Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	K. Kitao	NDS 75,99 (1995)	1-Feb-1993

Q(β^-)=−6.73×10^3 *3*; S(n)=10673 *23*; S(p)=6346 *21*; Q(α)=436 *19* 2012Wa38
Note: Current evaluation has used the following Q record −7040 8010683 256366 18415 16 1993Au05.

^{118}Te Levels

Cross Reference (XREF) Flags

A	^{118}I β^+ decay (13.7 min)	E	^{118}Sn(^{3}He,3nγ)
B	^{118}I β^+ decay (8.5 min)	F	^{121}Sb(p,4nγ)
C	^{116}Sn(α,2nγ)	G	(HI,xnγ)
D	^{117}Sn(α,3nγ)		

E(level)[#]	J$^\pi$	T$_{1/2}$	XREF	Comments
0.0[†]	0$^+$[@]	6.00 d *2*	ABCDEFG	%ε=100 %$\varepsilon\alpha$<2×10^{-6} (1961Fi05, 1963Ka17). T$_{1/2}$: from 1961Fi05. Others: 6.0 d (1948Li02), 6.0 d (1952Dr27), 6.1 d *1* (1960So02), 6.0 d *2* (1965An05).
605.706[†] *20*	2$^+$[@]		ABCDEFG	J$^\pi$: stretched E2 γ to 0$^+$, γ from 0$^+$.
934.2? *10*			F	
957.48 *19*	0$^+$	55 ps *45*	A	J$^\pi$: E0 transition to 0$^+$. T$_{1/2}$: from centroid-shift of γ(t) in (α,nγ) (1986KuZS).
1150.82 *4*	2$^+$		ABC F	J$^\pi$: E2 γ to 0$^+$, γ from 3$^-$.
1163.7 *10*			E	
1206.42[†] *3*	4$^+$[@]		ABCD FG	XREF: D(1215). J$^\pi$: stretched E2 γ to 2$^+$.
1482.11 *13*	1$^+$,2$^+$		A C	J$^\pi$: M1+E2 γ to 2$^+$, γ to 0$^+$.
1517.31 *21*	0$^+$		A	J$^\pi$: E0 transition to 0$^+$.
1661.5 *3*			A	
1702.74 *6*	(4)$^+$		ABC F	J$^\pi$: M1+E2 γ to 4$^+$, γ to 2$^+$, E2 γ from (6)$^+$.
1820.84[†] *4*	6$^+$[@]		BCD FG	XREF: D(1832). J$^\pi$: stretched E2 γ to 4$^+$; $\gamma(\theta)$ from oriented nuclei (1985Sh04).
1863.07 *17*	1,2$^+$		A	J$^\pi$: γ to 0$^+$.
1891.92[‡] *10*	(3)$^+$[@]		ABC F	J$^\pi$: M1+E2 γ to 2$^+$.
1944.51 *17*	3$^-$		AB	J$^\pi$: $\gamma(\theta)$ from oriented nuclei (1985Sh04).
1976.18 *19*	(4$^+$)		AB	J$^\pi$: γ to 2$^+$, γ from (6$^+$).
2020.57 *22*			A	
2150.16 *4*	(6)$^+$		BC	J$^\pi$: E2 γ to 4$^+$, M1(+E2) γ from (7)$^+$.
2225.7? *4*			B	
2229.56 *19*	(4)$^+$		AB	J$^\pi$: γ to 2$^+$, γ from (6)$^+$.
2285.3 *3*			A	
2322.32 *23*			A	
2352.7 *3*			A	
2367.76[‡] *8*	(5)$^+$[@]		BC	J$^\pi$: M1+E2 γ to 4$^+$, E2 γ to 3$^+$.
2372.8 *5*			A	
2422.4 *3*			AB	
2438.1 *3*			AB	
2500.96 *18*			A	
2517.20 *15*	5		BC	J$^\pi$: strong γ to 4$^+$, d γ to 6$^+$.
2531.6 *3*			AB	
2571.17 *23*			AB	
2573.90[†] *5*	8$^+$[@]		BCD FG	XREF: D(2588)F(2592).

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Adopted Levels, Gammas (continued)

^{118}Te Levels (continued)

E(level)[#]	Jπ	$T_{1/2}$	XREF		Comments
					Jπ: stretched E2 γ to 6^+.
2611.5 *3*			A		
2622.4 *3*			A		
2730.4 *3*			AB		
2762.1 *3*			A		
2813.3? *6*			A		
2852.3 *3*			A		
2862.7 *5*			A		
2914.42 *15*	(6^+)		B		Jπ: strong γ to 6^+; γ-γ cascade to 2^+ allows 5^+ and 6^+; strong ε+$β^+$ feed from (7^-) rules out 5^+.
2919.44[‡] *8*	$(7)^+$[@]		BC		Jπ: M1+E2 γ to 6^+, γ to $(5)^+$.
2968.10 *22*			B		
2999.44 *7*	8^+		C		Jπ: stretched E2 γ to 6^+.
2999.75 *9*	$(6^-,7^-)$		BC		Jπ: (E1+M2) γ to 6^+, no γ to 4^+.
3078.92 *16*	(6^+)		B		Jπ: strong γ to 6^+; γ-γ cascade to 2^+ allows 5^+ and 6^+; strong ε+$β^+$ feed from (7^-) rules out 5^+.
3108.22 *19*			B		
3114.3 *3*			B		
3168.51 *22*			B		
3189.18 *9*	(8^-)	0.23 ns *8*	C		Jπ: M1+E2 γ to $(6^-,7^-)$, no γ to 6^+. $T_{1/2}$: from centroid-shift of γ(t) in (α,2nγ) (1982Va10).
3191.6 *3*			B		
3253.48 *19*			A		
3359.92[†] *6*	10^+[@]		C	G	Jπ: stretched E2 γ to 8^+.
3400.10 *6*	$(8^-,9)$		BC		Jπ: d γ to 8^+, no γ to 6^+.
3438.9 *3*			A		
3444.69 *6*	10^+		C	G	Jπ: stretched E2 γ to 8^+.
3460.44 *8*	$(8^-,9)$		C		Jπ: D+Q γ to 8^+, no γ to 6^+.
3586.63[‡] *9*	$(9)^+$[@]		BC		Jπ: stretched E2 γ to $(7)^+$.
3602.2? *6*			A		
3679.92 *14*	$(8^-,9)$		C		Jπ: d γ to 8^+, no γ to 6^+.
3834.61 *8*	$(9,10)^+$		C		Jπ: M1,E2 γ to 8^+, no γ to 6^+.
3881.23 *10*	(10^-)		C		Jπ: stretched E2 γ to $(8)^-$.
4138.04 *8*	$(10^-,11)$		C		Jπ: stretched E2 γ to $(8^-,9)$.
4172.00 *6*	12^+		C	G	Jπ: stretched E2 γ to 10^+.
4219.32[†] *12*	12^+[@]		C	G	Jπ: stretched E2 γ to 10^+.
4220.52 *11*	$(10^-,11)$		C		Jπ: stretched E2 γ to $(8^-,9)$.
4288.43 *14*	(12^-)		C		Jπ: stretched E2 γ to (10^-).
4347.82[‡] *11*	$(11)^+$[@]		C		Jπ: E2 γ to $(9)^+$.
4582.09 *12*	$(^-)$		C		Jπ: M1,E2 γ to (10^-).
4855.73 *14*			C		
4867.67 *12*	$(12^-,13)$		C		Jπ: stretched E2 γ to $(10^-,11)$.
4945.98 *8*	14^+		C	G	Jπ: stretched E2 γ to 12^+.
4964.7 *10*				G	
5122.76[†] *15*	(14^+)[@]		C		Jπ: γ to 12^+.
5346.67 *13*			C	G	
5544.7 *10*				G	
5599.2 *10*				G	
6715.5 *10*				G	
6743?				G	
7615?				G	
7862?				G	
8049?				G	
8423?				G	
8907?				G	

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Adopted Levels, Gammas (continued)

^{118}Te Levels (continued)

E(level)[#]	XREF
9028?	G
9536?	G
9924?	G
10538?	G
11851?	G

† Band(A): quasi ground-state band.
‡ Band(B): ΔJ=2 band built on the $(3)^+$ state.
# From a least-squares fit to the adopted E(γ's).
@ From expected band structure, in addition to the argument given.

Adopted Levels, Gammas (continued)

γ(^{118}Te)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[b]	δ[b]	$I_{(\gamma+ce)}$	Comments
605.706	2^+	605.71[‡] *2*	100[‡]	0.0	0^+	E2			Mult.: from ^{118}I β^+ decay (13.7 min).
934.2?		328.5[#]	100	605.706	2^+				
957.48	0^+	351.7 *3*	100	605.706	2^+				
		957		0.0	0^+	E0		0.95 *12*	Mult.: from $\gamma\gamma(\theta)$ (1985Sh04), and strong ce and no γ to 0^+ support mult=E0 (1985Sh04,1987WaZL).
1150.82	2^+	545.12[‡] *3*	100[‡] *2*	605.706	2^+	E2+M1	+17 *+27−7*		Mult.,δ: from ^{118}I β^+ decay (13.7 min).
		1150.7[‡] *2*	27[‡] *2*	0.0	0^+	E2			I_γ: others: 37 *4* in ^{118}I β^+ decay (13.7 min, 8.5 min), 14 in (p,4nγ). Mult.: from ^{118}I β^+ decay (13.7 min).
1163.7		558[a]	100	605.706	2^+				
1206.42	4^+	600.71[‡] *2*	100[‡]	605.706	2^+	E2			E_γ: other: 610 *5* in (α,3nγ).
1482.11	$1^+,2^+$	331.0 *3*	5.1 *5*	1150.82	2^+				
		524.4 *3*	15.0 *15*	957.48	0^+				
		876.4 *3*	100 *10*	605.706	2^+	M1+E2			E_γ: 877.2 *3* in (α,2nγ). δ: −0.58 *+5−8* if $J^\pi=2^+$ from ^{118}I β^+ decay (13.7 min).
		1482.0 *3*	12.3 *12*	0.0	0^+				
1517.31	0^+	366.5 *3*	78 *9*	1150.82	2^+				
		560		957.48	0^+	E0		3.1 *6*	Mult.: from strong ce and γγ-coin (1987Wa17,1987WaZL).
		911.6 *3*	100 *9*	605.706	2^+				
		1517		0.0	0^+	E0		0.28 *16*	Mult.: from strong ce and γγ-coin (1987Wa17,1987WaZL).
1661.5		1055.8 *3*	100	605.706	2^+				
1702.74	$(4)^+$	496.8 *3*	53 *6*	1206.42	4^+	M1+E2	+1.0 *+3−2*		E_γ: other: 496.00 *9* in (α,2nγ). Mult.: from ^{118}I β^+ decay (13.7 min).
		551.8 *3*	100 *10*	1150.82	2^+	E2			Mult.: from ^{118}I β^+ decay (13.7 min).
		1097.5[&] *3*	22 *2*	605.706	2^+				
1820.84	6^+	614.42[‡] *2*	100[‡]	1206.42	4^+				E_γ: other: 617 *5* (α,3nγ).
1863.07	$1,2^+$	712.5 *3*	21.4 *24*	1150.82	2^+				
		905.7 *3*	11.9 *14*	957.48	0^+				
		1257.0 *3*	100 *10*	605.706	2^+				
1891.92	$(3)^+$	685.2[&] *3*	31 *3*	1206.42	4^+				
		741.2 *3*	100 *10*	1150.82	2^+	M1+E2	−9.5		Δδ=+40−190.
		1286.3 *3*	34 *3*	605.706	2^+	M1+E2	−1.7 *+2−1*		
1944.51	3^-	738.1 *3*	4.3 *5*	1206.42	4^+				
		793.7 *3*	1.1 *1*	1150.82	2^+				
		1338.8 *3*	100 *10*	605.706	2^+	E1+M2	+0.03 *+5−7*		Mult.,δ: from ^{118}I β^+ decay (13.7 min).
1976.18	(4^+)	770.0 *3*	46 *5*	1206.42	4^+				
		1370.4 *3*	100 *10*	605.706	2^+				
2020.57		869.7 *3*	18.0 *18*	1150.82	2^+				
		1414.9 *3*	100 *10*	605.706	2^+				

Adopted Levels, Gammas (continued)

γ(^{118}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[b]	δ[b]	Comments
2150.16	(6)$^+$	329.33[‡] *3*	65.8[‡] *8*	1820.84	6$^+$	M1+E2	+0.01 *5*	
		447.40[‡] *5*	15.5[‡] *5*	1702.74	(4)$^+$	E2		E_γ: other: 446.6 *3* in ^{118}I β^+ decay (8.5 min).
		943.74[‡] *4*	100[‡] *4*	1206.42	4$^+$	E2		
2225.7?		404.8[c] *3*	100	1820.84	6$^+$			
2229.56	(4)$^+$	528.4[c] *3*	23 *2*	1702.74	(4)$^+$			
		1023.2 *3*	100 *11*	1206.42	4$^+$			
		1079.0 *3*	27 *4*	1150.82	2$^+$			
2285.3		1679.6 *3*	100	605.706	2$^+$			
2322.32		840.0 *3*	94 *9*	1482.11	1$^+$,2$^+$			
		1171.7 *3*	100	1150.82	2$^+$			
2352.7		1747.0 *3*	100	605.706	2$^+$			
2367.76	(5)$^+$	475.83[‡] *7*	56[‡] *3*	1891.92	(3)$^+$	E2		
		665.2[‡] *1*	22[‡] *3*	1702.74	(4)$^+$	M1+E2	+0.9 *+13−4*	I_γ: other: 46 *6* in ^{118}I β^+ decay (8.5 min).
		1161.2[‡] *1*	100[‡] *5*	1206.42	4$^+$	M1+E2	+7.2 *+5−12*	
2372.8		1767.1 *5*	100	605.706	2$^+$			
2422.4		719.6[c] *3*	100	1702.74	(4)$^+$			
2438.1		1231.7 *3*	100	1206.42	4$^+$			
2500.96		1018.0 *3*	48 *5*	1482.11	1$^+$,2$^+$			
		1350.3 *3*	100 *11*	1150.82	2$^+$			
		1895.9 *3*	84 *8*	605.706	2$^+$			
2517.20	5	366.7[&] *3*	26 *4*	2150.16	(6)$^+$			
		696.5 *3*	89 *7*	1820.84	6$^+$	D		E_γ: 696.4 *1* in (α,2nγ).
		814.2[&] *3*	78 *7*	1702.74	(4)$^+$			
		1311.0[&] *3*	100 *11*	1206.42	4$^+$			
2531.6		1325.2 *3*	100	1206.42	4$^+$			
2571.17		626.7 *3*	34 *2*	1944.51	3$^-$			
		1364.7 *3*	100 *10*	1206.42	4$^+$			
2573.90	8$^+$	753.06[‡] *3*	100[‡]	1820.84	6$^+$	E2		E_γ: others: 751.5 in (p,4nγ), 756 *5* in (α,3nγ).
2611.5		1460.7 *3*	100	1150.82	2$^+$			
2622.4		2016.7 *3*	100	605.706	2$^+$			
2730.4		1524.0 *3*	100	1206.42	4$^+$			
2762.1		2156.4 *3*	100	605.706	2$^+$			
2813.3?		1662.6[c] *3*	100	1150.82	2$^+$			
2852.3		2246.6 *3*	100	605.706	2$^+$			
2862.7		2257.0 *5*	100	605.706	2$^+$			
2914.42	(6$^+$)	397.0 *3*	6.1 *8*	2517.20	5			
		763.9 *3*	74 *7*	2150.16	(6)$^+$			
		938.4 *3*	34 *3*	1976.18	(4$^+$)			
		1093.6 *3*	100 *10*	1820.84	6$^+$			

$^{118}_{52}Te_{66}$-5

Adopted Levels, Gammas (continued)

γ(^{118}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[b]	δ[b]	Comments
2919.44	$(7)^+$	552.0 *3*	100 *5*	2367.76	$(5)^+$			Other: Eγ=551.60 *5*, Iγ=466 *6* in (α,2nγ). However, these correspond to a doublet.
		769.26[‡] *7*	100[‡] *5*	2150.16	$(6)^+$	M1(+E2)	0.00 *+3−18*	
		1098.6[‡] *2*	83[‡] *14*	1820.84	6^+	M1+E2	−2.3 *+9−15*	
2968.10		818.5 *3*	100 *11*	2150.16	$(6)^+$			
		1146.7 *3*	58 *7*	1820.84	6^+			
2999.44	8^+	849.3[‡] *2*	100[‡]	2150.16	$(6)^+$	E2		
2999.75	$(6^-,7^-)$	849.6[‡] *2*	15[‡] *3*	2150.16	$(6)^+$	D		
		1178.91[‡] *9*	100[‡] *2*	1820.84	6^+	(E1+M2)	+0.04 *2*	
3078.92	(6^+)	164.1 *3*	29 *3*	2914.42	(6^+)			
		929.3 *3*	39 *4*	2150.16	$(6)^+$			
		1257.7 *3*	100 *9*	1820.84	6^+			
		1872.7 *3*	4.5 *5*	1206.42	4^+			
3108.22		879.0 *3*		2229.56	$(4)^+$			
		958.1 *3*	77 *7*	2150.16	$(6)^+$			
		1287.0 *3*	100 *10*	1820.84	6^+			
3114.3		1293.5 *3*	100	1820.84	6^+			
3168.51		1018.6 *3*	63 *8*	2150.16	$(6)^+$			
		1347.4 *3*	100 *10*	1820.84	6^+			
3189.18	(8^-)	189.43[‡] *2*	100[‡]	2999.75	$(6^-,7^-)$	M1+E2	+0.20 *2*	B(M1)(W.u.)=0.014 *5*; B(E2)(W.u.)=11 *5*
3191.6		1041.4 *3*	100	2150.16	$(6)^+$			
3253.48		1390.4 *3*	46 *4*	1863.07	$1,2^+$			
		1771.8 *3*	64 *6*	1482.11	$1^+,2^+$			
		2102.2 *3*	100 *10*	1150.82	2^+			
3359.92	10^+	786.02[‡] *3*	100[‡]	2573.90	8^+	E2		
3400.10	$(8^-,9)$	400.69[‡] *10*	37[‡] *4*	2999.44	8^+	D		
		826.19[‡] *4*	100[‡] *2*	2573.90	8^+	D		
3438.9		2288.1 *3*	100	1150.82	2^+			
3444.69	10^+	445.25[‡] *5*	80[‡] *2*	2999.44	8^+	E2		
		870.79[‡] *3*	100[‡] *4*	2573.90	8^+	E2		E_γ: other: 871.7 in (HI,xnγ).
3460.44	$(8^-,9)$	461.00[‡] *8*	100[‡] *7*	2999.44	8^+	D+Q	−0.07 *+5−7*	
		886.55[‡] *9*	92[‡] *8*	2573.90	8^+	D+Q	−0.07 *+4−6*	
3586.63	$(9)^+$	667.19[‡] *5*	100[‡]	2919.44	$(7)^+$	E2		
3602.2?		2120.2[c] *3*	100	1482.11	$1^+,2^+$			
3679.92	$(8^-,9)$	1106.0[‡] *3*	100[‡]	2573.90	8^+	D		
3834.61	$(9,10)^+$	835.17[‡] *5*	100[‡]	2999.44	8^+			Mult.: E2 or M1+E2 with δ=0.6 *1*.
3881.23	(10^-)	692.05[‡] *4*	100[‡]	3189.18	(8^-)	E2		

$^{118}_{52}Te_{66}$-6

Adopted Levels, Gammas (continued)

γ(^{118}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult. [b]	Comments
4138.04	(10$^-$,11)	737.94‡ *5*	100‡	3400.10	(8$^-$,9)	E2	
4172.00	12$^+$	727.29‡ *7*	74‡ *3*	3444.69	10$^+$	E2	
		812.09‡ *4*	100‡ *3*	3359.92	10$^+$	E2	
4219.32	12$^+$	859.4‡ *1*	100‡	3359.92	10$^+$	E2	
4220.52	(10$^-$,11)	540.6‡ *1*	92‡ *5*	3679.92	(8$^-$,9)	E2	
		860.6‡ *1*	100‡ *10*	3359.92	10$^+$		
4288.43	(12$^-$)	407.20‡ *10*	100‡	3881.23	(10$^-$)	E2	
4347.82	(11)$^+$	761.18‡ *5*	100‡	3586.63	(9)$^+$	E2	
4582.09	(−)	700.86‡ *5*	100‡	3881.23	(10$^-$)	M1,E2	δ=−0.53 *+13−8* if M1+E2.
4855.73		635.21‡ *8*	100‡	4220.52	(10$^-$,11)	M1,E2	
4867.67	(12$^-$,13)	729.63‡ *9*	100‡	4138.04	(10$^-$,11)	E2	
4945.98	14$^+$	773.97‡ *4*	100‡	4172.00	12$^+$	E2	
4964.7		745.4@		4219.32	12$^+$		
5122.76	(14$^+$)	903.43‡ *9*	100‡	4219.32	12$^+$		
5346.67		400.69‡ *10*	100‡	4945.98	14$^+$		
5544.7		198@	100	5346.67			
5599.2		653.2@		4945.98	14$^+$		
6715.5		1368.8@		5346.67			
6743?		1198@c		5544.7			
7615?		872@c		6743?			
7862?		1146@c		6715.5			
8423?		808.2@c		7615?			
8907?		1045@c		7862?			
9028?		605@c		8423?			
		980@c		8049?			
9536?		508@c		9028?			
9924?		1017@c		8907?			
10538?		1002@c		9536?			
11851?		1313@c		10538?			

† From ^{118}I β^+ combined decay (13.7 min+8.5 min), unless otherwise noted.
‡ From (α,2nγ).
# From (p,4nγ).
@ From (HI,xnγ).

$^{118}_{52}Te_{66}$-7

$\gamma(^{118}Te)$ (continued)

[&] Not observed in $(\alpha,2n\gamma)$.
[a] From $(^{3}He,3n\gamma)$.
[b] From $(\alpha,2n\gamma)$ unless otherwise noted.
[c] Placement of transition in the level scheme is uncertain.

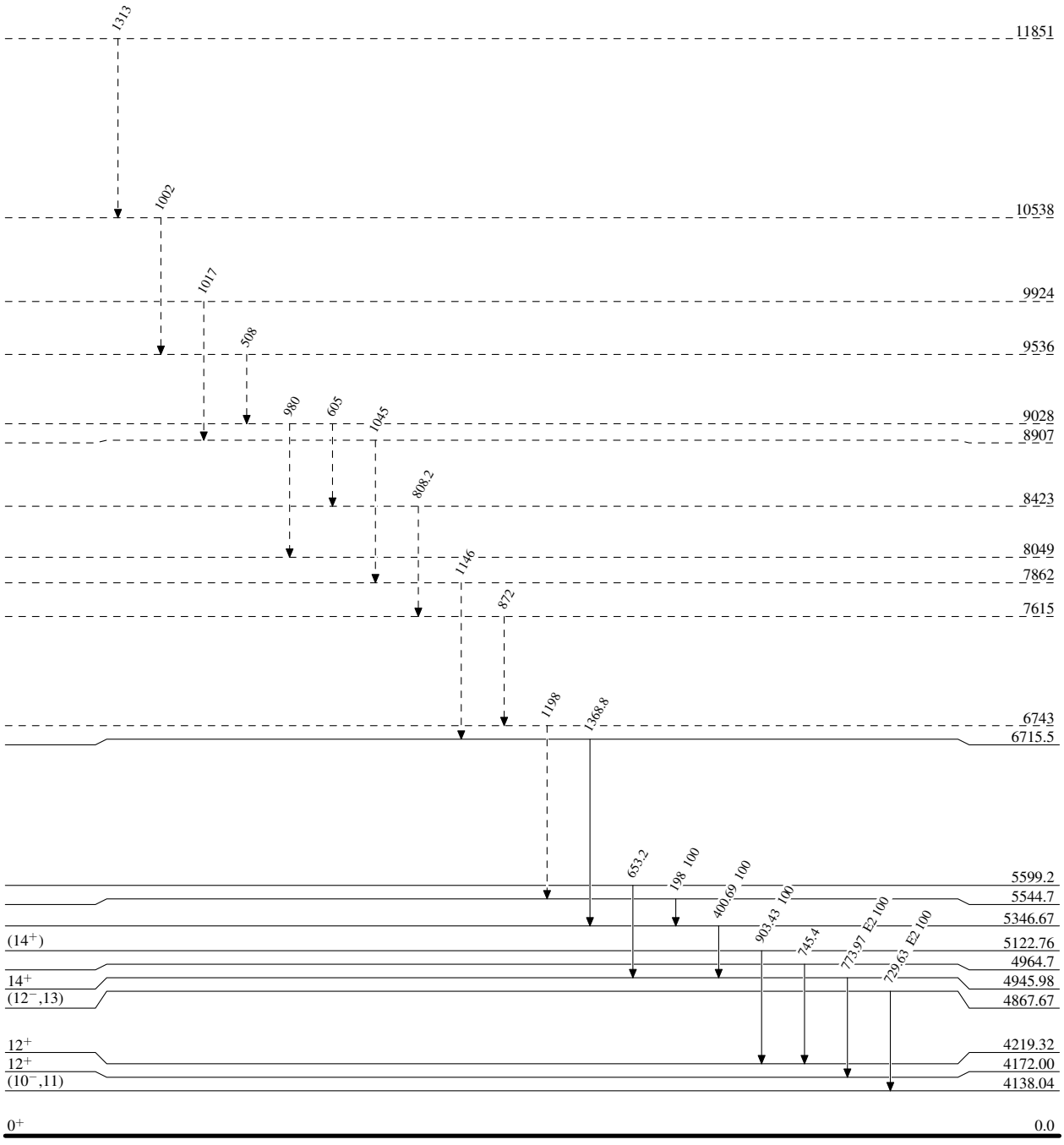
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{118}_{52}Te_{66}$

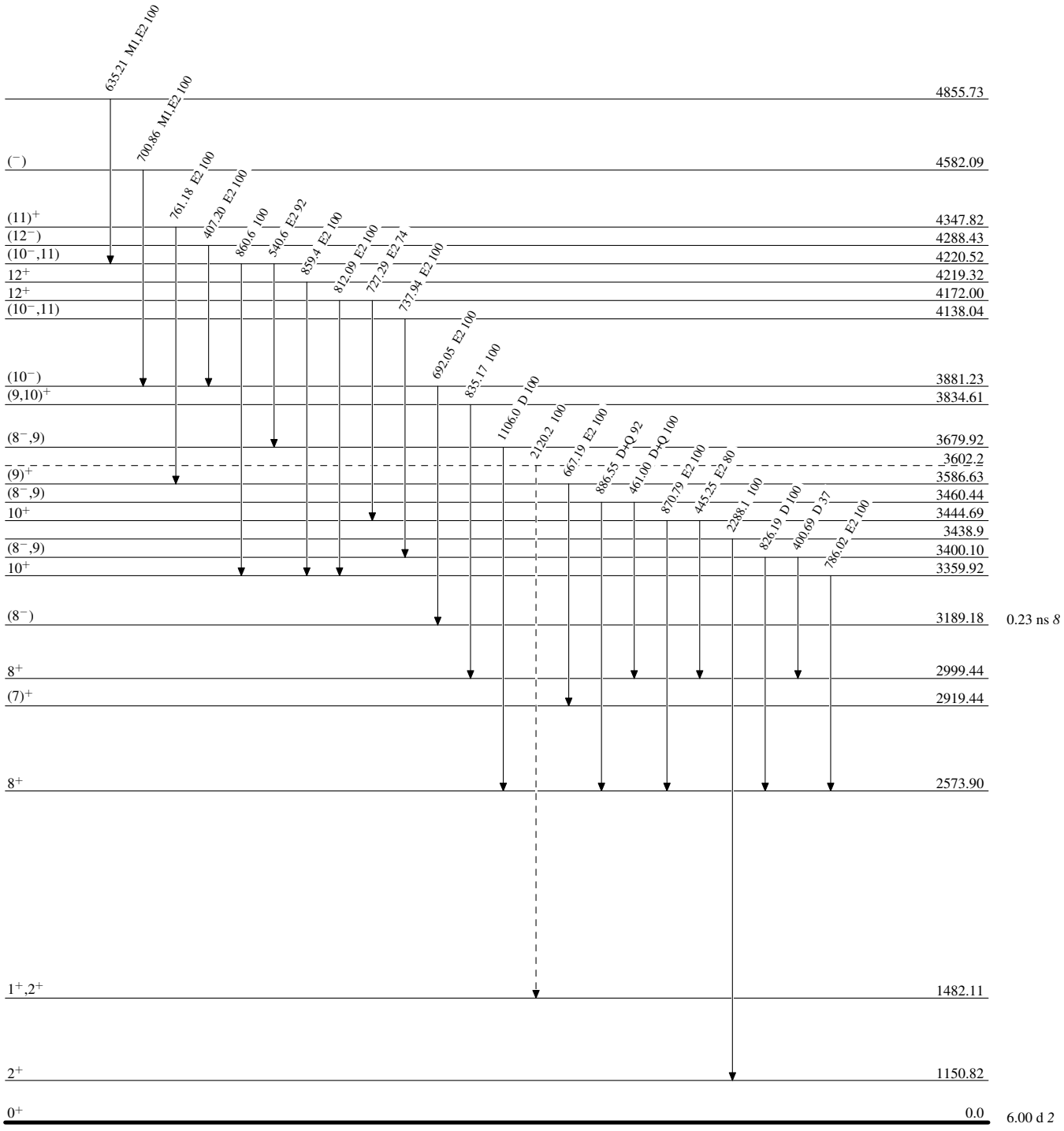
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{118}_{52}Te_{66}$

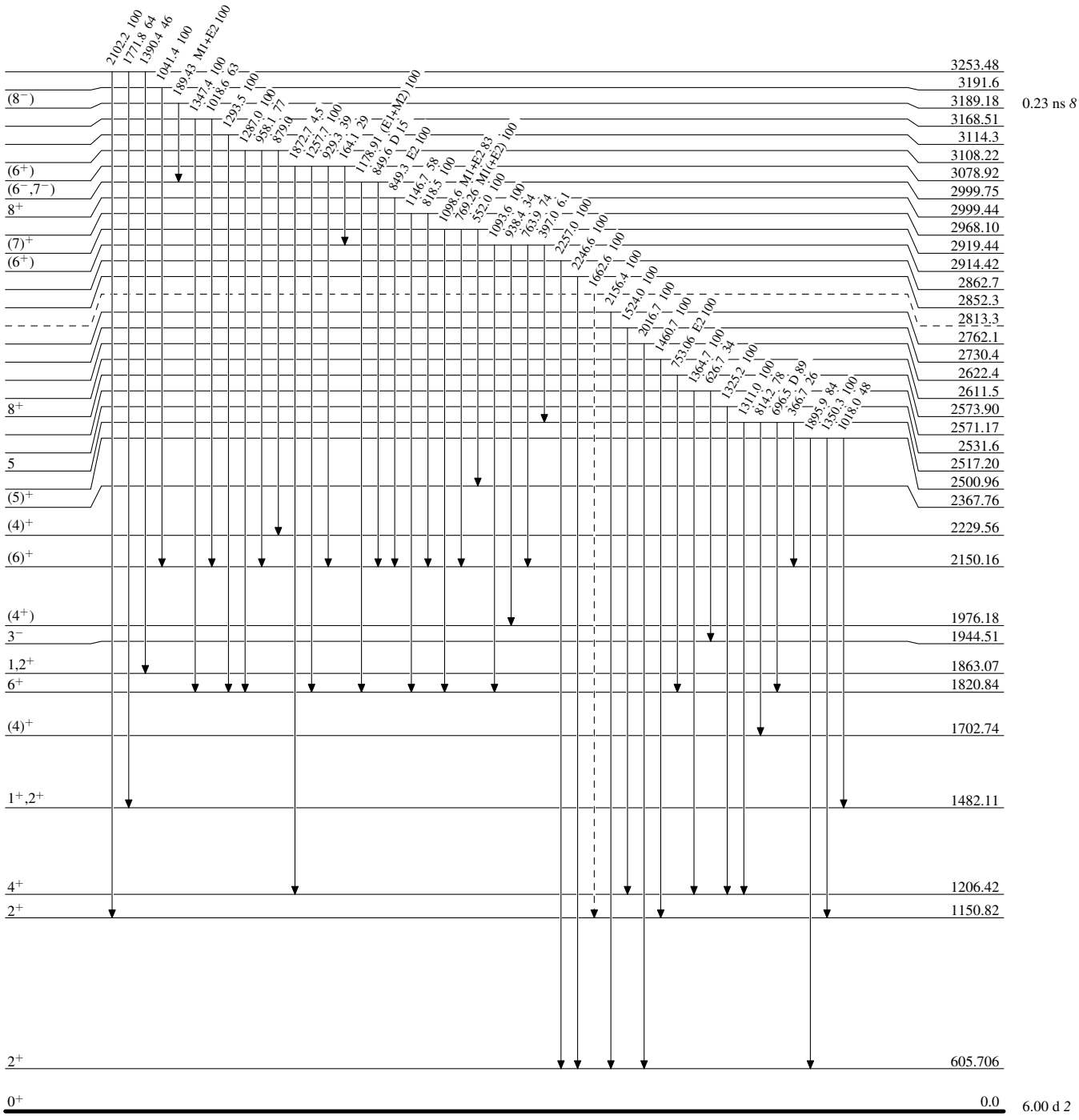
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{118}_{52}Te_{66}$

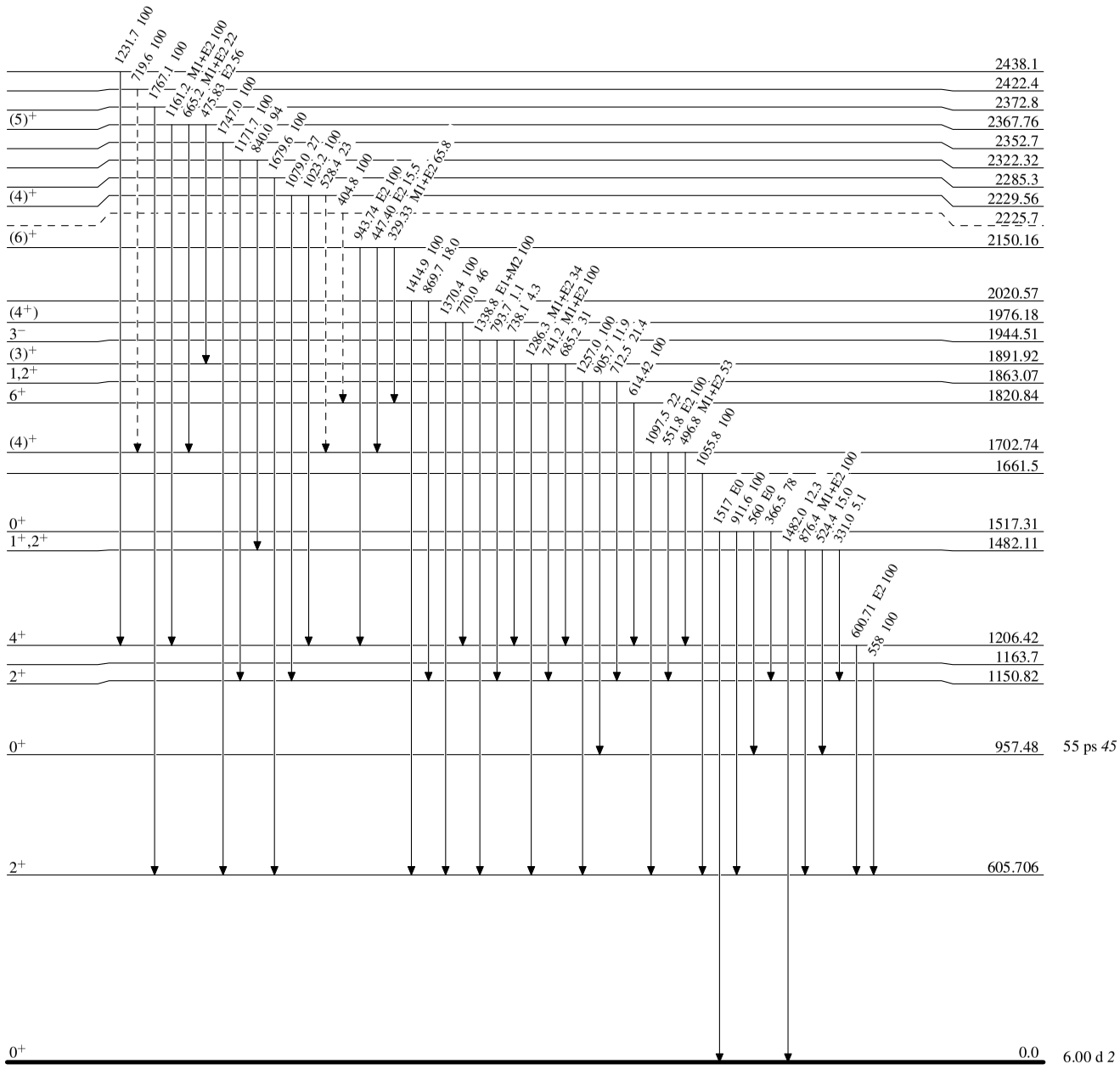
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

- - - - - - ► γ Decay (Uncertain)

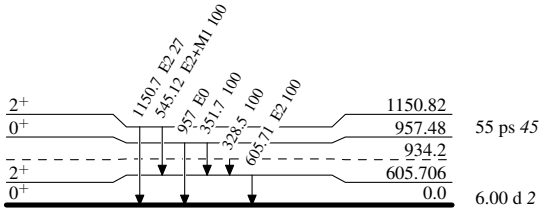


$^{118}_{52}Te_{66}$

Adopted Levels, Gammas

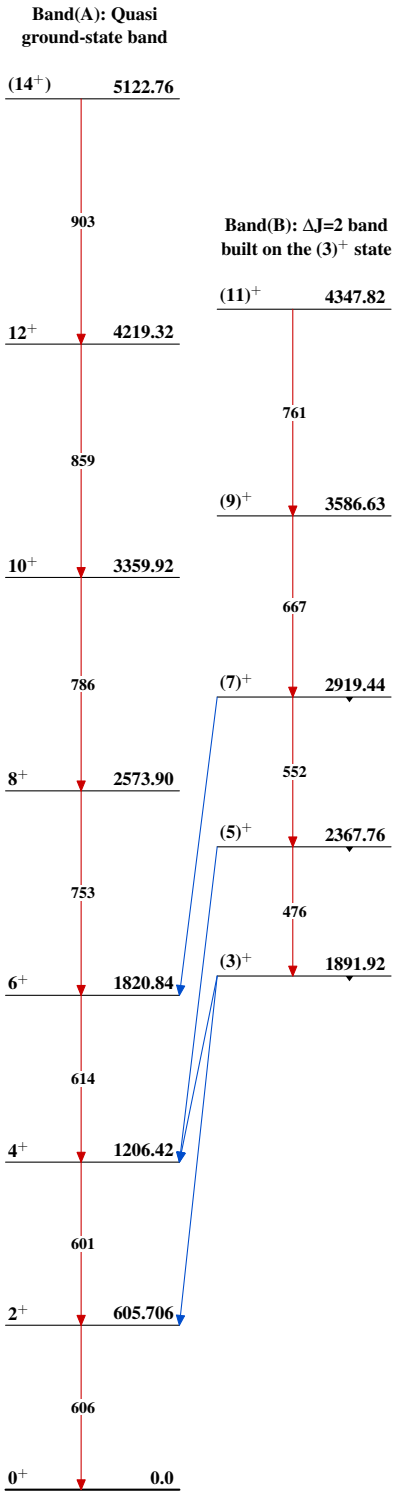
Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{118}_{52}Te_{66}$

Adopted Levels, Gammas



$^{118}_{52}Te_{66}$

Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	K. Kitao, Y. Tendow and A. Hashizume	NDS 96,241 (2002)	1-Dec-2001

Q(β^-)=−5615 *15*; S(n)=10258 *9*; S(p)=7183 *9*; Q(α)=−267 *4* 2012Wa38
Note: Current evaluation has used the following Q record −5615 1510296 137221 13-305 11 1995Au04.

