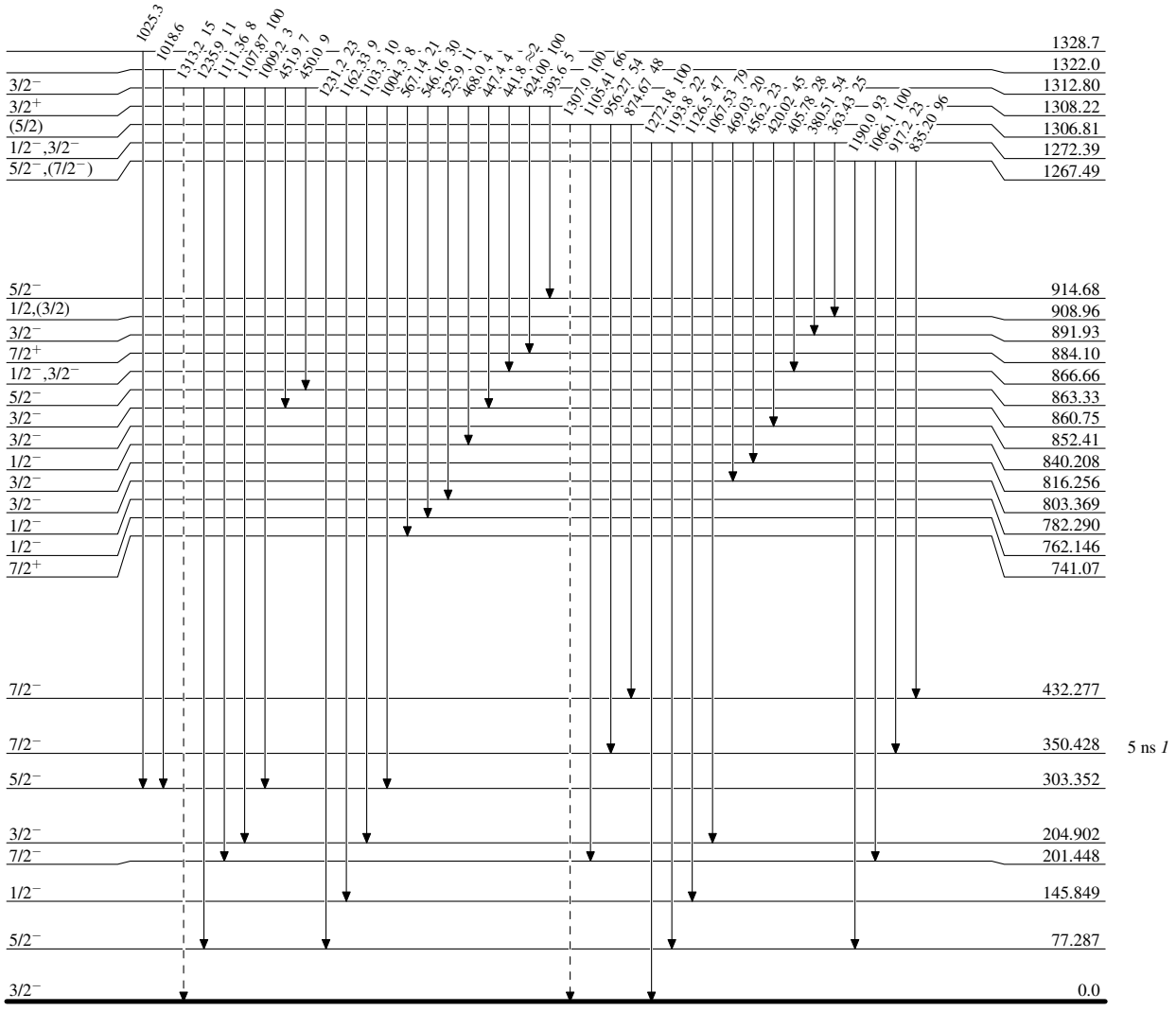
$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)

