Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov and A. Rodionov, F. G. Kondev	NDS 112,855 (2011)	31-Oct-2010

Q(β^-)=1757 *4*; S(n)=8254 *7*; S(p)=7987 *6*; Q(α)=−3682 *22* 2012Wa38
Note: Current evaluation has used the following Q record 1757 4 *8258.9 737995.4 82* 2009AuZZ.

^{133}I Levels

Cross Reference (XREF) Flags

A ^{133}Te β^- decay (12.5 min)
B ^{133}Te β^- decay (55.4 min)
C ^{133}I IT decay (9 s)
D ^{198}Pt(^{136}Xe,Xγ)
E ^{176}Yb(^{136}Xe,Xγ)

E(level)†	J$^\pi$	T$_{1/2}$	XREF	Comments
0.0	7/2$^+$	20.83 h *8*	ABCDE	%β^-=100 μ=+2.856 *5*; Q=−0.24 *1* (1961Al20,2005St24) J$^\pi$: Atomic beam (1960Ga12). T$_{1/2}$: weighted average of 20.9 h *1* (1968Re04), 20.8 h *2* (1966Ei01), 20.3 h *3* (1965An05), 20.9 h *3* (1955Wa35), and 20.8 h *2* (1953Ka28). configuration: $\pi(g^{+1}_{7/2})\otimes(g^{+2}_{7/2})_{0+}$.
312.075# *3*	(5/2$^+$)		AB	J$^\pi$: 312.072γ to 7/2$^+$; syst. configuration: $\pi(d^{+1}_{5/2})\otimes(g^{+2}_{7/2})_{0+}$.
719.843# *9*	(3/2$^+$)		A	J$^\pi$: from 719.71γ to 7/2$^+$, 407.63γ to (5/2$^+$); branching ratios favor 3/2$^+$. configuration: $\pi(g^{+1}_{7/2})\otimes 2^+$.
786.915# *7*	(5/2$^+$)		A	J$^\pi$: 786.93γ to 7/2$^+$, 474.84γ to (5/2$^+$); branching ratios favor 5/2$^+$. configuration: $\pi(g^{3}_{7/2})$.
912.671‡ *4*	11/2$^+$		ABCDE	J$^\pi$: 912.671γ E2 to 7/2$^+$. configuration: $\pi(g^{+1}_{7/2})\otimes 2^+$.
914.811‡ *10*	(9/2$^+$)		AB	J$^\pi$: 602.1γ to (5/2$^+$), 914.774γ to 7/2$^+$.
1239.832 *24*	(7/2$^+$)		A	J$^\pi$: 520.10γ to (3/2$^+$), 1239.9γ to 7/2$^+$; non population in ^{133}Te (J^π=(3/2$^+$)) β^- decay.
1307.205 *16*	(7/2$^+$)		AB	J$^\pi$: 587.6γ to (3/2$^+$), 394γ to 11/2$^+$; not populated directly in ^{133}Te (J^π=(3/2$^+$)) β^- decay and in ^{133}Te (J^π=(11/2$^-$)) β^- decay.
1312.798# *10*	(3/2$^+$,5/2)		A	J$^\pi$: 1000.72γ to (5/2$^+$), 1312.8γ to 7/2$^+$.
1333.221# *13*	(5/2$^+$)		AB	J$^\pi$: 613.52γ to (3/2$^+$), 418.4γ to (9/2$^+$).
1373.688# *10*	(1/2$^+$,3/2$^-$)		A	J$^\pi$: 1061.61γ to (5/2$^+$), no γ to g.s. (J=7/2$^+$).
1454.85 *5*	(7/2$^+$)		B	J$^\pi$: 1142.74γ to (5/2$^+$), 540.3γ to (9/2$^+$).
1516.34‡ *5*	(9/2$^+$)		B	J$^\pi$: 1204.2γ to (5/2$^+$).
1560.103‡ *10*	15/2$^+$		BCDE	J$^\pi$: from 647.51γ E2 to (11/2$^+$). configuration: $\pi(g^{+1}_{7/2})\otimes 4^+$.
1564.201# *11*	(1/2$^+$,3/2$^-$)		A	J$^\pi$: 190.5γ to (1/2$^+$), no γ's to (7/2$^+$) levels.
1608.7? *4*			A	
1634.148 *10*	(19/2$^-$)	9 s *2*	BC E	%IT=100 J$^\pi$: 74.05γ (M2) to 15/2$^+$. T$_{1/2}$: from Iγ(t), Iβ(t) in 1970OsZZ. configuration: $\pi(g^{+1}_{7/2})\otimes\nu(h^{-1}_{11/2},d^{-1}_{3/2})_{7-}$.
1646.731‡ *11*	11/2$^+$		B	J$^\pi$: 1646.2γ to 7/2$^+$ and 86.9γ to 15/2$^+$.
1671.372# *18*	(3/2$^+$)		A	J$^\pi$: 1671.19γ to 7/2$^+$, 951.51γ to (3/2$^+$), no γ-ray to 914.8-keV level (J=(9/2$^+$)).
1704.41‡ *7*	(9/2$^+$)		B	J$^\pi$: from 1392.3γ to (5/2$^+$).

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Adopted Levels, Gammas (continued)

^{133}I Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$	XREF	Comments
1707.44 *14*			B	
1717.586[#] *7*	(5/2$^+$)		A	Jπ: from 802.9γ to (9/2$^+$).
1729.137 *10*	(15/2$^-$)	≈170 ns	B DE	Jπ: 94.989γ E2 to (19/2$^-$), 169.025γ (E1) to (15/2$^+$). $T_{1/2}$: from γγ(t) in 1984Wa04. configuration: $\pi(g^{+1}_{7/2})\otimes\nu(h^{-1}_{11/2},d^{-1}_{3/2})_{5-}$.
1776.619[‡] *9*	(11/2$^-$,13/2)		B	Jπ: 47.47γ to (15/2$^-$), 863.9γ to (11/2$^+$), no γ's to 7/2$^+$ levels.
1797.479 *11*	(11/2$^+$)		B	Jπ: 1797.5γ to 7/2$^+$, 20.86γ to (13/2$^-$).
1798.549 *14*	(15/2$^-$,17/2)		B	Jπ: 164.40γ to (19/2$^-$).
1816.670 *24*	(15/2,17/2$^-$)		B	Jπ: 39.9γ to 13/2$^-$.
1885.542[‡] *11*	(11/2$^+$)		B	Jπ: 88.064γ M1+E2 to (11/2$^+$), 1885.62γ to 7/2$^+$, no γ-ray transition to the 312.1-keV level (J=(5/2$^+$)).
1893.058 *17*	(11/2$^+$)		B	Jπ: 116.44γ to (13/2$^-$), 1892.98γ to 7/2$^+$.
1942.615[‡] *14*	(11/2$^-$,13/2)		B	Jπ: 213.478γ to (15/2$^-$), 1029.88γ to 11/2$^+$.
1945.79? *20*			A	
1974.666 *19*	11/2$^+$		B	Jπ: 1974.6γ to 7/2$^+$, 81.61γ M1(+E2) to (11/2$^+$), 198.18γ to (13/2$^-$).
1990.771[‡] *12*	(11/2$^-$,13/2$^-$)		B	Jπ: 261.6γ to (15/2$^-$), 1078.13γ to 11/2$^+$.
2005.14[‡] *3*	(9/2$^+$)		B	Jπ: 1693.3γ to (5/2$^+$).
2025.48 *4*	(3/2$^+$)		A	Jπ: 2025.6γ to 7/2$^+$, 461.3γ to (1/2$^+$), no γ-ray transition to the 914.8-keV level (J=(9/2$^+$)).
2040.39[#] *17*	(1/2$^+$)		A	Jπ: 667γ to (1/2$^+$), 368.9γ to (3/2$^+$), 1254.2τ to (5/2$^+$); no γ-ray transitions to 7/2$^+$ and 9/2$^+$ levels.
2049.58[‡] *4*	(9/2,11/2$^+$)		B	Jπ: 742.9γ to (7/2$^+$), 1137.3γ to (11/2$^+$).
2053.50[#] *4*	(3/2$^+$)		A	Jπ: 2053.43γ to 7/2$^+$, 679.8γ to (1/2$^+$), no γ-ray transition to the 914.8-keV level (Jπ=(9/2$^+$)).
2080.99 *19*	(15/2$^+$)		E	Jπ: 521.0γ M1(+E2) to (15/2$^+$), 1168.1γ E2(+M3) to (11/2$^+$).
2136.43[#] *3*	(5/2$^+$)		A	Jπ: from 762.8γ to (1/2$^+$) and 1221.7γ to (9/2$^+$).
2141.88[‡] *4*	(9/2$^-$,11/2)		B	Jπ: from 1227.5γ to (9/2$^+$), 150.8γ to (13/2$^-$).
2193.62[‡] *3*	(3/2$^+$,5/2)		A	Jπ: 2193.65γ to 7/2$^+$, 1473.74γ to (3/2$^+$).
2205.30 *22*			A	
2210.03[#] *3*	(3/2$^+$,5/2$^+$)		A	Jπ: from 2210.22γ to 7/2$^+$, 645.6γ to (1/2$^+$).
2211.89[‡] *4*	(13/2)		B	Jπ: 413.2γ to (15/2$^-$,17/2), 1299.2 to 11/2$^+$.
2225.06[#] *4*	(5/2$^+$)		A	Jπ: from 851.37γ to (1/2$^+$), 1310.4γ to (9/2$^+$).
2248.551[‡] *23*	(11/2,13/2)		B	Jπ: 363.06γ to (11/2$^+$), 257.82 to (11/2$^-$,13/2$^-$) no γ-ray transitions to the 312.1-keV (Jπ=(5/2$^+$)) and g.s. (Jπ=7/2$^+$) levels.
2250.1 *10*			A	
2255.29[#] *5*	(3/2$^+$)		A	Jπ: from 2255.4γ to 7/2$^+$, 690.8γ to (1/2$^+$), no γ-ray transition to the 914.8-keV level (Jπ=(9/2$^+$)).
2261.622[‡] *15*	(13/2)		B	Jπ: 464.0γ to (9/2$^-$,11/2), no γ-ray transitions to J=7/2 and 9/2 9/2 levels.
2266.47[#] *9*	(3/2$^+$)		A	Jπ: 2266.4γ to 7/2$^+$, 702γ to (1/2$^+$), no γ-ray transition to the 914.8-keV level (Jπ=(9/2$^+$)).
2283.83[#] *19*	(1/2$^+$,3/2)		A	Jπ: 910.0γ to (1/2$^+$), 971γ to (5/2$^+$), no γ-ray transitions to the 7/2$^+$ g.s. and the 914.8-keV level (Jπ=(9/2$^+$)).
2363.79[#] *21*	(3/2$^+$,5/2)		A	Jπ: 2363γ to 7/2$^+$.
2371.642[‡] *20*	(11/2$^-$,13/2$^+$)		B	Jπ: from 1456.0γ to (9/2$^+$), 642.33γ to (15/2$^-$).
2372.95[‡] *6*	(9/2,11/2,13/2)		B	Jπ: 487.40γ to (11/2$^+$).
2393.35[#] *23*	(3/2$^+$,5/2)		A	Jπ: 2393γ to 7/2$^+$.
2417.48[#] *6*	(5/2$^+$)		A	Jπ: 1502.8γ to (9/2$^+$), 1697.3γ to (3/2$^+$).
2419.22[‡] *10*	(11/2$^+$,13/2$^+$)		B	Jπ: 859γ to (15/2$^+$), 415γ to (9/2$^+$).
2426.55 *21*			B	

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Adopted Levels, Gammas (continued)

^{133}I Levels (continued)