^{120}Te Levels

Cross Reference (XREF) Flags

A	^{120}I ε decay (53 min)	E	^{118}Sn(α,2nγ)	I	^{121}Sb(p,2nγ)
B	^{120}I ε decay (81.6 min)	F	^{119}Sn(α,3nγ)	J	^{122}Te(p,t)
C	^{117}Sn(α,nγ),^{110}Pd(^{13}C,3nγ)	G	^{120}Sn(^{3}He,3nγ)		
D	^{118}Sn(^{3}He,n)	H	Coulomb excitation		

E(level)‡	J$^\pi$	T$_{1/2}$	XREF	Comments
0.0†	0$^+$	stable	ABCDEFGHIJ	
560.438† *20*	2$^+$	9.3 ps *19*	ABCDEFGHIJ	μ=+0.56 *8* J$^\pi$: E2 γ to 0$^+$. μ: transient field integral PAC (1989Ra17). Other: +0.78 *14* (1989Ra17). T$_{1/2}$: from B(E2)↑=0.55 *11*.
1103.10 *16*	0$^+$		BCDE IJ	XREF: D(1150). J$^\pi$: E0 transition to g.s.
1161.56† *3*	4$^+$#		ABC EFG	J$^\pi$: E2 γ to 2$^+$.
1201.27 *5*	2$^+$		ABC E I	J$^\pi$: E2 γ to 0$^+$, $\gamma(\theta)$ in (α,2nγ).
1535.08 *8*	2$^+$		BC E	J$^\pi$: M1+E2+E0 γ to 2$^+$.
1613.4 *10*	0$^+$		B D	XREF: D(1710). J$^\pi$: E0 transition to 0$^+$.
1776.23† *5*	6$^+$#		A C EF I	J$^\pi$: E2 γ to 4$^+$.
1815.12 *6*	4$^+$		ABC E	J$^\pi$: M1+E2 γ to 4$^+$, γ from 6$^+$ and γ to 2$^+$.
1863.29 *10*	3$^+$		A C E I	J$^\pi$: M1+E2 γ's to 2$^+$ and 4$^+$.
1924.40 *6*	2$^+$		BC E	J$^\pi$: E2 γ to 4$^+$, M1+E2 γ to 2$^+$, γ(linear pol) in (α,nγ) rules out J=3.
1936.6 *4*			B	
2083.06 *21*	3$^-$		AB J	J$^\pi$: L(p,t)=3.
2201.48 *5*	6$^+$		A C E	J$^\pi$: M1+E2 γ to 6$^+$, Q γ to 4$^+$ from $\gamma(\theta)$ in (α,2nγ).
2358.0 *3*			C	
2423.1?			C	
2428.1? *7*			A	
2445.6?			C	
2455.8 *3*	1$^+$		B	J$^\pi$: M1+E2 γ to 2$^+$, D γ to 0$^+$.
2461.37 *11*	3$^-$,4$^-$,5$^-$		C E	J$^\pi$: E1 γ to 4$^+$.
2519.90 *6*	6$^+$		C E	J$^\pi$: M1+E2 γ to 6$^+$; Q γ to 4$^+$ from $\gamma(\theta)$ in (α,2nγ).
2567.3 *3*	3$^-$,4$^-$,5$^-$		A	J$^\pi$: E1 γ to 4$^+$.
2612.8 *5*	2$^+$		B	J$^\pi$: γ to 0$^+$, M1+E2 γ to 3$^+$.
2652.97† *6*	8$^+$#		C E I	
2689.9 *10*	(2$^+$)		B	J$^\pi$: (M1+E2) γ to 2$^+$, $\gamma(\theta)$ from oriented nuclei rules out J=1,3.
2748.5 *10*	(2$^+$)		B	J$^\pi$: (M1+E2) γ to 2$^+$, $\gamma(\theta)$ from oriented nuclei rules out 1$^+$,3$^+$.
2807.3 *3*			C	
2835.34 *9*	(8$^+$)		C E	J$^\pi$: E2 γ to 6$^+$, no γ to 4$^+$; $\gamma(\theta)$ from oriented nuclei rules out 7$^+$.
2877.63 *13*	(6)$^-$		C E	J$^\pi$: M1+E2 γ to 5$^-$, no γ to 4$^+$.
2899.20 *7*	(7)$^-$		C E	J$^\pi$: E1 γ to 6$^+$, no γ to 4$^+$.
2936.8 *4*	2$^+$		B	J$^\pi$: M1+E2 γ to 2$^+$, $\gamma(\theta)$ from oriented nuclei supports a E2 γ to 4$^+$.
2940.28 *7*	(7)$^+$		C E	J$^\pi$: M1+E2 γ to 6$^+$, no γ to 4$^+$.
2964.2 *5*	2$^+$,3$^+$		B	J$^\pi$: M1+E2 γ's to 2$^+$ and 3$^+$.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{120}Te Levels (continued)

E(level)‡	Jπ	XREF	Comments
3030.56 *8*	$(7)^-$	C E	Jπ: E1 γ to 6^+, no γ to 4^+.
3036.3 *10*	(4^+)	B	Jπ: γ(θ) from oriented nuclei.
3039.26 *7*	$(8)^+$	C E	Jπ: E2 γ to 6^+, no γ to 4^+.
3052.2 *7*	2,3	B	Jπ: ΔJ=1 γ to 2^+, γ(θ) from oriented nuclei rules out J=1.
3122.7 *4*		A	
3130.85 *9*	$(9)^+$	C E	Jπ: M1+E2 γ to 8^+, no γ to 6^+.
3136.1 *10*	$(2,3)^+$	B	Jπ: γ(θ) from oriented nuclei.
3142.17 *7*	(8^-)	C E	Jπ: M1+E2 γ to (7^-), no γ's to 3^-, 4^+.
3163.0 *20*	$1^+,2^+,3^+$	B	Jπ: M1+E2 γ to 2^+.
3255.9 *15*	$3,4^+$	B	Jπ: ΔJ=1 γ to 4^+, log $f^{1u}t$=9.00 from 2^- does not allow 4^- and 5^-.
3286.2 *5*	$(2,3)^+$	B	Jπ: log *ft*=7.18 from 2^-, (M1+E2) γ to $(3)^+$.
3341.6 *10*	$2^+,3$	BC	
3364.30 *7*	(10^+)	C E	Jπ: E2 γ to 8^+, no γ to 6^+.
3366.4 *6*	1,2,3	B	Jπ: log *ft*=7.13 from 2^-.
3371.7 *15*	2^+	B	Jπ: γ(θ) from oriented nuclei.
3374.20 *8*	(9^-)	C E	Jπ: E1 γ to (8^+), no γ to 6^+.
3399.74 *8*	(9^-)	C E	Jπ: E1 γ to (8^+), no γ to 6^+.
3487.41 *10*	(10^+)	C E	Jπ: M1+E2 γ to 9^+, no γ to (7^+).
3493.9 *5*	2^+	B	Jπ: γ(θ) from oriented nuclei.
3543.59† *9*	(10^+)#	C E	
3567.27 *12*		E	
3665.9 *5*	$(2,3)^+$	B	Jπ: from γ(θ) from oriented nuclei.
3672.1 *6*		B	
3765.7 *10*	$(2^+,3^+)$	B	Jπ: γ(θ) from oriented nuclei.
3813.61 *9*	(10^-)	C E	Jπ: E2 γ to (8^-), no γ to (7^-).
3881.49 *12*	11^+	E	
3886.8 *11*	$(2^+,3^+)$	B	Jπ: γ(θ) from oriented nuclei.
4086.39 *9*	(11^-)	C E	Jπ: E1 γ to (10^-), no γ to (8^+).
4092.91 *9*	(12^+)	C E	Jπ: stretched E2 γ to (10^+).
4459.79† *13*	(12^+)#	C E	
4503.26 *11*	(12^-)	E	Jπ: E2 γ to (10^-), no's γ to (8^-) and (9^-).
4815.3		E	
4818.72 *13*	(14^+)	C E	Jπ: stretched E2 γ to (12^+).
5345.12 *16*	(16^+)	C E	Jπ: stretched E2 γ to (14^+).
6039.1 *6*		C	

† Band(A): ground-state ΔJ=2 band.
‡ From a least-squares fit to the adopted E(γ's) by the evaluators.
# Cascading γ's and from an expected band structure.

Adopted Levels, Gammas (continued)

γ(^{120}Te)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[&]	δ[a]	α[b]	Comments
560.438	2^+	560.44 *2*	100	0.0	0^+	E2			B(E2)(W.u.)=31 *6*
1103.10	0^+	542.8[‡] *3*	100	560.438	2^+				
		1103.2 *2*		0.0	0^+	E0			
1161.56	4^+	601.11 *2*	100	560.438	2^+	E2			E_γ: other: 603 *5* (α,2nγ).
1201.27	2^+	640.85 *5*	100 *5*	560.438	2^+	M1+E2	−0.92 *9*		δ: other: −2.4 *16* in ε decay (81.6 min).
		1201.2 *1*	27 *3*	0.0	0^+	E2			
1535.08	2^+	334.0[@] *10*	5.0[@] *8*	1201.27	2^+	M1+E2		0.0268 *7*	δ: −0.36 *3* or 13 *+6−3*.
		433.0[@] *5*	20[@] *4*	1103.10	0^+	E2		0.0124	
		974.64 *8*	92 *8*	560.438	2^+	E0+M1+E2	<−0.05		I_γ: from ε decay (81.6 min). δ: other: −3.3 *27* in ε decay (81.6 min).
		1534.9[@] *5*	100[@] *9*	0.0	0^+	(E2)			
1613.4	0^+	511[@c]	[@]	1103.10	0^+	E0			
		1053.0[@] *10*	100[@]	560.438	2^+				
		1614[@c]	[@]	0.0	0^+	E0			
1776.23	6^+	614.62 *4*	100	1161.56	4^+	E2			E_γ: 614.0 in ε decay (81 min).
1815.12	4^+	613.8 *4*	87 *26*	1201.27	2^+	(E2)			E_γ: other: 614.0 in ε decay (81.6 min).
		653.54[@] *5*	100[@] *6*	1161.56	4^+	M1+E2	−0.56 *+28−37*		δ: other: −0.44 *+20−26* in ε decay (81.6 min).
		1255.4[@] *6*	32[@] *6*	560.438	2^+				
1863.29	3^+	662.0 *1*	100 *10*	1201.27	2^+	M1+E2			I_γ,Mult.: from ^{120}I ε decay (81.6 min).
		701.4[@] *5*	35[@] *7*	1161.56	4^+	M1+E2	−2.2 *18*		I_γ: other: 18 in (p,2nγ). Mult.: from ^{120}I ε decay (81.6 min).
		1303.1 *2*	88 *9*	560.438	2^+	M1+E2	0.17 *+15−16*		I_γ: others: 55 in (p,2nγ); 100 *50* in (α,nγ),(^{13}C,3nγ).
1924.40	2^+	762.80 *5*	59 *4*	1161.56	4^+	E2			I_γ: others: 100 *33* in (α,nγ),(^{13}C,3nγ); 65 in ε decay (81.6 min).
		1364.1 *1*	100 *10*	560.438	2^+	M1(+E2)	−0.14 *+14−5*		
1936.6		735.3[@] *4*	100[@]	1201.27	2^+				
2083.06	3^-	881.8[@] *5*	2.5[@] *5*	1201.27	2^+				I_γ: other: 6.4 *9* in ε decay (53 min).
		921.3[@] *4*	3.4[@] *7*	1161.56	4^+				I_γ: other: <6.4 in ε decay (53 min).
		1523.0[@] *4*	100[@] *7*	560.438	2^+				
2201.48	6^+	385.0[@] *5*	12[@] *2*	1815.12	4^+				
		425.23 *3*	56 *2*	1776.23	6^+	M1+E2	+0.14 *+5−7*	0.0141	I_γ: others: 43 *8* in ε decay (53 min), 48 *5* in (α,nγ),(^{13}C,3nγ). δ: other: 0.40 *64* in ε decay (53 min).
		1040.02 *6*	100 *5*	1161.56	4^+	E2			
2358.0		1196.4[‡] *3*	100	1161.56	4^+				
2423.1?		1261.2[‡c] *3*	100	1161.56	4^+				

$^{120}_{52}Te_{68}$-3

Adopted Levels, Gammas (continued)

γ(^{120}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[&]	δ[a]	α[b]	Comments
2428.1?		651.9[#c] *5*	100[#]	1776.23	6^+				
2445.6?		1283.7[‡c] *3*	100	1161.56	4^+				
2455.8	1^+	529.0[@] *10*	11[@] *2*	1924.40	2^+				
		921.3[@] *4*	13[@] *3*	1535.08	2^+				
		1255.4[@] *6*	42[@] *8*	1201.27	2^+				
		1895.0[@] *10*	36[@] *7*	560.438	2^+	M1+E2			
		2454.8[@] *5*	100[@] *10*	0.0	0^+	D			
2461.37	$3^-,4^-,5^-$	1299.8 *1*	100 *8*	1161.56	4^+	E1			
2519.90	6^+	704.77 *7*	58 *4*	1815.12	4^+	E2			
		743.65 *6*	100 *5*	1776.23	6^+	M1+E2	0.90 *20*		
		1358.6 *2*	24 *10*	1161.56	4^+	E2			
2567.3	$3^-,4^-,5^-$	1405.0[#] *5*	100[#] *10*	1161.56	4^+	E1			
2612.8	2^+	529.0[@] *10*	3.1[@] *6*	2083.06	3^-				
		749.0[@] *10*	22[@] *5*	1863.29	3^+	M1+E2			
		1451.7[@] *7*	100[@] *20*	1161.56	4^+	E2			
		2613.0[@] *10*	56[@] *11*	0.0	0^+	(E2)			
2652.97	8^+	876.73 *4*	100	1776.23	6^+				
2689.9	(2^+)	2129.4[@] *10*	100[@]	560.438	2^+	(M1+E2)			
2748.5	(2^+)	2188.0[@] *10*	100[@] *10*	560.438	2^+	(M1+E2)			
2807.3		1031.1[‡] *3*	100	1776.23	6^+				
2835.34	(8^+)	634.0[‡] *5*		2201.48	6^+				
		1059.10 *7*	100 *3*	1776.23	6^+	E2			
2877.63	$(6)^-$	416.26 *7*	100 *5*	2461.37	$3^-,4^-,5^-$	M1+E2	−0.25 *+8−9*	0.0148	
		1101.3[‡c] *3*		1776.23	6^+				
2899.20	$(7)^-$	1122.93 *8*	100 *6*	1776.23	6^+	E1			
2936.8	2^+	853.3[@] *5*	22[@] *4*	2083.06	3^-				
		1074.0[@] *10*	70[@] *14*	1863.29	3^+				
		1325.0[@c] *10*	[@]	1613.4	0^+				
		1402.1[@] *7*	64[@] *13*	1535.08	2^+				
		1775.8[@] *10*	100[@] *10*	1161.56	4^+	E2			
		2378.4[@] *15*	98[@] *10*	560.438	2^+	M1+E2			
2940.28	$(7)^+$	1164.05 *9*	100 *10*	1776.23	6^+	M1+E2	−0.45 *+3−14*		
2964.2	$2^+,3^+$	1101.0[@] *5*	38[@] *7*	1863.29	3^+	M1+E2			
		2403.2[@] *10*	100[@] *10*	560.438	2^+	M1+E2			
3030.56	$(7)^-$	1254.36 *9*	100	1776.23	6^+	E1			E_γ: other: 1254.8 *3* in (α,nγ),(^{13}C,3nγ).

Adopted Levels, Gammas (continued)

γ(^{120}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[&]	δ[a]	α[b]	Comments
3036.3	(4$^+$)	1874.7[@] *10*	100[@]	1161.56	4$^+$	(M1+E2)			
3039.26	(8)$^+$	837.79 *5*	100	2201.48	6$^+$	E2			
3052.2	2,3	969.1[@] *8*	100[@] *10*	2083.06	3$^-$				
		2491.8[@] *10*	66[@] *7*	560.438	2$^+$	D(+Q)			
3122.7		694.4[#c] *7*	3[#] *1*	2428.1?					
		921.3[#c] *4*	<23[#]	2201.48	6$^+$				
		1345.9[#] *4*	100[#] *7*	1776.23	6$^+$				
3130.85	(9)$^+$	295.51 *3*	100	2835.34	(8$^+$)	M1+E2	+0.25 *+6−2*	0.0362 *1*	E_γ: other: 296.0 *3* in (α,nγ),(^{13}C,3nγ).
3136.1	(2,3)$^+$	1601.0[@] *10*	100[@]	1535.08	2$^+$	(M1+E2)			
3142.17	(8$^-$)	111.63 *5*	100 *4*	3030.56	(7)$^-$	M1+E2	0.20 *+9−7*	0.53 *3*	E_γ: other: 112.1 *3* in (α,nγ),(^{13}C,3nγ).
		201.89 *3*	44 *2*	2940.28	(7)$^+$	E1+M2	−0.09 *+9−4*	0.032 *13*	
		242.97 *3*	77 *3*	2899.20	(7)$^-$	M1+E2	1.0 *2*	0.069 *2*	
3163.0	1$^+$,2$^+$,3$^+$	2602.5[@] *20*	100[@]	560.438	2$^+$	M1+E2			
3255.9	3,4$^+$	2094.3[@] *15*	100[@]	1161.56	4$^+$	D(+Q)			
3286.2	(2,3)$^+$	1422.9[@] *5*	100[@]	1863.29	3$^+$	(M1+E2)			
3341.6	2$^+$,3	2180.0[@] *10*	100[@]	1161.56	4$^+$				
3364.30	(10$^+$)	325.04 *3*	100 *3*	3039.26	(8)$^+$	E2		0.0299	
		711.3 *1*	20 *3*	2652.97	8$^+$	E2			I_γ: other: <53 in (α,nγ),(^{13}C,3nγ).
3366.4	1,2,3	1283.4[@] *7*	35[@] *7*	2083.06	3$^-$				
		2165.0[@] *10*	100[@] *21*	1201.27	2$^+$				
3371.7	2$^+$	2811.2[@] *15*	100[@]	560.438	2$^+$	M1+E2			
3374.20	(9$^-$)	721.21 *6*	100 *2*	2652.97	8$^+$	E1			
3399.74	(9$^-$)	746.77 *6*	100	2652.97	8$^+$	E1			
3487.41	(10$^+$)	356.56 *4*	100	3130.85	(9)$^+$	M1+E2	+0.29 *+14−8*	0.0221	
3493.9	2$^+$	1410.9[@] *5*	100[@] *10*	2083.06	3$^-$	(E1)			
		2932.9[@] *15*	68[@] *14*	560.438	2$^+$	M1+E2			
3543.59	(10$^+$)	890.63 *7*	100 *7*	2652.97	8$^+$	E2			
3567.27		914.3 *1*	100	2652.97	8$^+$				
3665.9	(2,3)$^+$	729.2[@] *4*	13[@] *3*	2936.8	2$^+$				
		2462.8[@] *15*	100[@] *10*	1201.27	2$^+$	D			
3672.1		735.3[@] *4*	100[@]	2936.8	2$^+$				
3765.7	(2$^+$,3$^+$)	2564.4[@] *10*	100[@]	1201.27	2$^+$	(M1+E2)			
3813.61	(10$^-$)	671.43 *5*	100	3142.17	(8$^-$)	E2			
3881.49	11$^+$	394.08 *7*	100	3487.41	(10$^+$)	M1+E2	+0.40 *+38−20*	0.0170 *2*	
3886.8	(2$^+$,3$^+$)	950.0[@] *10*	100[@]	2936.8	2$^+$	(M1+E2)			

$^{120}_{52}Te_{68}$-5

Adopted Levels, Gammas (continued)

γ(^{120}Te) (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [†]	E_f	J_f^π	Mult.[&]	Comments
4086.39	(11$^-$)	542.82 *8*	46 *8*	3543.59	(10$^+$)	E1	
		686.65 *5*	64 *6*	3399.74	(9$^-$)	E2	
		712.0 *2*	100 *17*	3374.20	(9$^-$)	E2	
4092.91	(12$^+$)	728.61 *5*	100	3364.30	(10$^+$)	E2	
4459.79	(12$^+$)	916.2 *1*	100	3543.59	(10$^+$)	E2	E_γ: other: 915.0 *5* in (α,nγ),(^{13}C,3nγ).
4503.26	(12$^-$)	689.65 *7*	100	3813.61	(10$^-$)	E2	
4815.3		729.0[c]		4086.39	(11$^-$)		
4818.72	(14$^+$)	725.8 *1*	100 *7*	4092.91	(12$^+$)	E2	
5345.12	(16$^+$)	526.40 *9*	100 *29*	4818.72	(14$^+$)	E2	E_γ: other: 525.9 *3* in (α,nγ),(^{13}C,3nγ).
6039.1		694.0[‡] *5*		5345.12	(16$^+$)		

[†] From (α,2nγ), unless otherwise noted.
[‡] From (α,nγ),(^{13}C,3nγ).
[#] From ε decay (53 min).
[@] From ε decay (81.6 min).
[&] From α(K)exp, $\gamma(\theta)$ and γ-ray linear polarization in (α,2nγ) and (α,nγ),(^{13}C,3nγ).
[a] From $\gamma(\theta)$. Values are from (α,2nγ), unless otherwise noted.
[b] 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.
[c] Placement of transition in the level scheme is uncertain.

$^{120}_{52}Te_{68}$-6

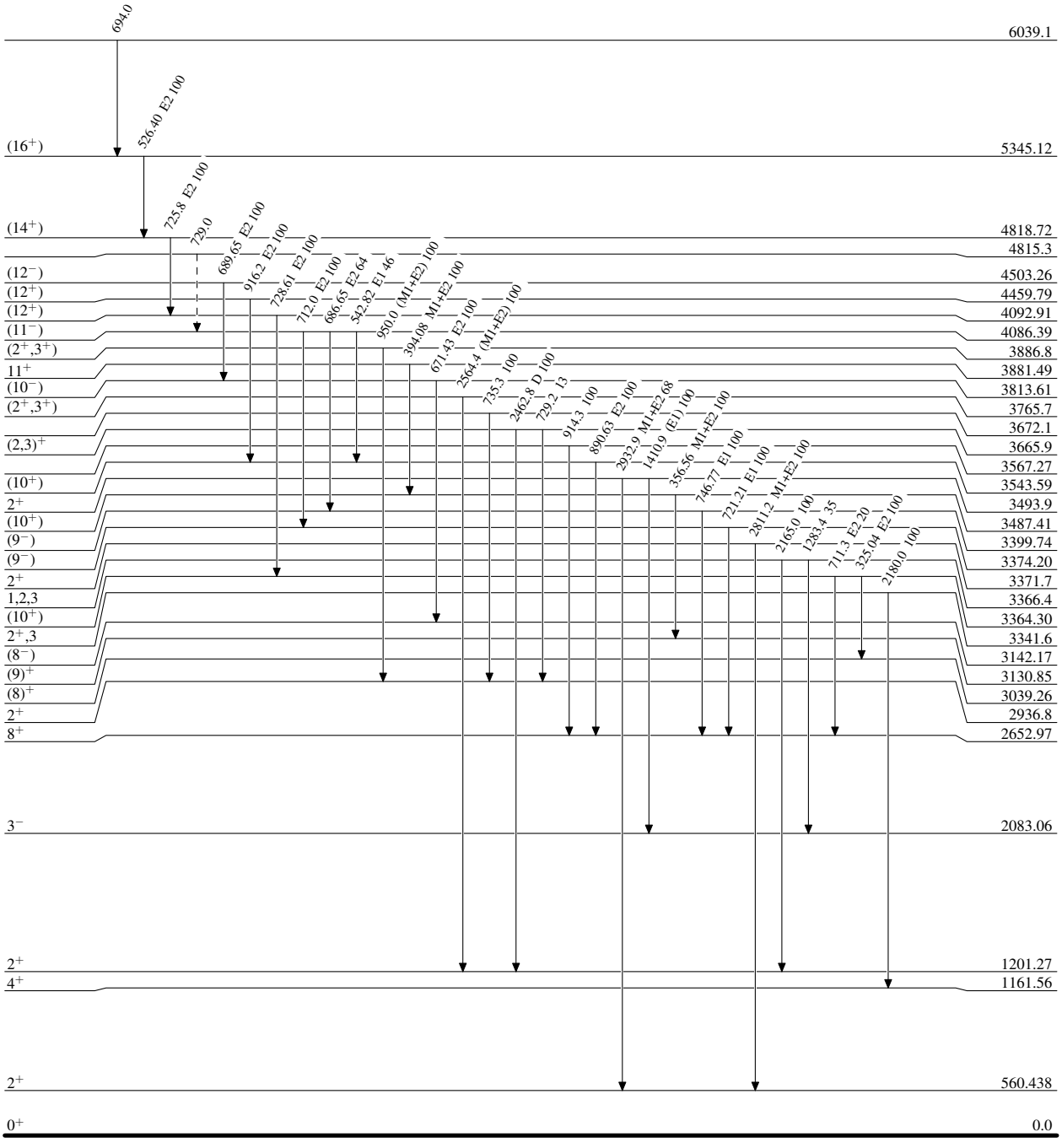
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{120}_{52}Te_{68}$

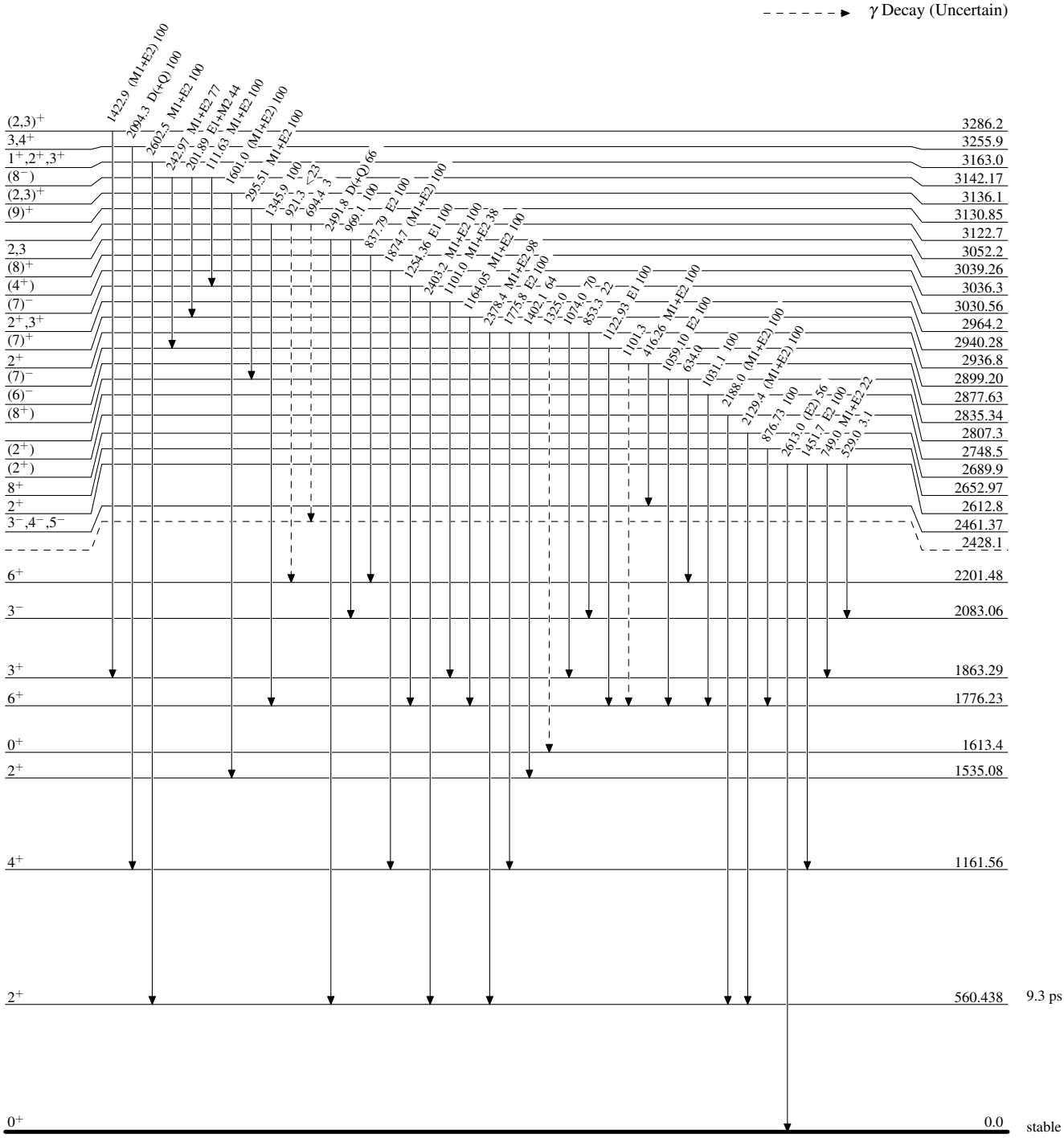
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{120}_{52}Te_{68}$

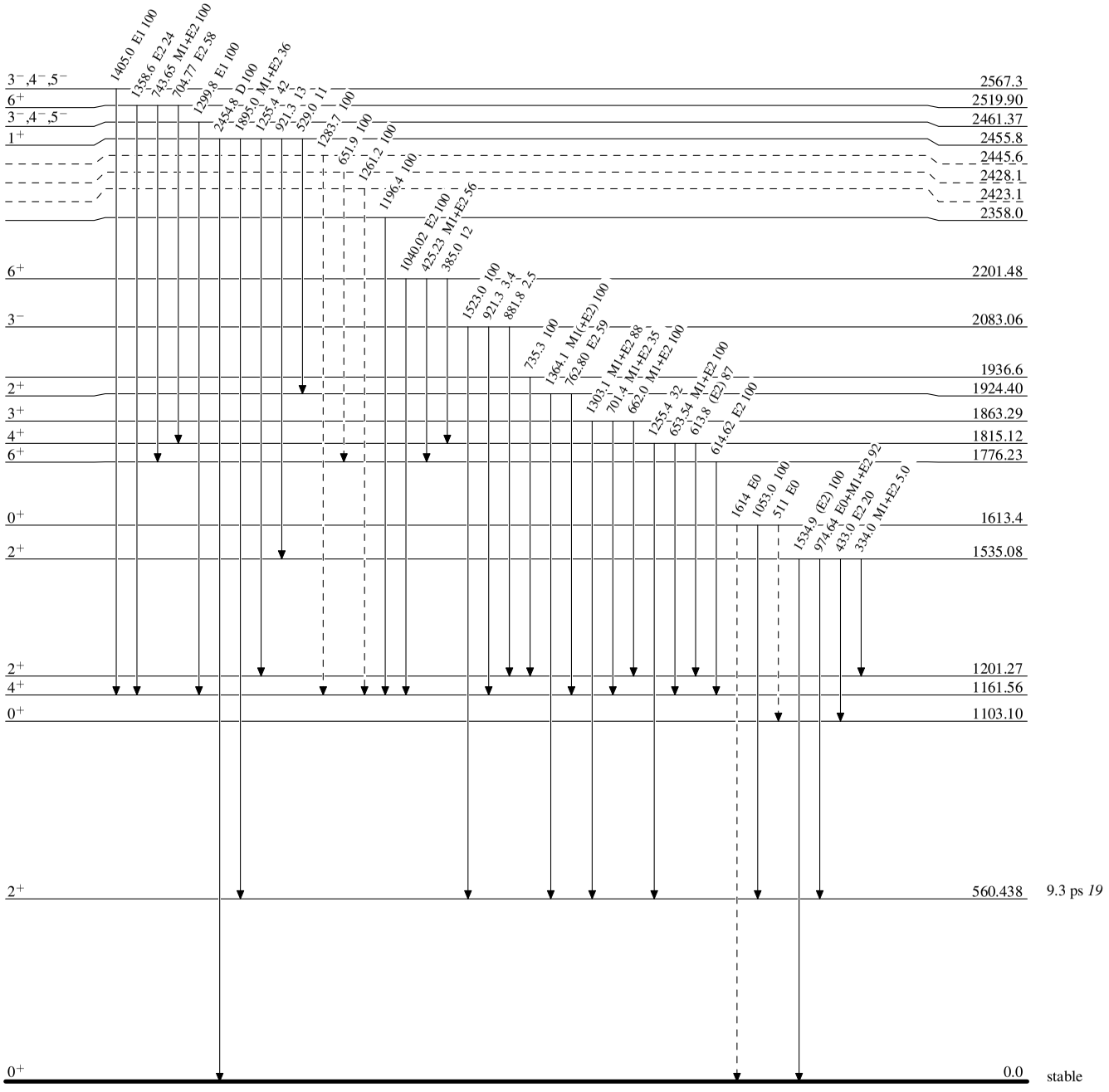
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

– – – – – – ► γ Decay (Uncertain)

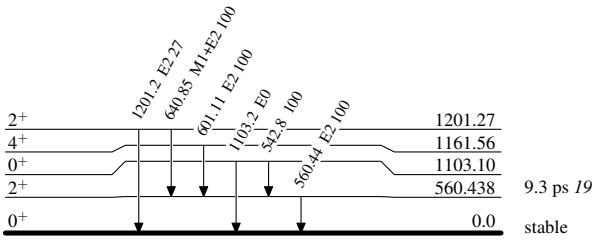


$^{120}_{52}Te_{68}$

Adopted Levels, Gammas

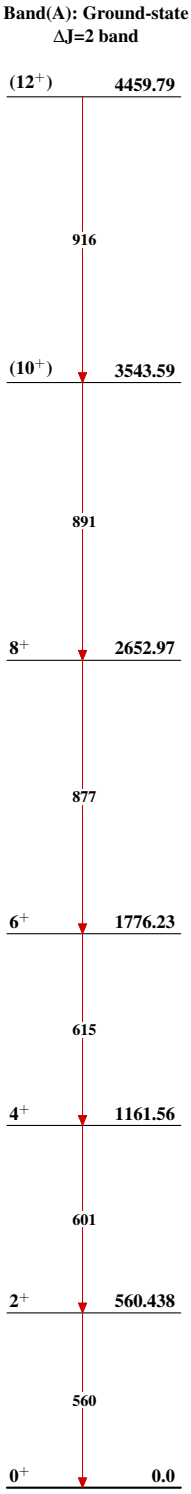
Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{120}_{52}Te_{68}$

Adopted Levels, Gammas



$^{120}_{52}Te_{68}$

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. Tamura	NDS 108,455 (2007)	30-Sep-2006

Q(β^-)=−4234 *5*; S(n)=9.84×10^3 *3*; S(p)=8004.8 *25*; Q(α)=−1086.5 *16* 2012Wa38
Note: Current evaluation has used the following Q record −4234 5 *9834* 268007.9 *19*−1082.9 *29* 2003Au03.

^{122}Te Levels

Assignments of cross references become difficult in the regions of high level density: doublets and triplets: 1747-, 1751- and 1752-triplet; 2283.9-, 2287.4-doublet; 2407.6-, 2407.9-doublet; 2592.4-, 2593.5-doublet; 2600.9-, 2603.8-doublet; 2756.1-, 2758.5- and 2758.8-triplet; 2800.9-, 2801.5-doublet; 2911.24-, 2911.24- and 2913.5-triplet; 2993.5-, 2994.7-, 2996.3 and 2998.0-multiplet; 3037.1-, 3042.0- 3044.7-, 3047.8- and 3052.3-multiplet and many others.

