Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 113,515 (2012)	1-Jan-2012

Q(β^-)=−9.1×10^3 *syst*; S(n)=1.161×10^4 *4*; S(p)=4.76×10^3 *4*; Q(α)=1.53×10^3 *4* 2012Wa38
Note: Current evaluation has used the following Q record −9.1E+3 SY1.161E+44 *4*.76×10^3 *3* 1530 *30* 2011AuZZ.
ΔQ(β^-)=300 (2011AuZZ).
The yrast band at high spin involves 4p2h, configuration=((π h$_{11/2}$)^2(π g$_{7/2}$)^2(π g$_{9/2}$)$^{-2}$) proton configuration coupled to the n(g7/2,d5/2)8,(h11/2)4 neutron configuration.
Three rotational intruder bands are observed with the so-called smooth band termination with dynamic moment of inertia gradually decreasing with spin.
^{115}Xe decays by delayed-proton emission to 114Te. The level population in 114Te is not known.

^{114}Te Levels

Cross Reference (XREF) Flags

A ^{114}I β^+ decay (2.1 s+6.2 s)
B ^{114}I β^+ decay (6.2 s)
C (HI,xnγ)
D ^{112}Sn(α,2nγ)
E ^{114}Sn(^{3}He,3nγ)

E(level)[†]	J$^\pi$[‡]	T$_{1/2}$[#]	XREF	Comments
0.0[@]	0$^+$	15.2 min *7*	ABCDE	%ε+%β^+=100 T$_{1/2}$: from 1976Wi11. Others: 16 min (1960Ma20), 17.0 min *5* (1968Ra14).
708.74[@] *15*	2$^+$	2.83 ps *23*	ABCDE	J$^\pi$: E2 γ to 0$^+$.
1342.49 *20*	(1,2)$^+$		E	J$^\pi$: M1 γ to 2$^+$. γ to 0$^+$.
1348.1 *3*	(0$^+$)		A	J$^\pi$: Not fed from higher levels, likely part of 2 phonons multiplet (1992ZiZW).
1391.34 *24*	2$^+$		AB	
1483.83[@] *24*	4$^+$	2.16 ps *21*	BCDE	J$^\pi$: stretched E2 γ to 2$^+$.
1794.3 *3*	(2$^+$)		AB	
1860.68 *23*	(0$^+$)		A	J$^\pi$: M1+E2 γ to 2$^+$ and excit. Funct. 0$^+$ in ^{114}I β^+ decay !
1949.7 *3*	(3$^+$)		AB	J$^\pi$: fed from (5$^-$) and 1$^+$ parents.
1960.3 *4*	(3$^+$)		E	J$^\pi$: (M1) γ to 2$^+$. No γ to g.s.
2027.02 *25*	4$^+$		B E	J$^\pi$: M1 γ to 4$^+$ and fed from (5$^-$).
2217.3[@] *3*	6$^+$	1.90 ps *35*	BCDE	J$^\pi$: stretched E2 γ to 4$^+$.
2241.9 *3*			B	
2275.9 *3*			B	
2296.14 *25*			A	
2482.4 *3*			A	
2606.3 *3*	6$^+$		C E	J$^\pi$: E2 γ to 4$^+$, M1 γ to 6$^+$.
2695.1 *3*			B	
3008.17 *25*			A	
3088.4[@] *4*	8$^+$	1.3 ps *5*	CD	J$^\pi$: stretched E2 γ to 6$^+$.
3120.9 *5*			E	
3143.5 *3*			B	
3153.5[e] *3*	7$^-$		C E	J$^\pi$: E1 γ to 6$^+$, M1 γ from 8$^-$.
3252.5 *5*	7$^+$		E	J$^\pi$: M1 γ to 6$^+$.
3278.9[e] *3*	8$^-$	0.65 ns *10*	C E	J$^\pi$: M1 γ to 7$^-$.
3301.1 *3*			B	
3346.3 *3*			B	
3507.6 *4*	8$^+$		C	J$^\pi$: E2 γ to 6$^+$.
3514.0[f] *3*	9$^-$	29.8 ps *28*	C E	J$^\pi$: M1 γ to 8$^-$, E1 γ to 8$^+$.
3550.5 *3*			A	
3723.3 *4*	9$^+$		C	

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Adopted Levels, Gammas (continued)

^{114}Te Levels (continued)