E(level)[†]	J$^\pi$	T$_{1/2}$	XREF	Comments
2435.00 *23*	(19/2$^+$)	0.78 μs *16*	DE	J$^\pi$: 874.9γ E2(+M3) to (15/2$^+$). T$_{1/2}$: from 913-648$\gamma\gamma$(t) and 913-875$\gamma\gamma$(t) in 2004Va03. configuration: $\pi(g^{+3}_{7/2})\otimes\nu(h^{-2}_{11/2})_{10+}$ or $\pi(g^{+2}_{7/2},d^{+1}_{5/2})$.
2445.56[‡] *10*	(13/2)		B	J$^\pi$: 884.8γ to (15/2$^+$), 629.0γ to (15/2$^-$).
2467.28[‡] *3*	(9/2,11/2,13/2)		B	J$^\pi$: 1552γ to (9/2$^+$), 492.96γ to 11/2$^+$.
2467.31[#] *6*	(3/2$^+$,5/2)		A	J$^\pi$: 2467.40γ to 7/2$^+$, 1227.7γ to (3/2$^+$,5/2).
2482.62[‡] *24*	(9/2,11/2$^+$)		B	J$^\pi$: 2482.5γ to 7/2$^+$, 1570.0γ to 11/2$^+$.
2493.12[‡] *7*	(1/2$^+$)		A	J$^\pi$: from 2180.9γ to (5/2$^+$), 928γ to (1/2$^+$), no γ-ray transition to the 7/2$^+$ g.s.
2493.7 *4*	(23/2$^+$)	469 ns *15*	E	J$^\pi$: 58.7γ E2 to (19/2$^+$). T$_{1/2}$: from 875-647$\gamma\gamma$(t) in ^{176}Yb(^{136}Xe,Xγ) (2009Wa11). configuration: $\pi(g^{+3}_{7/2})\otimes\nu(h^{-2}_{11/2})_{10+}$.
2500.23[‡] *5*	(9/2,11/2,13/2$^+$)		B	J$^\pi$: 495.0γ to (9/2$^+$), 723.5γ to (11/2$^-$,13/2).
2505.96[‡] *5*	(11/2$^+$,13/2)		B	J$^\pi$: 224.38γ to (13/2), 945.2γ to 15/2$^+$.
2516.40[‡] *7*	(9/2,11/2,13/2)		B	J$^\pi$: 718.9γ to 11/2$^+$, 525.63γ to (11/2$^-$,13/2$^-$).
2526.20[#] *7*	(3/2$^+$,5/2)		A	J$^\pi$: 854.2γ to (3/2$^+$), 2525.5γ to 7/2$^+$.
2541.74[#] *3*	(3/2$^+$,5/2$^+$)		A	J$^\pi$: 2541.8γ to 7/2$^+$, 978γ to (1/2$^+$).
2552.13 *10*			B	
2556.30[‡] *3*	(13/2)		B	J$^\pi$: 827.05γ to (15/2$^-$), 996.1γ to 15/2$^+$, 1643.6γ to 11/2$^+$.
2595.871[‡] *15*	(11/2$^-$)		B	J$^\pi$: 891.4γ to (9/2$^+$), 347.30γ to (13/2).
2597.47[#] *11*	(5/2$^+$)		A	J$^\pi$: 1224γ to (1/2$^+$), 1682.9γ to (9/2$^+$).
2661.0[#] *4*	(3/2$^+$,5/2$^+$)		A	J$^\pi$: from 2661.1γ to 7/2$^+$, 620γ to (1/2$^+$).
2686.06[‡] *5*	(9/2,11/2,13/2)		B	
2768.21[#] *5*	(1/2$^+$,3/2,5/2)		A	J$^\pi$: 170.91γ to (5/2$^+$).
2783.64[‡] *7*	(9/2,11/2,13/2)		B	
2795.9 *3*			B	
2807.93[‡] *7*	(9/2,11/2,13/2)		B	
2808.36[#] *11*	(1/2$^+$,3/2,5/2$^+$)		A	J$^\pi$: 1243.9γ to (1/2$^+$), 2496.35γ to (5/2$^+$).
2825.34[#] *12*	(3/2$^+$,5/2)		A	J$^\pi$: 2105.5γ to (3/2$^+$), 2825.30γ to 7/2$^+$.
2826.48[‡] *22*	(9/2,11/2)		B	
2866.29[#] *7*	(1/2$^+$,3/2,5/2$^+$)		A	J$^\pi$: 1493γ to (1/2$^+$), 2554.19γ to (5/2$^+$).
2880.56[‡] *15*	(9/2,11/2,13/2)		B	
2935.83[#] *15*	(1/2$^+$,3/2,5/2$^+$)		A	J$^\pi$: 1371.7γ to (1/2$^+$), 2623.82γ to (5/2$^+$).
2968.1[‡] *4*	(9/2,11/2,13/2)		B	
2974.7[‡] *7*	(9/2,11/2,13/2)		B	
3028.47[‡] *13*	(9/2,11/2,13/2)		B	
3051.28[‡] *8*	(9/2,11/2$^+$)		B	J$^\pi$: 3051.3γ to 7/2$^+$.
3107.8 *11*			E	
3821.5 *14*			E	
3893.5 *14*			E	
4047.3 *15*			E	

[†] From a least-squares fit to Eγ. Gamma-rays, which energies did not agree with corresponding level energy differences at a 3σ level, were not used in level energy calculations.
[‡] Direct feeding in ^{133}Te(11/2$^-$) β^- decay and other given arguments.
[#] Direct feeding in ^{133}Te(3/2$^+$) β^- decay and other given arguments.

Adopted Levels, Gammas (continued)

γ(^{133}I)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[a]	α[†]	Comments
312.075	(5/2$^+$)	312.072[##] *3*	100[##]	0.0	7/2$^+$			
719.843	(3/2$^+$)	407.63 *3*	100.0 *12*	312.075	(5/2$^+$)			
		719.71 *2*	33 *2*	0.0	7/2$^+$			
786.915	(5/2$^+$)	67.22	2.0 *6*	719.843	(3/2$^+$)			
		474.85 *1*	16.3 *6*	312.075	(5/2$^+$)			
		786.93 *2*	100.0 *17*	0.0	7/2$^+$			
912.671	11/2$^+$	912.671[#] *4*	100[#]	0.0	7/2$^+$	E2	0.00188 *3*	α(K)=0.001619 *23*; α(L)=0.000207 *3*; α(M)=4.17×10^{-5} *6*; α(N+..)=9.39×10^{-6} *14* α(N)=8.41×10^{-6} *12*; α(O)=9.75×10^{-7} *14* Mult.: γγ(θ) (^{176}Yb(^{136}Xe,Xγ)).
914.811	(9/2$^+$)	602.1[#] *2*	0.15[#] *5*	312.075	(5/2$^+$)			
		914.774[#] *12*	100[#] *2*	0.0	7/2$^+$			
1239.832	(7/2$^+$)	452.9 *1*	25 *13*	786.915	(5/2$^+$)			
		520.10 *10*	9 *3*	719.843	(3/2$^+$)			
		927.75 *3*	100 *13*	312.075	(5/2$^+$)			
		1239.9 *3*	41 *10*	0.0	7/2$^+$			
1307.205	(7/2$^+$)	392.44 *3*	36 *4*	914.811	(9/2$^+$)			
		394 *1*	4.5 *18*	912.671	11/2$^+$			
		520.4 *2*	2.7 *18*	786.915	(5/2$^+$)			
		587.6 *4*	14 *3*	719.843	(3/2$^+$)			
		995.09 *2*	100 *7*	312.075	(5/2$^+$)			
		1307.2 *2*	77 *5*	0.0	7/2$^+$			
1312.798	(3/2$^+$,5/2)	525.84 *3*	6.4 *7*	786.915	(5/2$^+$)			
		593.0 *2*	4.8 *9*	719.843	(3/2$^+$)			
		1000.72 *1*	100.0 *17*	312.075	(5/2$^+$)			
		1312.80 *23*	23.6 *12*	0.0	7/2$^+$			
1333.221	(5/2$^+$)	418.4 *2*	0.23 *6*	914.811	(9/2$^+$)			
		546.29 *3*	4.8 *3*	786.915	(5/2$^+$)			
		613.52[c] *3*	3.0 *4*	719.843	(3/2$^+$)			
		1021.13 *8*	26.3 *6*	312.075	(5/2$^+$)			
		1333.21 *2*	100.0 *18*	0.0	7/2$^+$			
1373.688	(1/2$^+$,3/2$^-$)	586.71 *4*	52.1 *16*	786.915	(5/2$^+$)			
		653.98 *8*	26 *3*	719.843	(3/2$^+$)			
		1061.61 *1*	100 *11*	312.075	(5/2$^+$)			
1454.85	(7/2$^+$)	540.3[#] *2*	21[#] *8*	914.811	(9/2$^+$)			
		1142.74[#] *9*	100[#] *17*	312.075	(5/2$^+$)			
		1455.0[#] *1*	54[#] *13*	0.0	7/2$^+$			
1516.34	(9/2$^+$)	601.5[#] *2*	10.0[#] *13*	914.811	(9/2$^+$)			

$^{133}_{53}I_{80}$-4

Adopted Levels, Gammas (continued)

γ(^{133}I) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[a]	α[†]	Comments
1516.34	(9/2$^+$)	1204.2[#] *2*	18[#] *4*	312.075	(5/2$^+$)			
		1516.26[#] *8*	100[#] *13*	0.0	7/2$^+$			
1560.103	15/2$^+$	647.51[#] *2*	100[#]	912.671	11/2$^+$	E2	0.00428 *6*	α(K)=0.00367 *6*; α(L)=0.000495 *7*; α(M)=9.99×10^{-5} *14*; α(N+..)=2.24×10^{-5} *4* α(N)=2.01×10^{-5} *3*; α(O)=2.29×10^{-6} *4* E$_\gamma$: others: 647.1 *3* (^{176}Yb(^{136}Xe,Xγ)) and 648 *1* (^{198}Pt(^{136}Xe,Xγ)). Mult.: γγ(θ) in ^{176}Yb(^{136}Xe,Xγ).
		1559[g]		0.0	7/2$^+$			E$_\gamma$: from ^{133}Te (55.4 min) β$^-$ decay and ^{133}I IT Decay.
1564.201	(1/2$^+$,3/2$^-$)	190.5 *1*	1.7 *8*	1373.688	(1/2$^+$,3/2$^-$)			
		230.9 *2*	0.57 *19*	1333.221	(5/2$^+$)			
		251.4 *3*	1.0 *4*	1312.798	(3/2$^+$,5/2)			
		324.3 *2*	1.5 *4*	1239.832	(7/2$^+$)			
		778.0 *3*	6.0 *17*	786.915	(5/2$^+$)			
		844.36 *1*	100.0 *19*	719.843	(3/2$^+$)			
		1252.08 *2*	43.4 *19*	312.075	(5/2$^+$)			
1608.7?		888.9[g] *4*	100	719.843	(3/2$^+$)			
1634.148	(19/2$^-$)	74.05[#] *1*	100[#]	1560.103	15/2$^+$	(M2)	23.6	B(M2)(W.u.)=2.4×10^{-6} *6* α(K)=18.4 *3*; α(L)=4.12 *6*; α(M)=0.874 *13*; α(N+..)=0.196 *3* α(N)=0.1763 *25*; α(O)=0.0197 *3* Mult.: from K/L=3.5 *4* (1968Be64) and K/L ≈ 4 (1970BeZT). E$_\gamma$: others: 74.1 *3* (^{176}Yb(^{136}Xe,Xγ)) and 73 *1* (^{133}I IT (9 s)).
1646.731	11/2$^+$	86.9[#][c] *5*	2.5[#] *3*	1560.103	15/2$^+$			
		731.88[#] *1*	34[#] *6*	914.811	(9/2$^+$)			
		734.00[#] *4*	100[#] *6*	912.671	11/2$^+$			
		1646.2[#] *3*	16[#] *6*	0.0	7/2$^+$			
1671.372	(3/2$^+$)	338.22[#] *2*	37[#] *2*	1333.221	(5/2$^+$)			
		358.7[#] *2*	12.1[#] *17*	1312.798	(3/2$^+$,5/2)			
		431.61[#] *13*	17[#] *4*	1239.832	(7/2$^+$)			
		884.29[#][c] *3*	100[#] *8*	786.915	(5/2$^+$)			
		951.51[#] *7*	31[#] *5*	719.843	(3/2$^+$)			
		1359.45[#] *7*	13[#] *3*	312.075	(5/2$^+$)			
		1671.19[#] *7*	22[#] *3*	0.0	7/2$^+$			
1704.41	(9/2$^+$)	789.7[#] *3*	62[#] *15*	914.811	(9/2$^+$)			
		791.7[#] *9*	15[#] *15*	912.671	11/2$^+$			

$^{133}_{53}I_{80}$-5

Adopted Levels, Gammas (continued)

γ(^{133}I) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[a]	α[†]	Comments
1704.41	(9/2$^+$)	1392.3[#] *5*	15[#] *8*	312.075	(5/2$^+$)			
		1704.4[#] *1*	100[#] *8*	0.0	7/2$^+$			
1707.44		792.6[#] *9*	11[#] *11*	914.811	(9/2$^+$)			
		794.7[#] *9*	100[#] *25*	912.671	11/2$^+$			
1717.586	(5/2$^+$)	343.9 *1*	1.6 *7*	1373.688	(1/2$^+$,3/2$^-$)			
		384.25 *5*	7.2 *8*	1333.221	(5/2$^+$)			
		404.85 *7*	6.9 *15*	1312.798	(3/2$^+$,5/2)			
		410.40 *6*	24.6 *16*	1307.205	(7/2$^+$)			
		477.77 *6*	10.0 *8*	1239.832	(7/2$^+$)			
		802.9 *3*	1.6 *5*	914.811	(9/2$^+$)			
		930.71 *1*	100 *3*	786.915	(5/2$^+$)			
		997.66[c] *1*	27.2 *13*	719.843	(3/2$^+$)			
		1405.5 *5*	15.4 *13*	312.075	(5/2$^+$)			
		1717.61 *1*	84 *3*	0.0	7/2$^+$			
1729.137	(15/2$^-$)	94.989[#] *2*	54.7[#] *11*	1634.148	(19/2$^-$)	E2	2.11	B(E2)(W.u.)≈2.1 α(K)=1.404 *20*; α(L)=0.558 *8*; α(M)=0.1182 *17*; α(N+..)=0.0249 *4* α(N)=0.0228 *4*; α(O)=0.00211 *3* E_γ: other: 94.6 *3* (^{176}Yb(^{136}Xe,Xγ)). Mult.: from γγ(θ) in ^{176}Yb(^{136}Xe,Xγ).
		169.025[#] *5*	100[#] *2*	1560.103	15/2$^+$	(E1)	0.0469	α(K)=0.0405 *6*; α(L)=0.00515 *8*; α(M)=0.001030 *15*; α(N+..)=0.000230 *4* α(N)=0.000206 *3*; α(O)=2.34×10^{-5} *4* B(E1)(W.u.)≈1.2×10^{-7} E_γ: others: 168.7 *3* (^{176}Yb(^{136}Xe,Xγ)) and 169 *1* (^{198}Pt(^{136}Xe,Xγ)). Mult.: from γγ(θ) in ^{176}Yb(^{136}Xe,Xγ).
1776.619	(11/2$^-$,13/2)	47.47[#] *1*	1.4[#] *1*	1729.137	(15/2$^-$)			
		863.955[#] *9*	100[#] *2*	912.671	11/2$^+$			
1797.479	(11/2$^+$)	20.86[#] *1*	18[#] *1*	1776.619	(11/2$^-$,13/2)			
		150.80[f#] *2*	15[f#] *5*	1646.731	11/2$^+$			
		281.2[#] *5*	5.0[#] *25*	1516.34	(9/2$^+$)			
		342.8[#] *3*	22.5[#] *25*	1454.85	(7/2$^+$)			
		882.70[#] *5*	100[#] *8*	914.811	(9/2$^+$)			
		884.80[d#] *6*	45[#] *8*	912.671	11/2$^+$			
		1797.5[#] *2*	8[#] *2*	0.0	7/2$^+$			
1798.549	(15/2$^-$,17/2)	164.40[#] *1*	100[#]	1634.148	(19/2$^-$)			