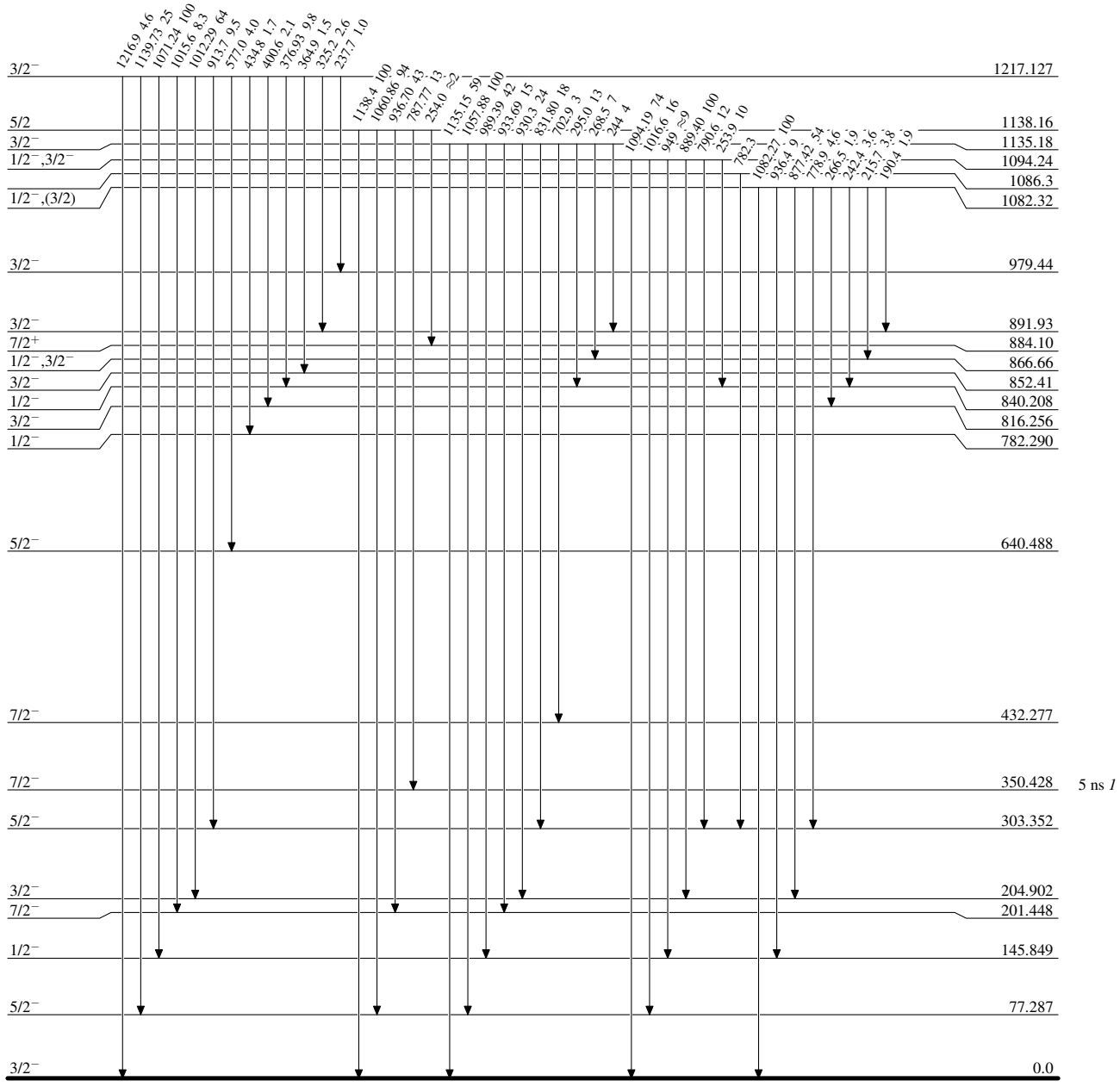


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