E(level)†	Jπ‡	$T_{1/2}$#	XREF	Comments
3881.1& 5	10^+		CDE	
3919.6@ 4	10^+	23.4 ps 14	C	Jπ: M1 γ to 10^+ and E2 γ from 12^+.
4062.3e 5	(10^-)		C E	Jπ: E2 γ to (8^-).
4304.0f 4	(11^-)		C	Jπ: E2 γ to 9^-.
4515.7@ 5	12^+	2.9 ps 6	C	Jπ: E2 γ to 10^+.
4689.2& 5	12^+		C	Jπ: E2 γ to 10^+.
4823.5e 5	(12^-)		C	Jπ: E2 γ to (10^-).
5033.1f 5	(13^-)		C	Jπ: E2 γ to (11^-).
5253.0@ 5	14^+		C	Jπ: E2 γ to 12^+.
5258.6e 5	(14^-)		C	
5309.3 5	(13^-)		C	
5509.9& 5	14^+		C	
5635.5a 11	(14^-)		C	
5780.7f 5	(15^-)		C	
5944.6@ 6	16^+		C	Jπ: E2 γ to 14^+.
6100d	(15)		C	
6307.4& 5	16^+		C	
6425.6e 11	(15^-)		C	
6471.6a 15	(16^-)		C	
6599.7e 12	(16^-)		C	
6920.6@ 7	18^+		C	Jπ: stretched E2 γ to 16^+.
6924.7f 11	(17^-)		C	
6940.0d 10	(17)		C	
7233.1& 9	18^+		C	
7359.5a 18	(18^-)		C	
7714.7e 16			C	
7804.0d 15	(19)		C	
7816.2 7	20^+		C	Jπ: stretched E2 γ to 18^+.
7915.7c 12	20^+		C	
8203.1& 14	20^+		C	
8318.5a 21	(20^-)		C	
8513.7c 16	(21^+)		C	
8721.0d 18	(21)		C	
9173.7c 19	(23^+)		C	
9217.0& 17	22^+		C	
9346.5a 23	(22^-)		C	
9669.6 19	(22)		C	
9723.0d 20	(23)		C	
10092.7c 21	(25^+)		C	
10299.1& 20	24^+		C	
10436.5a 25	(24^-)		C	
10788.7b 21	(24)		C	
11225.7c 24	(26^+)		C	
11436.1& 22	26^+		C	
11642a 3	(26^-)		C	
11841c 3	(27^+)		C	
11962.7b 24	(26)		C	

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Adopted Levels, Gammas (continued)

^{114}Te Levels (continued)

E(level)†	Jπ‡	XREF	E(level)†	Jπ‡	XREF	E(level)†	Jπ‡	XREF
12636.0& *24*	28^+	C	16735& *3*	34^+	C	23109[a] *4*	(40^-)	C
12939[a] *3*	(28^-)	C	17426[a] *4*	(34^-)	C	23168[b] *4*	(40)	C
12976[c] *3*	(28^+)	C	17631[b] *3*	(34)	C	23584& *4*	42^+	C
13221[b] *3*	(28)	C	18269& *4*	36^+	C	25288[a] *4*	(42^-)	C
13919& *3*	30^+	C	19159[a] *4*	(36^-)	C	25675& *4*	44^+	C
14331[a] *3*	(30^-)	C	19347[b] *4*	(36)	C	27933& *4*	46^+	C
14577[b] *3*	(30)	C	19896& *4*	38^+	C	30351& *4*	48^+	C
15283& *3*	32^+	C	21059[a] *4*	(38^-)	C	32926& *4*	(50^+)	C
15822[a] *4*	(32^-)	C	21186[b] *4*	(38)	C			
16047[b] *3*	(32)	C	21658& *4*	40^+	C			

† From a least-squares fit to Eγ values.
‡ J^π without comments are based on γ mult., γγ(θ) and band assignments.
# From 2005Mo20.
@ Band(A): g.s. band.
& Band(B): band 1.
[a] Band(C): band 2 based on (14^-).
[b] Band(D): band 3 based on (24).
[c] Band(E): Positive-parity sequence.
[d] Band(F): γ sequence.
[e] Band(G): Negative-parity sequence, α=0.
[f] Band(H): Negative-parity sequence, α=1.

γ(^{114}Te)

E_i(level)	J_i^π	E_γ†	I_γ‡	E_f	J_f^π	Mult.#	δ	Comments
708.74	2^+	708.9 *3*	100	0.0	0^+	E2		
1342.49	$(1,2)^+$	633.7 *2*	100 *10*	708.74	2^+	M1(+E2)		
		1342.6 *3*	2 *1*	0.0	0^+			
1348.1	(0^+)	639.4 *2*	100	708.74	2^+			
1391.34	2^+	682.5 *3*	100 *29*	708.74	2^+			
		1391.0 *8*	1.0 *5*	0.0	0^+			
1483.83	4^+	775.2 *3*	100	708.74	2^+	E2		
1794.3	(2^+)	310.7 *4*	14 *3*	1483.83	4^+			
		403.0 *4*	11 *3*	1391.34	2^+	M1,E2		
		1085.7 *4*	100 *13*	708.74	2^+	M1+E2		Mult.: δ=2.22 *30* or −0.18 *3*.
		1793.4 *9*	9 *5*	0.0	0^+			
1860.68	(0^+)	1151.94 *17*	100	708.74	2^+			
1949.7	(3^+)	558.4 *2*	100	1391.34	2^+			
1960.3	(3^+)	617.8 *3*	100	1342.49	$(1,2)^+$	(M1)		
2027.02	4^+	543.0 *2*	50 *13*	1483.83	4^+	M1+E2	0.25 *3*	
		635.6 *2*	100 *25*	1391.34	2^+			
2217.3	6^+	733.7 *3*	100	1483.83	4^+	E2		
2241.9		758.2 *3*	27 *6*	1483.83	4^+			
		850.4 *3*	100 *14*	1391.34	2^+	(E2)		
2275.9		792.1 *2*	100	1483.83	4^+			
2296.14		1587.4 *2*	100	708.74	2^+			
2482.4		1091.1 *2*	100	1391.34	2^+			
2606.3	6^+	389.5 *6*	77 *2*	2217.3	6^+	M1+E2	−0.15 *4*	
		1122.3 *6*	100 *3*	1483.83	4^+	E2		