Cross Reference (XREF) Flags

A	^{122}Sb β^- decay	F	^{120}Sn(α,2nγ),^{119}Sn(α,nγ)	K	^{122}Te(γ,γ')
B	^{122}I ε decay	G	^{121}Sb(^{3}He,d)	L	^{122}Te(d,d′)
C	^{122}Te(n,n′γ) E=1.7,2.8,3.4 MeV	H	^{124}Te(p,t)	M	^{123}Te(d,t)
D	^{122}Te(n,n′γ) E=fast	I	Coulomb excitation	N	^{123}Te(^{3}He,^{4}He)
E	^{116}Cd(^{9}Be,3nγ)	J	^{122}Te(p,p′)	O	^{120}Sn(^{3}He,n)

E(level)†	Jπ‡	$T_{1/2}$#	XREF	Comments
0.0@	0+	stable	ABCDEFGHIJKLMNO	Nuclear rms charge radius=4.7084 fm *21* (2004An14).
564.094@ *16*	2+	7.46 ps *5*	ABCDEFGHIJKLMN	μ=+0.66 *4*; Q=−0.50 *5*; B(E2)↑=0.664 *4* μ: transient field integral perturbed angular correlations (1988Du10); others: +0.68 *4* (1985ThZX), +0.66 *6* (1981Sh15), +0.56 *10* (1985Gr17). +0.72 *4* integral perturbed angular correlation (1988Du10) and reevaluated by 2005St24. Q: Coulomb excitation reorientation (1978Be10) and reevaluated in 2005St24. Other: −0.57 *5* (1978Be10). B(E2) from Coulomb excitation. Jπ: L=2 in (p,t) and (p,p′); stretched E2 γ to 0+. $T_{1/2}$: from B(E2); other: 8.4 ps *8* from total width in (γ,γ').
1181.248@ *25*	4+		ABCDEFGHIJ LMN	XREF: A(1179.3)H(1190). Jπ: stretched E2 γ to 2+, E1 γ from 5−.
1256.953 *16*	2+	0.8 ps +*6*−*3*	ABCDEFGHIJKLMN	Jπ: M1+E2 γ to 2+, E2 γ to 0+. $T_{1/2}$: other: 0.72 ps *17* from B(E2) in Coulomb excitation.
1357.401& *24*	0+	>1.39 ps	ABCDEFGHIJ LM	Jπ: E0 to 0+.
1747.04 *3*	0+	>1.32 ps	CD GH j LmnO	XREF: G(1749.8)j(1743)m(1749.03)n(1750)O(1620). E(level): unresolved doublet of near-lying levels in (d,d′), (p,p′), (^{3}He,d), (d,t), and (^{3}He,^{4}He). Jπ: 490$\gamma(\theta)$ and 1183$\gamma(\theta)$ are isotropic in (n,n′γ); J-dependence of excitation function of 1183γ; L=(0) in (p,t);
1751.32@ *5*	6+		CDEFg j lmn	XREF: g(1749.8)j(1743)l(1751.5)m(1749.03)n(1750). Jπ: stretched E2 γ to 4+ in (α,2nγ).
1752.62& *3*	2+	0.38 ps +*5*−*4*	ABCD I lmn	XREF: l(1751.5)m(1749.03)n(1750). Jπ: (M1+E2) γ to 2+, E2 γ to 0+.
1909.61& *4*	4+	0.85 ps +*35*−*20*	CDEFGH J LMN	Jπ: stretched E2 γ's to 2+, M1+E2 γ to 4+;
1940.44 *9*	0+	>1.39 ps	BCD G L	Jπ: E0 to 0+; 683$\gamma(\theta)$, 1376$\gamma(\theta)$ are isotropic in (n,n′γ) (1990BeYR,2005Hi04).
1951.92 *4*	3+		CD FG N	E(level): admixture of other isotope in (^{3}He,^{4}He). Jπ: M1(+E2) γ's to 2+ and 4+.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{122}Te Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	XREF	Comments
2041.18 *4*	4^+	0.59 ps *+10−8*	CD FGH J LM	E(level): admixture of ^{124}Te component in (^{3}He,d). Jπ: L=4 in (p,p′).
2099.22 *4*	$(2)^+$	0.261 ps *+21−19*	BCD G LMN	Jπ: (E2) γ to 0^+, M1+E2 γ to 2^+.
2196.81 *4*	3^-	0.1040 ps *35*	CD gHIJ LMN	B(E3)↑=0.12 *4* (2002Ki06) XREF: g(2202.8). E(level): unresolved doublet of the near-lying levels in (^{3}He,d). Jπ: L=3 in (p,p′), (p,t).
2203.79 *4*	$1,2^+$	0.126 ps *7*	CD g L	XREF: g(2202.8). Jπ: D(+Q) γ to 2^+, γ to 0^+.
2283.87[&] *8*	6^+	0.15 ps *+29−7*	CDEF l	XREF: l(2285.36). E(level): unresolved doublet of the near-lying levels in (d,d′). Jπ: stretched E2 γ to 4^+, (M1+E2) γ to 6^+ in (α,2nγ).
2287.35 *4*	2^+	0.148 ps *8*	BCD Gh lM	XREF: h(2300)l(2285.36). E(level): doublet in (p,t). Jπ: γ′s to 0^+ and 4^+, M1+E2 γ to 2^+.
2297.45 *7*	(0^+)	0.9 ps *+6−3*	BCD Gh Mn	XREF: h(2300)n(2307). Jπ: 1733γ(θ) is isotropic in (n,n′γ) (1990BeYR, 2005Hi04); log *ft*=7.14 from 1^+;
2310.79 *10*	$(2)^+$	0.85 ps *+31−18*	BCD Gh LMn	XREF: h(2300)n(2307). E(level): unresolved doublet of the near-lying levels in (p,t) and (^{3}He,^{4}He). Jπ: log *ft*=5.89 from 1^+, M1+E2 γ to 2^+, γ to 4^+ and 0^+.
2407.59[c] *8*	5^-	0.210 ps *+28−22*	CDEFgh J l N	XREF: g(2409.1)h(2410)l(2407.89). Jπ: L=5 in (p,p′).
2407.86 *4*	$(2)^+$	95 fs *6*	BCD gh lM	XREF: g(2409.1)h(2410)l(2407.89). E(level): doublet in (p,t). Jπ: L=(2) in (p,t); log *ft*=6.6 from 1^+; M1+E2 γ to 2^+, γ(θ) excludes $J^\pi=3^+$.
2448.52 *5*	(4^+)	0.24 ps *+4−3*	CD GH LMN	E(level): unresolved doublet of the near-lying levels in (d,t). Jπ: L=(4) in (p,t).
2477.6 *4*	(4^+)		J MN	Jπ: L=(4) in (p,p′).
2499.45 *7*	(0^+)	0.7 ps *+8−3*	CD G LMn	XREF: n(2503.9). E(level): unresolved doublet of the near-lying levels in (^{3}He,^{4}He). Jπ: 1936γ(θ) is isotropic in (n,n′γ); L=0+2+(4) in (^{3}He,d).
2508.71 *6*	$(2)^+$	63.1 fs *28*	BCD GH LMn	XREF: n(2503.9). E(level): admixture of ^{124}Te component in (^{3}He,d). Jπ: L=(2) in (p,t), M1+E2 γ to 2^+, γ to 4^+.
2535.72 *7*	3,4,5	>0.47 ps	CD	Jπ: D+Q γ to 4^-.
2538.84 *5*		>0.76 ps	CD MN	
2557.88 *6*	1,2,3	0.292 ps *+28−24*	CD	Jπ: D+Q γ to 2^+.
2560.69 *9*	$^+$		CD G L	Jπ: L=2+(4) in (^{3}He,d).
2592.38 *6*	1	18.0 fs *14*	CD h jKlm	XREF: h(2600)j(2590)l(2593.5)m(2593.92). E(level): unresolved doublet of the near-lying levels in (d,d′) and (d,t). Jπ: D γ to 0^+ in (γ,γ′), γ to 2^+. $T_{1/2}$: other: 17 fs *4* from total width in (γ,γ′).
2593.47 *17*	2^+		BCD h j lm	XREF: h(2600)j(2590)l(2593.5)m(2593.92). Jπ: D+Q γ to 2^+, γ′s to 0^+ and 4^+.
2600.88 *6*	3^+	0.7 ps *+12−3*	CD h j MN	XREF: h(2600)j(2590). Jπ: M1(+E2) γ′s to 4^+ and 2^+.
2603.77 *15*	3,4,5		CD Gh j L	XREF: h(2600)j(2590). Jπ: D(+Q) γ to 4^+.
2636.28 *8*	1,2,3		CD g LM	XREF: g(2639.8). E(level): admixture of other isotopes in (d,t). Jπ: D+Q γ to 2^+.

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Adopted Levels, Gammas (continued)

^{122}Te Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	T$_{1/2}$[#]	XREF	Comments
2637.8 *4*			C g	XREF: g(2639.8).
2642.80 *22*			g L	XREF: g(2639.8). E(level): admixture of ^{124}Te component in (^{3}He,d).
2654.84 *20*	1,2,3	0.5 ps *+5−2*	CD	J$^{\pi}$: D(+Q) γ's to 2^{+}.
2659.2 *16*	$^{+}$		G	E(level): admixture of ^{124}Te component in (^{3}He,d). J$^{\pi}$: L=2+4 in (^{3}He,d).
2669.43 *5*	3^{+}	0.34 ps *+23−10*	CD g m	XREF: g(2671.8)m(2668.6). J$^{\pi}$: M1+E2 γ to 2^{+}, M1(+E2) γ to 4^{+}.
2669.78[&] *14*	8^{+}	0.34 ps *+23−10*	DEFg LmN	XREF: g(2671.8)m(2668.6). E(level): triplet in (^{3}He,d). J$^{\pi}$: stretched E2 γ to 6^{+} in (α,2nγ).
2679.67 *4*	4^{+}	0.41 ps *+18−10*	CD Gh j LM	XREF: h(2690)j(2690). E(level): triplet in (^{3}He,d). J$^{\pi}$: stretched E2 γ's to 2^{+}.
2693.57 *7*	3^{+},4^{+}	0.15 ps *+4−3*	CD Gh j LMN	XREF: h(2690)j(2690). J$^{\pi}$: M1(+E2) γ to 4^{+}, γ to 2^{+}.
2719.30 *6*	1,2^{+}	68 ps *+13−10*	BCD MN	J$^{\pi}$: D+Q γ to 2^{+}, γ to 0^{+}.
2742.54 *7*	1,2,3	80 ps *+13−10*	CD Gh LMN	XREF: h(2750). E(level): admixture of other isotopes in (d,d′), (d,t) and (^{3}He,^{4}He); unresolved doublet of the near-lying levels in (d,d′). J$^{\pi}$: D(+Q) γ's to 2^{+}.
2756.08 *10*	0^{+},1^{+},2^{+}	0.143 ps *+34−24*	BCD gh l n	XREF: g(2761)h(2750)l(2757.7)n(2758.4). E(level): doublet in (α,α'). J$^{\pi}$: log *ft*=5.56 from 1^{+}; γ's to 2^{+}. Weak feeding in (n,n′γ) suggests J^{π}=0^{+} (2005Hi04).
2758.52 *9*	(4,5,6)$^{+}$	0.133 ps *+17−13*	CD g lmn	XREF: g(2761)l(2757.7)m(2758.51)n(2758.4). E(level): Unresolved doublet of the near-lying levels in (d,d′) and (^{3}He,d), J$^{\pi}$: M1+E2 γ to 4^{+}; excitation function and 717$\gamma(\theta)$ in (n,n′γ) (2005Hi04).
2758.75[c] *9*	(6^{-})		CDEFg lmn	XREF: g(2761)l(2757.7)m(2758.51)n(2758.4). E(level): doublet. see comments for 2758.52 level. J$^{\pi}$: D+Q γ to 5^{-}, γ to 6^{+}; (6^{-}) member of band 5.
2771.39 *9*		0.18 ps *+6−4*	C lm	XREF: l(2772.8)m(2771.9).
2772.26 *21*		0.20 ps *+9−5*	CD lmN	XREF: l(2772.8)m(2771.9). E(level): admixture of other isotopes in (^{3}He,^{4}He).
2777.8 *3*	1,2,3	0.118 ps *+10−9*	CD G LM	J$^{\pi}$: D(+Q) γ to 2^{+}.
2789.16 *9*			D h j	XREF: h(2800)j(2790). E(level): doublet in (p,t).
2789.70 *9*			C h j	XREF: h(2800)j(2790).
2796.43 *19*	1,2,3	19.4 fs *14*	CD G j LM	XREF: j(2790). J$^{\pi}$: D(+Q) γ to 2^{+}.
2800.82[d] *10*	7^{-}		DEFgH lmn	XREF: g(2801.7)l(2800.6)m(2799.8)n(2800.5). E(level): probable multiplet in (p,t). J$^{\pi}$: L=7 in (p,t).
2801.46 *7*	(2,3)	0.32 ps *+6−5*	CD g lmn	XREF: g(2801.7)l(2800.6)m(2799.8)n(2800.5). J$^{\pi}$: D+Q γ's to 3^{-} and 2^{+}.
2808.0 *5*			C L	E(level): from (d,d′).
2809.82 *13*	3,4^{+}		CD g	XREF: g(2814.4). J$^{\pi}$: D+Q γ to 4^{+} and γ to 2^{+}.
2816.78 *8*	3,4,5	0.6 ps *+8−2*	C g	XREF: g(2814.4). J$^{\pi}$: D+Q γ to 4^{+}.
2822.8 *3*			C	
2837.5 *4*			C	

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Adopted Levels, Gammas (continued)

^{122}Te Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	XREF	Comments
2839.60 *5*	3^+	96 fs *10*	CD lmn	XREF: l(2839.9)m(2840.1)n(2840.9). Jπ: M1+E2 γ's to 2^+ and 4^+.
2840.2 *2*			C lmn	XREF: l(2839.9)m(2840.1)n(2840.9).
2860.53 *6*	4,5	0.148 ps *+19–23*	CD LMN	Jπ: D+Q γ to 5^-, D(+Q) γ to 4^+.
2882.8 *6*			G L	E(level): weighted average of levels in (d,d′) and (^{3}He,d).
2885.63 *6*	$1^+,2^+,3^+$	50.6 fs *28*	CD	Jπ: M1+E2 γ's to 2^+.
2890.56[b] *18*	(7^-)		C EF h	XREF: h(2900). Jπ: D(+Q) γ to 6^+.
2897.6 *3*			C	
2898.93 *15*		0.20 ps *+10–5*	C h lmn	XREF: h(2900)l(2899.1)m(2900.36)n(2901.8).
2901.08 *12*		0.29 ps *+15–8*	C h lmn	XREF: h(2900)l(2899.1)m(2900.36)n(2901.8).
2911.24 *10*	$1^+,2^+$	0.102 ps *8*	BCD gh lm	XREF: g(2914.0)h(2900)l(2914.7)m(2911.4). E(level): unresolved triplet of the near-lying levels in (^{3}He,d) and (d,d′); admixture of other isotope in (d,t). Jπ: log *ft*=6.86 from 1^+, M1+E2 γ's to 2^+, γ to 0^+.
2911.24 *22*			C m	XREF: m(2911.4).
2913.5[a] *4*	(8^+)		DEFgh l	XREF: g(2914.0)h(2900)l(2914.7). Jπ: stretched Q γ to 6^+ in (α,2nγ).
2913.82 *14*			CD g	XREF: g(2914.0).
2915.87 *13*	$1,2^+$	13.9 fs *14*	CD g Kl	XREF: g(2914.0)l(2914.7). E(level): triplet in (d,d′). Jπ: excited in (γ,γ′), (D,Q) γ to 0^+.
2919.35 *13*	$1,2^+$	37 fs *4*	C K MN	Jπ: excited in (γ,γ′), γ to 0^+.
2930.18 *9*	1,2,3	0.18 ps *+4–3*	CD L	Jπ: D+Q γ to 2^+.
2930.55 *8*	3,4	42 fs *+6–5*	C	Jπ: D+Q γ's to 3^- and 4^+.
2938.87 *10*		36.7 fs *21*	C G L	E(level): unresolved doublet of the near-lying levels in (^{3}He,d′).
2944.2 *8*			C h L N	XREF: h(2950).
2951.4 *6*			h L	XREF: h(2950). E(level): from (d,d′); probable multiplet in (p,t).
2958.04 *10*	$3,4^+$	0.117 ps *+9–8*	CD h L	XREF: h(2950). Jπ: D(+Q) γ to 4^+; γ to 2^+.
2959.12 *15*	$1,2^+$		C h	XREF: h(2950). Jπ: γ to 0^+.
2961.39 *22*			C G MN	
2969.5 *6*			LM	
2971.88[c] *12*	(7^-)		DEF	Jπ: D γ to 6^+, γ to 5^- in (α,2nγ).
2975.43 *14*	2,3,4		C	Jπ: D+Q γ to 3^-.
2982.36 *8*	$1,2^+$	46 fs *+13–10*	CD g	XREF: g(2982). Jπ: D+Q γ's to 2^+, γ to 0^+.
2985.5 *4*	$^+$		g MN	XREF: g(2982). E(level): weighted average of levels in (d,t) and (^{3}He,^{4}He). Jπ: L=0+2 in (^{3}He,d).
2993.50 *10*	4^+	0.51 ps *+28–14*	CD	Jπ: stretched E2 γ to 2^+, M1+E2 γ to 4^+.
2994.7 *2*			g lMN	XREF: g(2997.3)l(2995.5). E(level): weighted average of levels in (d,d′), (d,t) and (^{3}He,^{4}He).
2996.3 *3*	3,4,5	0.3 ps *+4–2*	C g l	XREF: g(2997.3)l(2995.5). Jπ: D+Q γ to 4^+.
2997.99 *8*	$2^+,3,4^+$	51 fs *6*	CD g lM	XREF: g(2997.3)l(2995.5). E(level): admixture of other isotope in (d,t). Jπ: γ's to 4^+ and 2^+.
3009.52 *14*			C g	XREF: g(3012).
3012.72 *18*	3	25.0 fs *28*	CD g	XREF: g(3012). Jπ: D+Q γ to 4^+, D(+Q) γ to 2^+.

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Adopted Levels, Gammas (continued)

^{122}Te Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	XREF	Comments
3026.87 *7*	2^+,3^+	0.169 ps *+33−24*	CD	Jπ: M1+E2 γ to 2^+ and M1(+E2) γ to 3^+.
3030.62 *20*		0.16 ps *+4−3*	CD	
3037.12 *8*	2^+,3^+		C LMn	XREF: n(3039.7). E(level): unresolved doublet of the near-lying levels in (^{3}He,^{4}He). Jπ: M1+E2 γ to 2^+, γ to 4^+.
3042.03 *13*		52 fs *+6−5*	C n	XREF: n(3039.7).
3044.71 *12*	1^+,2^+	0.21 ps *+12−6*	BC G lMn	XREF: l(3049)n(3039.7). E(level): Probable doublet in (^{3}He,d). Jπ: γ to 0^+, M1(+E2) γ′s to 2^+; log *ft*=6.49 from 1^+; L=(2) in (^{3}He,d).
3047.82 *14*	(3)	73 fs *+12−10*	CD h l	XREF: h(3060)l(3049). Jπ: D+Q γ′s to 2^+ and 4^+.
3052.25 *13*	0^+,1,2	60 fs *+21−15*	BCD h l	XREF: h(3060)l(3049). E(level): doublet in (p,t). Jπ: log *ft*=6.69 from 1^+; γ′s to 2^+;
3057.2 *19*			C h	XREF: h(3060).
3061.38 *22*	1^+,2^+	0.194 ps *+24−22*	CD gh LM	XREF: g(3066)h(3060). E(level): unresolved doublet of the near-lying levels in (^{3}He,d); probable multiplet in (p,t). Jπ: M1(+E2) γ to 2^+, γ to 0^+.
3068.7 *4*			C gh L	XREF: g(3066)h(3060).
3069.05 *12*	3,4,5^-	0.141 ps *+33−24*	CD	Jπ: D+Q γ to 4^+, γ to 3^-.
3071.18 *17*			C	
3074.07[b] *12*	(8^-)		EF	Jπ: D+Q γ to (7^-) in (^{9}Be,3nγ).
3074.91 *11*	1,2^+		CD N	Jπ: γ to 0^+.
3080.7 *14*			C	
3083.8 *3*			CD	
3086.39 *8*			CD	
3094.85 *8*	2^+		CD G L	E(level): multiplet in (^{3}He,d). Jπ: γ′s to 0^+, 2^+, 3^+ and 3^-.
3104.1 *5*	1,2^+	0.13 ps *+14−5*	C MN	E(level): from (^{3}He,^{4}He). Jπ: γ to 0^+.
3113.49 *18*	2,3	<0.76 ps	CD	Jπ: D(+Q) γ to 3^+, D+Q γ to 2^+.
3119.4 *12*			G L	
3132.20 *9*	(2^+,3^+,4^+)	0.5 ps *+8−2*	CD	Jπ: (E1) γ to 3^-, (E2) γ to 2^+, γ to 4^+.
3134.5 *5*			C G L	
3139.57 *14*			CD	
3141.4 *4*			M	
3142.9 *5*			C	
3147.60 *12*			C g	XREF: g(3148).
3150.44 *24*	0^+,1,2	25.6 fs *21*	BCD gh LMN	XREF: g(3148)h(3160). Jπ: γ to 2^+, log *ft*=6.27 from 1^+.
3153.15 *22*			C	
3156.37 *17*			C	
3157.95 *12*			C	
3159.64 *12*	2^+,3,4^+		CD h	XREF: h(3160). Jπ: γ′s to 2^+ and 4^+.
3160.13 *24*			C Gh LMN	XREF: h(3160).
3172.0 *4*			CD h	XREF: h(3160).
3177.15 *8*			C	
3183.2 *4*		83 fs *+17−13*	C G LMN	
3192.67 *11*	4,5,6	0.10 ps *+11−4*	C	Jπ: D+Q γ to 4^+.
3196.7 *6*	4,5,6		C	Jπ: D+Q γ to 4^+.
3198.18 *12*	1,2,3	56 fs *+7−6*	CD lM	XREF: l(3198.5).

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Adopted Levels, Gammas (continued)

^{122}Te Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	XREF	Comments
				Jπ: D(+Q) γ to 2+.
3199.3 *6*	1,2+	26 fs *+6–5*	C l	XREF: l(3198.5).
				Jπ: γ to 0+.
3207.86 *21*	1,2+	15.9 fs *28*	C g K M	XREF: g(3209.8).
				Jπ: excited in (γ,γ′), (D,Q) γ′s to 0+.
3209.89 *16*	0+,1,2,3	5.5 fs *21*	C g	XREF: g(3209.8).
				Jπ: γ to 2+; Jπ=0+ is probable from 2646γ(θ) is isotropic.
3210.33 *13*			C l n	XREF: l(3211.0)n(3211.7).
3210.8[a] *5*	(9+)		EF	Jπ: (D+Q) γ to (8+) in (^{9}Be,3nγ).
3211.3 *4*		40 fs *+14–11*	C l n	XREF: l(3211.0)n(3211.7).
3212.8 *7*			h mn	XREF: h(3220)m(3213.3)n(3211.7).
				E(level): admixture of other isotope in (^{3}He,^{4}He).
3216.0 *7*			h Lmn	XREF: h(3220)m(3213.3)n(3211.7).
				E(level): from (d,d′).
3223.37 *9*	4+	68 fs *+10–8*	CD	Jπ: stretched E2 γ to 2+.
3247.0 *3*		0.11 ps *+9–4*	CD g N	XREF: g(3250).
3252.52 *16*	1,2+	58 fs *+27–17*	C g	XREF: g(3250).
				Jπ: γ′s to 2+ and 0+.
3256.1 *4*			C GH	E(level): from (^{3}He,d).
3262.44 *23*			C	
3283.79 *15*			CD G	
3289.0 *3*	1,2+		C K	Jπ: excited in (γ,γ′), (D,Q) γ to 0+.
3290.93[&] *14*	(10+)		EF	Jπ: stretched Q γ to 8+ in (α,2nγ), 1996Pa11 suggested mixture of a possible configuration= $(\nu h^2_{11/2})_{10+}$.
3293.4 *5*		16 fs *6*	C G N	triplet in (^{3}He,d).
3297.1 *9*			C	
3300.9 *5*			C	
3302.58 *13*	0+,1,2		BC	Jπ: log *ft*=6.70 from 1+; γ to 2+.
3308.6 *11*			G N	E(level): from (^{3}He,^{4}He); admixture of other isotopes in (^{3}He,^{4}He); triplet in (^{3}He,d).
3316.0 *7*			CD	
3333.6 *5*			C g	XREF: g(3331.2).
3333.98[b] *14*	(9−)		E g	XREF: g(3331.2).
				Triplet in (^{3}He,d).
				Jπ: D γ to 8+, (Q) γ to 7−.
3335.8 *4*			CD	
3339.1 *5*			C	
3350 *17*			H	E(level): probable multiplet in (p,t).
3355.40[c] *17*	(8−)		E g	XREF: g(3360.0).
				Jπ: γ′s to (7−) and (6)−.
3357.2 *5*			C g	XREF: g(3360.0).
3389.7 *20*			G	
3443.8 *10*			G	
3460 *5*			GH	E(level): from (^{3}He,d); doublet in (p,t); probable multiplet in (p,t).
3461.29[d] *16*	(9−)		E	Jπ: stretched Q γ to 7−, D γ to 8+.
3483.53 *10*	1,2+		B D K	Jπ: excited in (γ,γ′), log *ft*=6.09 from 1+, (D,Q) γ to 0+.
				although deexcitation γ rays observed in ^{122}I ε decay and in (γ,γ′) are different, the evaluator assumes the same level is excited by both reactions, because the detector sensitivity in both experimental conditions are different.
3514 *5*			G	
3529.9 *5*			Gh	XREF: h(3540).
				E(level): from (^{3}He,d); doublet in (p,t).

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Adopted Levels, Gammas (continued)

^{122}Te Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
3552.1 *3*		Gh	XREF: h(3540). E(level): probable multiplet in (p,t).
3573.9[a] *5*	(10+)	E	Jπ: γ to (9+).
3590.67 *6*	1+,2+	B D G	Jπ: γ's to 0+ and 2+; log *ft*=5.73 from 1+.
3635 *18*		GH	E(level): weighted average of levels in (^{3}He,d) and (p,t); doublet in (p,t) and multiplet in (^{3}He,d).
3698.5 *15*		G	
3727.1 *15*		G	
3744.1 *15*		G	
3745.73[b] *17*	(10−)	E	Jπ: stretched Q γ to (8−), γ to (9−).
3788.5 *30*		G	
3806.19 *25*		E	
3814 *5*		G	
3878 *5*		G	
3936 *5*		G	
3953 *6*		G	
3974.8[a] *5*	(11+)	E	Jπ: γ to (10+).
3983 *6*		G	
3995.0[c] *3*	(10−)	E	Jπ: γ to (8−).
3996.23[&] *25*	(12+)	EF	Jπ: stretched Q γ to (10+).
3998 *5*		G	
3998.89 *25*		E	
4020 *6*		G	
4038.49[b] *18*	(11−)	E	Jπ: stretched (Q) γ to (9−).
4111 *6*		G	
4130 *6*		G	
4168 *6*	+	G	Jπ: L=0+2 in (^{3}He,d).
4173.27[d] *20*	(11−)	E	Jπ: stretched Q γ to (9−).
4240 *21*		G	
4387.9[a] *6*	(12+)	E	Jπ: γ to (11+).
4441.69[b] *19*	(12−)	E	Jπ: stretched Q γ to (10−), γ to (11−).
4476.6 *3*	(12)	E	Jπ: D γ to 11−.
4518.6 *4*		E	
4544.9 *4*		E	
4681.2 *3*	(14+)	E	Jπ: stretched Q γ to (12+).
4782.26[b] *21*	(13−)	E	Jπ: stretched Q γ to (11−).
4804.53[d] *23*	(13−)	E	Jπ: γ's to (11−) and (12−).
4906.9[&] *3*	(14+)	EF	Jπ: stretched Q γ to (12+), D+Q γ to (14+).
4942.0 *4*		E	
5239.85[b] *23*	(14−)	E	Jπ: stretched Q γ to (12−), D+Q γ to (13−).
5247.2 *3*	(15+)	E	Jπ: D+Q γ to (14+).
5267.7 *3*		E	
5407.5 *4*	(16+)	E	Jπ: D+Q γ to (15+).
5642.9 *4*		E	
5705.5 *4*		E	
5716.9[b] *3*	(15−)	E	Jπ: stretched Q γ to (13−).
5751.0[&] *4*	(16+)	E	Jπ: stretched Q γ to (14+).
5867.9 *4*	(15)	E	Jπ: D γ to (14+).
5969.1[b] *3*	(16−)	E	Jπ: stretched Q γ to (14−).
5971.5 *4*	(15)	E	Jπ: D γ to (14+).
6023.9 *4*	(15)	E	Jπ: D γ to (14+).
6039.2 *4*		E	
6284.9 *4*		E	

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Adopted Levels, Gammas (continued)

^{122}Te Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	XREF	Comments
6377.6[&] *4*		E	
6391.1 *4*		E	
6613.1[b] *4*	(17$^-$)	E	J$^{\pi}$: γ to (15$^-$).
6633.3 *4*		E	
6646.6 *5*		E	
6708.5 *5*		E	
6914.1[b] *4*	(18$^-$)	E	J$^{\pi}$: γ to (16$^-$).

† From combined fit of levels, and gammas, except where noted or where cross reference clearly indicates other source.

‡ J^{π} are based on: 1) L values in the various reactions; 2) log *ft* from ^{122}I ε decay: 3) multipolarities and δ of the relevant transitions; 4) band structures from ^{120}Sn(α,2nγ) and ^{116}Cd(^{9}Be,3nγ); 5) (γ,γ') and Coulomb excitation; 6) J-dependence of $\gamma(\theta)$ and excitation functions in ^{122}Te(n,n$'\gamma$) as far as data are presented.

From DSA in ^{122}Te(n,n$'\gamma$) E=1.7,2.8,3.4 MeV (2005Hi04), except noted otherwise.

@ Band(A): Band 1, g.s. band.

& Band(B): Band 2, positive parity band built on the two-proton hole 0$^+$ state at 1357 keV.

a Band(C): Band 3, positive parity band built on the possible configuration of $(\pi g_{9/2}^{-1})(\pi g_{7/2})_{8+}\otimes(\pi d_{5/2}^{2})_{0+}$.

b Band(D): Band 4, negative parity band based on possible non-collective state (7$^-$) at 2890 keV. Possible configuration=$(\nu h_{11/2}g_{7/2})$.

c Band(E): Band 5, negative parity band based on 5$^-$ at 2408 keV.

d Band(F): Band 6, negative parity band based on 7$^-$ at 2801 keV.

Adopted Levels, Gammas (continued)

γ(^{122}Te)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.‡	δ#	$I_{(\gamma+ce)}$	Comments
564.094	2^+	564.130 *21*	100	0.0	0^+	E2			B(E2)(W.u.)=36.92 *25*
1181.248	4^+	617.20 *3*	100	564.094	2^+	E2			
1256.953	2^+	692.77 *3*	100 *3*	564.094	2^+	M1+E2	−3.7 *4*		B(M1)(W.u.)=0.0052 *17*; B(E2)(W.u.)=1.1×10^2 *3* Mult.: D+Q in (α,2nγ) and (n,n′γ) (1990BeYR); RUL. δ: from (n,n′γ) (1990BeYR); others: −1.5 *+8−8* in (n,n′γ) (2005Hi04); −3.7 *+11−7* (1977Kr17).
		1256.89 *2*	20.1 *7*	0.0	0^+	E2			B(E2)(W.u.)=1.2 *3* Mult.: from ^{122}Sb β^- decay.
1357.401	0^+	793.27 *2*	100 *2*	564.094	2^+				
		1357.4 *1*		0.0	0^+	E0		0.027 *4*	X(E0/E2)=0.0113 *11* (2005Ki02).
1747.04	0^+	490.24 *5*	41 *1*	1256.953	2^+				
		1182.88 *3*	100 *1*	564.094	2^+				
1751.32	6^+	570.03 *5*	100	1181.248	4^+	E2			
1752.62	2^+	395.16 *8*	7.3 *5*	1357.401	0^+	E2			B(E2)(W.u.)=188 *+24−18*
		495.52 *5*	7.4 *8*	1256.953	2^+	M1+E2	−0.55 *+19−18*		B(M1)(W.u.)=0.016 *3*; B(E2)(W.u.)=14 *8* δ: other: −0.6 *3* or 1/δ=−0.24 *+8−25* in (n,n′γ) (1990BeYR);
		1188.52 *8*	51.9 *5*	564.094	2^+	(M1+E2)	+0.04 *3*		B(M1)(W.u.)=0.011 *3*; B(E2)(W.u.)=0.009 *+13−9* δ: from (n,n′γ) (1990BeYR); other: +2.7 *+24−12* or 0.03 *19* in (n,n′γ) (2005Hi04).
		1752.68 *4*	100 *2*	0.0	0^+	E2			B(E2)(W.u.)=1.50 *+17−21*
1909.61	4^+	652.62 *5*	26.6 *11*	1256.953	2^+	E2			B(E2)(W.u.)=21 *+5−21*
		728.35 *4*	100 *5*	1181.248	4^+	M1+E2	−0.69 *3*		δ: others: −0.57 *5* in (α,2nγ), +4.5 *+7−6* in (n,n′γ) (1990BeYR). B(M1)(W.u.)=0.0225 *7*; B(E2)(W.u.)=14.4 *9* (if δ=−0.69); B(M1)(W.u.)=0.0016 *8*; B(E2)(W.u.)=43 *18* (if δ=+4.5).
		1345.64 *18*	75.3 *24*	564.094	2^+	E2			B(E2)(W.u.)=1.6 *+4−7*
1940.44	0^+	583.1 *2*		1357.401	0^+	E0		0.16 *5*	X(E0/E2)=51 *10* (2005Ki02).
		683.48 *17*	100 *2*	1256.953	2^+				
		1376.23 *13*	4.7 *6*	564.094	2^+				
		1940.6 *2*		0.0	0^+	E0		0.100 *11*	X(E0/E2)=8.3 *11* (2005Ki02).
1951.92	3^+	694.93 *5*	100 *3*	1256.953	2^+	M1(+E2)	0.00 *+6−3*		
		770.34 *26*	30 *1*	1181.248	4^+	M1(+E2)	−0.22 *+19−18*		δ: other: −4.3 *+8−5* in (n,n′γ) (1990BeYR).
		1387.79 *13*	34 *1*	564.094	2^+	M1+E2			δ: −32 *+16−1223* in (n,n′γ) (2005Hi04); −0.3<δ<0.0 in (α,2nγ); −70 *+28−180* in (n,n′γ) (1990BeYR).
2041.18	4^+	783.7& *3*	15.5 *4*	1256.953	2^+	(E2)			B(E2)(W.u.)=6.6 *+10−12*
		859.97 *3*	96.4 *6*	1181.248	4^+	M1+E2	+0.78 *+21−27*		B(M1)(W.u.)=0.017 *4*; B(E2)(W.u.)=10 *4* δ: other: +1.3 *+3−4* in (α,2nγ); +0.4 *3* in (n,n′γ) (1990BeYR).
		1477.07 *6*	100 *11*	564.094	2^+	E2			B(E2)(W.u.)=1.8 *1*
2099.22	$(2)^+$	1535.10 *3*	100 *4*	564.094	2^+	M1+E2	+2.6 *2*		B(M1)(W.u.)=0.0029 *4*; B(E2)(W.u.)=5.93 *12* δ: from (n,n′γ) (1990BeYR); other: +2.30 *+20−18* or 0.00 *+6−3* in (n,n′γ) (2005Hi04).