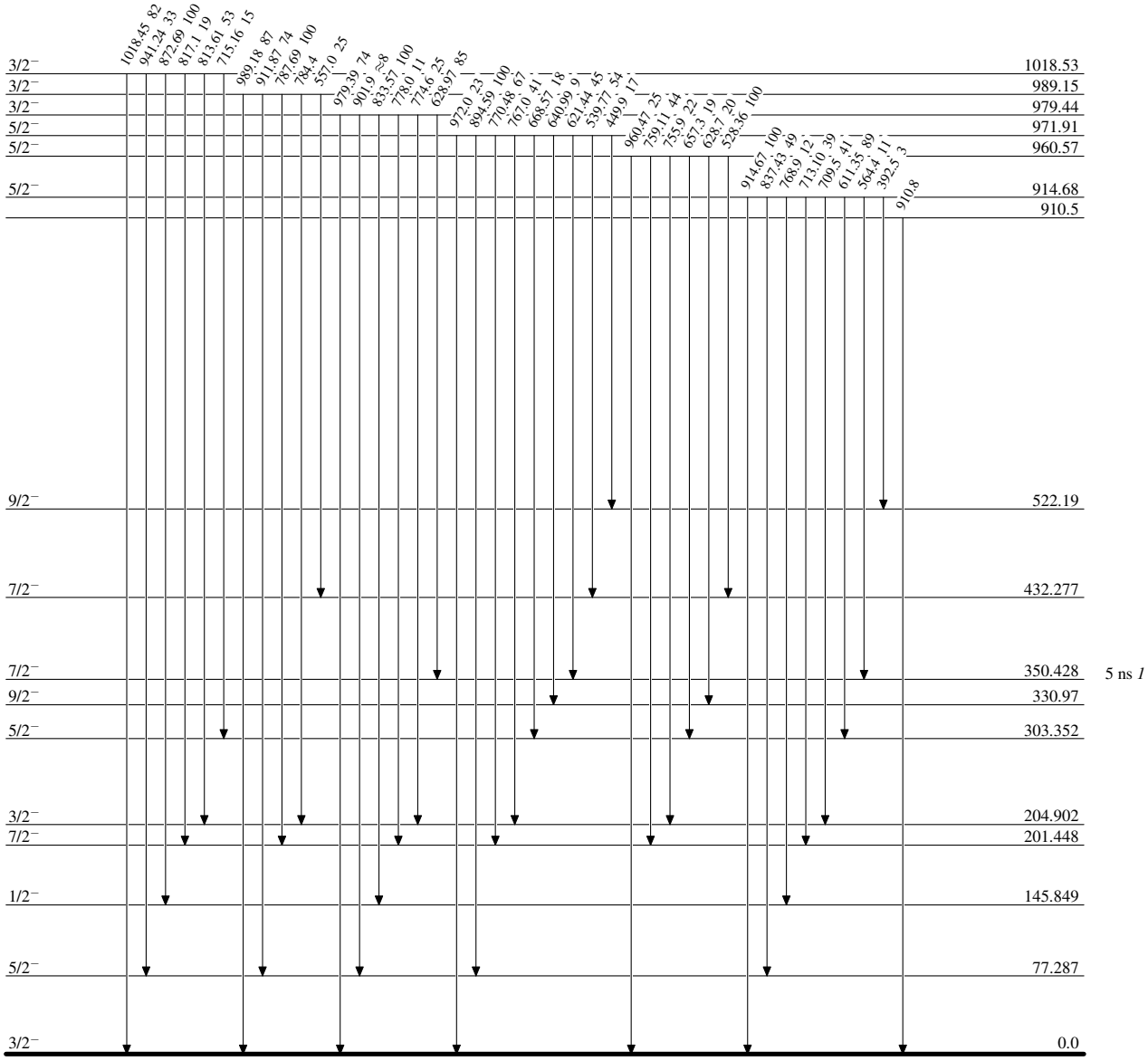


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level