$^{133}_{53}I_{80}$-6

Adopted Levels, Gammas (continued)

γ(^{133}I) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[a]	δ[b]	α[†]	Comments
1816.670	(15/2,17/2$^-$)	(18.08[#])	13.3[#] *18*	1798.549	(15/2$^-$,17/2)				E_γ: from level energy difference.
		39.9[f#] *1*	100[f#] *12*	1776.619	(11/2$^-$,13/2)				
1885.542	(11/2$^+$)	88.064[#] *3*	100[#] *4*	1797.479	(11/2$^+$)	M1+E2	0.53 *50*	1.4 *5*	α(K)=1.1 *3*; α(L)=0.27 *20*; α(M)=0.06 *5*; α(N+..)=0.012 *9* α(N)=0.011 *8*; α(O)=0.0011 *7*
		176.9[#] *5*	17[#] *8*	1707.44					
		369.3[#] *2*	8[#] *4*	1516.34	(9/2$^+$)				
		970.5[#] *2*	25[#] *13*	914.811	(9/2$^+$)				
		972.64[#] *11*	42[#] *13*	912.671	11/2$^+$				
		1885.62[#] *7*	75[#] *8*	0.0	7/2$^+$				
1893.058	(11/2$^+$)	116.44[#] *9*	5.7[#] *23*	1776.619	(11/2$^-$,13/2)				
		376.8[#] *1*	4.6[#] *11*	1516.34	(9/2$^+$)				
		978.30[#] *4*	100[#] *3*	914.811	(9/2$^+$)				
		980.26[#] *5*	31[#] *3*	912.671	11/2$^+$				
		1892.98[#] *8*	3.2[#] *8*	0.0	7/2$^+$				
1942.615	(11/2$^-$,13/2)	50.0[#] *2*	4[#] *3*	1893.058	(11/2$^+$)				
		213.478[#] *11*	100[#] *3*	1729.137	(15/2$^-$)				
		1029.88[#] *6*	57[#] *8*	912.671	11/2$^+$				
1945.79?		1633.7 *2*	100	312.075	(5/2$^+$)				
1974.666	11/2$^+$	81.61[#] *1*	19[#] *1*	1893.058	(11/2$^+$)	M1(+E2)	0.4 *14*	1.7 *15*	α(K)=1.3 *7*; α(L)=0.3 *6*; α(M)=0.06 *13*; α(N+..)=0.01 *3* α(N)=0.011 *25*; α(O)=0.0012 *22*
		177.19[#] *14*	13[#] *3*	1797.479	(11/2$^+$)				
		198.18[#] *7*	10[#] *7*	1776.619	(11/2$^-$,13/2)				
		458.0[#] *7*	7[#] *3*	1516.34	(9/2$^+$)				
		519.7[#] *1*	17[#] *7*	1454.85	(7/2$^+$)				
		1059.8[#] *5*	3[#] *3*	914.811	(9/2$^+$)				
		1061.89[#] *6*	100[#] *10*	912.671	11/2$^+$				
		1974.6[#] *2*	2.3[#] *7*	0.0	7/2$^+$				
1990.771	(11/2$^-$,13/2$^-$)	97.8[#] *1*	1.7[#] *3*	1893.058	(11/2$^+$)				
		193.394[#] *24*	7.5[#] *4*	1797.479	(11/2$^+$)				
		261.626[#] *7*	100.0[#] *14*	1729.137	(15/2$^-$)				
		1078.13[#] *15*	2.1[#] *14*	912.671	11/2$^+$				
2005.14	(9/2$^+$)	112.26[#] *15*	3.1[#] *13*	1893.058	(11/2$^+$)				

$^{133}_{53}I_{80}$-7

Adopted Levels, Gammas (continued)

γ(^{133}I) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[a]	δ[b]	α[†]	Comments
2005.14	(9/2$^+$)	119.58[#] *15*	3.3[#] *16*	1885.542	(11/2$^+$)				
		698.1[#] *1*	28[#] *5*	1307.205	(7/2$^+$)				
		1090.5[#] *2*	3.3[#] *16*	914.811	(9/2$^+$)				
		1693.3[#] *3*	0.33[#] *16*	312.075	(5/2$^+$)				
		2005.33[#] *9*	100[#] *7*	0.0	7/2$^+$				
2025.48	(3/2$^+$)	461.30 *4*	100 *20*	1564.201	(1/2$^+$,3/2$^-$)				
		712.6 *5*	30 *10*	1312.798	(3/2$^+$,5/2)				
		717.8 *2*	18 *8*	1307.205	(7/2$^+$)				
		1238.5 *5*	20 *10*	786.915	(5/2$^+$)				
		1306.0 *6*	43 *5*	719.843	(3/2$^+$)				
		1713.0 *5*	60 *10*	312.075	(5/2$^+$)				
		2025.6 *2*	13 *2*	0.0	7/2$^+$				
2040.39	(1/2$^+$)	368.9 *2*	50 *23*	1671.372	(3/2$^+$)				
		667 *1*	100 *30*	1373.688	(1/2$^+$,3/2$^-$)				
		727 *1*	23 *17*	1312.798	(3/2$^+$,5/2)				
		1254.2 *5*	10 *3*	786.915	(5/2$^+$)				
		1320.4 *6*	13 *7*	719.843	(3/2$^+$)				
2049.58	(9/2,11/2$^+$)	345.6[#] *4*	18[#] *14*	1704.41	(9/2$^+$)				
		742.9[#c] *2*	32[#] *9*	1307.205	(7/2$^+$)				
		1134.88[#] *15*	27[#] *9*	914.811	(9/2$^+$)				
		1137.3[#] *5*	23[#] *14*	912.671	11/2$^+$				
		2049.66[#c] *6*	100[#] *9*	0.0	7/2$^+$				
2053.50	(3/2$^+$)	679.8 *7*	32 *16*	1373.688	(1/2$^+$,3/2$^-$)				
		720.3 *5*	65 *30*	1333.221	(5/2$^+$)				
		740.8 *2*	97 *23*	1312.798	(3/2$^+$,5/2)				
		745.8 *2*	58 *16*	1307.205	(7/2$^+$)				
		813.4 *2*	65 *16*	1239.832	(7/2$^+$)				
		1266.58 *5*	100 *19*	786.915	(5/2$^+$)				
		1333.7 *5*	42 *16*	719.843	(3/2$^+$)				
		1741.57 *8*	71 *6*	312.075	(5/2$^+$)				
		2053.43 *8*	74 *16*	0.0	7/2$^+$				
2080.99	(15/2$^+$)	521.0[&] *3*	80[&] *20*	1560.103	15/2$^+$	M1(+E2)	−0.3 *+6−7*	0.0091 *7*	α(K)=0.0079 *7*; α(L)=0.00099 *4*; α(M)=0.000200 *7*; α(N+..)=4.52×10^{-5} *19* α(N)=4.04×10^{-5} *16*; α(O)=4.7×10^{-6} *3* Mult.,δ: from γγ(θ) in ^{176}Yb(^{136}Xe,Xγ).
		1168.1[&] *3*	100[&] *20*	912.671	11/2$^+$	E2(+M3)	+0.1 *+53−3*	0.001 *6*	α(K)=0.001 *5*; α(L)=0.0001 *6*; α(M)=3.E−5 *12*; α(N+..)=9.E−6 *25*

Adopted Levels, Gammas (continued)

γ(^{133}I) (continued)

E_i(level)	J_i^π	E_γ ‡	I_γ ‡	E_f	J_f^π	Comments
						α(N)=5.E−6 *25*; α(O)=1.E−6 *3*; α(IPF)=3.E−6 *4* Mult.,δ: from γγ(θ) in ^{176}Yb(^{136}Xe,Xγ).
2136.43	(5/2$^+$)	762.8 *2*	10.0 *25*	1373.688	(1/2$^+$,3/2$^-$)	
		803.3 *3*	10.5 *15*	1333.221	(5/2$^+$)	
		823.9 *5*	6.5 *20*	1312.798	(3/2$^+$,5/2)	
		829.2 *3*	7.5 *20*	1307.205	(7/2$^+$)	
		896.7 *2*	4 *1*	1239.832	(7/2$^+$)	
		1221.7 *3*	1.5 *5*	914.811	(9/2$^+$)	
		1349.63 *13*	8.0 *25*	786.915	(5/2$^+$)	
		1416.90[c] *7*	10.5 *20*	719.843	(3/2$^+$)	
		1824.25 *3*	32.0 *25*	312.075	(5/2$^+$)	
		2136.51 *8*	100 *5*	0.0	7/2$^+$	
2141.88	(9/2$^-$,11/2)	92.33[#] *3*	30[#] *7*	2049.58	(9/2,11/2$^+$)	
		136.64[#] *5*	23[#] *7*	2005.14	(9/2$^+$)	
		150.80[f#]	100[f#] *8*	1990.771	(11/2$^-$,13/2$^-$)	
		248.9[#] *5*	5.0[#] *17*	1893.058	(11/2$^+$)	
		1227.5[#] *8*	25[#] *17*	914.811	(9/2$^+$)	
		1229.6[#] *3*	33[#] *17*	912.671	11/2$^+$	
2193.62	(3/2$^+$,5/2)	860.2 *7*	5 *3*	1333.221	(5/2$^+$)	
		880.7 *1*	5 *3*	1312.798	(3/2$^+$,5/2)	
		886.0 *4*	3.6 *21*	1307.205	(7/2$^+$)	
		1473.74 *8*	26 *3*	719.843	(3/2$^+$)	
		1881.52 *4*	100 *4*	312.075	(5/2$^+$)	
		2193.65 *5*	47 *4*	0.0	7/2$^+$	
2205.30		1893.21 *22*	100	312.075	(5/2$^+$)	
2210.03	(3/2$^+$,5/2$^+$)	645.6 *1*	57 *6*	1564.201	(1/2$^+$,3/2$^-$)	
		902.5 *1*	27 *5*	1307.205	(7/2$^+$)	
		1489.88 *14*	17 *4*	719.843	(3/2$^+$)	
		1897.59 *7*	15.5 *9*	312.075	(5/2$^+$)	
		2210.22[c] *4*	100 *9*	0.0	7/2$^+$	
2211.89	(13/2)	221.1[#] *1*	20[#] *4*	1990.771	(11/2$^-$,13/2$^-$)	
		413.2[#] *2*	55[#] *6*	1798.549	(15/2$^-$,17/2)	
		435.28[#] *5*	100[#] *14*	1776.619	(11/2$^-$,13/2)	
		1299.2[#] *2*	14[#] *9*	912.671	11/2$^+$	
2225.06	(5/2$^+$)	199.6 *3*	12 *4*	2025.48	(3/2$^+$)	
		507.3 *1*	44 *6*	1717.586	(5/2$^+$)	
		553.7 *2*	20 *8*	1671.372	(3/2$^+$)	
		851.37 *7*	100 *12*	1373.688	(1/2$^+$,3/2$^-$)	
		912.3 *6*	20 *6*	1312.798	(3/2$^+$,5/2)	

$^{133}_{53}I_{80}$-9

Adopted Levels, Gammas (continued)

γ(^{133}I) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π
2225.06	(5/2$^+$)	1310.40 *12*	44 *6*	914.811	(9/2$^+$)
		1438 *1*	2 *2*	786.915	(5/2$^+$)
		1505.2 *3*	22 *10*	719.843	(3/2$^+$)
		1912.91 *6*	38 *2*	312.075	(5/2$^+$)
		2225.00 *14*	72 *8*	0.0	7/2$^+$
2248.551	(11/2,13/2)	257.82[#] *4*	53[#] *7*	1990.771	(11/2$^-$,13/2$^-$)
		355.4[#] *1*	78[#] *5*	1893.058	(11/2$^+$)
		363.06[#] *7*	60[#] *7*	1885.542	(11/2$^+$)
		471.87[#] *4*	100[#] *13*	1776.619	(11/2$^-$,13/2)
2250.1		1938 *1*	100	312.075	(5/2$^+$)
2255.29	(3/2$^+$)	690.8 *1*	44 *10*	1564.201	(1/2$^+$,3/2$^-$)
		922 *1*	40 *20*	1333.221	(5/2$^+$)
		942.2 *2*	100 *20*	1312.798	(3/2$^+$,5/2)
		1015.3 *3*	40 *14*	1239.832	(7/2$^+$)
		1468.2 *6*	16 *10*	786.915	(5/2$^+$)
		1535.1 *1*	68 *10*	719.843	(3/2$^+$)
		1943.8[c] *1*	26 *4*	312.075	(5/2$^+$)
		2255.4[c] *1*	66 *10*	0.0	7/2$^+$
2261.622	(13/2)	318.8[#] *5*	11[#] *5*	1942.615	(11/2$^-$,13/2)
		368.5[#] *2*	5[#] *3*	1893.058	(11/2$^+$)
		444.94[#] *2*	100[#] *5*	1816.670	(15/2,17/2$^-$)
		464.0[#] *5*	14[#] *8*	1797.479	(11/2$^+$)
		532.40[#] *5*	43[#] *3*	1729.137	(15/2$^-$)
		1348.87[#] *5*	73[#] *3*	912.671	11/2$^+$
2266.47	(3/2$^+$)	702 *1*	18 *11*	1564.201	(1/2$^+$,3/2$^-$)
		934 *1*	53 *30*	1333.221	(5/2$^+$)
		1026.8 *2*	24 *8*	1239.832	(7/2$^+$)
		2266.4 *1*	100 *13*	0.0	7/2$^+$
2283.83	(1/2$^+$,3/2)	719.6	≤50	1564.201	(1/2$^+$,3/2$^-$)
		910.0 *7*	100 *50*	1373.688	(1/2$^+$,3/2$^-$)
		971 *1*	40 *25*	1312.798	(3/2$^+$,5/2)
		1564.0 *2*	60 *15*	719.843	(3/2$^+$)
2363.79	(3/2$^+$,5/2)	1051.1 *3*	80 *30*	1312.798	(3/2$^+$,5/2)
		1123.9 *3*	100 *70*	1239.832	(7/2$^+$)
		2363 *1*	40 *20*	0.0	7/2$^+$
2371.642	(11/2$^-$,13/2$^+$)	110.23[#] *7*	3.8[#] *10*	2261.622	(13/2)
		322.4[#] *2*	5.0[#] *25*	2049.58	(9/2,11/2$^+$)
		396.97[#] *4*	32.5[#] *25*	1974.666	11/2$^+$