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Adopted Levels, Gammas (continued)

$\gamma(^{114}Te)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ
2695.1		1211.0 *9*	7 *3*	1483.83	4^+		
		1303.8 *2*	100 *12*	1391.34	2^+		
		1986.3 *6*	12 *5*	708.74	2^+		
3008.17		2299.4 *2*	100	708.74	2^+		
3088.4	8^+	482.3 *3*	1	2606.3	6^+		
		871.3 *4*	100	2217.3	6^+	E2	
3120.9		903.6 *3*	100	2217.3	6^+		
3143.5		1194.3 *7*	19 *8*	1949.7	(3^+)		
		1659.6 *2*	100 *20*	1483.83	4^+		
		2435.1 *4*	50 *20*	708.74	2^+		
3153.5	7^-	547.22 *8*	1.6 *4*	2606.3	6^+	(E1)	
		936.2 *3*	100 *3*	2217.3	6^+	E1	
3252.5	7^+	1035.2 *3*	100	2217.3	6^+	M1	
3278.9	8^-	125.4 *3*	100	3153.5	7^-	(M1)	
3301.1		1817.9 *4*	100	1483.83	4^+		
3346.3		1862.4 *2*	100	1483.83	4^+		
3507.6	8^+	901.2 *3*	100	2606.3	6^+	E2	
3514.0	9^-	233.9 *6*	27 *5*	3278.9	8^-	(M1)	
		425.5 *5*	100 *10*	3088.4	8^+	E1	
3550.5		2159.1 *2*	100	1391.34	2^+		
3723.3	9^+	208.9 *6*	23 *5*	3514.0	9^-		
		635.0 *6*	100 *10*	3088.4	8^+		
3881.1	10^+	792.6 *3*	100	3088.4	8^+	E2	
3919.6	10^+	196.4 *3*	29 *5*	3723.3	9^+	M1,E2	
		411.9 *3*	71 *10*	3507.6	8^+		
		831.4 *3*	100 *10*	3088.4	8^+		
4062.3	(10^-)	783.0 *4*	100	3278.9	8^-	E2	
4304.0	(11^-)	790.2 *3*	100	3514.0	9^-	E2	
4515.7	12^+	596.1 *3*	100 *10*	3919.6	10^+	E2	
4689.2	12^+	808.1 *3*	100	3881.1	10^+	E2	
4823.5	(12^-)	761.0 *3*	100	4062.3	(10^-)	E2	
5033.1	(13^-)	729.1 *3*	100	4304.0	(11^-)	E2	
5253.0	14^+	737.1 *3*	100	4515.7	12^+	E2	
5258.6	(14^-)	225.6 *3*	50 *8*	5033.1	(13^-)		
		434.9 *3*	100 *10*	4823.5	(12^-)		
5309.3	(13^-)	276		5033.1	(13^-)		
		1005.4 *2*	100	4304.0	(11^-)	E2	
5509.9	14^+	820.8 *3*	100	4689.2	12^+	E2	
5635.5	(14^-)	812		4823.5	(12^-)		
5780.7	(15^-)	521.4 *5*	56 *6*	5258.6	(14^-)	M1+E2	2.8 *5*
		747.68 *9*	100 *8*	5033.1	(13^-)	E2	
5944.6	16^+	691.7 *3*	100	5253.0	14^+	E2	
6307.4	16^+	797.48 *11*	100 *9*	5509.9	14^+	E2	
		1054.60 *4*	58 *10*	5253.0	14^+		
6425.6	(15^-)	1167		5258.6	(14^-)		
6471.6	(16^-)	836		5635.5	(14^-)		
6599.7	(16^-)	174.1 *3*	100	6425.6	(15^-)	M1,E2	
6920.6	18^+	976.0 *3*	100	5944.6	16^+	E2	
6924.7	(17^-)	1144		5780.7	(15^-)		
6940.0	(17)	840		6100	(15)		
7233.1	18^+	927		6307.4	16^+		
		1287		5944.6	16^+		
7359.5	(18^-)	888		6471.6	(16^-)		
7714.7		1115		6599.7	(16^-)		
7804.0	(19)	864		6940.0	(17)		

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Adopted Levels, Gammas (continued)