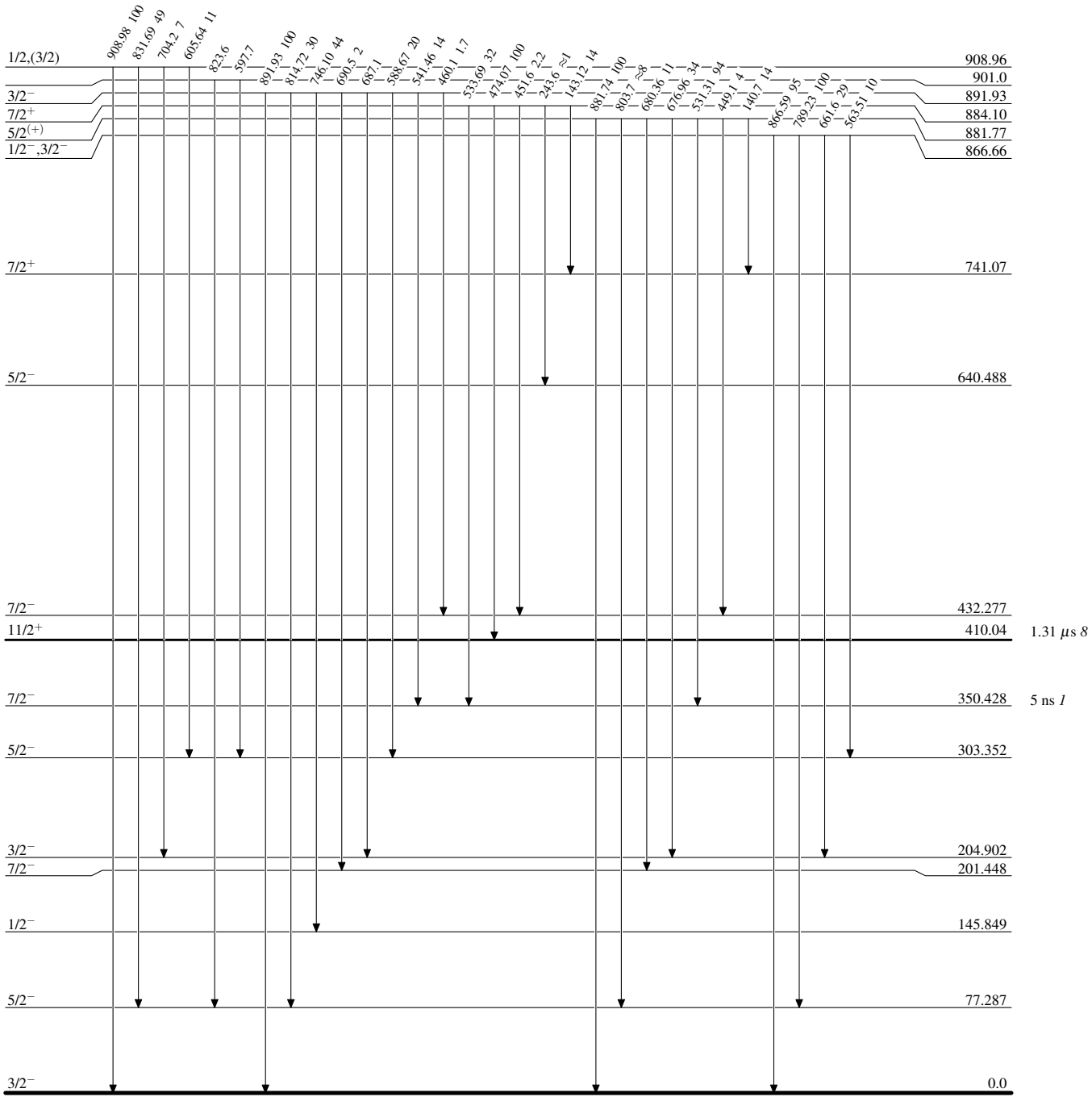


$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV

Level Scheme (continued)