$^{133}_{53}I_{80}$-10

Adopted Levels, Gammas (continued)

γ(^{133}I) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[a]	δ[b]	α[†]	Comments
2371.642	(11/2⁻,13/2⁺)	429.03[#] 5	100[#] 5	1942.615	(11/2⁻,13/2)				
		478.62[#] 6	43[#] 8	1893.058	(11/2⁺)				
		555.0[#] 2	5.0[#] 25	1816.670	(15/2,17/2⁻)				
		574.11[f#] 3	55.0[f#] 25	1797.479	(11/2⁺)				
		642.33[#] 9	40[#] 5	1729.137	(15/2⁻)				
		724[#] 1	5.0[#] 25	1646.731	11/2⁺				
		1456.0[#]	5[#] 5	914.811	(9/2⁺)				
		1458.9[#] 2	7.5[#] 25	912.671	11/2⁺				
2372.95	(9/2,11/2,13/2)	367.9[#] 2	40[#] 10	2005.14	(9/2⁺)				
		487.40[#] 6	100[#] 20	1885.542	(11/2⁺)				
2393.35	(3/2⁺,5/2)	183.3 4	33 22	2210.03	(3/2⁺,5/2⁺)				
		722 1	33 22	1671.372	(3/2⁺)				
		2081.3 3	100 30	312.075	(5/2⁺)				
		2393 1	22 11	0.0	7/2⁺				
2417.48	(5/2⁺)	207.4 1	13 7	2210.03	(3/2⁺,5/2⁺)				
		1109.9 2	67 30	1307.205	(7/2⁺)				
		1502.8 5	17 13	914.811	(9/2⁺)				
		1630.1 3	13 7	786.915	(5/2⁺)				
		1697.3 2	33 13	719.843	(3/2⁺)				
		2105.5[e] 2	53[e] 13	312.075	(5/2⁺)				
		2417.7[c] 1	100 30	0.0	7/2⁺				
2419.22	(11/2⁺,13/2⁺)	157.6[#] 1	40[#] 10	2261.622	(13/2)				
		415[#]	40[#] 20	2005.14	(9/2⁺)				
		859[#] 1	40[#] 20	1560.103	15/2⁺				
		1506.2[#] 8	100[#] 40	912.671	11/2⁺				
2426.55		178.0[#] 2	100[#]	2248.551	(11/2,13/2)				
2435.00	(19/2⁺)	353.9[&] 3	13[&] 2	2080.99	(15/2⁺)	[E2]		0.0238	α(K)=0.0199 3; α(L)=0.00312 5; α(M)=0.000637 10; α(N+..)=0.0001405 20 α(N)=0.0001267 19; α(O)=1.382×10⁻⁵ 20 B(E2)(W.u.)=0.00035 9
		707[@]	≈7[@]	1729.137	(15/2⁻)	[M2]		0.01237	α(K)=0.01061 15; α(L)=0.001408 20; α(M)=0.000284 4; α(N+..)=6.44×10⁻⁵ 9 α(N)=5.77×10⁻⁵ 8; α(O)=6.76×10⁻⁶ 10
		874.9[&] 3	100[&] 2	1560.103	15/2⁺	E2(+M3)	0.02 +6−5	0.00207 9	B(E2)(W.u.)=(2.9×10⁻⁵ 7); B(M3)(W.u.)=(0.11 +64−11) α(K)=0.00179 7; α(L)=0.000230 10;

Adopted Levels, Gammas (continued)

γ(^{133}I) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	Mult.[a]	δ[b]	α[†]	Comments
									α(M)=4.63×10^{-5} *21*; α(N+..)=1.04×10^{-5} *5* α(N)=9.3×10^{-6} *5*; α(O)=1.08×10^{-6} *5* E_γ: 875 *1* in ^{198}Pt(^{136}Xe,Xγ). Mult.,δ: from γγ(θ) in ^{176}Yb(^{136}Xe,Xγ).
2445.56	(13/2)	629.0# *1*	33# *11*	1816.670	(15/2,17/2$^-$)				
		884.80[d]#	100# *17*	1560.103	15/2$^+$				
2467.28	(9/2,11/2,13/2)	462.23# *3*	100# *14*	2005.14	(9/2$^+$)				
		492.96# *15*	50# *7*	1974.666	11/2$^+$				
		574.11[fc]# *3*	46[f]# *7*	1893.058	(11/2$^+$)				
		1552# *1*	11# *7*	914.811	(9/2$^+$)				
2467.31	(3/2$^+$,5/2)	242.0 *1*	8 *3*	2225.06	(5/2$^+$)				
		1227.7 *4*	28 *5*	1239.832	(7/2$^+$)				
		1680 *1*	23 *14*	786.915	(5/2$^+$)				
		2155 *1*	6 *5*	312.075	(5/2$^+$)				
		2467.40 *7*	100 *8*	0.0	7/2$^+$				
2482.62	(9/2,11/2$^+$)	1174.0#[g] *5*	100# *30*	1307.205	(7/2$^+$)				
		1570.0# *3*	29# *15*	912.671	11/2$^+$				
		2482.5# *4*	17# *6*	0.0	7/2$^+$				
2493.12	(1/2$^+$)	928 *1*	91 *50*	1564.201	(1/2$^+$,3/2$^-$)				
		1706 *1*	46 *30*	786.915	(5/2$^+$)				
		1773.27 *7*	100 *30*	719.843	(3/2$^+$)				
		2180.9 *4*	23 *14*	312.075	(5/2$^+$)				
2493.7	(23/2$^+$)	58.7& *3*	100&	2435.00	(19/2$^+$)	E2		11.9 *3*	B(E2)(W.u.)=3.33 *16* α(K)=5.58 *11*; α(L)=5.02 *15*; α(M)=1.07 *3*; α(N+..)=0.223 *7* α(N)=0.205 *6*; α(O)=0.0181 *5* Mult.: from γγ(θ) in ^{176}Yb(^{136}Xe,Xγ) (2009Wa11).
2500.23	(9/2,11/2,13/2$^+$)	495.0# *1*	13.5# *15*	2005.14	(9/2$^+$)				
		607.3# *8*	12# *8*	1893.058	(11/2$^+$)				
		723.5# *2*	19# *8*	1776.619	(11/2$^-$,13/2)				
		792.9# *9*	8# *8*	1707.44					
		795.9# *9*	8# *8*	1704.41	(9/2$^+$)				
		1587.66# *6*	100# *12*	912.671	11/2$^+$				
2505.96	(11/2$^+$,13/2)	244.38# *5*	55# *9*	2261.622	(13/2)				

Adopted Levels, Gammas (continued)

γ(^{133}I) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π
2505.96	(11/2$^+$,13/2)	945.2[#] *2*	100[#] *18*	1560.103	15/2$^+$
2516.40	(9/2,11/2,13/2)	525.63[#] *14*	33[#] *13*	1990.771	(11/2$^-$,13/2$^-$)
		623.3[#] *2*	33[#] *13*	1893.058	(11/2$^+$)
		718.9[#] *2*	100[#] *30*	1797.479	(11/2$^+$)
		739.79[#] *15*	73[#] *20*	1776.619	(11/2$^-$,13/2)
2526.20	(3/2$^+$,5/2)	854.2 *9*	24 *12*	1671.372	(3/2$^+$)
		1286 *1*	10 *5*	1239.832	(7/2$^+$)
		1738 *2*	20 *10*	786.915	(5/2$^+$)
		1806.9[c] *1*	100 *10*	719.843	(3/2$^+$)
		2213.6 *1*	83 *15*	312.075	(5/2$^+$)
		2525.5 *4*	10 *5*	0.0	7/2$^+$
2541.74	(3/2$^+$,5/2$^+$)	331.5 *2*	14 *5*	2210.03	(3/2$^+$,5/2$^+$)
		488 *2*	10 *4*	2053.50	(3/2$^+$)
		978 *1*	14 *7*	1564.201	(1/2$^+$,3/2$^-$)
		1208.5 *3*	19 *4*	1333.221	(5/2$^+$)
		1302 *1*	5 *3*	1239.832	(7/2$^+$)
		1754.9 *2*	5.0 *7*	786.915	(5/2$^+$)
		1821.7 *2*	25 *3*	719.843	(3/2$^+$)
		2229.64 *3*	100 *7*	312.075	(5/2$^+$)
		2541.80 *7*	57 *7*	0.0	7/2$^+$
2552.13		1035.5[#] *1*	13[#] *6*	1516.34	(9/2$^+$)
		1098.4[#c] *2*	100[#] *25*	1454.85	(7/2$^+$)
2556.30	(13/2)	39.9[f#] *1*	6.3[f#] *16*	2516.40	(9/2,11/2,13/2)
		184.61[#] *16*	9[#] *3*	2371.642	(11/2$^-$,13/2$^+$)
		294.82[#] *13*	13[#] *3*	2261.622	(13/2)
		344.40[#] *5*	41[#] *6*	2211.89	(13/2)
		565.3[#] *5*	3.8[#] *16*	1990.771	(11/2$^-$,13/2$^-$)
		581.38[#] *15*	28[#] *6*	1974.666	11/2$^+$
		663.2[#] *2*	6.3[#] *25*	1893.058	(11/2$^+$)
		779.67[#] *4*	100[#] *9*	1776.619	(11/2$^-$,13/2)
		827.05[#] *9*	31[#] *6*	1729.137	(15/2$^-$)
		996.1[#] *3*	22[#] *16*	1560.103	15/2$^+$
		1643.6[#] *5*	19[#] *6*	912.671	11/2$^+$
2595.871	(11/2$^-$)	224.17[#] *7*	4.0[#] *13*	2371.642	(11/2$^-$,13/2$^+$)
		334.245[#] *5*	80[#] *3*	2261.622	(13/2)
		347.30[#] *4*	16.0[#] *13*	2248.551	(11/2,13/2)

$^{133}_{53}I_{80}$-13

Adopted Levels, Gammas (continued)

γ(^{133}I) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π
2595.871	(11/2$^-$)	384.0[#] *7*	4[#] *3*	2211.89	(13/2)
		605.11[#] *4*	30.7[#] *13*	1990.771	(11/2$^-$,13/2$^-$)
		621.3[#] *5*	12[#] *5*	1974.666	11/2$^+$
		653.3[#] *6*	15[#] *5*	1942.615	(11/2$^-$,13/2)
		702.91[#] *4*	59[#] *4*	1893.058	(11/2$^+$)
		710.4[#] *1*	17[#] *4*	1885.542	(11/2$^+$)
		819.3[#] *3*	4[#] *3*	1776.619	(11/2$^-$,13/2)
		888.53[#] *15*	20[#] *4*	1707.44	
		891.4[#] *1*	25[#] *4*	1704.41	(9/2$^+$)
		949.2[#] *3*	16[#] *4*	1646.731	11/2$^+$
		1079.63[#] *14*	13[#] *3*	1516.34	(9/2$^+$)
		1683.23[#] *2*	100[#] *3*	912.671	11/2$^+$
2597.47	(5/2$^+$)	572 *1*	18 *9*	2025.48	(3/2$^+$)
		1224 *1*	4.6 *23*	1373.688	(1/2$^+$,3/2$^-$)
		1285 *1*	18 *9*	1312.798	(3/2$^+$,5/2)
		1290 *1*	14 *9*	1307.205	(7/2$^+$)
		1682.9 *2*	100 *18*	914.811	(9/2$^+$)
		2285.5 *4*	6.8 *23*	312.075	(5/2$^+$)
		2597.7 *3*	41 *14*	0.0	7/2$^+$
2661.0	(3/2$^+$,5/2$^+$)	620 *1*	42 *17*	2040.39	(1/2$^+$)
		943 *1*	83 *60*	1717.586	(5/2$^+$)
		2349 *1*	11 *6*	312.075	(5/2$^+$)
		2661.1 *4*	100 *25*	0.0	7/2$^+$
2686.06	(9/2,11/2,13/2)	240.9[#] *2*	30[#] *10*	2445.56	(13/2)
		314.24[#] *16*	35[#] *5*	2371.642	(11/2$^-$,13/2$^+$)
		474.7[#] *4*	10[#] *5*	2211.89	(13/2)
		636.5[#] *4*	20[#] *10*	2049.58	(9/2,11/2$^+$)
		800.54[#] *5*	100[#] *25*	1885.542	(11/2$^+$)
		1773.2[#] *1*	60[#] *5*	912.671	11/2$^+$
2768.21	(1/2$^+$,3/2,5/2)	170.91 *13*	30 *10*	2597.47	(5/2$^+$)
		302 *1*	10 *6*	2467.31	(3/2$^+$,5/2)
		484.5	18 *8*	2283.83	(1/2$^+$,3/2)
		543.5 *5*	40 *20*	2225.06	(5/2$^+$)
		743.0 *2*	100 *20*	2025.48	(3/2$^+$)
		1455.24 *7*	48 *18*	1312.798	(3/2$^+$,5/2)
		2048.5 *4*	12 *4*	719.843	(3/2$^+$)
		2456.20 *9*	82 *8*	312.075	(5/2$^+$)

$^{133}_{53}I_{80}$-14

Adopted Levels, Gammas (continued)