$\gamma(^{114}Te)$ (continued)

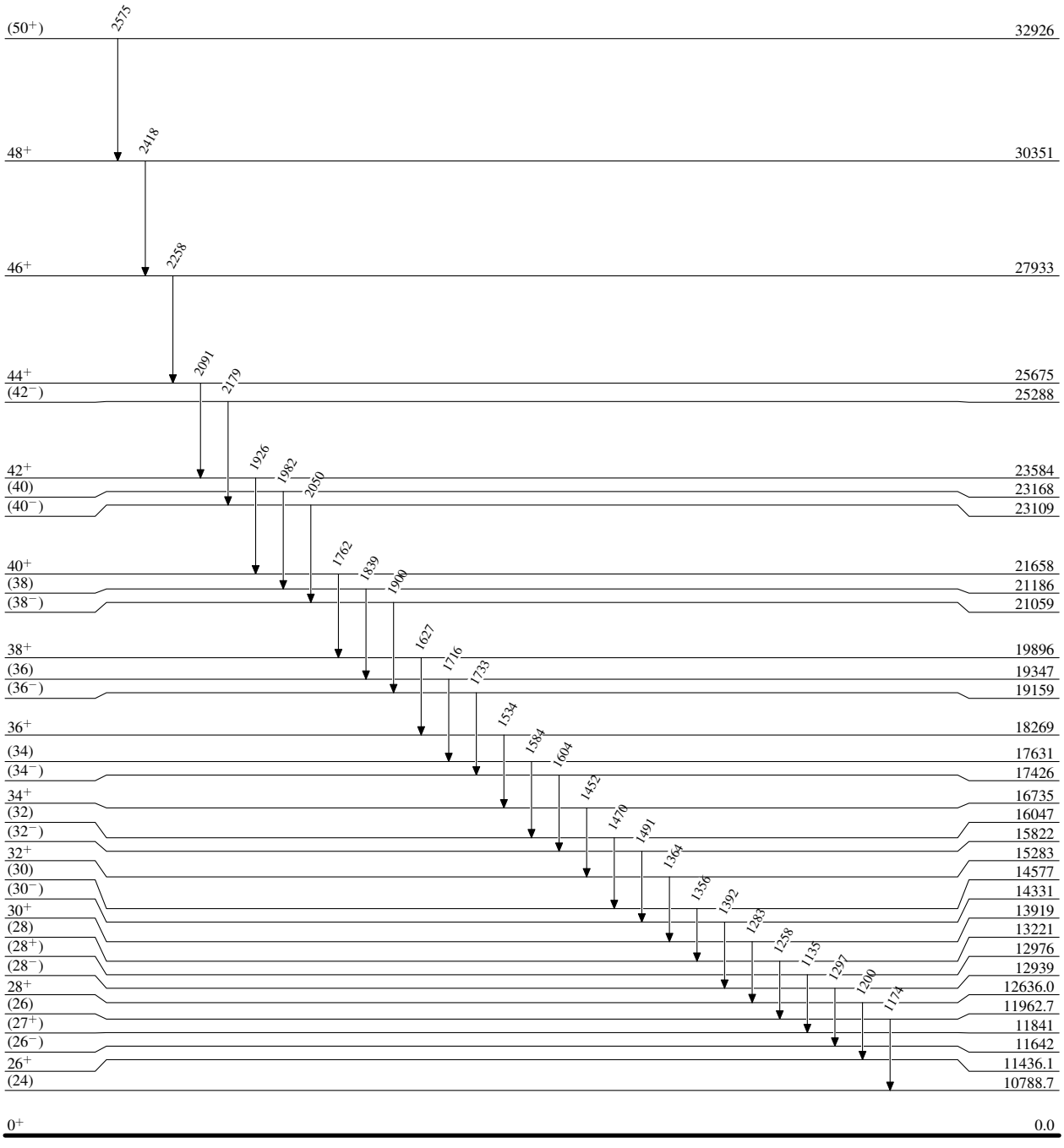
E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]
7816.2	20^+	895.6 *3*	100	6920.6	18^+	E2
7915.7	20^+	995		6920.6	18^+	
8203.1	20^+	970		7233.1	18^+	
8318.5	(20^-)	959		7359.5	(18^-)	
8513.7	(21^+)	598		7915.7	20^+	
8721.0	(21)	917		7804.0	(19)	
9173.7	(23^+)	660		8513.7	(21^+)	
9217.0	22^+	1014		8203.1	20^+	
9346.5	(22^-)	1028		8318.5	(20^-)	
9669.6	(22)	1156		8513.7	(21^+)	
9723.0	(23)	1002		8721.0	(21)	
10092.7	(25^+)	919		9173.7	(23^+)	
10299.1	24^+	1082		9217.0	22^+	
10436.5	(24^-)	1090		9346.5	(22^-)	
10788.7	(24)	1119		9669.6	(22)	
11225.7	(26^+)	1133		10092.7	(25^+)	
11436.1	26^+	1137		10299.1	24^+	
11642	(26^-)	1205		10436.5	(24^-)	
11841	(27^+)	615		11225.7	(26^+)	
11962.7	(26)	1174		10788.7	(24)	
12636.0	28^+	1200		11436.1	26^+	
12939	(28^-)	1297		11642	(26^-)	
12976	(28^+)	1135		11841	(27^+)	
13221	(28)	1258		11962.7	(26)	
13919	30^+	1283		12636.0	28^+	
14331	(30^-)	1392		12939	(28^-)	
14577	(30)	1356		13221	(28)	
15283	32^+	1364		13919	30^+	
15822	(32^-)	1491		14331	(30^-)	
16047	(32)	1470		14577	(30)	
16735	34^+	1452		15283	32^+	
17426	(34^-)	1604		15822	(32^-)	
17631	(34)	1584		16047	(32)	
18269	36^+	1534		16735	34^+	
19159	(36^-)	1733		17426	(34^-)	
19347	(36)	1716		17631	(34)	
19896	38^+	1627		18269	36^+	
21059	(38^-)	1900		19159	(36^-)	
21186	(38)	1839		19347	(36)	
21658	40^+	1762		19896	38^+	
23109	(40^-)	2050		21059	(38^-)	
23168	(40)	1982		21186	(38)	
23584	42^+	1926		21658	40^+	
25288	(42^-)	2179		23109	(40^-)	
25675	44^+	2091		23584	42^+	
27933	46^+	2258		25675	44^+	
30351	48^+	2418		27933	46^+	
32926	(50^+)	2575		30351	48^+	