Intensities: Relative photon branching from each level



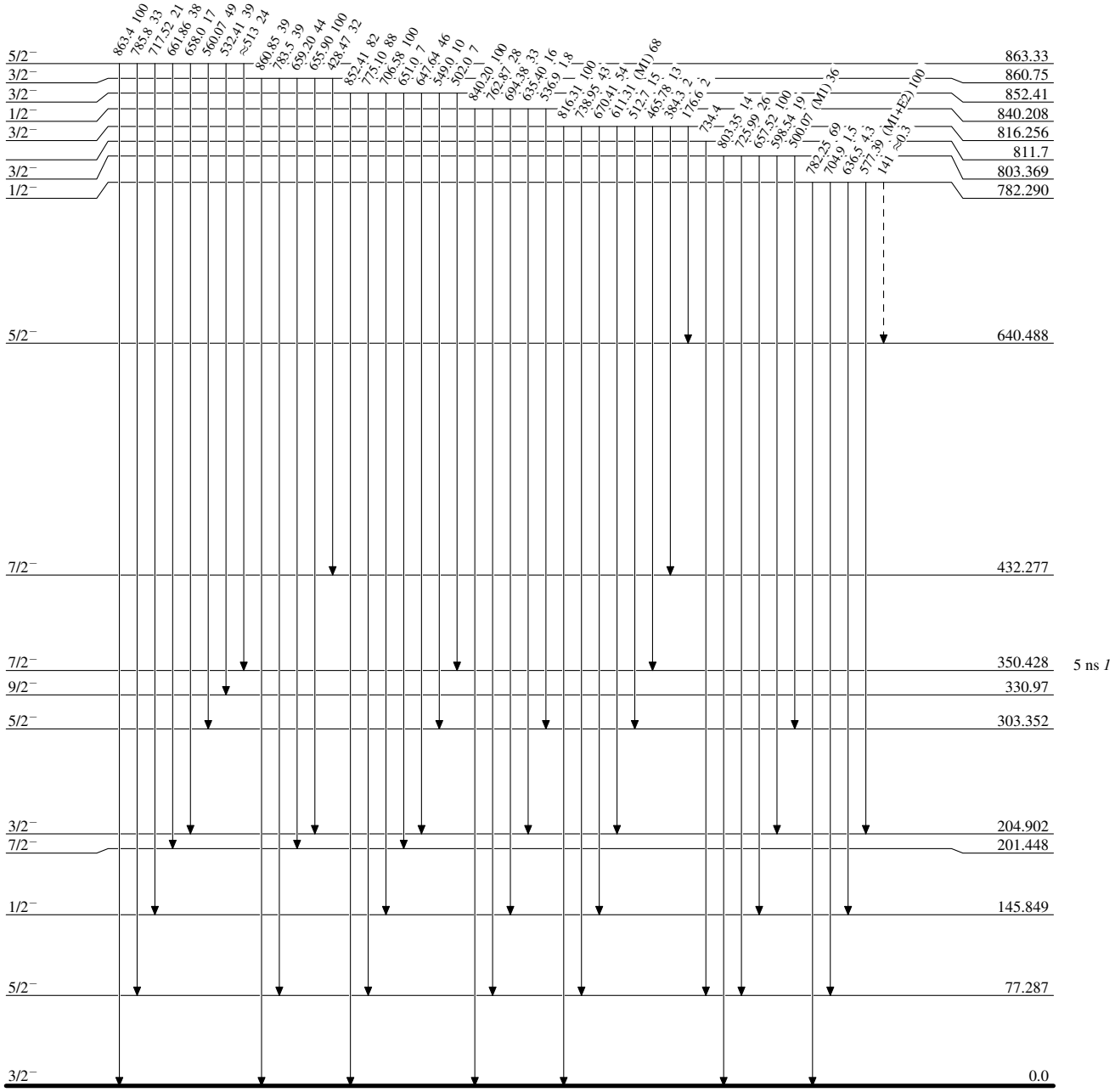
$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

- - - - - - ► γ Decay (Uncertain)