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Adopted Levels, Gammas (continued)

γ(^{122}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[#]	Comments
2099.22	$(2)^+$	2099.16 *24*	3.9 *4*	0.0	0^+	(E2)		B(E2)(W.u.)=0.056 *6*
2196.81	3^-	939.91 *6*	2.1 *3*	1256.953	2^+	E1		B(E1)(W.u.)=6.4×10^{-5} *12*
		1014.87[&] *10*	3.1 *2*	1181.248	4^+	E1		B(E1)(W.u.)=7.5×10^{-5} *9* E_γ: poor fit. Level-energy difference=1015.51.
		1632.88 *5*	100 *10*	564.094	2^+	E1		B(E1)(W.u.)=0.00058 *9* Mult.,δ: E1(+M2), δ=+0.02 *2* in (n,n′γ) (1990BeYR).
		2196.8 *1*	0.036 *10*	0.0	0^+	E3		B(E3)(W.u.)=18 *6* branching from BE3↑=0.12 *4* and $T_{1/2}$.
2203.79	$1,2^+$	946.77 *12*	10 *1*	1256.953	2^+	D(+Q)	+1 *+125−1*	
		1639.70 *3*	100 *9*	564.094	2^+	D(+Q)	+0.2 *+5−4*	δ: other: −0.05 *10* or −3 *1* in (n,n′γ) (1990BeYR).
		2203.58 *10*	29 *1*	0.0	0^+			
2283.87	6^+	532.65 *9*	100 *3*	1751.32	6^+	M1(+E2)	+0.2 *+4−3*	B(M1)(W.u.)=(0.55 *9*); B(E2)(W.u.)=(60 *+22−6*) δ: from (n,n′γ) (2005Hi04); others: +0.04<δ<+0.50 in (n,n′γ) (1990BeYR), −0.20 *+11−7* in (α,2nγ).
		1102.49 *12*	70 *6*	1181.248	4^+	E2		B(E2)(W.u.)=27 *+13−27*
2287.35	2^+	1030.18[c] *15*	6.0 *1*	1256.953	2^+	M1+E2		δ: +12<δ<−0.32 in (n,n′γ) (2005Hi04).
		1105.5 *5*	2.4 *1*	1181.248	4^+			
		1723.24 *4*	100 *5*	564.094	2^+	M1+E2		δ: +1.3 *3* or +0.32 *15-10* in (n,n′γ) (2005Hi04); other: 0.11 *6* or +1.7 *2* in (n,n′γ) (1990BeYR).
		2287.40 *12*	10.6 *8*	0.0	0^+			
2297.45	(0^+)	1733.34[&] *6*	100	564.094	2^+			
2310.79	$(2)^+$	557.8 *5*	4 *3*	1752.62	2^+	M1+E2	−2	B(M1)(W.u.)=(0.0010 *+4−10*); B(E2)(W.u.)=(10 *10*) δ: −2 *+1−1254* in (n,n′γ) (2005Hi04).
		953.22 *16*	4.4 *1*	1357.401	0^+			
		1129.69 *14*	3.7 *1*	1181.248	4^+			
		1746.8 *5*	100 *2*	564.094	2^+	M1+E2		δ: −11 *+4−5* or −0.55 *8*.
		2310.8 *5*	1.5 *4*	0.0	0^+			
2407.59	5^-	1226.2 *1*	100	1181.248	4^+	E1(+M2)	+0.04 *2*	B(E1)(W.u.)=0.00071 *12*; B(M2)(W.u.)=3 *3* δ: from (n,n′γ) (1990BeYR).
2407.86	$(2)^+$	1843.82 *3*	100	564.094	2^+	M1+E2	+2 *+4−1*	B(M1)(W.u.)=(0.007 *+24−7*); B(E2)(W.u.)=(6 *5*) other: +5.5 *6* from the assumption of J^π(2407.95)=3^+ in (n,n′γ) (1990BeYR).
2448.52	(4^+)	1267.28 *4*	100.0 *10*	1181.248	4^+	M1(+E2)	+0.09 *+12−19*	B(M1)(W.u.)=0.041 *9*; B(E2)(W.u.)=0.15 *+39−15*
		1884.27 *12*	9.2 *9*	564.094	2^+			
2499.45	(0^+)	1242.46[&] *7*	28.6 *11*	1256.953	2^+			
		1935.63 *21*	100.0 *11*	564.094	2^+			
2508.71	$(2)^+$	468.34 *14*	18.8 *8*	2041.18	4^+			E_γ: poor fit. Level-energy difference=467.53.
		1251.56 *13*	12 *4*	1256.953	2^+	M1(+E2)	−0.2 *4*	B(M1)(W.u.)=(0.016 *6*); B(E2)(W.u.)=(0.3 *+11−3*)
		1944.49 *6*	100 *5*	564.094	2^+	M1+E2	+1.6 *+6−3*	B(M1)(W.u.)=0.010 *6*; B(E2)(W.u.)=4.9 *12* other: −0.05 *2* in (n,n′γ) (1990BeYR).
2535.72	3,4,5	1354.46 *6*	100	1181.248	4^+	D+Q	−1.0 *+3−4*	B(M1)(W.u.)<0.012; B(E2)(W.u.)<4.8 (if M1+E2).

Adopted Levels, Gammas (continued)

γ(^{122}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[#]	Comments
2538.84		586.90 *4*	100.0 *10*	1951.92	3^+	D+Q		
		628.93 *20*	19.8 *12*	1909.61	4^+			
		1357.70 *8*	35.8 *9*	1181.248	4^+			
2557.88	1,2,3	1300.89 *5*	100	1256.953	2^+	D+Q	+1.1 *+4−2*	B(M1)(W.u.)=(0.016 *7*); B(E2)(W.u.)=(8 *3*) (if M1(+E2)).
2560.69	$^+$	1379.43[&] *8*	100	1181.248	4^+	D+Q	−0.06 *2*	δ: from (n,n′γ) (1990BeYR).
2592.38	1	2028.7 *6*	19.6 *22*	564.094	2^+			E_γ: only observed in (n,n′γ) (1990BeYR).
		2592.35 *6*	100 *10*	0.0	0^+	D		B(E1)(W.u.)=0.00072 *12* (if E1).
2593.47	2^+	1336.63 *20*	48 *5*	1256.953	2^+	D+Q		δ: $\tan^{-1}\delta$=+0.94 *+314−314*: all values possible.
		1412.0[c] *3*	20 *4*	1181.248	4^+			E_γ: only observed in (n,n′γ) (1990BeYR).
		2029.72 *7*	100 *10*	564.094	2^+	D+Q		δ: $\tan^{-1}\delta$=0.13 *+314−314*: all values possible.
		2593.80 *20*	11 *3*	0.0	0^+			E_γ: not observed in (n,n′γ) (2005Hi04).
2600.88	3^+	1419.62 *5*	100 *9*	1181.248	4^+	M1(+E2)	+2.0 *15*	B(M1)(W.u.)=(0.0015 *+18−15*); B(E2)(W.u.)=(2.1 *7*) δ: from (n,n′γ) (2005Hi04); other: +0.50 *14* or +2.7 *+11−7* (n,n′γ) (1990BeYR).
		2036.76 *14*	50 *3*	564.094	2^+	M1(+E2)	−0.83 *+24−29*	B(M1)(W.u.)=(0.00073 *18*); B(E2)(W.u.)=(0.09 *3*)
2603.77	3,4,5	1422.51[&] *14*	100	1181.248	4^+	D+Q	+0.8 *+3−7*	
2636.28	1,2,3	1379.27[&] *15*	100 *10*	1256.953	2^+	D+Q	+3.9 *+13−11*	δ: From (n,n′γ) (2005Hi04); other: −0.06 *2* in (n,n′γ) (1990BeYR).
		2072.18[&] *8*	18.7 *8*	564.094	2^+	D(+Q)	−2 *+2−14*	
2637.8		2073.7[&] *4*	100	564.094	2^+			
2654.84	1,2,3	1397.79 *23*	100 *1*	1256.953	2^+	D(+Q)	−6 *+3−4*	B(M1)(W.u.)=0.0004 *+5−4*; B(E2)(W.u.)=5 *5* (if M1+E2).
		2091.0 *4*	21.0 *9*	564.094	2^+	D(+Q)		δ: +1.3<δ<−14: $\tan^{-1}\delta$=+1.29 *+35−38*.
2669.43	3^+	1488.28 *5*	100.0 *13*	1181.248	4^+	M1(+E2)	−0.09 *+9−10*	B(M1)(W.u.)=(0.016 *3*); B(E2)(W.u.)=(0.04 *+9−4*)
		2104.91 *10*	19.5 *13*	564.094	2^+	M1+E2	−0.8 *+4−8*	B(M1)(W.u.)=0.0007 *3*; B(E2)(W.u.)=0.07 *5* E_γ: poor fit. Level-energy difference=2105.32.
2669.78	8^+	386.0 *2*	2.2 *2*	2283.87	6^+			
		918.5 *3*	100 *2*	1751.32	6^+	E2		B(E2)(W.u.)=69 *+21−47*
2679.67	4^+	1422.46[&] *5*	42.0 *21*	1256.953	2^+	E2		B(E2)(W.u.)=2.0 *+5−9* E_γ: poor fit. Level-energy difference=1422.71.
		2115.81 *5*	100.0 *21*	564.094	2^+	E2		B(E2)(W.u.)=0.64 *+16−28* E_γ: poor fit. Level-energy difference=2115,56.
2693.57	$3^+,4^+$	1436.6 *4*	7.9 *17*	1256.953	2^+			
		1512.31 *6*	100.0 *17*	1181.248	4^+	M1(+E2)	+0.1 *+12−2*	B(M1)(W.u.)=0.039 *10*; B(E2)(W.u.)=0 *+3−0*
2719.30	$1,2^+$	1462.4 *3*	49 *7*	1256.953	2^+			
		2155.06[&] *11*	100.0 *5*	564.094	2^+	D+Q		
		2719.30 *6*	92 *4*	0.0	0^+			
2742.54	1,2,3	1485.59 *15*	18.2 *4*	1256.953	2^+	D+Q		δ: $\tan^{-1}\delta$=−0.72 *+314−314*: all values possible.
		2178.42 *7*	100.0 *4*	564.094	2^+	D+Q		δ: −0.32<δ<−1.40: $\tan^{-1}\delta$=+0.81 *+138−112*.
2756.08	$0^+,1^+,2^+$	1498.77 *14*	59.8 *14*	1256.953	2^+			
		2192.31 *14*	100 *3*	564.094	2^+			

$^{122}_{52}Te_{70}$-11

Adopted Levels, Gammas (continued)

γ(^{122}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[#]	Comments
2758.52	(4,5,6)$^+$	717.20 *14*	22.0 *6*	2041.18	4$^+$	M1+E2	+3 *+3−1*	B(M1)(W.u.)=0.008 *+15−8*; B(E2)(W.u.)=101 *21*
		1577.38 *11*	100.0 *6*	1181.248	4$^+$	(M1+E2)	+0.51 *+12−9*	B(M1)(W.u.)=0.027 *3*; B(E2)(W.u.)=2.1 *8*
2758.75	(6$^-$)	351.21 *10*	100 *10*	2407.59	5$^-$	D+Q	−0.32 *+10−8*	δ: other: −1.5 *+11−8* in (α,2nγ).
		1007.36 *10*	47 *4*	1751.32	6$^+$			
2771.39		1590.13 *8*	100	1181.248	4$^+$			
2772.26		1591.0 *2*	100	1181.248	4$^+$			
2777.8	1,2,3	2213.7 *3*	100	564.094	2$^+$	D(+Q)	−0.03 *+9−6*	
2789.16		1037.84 *10*	100	1751.32	6$^+$			
2789.70		2225.60 *13*	100	564.094	2$^+$			
2796.43	1,2,3	2232.31 *19*	100	564.094	2$^+$	D(+Q)	0.00 *9*	
2800.82	7$^-$	393.2 *2*	5.3 *5*	2407.59	5$^-$			
		1049.32 *10*	100 *2*	1751.32	6$^+$	E1		
2801.46	(2,3)	604.10 *17*	19.7 *14*	2196.81	3$^-$	D+Q	+0.5 *+5−3*	
		1544.5 *5*	15.9 *15*	1256.953	2$^+$	D+Q	−3.5 *+13−17*	
		2237.44 *7*	100.0 *18*	564.094	2$^+$	D(+Q)	−0.03 *6*	
2808.0		899.28[c] *5*	100	1909.61	4$^+$			
2809.82	3,4$^+$	1628.70[&] *16*	100.0 *8*	1181.248	4$^+$	D(+Q)	+0.03 *+23−12*	
		2245.51 *19*	8.9 *8*	564.094	2$^+$			
2816.78	3,4,5	907.06 *10*	41 *2*	1909.61	4$^+$	D(+Q)	+0.2 *+4−3*	
		1635.61 *9*	100 *2*	1181.248	4$^+$	D+Q	+0.47 *+12−7*	
2822.8		1641.5[&] *3*	100	1181.248	4$^+$			
2837.5		1656.2 *4*	100	1181.248	4$^+$			
2839.60	3$^+$	1582.42 *12*	41.6 *12*	1256.953	2$^+$	M1+E2	−0.03 *19*	B(M1)(W.u.)=0.0138 *16*; B(E2)(W.u.)=0.00 *5*
		1658.29[&] *6*	33 *4*	1181.248	4$^+$	M1+E2	+1.7 *+7−11*	B(M1)(W.u.)=0.0024 *16*; B(E2)(W.u.)=1.8 *5*
		2275.70 *9*	100 *1*	564.094	2$^+$	M1+E2	−0.8 *3*	B(M1)(W.u.)=0.0068 *22*; B(E2)(W.u.)=0.6 *3*
2840.2		899.1[ac] *5*	100	1940.44	0$^+$			
2860.53	4,5	452.10 *22*	58 *1*	2407.59	5$^-$	D+Q	+0.4 *3*	
		1679.31 *5*	100 *1*	1181.248	4$^+$	D(+Q)	+0.03 *+6−3*	
2885.63	1$^+$,2$^+$,3$^+$	1628.48[&] *10*	12.1 *7*	1256.953	2$^+$	M1+E2	+3.1 *+13−10*	B(M1)(W.u.)=0.0010 *8*; B(E2)(W.u.)=2.7 *3*
		2321.60 *7*	100.0 *7*	564.094	2$^+$	M1+E2	+0.51 *+8−9*	B(M1)(W.u.)=0.0246 *22*; B(E2)(W.u.)=0.85 *22*
2890.56	(7$^-$)	1139.70 *25*	100	1751.32	6$^+$	D(+Q)	−0.28 *+1−4*	δ: from (α,2nγ).
2897.6		1640.6[&] *3*	100	1256.953	2$^+$			
2898.93		1642.6[&] *3*		1256.953	2$^+$			
		2334.63 *16*	100[@]	564.094	2$^+$			
2901.08		1719.82 *11*	100	1181.248	4$^+$			
2911.24	1$^+$,2$^+$	1654.3 *3*	21.3 *5*	1256.953	2$^+$	M1+E2	−0.4 *+2−3*	B(M1)(W.u.)=0.0067 *11*; B(E2)(W.u.)=0.28 *25*
		2347.11 *10*	100 *1*	564.094	2$^+$	M1+E2	+0.5 *+7−3*	B(M1)(W.u.)=0.010 *6*; B(E2)(W.u.)=0.3 *+8−3*
		2911.5 *8*	9.6 *5*	0.0	0$^+$			
2911.24		1159.91 *21*		1751.32	6$^+$			
2913.5	(8$^+$)	1162.2 *4*	100	1751.32	6$^+$	Q		

$^{122}_{52}Te_{70}$-12

Adopted Levels, Gammas (continued)

γ(^{122}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[#]	Comments
2913.82		1657.04[&] *15*	100 *10*	1256.953	2^+			
		1731.8[&] *3*	47 *7*	1181.248	4^+			
2915.87	$1,2^+$	2351.79 *21*	100 *1*	564.094	2^+	D(+Q)	−0.3 *+5−2*	
		2915.81 *16*	96 *1*	0.0	0^+	(D,Q)		
2919.35	$1,2^+$	2919.31 *13*	100	0.0	0^+			
2930.18	1,2,3	1673.19 *11*	67.5 *12*	1256.953	2^+	D+Q	−4.5 *+10−17*	
		2366.09 *12*	100.0 *12*	564.094	2^+	D(+Q)	−0.06 *+6−10*	
2930.55	3,4	733.42 *8*	35 *3*	2196.81	3^-	D+Q	+0.78 *+10−5*	
		1750.01 *12*	100 *3*	1181.248	4^+	D+Q	+0.93 *+18−16*	E_γ: poor fit. Level-energy difference=1749.29.
2938.87		2374.75 *9*	100	564.094	2^+			
2944.2		1762.9[&] *8*	100	1181.248	4^+			
2958.04	$3,4^+$	1701.5 *5*	29.1 *6*	1256.953	2^+			
		1776.78 *11*	100.0 *10*	1181.248	4^+	D(+Q)	+0.4 *+5−4*	
		2393.84 *23*	61.0 *10*	564.094	2^+			
2959.12	$1,2^+$	2959.08 *15*	100	0.0	0^+			
2961.39		1780.13[&] *21*	100	1181.248	4^+			
2971.88	(7^-)	213 *1*		2758.75	(6^-)			
		564.2 *2*	77 *7*	2407.59	5^-			
		688.1 *2*	52 *5*	2283.87	6^+			
		1221.0 *3*	100 *5*	1751.32	6^+	D		
2975.43	2,3,4	778.61 *13*	100	2196.81	3^-	D+Q	−1.7 *+5−4*	
2982.36	$1,2^+$	1725.30 *9*	37.1 *15*	1256.953	2^+	D+Q		δ: $\tan^{-1}\delta$=0.28 *+314−314*: all values possible.
		2418.1 *3*	24.8 *8*	564.094	2^+	D+Q		δ: $\tan^{-1}\delta$=+0.94 *+314−314*: all values possible.
		2982.54 *13*	100.0 *15*	0.0	0^+			
2993.50	4^+	1736.2 *3*	18.0 *7*	1256.953	2^+			
		1812.26 *11*	100.0 *9*	1181.248	4^+	M1+E2		δ: +6.6<δ<−10.0. B(E2)(W.u.)=1.1 *+3−6* (if E2).
		2429.49 *22*	24.9 *6*	564.094	2^+	E2		B(E2)(W.u.)=0.064 *+18−35*
2996.3	3,4,5	1086.7 *3*	100	1909.61	4^+	D+Q	−2.7 *+12−24*	
2997.99	$2^+,3,4^+$	1816.74 *8*	100[@]	1181.248	4^+			
		2433.83 *14*		564.094	2^+			
3009.52		2445.40 *14*		564.094	2^+			
3012.72	3	1831.5 *3*	100 *1*	1181.248	4^+	D+Q	+0.13 *+14−9*	
		2448.58 *21*	59 *1*	564.094	2^+	D(+Q)	+0.03 *+10−12*	
3026.87	$2^+,3^+$	468.48 *21*	54.2 *12*	2557.88	1,2,3	D(+Q)	+0.1 *+4−3*	B(M1)(W.u.)=0.32 *3*; B(E2)(W.u.)=10 *+82−10* (if M1+E2).
		1074.89 *9*	37.7 *9*	1951.92	3^+	M1(+E2)	+0.03 *+23−22*	B(M1)(W.u.)=(0.018 *3*); B(E2)(W.u.)=(0.010 *+16−10*)
		1770.05 *9*	100 *1*	1256.953	2^+	M1+E2	+0.6 *+4−2*	B(M1)(W.u.)=0.008 *3*; B(E2)(W.u.)=0.7 *7*
		2462.5 *21*	22.2 *17*	564.094	2^+	M1+E2		δ: +2.1<δ<0: $\tan^{-1}\delta$=−0.60 *+60−141*.
		3026.9 *5*	<0.4	0.0	0^+			
3030.62		1849.36 *19*	100	1181.248	4^+	(E2)		B(E2)(W.u.)=4.5 *+9−12*

Adopted Levels, Gammas (continued)

γ(^{122}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[#]	Comments
3037.12	2$^+$,3$^+$	1780.08 *9*	64.5 *26*	1256.953	2$^+$	M1+E2		δ: +14<δ<−0.4: tan^{-1}δ=1.32 *+94−32*.
		1856.32 *16*	54.8 *22*	1181.248	4$^+$			
		2472.71 *20*	100.0 *26*	564.094	2$^+$	M1+E2	+2.3 *+16−6*	
		3036.7 *5*	<0.44	0.0	0$^+$			
3042.03		1860.77 *12*	100	1181.248	4$^+$			
3044.71	1$^+$,2$^+$	945.73[&] *21*	46 *8*	2099.22	(2)$^+$			
		1787.46 *24*	<32	1256.953	2$^+$	M1(+E2)		δ: +1.9<δ<−0.4: tan^{-1}δ=1.32 *+94−32*.
		2480.56 *20*	100 *13*	564.094	2$^+$	M1(+E2)	−1 *+1−13*	B(M1)(W.u.)=0.0018 *18*; B(E2)(W.u.)=0.21 *21*
		3044.7 *3*	32 *4*	0.0	0$^+$			
3047.82	(3)	1790.39 *24*	27.4 *14*	1256.953	2$^+$	D(+Q)	−1 *+1−13*	
		1865.5 *4*	77.1 *16*	1181.248	4$^+$	(D+Q)		δ: +3.4<δ<−3.5.
		2484.17 *18*	100.0 *18*	564.094	2$^+$	D+Q		δ: +34<δ<−2.5.
3052.25	0$^+$,1,2	1795.29 *16*	100 *18*	1256.953	2$^+$			
		2488.11 *19*	96 *26*	564.094	2$^+$			
3057.2		1875.9 *19*	100	1181.248	4$^+$			
3061.38	1$^+$,2$^+$	2496.7 *4*	19.6 *7*	564.094	2$^+$	M1(+E2)		δ: all values possible.
		3061.58 *26*	100.0 *7*	0.0	0$^+$			B(E2)(W.u.)=0.25 *+3−4*
3068.7		2504.6 *4*		564.094	2$^+$			
3069.05	3,4,5$^-$	873.5 *3*	12.9 *8*	2196.81	3$^-$			E_γ: poor fit. Level-energy difference=872.23.
		1887.58 *12*	100.0 *8*	1181.248	4$^+$	D+Q	+8 *+6−2*	
3071.18		1890.03[&] *18*	100.0 *15*	1181.248	4$^+$			
		2506.5 *4*	35.0 *15*	564.094	2$^+$			
3074.07	(8$^-$)	102.5 *2*	38 *4*	2971.88	(7$^-$)	D+Q		
		183.8 *2*	9.7 *9*	2890.56	(7$^-$)			
		273.10 *11*	100 *9*	2800.82	7$^-$			
3074.91	1,2$^+$	1134.47[b] *7*	100[b]	1940.44	0$^+$			
3080.7		1899.4 *14*	100	1181.248	4$^+$			
3083.8		1902.5[a] *3*	100	1181.248	4$^+$			
3086.39		1134.47[b] *7*	98[b] *4*	1951.92	3$^+$			
		1905.5 *7*	100 *4*	1181.248	4$^+$			
3094.85	2$^+$	898.78[a] *11*	56.0 *19*	2196.81	3$^-$			E_γ: poor fit. Level-energy difference=898.03.
		994.5 *3*	100.0 *19*	2099.22	(2)$^+$			
		1142.7 *7*	29.9 *26*	1951.92	3$^+$			
		1837.14 *13*	89.8 *19*	1256.953	2$^+$			E_γ: poor fit. Level-energy difference=1837.88.
		2530.3 *12*	17.8 *16*	564.094	2$^+$			
		3094.4 *3*	21.3 *13*	0.0	0$^+$			
3104.1	1,2$^+$	3104.1 *5*	100	0.0	0$^+$			
3113.49	2,3	1161.63 *18*	82 *1*	1951.92	3$^+$	D(+Q)	0 *+4−1*	
		2548.9 *5*	100 *1*	564.094	2$^+$	D+Q	−0.7 *+3−6*	
3132.20	(2$^+$,3$^+$,4$^+$)	935.57 *16*	62.1 *17*	2196.81	3$^-$	(E1)		B(E1)(W.u.)=0.00022 *+9−4*

Adopted Levels, Gammas (continued)

γ(^{122}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[#]	Comments
3132.20	(2$^+$,3$^+$,4$^+$)	1950.83[a] *11*	27.3 *25*	1181.248	4$^+$			
		2568.12 *19*	100 *2*	564.094	2$^+$	(E2)		B(E2)(W.u.)=0.15 *+6−15*
3134.5		1953.2[a] *5*	100	1181.248	4$^+$			
3139.57		1958.31[&] *13*	100	1181.248	4$^+$			
3142.9		1961.6[&] *5*	100	1181.248	4$^+$			
3147.60		1048.7 *4*	44.2 *29*	2099.22	(2)$^+$			
		1890.27[&] *15*	76.6 *29*	1256.953	2$^+$			
		2584.17[&] *22*	100.0 *27*	564.094	2$^+$			
3150.44	0$^+$,1,2	2586.32[&] *24*	100	564.094	2$^+$			
3153.15		2589.03[a] *22*	100	564.094	2$^+$			
3156.37		2592.25[a] *17*	100	564.094	2$^+$			
3157.95		1900.98[a] *11*	100	1256.953	2$^+$			
3159.64	2$^+$,3,4$^+$	1902.5[a] *3*	63[@] *5*	1256.953	2$^+$			
		1977.87 *24*	100[@] *3*	1181.248	4$^+$			
		2595.73 *14*		564.094	2$^+$			
3160.13		1903.16[a] *24*	100	1256.953	2$^+$			
3172.0		1990.7[&] *4*	100.0 *23*	1181.248	4$^+$			
		2607.8 *12*	18.8 *23*	564.094	2$^+$			
3177.15		1077.88 *8*	100[@]	2099.22	(2)$^+$			
		1920.50 *21*		1256.953	2$^+$			
3183.2		2001.9 *4*	100	1181.248	4$^+$			
3192.67	4,5,6	2011.40 *10*	100	1181.248	4$^+$	D+Q	−0.8 *+6−17*	
3196.7	4,5,6	2015.4 *6*	100	1181.248	4$^+$	D+Q	−0.8 *+5−7*	
3198.18	1,2,3	2634.06 *12*	100	564.094	2$^+$	D(+Q)	0.00 *3*	
3199.3	1,2$^+$	3199.3 *6*		0.0	0$^+$			
3207.86	1,2$^+$	1950.91[&] *21*	58.7 *18*	1256.953	2$^+$			
		3207.5 *9*	100 *10*	0.0	0$^+$	(D,Q)		
3209.89	0$^+$,1,2,3	2645.76 *16*	100	564.094	2$^+$			
3210.33		1300.65[&] *17*		1909.61	4$^+$			
		2029.12[&] *17*		1181.248	4$^+$			
3210.8	(9$^+$)	297.30 *11*	100	2913.5	(8$^+$)	(D+Q)		
3211.3		1954.2[&] *5*	75.7 *26*	1256.953	2$^+$			
		2647.4 *5*	100.0 *26*	564.094	2$^+$			
3223.37	4$^+$	1966.39 *9*	35.9 *12*	1256.953	2$^+$	E2		B(E2)(W.u.)=2.1 *+3−4*
		2659.5 *4*	100.0 *12*	564.094	2$^+$			
3247.0		1990.1[&] *3*	100.0 *20*	1256.953	2$^+$			
		2681.4 *15*	34.4 *16*	564.094	2$^+$			

Adopted Levels, Gammas (continued)

γ(^{122}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	Comments
3252.52	1,2$^+$	2688.40 *16*	100.0 *25*	564.094	2$^+$		
		3252.2 *9*	79.2 *25*	0.0	0$^+$		
3256.1		2074.8[&] *4*	100	1181.248	4$^+$		
3262.44		2081.17 *22*	100	1181.248	4$^+$		
3283.79		2027.9 *3*		1256.953	2$^+$		
		2719.36[&] *16*		564.094	2$^+$		
3289.0	1,2$^+$	3289.0 *3*	100	0.0	0$^+$	(D,Q)	
3290.93	(10$^+$)	621.14 *3*	100	2669.78	8$^+$	Q	
3293.4		2112.1 *5*	100	1181.248	4$^+$		
3297.1		2733.0 *9*	100	564.094	2$^+$		
3300.9		1013.5 *5*	100	2287.35	2$^+$		
3302.58	0$^+$,1,2	2045.5 *5*		1256.953	2$^+$		
		2738.46 *13*	100	564.094	2$^+$		
3316.0		2751.9 *7*	100	564.094	2$^+$		
3333.6		2152.3 *5*	100	1181.248	4$^+$		
3333.98	(9$^-$)	260.1 *2*	10 *1*	3074.07	(8$^-$)	(D+Q)	
		532.9 *2*	100 *10*	2800.82	7$^-$	(Q)	
		664.1 *2*	85 *8*	2669.78	8$^+$	D	
3335.8		2771.7 *4*	100	564.094	2$^+$		
3339.1		2775.0 *5*	100	564.094	2$^+$		
3355.40	(8$^-$)	383.4 *2*	29 *3*	2971.88	(7$^-$)		
		597.0 *2*	100 *10*	2758.75	(6$^-$)		
3357.2		2175.9 *5*	100	1181.248	4$^+$		
3461.29	(9$^-$)	660.5 *2*	100 *9*	2800.82	7$^-$	Q	
		791.7 *2*	46 *5*	2669.78	8$^+$	D	
3483.53	1,2$^+$	2226.59 *12*	93 *7*	1256.953	2$^+$		not observed in (γ,γ').
		2919.36 *17*	100 *6*	564.094	2$^+$		
		3483.2 *6*	78 *7*	0.0	0$^+$	(D,Q)	not observed in ^{122}I ε decay.
3573.9	(10$^+$)	363.1 *2*	100	3210.8	(9$^+$)		
3590.67	1$^+$,2$^+$	1183.00 *5*	100 *5*	2407.86	(2)$^+$		
		1837.02 *27*	10 *1*	1752.62	2$^+$		
		2232.55 *10*	30.8 *25*	1357.401	0$^+$		E_γ: poor fit. Level-energy difference=2233.24.
		2334.4 *4*	15.7 *30*	1256.953	2$^+$		not observed in (n,n′γ) (1990BeYR).
3745.73	(10$^-$)	411.7 *2*	38 *4*	3333.98	(9$^-$)		
		671.6 *2*	100 *10*	3074.07	(8$^-$)	Q	
3806.19		1136.4 *2*	100	2669.78	8$^+$		
3974.8	(11$^+$)	400.9 *2*	100	3573.9	(10$^+$)		
3995.0	(10$^-$)	639.6 *2*	100	3355.40	(8$^-$)		
3996.23	(12$^+$)	705.3 *2*	100	3290.93	(10$^+$)	Q	
3998.89		1329.1 *2*	100	2669.78	8$^+$		
4038.49	(11$^-$)	292.8 *2*	7.0 *8*	3745.73	(10$^-$)		

$^{122}_{52}Te_{70}$-16

Adopted Levels, Gammas (continued)

γ(^{122}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]
4038.49	(11$^-$)	704.4 *2*	100 *10*	3333.98	(9$^-$)	(Q)
4173.27	(11$^-$)	712.2 *2*	100	3461.29	(9$^-$)	Q
4387.9	(12$^+$)	413.1 *2*	100	3974.8	(11$^+$)	
4441.69	(12$^-$)	268.3 *2*	9.7 *9*	4173.27	(11$^-$)	
		403.1 *2*	54 *6*	4038.49	(11$^-$)	
		695.8 *2*	100 *10*	3745.73	(10$^-$)	Q
4476.6	(12)	303.3 *2*	100	4173.27	(11$^-$)	D
4518.6		712.4 *2*	100	3806.19		
4544.9		548.7 *2*	100	3996.23	(12$^+$)	
4681.2	(14$^+$)	685.0 *2*	100	3996.23	(12$^+$)	Q
4782.26	(13$^-$)	340.6 *2*	66 *7*	4441.69	(12$^-$)	
		743.8 *2*	100 *10*	4038.49	(11$^-$)	Q
4804.53	(13$^-$)	362.5 *2*	77 *8*	4441.69	(12$^-$)	
		631.6 *2*	100 *10*	4173.27	(11$^-$)	
4906.9	(14$^+$)	225.8 *2*	11 *1*	4681.2	(14$^+$)	D+Q
		910.6 *2*	100 *10*	3996.23	(12$^+$)	Q
4942.0		397.1 *2*	100	4544.9		
5239.85	(14$^-$)	457.2 *2*	100 *10*	4782.26	(13$^-$)	D+Q
		798.1 *2*	68 *7*	4441.69	(12$^-$)	Q
5247.2	(15$^+$)	340.5 *2*	21 *2*	4906.9	(14$^+$)	D+Q
		566.1 *2*	100 *10*	4681.2	(14$^+$)	
5267.7		1229.2 *2*	100	4038.49	(11$^-$)	
5407.5	(16$^+$)	160.5 *2*	73 *7*	5247.2	(15$^+$)	D+Q
		726.0 *2*	100 *10*	4681.2	(14$^+$)	
5642.9		961.7 *2*	100	4681.2	(14$^+$)	
5705.5		437.8 *2*	100	5267.7		
5716.9	(15$^-$)	476.6 *2*	45 *5*	5239.85	(14$^-$)	
		935.1 *2*	100 *10*	4782.26	(13$^-$)	Q
5751.0	(16$^+$)	844.1 *2*	100	4906.9	(14$^+$)	Q
5867.9	(15)	1186.7 *2*	100	4681.2	(14$^+$)	D
5969.1	(16$^-$)	729.2 *2*	100	5239.85	(14$^-$)	Q
5971.5	(15)	1290.3 *2*	100	4681.2	(14$^+$)	D
6023.9	(15)	1117.0 *2*	100	4906.9	(14$^+$)	D
6039.2		631.7 *2*	100	5407.5	(16$^+$)	
6284.9		417.0 *2*	100	5867.9	(15)	
6377.6		626.6 *2*	100	5751.0	(16$^+$)	
6391.1		983.6 *2*	100	5407.5	(16$^+$)	
6613.1	(17$^-$)	896.2 *2*	100	5716.9	(15$^-$)	
6633.3		1225.8 *2*	100	5407.5	(16$^+$)	
6646.6		361.7 *2*	100	6284.9		
6708.5		669.3 *2*	100	6039.2		
6914.1	(18$^-$)	945.0 *2*	100	5969.1	(16$^-$)	

[†] Weighted average of all available γ data from ^{122}Sb β^- decay, ^{122}I ε decay, ^{122}Te(n,n′γ) E=1.7,2.8,3.4 MeV, ^{122}Te(n,n′γ) E=fast, ^{116}Cd(^{9}Be,3nγ), and ^{120}Sn(α,2nγ).

[‡] Multipolarities are based on γ(θ) and α(K)exp, γ(θ), RUL and excitation function in ^{122}Te(n,n′γ) E=1.7,2.8,3.4 MeV, γ(θ) γ(lin pol) and RUL in ^{122}Te(n,n′γ) E=fast, and DCO ratios in ^{116}Cd(^{9}Be,3nγ) and, α(K)exp and γ(θ) in ^{120}Sn(α,2nγ),^{119}Sn(α,nγ).

[#] From γ(θ) in ^{122}Te(n,n′γ) E=1.7,2.8,3.4 MeV (2005Hi04), except noted otherwise.

[@] Probably stronger than undetermined side decaying gamma(s).

[&] Doublet in ^{122}Te(n,n′γ) E=1.7,2.8,3.4 MeV.

[a] Triplet in ^{122}Te(n,n′γ) E=1.7,2.8,3.4 MeV.

[b] Multiply placed with intensity suitably divided.

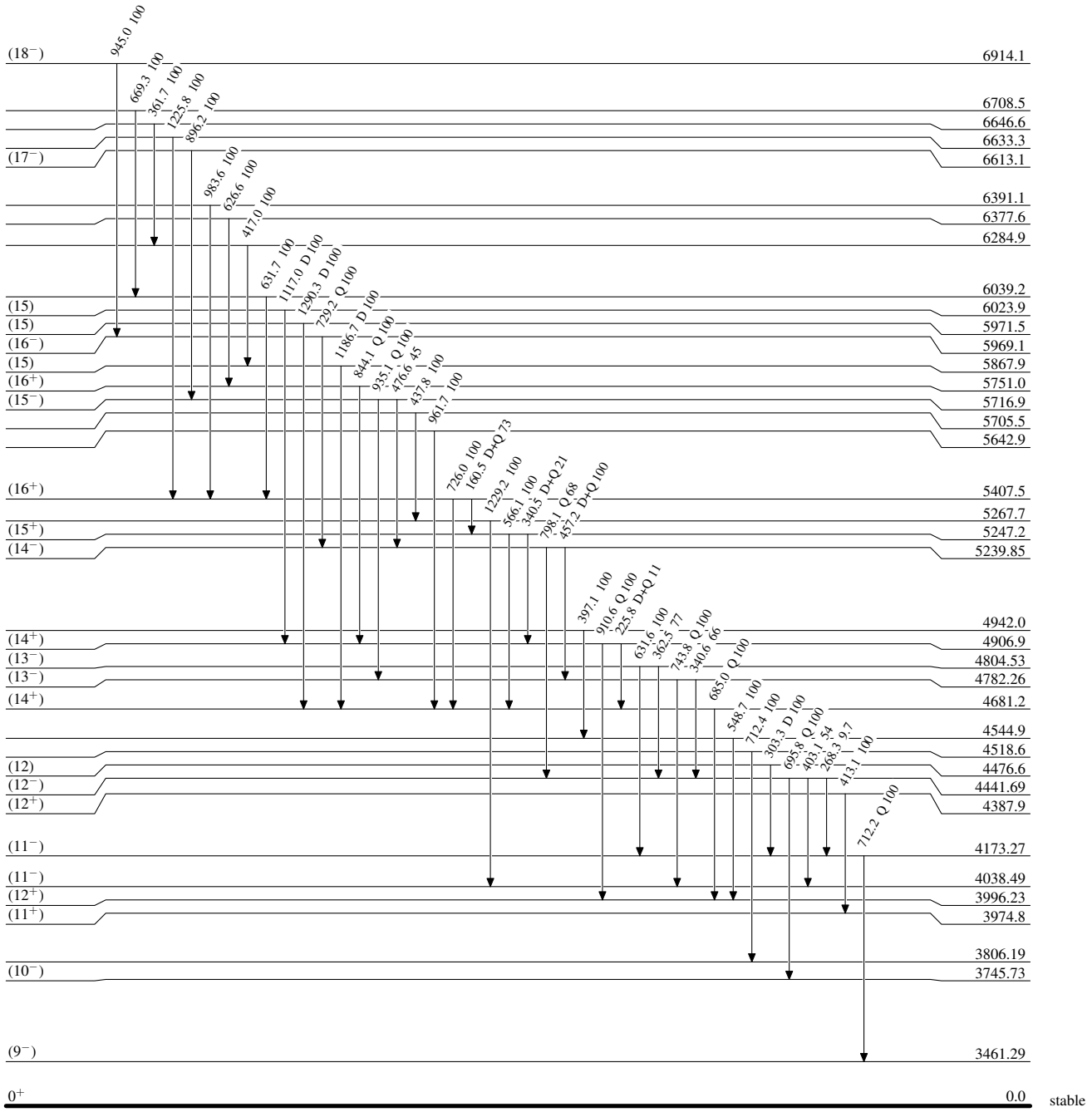
[c] Placement of transition in the level scheme is uncertain.