[†] Average of all available data.
[‡] Relative photon branching from each level.
[#] From ce in (^{3}He,3nγ) and $\gamma\gamma(\theta)$ in (HI,xnγ).

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

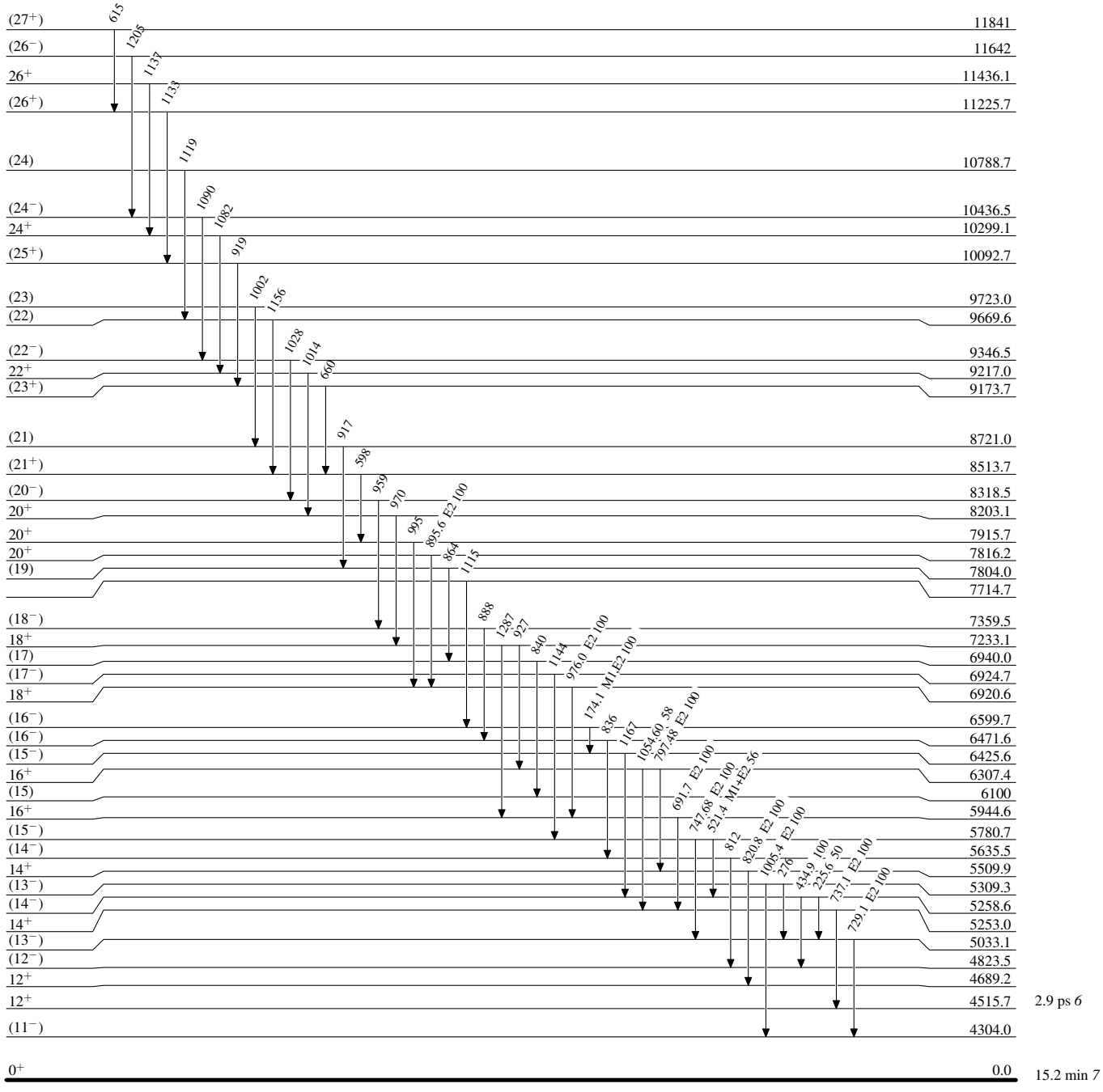


$^{114}_{52}Te_{62}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

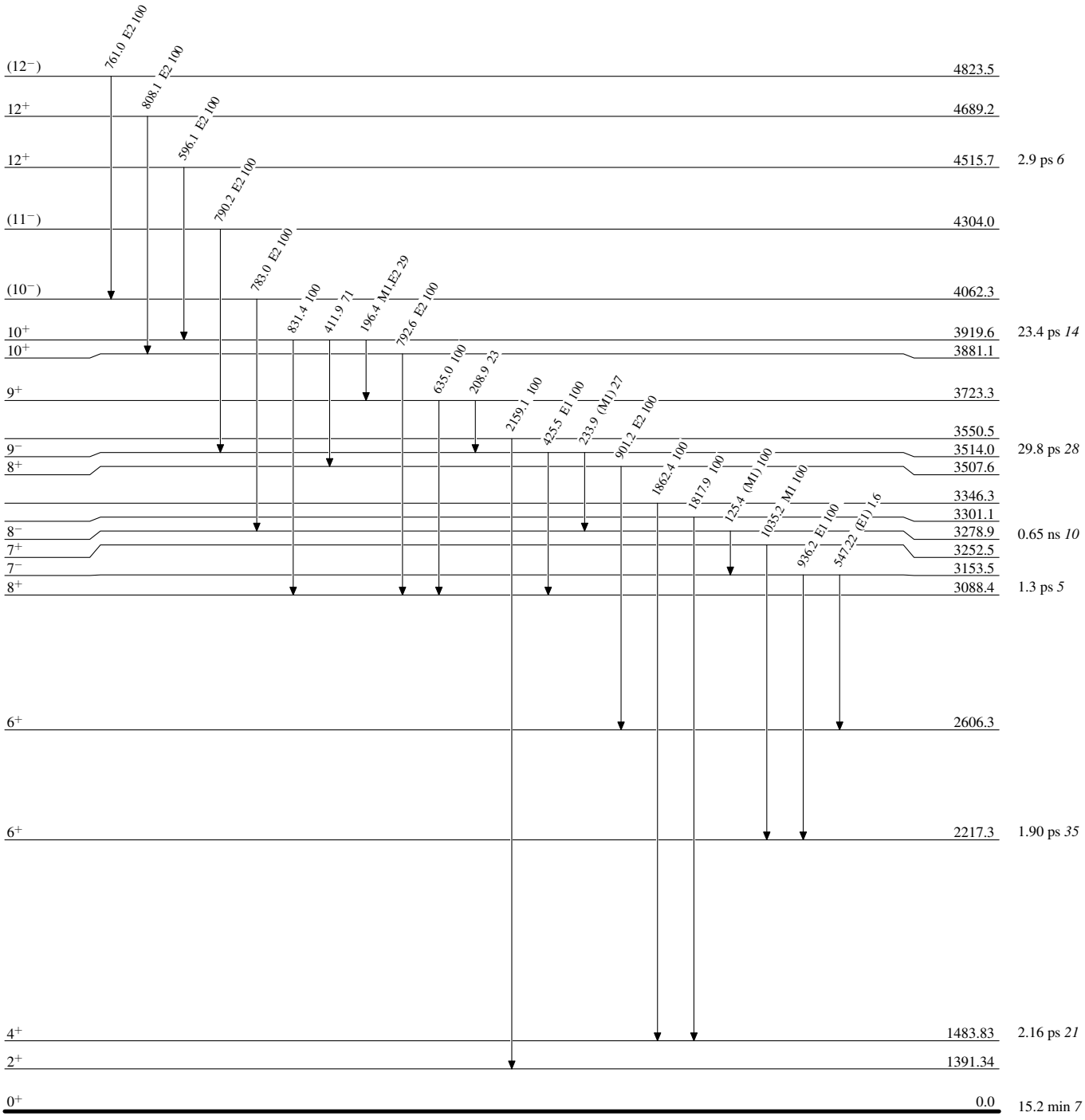


$^{114}_{52}Te_{62}