γ(^{133}I) (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π
2783.64	(9/2,11/2,13/2)	734.1[#] *1*	11[#] *6*	2049.58	(9/2,11/2$^+$)
		1007.5[#] *2*	100[#] *25*	1776.619	(11/2$^-$,13/2)
		1870.8[#] *1*	83[#] *17*	912.671	11/2$^+$
2795.9		805.1[#] *3*	100[#]	1990.771	(11/2$^-$,13/2$^-$)
2807.93	(9/2,11/2,13/2)	251.51[#] *7*	100[#] *20*	2556.30	(13/2)
		307.9[#] *1*	100[#] *20*	2500.23	(9/2,11/2,13/2$^+$)
		1103.9[#] *3*	40[#] *20*	1704.41	(9/2$^+$)
2808.36	(1/2$^+$,3/2,5/2$^+$)	341 *1*	16 *6*	2467.31	(3/2$^+$,5/2)
		1137 *1*	65 *30*	1671.372	(3/2$^+$)
		1243.9 *2*	39 *13*	1564.201	(1/2$^+$,3/2$^-$)
		2496.35 *12*	100 *13*	312.075	(5/2$^+$)
2825.34	(3/2$^+$,5/2)	2105.5[e] *2*	64[e] *16*	719.843	(3/2$^+$)
		2825.30 *14*	100 *12*	0.0	7/2$^+$
2826.48	(9/2,11/2)	326.0[#] *4*	100[#] *40*	2500.23	(9/2,11/2,13/2$^+$)
		851.7[#] *5*	40[#] *20*	1974.666	11/2$^+$
		1372.3[#] *5*	100[#] *40*	1454.85	(7/2$^+$)
		1914[#] *1*	20[#] *16*	912.671	11/2$^+$
		2826.3[#] *4*	50[#] *12*	0.0	7/2$^+$
2866.29	(1/2$^+$,3/2,5/2$^+$)	1493 *1*	7 *4*	1373.688	(1/2$^+$,3/2$^-$)
		2079.3 *2*	27 *5*	786.915	(5/2$^+$)
		2554.19 *7*	100 *11*	312.075	(5/2$^+$)
2880.56	(9/2,11/2,13/2)	284.8[#] *5*	80[#] *40*	2595.871	(11/2$^-$)
		632.0[#] *4*	100[#] *40*	2248.551	(11/2,13/2)
		889.9[#] *3*	100[#] *20*	1990.771	(11/2$^-$,13/2$^-$)
		1967.8[#] *2*	60[#] *20*	912.671	11/2$^+$
2935.83	(1/2$^+$,3/2,5/2$^+$)	1371.7 *5*	11 *5*	1564.201	(1/2$^+$,3/2$^-$)
		2148.3 *4*	27 *13*	786.915	(5/2$^+$)
		2623.82 *16*	100 *20*	312.075	(5/2$^+$)
2968.1	(9/2,11/2,13/2)	2968.1[#] *4*	100[#]	0.0	7/2$^+$
2974.7	(9/2,11/2,13/2)	1198[#] *1*	100[#] *50*	1776.619	(11/2$^-$,13/2)
		2062[#] *1*	45[#] *13*	912.671	11/2$^+$
3028.47	(9/2,11/2,13/2)	1053.7[#] *3*	50[#] *17*	1974.666	11/2$^+$
		1252.0[#] *2*	100[#] *30*	1776.619	(11/2$^-$,13/2)
		1573.5[#] *2*	83[#] *30*	1454.85	(7/2$^+$)
3051.28	(9/2,11/2$^+$)	534.88[#] *4*	100[#] *11*	2516.40	(9/2,11/2,13/2)

$^{133}_{53}I_{80}$-15

Adopted Levels, Gammas (continued)

$\gamma(^{133}I)$ (continued)

E_i(level)	J_i^π	E_γ[‡]	I_γ[‡]	E_f	J_f^π	E_i(level)	E_γ[‡]	I_γ[‡]	E_f
3051.28	(9/2,11/2$^+$)	1405.0[#] *9*	11[#] *5*	1646.731	11/2$^+$	3893.5	785.7[&]	≈100[&]	3107.8
		3051.3[#] *4*	31[#] *2*	0.0	7/2$^+$	4047.3	153.8[&]	≤100[&]	3893.5
3107.8		614.1[&]	≈100[&]	2493.7	(23/2$^+$)		225.7[&]	≤100[&]	3821.5
3821.5		713.7[&]	≈100[&]	3107.8					

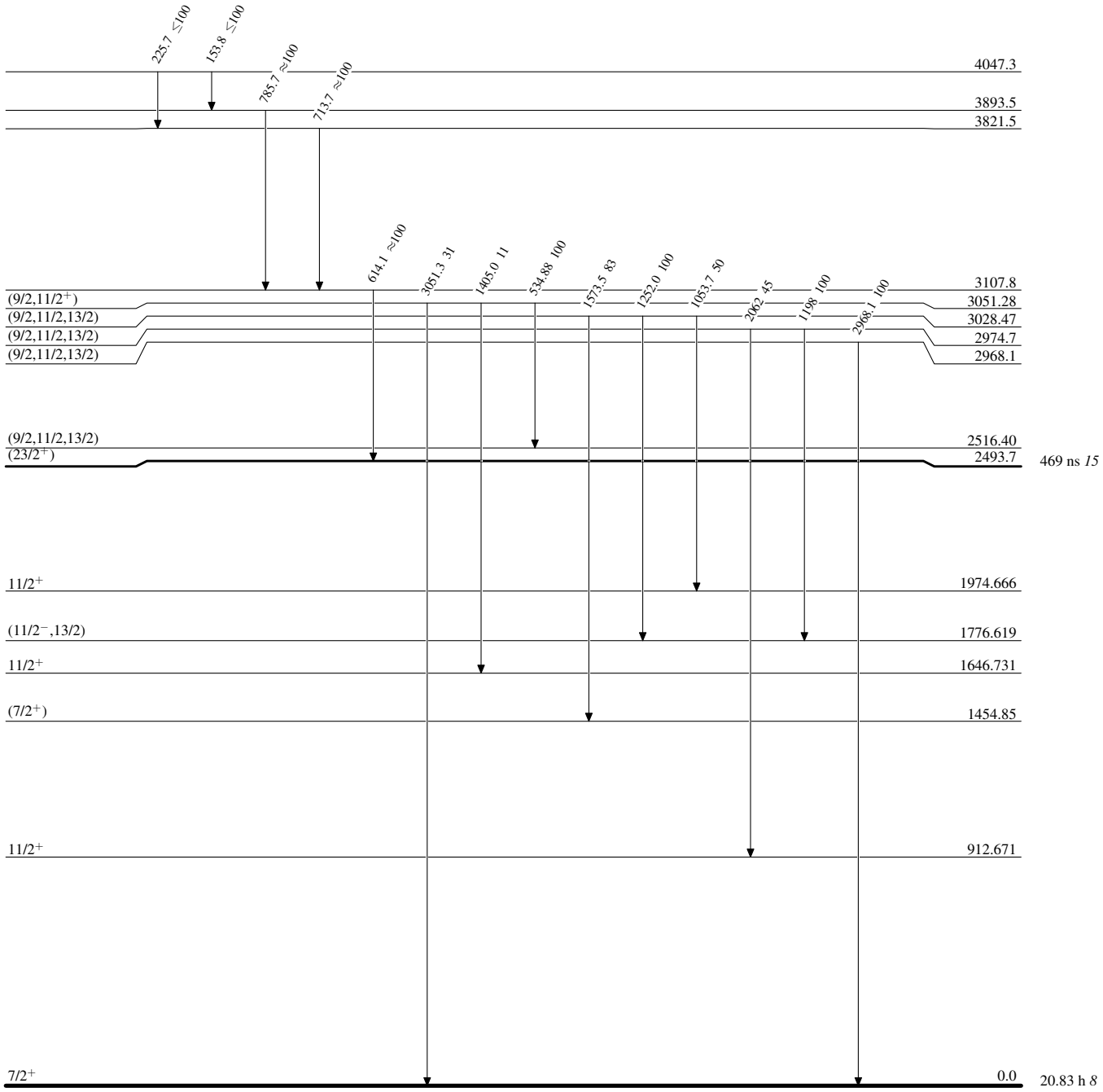
† Additional information 1.
‡ From ^{133}Te β^- decay (12.5 min), unless otherwise stated.
# From ^{133}Te β^- decay (55.4 min).
@ From (^{198}Pt(^{136}Xe,Xγ)).
& From (^{176}Yb(^{136}Xe,Xγ)).
a From ^{133}Te β^- (12.5 min), ^{133}Te β^- (55.4 min) , and ^{133}I IT decays, except as noted.
b From ^{133}Te β^- decay (55.4 min), except as noted.
c Energy fit is poor, transition is not used to determine E(level).
d Multiply placed.
e Multiply placed with undivided intensity.
f Multiply placed with intensity suitably divided.
g Placement of transition in the level scheme is uncertain.