$^{122}_{52}Te_{70}$-17

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

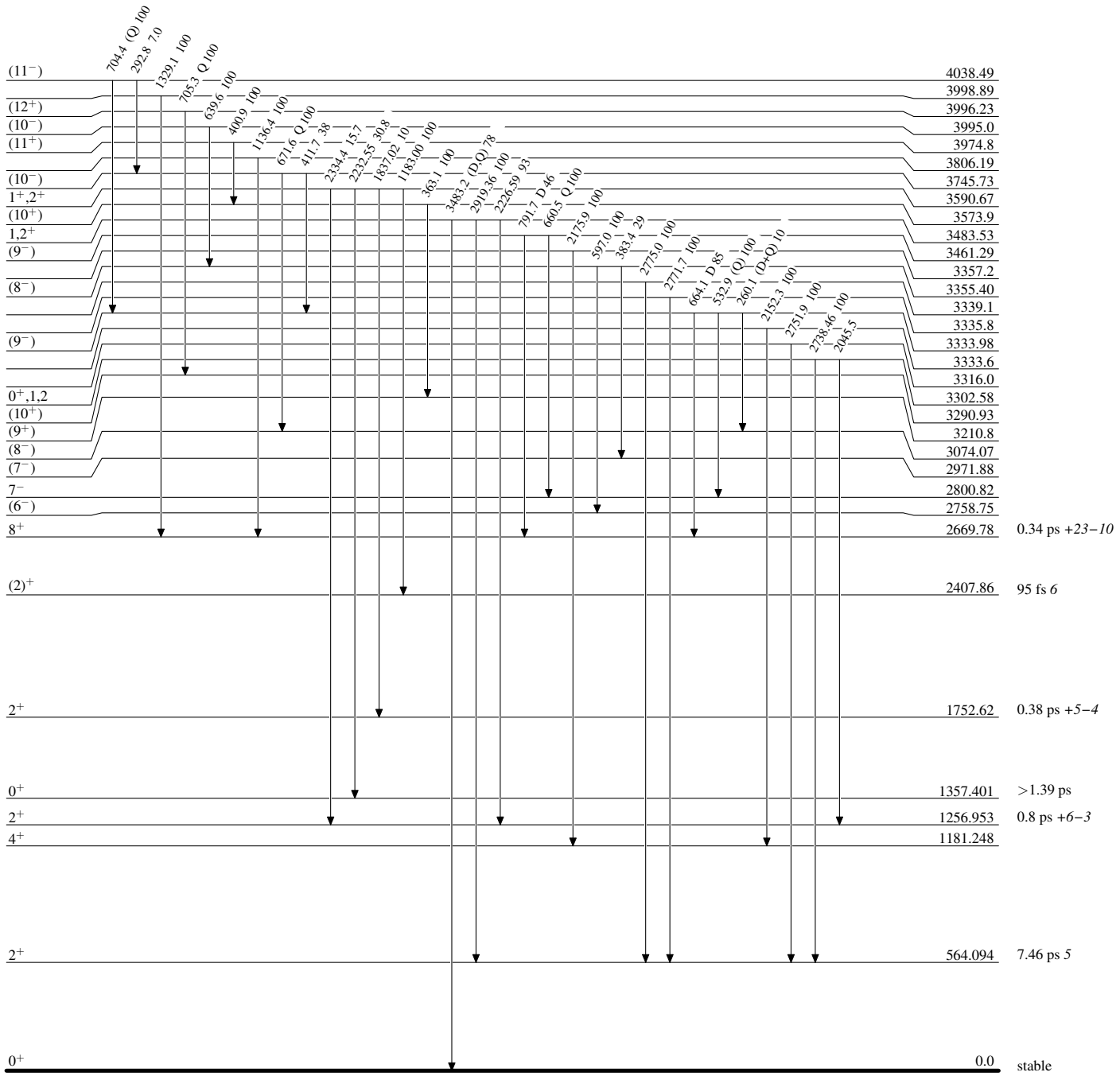


$^{122}_{52}Te_{70}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

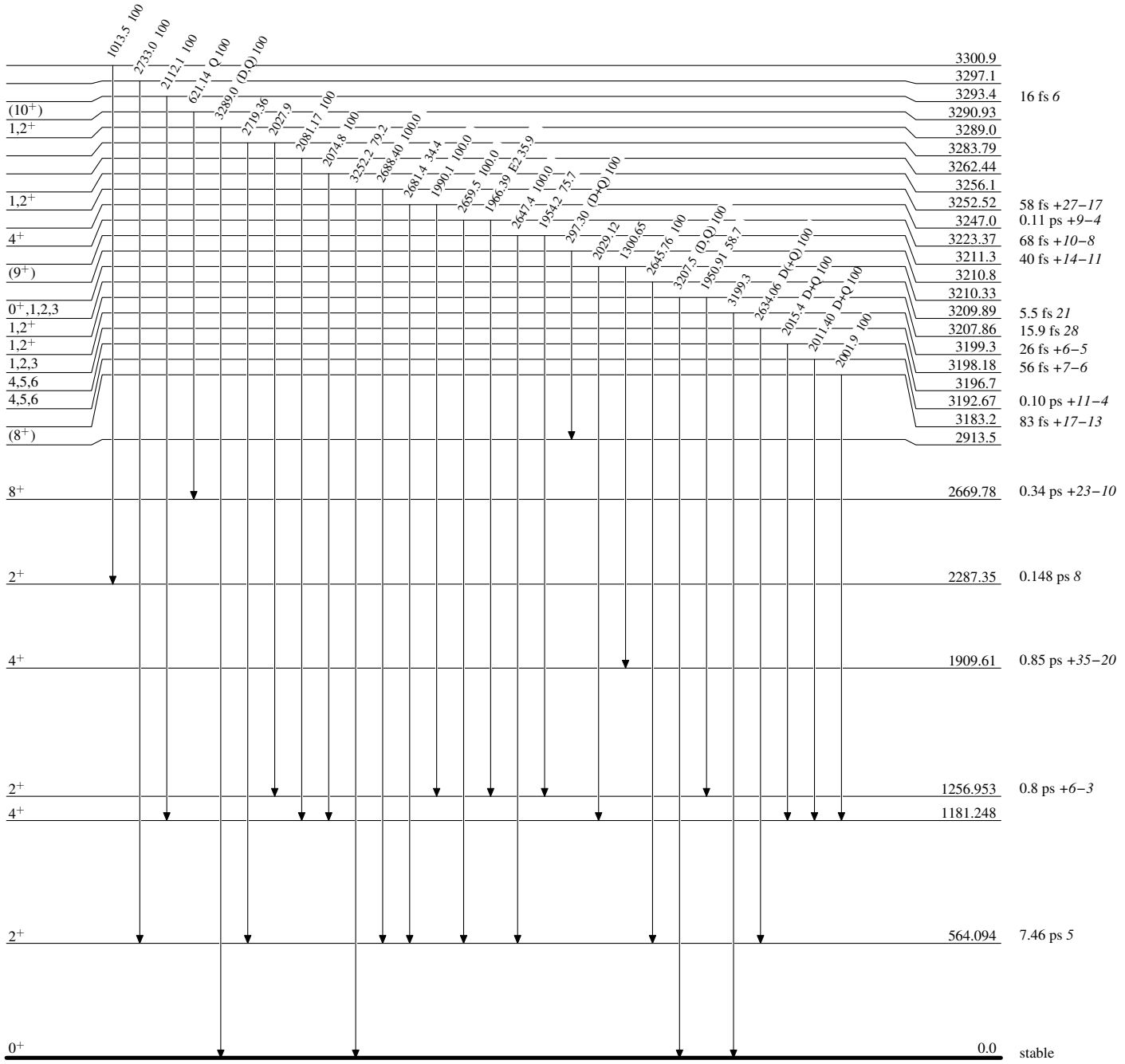


$^{122}_{52}Te_{70}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

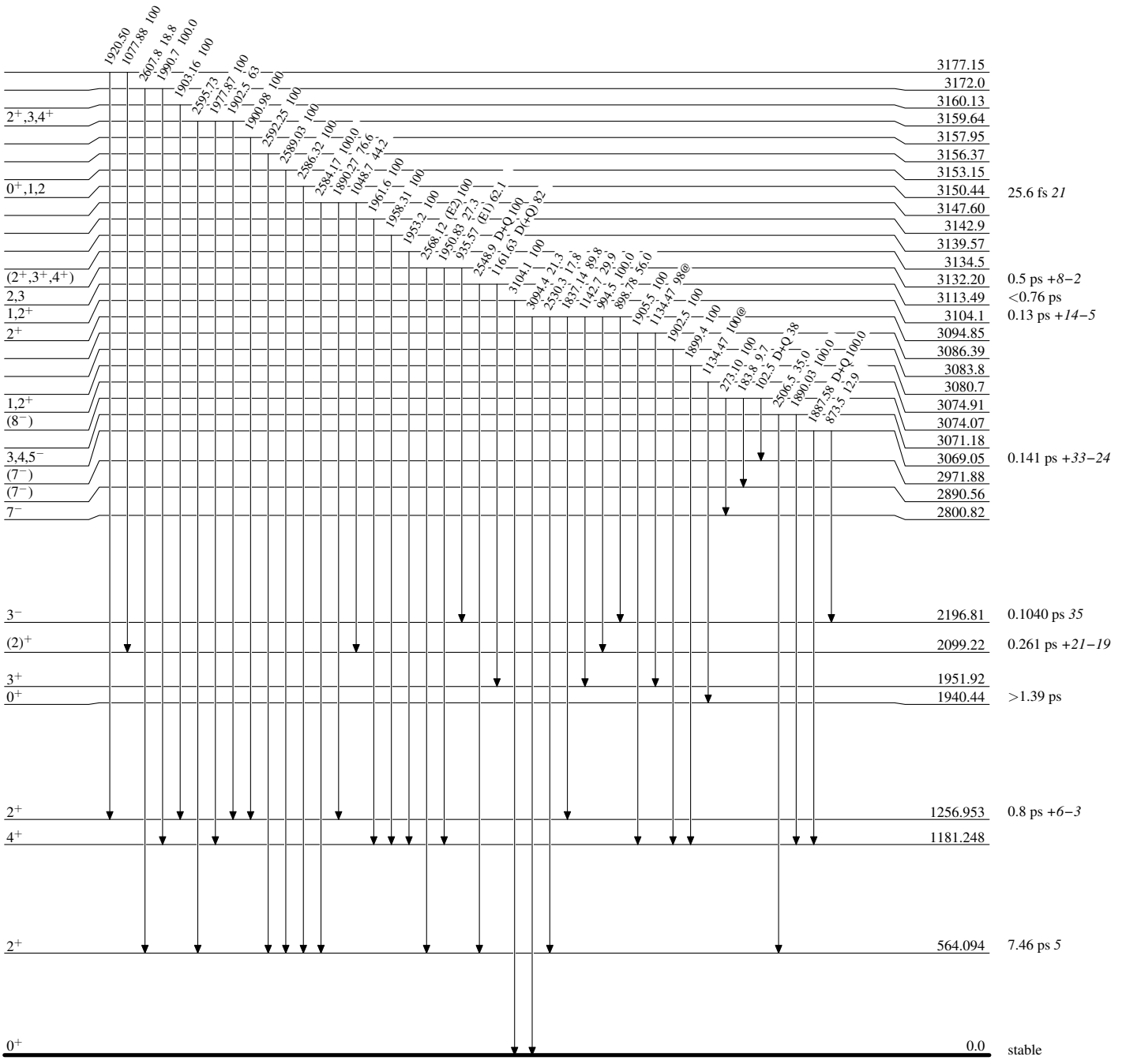


$^{122}_{52}Te_{70}$

Adopted Levels, Gammas

Level Scheme (continued)

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

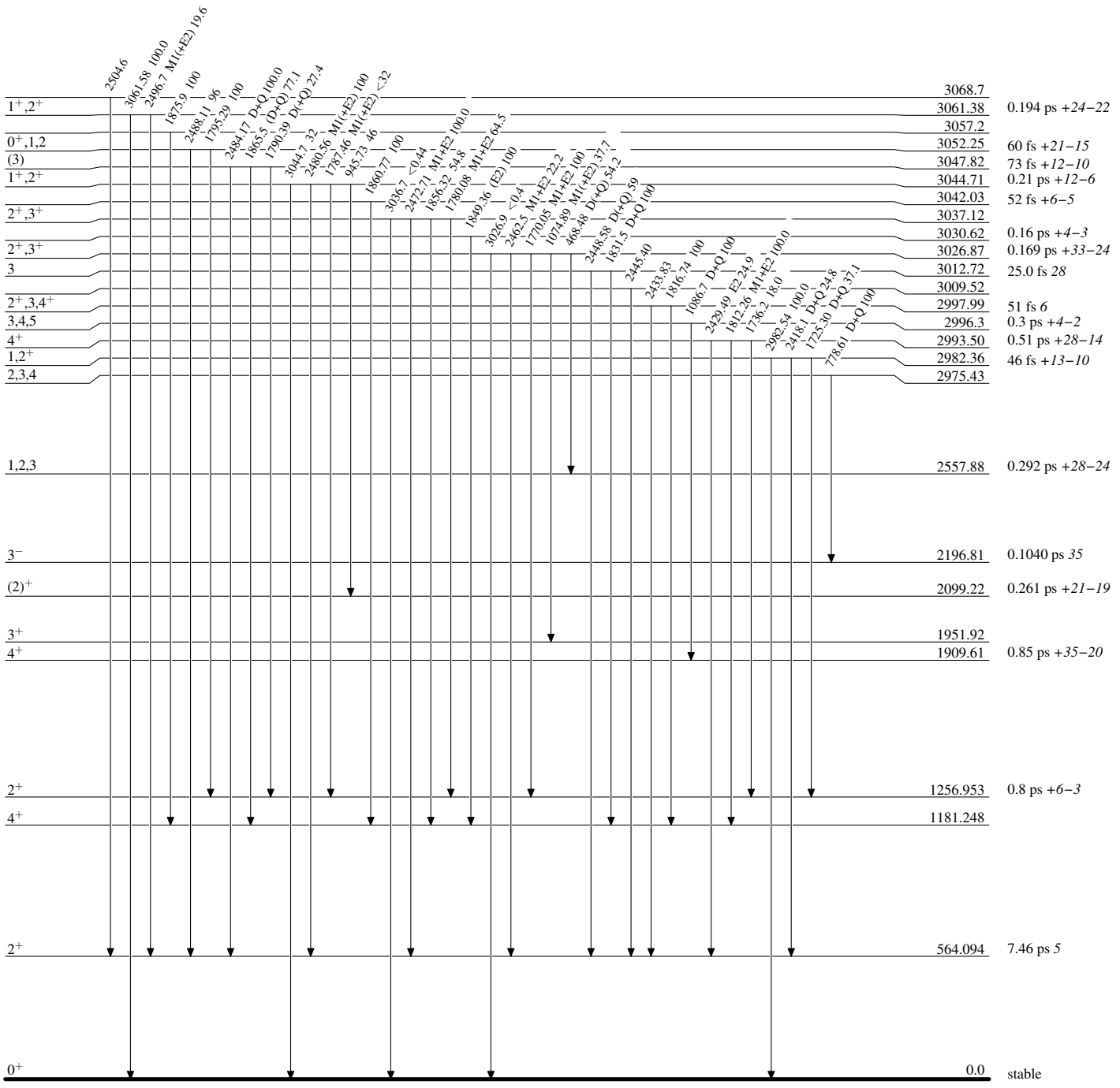


$^{122}_{52}Te_{70}$

Adopted Levels, Gammas

Level Scheme (continued)

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



$^{122}_{52}Te_{70}$

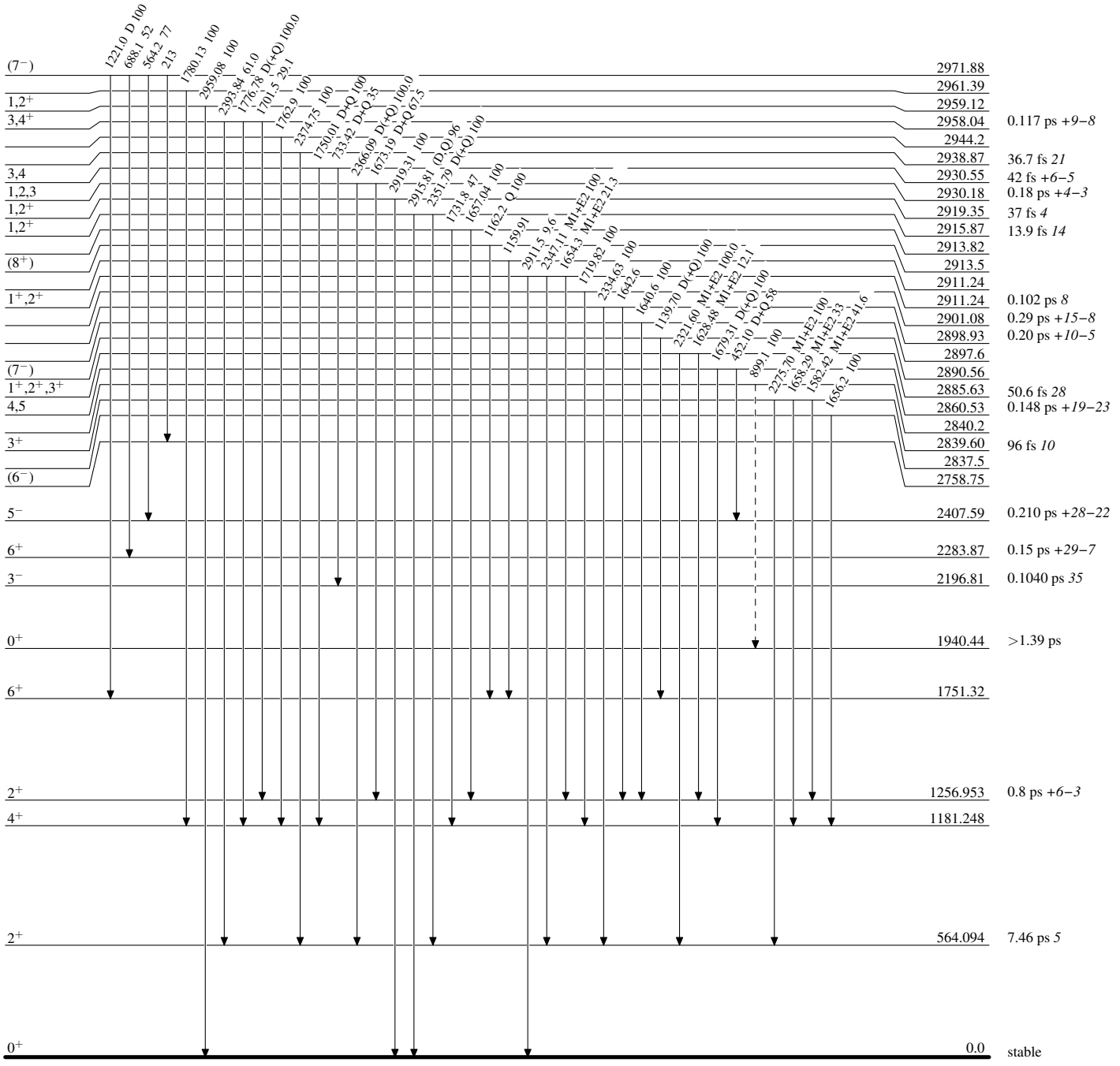
Adopted Levels, Gammas

Legend

Level Scheme (continued)

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

- - - - - - ► γ Decay (Uncertain)



$^{122}_{52}Te_{70}$

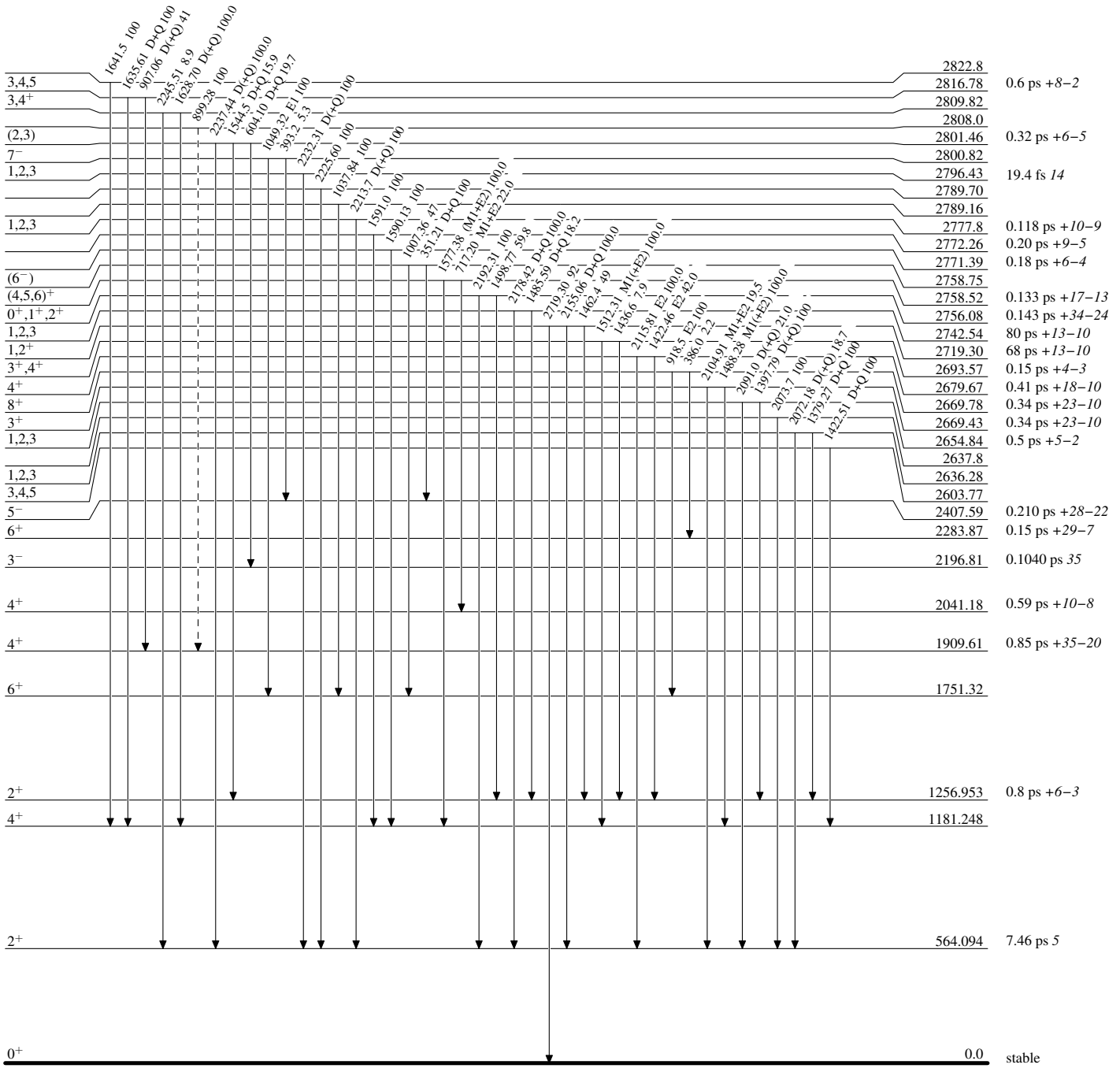
Adopted Levels, Gammas

Legend

Level Scheme (continued)

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

γ Decay (Uncertain)



$^{122}_{52}Te_{70}$

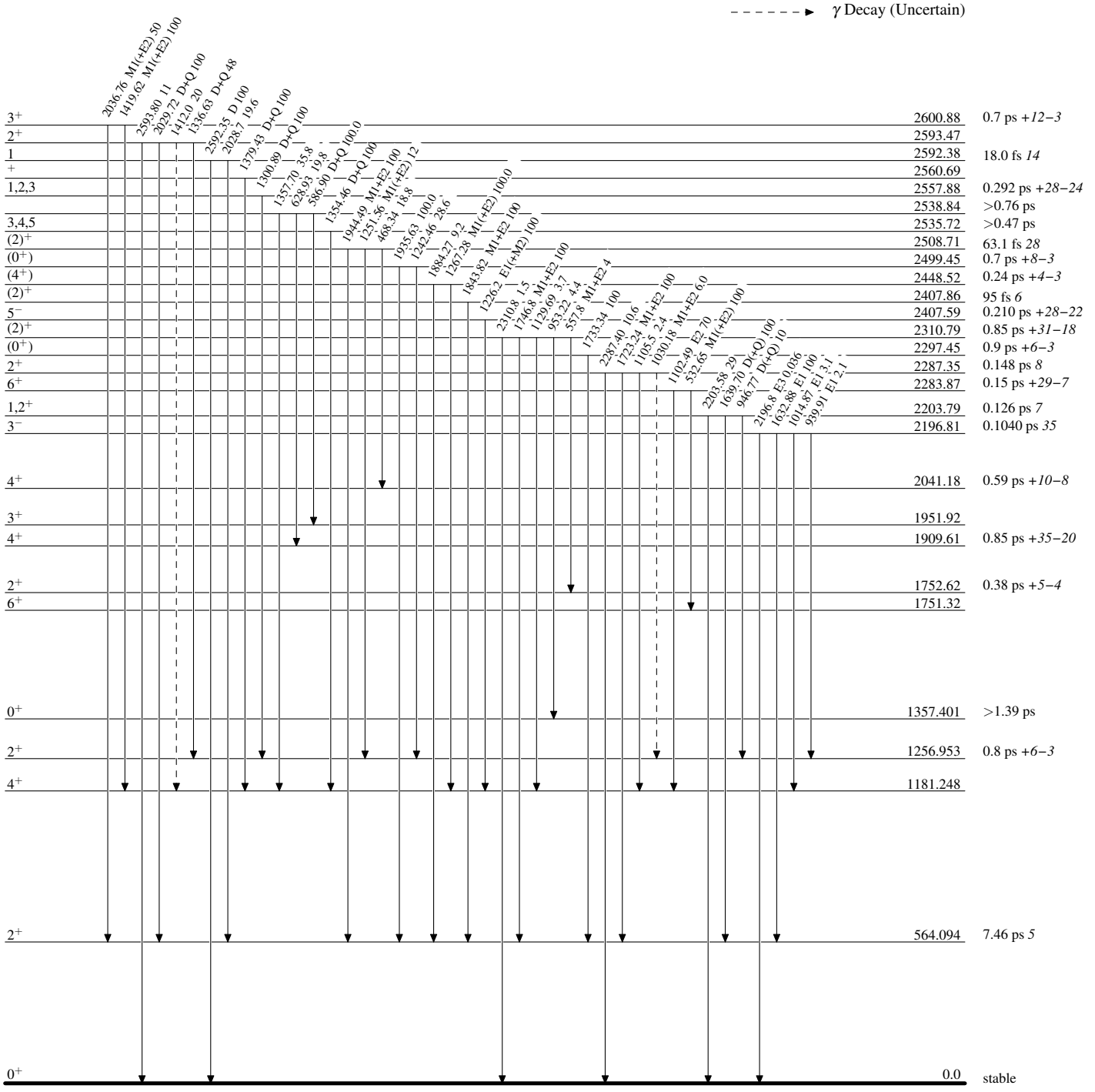
Adopted Levels, Gammas

Legend

Level Scheme (continued)

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

- - - - - - ► γ Decay (Uncertain)

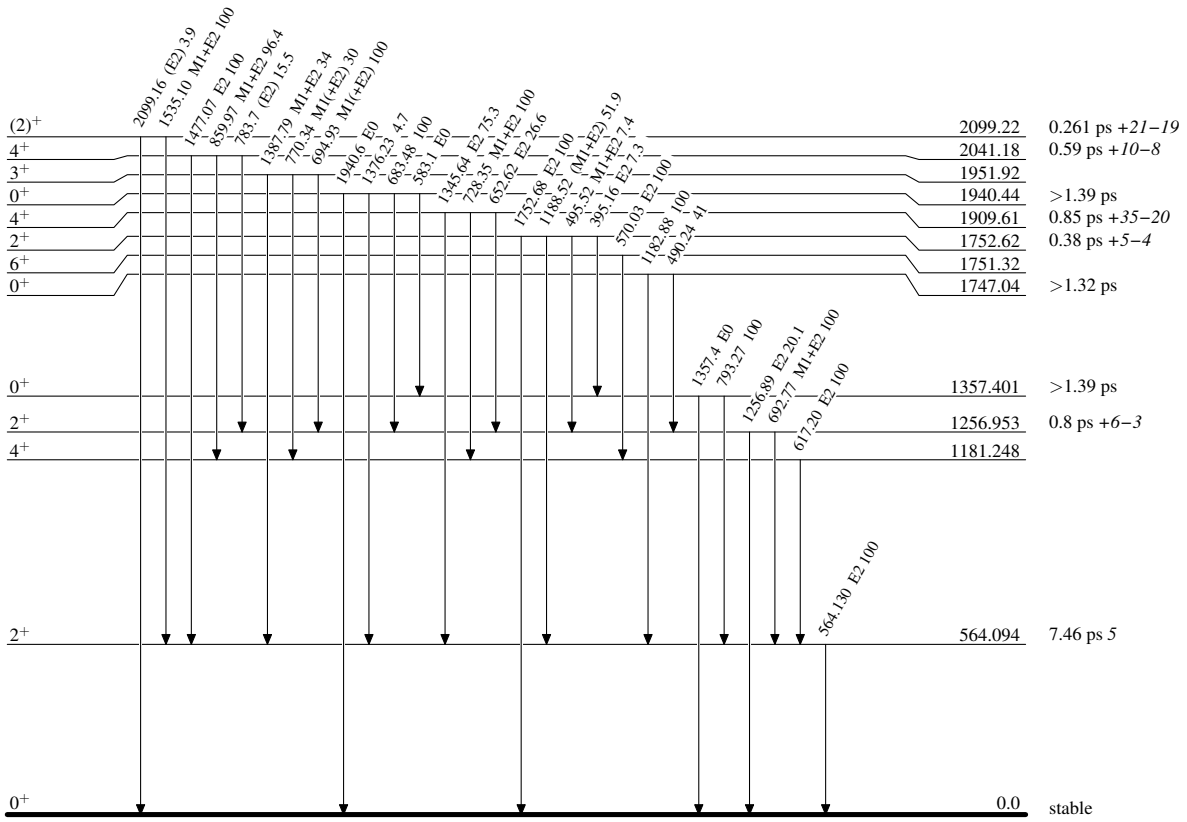


$^{122}_{52}Te_{70}$

Adopted Levels, Gammas

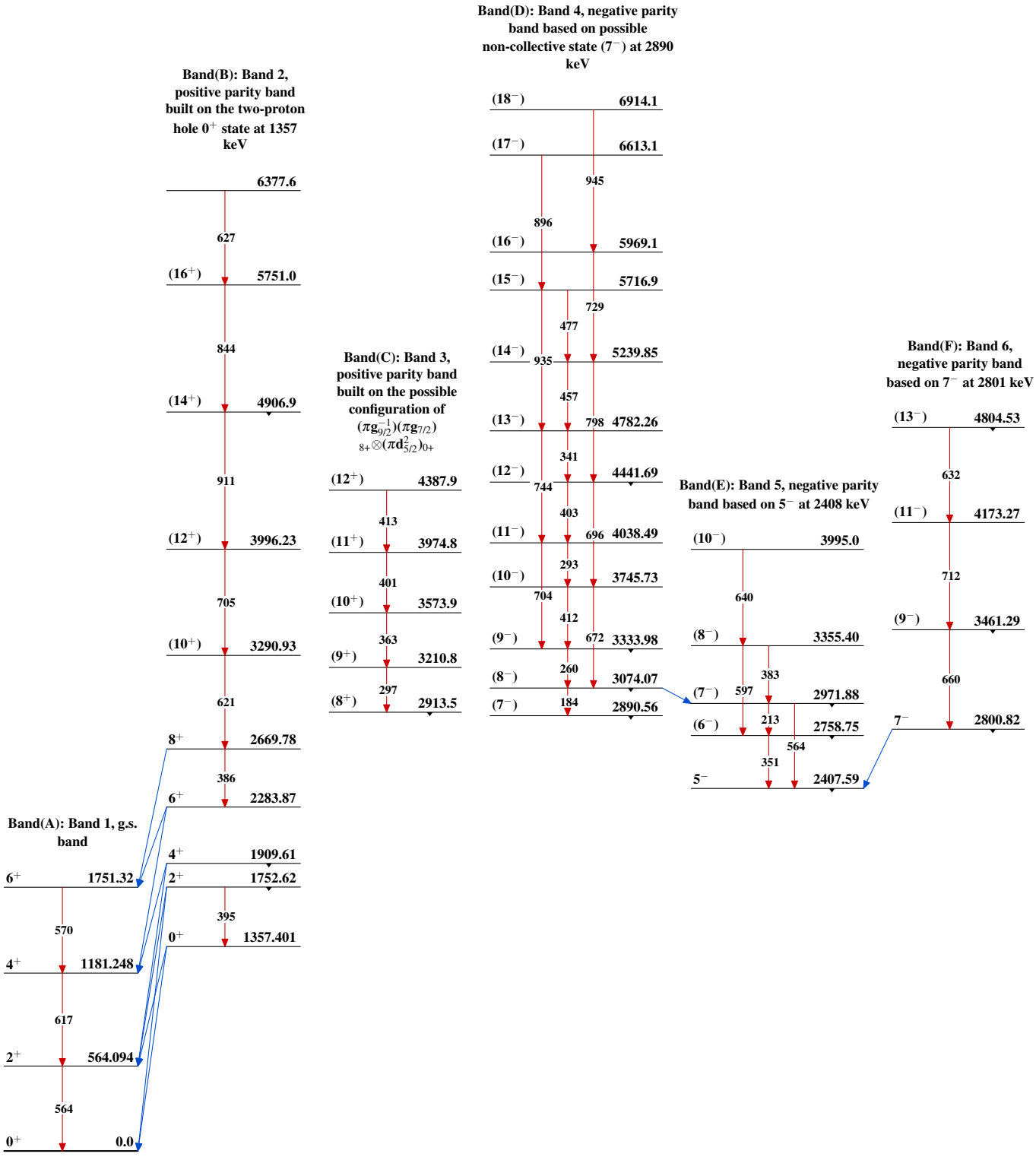
Level Scheme (continued)

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



$^{122}_{52}Te_{70}$

Adopted Levels, Gammas



Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. Katakura, Z. D. Wu	NDS 109,1655 (2008)	1-Apr-2008

Q(β^-)=−3159.6 *19*; S(n)=9424.48 *9*; S(p)=8589.5 *16*; Q(α)=−1851.6 *17* 2012Wa38
Note: Current evaluation has used the following Q record −3159.6 199423.97 *178589.4 15*−1844.4 *24* 2003Au03.