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

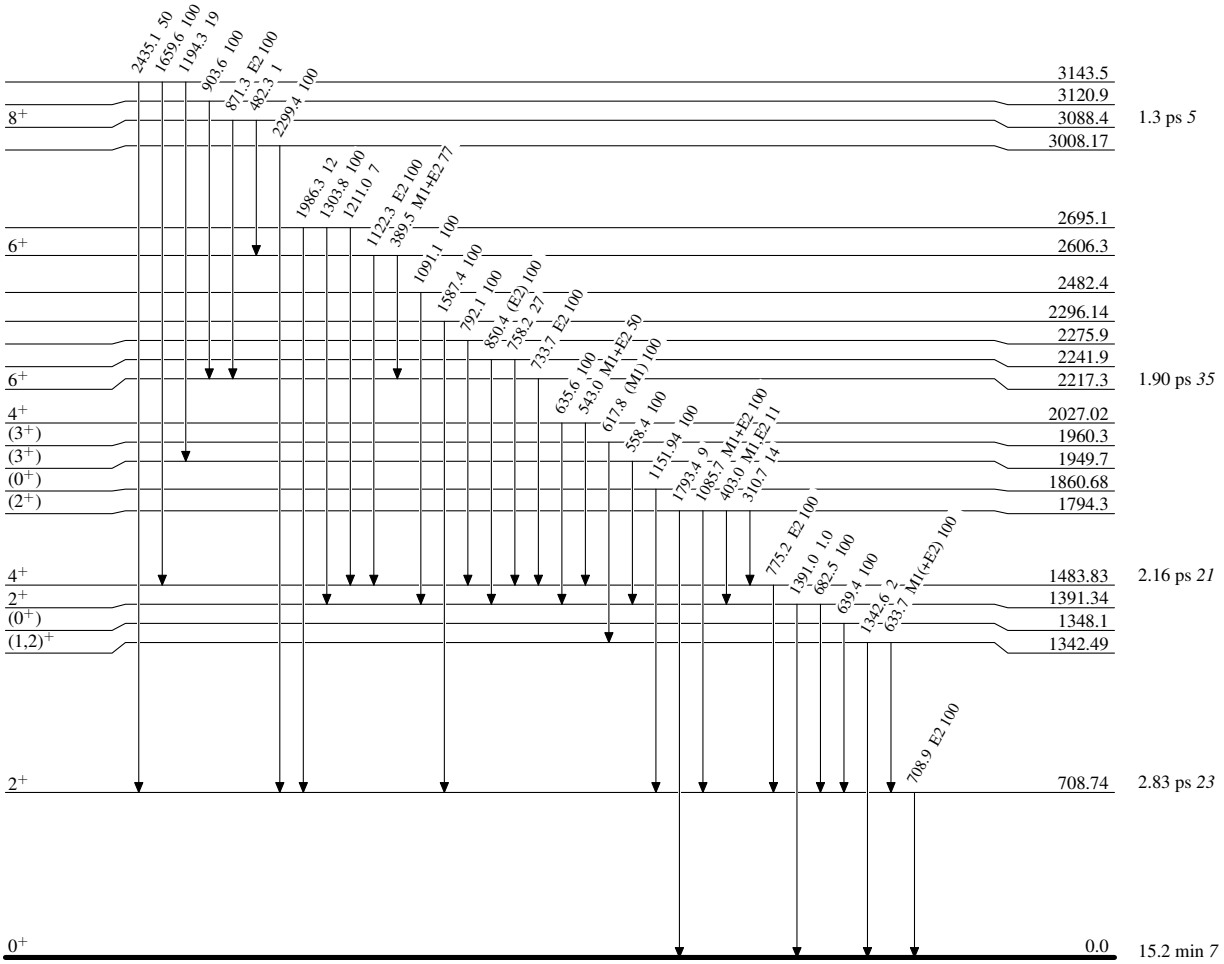


$^{114}_{52}Te_{62}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



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