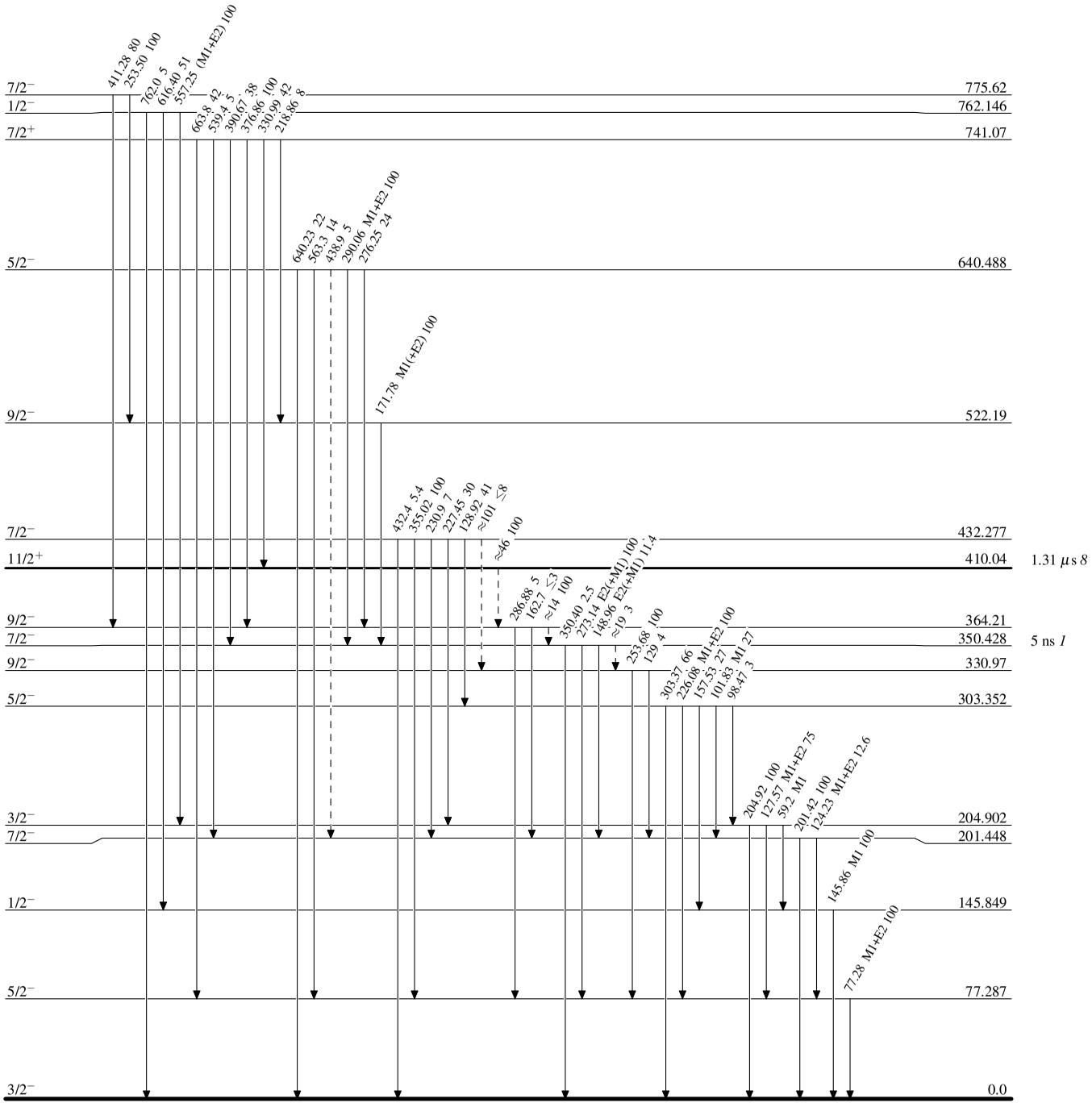
$^{187}_{74}W_{113}$

^{186}W(n,γ),^{186}W(pol n,γ) E=th 2008Bo26,2008SuZW,1973PrYV Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

- - - - - - ► γ Decay (Uncertain)



$^{187}_{74}W_{113}$