$^{133}_{53}I_{80}$-16

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

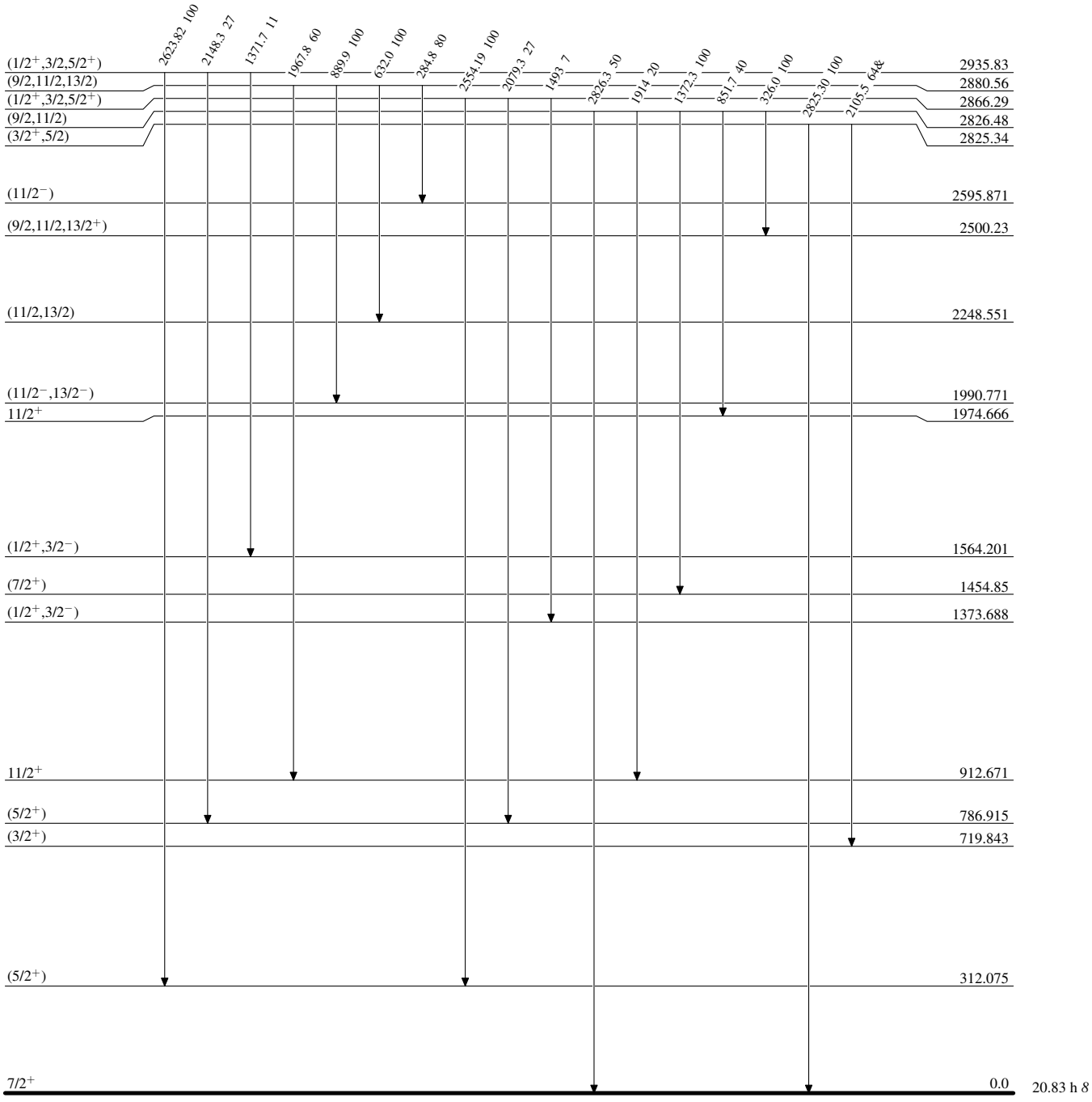


$^{133}_{53}I_{80}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

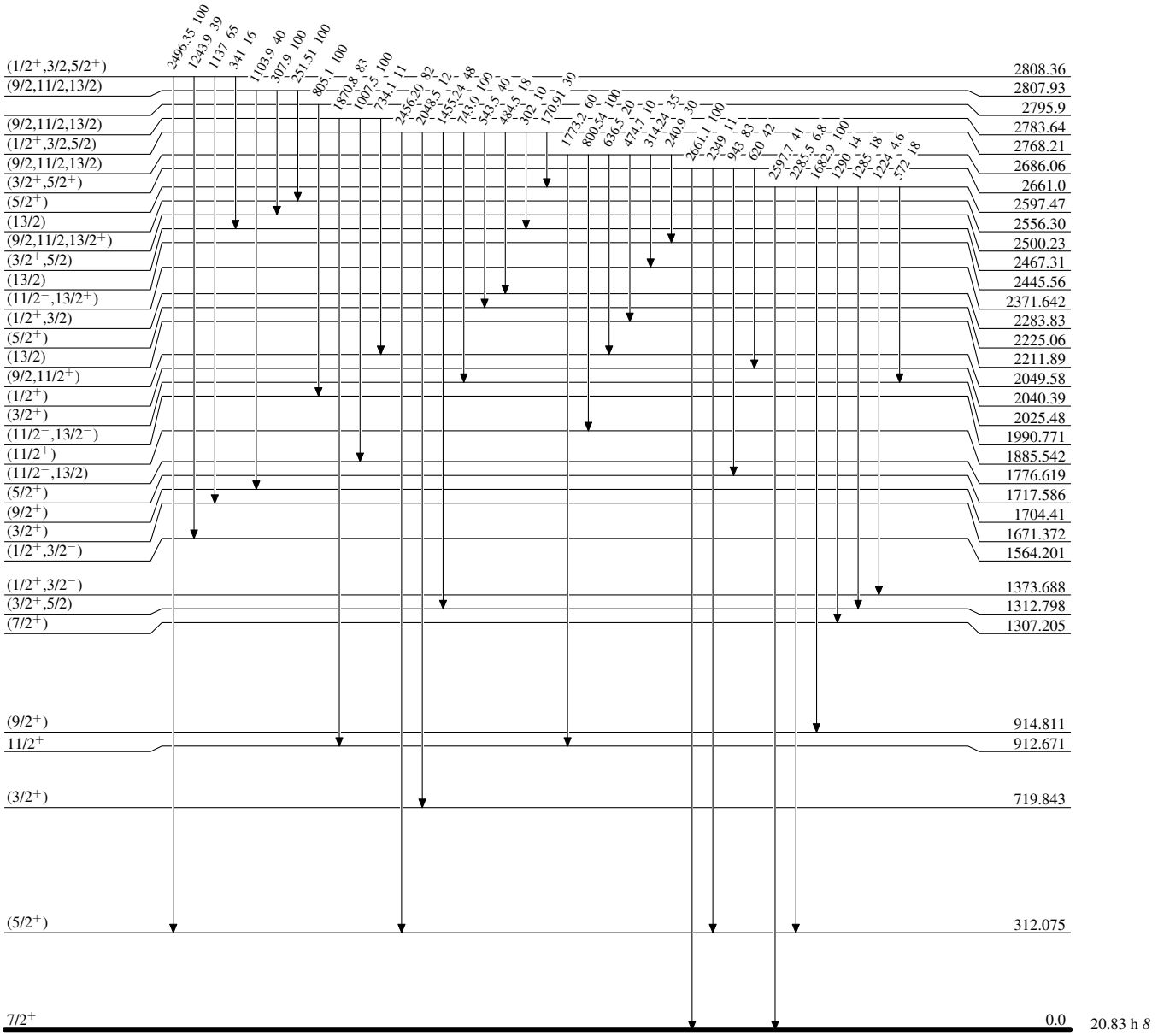


$^{133}_{53}I_{80}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

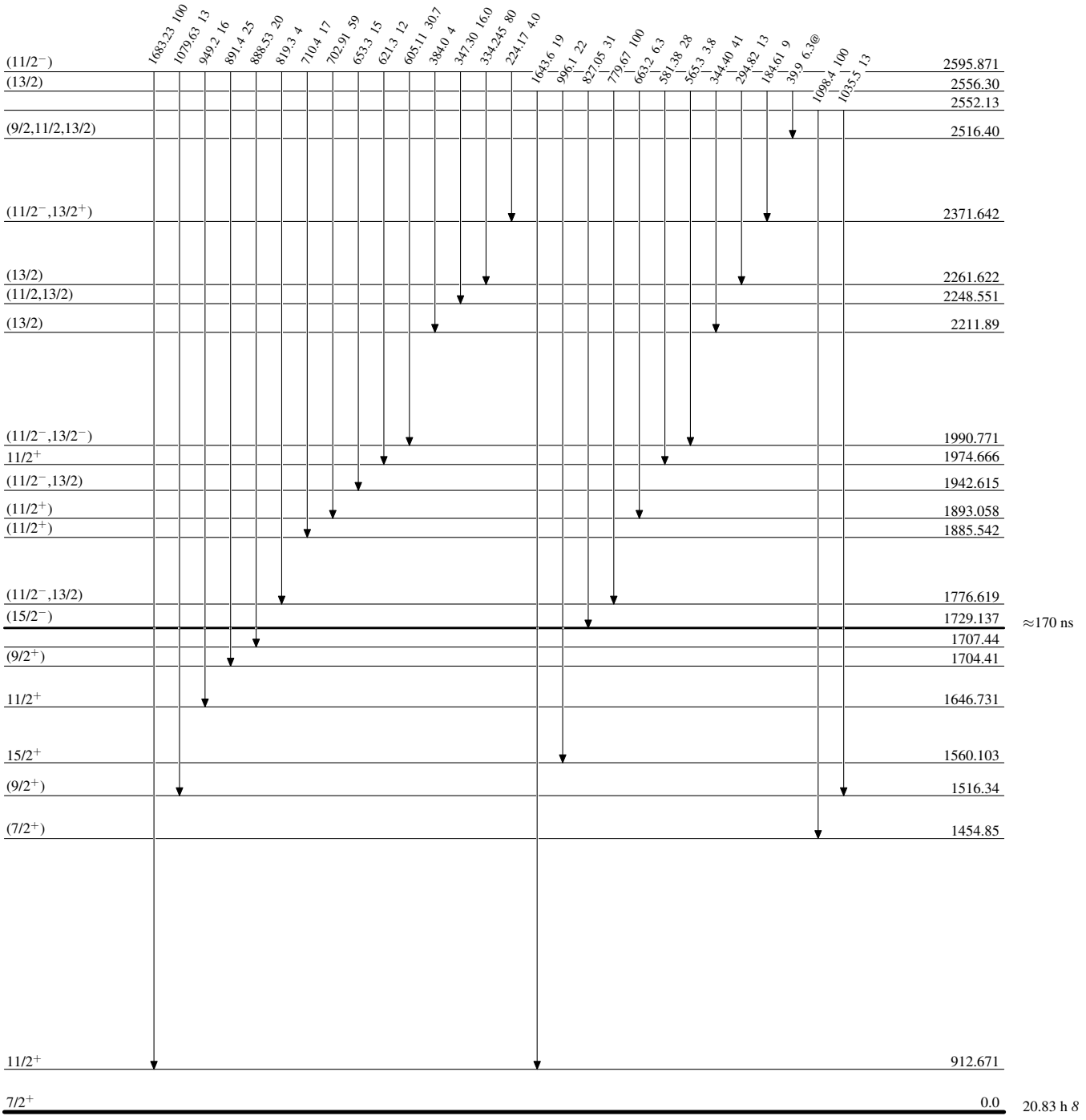


$^{133}_{53}I_{80}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

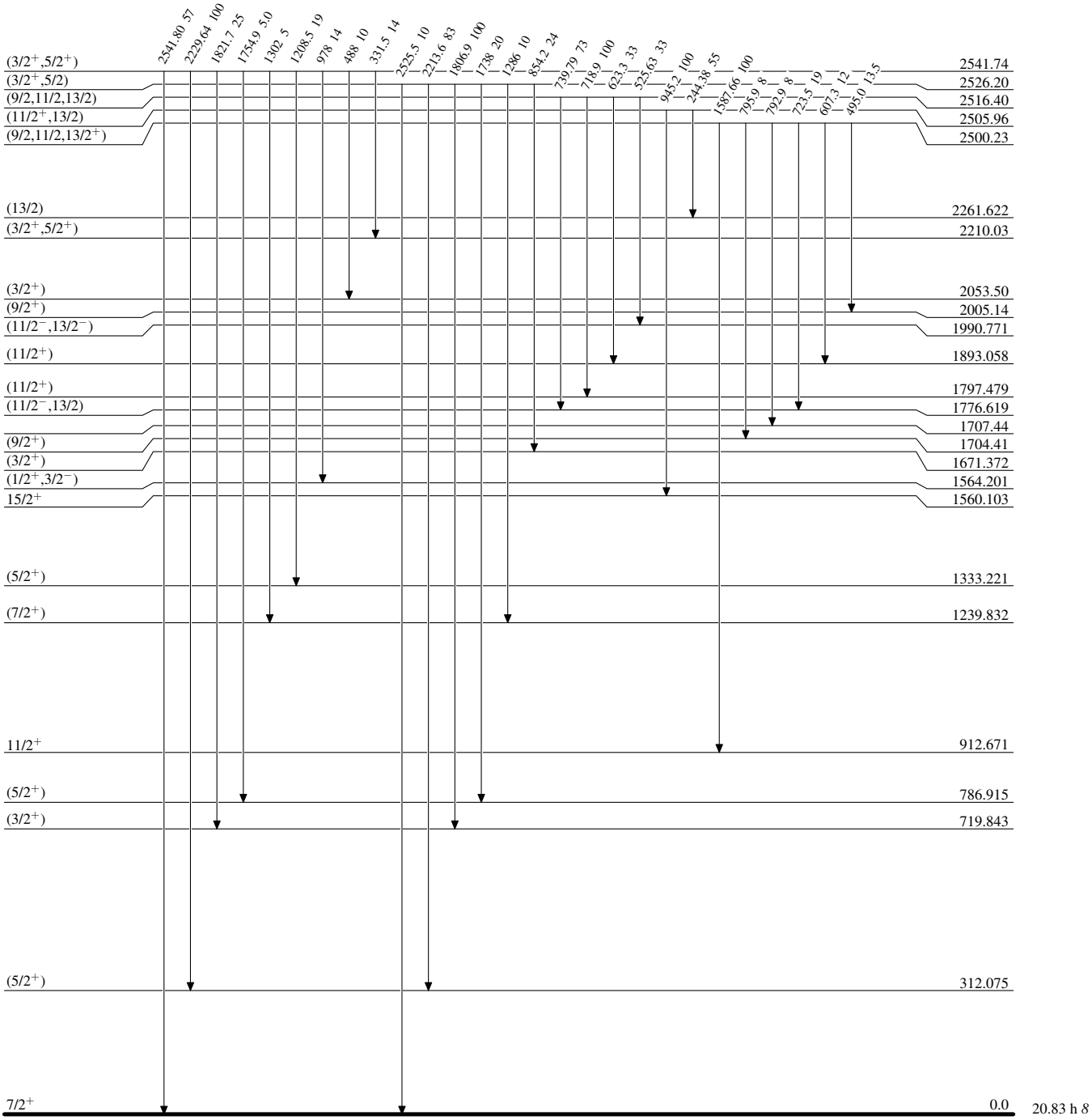


$^{133}_{53}I_{80}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