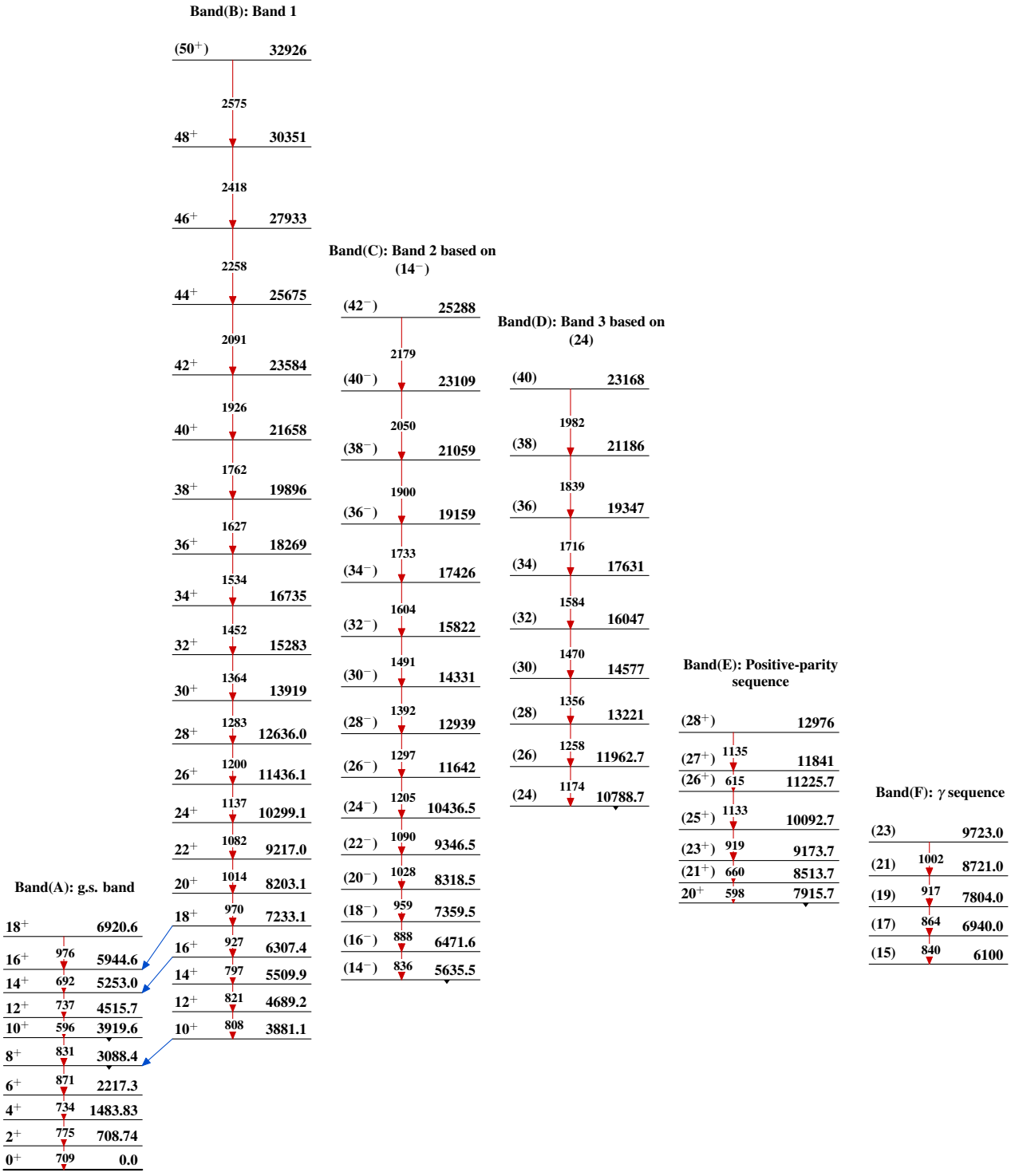
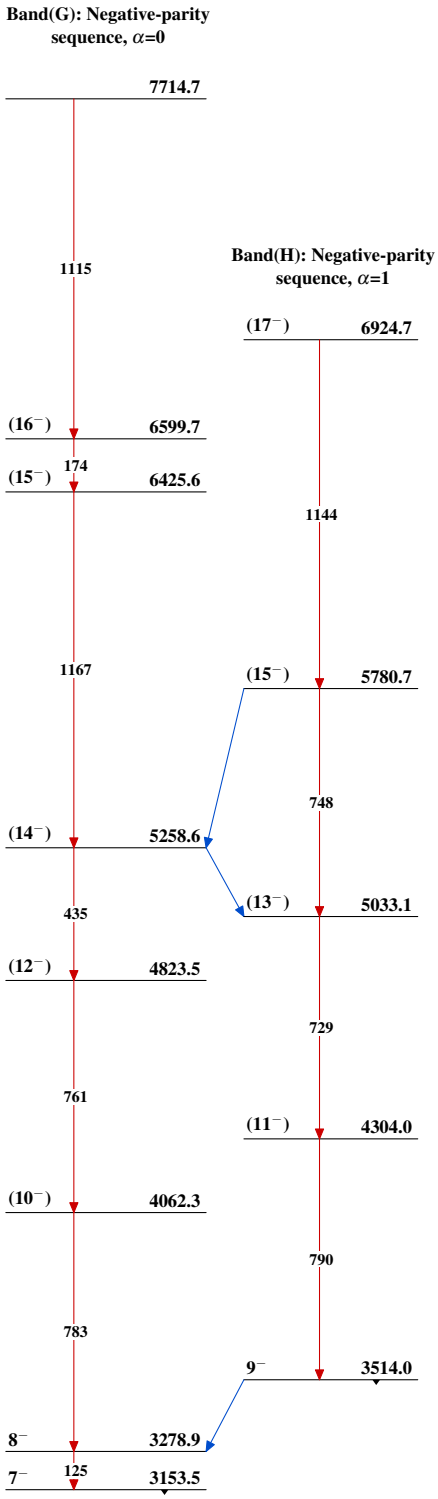
Adopted Levels, Gammas



$^{114}_{52}Te_{62}$

Adopted Levels, Gammas (continued)



$^{114}_{52}Te_{62}$