^{124}Te Levels

Cross Reference (XREF) Flags

A	^{124}Sb β^- decay (60.20 d)	G	^{124}Te(n,n′γ)	M	^{125}Te(p,d)
B	^{124}Sb β^- decay (93 s)	H	^{124}Te(γ,γ),(γ,γ')	N	^{126}Te(p,t)
C	^{124}I ε decay	I	^{123}Sb(^{3}He,d)	O	^{124}Te(d,d′)
D	^{122}Sn(α,2nγ)	J	^{123}Te(d,p)	P	^{124}Te(α,α')
E	^{123}Te(n,γ) E=thermal	K	^{124}Te(p,p′)	Q	Coulomb excitation
F	^{123}Te(n,γ) E=res: av	L	^{125}Te(d,t)	R	^{127}I(μ,xnγ)

E(level)†	Jπ	$T_{1/2}$‡	XREF	Comments
0.0	0^+	stable	ABCDEFGHIJKLMNOPQR	<r^2>$^{1/2}$=4.7178 fm *17* (2004An14, evaluation).
602.7271 *21*	2^+	6.2 ps *1*	ABCDEFGHIJKLMNOPQR	μ=+0.74 *6*; Q=−0.45 *5* Jπ: E2 γ to 0^+. $T_{1/2}$: from Coul. ex. Other: 4.5 ps *5* ((γ,γ)) B(E2)=0.567 *5*. 2001Ra27 evaluation gives 6.23 ps *7*. μ: from transient field integral perturbed angular correlation (2007St24); other: +0.56 *6*, +0.62 *8* from ion implantation perturbed correlations, +0.66 *6*, +0.52 *6* from transient field integral perturbed angular correlations (1988Du10,1985ThZx,1989Ra17,1981Sh15). See also 2005St24 compilation. Q: from Coulomb excitation reorientation, weighted average of −0.46 *10*(1974Ba45),−0.49 *8*(1974La05) and −0.41 *8* (1975Kl07) (1989Ra17). See also 2005St24 compilation.
1248.5811 *25*	4^+	1.4 ps *+14−5*	ABCDE G IJKLMNOP R	Jπ: L=0+2 in (^{3}He,d) from $7/2^+$; $\gamma\gamma(\theta)$ in ^{124}Sb β^- decay (60.20 d) and (n,γ).
1325.5131 *24*	2^+	1.04 ps *+21−14*	A CDEFG IJKLMNO QR	B(E2)↑=0.019 *5* Jπ: L=2 in (p,t); Coulomb excitation; $\gamma\gamma(\theta)$ in ^{124}Sb β^- decay (60.20 d) and (n,γ). $T_{1/2}$: Other: 0.4 ps *2*(Coul. ex.).
1657.283 *22*	0^+	0.55 ps *+14−7*	A CDEFG JKLMNO	Jπ: L=0 in (d,p) from $1/2^+$; $\gamma\gamma(\theta)$ in (n,γ) E=thermal.
1746.958 *11*	6^+		B DEFG I K O R	Jπ: log *ft*=4.3 from 5^+; $\gamma(\theta)$ in (α,2nγ).
1882.92 *3*	0^+	0.76 ps *+21−14*	CDEFG IJKLMN	Jπ: L=0 in (d,p) from $1/2^+$; $\gamma\gamma(\theta)$ in (n,γ) E=thermal.
1957.902 *8*	4^+		A CDEFG IJKLMNO R	Jπ: L=4 in (p,p′); $\gamma\gamma(\theta)$ in ^{124}Sb β^- decay (60.20 d) and (n,γ) E=thermal.
2039.293 *3*	3^+	0.55 ps *+14−7*	a cdEfG ijklmno r	XREF: m(2032)n(2037)o(2037). Jπ: $\gamma(\theta)$ in (n,n′γ) and M1+E2 γ to 2^+.
2039.421 *3*	2^+	0.49 ps *+14−7*	a cdEfG ijklmno r	XREF: m(2032)n(2037)o(2037). Jπ: E2 γ to 0^+.
2091.603 *17*	2^+	0.28 ps *7*	A C EFG IJKLM R	Jπ: L=2 in (^{3}He,d) from $7/2^+$; $\gamma\gamma(\theta)$ in ^{124}Sb β^- decay (60.20 d) and (n,γ) E=thermal.
2153.29 *3*	0^+		EFG J	Jπ: L=0 in (d,p) from $1/2^+$; $\gamma(\theta)$ in (n,n′γ).
2182.41 *4*	2^+		A EFG IJ M	XREF: M(2205). Jπ: L=2 in (^{3}He,d) from $7/2^+$; $\gamma(\theta)$ in (n,n′γ) and $\gamma\gamma(\theta)$ and α(exp) in (n,γ) and.
2224.954 *15*	4^+		A CDE G IJKLMNO	XREF: M(2217). Jπ: $\gamma(\theta)$ in (n,n′γ) and M1+E2 γ to 4^+.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{124}Te Levels (continued)

E(level)†	Jπ	$T_{1/2}$‡	XREF	Comments
2273.97 *15*			LM	XREF: M(2264).
2282.43 *17*			K M	XREF: M(2283).
2293.711 *3*	3^-	0.17 ps *6*	A CDE G JKLMNOPQ	B(E3)↑=0.09 *3* XREF: J(2294)L(2294)M(2300)N(2292)O(2291)P(2300)Q(2300). Jπ: L=3 in (α,α′), (p,p′) and γγ(θ) in ^{124}Sb β^- decay (60.20 d). $T_{1/2}$: from Coul. ex.: others 100 ps *5* from β-γ(centroid shift) (1971BeWP). B(E3) from $T_{1/2}$. B(E3)=0.12 *4* (2002Ki06, evaluation).
2308.42 *9*	0^+	<0.25 ns	C EF IJKLM	XREF: I(2312)J(2309)K(2307)M(2311). Jπ: E0 transitions to 0^+ states. $T_{1/2}$: from centroid shift in (n,γ) E=thermal (1988Pe06).
2321.719 *20*	(6^+)		D	Jπ: γ(θ) in (α,2nγ); (Q) γ to 4^+.
2322.95 *3*	2^+		A CDEFG iJKL n	XREF: n(2329). Jπ: γγ(θ) in (n,γ) E=thermal; M1(+E2) γ to 2^+.
2326.6 *5*			iJ no	XREF: n(2329)o(2330).
2335.030 *10*	5^-		A CDE G JKL no	XREF: n(2329)o(2330). Jπ: From γ(θ) in (α,2nγ) and E1 γ to 4^+.
2349.465 *17*	6^+		B DE IJK	Jπ: log*ft*=4.9 from 5^+; γ(θ) in (α,2nγ).
2454.069 *21*	2^+		A CDEFG IJKLM	XREF: M(2444). Jπ: L=2 in (d,p) from $1/2^+$; γ(θ) in (n,n′γ).
2483.362 *13*	4^+		A CDEFG K	Jπ: γ(θ) in (n,n′γ) and M1+E2 γ′s to 4^+.
2491.8 *3*			JK	
2496.9 *3*			JK	
2511.96 *5*	4		A DE IJKLmnO	XREF: m(2521)n(2520). Jπ: γ(θ) in (α,2nγ).
2521.33 *3*	2^+		A C EFG J Lmno	XREF: m(2521)n(2520)o(2525). Jπ: γ(θ) in (n,n′γ) and M1+E2 γ to 2^+.
2529.60 *10*	1^+		EFG iJ L o	XREF: i(2540)o(2525). Jπ: L=0 in (d,p) from $1/2^+$ and γ(θ) in (n,n′γ); 1989GoZK gave 2 or 3 to the spin from γ(θ) but the A_2 and A_4 values are consistent with ΔJ=0 or 1 to 2^+ state.
2534.31 *6*	$(3^+,4^+,5^+)$		i K	XREF: i(2540). Jπ: L=(4) in (p,p′).
2549.97 *5*	(4)		A D iJK NO	XREF: i(2540). Jπ: γ(θ) in (α,2nγ).
2578.9 *7*			KLM	XREF: M(2571).
2589.61 *9*	(6)		D m	XREF: m(2593). Jπ: γ(θ) in (α,2nγ).
2594.46 *5*	5		DE m	XREF: m(2593). Jπ: γ(θ) in (α,2nγ).
2600.95 *5*	1^+		EFG JKLm	XREF: m(2593). Jπ: L=2 in (d,p) from $1/2^+$; γ(θ) in (n,n′γ).
2618.63 *7*	(3)		A DEFG I K	Jπ: γ(θ) in (n,n′γ).
2629.14 *14*			K	
2641.15 *7*	2^+		C EFG Ij L	XREF: j(2644.4). Jπ: E2 γ to 0^+ and 4^+.
2647.20 *10*			jK m	XREF: j(2644.4)m(2653).
2655.88 *25*			J m	XREF: m(2653).
2664.373 *15*	6		D jkLmn	XREF: j(2665)k(2664)m(2670)n(2670). Jπ: γ(θ) in (α,2nγ).
2664.43 *3*	8^+		D jkLmn	XREF: j(2665)k(2664)m(2670)n(2670). Jπ: γ(θ) in (α,2nγ); E2 γ to 6^+.
2673.771 *13*	$7^{(-)}$		D G JK mn	XREF: m(2670)n(2670). Jπ: γ(θ) in (α,2nγ); systematics.

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Adopted Levels, Gammas (continued)

^{124}Te Levels (continued)

E(level)†	Jπ	$T_{1/2}$‡	XREF	Comments
2681.46 *4*	2^+		A C EFG IJKL	Jπ: γ(θ) in (n,n′γ); M1+E2 γ to 2^+.
2693.679 *5*	3^-		A CDE G IJKL OP	Jπ: γγ(θ) in ^{124}Sb β⁻ decay (60.20 d); E2 γ to 3^-.
2701.61 *3*	2^-		A CDE G JK M	Jπ: E1(+M2) γ to 2^+; log *ft*=8.115 from 3^-; log *ft*=7.05 from 2^-; nuclear orientation.
2710.64 *4*	4^+		A DE G J L	Jπ: γ(θ) in (α,2nγ); γ to 2^+.
2713.77 *12*	(5,7)		D	Jπ: γ(θ) in (α,2nγ).
2721.7 *6*	3^+,4^+		I mno	XREF: m(2727)n(2730)o(2727). Jπ: L=0+2 in (^{3}He,d) from $7/2^+$.
2730.6 *5*	$(0^+,1^+)$		Jk mno	XREF: k(2734)m(2727)n(2730)o(2727). Jπ: L=(0) in (d,p) from $1/2^+$.
2733.9 *3*	2^+ to 6^+		E k mno	XREF: k(2734)m(2727)n(2730)o(2727). Jπ: γ to 4^+.
2737.90 *5*	$6^{(+)}$		D J Lmn	XREF: m(2727)n(2730). Jπ: γ(θ) in (α,2nγ); Q γ to 4^+.
2747.04 *4*	$1^{(-)}$	27 fs *3*	C EFGH JK m	XREF: m(2758). Jπ: log *ft*=7.49 from 2^-; γ(θ) in (n,n′γ); probable E1 γ from capture state suggests negative parity. $T_{1/2}$: from (γ,γ′).
2766.93 *9*	1^+ to 4^+		E KLm	XREF: m(2758). Jπ: γ′s to 2^+ and 3^+.
2773.89 *3*	$6^{(+)}$		D	Jπ: γ(θ) in (α,2nγ) ; Q γ to 4^+.
2774.968 *25*	3^-,4^-		A E G I KLM	Jπ: log *ft*=7.491 from 3^-; E1 γ to 4^+.
2783.21 *7*	1^+,2^+		E H JKLm	XREF: m(2796). Jπ: L=2 in (d,p) from $1/2^+$; γ to g.s.; γ-excitation from 0^+. $T_{1/2}$=0.23 ps *7* if J=1, $T_{1/2}$=0.21 ps *7* if J=2 from (γ,γ′).
2790.41 *9*	0^+ to 4^+		E m	XREF: m(2796). Jπ: γ′s to 2^+.
2808.66 *8*	2^+		A EFG IJK m	XREF: m(2796). Jπ: γ(θ) in (n,n′γ); γ to g.s.
2814.53 *8*	2^+ to 5^+		A E K	XREF: K(2816). Jπ: γ′s to 3^+ and 4^+.
2817.48 *11*	2^+		EFG JKL	XREF: K(2820). Jπ: γ(θ) in (n,n′γ); γ to 0^+.
2834.898 *20*	3^-		CDE G K M	XREF: M(2834). Jπ: γ(θ) in (n,n′γ); E1 γ to 2^+.
2839.039 *17*	6		D L p	XREF: p(2840). Jπ: γ(θ) in (α,2nγ).
2841.7 *3*	$(0^-,1^-,2^-)$		JK p	XREF: p(2840). Jπ: L=(1) in (d,p) from $1/2^+$.
2844.498 *22*	(5)		D	Jπ: γ(θ) in (α,2nγ).
2853.2 *6*			J m	XREF: m(2850).
2858.90 *15*	2,3		EFG J L	Jπ: γ(θ) in (n,n′γ).
2865.262 *18*	3^-		A DE K	Jπ: γ′s to 3^- and 5^-; Q γ to 5^-; γ(θ) in (α,2nγ) suggests 7, but conflicts γ transition to 3^-.
2872.88 *5*	3^+,4^+,5^+		D I n	XREF: n(2870). Jπ: γ(θ) in (α,2nγ); L=2+4 in (^{3}He,d) from $7/2^+$.
2873.53 *6*	7		D	Jπ: γ(θ) in (α,2nγ).
2880.33 *6*	$5^{(+)}$		D	Jπ: γ(θ) in (α,2nγ).
2884.2 *10*	$1,2^+$		Hi	XREF: i(2884.9). Jπ: γ-excitation from 0^+. $T_{1/2}$=0.25 ps *9* if J=1, $T_{1/2}$=0.23 ps *8* if J=2 from (γ,γ′).
2886.05 *3*	3^-		A C E G iJK m	XREF: i(2884.9)m(2894). Jπ: γ(θ) in (n,n′γ); E1+M2 γ to 2^+.
2897.3 *10*	$1,2^+$		H m	XREF: m(2894).

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Adopted Levels, Gammas (continued)

^{124}Te Levels (continued)

E(level)†	Jπ	$T_{1/2}$‡	XREF	Comments
				Jπ: γ-excitation from 0^+.
				$T_{1/2}$=0.25 ps *9* if J=1, $T_{1/2}$=0.22 ps *8* if J=2 from (γ,γ′).
2902.71 *3*	(5)		D JKL	Jπ: γ(θ) in (α,2nγ).
2911.180 *14*	$7^{(-)}$		D	Jπ: γ(θ) in (α,2nγ); Q γ to $5^{(-)}$.
2920.69 *4*	(3,4)		DE K	Jπ: γ(θ) in (α,2nγ).
2933.77 *6*	6		DEF K m	XREF: m(2938).
				Jπ: γ(θ) in (α,2nγ).
2939.75 *9*			jK m	XREF: j(2942)m(2938).
2945.59 *6*	2^+		E IjK	XREF: j(2942).
				Jπ: γ′s to 0^+ and 4^+.
2947.72 *12*	0^+ to 3^+		EF L n	XREF: n(2950).
				Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
2954.249 *16*	6		D	Jπ: γ(θ) in (α,2nγ).
2957.55 *7*	3^-,4^+		E Lmn	XREF: m(2959)n(2950).
				Jπ: γ′s to 2^+ and 5^-.
2963.1 *7*	0^+ to 3^+		E JK mn	XREF: m(2959)n(2950).
				Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
2965.18 *3*	(7^-)		D	Jπ: γ(θ) in (α,2nγ); (Q) to $5^{(-)}$.
2966.98 *6*	(5,6)		D I	XREF: I(2968).
				Jπ: γ(θ) in (α,2nγ).
2973.256 *24*	(5,6)		D k	XREF: k(2973.5).
				Jπ: γ(θ) in (α,2nγ).
2975.48 *11*	1	65 fs *9*	EFGH Jk n	XREF: k(2973.5)n(2980).
				Jπ: γ(θ) in (n,n′γ).
				$T_{1/2}$: in the case of J=2, 60 fs *8*.
2982.71 *9*	2^+,3^+		E n	XREF: n(2980).
				Jπ: γ′s to 2^+ and 4^+ and γ from 0^+,1^+ capture state.
2986.70 *19*	(5,6)		D L n	XREF: n(2980).
				Jπ: γ(θ) in (α,2nγ).
2988.24 *5*	1,2^+		C EFG JKLM	XREF: L(2991.3).
				Jπ: log *ft*=8.08 from 2^-; γ to g.s.
3001.12 *3*	2^+,3		CDE JKL N P	Jπ: log *ft*=6.79 from 2^-; γ′s to 2^+ and 4^+.
3011.7 *3*			L	
3018.11 *27*			L	
3030.7 *3*			K	
3032.839 *16*	7		D	Jπ: γ(θ) in (α,2nγ).
3036.3 *8*			JKL	
3038.29 *3*	$8^{(+)}$		D	Jπ: γ(θ) in (α,2nγ) ; Q γ to 6^+.
3039.9 *12*	0^+ to 3^+		E m	XREF: m(3041).
				Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
3045.37 *6*	2^+		EF I m	XREF: m(3041).
				Jπ: L=2+4 in (^{3}He,d) from $7/2^+$; γ′s to 0^+ and 3^-.
3048.9 *3*	1,2^+		E L n	XREF: n(3050).
				Jπ: γ′s to 0^+ and 2^+.
3054.62 *9*	3^-,4^+		E L n	XREF: L(3055)n(3050).
				Jπ: γ′g to 2^+ and 5^-.
3056.50 *10*	2^+,3,4^+		E J L	XREF: L(3060).
				Jπ: γ′s to 2^+ and 4^+.
3069.27 *10*	$6^{(+)}$		D mn	XREF: m(3079)n(3070).
				Jπ: γ(θ) in (α,2nγ); (Q) γ to 4^+.
3082.77 *10*	2^+ to 6^+		E J Lmn	XREF: m(3079)n(3070).
				Jπ: γ to 4^+.
3088.57 *7*	2^+		Ef ij l	XREF: f(3090)i(3091)j(3091)l(3091).
				Jπ: γ′s to 0^+ and 4^+.
3091.86 *8*	1,2^+		Ef Hij l	XREF: f(3090)i(3091)j(3090)l(3091).

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Adopted Levels, Gammas (continued)

^{124}Te Levels (continued)

E(level)†	Jπ	$T_{1/2}$‡	XREF	Comments
				Jπ: γ's to 0^+ and 2^+.
3095.07 *6*	1^- to 4^+		E J L	Jπ: γ's 2^+ and 3^-.
3100.67 *4*	$1,2^+$	1.04 ps *14*	EF m	XREF: m(3106). Jπ: γ to 0^+.
3107.60 *6*	$2^+,3,4^+$		E m	XREF: m(3106). Jπ: γ's to 2^+ and 4^+.
3109.38 *11*	$2^+,3,4^-$		E m	XREF: m(3106). Jπ: γ's to 2^- and 4^+.
3113.7 *11*			J	
3118.52 *15*	$2^+,3^+$		E L n	XREF: n(3120). Jπ: γ's to 2^+ and 4^+ and γ from $0^+,1^+$ capture state.
3125.1 *5*			iJ mn	XREF: i(3130)m(3133)n(3120).
3136.76 *4*	$8^{(+)}$		D	Jπ: γ(θ) in (α,2nγ); Q γ to 6^+.
3139.4 *5*			iJ m	XREF: i(3130)m(3133).
3143.22 *11*	0^+ to 3^+		E	Jπ: γ's to 2^+ and γ from $0^+,1^+$ capture state.
3149.5 *7*			J M	XREF: M(3153).
3154.37 *3*	$10^{(+)}$		D	Jπ: γ(θ) in (α,2nγ); Q γ to 8^+.
3162.92 *17*	$2^+,3,4^+$		E	Jπ: γ's to 2^+ and 4^+.
3167.94 *8*	$2^+,3,4^+$		E J M	XREF: M(3169). Jπ: γ's to 2^+ and 4^+.
3181.4 *7*			iJ l n	XREF: i(3200)l(3200)n(3190).
3206.6 *6*			iJ l n	XREF: i(3200)l(3200)n(3190).
3210.9 *4*	2^+ to 6^+		E lm	XREF: l(3200)m(3212). Jπ: γ to 4^+.
3212.23 *7*	$1^-,2^+$		E mn	XREF: m(3212)n(3220). Jπ: γ's to 0^+ and 3^-.
3217.60 *11*	2^+		E mn	XREF: m(3212)n(3220). Jπ: γ's to 0^+ and 4^+.
3220.50 *8*	2^+	0.12 ps *3*	E GH mn	XREF: m(3212)n(3220). Jπ: γ's to 0^+ and 4^+. $T_{1/2}$: from (γ,γ').
3231.2 *7*			J	
3235.4 *3*	0^+ to 4^+		E	Jπ: γ to 2^+.
3238.24 *8*	$1,2^+$		E HiJ	XREF: i(3240). Jπ: γ's to 0^+ and 2^+.
3240.88 *21*	$2^+,3,4^+$		E i	XREF: i(3240). Jπ: γ's to 2^+ and 4^+.
3257.98 *10*	$2^+,3,4^+$		E IJ N	Jπ: γ's to 2^+ and 4^+.
3260.84 *6*	(6)		D	Jπ: γ(θ) in (α,2nγ).
3272.299 *22*	8		D	Jπ: γ(θ) in (α,2nγ).
3279.94 *7*	$2^+,3,4^+$		E lm	XREF: l(3280)m(3282). Jπ: γ's to 2^+ and 4^+.
3284.22 *6*	2^+		E lm	XREF: l(3280)m(3282). Jπ: γ's to 0^+, 3^+ and 3^-.
3288.91 *9*	$1,2^+$		E J	Jπ: γ's to 0^+ and 2^+.
3290.763 *23*	$9^{(-)}$		D	Jπ: γ(θ) in (α,2nγ); Q γ to $7^{(-)}$.
3302.0 *10*	$1,2^+$		H N	XREF: N(3300). Jπ: γ-excitation from 0^+. $T_{1/2}$=0.30 ps *14* if J=1, $T_{1/2}$=0.28 ps *13* if J=2 from (γ,γ').
3307.37 *6*	7		D	Jπ: γ(θ) in (α,2nγ).
3308.5 *5*	2^+ to 6^+		E	Jπ: γ to 4^+.
3318.98 *15*	0^+ to 4^+		E	Jπ: γ to 2^+.
3336.22 *4*	8		D	Jπ: γ(θ) in (α,2nγ).
3336.51 *13*	$2^+,3^+,4^+$		E IJ	XREF: I(3330). Jπ: L=2 in (d,p); γ to 2^+ and 4^+.

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Adopted Levels, Gammas (continued)

^{124}Te Levels (continued)

E(level)†	Jπ	XREF	Comments
3348.68 *25*	1,2$^+$	E	Jπ: γ's to 0$^+$ and 2$^+$.
3350.958 *16*	9$^{(-)}$	D	Jπ: γ(θ) in (α,2nγ) ; Q γ to 7$^{(-)}$.
3355.2 *3*	2$^+$ to 6$^+$	E	Jπ: γ to 4$^+$.
3365.43 *7*	(7)	D	Jπ: γ(θ) in (α,2nγ).
3367.98 *3*	9	D	Jπ: γ(θ) in (α,2nγ).
3370.15 *5*	8	D	Jπ: γ(θ) in (α,2nγ).
3370.45 *12*	0$^+$ to 4$^+$	E	Jπ: γ to 2$^+$.
3382.932 *18*	(7)	D	Jπ: γ(θ) in (α,2nγ).
3393.63 *13*	1$^+$,2$^+$	E J M	XREF: M(3390). Jπ: γ's to 0$^+$ and 3$^+$.
3399.67 *9*	2$^+$,3$^+$	E I	XREF: I(3400). Jπ: γ's to 2$^+$ and 4$^+$ and γ from 0$^+$,1$^+$ capture state.
3409.04 *4*	9	D	Jπ: γ(θ) in (α,2nγ).
3422.60 *4*	6$^{(+)}$	D m	XREF: m(3427). Jπ: γ(θ) in (α,2nγ) ; Q γ to 8$^+$.
3430.04 *18*	1$^-$,2,3$^+$	E J Lm	XREF: m(3427). Jπ: γ's to 1 and 3$^-$ and γ from 0$^+$,1$^+$ capture state.
3438.70 *21*	0$^+$ to 4$^+$	E n	XREF: n(3440). Jπ: γ to 2$^+$.
3443.05 *6*	1,2$^+$	E n	XREF: n(3440). Jπ: γ's to 0$^+$.
3444.03 *3*	(5,6)	D	Jπ: γ(θ) in (α,2nγ).
3450.78 *9*	1$^-$,2$^+$	E	Jπ: γ to 0$^+$ and 3$^-$.
3452.69 *3*	(6)	D	Jπ: γ(θ) in (α,2nγ).
3456.61 *13*	2$^+$,3,4$^+$	E m	XREF: m(3457). Jπ: γ's to 2$^+$ and 4$^+$.
3460.35 *21*	1,2$^+$	E m	XREF: m(3457). Jπ: γ to 0$^+$.
3474.64 *12*	0$^+$ to 4$^+$	E m	XREF: m(3476). Jπ: γ to 2$^+$.
3475.54 *8*	(6,7)	D	Jπ: γ(θ) in (α,2nγ).
3479.37 *9*	0$^+$ to 3$^+$	E J mN	XREF: m(3476). Jπ: γ' to 2$^+$ and 1$^+$,(2$^+$).
3479.56 *4*	6$^{(+)}$	D	Jπ: γ(θ) in (α,2nγ) ; Q γ to 8$^+$.
3487.16 *22*	1,2$^+$	E	Jπ: γ to 0$^+$.
3490.25 *11*	0$^+$ to 3$^+$	E	Jπ: γ's to 1$^+$ and 2$^+$.
3497.54 *23*	2$^+$ to 6$^+$	E	Jπ: γ to 4$^+$.
3513.44 *10*	5,6,7	D i n	XREF: i(3520)n(3520). Jπ: γ(θ) in (α,2nγ).
3526.692 *23*	(7,8)	D	Jπ: γ(θ) in (α,2nγ).
3530.04 *10*	1$^-$,2$^+$	E G IJ MN	XREF: I(3520)M(3526)N(3520). Jπ: γ to 0$^+$ and 3$^-$.
3537.68 *14*	1,2$^+$	E	Jπ: γ to 0$^+$.
3543.09 *10*	1$^-$,2$^+$	E H	Jπ: γ-excitation from 0$^+$; γ to 3$^-$. $T_{1/2}$=33 fs *5* if J=1, $T_{1/2}$=30 fs *5* if J=2 from (γ,γ').
3550.00 *3*	10$^{(+)}$	D	Jπ: γ(θ) in (α,2nγ); Q γ to 8$^+$.
3554.45 *10*	7	D	Jπ: γ(θ) in (α,2nγ).
3576.03 *20*	2$^+$,3$^+$,4$^+$	E I lMN	XREF: I(3560)l(3580)M(3567)N(3570). Jπ: γ's to 2$^+$ and 4$^+$; L=0+2 in (^{3}He,d) from 7/2$^+$.
3588.3 *3*	0$^+$ to 4$^+$	E l n	XREF: l(3580)n(3590). Jπ: γ to 2$^+$.
3598.975 *21*	9$^{(-)}$	D	Jπ: γ(θ) in (α,2nγ); Q γ to 7$^{(-)}$.
3599.3 *3*	2$^+$,3,4$^+$	E n	XREF: n(3590). Jπ: γ's to 2$^+$ and 4$^+$.
3622.07 *8*	1$^-$,2$^+$	E m	XREF: m(3626).

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Adopted Levels, Gammas (continued)

^{124}Te Levels (continued)

E(level)†	Jπ	$T_{1/2}$‡	XREF	Comments
				Jπ: γ′s to 0^+ and 3^-.
3628.53 *9*	1,2+		E m	XREF: m(3626).
				Jπ: γ to 0^+.
3652.13 *6*	(7)		D	Jπ: γ(θ) in (α,2nγ).
3652.81 *10*	1,2+		E m	XREF: m(3653).
				Jπ: γ to 0^+.
3654.4 *4*	2^+	39 fs *9*	E H m	XREF: m(3653).
				Jπ: γ to 0^+ and 4^+.
3662.00 *13*	2+,3,4+		E	Jπ: γ to 2^+ and 4^+.
3666.90 *10*	1+ to 3+		E LM	XREF: L(3670)M(3669).
				Jπ: γ′s to 2^+ and 3^+ and γ from 0^+,1^+ capture state.
3685.70 *13*	0^+ to 4^+		E M	XREF: M(3690).
				Jπ: γ to 2^+.
3703.487 *23*	8		D	Jπ: γ(θ) in (α,2nγ).
3709.72 *8*	2^+		E I	XREF: I(3710).
				Jπ: γ′s to 0^+, 3^+ and 3^-.
3713.99 *7*	(8,9)		D	Jπ: γ(θ) in (α,2nγ).
3723.63 *16*	2+,3,4+		E lM	XREF: l(3750)M(3730).
				Jπ: γ′s to 2^+ and 4^+.
3755.65 *6*	1,2+		E lM	XREF: l(3750)M(3754).
				Jπ: γ to 0^+.
3774.1 *5*	1,2+		E i n	XREF: i(3780)n(3790).
				Jπ: γ to 0^+.
3805.40 *15*	0^+ to 3^+		E i lm	XREF: i(3780)l(3810)m(3807).
				Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
3810.07 *11*	0^+ to 3^+		E lMn	XREF: l(3810)M(3829)n(3790).
				Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
3836.46 *10*	(9)		D	Jπ: γ(θ) in (α,2nγ).
3845.22 *11*	8		D M	Jπ: γ(θ) in (α,2nγ).
3850.54 *5*	11		D	Jπ: γ(θ) in (α,2nγ).
3853.57 *13*	0^+ to 3^+		E M	XREF: M(3855).
				Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
3862.6 *3*	0^+ to 3^+		E m	XREF: m(3871).
				Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
3872.32 *5*	(9,10)		D	Jπ: γ(θ) in (α,2nγ).
3880.20 *17*	1,2+		E m	XREF: m(3871).
				Jπ: γ to 0^+.
3884.87 *11*	1,2+		E lM	XREF: l(3890)M(3887).
				Jπ: γ to 0^+.
3904.12 *16*	0^+ to 3^+		E l	XREF: l(3890).
				Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
3929.47 *12*	1,2+		E	Jπ: γ to 0^+.
3931.57 *3*	10		D	Jπ: γ(θ) in (α,2nγ).
3945.22 *22*	1,2+		E	Jπ: γ to 0^+.
3946.40 *18*	1,2+		E	Jπ: γ to 0^+.
3967.34 *16*	1−,2+		E	Jπ: γ′s to 0^+ and 3^-.
3984.78 *10*	(8)		D	Jπ: γ(θ) in (α,2nγ).
3988.593 *24*	$11^{(-)}$		D	Jπ: γ(θ) in (α,2nγ); Q γ to $9^{(-)}$.
3989.1 *9*	0^+ to 3^+		E	Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
3996.33 *14*	0^+ to 4^+		E	Jπ: γ to 2^+.
3998.3 *5*	1,2+		E	Jπ: γ to 0^+.
4010.8 *4*	1,2+		E	Jπ: γ to 0^+.
4030.3 *3*	0^+ to 3^+		E	Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
4032.76 *3*	$11^{(-)}$		D	Jπ: γ(θ) in (α,2nγ); Q γ to $9^{(-)}$.
4034.43 *3*	(10)		D	Jπ: γ(θ) in (α,2nγ).

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{124}Te Levels (continued)

E(level)†	Jπ	XREF	Comments
4043.80 *14*	0^+ to $3^{(-)}$	E	Jπ: γ's to 2^+ and $1^{(-)}$.
4051.40 *5*	11	D	Jπ: γ(θ) in (α,2nγ).
4051.51 *12*	0^+ to 3^+	E	Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
4057.22 *18*	0^+ to 4^+	E	Jπ: γ to 2^+.
4090.23 *15*	$1,2^+$	E H	Jπ: γ to 0^+. $T_{1/2}$=35 fs *7* if J=1, $T_{1/2}$=32 fs *6* if J=2 in (γ,γ').
4099.2 *4*	0^+ to 3^+	E	Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
4114.08 *4*	(9,10)	D	Jπ: γ(θ) in (α,2nγ).
4114.37 *13*	0^+ to 4^+	E	Jπ: γ to 2^+.
4118.1 *10*	$1,2^+$	H	Jπ: γ to 0^+.
4128.1 *4*	$1,2^+$	E	Jπ: γ to 0^+.
4142.20 *13*	2^+,3,4^+	E	Jπ: γ's to 2^+ and 4^+.
4144.48 *14*	0^+ to $3^{(-)}$	E	Jπ: γ's to 2^+ and $1^{(-)}$.
4146.51 *16*	$1,2^+$	E	Jπ: γ to 0^+.
4155.38 *13*	2^+ to 6^+	E	Jπ: γ to 4^+.
4170.7 *3*	$1,2^+$	E	Jπ: γ to 0^+.
4173.68 *4*		D	
4177.79 *22*	$1,2^+$	E	Jπ: γ to 0^+.
4195.06 *20*	1,2	E	Jπ: γ's to 1^+, 2^+, 2^- and $1^{(-)}$.
4215.4 *4*	$1,2^+$	E	Jπ: γ to 0^+.
4229.22 *21*	$1,2^+$	E	Jπ: γ to 0^+.
4238.39 *5*		D	
4241.0 *15*	0^+ to 4^+	E	Jπ: γ to 2^+.
4244.8 *5*	0^+ to 3^+	E	Jπ: γ's to 1^+ and 2^+.
4270.3 *5*	$1,2^+$	E	Jπ: γ to 0^+.
4286.07 *3*		D	
4289.40 *11*	2^+	E	Jπ: γ's to 0^+ and 4^+.
4302.61 *21*	0 to 3^+	E	Jπ: γ to 1^+.
4324.4 *3*	$1,2^+$	E	Jπ: γ to 0^+.
4327.4 *4*	$1,2^+$	E	Jπ: γ to 0^+.
4375.47 *15*	0^+ to 4^+	E	Jπ: γ to 2^+.
4379.47 *10*	0^+ to 3^+	E	Jπ: γ's to 1^+ and 2^+.
4415.32 *16*	0^+ to 3^+	E	Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
4439.4 *5*	0^+ to $3^{(-)}$	E	Jπ: γ to $1^{(-)}$ and 2^+.
4444.8 *5*	0^+ to 3^+	E	Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
4453.7 *3*	0^+ to 3^+	E	Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
4487.3 *5*	$1,2^+$	E	Jπ: γ to 0^+.
4501.24 *16*	0^+ to 3^+	E	Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
4504.3 *7*	0 to 2	E	Jπ: γ to $1^{(-)}$ and γ from 0^+,1^+ capture state.
4524.4 *3*	0^+ to 3^+	E	Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
4528.1 *3*	0^+ to 3^+	E	Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
4551.5 *3*	$1,2^+$	E	Jπ: γ to 0^+.
4568.9 *3*	$1,2^+$	E	Jπ: γ to 0^+.
4580.97 *21*	$1,2^+$	E H	Jπ: γ to 0^+.
4598.5 *3*	$1,2^+$	E	Jπ: γ to 0^+.
4630.1 *6*	$1,2^+$	E	Jπ: γ to 0^+.
4643.46 *25*	$1,2^+$	E	Jπ: γ to 0^+.
4698.0 *6*	$1,2^+$	E	Jπ: γ to 0^+.
4701.95 *21*	0^+ to 4^+	E	Jπ: γ to 2^+.
4712.90 *17*	0^+ to 3^+	E	Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
4723.5 *4*	0^+ to 3^+	E	Jπ: γ to 2^+ and γ from 0^+,1^+ capture state.
4737.28 *21*	0^+ to 4^+	E	Jπ: γ to 2^+.
4739.63 *13*	$1,2^+$	E	Jπ: γ to 0^+.
4754.71 *18*	$1,2^+$	E	Jπ: γ to 0^+.
4764.4 *4*	$1,2^+$	E	Jπ: γ to 0^+.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{124}Te Levels (continued)

E(level)[†]	J^π	XREF	Comments
4811.2 *15*	0^+ to 3^+	E	J^π: γ to 2^+ and γ from 0^+,1^+ capture state.
4818.3 *5*	0^+ to 3^+	E	J^π: γ's to 1^+ and 2^+.
4883.27 *21*	$1,2^+$	E	J^π: γ to 0^+.
4889.30 *16*	$1,2^+$	E	J^π: γ to 0^+.
4897.6 *4*	0^+ to 3^+	E	J^π: γ to 2^+ and γ from 0^+,1^+ capture state.
4911.41 *22*	$2^+,3^+$	E	J^π: γ's to 2^+ and 4^+ and γ from 0^+,1^+ capture state.
4915.7 *3*	$1,2^+$	E	J^π: γ to 0^+.
4932.0 *5*	0^+ to 3^+	E	J^π: γ to 2^+ and γ from 0^+,1^+ capture state.
4941.8 *4*	$1,2^+$	E	J^π: γ to 0^+.
4962.51 *16*	0^+ to 3^+	E	J^π: γ to 2^+ and γ from 0^+,1^+ capture state.
4979.58 *17*	0^+ to 3^+	E	J^π: γ to 2^+ and γ from 0^+,1^+ capture state.
4984.7 *8*	0^+ to 3^+	E	J^π: γ to $1,2^+$ and γ from 0^+,1^+ capture state.
4990.4 *3*	0^+ to 3^+	E	J^π: γ to 2^+ and γ from 0^+,1^+ capture state.
4993.51 *21*	$1,2^+$	E	J^π: γ to 0^+.
5036.9 *5*	$1,2^+$	E	J^π: γ to 0^+.
5050.72 *25*	$1,2^+$	E	J^π: γ to 0^+.
5075.83 *23*	$1,2^+$	E	J^π: γ to 0^+.
5127.29 *19*	0^+ to 4^+	E	J^π: γ to 2^+.
5132.3 *7*	$1,2^+$	E	J^π: γ to 0^+.
5155.94 *13*	$1,2^+$	E	J^π: γ to 0^+.
5169.7 *4*	$1,2^+$	E	J^π: γ to 0^+.
5285.5 *6*	0^+ to 4^+	E	J^π: γ to 2^+.
5319.2 *7*	0^+ to 3^+	E	J^π: γ to $1,2^+$ and γ from 0^+,1^+ capture state.
5423.9 *4*	0^+ to 3^+	E	J^π: γ to 2^+ and γ from 0^+,1^+ capture state.
5445.4 *4*	$1,2^+$	E	J^π: γ to 0^+.
5488.5 *6*	$1,2^+$	E	J^π: γ to 0^+.
5751.40 *23*	0^+ to 3^+	E	J^π: γ to 2^+ and γ from 0^+,1^+ capture state.

[†] From a least-squares fit to the adopted Eγ's. Others are average of reaction data.
[‡] From Doppler broadening (GRID technique) in (n,γ) E=thermal, unless otherwise noted.

Adopted Levels, Gammas (continued)

γ(^{124}Te)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult.[a]	δ[b]	α[c]	$I_{(\gamma+ce)}$	Comments
602.7271	2^+	602.7260 *23*	100.0	0.0	0^+	E2		0.00490		B(E2)(W.u.)=31.1 *5* α(K)=0.00420 *6*; α(L)=0.000566 *8*; α(M)=0.0001132 *16*; α(N+..)=2.45×10^{-5} *4* α(N)=2.22×10^{-5} *4*; α(O)=2.33×10^{-6} *4* Mult.: from K/L ratio in ^{124}I ε decay. E_γ: from 2000He14.
1248.5811	4^+	645.8520 *19*	100.0	602.7271	2^+	E2		0.00409		B(E2)(W.u.)=(97.529 *4*) α(K)=0.00351 *5*; α(L)=0.000467 *7*; α(M)=9.35×10^{-5} *13*; α(N+..)=2.03×10^{-5} *3* α(N)=1.84×10^{-5} *3*; α(O)=1.94×10^{-6} *3* E_γ: from 2000He14. Mult.: γγ(θ) and α(K)exp in ^{124}Sb β^- decay.
1325.5131	2^+	722.782 *3*	100.0 *3*	602.7271	2^+	M1+E2(+E0)	−3.4 *3*	0.00314		B(M1)(W.u.)=0.0467 *7* α(K)=0.00271 *4*; α(L)=0.000352 *5*; α(M)=7.02×10^{-5} *10*; α(N+..)=1.529×10^{-5} *22* α(N)=1.382×10^{-5} *20*; α(O)=1.471×10^{-6} *22* E_γ: from 2000He14.
		1325.504 *4*	16.1 *5*	0.0	0^+	E2		8.27×10^{-4}		B(E2)(W.u.)=0.49 *+5−10* α(K)=0.000693 *10*; α(L)=8.48×10^{-5} *12*; α(M)=1.685×10^{-5} *24*; α(N+..)=3.16×10^{-5} *5* α(N)=3.33×10^{-6} *5*; α(O)=3.62×10^{-7} *5*; α(IPF)=2.79×10^{-5} *4* E_γ: from 2000He14. Mult.: α(K)exp in (n,γ) and γ(θ) in (n,n′γ).
1657.283	0^+	1054.551 *22*	100.0 *8*	602.7271	2^+	E2		1.29×10^{-3}		B(E2)(W.u.)=20 *4* α(K)=0.001115 *16*; α(L)=0.0001392 *20*; α(M)=2.77×10^{-5} *4*; α(N+..)=6.05×10^{-6} *9* α(N)=5.46×10^{-6} *8*; α(O)=5.90×10^{-7} *9* Mult.: γγ(θ) and α(K)exp in (n,γ) E=thermal.
		1658.1 *12*		0.0	0^+	E0			0.016 *3*	Mult.: from (n,γ). q^2_K(E0/E2)=0.087 *23*, X(E0/E2)=0.014 *4*, ρ^2(E0)=0.012 *3* (2005Ki02, evaluation).
1746.958	6^+	498.369 *12*	100	1248.5811	4^+	E2		0.00823		α(K)=0.00701 *10*; α(L)=0.000982 *14*; α(M)=0.000197 *3*; α(N+..)=4.25×10^{-5} *6* α(N)=3.85×10^{-5} *6*; α(O)=3.99×10^{-6} *6* Mult.: from γ(θ) in (α,2nγ) and J^π′s of relevant levels.