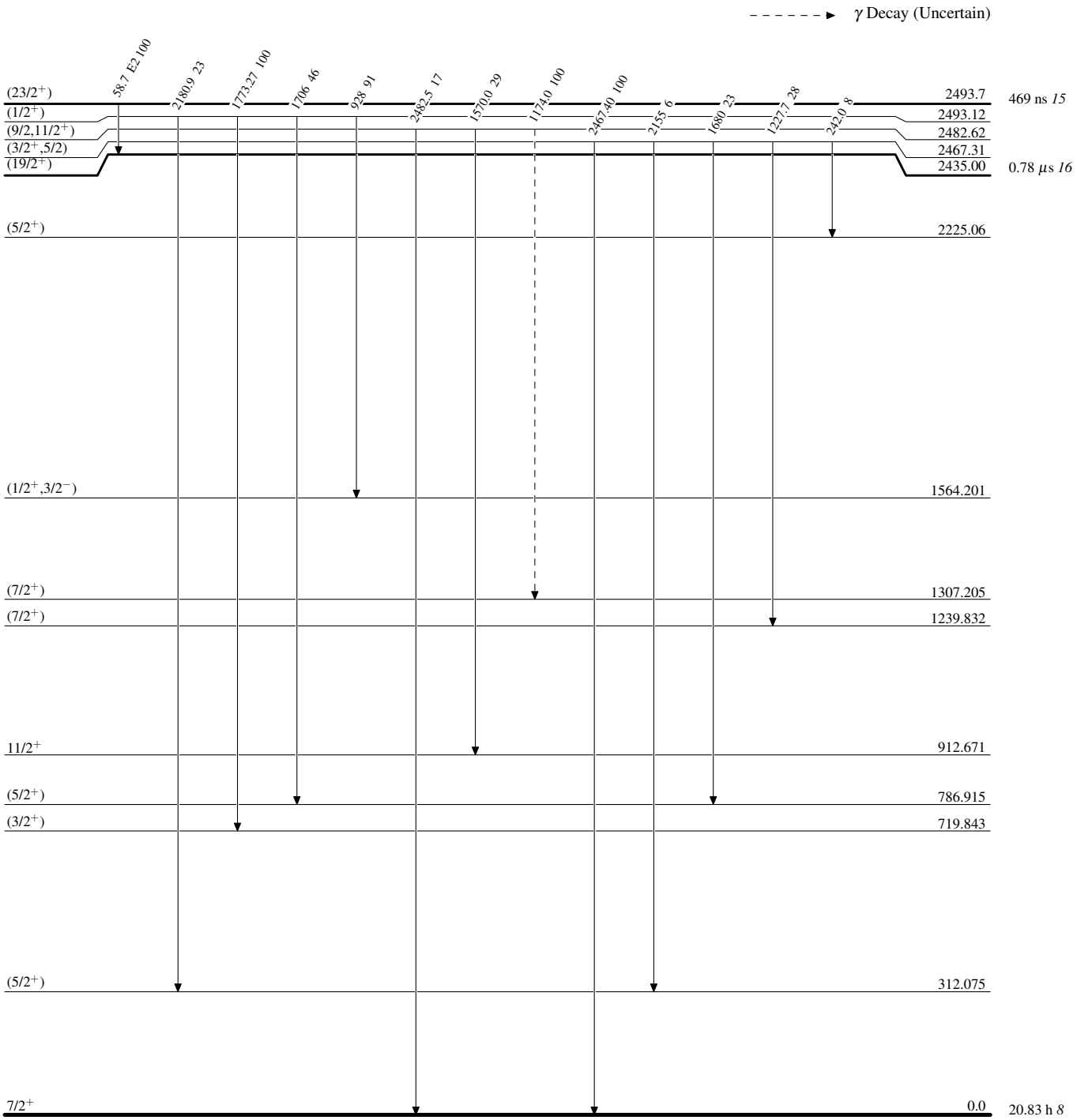


$^{133}_{53}I_{80}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

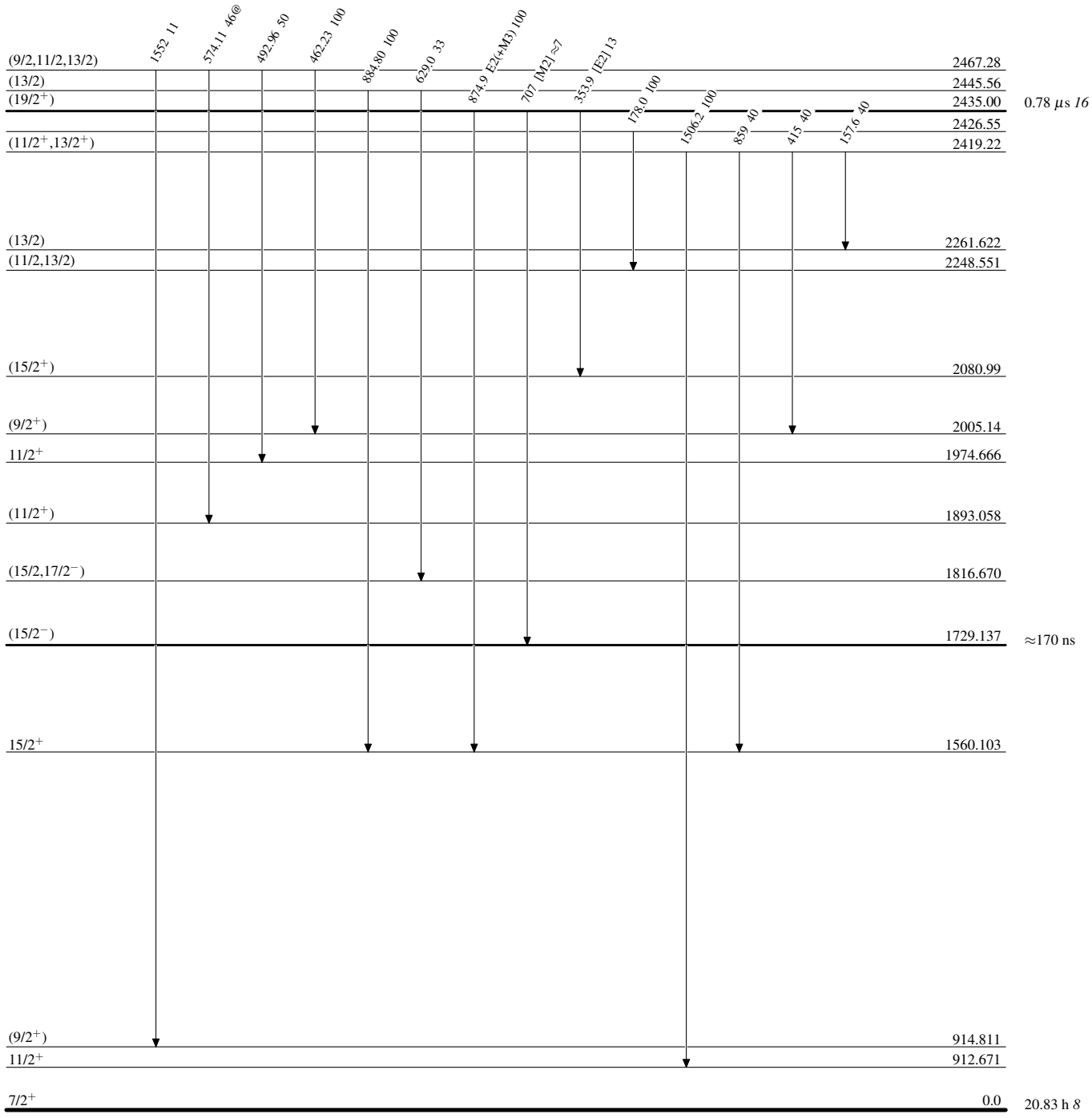


$^{133}_{53}I_{80}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

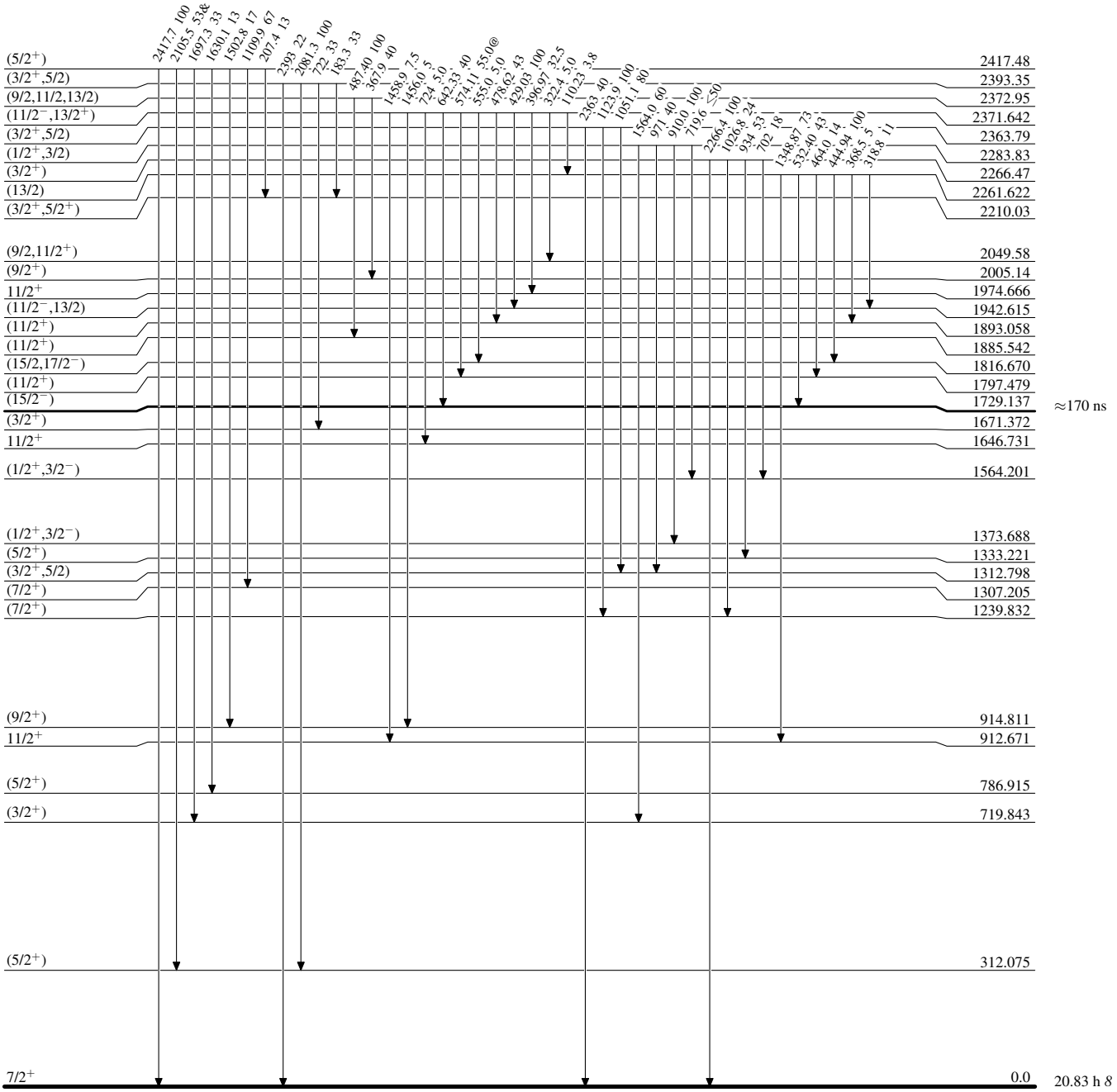


$^{133}_{53}I_{80}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

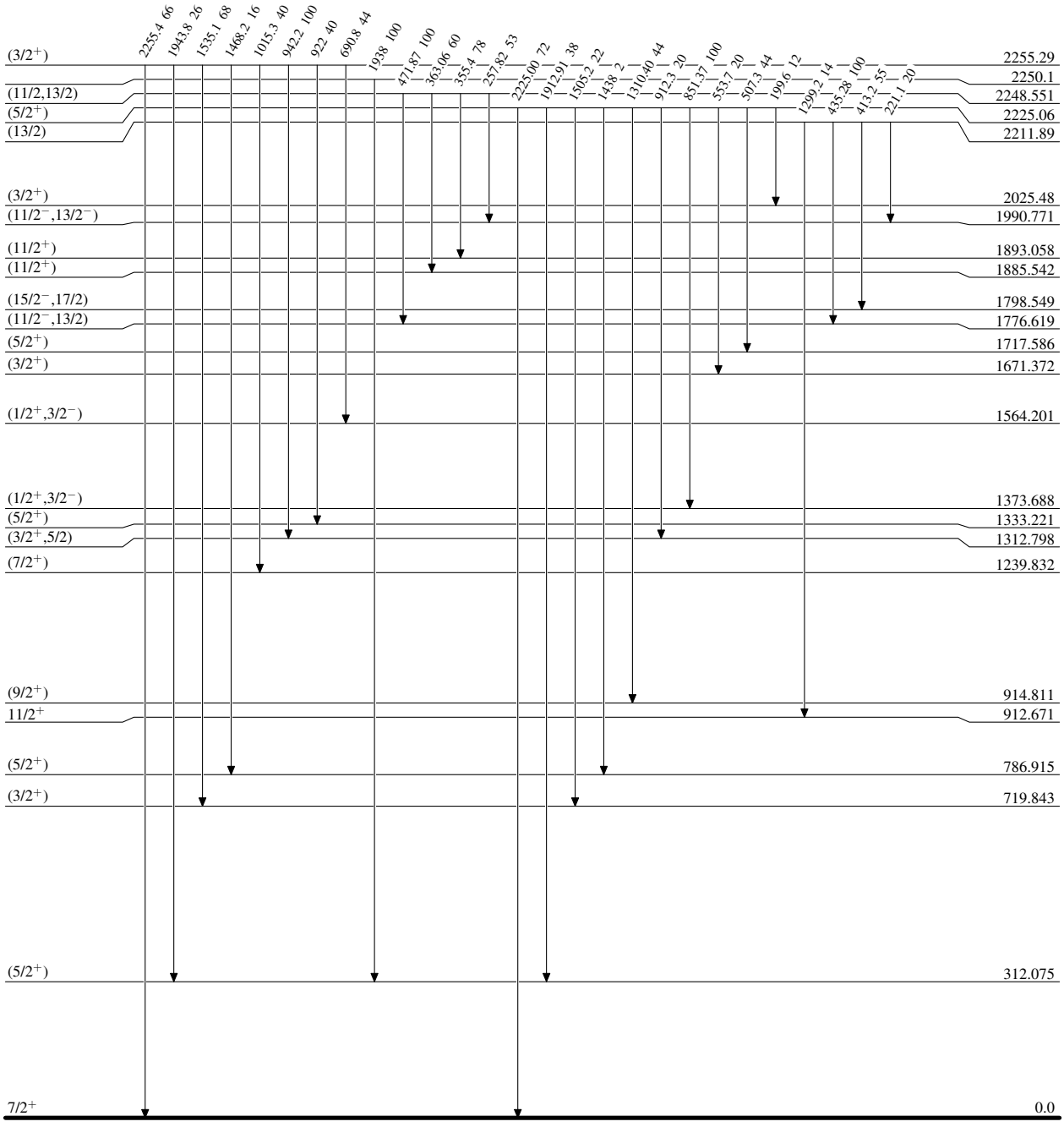


$^{133}_{53}I_{80}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