$^{124}_{52}Te_{72}$-10

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[a]	δ[b]	α[c]	$I_{(\gamma+ce)}$	Comments
1882.92	0^+	226.4		1657.283	0^+	E0			0.070 *11*	Mult.: from (n,γ).
		557.43 *3*	100.0 *10*	1325.5131	2^+	E2		0.00604		B(E2)(W.u.)=3.5×10^2 *+7−10* α(K)=0.00516 *8*; α(L)=0.000706 *10*; α(M)=0.0001415 *20*; α(N+..)=3.06×10^{-5} *5* α(N)=2.77×10^{-5} *4*; α(O)=2.90×10^{-6} *4* Mult.: from γγ(θ) in (n,γ) E=thermal and J^π of relevant levels.
		1883.3		0.0	0^+	E0			0.317 *11*	Mult.: from (n,γ) E=thermal.
1957.902	4^+	632.38 *5*	7.65 *20*	1325.5131	2^+					
		709.303 *13*	100.0 *7*	1248.5811	4^+	M1+E2(+E0)	−0.18 *5*	0.00402		α(K)=0.00349 *5*; α(L)=0.000429 *7*; α(M)=8.53×10^{-5} *13*; α(N+..)=1.87×10^{-5} *3* α(N)=1.689×10^{-5} *25*; α(O)=1.85×10^{-6} *3* γγ(θ) and ce(K) in ^{124}Sb β^- decay. I_γ: Average of B- decay, ε decay, (n,γ) E=thermal and (n,n′γ).
		1355.169 *11*	78.5 *19*	602.7271	2^+	E2(+M3)	−0.32 *+25−18*	0.0011 *4*		α(K)=0.0009 *3*; α(L)=0.00011 *4*; α(M)=2.3×10^{-5} *8*; α(N+..)=3.72×10^{-5} *19* α(N)=4.5×10^{-6} *16*; α(O)=4.9×10^{-7} *17*; α(IPF)=3.2×10^{-5} *4* I_γ: Average of B- decay, ε decay, (n,γ) E=thermal and (n,n′γ). γγ(θ) and α(K)exp in ^{124}Sb β^- decay. δ: from 1993Go10.
2039.293	3^+	713.776[#] *2*	100.0[&] *18*	1325.5131	2^+	M1+E2	−3.9 *2*	0.00323		B(M1)(W.u.)=0.0028 *6*; B(E2)(W.u.)=59 *10* α(K)=0.00278 *4*; α(L)=0.000362 *5*; α(M)=7.23×10^{-5} *11*; α(N+..)=1.574×10^{-5} *23* α(N)=1.422×10^{-5} *20*; α(O)=1.513×10^{-6} *22* E_γ,I_γ: from (n,γ) E=thermal. Mult.,δ: From γ(θ) and linear polarization in 1989GoZK.
		790.711[#] *3*	31.7[&] *24*	1248.5811	4^+	M1+E2	−4.3 *3*			E_γ,I_γ: from (n,γ) E=thermal. Mult.,δ: From γ(θ) in 1989GoZK and J^π's of relevant levels.
		1436.559[#] *5*	54.3[&] *24*	602.7271	2^+	M1+E2	+3 *+15−2*			E_γ,I_γ: from (n,γ) E=thermal. Mult.,δ: From γ(θ) 1990Be50 and relevant levels.

$^{124}_{52}Te_{72}$-11

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [@]	E_f	J_f^π	Mult.[a]	δ[b]	α[c]	Comments
2039.421	2+	382.00 *16*	1.57 *11*	1657.283	0+				E_γ,I_γ: from (n,γ) E=thermal.
		713.906[#] *2*	3.7[&] *21*	1325.5131	2+				E_γ,I_γ: from (n,γ) E=thermal.
		790.837[#] *3*	3.7[&] *21*	1248.5811	4+				E_γ,I_γ: from (n,γ) E=thermal.
		1436.689[#] *5*	100.0[&] *21*	602.7271	2+	M1+E2	+0.13 *4*		E_γ,I_γ: from (n,γ) E=thermal. Mult.,δ: from γ(θ) in 1990Be50 and J^π's of relevant levels.
		2039.36[#] *3*	56.8[&] *6*	0.0	0+	E2		6.67×10^{-4}	B(E2)(W.u.)=0.31 *7* α(K)=0.000305 *5*; α(L)=3.64×10^{-5} *5*; α(M)=7.21×10^{-6} *10*; α(N+..)=0.000319 *5* α(N)=1.427×10^{-6} *20*; α(O)=1.562×10^{-7} *22*; α(IPF)=0.000317 *5* Mult.: From γ(θ) and α(K)exp in (n,γ) E=thermal.
2091.603	2+	766.01 *12*	1.80 *3*	1325.5131	2+	E0+E2,M1		0.0030 *4*	α(K)=0.0026 *4*; α(L)=0.00033 *3*; α(M)=6.5×10^{-5} *6*; α(N+..)=1.43×10^{-5} *14* α(N)=1.29×10^{-5} *13*; α(O)=1.40×10^{-6} *15* Mult.: from α(K)exp in ^{124}Sb β^- decay.
		843.7 *6*	0.28 *8*	1248.5811	4+				
		1488.886 *18*	100.0 *6*	602.7271	2+	M1(+E2)	+0.10 *23*	8.29×10^{-4} *16*	B(M1)(W.u.)=(0.022 *8*); B(E2)(W.u.)=(0.1 *+4−10*) α(K)=0.000659 *14*; α(L)=7.92×10^{-5} *16*; α(M)=1.57×10^{-5} *3*; α(N+..)=7.51×10^{-5} *12* α(N)=3.11×10^{-6} *7*; α(O)=3.42×10^{-7} *7*; α(IPF)=7.17×10^{-5} *11* Mult.: from α(K)exp in ^{124}Sb β^- decay and (n,γ) E=thermal.
		2091.19 *10*	29.4 *3*	0.0	0+				Reported in (n,γ) E=thermal only; not reported in ^{124}Sb β^- decay (60.20 d), ^{124}I ε decay and (n,n′γ).
2153.29	0+	827.78 *3*	100.0 *10*	1325.5131	2+	E2		0.00222	α(K)=0.00192 *3*; α(L)=0.000246 *4*; α(M)=4.90×10^{-5} *7*; α(N+..)=1.069×10^{-5} *15* α(N)=9.65×10^{-6} *14*; α(O)=1.032×10^{-6} *15* Mult.: from α(K)exp in (n,γ) ^{124}Sb β^- and γ(θ) in (n,n′γ).
		1550.44 *8*	23.9 *5*	602.7271	2+				
2182.41	2+	856.84 *6*	9.2 *9*	1325.5131	2+	M1,E2		0.0023 *3*	α(K)=0.00202 *25*; α(L)=0.00025 *3*; α(M)=5.0×10^{-5} *5*; α(N+..)=1.09×10^{-5} *12* α(N)=9.9×10^{-6} *10*; α(O)=1.07×10^{-6} *12*
		1579.70 *4*	100.0 *10*	602.7271	2+	M1+E2(+E0)	−0.17 *7*	7.71×10^{-4}	From α(K)exp in (n,γ) E=thermal. α(K)=0.000579 *9*; α(L)=6.95×10^{-5} *11*; α(M)=1.379×10^{-5} *20*; α(N+..)=0.0001079 *16*

$^{124}_{52}Te_{72}$-12

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult.[a]	δ[b]	α[c]	Comments
									α(K)=0.000579 *9*; α(L)=6.95×10^{-5} *11*; α(M)=1.379×10^{-5} *20*; α(N+..)=0.0001079 *16* α(N)=2.73×10^{-6} *4*; α(O)=3.00×10^{-7} *5*; α(IPF)=0.0001048 *15* Mult.,δ: from γγ(θ) and α(K)exp in (n,γ).
2182.41	2$^+$	2182.41 *12*	11.5 *18*	0.0	0$^+$				
2224.954	4$^+$	899.48 *3*	21.3 *5*	1325.5131	2$^+$	(E2)			Mult.: from γ(θ) in (α,2nγ) and J^π's of relevant levels. Not observed in (n,n′γ) and (n,γ) E=thermal.
		976.352 *25*	100.0 *11*	1248.5811	4$^+$	M1+E2	+0.68 *6*	0.00180	α(K)=0.00156 *3*; α(L)=0.000192 *3*; α(M)=3.81×10^{-5} *6*; α(N+..)=8.37×10^{-6} *14* α(N)=7.54×10^{-6} *12*; α(O)=8.23×10^{-7} *14* Mult.: from γ(θ) in (n,n′γ) and α(K)exp in (n,γ). δ: from 1989GoZK.
		1622.240 *25*	49.2 *8*	602.7271	2$^+$	E2		6.64×10^{-4}	α(K)=0.000467 *7*; α(L)=5.64×10^{-5} *8*; α(M)=1.118×10^{-5} *16*; α(N+..)=0.0001293 *19* α(N)=2.21×10^{-6} *3*; α(O)=2.41×10^{-7} *4*; α(IPF)=0.0001269 *18* Mult.: from γ(θ) in (n,n′γ) and J^π's of relevant levels.
2293.711	3$^-$	254.39 *9*	0.034 *2*	2039.293	3$^+$	E1		0.01465	B(E1)(W.u.)=3.0×10^{-5} *11* α(K)=0.01270 *18*; α(L)=0.001575 *23*; α(M)=0.000312 *5*; α(N+..)=6.78×10^{-5} *10* α(N)=6.13×10^{-5} *9*; α(O)=6.51×10^{-6} *10* Mult.: From α(K)exp in ^{124}Sb β$^-$ decay (60.20 d). Fl: E1 γ from 3$^-$.
		335.80 *9*	0.160 *9*	1957.902	4$^+$	E1		0.00706	B(E1)(W.u.)=6.2×10^{-5} *23* α(K)=0.00612 *9*; α(L)=0.000754 *11*; α(M)=0.0001495 *21*; α(N+..)=3.26×10^{-5} *5* α(N)=2.94×10^{-5} *5*; α(O)=3.15×10^{-6} *5* Mult.: From α(K)exp in ^{124}Sb β$^-$ decay (60.20 d).
		968.195 *4*	3.963 *17*	1325.5131	2$^+$	E1(+M2)	−0.02 *2*	6.53×10^{-4} *11*	B(E1)(W.u.)=(6.4×10^{-5} *23*); B(M2)(W.u.)=(0.13 *+26−13*) α(K)=0.000569 *9*; α(L)=6.78×10^{-5} *11*; α(M)=1.343×10^{-5} *22*; α(N+..)=2.94×10^{-6} *5* α(N)=2.65×10^{-6} *5*; α(O)=2.89×10^{-7} *5* E_γ: from 2000He14. Mult.,δ: From γγ(θ) and α(K)exp in ^{124}Sb β$^-$ decay (60.20 d).
		1045.125 *4*	3.87 *4*	1248.5811	4$^+$	E1(+M2)	−0.03 *2*	5.67×10^{-4} *10*	B(E1)(W.u.)=(5.0×10^{-5} *18*); B(M2)(W.u.)=(0.19 *+26−19*) α(K)=0.000494 *9*; α(L)=5.87×10^{-5} *11*; α(M)=1.163×10^{-5} *21*; α(N+..)=2.55×10^{-6} *5*

$^{124}_{52}Te_{72}$-13

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult.[a]	δ[b]	α[c]	$I_{(\gamma+ce)}$	Comments
										B(E1)(W.u.)=(5.0×10^{-5} *18*); B(M2)(W.u.)=(0.19 *+26−19*) α(K)=0.000494 *9*; α(L)=5.87×10^{-5} *11*; α(M)=1.163×10^{-5} *21*; α(N+..)=2.55×10^{-6} *5* α(N)=2.30×10^{-6} *4*; α(O)=2.51×10^{-7} *5* E_γ: from 2000He14. Mult.,δ: From γγ(θ) and α(K)exp in ^{124}Sb β$^-$ decay (60.20 d).
2293.711	3$^-$	1690.971 *4*	100.0 *3*	602.7271	2$^+$	E1+M2	+0.010 *+3−4*	6.15×10^{-4}		B(E1)(W.u.)=0.00030 *11*; B(M2)(W.u.)=0.05 *4* α(K)=0.000213 *3*; α(L)=2.50×10^{-5} *4*; α(M)=4.94×10^{-6} *7*; α(N+..)=0.000372 *6* α(N)=9.78×10^{-7} *14*; α(O)=1.071×10^{-7} *15*; α(IPF)=0.000371 *6* E_γ: from 2000He14. Mult.: From γγ(θ) and α(K)exp in ^{124}Sb β$^-$ decay (60.20 d). δ: from averaged A_2 and A_4 values of γγ(θ) in ^{124}Sb β$^-$ decay (60.20 d).
		2293.72 *7*	0.070 *3*	0.0	0$^+$	[E3]		7.45×10^{-4}		B(E3)(W.u.)=1.5×10^2 *6* α(K)=0.000412 *6*; α(L)=5.03×10^{-5} *7*; α(M)=1.000×10^{-5} *14*; α(N+..)=0.000272 *4* α(N)=1.98×10^{-6} *3*; α(O)=2.16×10^{-7} *3*; α(IPF)=0.000270 *4*
2308.42	0$^+$	426.2		1882.92	0$^+$	E0			0.036 *13*	Mult.: From ce in (n,γ) E=thermal. q_K^2(E0/E2)=0.8 *4*, X(E0/E2)=2.1 *10*, ρ^2(E0)>0.3 (2005Ki02, evaluation).
		652.2		1657.283	0$^+$	E0			<0.007	Mult.: From ce in (n,γ) E=thermal. q_K^2(E0/E2)<0.2, X(E0/E2)<0.4, (2005Ki02, evaluation).
		1705.65 *9*	100.0 *11*	602.7271	2$^+$	E2		6.50×10^{-4}		α(K)=0.000424 *6*; α(L)=5.11×10^{-5} *8*; α(M)=1.013×10^{-5} *15*; α(N+..)=0.0001643 *23* α(N)=2.01×10^{-6} *3*; α(O)=2.19×10^{-7} *3*; α(IPF)=0.0001621 *23*
		2309.5		0.0	0$^+$	E0			<0.007	Mult.: From ce in (n,γ) E=thermal. q_K^2(E0/E2)<0.2, X(E0/E2)<0.07 (2005Ki02, evaluation).
2321.719	(6$^+$)	1073.133 *19*	100	1248.5811	4$^+$	(Q)				Mult.: from γ(θ) in (α,2nγ).
2322.95	2$^+$	997.26 *9*	5.0 *13*	1325.5131	2$^+$					

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult.[a]	δ[b]	α[c]	Comments
2322.95	2^+	1720.24 *3*	100.0 *8*	602.7271	2^+	M1(+E2)	+0.18 *20*	7.18×10^{-4} *13*	α(K)=0.000484 *10*; α(L)=5.79×10^{-5} *11*; α(M)=1.148×10^{-5} *22*; α(N+..)=0.0001648 *24* α(N)=2.28×10^{-6} *5*; α(O)=2.50×10^{-7} *5*; α(IPF)=0.0001622 *24* Mult.,δ: from γγ(θ) and α(K)exp in (n,γ) E=thermal.
		2323.04 *13*	3.1 *15*	0.0	0^+				
2335.030	5^-	377.17 *3*	3.8 *14*	1957.902	4^+				
		1086.450 *11*	100.0 *8*	1248.5811	4^+	E1		5.24×10^{-4}	α(K)=0.000457 *7*; α(L)=5.43×10^{-5} *8*; α(M)=1.074×10^{-5} *15*; α(N+..)=2.36×10^{-6} *4* α(N)=2.13×10^{-6} *3*; α(O)=2.32×10^{-7} *4* Mult.: from γ(θ) in (α,2nγ) and linear polarization in (n,n′γ).
2349.465	6^+	602.70 *20*	100 *26*	1746.958	6^+				Not reported in ^{124}Sb β^- decay and (n,γ) E=thermal.
		1100.84 *5*	77.9 *13*	1248.5811	4^+	E2		1.18×10^{-3}	α(K)=0.001018 *15*; α(L)=0.0001264 *18*; α(M)=2.51×10^{-5} *4*; α(N+..)=5.96×10^{-6} *9* α(N)=4.96×10^{-6} *7*; α(O)=5.36×10^{-7} *8*; α(IPF)=4.61×10^{-7} *7* Mult.: from γ(θ) in (α,2nγ) and J^π's of relevant levels.
2454.069	2^+	571.0 *10*	2.3 *11*	1882.92	0^+				
		1128.57 *5*	18.5 *9*	1325.5131	2^+				
		1205.44 *3*	10.4 *13*	1248.5811	4^+				
		1851.38 *4*	100.0 *12*	602.7271	2^+	M1+E2	+0.039 *1*	0.00067 *3*	α(K)=0.00039 *3*; α(L)=4.7×10^{-5} *4*; α(M)=9.3×10^{-6} *7*; α(N+..)=0.000227 *5* α(N)=1.83×10^{-6} *13*; α(O)=2.01×10^{-7} *15*; α(IPF)=0.000225 *5* Mult.: from γ(θ) in (n,n′γ) and J^π's of relevant levels. δ: from γ(θ) in (α,2nγ). others: −0.02 *4* or +2.1 *3* (1989GoZK).
		2454.12 *8*	23 *3*	0.0	0^+	E2		7.68×10^{-4}	α(K)=0.000219 *3*; α(L)=2.59×10^{-5} *4*; α(M)=5.13×10^{-6} *8*; α(N+..)=0.000518 *8* α(N)=1.017×10^{-6} *15*; α(O)=1.115×10^{-7} *16*; α(IPF)=0.000517 *8* Mult.: from γ(θ) in (n,n′γ) and J^π's of relevant levels.
2483.362	4^+	148.21 *10*	2.1 *4*	2335.030	5^-				
		189.61 *19*	3.4 *6*	2293.711	3^-				
		443.99[f] *10*	14[f] *10*	2039.421	2^+				E_γ,I_γ: from (n,γ) E=thermal.
		443.99[f] *10*	100.0[f] *9*	2039.293	3^+	M1+E2		0.0120 *6*	α(K)=0.0103 *7*; α(L)=0.00138 *3*; α(M)=0.000276 *7*; α(N+..)=6.00×10^{-5} *11*

$^{124}_{52}Te_{72}$-15

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult. [a]	δ [b]	α [c]	Comments
									α(K)=0.0103 *7*; α(L)=0.00138 *3*; α(M)=0.000276 *7*; α(N+..)=6.00×10^{-5} *11* α(N)=5.43×10^{-5} *11*; α(O)=5.75×10^{-6} *14* E_γ,I_γ: from (n,γ) E=thermal. Mult.: From α(K)exp in ^{124}Sb β^- decay (60.20 d).
2483.362	4$^+$	525.441 *13*	72 *3*	1957.902	4$^+$	M1+E2		0.0077 *7*	α(K)=0.0066 *6*; α(L)=0.00087 *3*; α(M)=0.000173 *6*; α(N+..)=3.77×10^{-5} *15* α(N)=3.41×10^{-5} *13*; α(O)=3.64×10^{-6} *22* Mult.: from γ(θ) in (n,n′γ) and α(K)exp in ^{124}Sb β^- decay (60.20 d). δ=−0.16 *6* or +13 *2* (1989GoZK).
		1234.2 *5*	45.5 *23*	1248.5811	4$^+$				E_γ,I_γ: From (n,γ) E=thermal. Not observed in ^{124}Sb β^- decay (60.20 d).
2511.96	4	1263.37 *5*	100	1248.5811	4$^+$	D			Mult.: from γ(θ) in (α,2nγ).
2521.33	2$^+$	1195.66 *12*	4.06 *20*	1325.5131	2$^+$				
		1918.60 *3*	100.0 *8*	602.7271	2$^+$	M1(+E2)	−0.02 *3*	6.98×10^{-4}	α(K)=0.000387 *6*; α(L)=4.62×10^{-5} *7*; α(M)=9.16×10^{-6} *13*; α(N+..)=0.000256 *4* α(N)=1.82×10^{-6} *3*; α(O)=2.00×10^{-7} *3*; α(IPF)=0.000254 *4* Mult.: from α(K)exp in (n,γ) and γ(θ) in (n,n′γ). δ: from 1989GoZK.
2529.60	1$^+$	1204.1 *3*	9 *3*	1325.5131	2$^+$				
		1926.86 *10*	100.0 *20*	602.7271	2$^+$	M1(+E2)	−0.14 *10*	6.97×10^{-4}	α(K)=0.000382 *6*; α(L)=4.57×10^{-5} *7*; α(M)=9.05×10^{-6} *14*; α(N+..)=0.000260 *4* α(N)=1.80×10^{-6} *3*; α(O)=1.97×10^{-7} *3*; α(IPF)=0.000258 *4* Mult.: from γ(θ) and J^π's of relevant levels. δ: from 1989GoZK.
2549.97	(4)	1301.38 *5*	100	1248.5811	4$^+$				
2589.61	(6)	842.65 *9*	100	1746.958	6$^+$				
2594.46	5	368.2 *5*	5 *4*	2224.954	4$^+$				
		636.58 *5*	21.8 *14*	1957.902	4$^+$	(D)			I_γ: from (α,2nγ). Mult.: from γ(θ) in (α,2nγ).
		847.43 *16*	21.0 *11*	1746.958	6$^+$				I_γ: from (α,2nγ).
		1345.939[g] *15*	100.0 *25*	1248.5811	4$^+$	D			Observed in (α,2nγ) only: transition is questionable. (n,γ) E=thermal reports 1346.05 keV γ as unplaced γ. E_γ,I_γ: from (α,2nγ). Mult.,δ: from γ(θ) in (α,2nγ).
2600.95	1$^+$	943.3 *3*	4.4 *3*	1657.283	0$^+$				
		1275.35 *11*	16.5 *4*	1325.5131	2$^+$				
		1998.15 *6*	100.0 *10*	602.7271	2$^+$				

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult.[a]	δ[b]	α[c]	Comments
2600.95	1^+	2601.16 *10*	50.4 *5*	0.0	0^+				
2618.63	(3)	527.7 *5*	5.6 *4*	2091.603	2^+				
		1370.08 *13*	100 *4*	1248.5811	4^+	D+Q			Mult.: from γ(θ) in (n,n′γ). δ=+0.32 *6* or +9 *+13−2* (1989GoZK).
		2015.85 *8*	35.2 *11*	602.7271	2^+	D+Q	−0.29 *12*		Mult.: from γ(θ) in (n,n′γ). δ: from 1989GoZK.
2641.15	2^+	984.4 *5*	4.0 *9*	1657.283	0^+				
		1315.66 *10*	8.1 *8*	1325.5131	2^+				
		1392.58 *16*	4.4 *4*	1248.5811	4^+				
		2038.33 *11*	100.0 *14*	602.7271	2^+	E2		6.67×10^{-4}	α(K)=0.000305 *5*; α(L)=3.64×10^{-5} *5*; α(M)=7.21×10^{-6} *10*; α(N+..)=0.000318 *5* α(N)=1.428×10^{-6} *20*; α(O)=1.563×10^{-7} *22*; α(IPF)=0.000317 *5*
2664.373	6	329.336 *12*	100	2335.030	5^-	D+Q	−0.19 *2*		Mult.: from γ(θ) in (α,2nγ). δ: from 1998Wa18.
2664.43	8^+	917.44 *5*	100	1746.958	6^+	E2		1.75×10^{-3}	α(K)=0.001515 *22*; α(L)=0.000192 *3*; α(M)=3.82×10^{-5} *6*; α(N+..)=8.34×10^{-6} *12* α(N)=7.53×10^{-6} *11*; α(O)=8.09×10^{-7} *12* Mult.: from γ(θ) and α(K)exp in (α,2nγ).
2673.771	$7^{(-)}$	338.754 *11*	2.86 *11*	2335.030	5^-				
		926.78 *4*	100.0 *13*	1746.958	6^+	D			Mult.: from γ(θ) in (α,2nγ).
2681.46	2^+	641.9[e] *3*	3.3[e] *26*	2039.421	2^+				E_γ,I_γ: from (n,γ) E=thermal.
		641.9[e] *3*	3.3[e] *26*	2039.293	3^+				E_γ,I_γ: from (n,γ).
		2078.71 *4*	100.0 *8*	602.7271	2^+	M1+E2	−0.14 *3*	7.07×10^{-4}	α(K)=0.000327 *5*; α(L)=3.90×10^{-5} *6*; α(M)=7.73×10^{-6} *11*; α(N+..)=0.000333 *5* α(N)=1.533×10^{-6} *22*; α(O)=1.685×10^{-7} *24*; α(IPF)=0.000331 *5* Mult.: from α(K)exp in ^{124}I ε decay. δ: from 1989GoZK.
		2681.53 *10*	11.4 *13*	0.0	0^+				
2693.679	3^-	209.86 *7*	0.10 *2*	2483.362	4^+				
		371.00 *11*	0.70 *9*	2322.95	2^+				
		400.30 *6*	2.53 *12*	2293.711	3^-	E2		0.01565	α(K)=0.01322 *19*; α(L)=0.00195 *3*; α(M)=0.000394 *6*; α(N+..)=8.45×10^{-5} *12* α(N)=7.67×10^{-5} *11*; α(O)=7.80×10^{-6} *11* Mult.: from α(K)exp in ^{124}Sb β^- decay (60.20 d).
		469.06 *7*	0.91 *5*	2224.954	4^+	E1		0.00309	α(K)=0.00269 *4*; α(L)=0.000327 *5*; α(M)=6.49×10^{-5} *9*; α(N+..)=1.417×10^{-5} *20* α(N)=1.279×10^{-5} *18*; α(O)=1.379×10^{-6} *20* Mult.: from α(K)exp in ^{124}Sb β^- decay (60.20 d).

$^{124}_{52}Te_{72}$-17

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[a]	δ[b]	α[c]	Comments
2693.679	3⁻	735.9[f] *7*	1.30[f] *12*	1957.902	4⁺	E1		1.13×10^{-3}	α(K)=0.000982 *14*; α(L)=0.0001180 *17*; α(M)=2.34×10^{-5} *4*; α(N+..)=5.12×10^{-6} *8* α(N)=4.62×10^{-6} *7*; α(O)=5.01×10^{-7} *7* Mult.: from α(K)exp in ^{124}Sb β⁻ decay (60.20 d).
		1368.157 *5*	47.7 *4*	1325.5131	2⁺	E1(+M2)	−0.02 *1*	4.78×10^{-4}	α(K)=0.000303 *5*; α(L)=3.58×10^{-5} *6*; α(M)=7.09×10^{-6} *10*; α(N+..)=0.0001314 *19* α(N)=1.403×10^{-6} *20*; α(O)=1.534×10^{-7} *22*; α(IPF)=0.0001298 *19* Mult.: from γγ(θ) and α(K)exp in ^{124}Sb β⁻ decay (60.20 d). E_γ: from 2000He14.
		1445.08 *4*	6.02 *7*	1248.5811	4⁺	E1(+M2)	+0.10 *9*	0.00052 *4*	α(K)=0.00029 *4*; α(L)=3.4×10^{-5} *4*; α(M)=6.7×10^{-6} *8*; α(N+..)=0.000186 *5* α(N)=1.34×10^{-6} *16*; α(O)=1.46×10^{-7} *18*; α(IPF)=0.000184 *5* Mult.: from γγ(θ) in ^{124}Sb β⁻ decay (60.20 d) and J^π's of relevant levels.
		2090.930 *7*	100.0 *5*	602.7271	2⁺	E1(+M2)	+0.03 *2*	8.38×10^{-4}	α(K)=0.0001522 *23*; α(L)=1.78×10^{-5} *3*; α(M)=3.52×10^{-6} *6*; α(N+..)=0.000664 *10* α(N)=6.97×10^{-7} *11*; α(O)=7.65×10^{-8} *12*; α(IPF)=0.000664 *10* E_γ: from 2000He14. Mult.,δ: from γγ(θ) and α(K)exp in ^{124}Sb β⁻ decay (60.20 d). I_γ: intensity ratios to 1368 keV γ are inconsistent between decay data and (n,γ) E=thermal data.
		2693.57 *6*	0.06 *1*	0.0	0⁺				
2701.61	2⁻	662.23[‡] *13*	3.3 *3*	2039.293	3⁺				
		743.2[g] *3*	0.95 *25*	1957.902	4⁺				Reported in ^{124}I ε decay; not observed in ^{124}Sb β⁻ decay (60.20 d), (n,n′γ) and (n,γ) E=thermal.
		1376.10 *3*	100.0 *6*	1325.5131	2⁺	E1(+M2)	−0.01 *3*	4.79×10^{-4}	α(K)=0.000300 *5*; α(L)=3.54×10^{-5} *6*; α(M)=7.01×10^{-6} *12*; α(N+..)=0.0001370 *20* α(N)=1.387×10^{-6} *23*; α(O)=1.517×10^{-7} *25*; α(IPF)=0.0001355 *19* Mult.,δ: from γγ(θ) and α(K)exp in ^{124}Sb β⁻ decay (60.20 d).
		2098.91 *10*	8.9 *3*	602.7271	2⁺				(n,γ) E=thermal places this γ from 3756-keV level.
2710.64	4⁺	619.07 *14*	3.47 *24*	2091.603	2⁺				
		962.78[g] *24*	168 *13*	1746.958	6⁺	Q			Reported in (α,2nγ) only; intensity too large not to be

$^{124}_{52}Te_{72}$-18

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[a]	δ[b]	α[c]	Comments
									observed in other data sets. Mult.: from γ(θ) in (α,2nγ).
2710.64	4^+	1385.11 *4*	100 *4*	1325.5131	2^+				
		1462.0 *3*	13.8 *21*	1248.5811	4^+				
		2107.92 *13*	69.4 *20*	602.7271	2^+				I_γ: intensity ratios to 1385 keV γ are inconsistent between (n,γ) E=thermal and other data.
2713.77	(5,7)	966.81 *12*	100	1746.958	6^+	D			Mult.: from γ(θ) in (α,2nγ).
2733.9	2^+ to 6^+	1485.3 *3*	100	1248.5811	4^+				
2737.90	$6^{(+)}$	402.86 *7*	7.7 *7*	2335.030	5^-	D			Mult.: from γ(θ) in (α,2nγ).
		990.96 *7*	14.3 *17*	1746.958	6^+	D+Q	−0.73 *7*		Mult.,δ: from γ(θ) in (α,2nγ).
		1489.0 *3*	100.0 *22*	1248.5811	4^+	Q			Mult.: from γ(θ) in (α,2nγ).
2747.04	$1^{(-)}$	564.3 *5*	0.67 *4*	2182.41	2^+				
		2144.23 *6*	20.8 *4*	602.7271	2^+				
		2746.92 *7*	100.0 *9*	0.0	0^+				
2766.93	1^+ to 4^+	675.61 *18*	7.7 *8*	2091.603	2^+				
		727.0[e] *15*	8[e] *6*	2039.421	2^+				
		727.0[e] *15*	8[e] *6*	2039.293	3^+				
		2164.07 *10*	100.0 *12*	602.7271	2^+				
2773.89	$6^{(+)}$	1026.922 *25*	100.0 *3*	1746.958	6^+	D			Mult.: from γ(θ) in (α,2nγ).
		1526.0 *6*	64.6 *22*	1248.5811	4^+	Q			Mult.: from γ(θ) in (α,2nγ).
2774.968	3^-,4^-	291.4 *3*	2.13 *19*	2483.362	4^+				
		481.1 *4*	5.8 *5*	2293.711	3^-				
		735.74[f‡] *3*	13.6[f] *14*	2039.293	3^+				
		816.85 *11*	16.3 *20*	1957.902	4^+				
		1526.24 *5*	100.0 *10*	1248.5811	4^+	E1		5.35×10^{-4}	α(K)=0.000252 *4*; α(L)=2.96×10^{-5} *5*; α(M)=5.86×10^{-6} *9*; α(N+..)=0.000248 *4* α(N)=1.160×10^{-6} *17*; α(O)=1.270×10^{-7} *18*; α(IPF)=0.000247 *4* Mult.: from α(K)exp in ^{124}Sb β^- decay (60.20 d).
		2172.1 *5*	0.50 *10*	602.7271	2^+				
2783.21	1^+,2^+	629.70 *22*	2.5 *13*	2153.29	0^+				
		1125.81 *12*	5.93 *25*	1657.283	0^+				
		2783.26 *10*	100.0 *20*	0.0	0^+				
2790.41	0^+ to 4^+	751.5 *4*	9 *6*	2039.421	2^+				
		1464.66 *11*	100.0 *18*	1325.5131	2^+				
		2188.00 *15*	41 *4*	602.7271	2^+				
2808.66	2^+	717.3 *5*	10.2 *25*	2091.603	2^+				
		926.0 *5*	5.1 *22*	1882.92	0^+				
		2205.88 *10*	56 *7*	602.7271	2^+				
		2808.63 *12*	100.0 *20*	0.0	0^+	E2		8.78×10^{-4}	α(K)=0.0001729 *25*; α(L)=2.04×10^{-5} *3*; α(M)=4.04×10^{-6}

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[a]	δ[b]	α[c]	Comments
									6; α(N+..)=0.000681 10 α(N)=8.01×10^{-7} 12; α(O)=8.79×10^{-8} 13; α(IPF)=0.000680 10 Mult.: from γ(θ) in (n,n′γ) and J^π′s of relevant levels.
2814.53	2$^+$ to 5$^+$	775.25[‡] 11	77.5 22	2039.293	3$^+$				
		1565.93 11	100 3	1248.5811	4$^+$				
2817.48	2$^+$	934.79 14	4.6 3	1882.92	0$^+$				
		2214.43 16	100.0 10	602.7271	2$^+$				
2834.898	3$^-$	351.47 13	0.70 10	2483.362	4$^+$				
		541.21 5	6.9 7	2293.711	3$^-$				
		609.92 8	4.74 15	2224.954	4$^+$				
		743.18 11	0.39 18	2091.603	2$^+$				
		795.62[e] 7	1.2[e] 9	2039.421	2$^+$				
		795.62[e] 7	1.2[e] 9	2039.293	3$^+$				
		876.97 9	0.72 3	1957.902	4$^+$				
		1509.37 3	100.0 8	1325.5131	2$^+$	E1		5.28×10^{-4}	α(K)=0.000256 4; α(L)=3.02×10^{-5} 5; α(M)=5.97×10^{-6} 9; α(N+..)=0.000235 4 α(N)=1.182×10^{-6} 17; α(O)=1.294×10^{-7} 19; α(IPF)=0.000234 4 Mult.: from α(K)exp in (n,γ) E=thermal.
		1586.1 3	0.18 4	1248.5811	4$^+$				
		2232.06 7	17.1 3	602.7271	2$^+$	E1(+M2)	+0.03 8	9.17×10^{-4}	α(K)=0.000138 5; α(L)=1.61×10^{-5} 7; α(M)=3.18×10^{-6} 13; α(N+..)=0.000760 13 α(N)=6.30×10^{-7} 25; α(O)=6.9×10^{-8} 3; α(IPF)=0.000759 13 Mult.: from γ(θ) in (n,n′γ) and J^π′s of relevant levels. δ: from 1989GoZK.
2839.039	6	504.007 15	100	2335.030	5$^-$	D			Mult.: from γ(θ) in (α,2nγ).
2844.498	(5)	361.135[d] 18	100 4	2483.362	4$^+$	D			Mult.: from γ(θ) in (α,2nγ).
		1595.94 19	70 3	1248.5811	4$^+$				
2858.90	2,3	819.5 3	1.5 4	2039.293	3$^+$				
		2256.19 17	100.0 21	602.7271	2$^+$	D+Q	−0.05 4		Mult.: from γ(θ) in (n,n′γ). δ: from 1989GoZK.
2865.262	3$^-$	530.231 15	100.0 18	2335.030	5$^-$	Q			Mult.: from γ(θ) in (α,2nγ).
		571.41 22	45 3	2293.711	3$^-$				
2872.88	3$^+$,4$^+$,5$^+$	1624.29 5	100	1248.5811	4$^+$	D			Mult.: from γ(θ) in (α,2nγ).
2873.53	7	1126.57 5	100	1746.958	6$^+$	D+Q			Mult.: from γ(θ) in (α,2nγ). δ: −0.35 3 or 0.56 5; Other: −1.1 +5−9(1991Le16).
2880.33	5$^{(+)}$	1133.37 5	100	1746.958	6$^+$	D+Q	−0.47 3		Mult.,δ: from γ(θ) in (α,2nγ).
2884.2	1,2$^+$	2884.2	100	0.0	0$^+$				E_γ: from (γ,γ),(γ,γ′).
2886.05	3$^-$	402.80 20	2.7 6	2483.362	4$^+$				