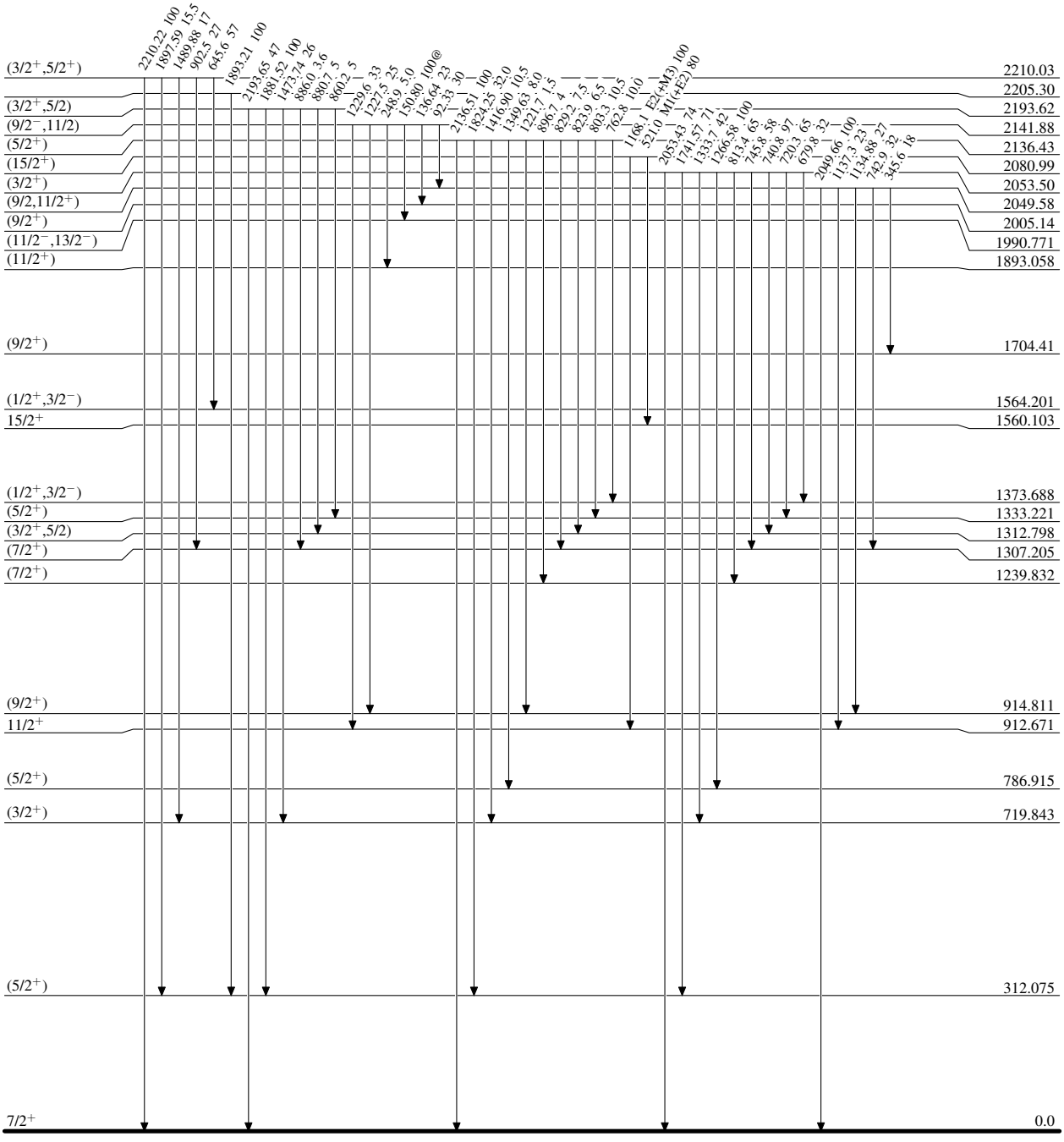


$^{133}_{53}I_{80}$

Adopted Levels, Gammas

Level Scheme (continued)

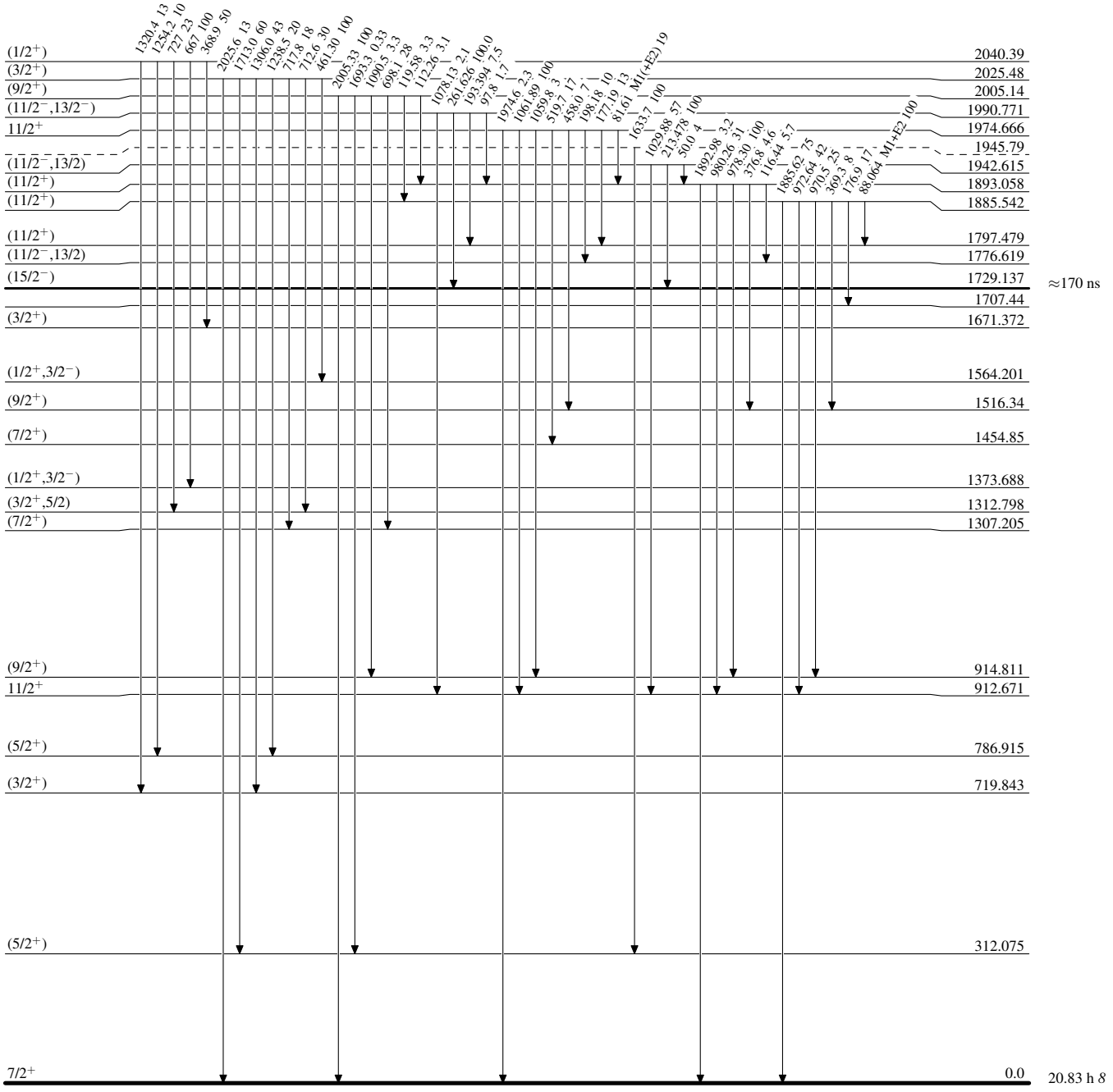
Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided



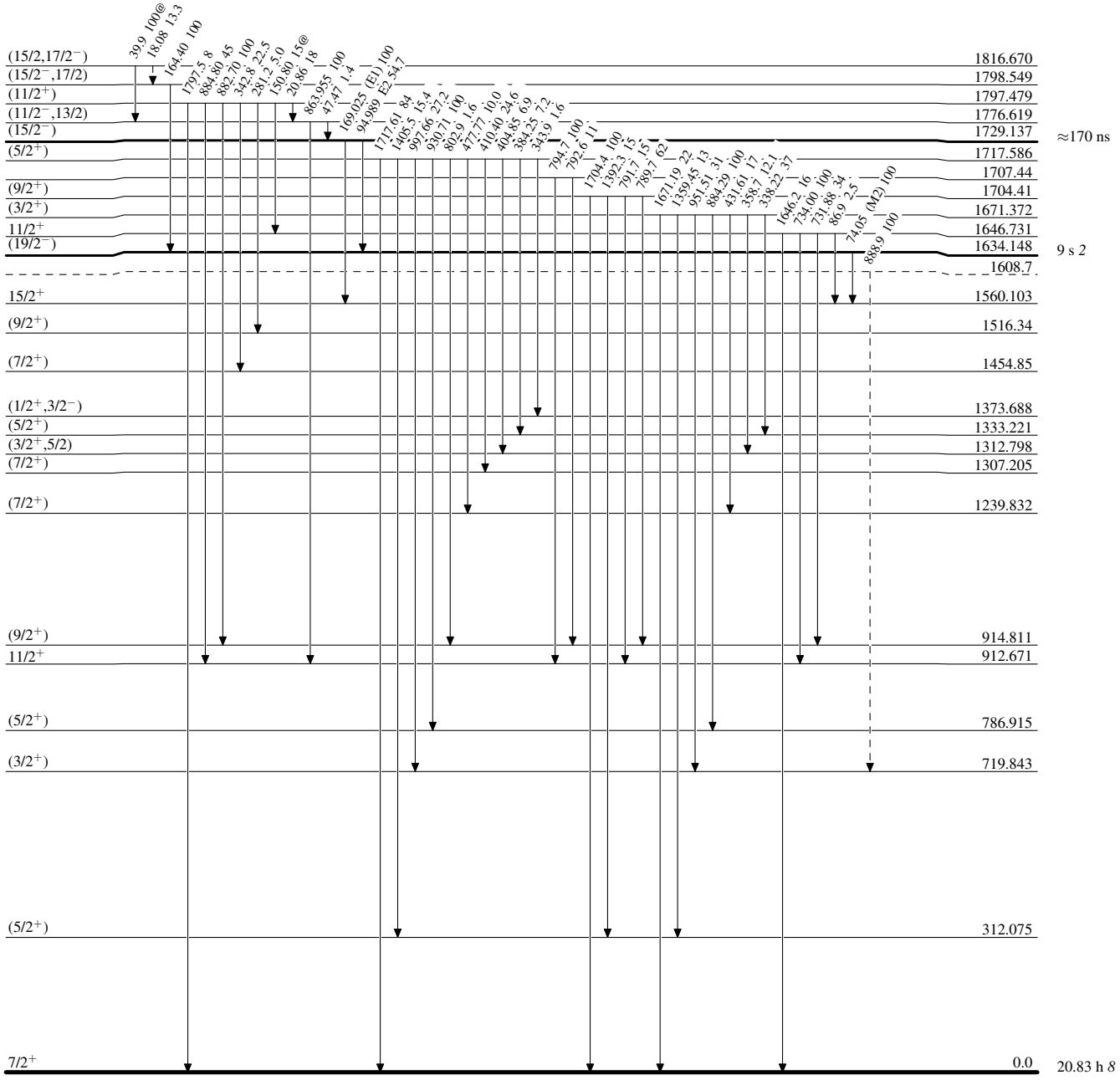
$^{133}_{53}I_{80}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend
γ Decay (Uncertain)



$^{133}_{53}I_{80}$

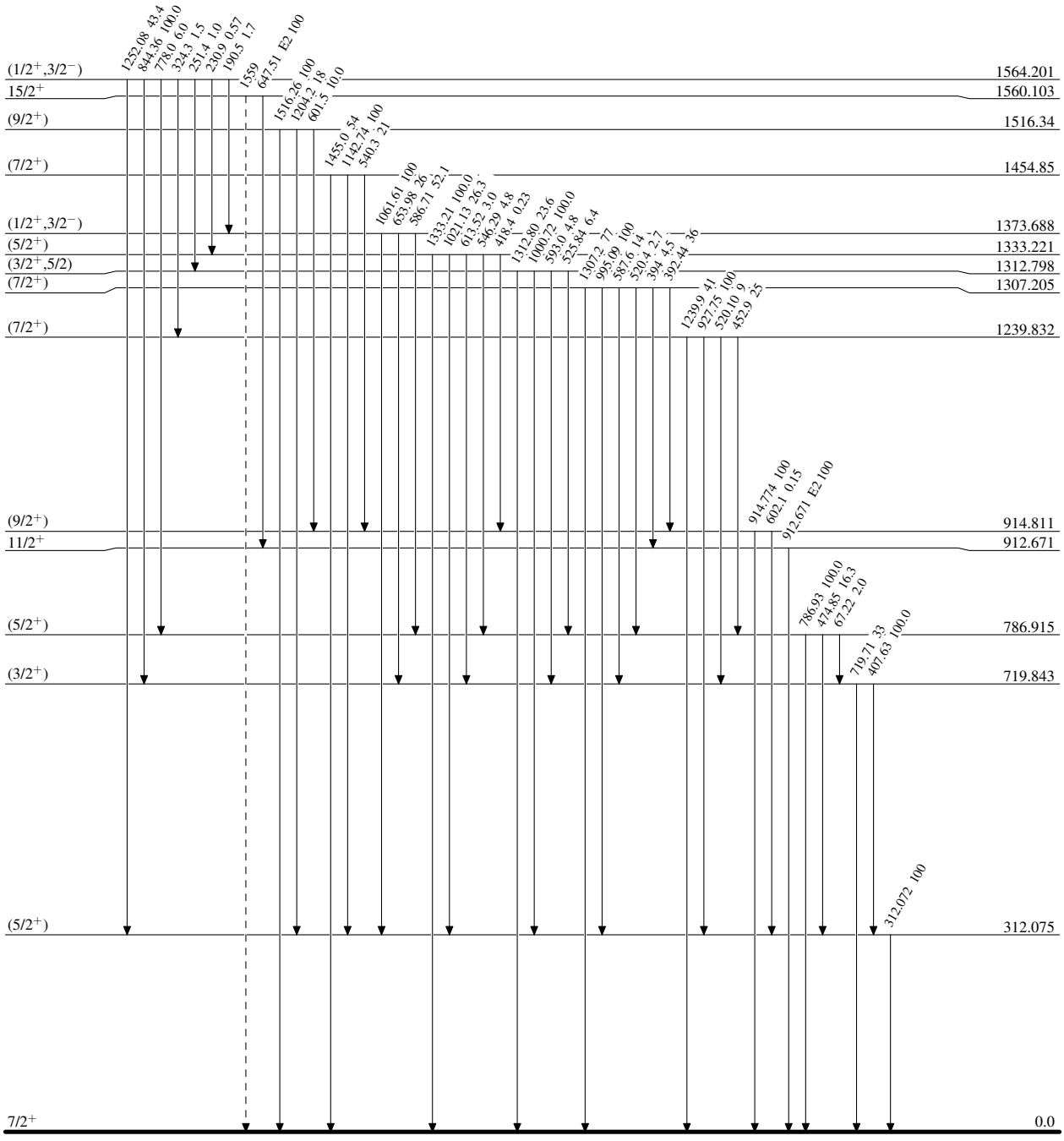
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

- - - - - - ► γ Decay (Uncertain)



$^{133}_{53}I_{80}$