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[a]	δ[b]	α[c]	Comments
2886.05	3⁻	550.3 *4*	2.8 *4*	2335.030	5⁻				
		592.34 *4*	21.6 *5*	2293.711	3⁻				
		846.8[‡] *3*	1.1 *3*	2039.293	3⁺				
		928.0 *4*	0.42 *18*	1957.902	4⁺				
		1560.46 *13*	31.6 *5*	1325.5131	2⁺	E1(+M2)	−0.2 *2*	0.00059 *10*	α(K)=0.00028 *11*; α(L)=3.4×10^{-5} *13*; α(M)=7.E−6 *3*; α(N+..)=0.000265 *23* α(N)=1.3×10^{-6} *6*; α(O)=1.4×10^{-7} *6*; α(IPF)=0.000263 *24* Mult.: from γ(θ) in (n,n′γ) and $J^{\pi\prime}$s of relevant levels. δ: from 1989GoZK.
		1637.43 *6*	36.8 *22*	1248.5811	4⁺				
		2283.19 *9*	100.0 *14*	602.7271	2⁺	E1+M2	+0.06 *2*	9.45×10^{-4}	α(K)=0.0001342 *22*; α(L)=1.57×10^{-5} *3*; α(M)=3.10×10^{-6} *6*; α(N+..)=0.000792 *12* α(N)=6.14×10^{-7} *11*; α(O)=6.74×10^{-8} *12*; α(IPF)=0.000791 *12* Mult.: from γ(θ) in (n,n′γ) and α(K)exp in ^{124}I ε decay. δ: from 1989GoZK.
2897.3	1,2⁺	2897.3	100	0.0	0⁺				E_γ: from (γ,γ),(γ,γ′).
2902.71	(5)	1654.12 *3*	100	1248.5811	4⁺	D			Mult.: from γ(θ) in (α,2nγ).
2911.180	7$^{(-)}$	561.716 *11*	100 *3*	2349.465	6⁺	D			Mult.: from γ(θ) in (α,2nγ).
		576.147 *15*	99.4 *19*	2335.030	5⁻	Q			Mult.: from γ(θ) in (α,2nγ).
		1164.25 *5*	38.0 *13*	1746.958	6⁺	D			Mult.: from γ(θ) in (α,2nγ).
2920.69	(3,4)	585.71 *18*	50 *6*	2335.030	5⁻				
		626.87 *12*	100 *6*	2293.711	3⁻				
		1672.11 *4*	100 *60*	1248.5811	4⁺	(D)			Mult.: from γ(θ) in (α,2nγ).
2933.77	6	598.73 *6*	33 *3*	2335.030	5⁻	D			I_γ: from (α,2nγ). Mult.: from γ(θ) in (α,2nγ).
		974.7 *4*	6 *2*	1957.902	4⁺				I_γ: from (α,2nγ) and intensity ratio in (n,γ).
		1186.91 *11*	100 *4*	1746.958	6⁺	D			I_γ: from (α,2nγ). Mult.: from γ(θ) in (α,2nγ).
2945.59	2⁺	491.58 *11*	54.6 *16*	2454.069	2⁺				
		792.8 *4*	36.4 *18*	2153.29	0⁺				
		853.99 *13*	55 *3*	2091.603	2⁺				
		906.11[f] *12*	64[f] *19*	2039.421	2⁺				
		906.11[f] *12*	18[f] *12*	2039.293	3⁺				
		1063.06 *16*	27 *4*	1882.92	0⁺				
		1697.1 *12*	27 *15*	1248.5811	4⁺				
		2945.44 *14*	100 *36*	0.0	0⁺				

$^{124}_{52}Te_{72}$-21

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult. [a]	δ [b]	Comments
2947.72	0^+ to 3^+	2344.97 *12*	100	602.7271	2^+			
2954.249	6	280.49 *3*	15.0 *16*	2673.771	$7^{(-)}$	D+Q	+0.13 *3*	Mult.,δ: from γ(θ) in (α,2nγ).
		470.863 *22*	61 *8*	2483.362	4^+			
		619.230 *20*	100 *4*	2335.030	5^-	D+Q	−0.15 *5*	Mult.,δ: from γ(θ) in (α,2nγ).
		1207.7 *4*	67 *3*	1746.958	6^+			
2957.55	3^-,4^+	622.32 *16*	5.6 *6*	2335.030	5^-			
		664.13 *22*	13.9 *4*	2293.711	3^-			
		999.70 *16*	11.1 *6*	1957.902	4^+			
		1708.87 *10*	100.0 *19*	1248.5811	4^+			
		2355.01 *16*	22 *3*	602.7271	2^+			
2963.1	0^+ to 3^+	2360.3 *7*	100	602.7271	2^+			
2965.18	(7^-)	615.66 *4*	100 *5*	2349.465	6^+	(D)		Mult.: from γ(θ) in (α,2nγ).
		630.18 *3*	72.7 *17*	2335.030	5^-	(Q)		Mult.: from γ(θ) in (α,2nγ).
2966.98	(5,6)	1220.02 *5*	100	1746.958	6^+	(D)		Mult.: from γ(θ) in (α,2nγ).
2973.256	(5,6)	134.19 *4*	11.4 *20*	2839.039	6	(D)		Mult.: from γ(θ) in (α,2nγ).
		299.52 *3*	100 *4*	2673.771	$7^{(-)}$			
		1226.22 *5*	81 *6*	1746.958	6^+			
2975.48	1	821.7 *4*	2.6 *7*	2153.29	0^+			
		1317.8 *8*	5.2 *14*	1657.283	0^+			
		1650.4 *3*	3.9 *7*	1325.5131	2^+			
		2372.71 *16*	26.0 *23*	602.7271	2^+			
		2975.21 *22*	100 *9*	0.0	0^+			
2982.71	2^+,3^+	891.1 *5*	16.0 *10*	2091.603	2^+			
		1024.2 *4*	8 *2*	1957.902	4^+			
		1657.11 *10*	100 *2*	1325.5131	2^+			
		1734.3 *3*	40 *4*	1248.5811	4^+			
		2380.33 *20*	100 *12*	602.7271	2^+			
2986.70	(5,6)	1738.11 *19*	100	1248.5811	4^+			
2988.24	1,2^+	694.6 *5*	0.9 *5*	2293.711	3^-			
		1105.31 *17*	3.57 *21*	1882.92	0^+			
		1330.4 *5*	8.9 *15*	1657.283	0^+			
		1662.94 *15*	9.8 *5*	1325.5131	2^+			
		2385.20 *13*	100.0 *9*	602.7271	2^+			
		2987.91 *23*	39 *5*	0.0	0^+			
3001.12	2^+,3	166.04 *24*	7 *3*	2834.898	3^-			
		307.35 *8*	13.5 *22*	2693.679	3^-			
		517.85 *7*	23.3 *19*	2483.362	4^+			
		546.99 *14*	12.5 *13*	2454.069	2^+			
		677.6 *5*	31.3 *13*	2322.95	2^+			
		707.46 *8*	81.6 *22*	2293.711	3^-			
		776.17 *26*	11.0 *8*	2224.954	4^+			
		961.80 *9*	16 *3*	2039.293	3^+			

$^{124}_{52}Te_{72}$-22

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[a]	δ[b]	Comments
3001.12	2⁺,3	1042.7 *10*	12.5 *25*	1957.902	4⁺			
		1675.58 *5*	100.0 *18*	1325.5131	2⁺			
		1752.42 *14*	51 *7*	1248.5811	4⁺			
3032.839	7	121.656 *17*	13.2 *3*	2911.180	7⁽⁻⁾	D		Mult.: from γ(θ) in (α,2nγ).
		359.070 *15*	100 *3*	2673.771	7⁽⁻⁾	D+Q	−0.16 *7*	Mult.,δ: from γ(θ) in (α,2nγ).
		368.38 *3*	5.6 *6*	2664.43	8⁺	(D)		Mult.: from γ(θ) in (α,2nγ).
3038.29	8⁽⁺⁾	373.851 *13*	100.0 *17*	2664.43	8⁺	D+Q	−0.18 *2*	Mult.,δ: from γ(θ) in (α,2nγ).
		1291.33 *10*	74.2 *20*	1746.958	6⁺	Q		Mult.: from γ(θ) in (α,2nγ).
3039.9	0⁺ to 3⁺	2437.1 *12*	100	602.7271	2⁺			
3045.37	2⁺	722.8 *3*	62 *25*	2322.95	2⁺			
		751.78 *11*	15.0 *5*	2293.711	3⁻			
		892.2 *5*	3.3 *22*	2153.29	0⁺			
		953.66 *16*	5.0 *4*	2091.603	2⁺			
		1005.80[f] *13*	5.0[f] *13*	2039.421	2⁺			
		1005.80[f] *13*	6.7[f] *12*	2039.293	3⁺			
		2442.74 *10*	100.0 *10*	602.7271	2⁺			
3048.9	1,2⁺	895.4 *3*	29 *9*	2153.29	0⁺			
		2446.9 *6*	100 *57*	602.7271	2⁺			
3054.62	3⁻,4⁺	719.6 *4*	59 *12*	2335.030	5⁻			
		760.90 *21*	17.7 *24*	2293.711	3⁻			
		963.45 *21*	29.4 *24*	2091.603	2⁺			
		1014.8 *4*	18 *3*	2039.293	3⁺			
		1096.67 *16*	23.5 *14*	1957.902	4⁺			
		1729.1 *3*	100.0 *24*	1325.5131	2⁺			
		1805.78 *23*	59 *18*	1248.5811	4⁺			
3056.50	2⁺,3,4⁺	1731.1 *11*	16 *8*	1325.5131	2⁺			
		1807.3 *3*	29 *6*	1248.5811	4⁺			
		2453.81 *10*	100.0 *21*	602.7271	2⁺			
3069.27	6⁽⁺⁾	1111.33 *10*	88 *10*	1957.902	4⁺	(Q)		Mult.: from γ(θ) in (α,2nγ).
		1322.6 *3*	100 *20*	1746.958	6⁺	D		Mult.: from γ(θ) in (α,2nγ).
3082.77	2⁺ to 6⁺	1834.17 *10*	100	1248.5811	4⁺			
3088.57	2⁺	567.24 *10*	54.6 *11*	2521.33	2⁺			
		634.42 *20*	18.2 *15*	2454.069	2⁺			
		765.8 *4*	18 *12*	2322.95	2⁺			
		996.9 *3*	36 *22*	2091.603	2⁺			
		1049.18[f] *20*	27[f] *9*	2039.293	3⁺			I_γ: from authors' table II, 0.070 *7* in authors' table I probably corresponds to total intensity for the doublet. Uncertainty is assigned by compilers.
		1049.18[f] *20*	36[f] *9*	2039.421	2⁺			I_γ: from authors' table II, 0.070 *7* in authors' table I probably corresponds to total intensity for the doublet. Uncertainty is assigned by compilers.

$^{124}_{52}Te_{72}$-23

Adopted Levels, Gammas (continued)

$\gamma(^{124}Te)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult.[a]	δ[b]	Comments
3088.57	2^+	1205.63 *16*	45 *27*	1882.92	0^+			
		1431.8 *5*	100 *17*	1657.283	0^+			
		1840.1 *4*	72 *15*	1248.5811	4^+			
3091.86	$1,2^+$	782.3 *6*	1.7 *4*	2308.42	0^+			
		1766.27 *12*	22.4 *9*	1325.5131	2^+			
		2488.2 *5*	28 *3*	602.7271	2^+			
		3091.96 *11*	100.0 *21*	0.0	0^+			
3095.07	1^- to 4^+	401.29 *22*	19.1 *6*	2693.679	3^-			
		1003.3 *5*	7.1 *7*	2091.603	2^+			
		1769.53 *10*	78.6 *7*	1325.5131	2^+			
		2492.14 *12*	100 *4*	602.7271	2^+			
3100.67	$1,2^+$	112.430 *19*	3.3 *12*	2988.24	$1,2^+$			
		353.58 *4*	100.0 *9*	2747.04	$1^{(-)}$			
		399.50 *16*	0.89 *7*	2701.61	2^-			
		499.92 *13*	2.38 *9*	2600.95	1^+			
		918.40 *22*	1.2 *9*	2182.41	2^+			
		2499.0 *10*	1.2 *5*	602.7271	2^+			
		3101.7 *5*	1.8 *3*	0.0	0^+			
3107.60	$2^+,3,4^+$	813.6 *3*	5.3 *16*	2293.711	3^-			
		1068.25[f] *13*	5[f] *3*	2039.421	2^+			
		1068.25[f] *13*	47[f] *16*	2039.293	3^+			
		1149.7 *4*	11 *3*	1957.902	4^+			
		1782.02 *11*	74 *3*	1325.5131	2^+			
		2505.01 *14*	100 *7*	602.7271	2^+			
3109.38	$2^+,3,4^-$	407.9 *6*	11.1 *11*	2701.61	2^-			
		1152.5 *4*	11.1 *22*	1957.902	4^+			
		1860.70 *11*	100.0 *22*	1248.5811	4^+			
3118.52	$2^+,3^+$	1792.99 *21*	15.8 *18*	1325.5131	2^+			
		1869.3 *5*	5.3 *16*	1248.5811	4^+			
		2515.90 *22*	100 *4*	602.7271	2^+			
3136.76	$8^{(+)}$	472.333 *24*	100 *9*	2664.43	8^+	D+Q	−0.12 *3*	Mult.,δ: from $\gamma(\theta)$ in $(\alpha,2n\gamma)$.
		1389.71 *10*	42.8 *19*	1746.958	6^+	Q		Mult.: from $\gamma(\theta)$ in $(\alpha,2n\gamma)$.
3143.22	0^+ to 3^+	1817.75 *13*	32.0 *20*	1325.5131	2^+			
		2540.32 *21*	100 *12*	602.7271	2^+			
3154.37	$10^{(+)}$	489.930 *11*	100	2664.43	8^+	Q		Mult.: from $\gamma(\theta)$ in $(\alpha,2n\gamma)$.
3162.92	$2^+,3,4^+$	869.1 *4*	29 *9*	2293.711	3^-			
		1837.7 *3*	50 *6*	1325.5131	2^+			
		1914.2 *3*	100 *16*	1248.5811	4^+			
3167.94	$2^+,3,4^+$	392.93 *14*	18.8 *6*	2774.968	$3^-,4^-$			
		874.41 *14*	9.4 *5*	2293.711	3^-			
		1842.24 *14*	100 *5*	1325.5131	2^+			

$^{124}_{52}Te_{72}$-24

Adopted Levels, Gammas (continued)

$\gamma(^{124}Te)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[a]	Comments
3167.94	$2^+,3,4^+$	1920.2 *8*	6 *4*	1248.5811	4^+		
3210.9	2^+ to 6^+	1962.3 *4*	100	1248.5811	4^+		
3212.23	$1^-,2^+$	465.20 *13*	3.6 *3*	2747.04	$1^{(-)}$		
		918.50 *22*	6 *3*	2293.711	3^-		
		1886.52 *19*	14.3 *9*	1325.5131	2^+		
		2609.40 *10*	100.0 *10*	602.7271	2^+		
		3212.75 *22*	7.1 *6*	0.0	0^+		
3217.60	2^+	923.48 *21*	24.0 *20*	2293.711	3^-		
		1178.3 *7*	20.0 *24*	2039.293	3^+		
		1259.5 *5*	16 *6*	1957.902	4^+		
		1893.6 *10*	68 *16*	1325.5131	2^+		
		2615.21 *17*	100 *20*	602.7271	2^+		
		3217.35 *21*	32 *3*	0.0	0^+		
3220.50	2^+	926.4 *5*	5.5 *24*	2293.711	3^-		
		1180.86[f] *15*	9[f] *4*	2039.421	2^+		
		1180.86[f] *15*	9.1[f] *24*	2039.293	3^+		
		1895.14 *21*	16 *7*	1325.5131	2^+		I_γ: from (n,γ) E=thermal.
		1972.9 *7*	3.6 *15*	1248.5811	4^+		
		2617.80 *21*	100 *7*	602.7271	2^+		I_γ: from (n,γ) E=thermal.
		3221.05 *18*	92.7 *18*	0.0	0^+		I_γ: from (n,γ) E=thermal.
3235.4	0^+ to 4^+	2632.6 *3*	100	602.7271	2^+		
3238.24	$1,2^+$	1355.10 *14*	23 *13*	1882.92	0^+		
		2635.67 *12*	100 *3*	602.7271	2^+		
		3238.15 *14*	79.7 *16*	0.0	0^+		
3240.88	$2^+,3,4^+$	1914.8 *5*	31 *15*	1325.5131	2^+		
		1992.39 *22*	100 *31*	1248.5811	4^+		
3257.98	$2^+,3,4^+$	1166.4 *7*	26 *12*	2091.603	2^+		
		1218.77[f] *19*	16[f] *9*	2039.421	2^+		
		1218.77[f] *19*	11[f] *4*	2039.293	3^+		
		1932.33 *15*	100 *7*	1325.5131	2^+		
		2008.9 *4*	16 *8*	1248.5811	4^+		
3260.84	(6)	380.509 *15*	100	2880.33	$5^{(+)}$		
3272.299	8	361.135[d] *18*	52.2 *20*	2911.180	$7^{(-)}$	D	Mult.: from $\gamma(\theta)$ in (α,2nγ).
		433.08 *15*	3.7 *15*	2839.039	6		
		607.72 *7*	100 *4*	2664.373	6	Q	Mult.: from $\gamma(\theta)$ in (α,2nγ).
3279.94	$2^+,3,4^+$	1240.51[f] *11*	14[f] *14*	2039.421	2^+		
		1240.51[f] *11*	43[f] *10*	2039.293	3^+		
		1323.5 *6*	57 *21*	1957.902	4^+		
		2677.25 *12*	100 *4*	602.7271	2^+		
3284.22	2^+	990.38 *13*	55 *22*	2293.711	3^-		

$^{124}_{52}Te_{72}$-25

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult.[a]	δ[b]	Comments
3284.22	2^+	1130.4 *3*	9.1 *15*	2153.29	0^+			
		1244.85[f] *11*	18[f] *9*	2039.421	2^+			
		1244.85[f] *11*	81[f] *12*	2039.293	3^+			
		1958.90 *12*	100 *3*	1325.5131	2^+			
3288.91	$1,2^+$	1963.43 *10*	100.0 *10*	1325.5131	2^+			
		2685.84 *22*	48 *3*	602.7271	2^+			
		3289.1 *5*	13 *5*	0.0	0^+			
3290.763	$9^{(-)}$	258.01 *9*	5.3 *4*	3032.839	7			
		617.03 *3*	100.0 *18*	2673.771	$7^{(-)}$	Q		Mult.: from γ(θ) in (α,2nγ).
3302.0	$1,2^+$	3302.0	100	0.0	0^+			E_γ: from (γ,γ),(γ,γ′).
3307.37	7	468.40 *6*	54 *10*	2839.039	6			
		1560.25 *9*	100 *5*	1746.958	6^+			
3308.5	2^+ to 6^+	2059.9 *5*	100	1248.5811	4^+			
3318.98	0^+ to 4^+	864.89 *20*	29 *3*	2454.069	2^+			
		1993.46 *22*	100 *29*	1325.5131	2^+			
3336.22	8	662.45 *3*	100	2673.771	$7^{(-)}$	D+Q	−2.73 *4*	Mult.,δ: from γ(θ) in (α,2nγ).
3336.51	$2^+,3^+,4^+$	2010.88 *20*	46 *6*	1325.5131	2^+			
		2087.98 *17*	100 *7*	1248.5811	4^+			
3348.68	$1,2^+$	242.6 *8*	3.3 *17*	3107.60	$2^+,3,4^+$			
		2022.8 *3*	43 *4*	1325.5131	2^+			
		3349.0 *5*	100.0 *20*	0.0	0^+			
3350.958	$9^{(-)}$	677.183 *10*	100	2673.771	$7^{(-)}$	Q		Mult.: from γ(θ) in (α,2nγ).
3355.2	2^+ to 6^+	2106.6 *3*	100	1248.5811	4^+			
3365.43	(7)	627.53 *4*	100	2737.90	$6^{(+)}$	(D)		Mult.: from γ(θ) in (α,2nγ).
3367.98	9	213.600 *15*	19.9 *12*	3154.37	$10^{(+)}$	D		Mult.: from γ(θ) in (α,2nγ).
		703.59 *3*	100.0 *21*	2664.43	8^+	D		Mult.: from γ(θ) in (α,2nγ).
3370.15	8	331.86 *4*	100	3038.29	$8^{(+)}$	D		Mult.: from γ(θ) in (α,2nγ).
3370.45	0^+ to 4^+	2767.69 *12*	100	602.7271	2^+			
3382.932	(7)	1635.962 *14*	100	1746.958	6^+			
3393.63	$1^+,2^+$	910.7 *5*	7.4 *15*	2483.362	4^+			
		940.0 *10*	19 *6*	2454.069	2^+			
		1301.5 *5*	100.0 *11*	2091.603	2^+			
		1353.4 *4*	37 *5*	2039.293	3^+			
		2068.0 *5*	44 *11*	1325.5131	2^+			
		2789.8 *6*	85 *5*	602.7271	2^+			
		3393.81 *16*	70 *5*	0.0	0^+			
3399.67	$2^+,3^+$	916.1 *3*	7.7 *10*	2483.362	4^+			
		1308.43 *19*	7.7 *8*	2091.603	2^+			
		2074.20 *23*	23.1 *18*	1325.5131	2^+			
		2796.80 *11*	100 *4*	602.7271	2^+			
3409.04	9	744.61 *3*	100	2664.43	8^+	D		Mult.: from γ(θ) in (α,2nγ).

$^{124}_{52}Te_{72}$-26

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult. a	Comments
3422.60	$6^{(+)}$	758.16 *3*	100	2664.43	8^+	Q	Mult.: from γ(θ) in (α,2nγ).
3430.04	1^-,2,3^+	454.46 *16*	33 *4*	2975.48	1		
		1136.9 *6*	50 *5*	2293.711	3^-		
		1339.0 *5*	100 *12*	2091.603	2^+		
3438.70	0^+ to 4^+	2835.94 *21*	100	602.7271	2^+		
3443.05	$1,2^+$	162.9 *3*	2.3 *11*	3279.94	2^+,3,4^+		
		741.25 *15*	13.6 *9*	2701.61	2^-		
		921.5 *3*	9.1 *16*	2521.33	2^+		
		1560.34 *11*	34.1 *7*	1882.92	0^+		
		2840.21 *10*	100.0 *21*	602.7271	2^+		
		3443.01 *15*	50 *3*	0.0	0^+		
3444.03	(5,6)	411.186 *24*	100	3032.839	7		
3450.78	1^-,2^+	449.37 *22*	16.7 *5*	3001.12	2^+,3		
		749.4 *9*	6 *4*	2701.61	2^-		
		1157.11 *16*	16.7 *11*	2293.711	3^-		
		2125.17 *22*	31 *11*	1325.5131	2^+		
		2848.13 *16*	100 *11*	602.7271	2^+		
		3451.2 *6*	11 *7*	0.0	0^+		
3452.69	(6)	1117.653 *24*	100	2335.030	5^-		
3456.61	2^+,3,4^+	2208.5 *4*	43 *19*	1248.5811	4^+		
		2853.80 *13*	100 *4*	602.7271	2^+		
3460.35	$1,2^+$	2134.78 *21*	100 *10*	1325.5131	2^+		
		3460.8 *8*	38 *23*	0.0	0^+		
3474.64	0^+ to 4^+	2871.88 *12*	100	602.7271	2^+		
3475.54	(6,7)	502.20 *11*	33 *8*	2973.256	(5,6)		
		1728.63 *10*	100 *8*	1746.958	6^+	(D)	Mult.: from γ(θ) in (α,2nγ).
3479.37	0^+ to 3^+	696.06 *18*	44 *4*	2783.21	1^+,2^+		
		1026.1 *3*	44 *4*	2454.069	2^+		
		2153.77 *14*	78 *7*	1325.5131	2^+		
		2876.56 *14*	100 *7*	602.7271	2^+		
3479.56	$6^{(+)}$	815.12 *3*	100	2664.43	8^+	Q	Mult.: from γ(θ) in (α,2nγ).
3487.16	$1,2^+$	2884.1 *3*	55 *10*	602.7271	2^+		
		3487.4 *3*	100 *4*	0.0	0^+		
3490.25	0^+ to 3^+	889.06 *15*	24.5 *18*	2600.95	1^+		
		2887.70 *14*	100 *6*	602.7271	2^+		
3497.54	2^+ to 6^+	2248.94 *23*	100	1248.5811	4^+		
3513.44	5,6,7	1766.47 *10*	100	1746.958	6^+	D	Mult.: from γ(θ) in (α,2nγ).
3526.692	(7,8)	852.918 *19*	100	2673.771	$7^{(-)}$		
3530.04	1^-,2^+	1236.23 *21*	10.6 *11*	2293.711	3^-		
		2205.0 *5*	15 *9*	1325.5131	2^+		
		2927.01 *16*	100 *10*	602.7271	2^+		

$^{124}_{52}Te_{72}$-27

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[@]	E_f	J_f^π	Mult.[a]	δ[b]	Comments
3530.04	1⁻,2⁺	3530.19 *14*	45 *9*	0.0	0⁺			I_γ: from (n,γ) E=thermal.
3537.68	1,2⁺	2934.92 *14*	100 *6*	602.7271	2⁺			
		3536.9 *15*	38 *7*	0.0	0⁺			
3543.09	1⁻,2⁺	380.3 *3*	2.0 *3*	3162.92	2⁺,3,4⁺			
		842.0 *4*	2.0 *5*	2701.61	2⁻			
		1248.3 *6*	12.00 *24*	2293.711	3⁻			
		2940.27 *11*	57.0 *11*	602.7271	2⁺			
		3543.20 *22*	100 *15*	0.0	0⁺			
3550.00	10⁽⁺⁾	395.641 *14*	46.1 *13*	3154.37	10⁽⁺⁾	D+Q	−0.34 *3*	Mult.,δ: from γ(θ) in (α,2nγ).
		885.53 *3*	100.0 *18*	2664.43	8⁺	Q		Mult.: from γ(θ) in (α,2nγ).
3554.45	7	1807.48 *10*	100	1746.958	6⁺	D		Mult.: from γ(θ) in (α,2nγ).
3576.03	2⁺,3⁺,4⁺	1280.8 *8*	50 *3*	2293.711	3⁻			
		1484.5 *3*	70 *40*	2091.603	2⁺			
		2328.2 *6*	40 *24*	1248.5811	4⁺			
		2973.2 *3*	100 *90*	602.7271	2⁺			
3588.3	0⁺ to 4⁺	2985.5 *3*	100	602.7271	2⁺			
3598.975	9⁽⁻⁾	189.97 *7*	12.1 *8*	3409.04	9	(D)		Mult.: from γ(θ) in (α,2nγ).
		687.792 *15*	100 *3*	2911.180	7⁽⁻⁾	Q		Mult.: from γ(θ) in (α,2nγ).
3599.3	2⁺,3,4⁺	2350.6 *4*	56 *13*	1248.5811	4⁺			
		2996.6 *4*	100 *18*	602.7271	2⁺			
3622.07	1⁻,2⁺	735.71 *12*	23.1 *12*	2886.05	3⁻			
		1469.0 *7*	35 *9*	2153.29	0⁺			
		2296.53 *14*	38.5 *27*	1325.5131	2⁺			
		3019.59 *12*	100 *12*	602.7271	2⁺			
		3623.0 *7*	19 *12*	0.0	0⁺			
3628.53	1,2⁺	1745.38 *18*	19.4 *16*	1882.92	0⁺			
		2303.11 *21*	19 *4*	1325.5131	2⁺			
		3025.82 *12*	100 *6*	602.7271	2⁺			
		3629.0 *10*	16 *10*	0.0	0⁺			
3652.13	(7)	778.59 *3*	100	2873.53	7			
3652.81	1,2⁺	1498.5 *6*	8.7 *22*	2153.29	0⁺			
		2327.32 *17*	48 *6*	1325.5131	2⁺			
		3050.06 *12*	100 *5*	602.7271	2⁺			
3654.4	2⁺	1562.8 *5*	100 *7*	2091.603	2⁺			
		2405.6 *8*	33 *18*	1248.5811	4⁺			
		3051.4 *10*	83 *50*	602.7271	2⁺			
		3655.0 *10*	83 *50*	0.0	0⁺			
3662.00	2⁺,3,4⁺	2413.5 *4*	38 *10*	1248.5811	4⁺			
		3059.22 *13*	100 *4*	602.7271	2⁺			
3666.90	1⁺ to 3⁺	1574.3 *6*	22 *11*	2091.603	2⁺			
		1626.5 *6*	38.9 *22*	2039.293	3⁺			

$^{124}_{52}Te_{72}$-28

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult. [a]	δ [b]	Comments
3666.90	1^+ to 3^+	2341.35 *15*	100 *7*	1325.5131	2^+			
		3064.26 *14*	50 *3*	602.7271	2^+			
3685.70	0^+ to 4^+	1594.7 *5*	24 *14*	2091.603	2^+			
		3082.89 *13*	100 *5*	602.7271	2^+			
3703.487	8	352.51 *7*	20.5 *15*	3350.958	$9^{(-)}$	D		Mult.: from γ(θ) in (α,2nγ).
		412.76 *3*	41.0 *22*	3290.763	$9^{(-)}$	D+Q	+1.9 *2*	Mult.,δ: from γ(θ) in (α,2nγ).
		670.628 *22*	100 *3*	3032.839	7	D+Q	+0.40 *3*	Mult.,δ: from γ(θ) in (α,2nγ).
3709.72	2^+	1008.24 *16*	13.8 *10*	2701.61	2^-			
		1108.5 *3*	6.9 *8*	2600.95	1^+			
		1386.6 *4*	3.5 *17*	2322.95	2^+			
		1415.90 *10*	55.2 *10*	2293.711	3^-			
		1670.8 *10*	28 *14*	2039.293	3^+			
		3107.22 *22*	100.0 *21*	602.7271	2^+			
		3710.5 *6*	17 *8*	0.0	0^+			
3713.99	(8,9)	1049.55 *6*	100	2664.43	8^+			
3723.63	2^+,3,4^+	2397.5 *5*	40 *5*	1325.5131	2^+			
		2475.08 *16*	100 *9*	1248.5811	4^+			
3755.65	$1,2^+$	654.80 *10*	9.09 *18*	3100.67	$1,2^+$			
		660.51 *15*	3.9 *5*	3095.07	1^- to 4^+			
		767.48 *17*	13.0 *10*	2988.24	$1,2^+$			
		988.1 *5*	3.9 *4*	2766.93	1^+ to 4^+			
		1154.65 *21*	7.8 *7*	2600.95	1^+			
		1447.8 *5*	5 *3*	2308.42	0^+			
		2098.62 *14*	52 *3*	1657.283	0^+			
		3152.93 *12*	100 *6*	602.7271	2^+			
		3756.0 *6*	9 *4*	0.0	0^+			
3774.1	$1,2^+$	1681.0 *10*	9 *8*	2091.603	2^+			
		2448.2 *10*	100 *3*	1325.5131	2^+			
		3172.0 *10*	23 *14*	602.7271	2^+			
		3775.4 *10*	23 *18*	0.0	0^+			
3805.40	0^+ to 3^+	2479.86 *15*	100	1325.5131	2^+			
3810.07	0^+ to 3^+	3207.30 *11*	100	602.7271	2^+			
3836.46	(9)	1172.02 *9*	100	2664.43	8^+	(D)		Mult.: from γ(θ) in (α,2nγ).
3845.22	8	812.38 *10*	100	3032.839	7	D		Mult.: from γ(θ) in (α,2nγ).
3850.54	11	696.17 *4*	100	3154.37	$10^{(+)}$	D		Mult.: from γ(θ) in (α,2nγ).
3853.57	0^+ to 3^+	3250.80 *13*	100	602.7271	2^+			
3862.6	0^+ to 3^+	1770.5 *5*	67 *40*	2091.603	2^+			
		2537.3 *5*	100 *67*	1325.5131	2^+			
		3260.0 *4*	67 *40*	602.7271	2^+			
3872.32	(9,10)	834.03 *4*	100	3038.29	$8^{(+)}$			
3880.20	$1,2^+$	2554.77 *20*	58 *5*	1325.5131	2^+			

$^{124}_{52}Te_{72}$-29

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult. [a]	δ [b]	Comments
3880.20	1,2$^+$	3879.9 *3*	100 *10*	0.0	0$^+$			
3884.87	1,2$^+$	1183.27 *16*	37.5 *25*	2701.61	2$^-$			
		3282.13 *16*	75 *5*	602.7271	2$^+$			
		3884.69 *25*	100 *12*	0.0	0$^+$			
3904.12	0$^+$ to 3$^+$	3301.35 *16*	100	602.7271	2$^+$			
3929.47	1,2$^+$	2045.6 *6*	23 *9*	1882.92	0$^+$			
		2603.6 *10*	46 *23*	1325.5131	2$^+$			
		3326.74 *12*	100 *6*	602.7271	2$^+$			
		3929.2 *10*	46 *23*	0.0	0$^+$			
3931.57	10	580.608 *22*	100 *8*	3350.958	9$^{(-)}$	D+Q	−0.51 *1*	Mult.,δ: from γ(θ) in (α,2nγ).
		640.84 *8*	95 *10*	3290.763	9$^{(-)}$	(D)		Mult.: from γ(θ) in (α,2nγ).
3945.22	1,2$^+$	2287.91 *21*	100	1657.283	0$^+$			
3946.40	1,2$^+$	3343.61 *19*	60 *5*	602.7271	2$^+$			
		3946.4 *4*	100 *50*	0.0	0$^+$			
3967.34	1$^-$,2$^+$	1272.4 *5*	57.9 *21*	2693.679	3$^-$			
		1645.9 *9*	5 *4*	2322.95	2$^+$			
		2311.2 *9*	11 *3*	1657.283	0$^+$			
		2641.60 *22*	79 *42*	1325.5131	2$^+$			
		3364.8 *5*	100 *42*	602.7271	2$^+$			
		3967.7 *3*	84 *26*	0.0	0$^+$			
3984.78	(8)	633.82 *9*	100	3350.958	9$^{(-)}$			
3988.593	11$^{(-)}$	637.96 *9*		3350.958	9$^{(-)}$			E_γ: The uncertainty of the weighted average γ energies was too small, the evaluator assumed an uncertainty of 3 times of that.
		697.826 *5*	100 *4*	3290.763	9$^{(-)}$	Q		Mult.: from γ(θ) in (α,2nγ).
3989.1	0$^+$ to 3$^+$	2664.8 *15*	60 *7*	1325.5131	2$^+$			
		3385.7 *10*	100 *14*	602.7271	2$^+$			
3996.33	0$^+$ to 4$^+$	2670.79 *14*	100	1325.5131	2$^+$			
3998.3	1,2$^+$	3395.7 *10*	71 *60*	602.7271	2$^+$			
		3998.2 *5*	100 *60*	0.0	0$^+$			
4010.8	1,2$^+$	1920.0 *5*	60 *30*	2091.603	2$^+$			
		2352.6 *9*	80 *50*	1657.283	0$^+$			
		4009.9 *6*	100 *40*	0.0	0$^+$			
4030.3	0$^+$ to 3$^+$	3427.5 *3*	100	602.7271	2$^+$			
4032.76	11$^{(-)}$	681.72 *4*	100 *6*	3350.958	9$^{(-)}$			
		742.16 *4*	72 *3*	3290.763	9$^{(-)}$	Q		E_γ: The uncertainty of the energy seems to be too small comparing with the energy difference of corresponding levels. The evaluator assumed 3 times larger uncertainty than reported one. Mult.: from γ(θ) in (α,2nγ).
4034.43	(10)	435.458 *15*	100	3598.975	9$^{(-)}$	D		Mult.: from γ(θ) in (α,2nγ).
4043.80	0$^+$ to 3$^{(-)}$	1296.72 *13*	100 *4*	2747.04	1$^{(-)}$			
		2719.6 *8*	14 *7*	1325.5131	2$^+$			

$^{124}_{52}Te_{72}$-30

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult.[a]	Comments
4051.40	11	897.03 *4*	100	3154.37	$10^{(+)}$	D	Mult.: from γ(θ) in (α,2nγ).
4051.51	0^+ to 3^+	956.31 *25*	8.7 *13*	3095.07	1^- to 4^+		
		3448.77 *13*	100 *13*	602.7271	2^+		
4057.22	0^+ to 4^+	3454.44 *18*	100	602.7271	2^+		
4090.23	$1,2^+$	3487.2 *3*	92 *4*	602.7271	2^+		
		4090.24 *17*	100 *9*	0.0	0^+		E_γ,I_γ: from (n,γ) E=thermal.
4099.2	0^+ to 3^+	2006.8 *9*	80 *20*	2091.603	2^+		
		3496.6 *4*	100 *26*	602.7271	2^+		
4114.08	(9,10)	1449.639 *25*	100	2664.43	8^+	(D)	Mult.: from γ(θ) in (α,2nγ).
4114.37	0^+ to 4^+	3511.59 *13*	100 *30*	602.7271	2^+		
4118.1	$1,2^+$	4118.0	100	0.0	0^+		
4128.1	$1,2^+$	2803.2 *7*	67 *33*	1325.5131	2^+		
		3525.3 *9*	100 *80*	602.7271	2^+		
		4127.8 *4*	50 *25*	0.0	0^+		
4142.20	$2^+,3,4^+$	2049.7 *8*	6 *4*	2091.603	2^+		
		2816.7 *3*	38 *6*	1325.5131	2^+		
		2893.60 *14*	100 *3*	1248.5811	4^+		
4144.48	0^+ to $3^{(-)}$	1397.43 *16*	22.7 *18*	2747.04	$1^{(-)}$		
		2053.5 *6*	4.6 *23*	2091.603	2^+		
		2104.9 *3*	100 *23*	2039.421	2^+		
4146.51	$1,2^+$	2821.14 *24*	27 *4*	1325.5131	2^+		
		3543.60 *22*	100 *40*	602.7271	2^+		
		4145.6 *12*	5 *4*	0.0	0^+		
4155.38	2^+ to 6^+	2906.76 *13*	100	1248.5811	4^+		
4170.7	$1,2^+$	1074.3 *9*	15.4 *19*	3095.07	1^- to 4^+		
		2845.7 *4*	54 *30*	1325.5131	2^+		
		3566.8 *10*	100 *10*	602.7271	2^+		
		4170.5 *5*	69 *50*	0.0	0^+		
4173.68		822.72 *3*	100	3350.958	$9^{(-)}$	(D)	Mult.: from γ(θ) in (α,2nγ).
4177.79	$1,2^+$	1082.89 *24*	75 *13*	3095.07	1^- to 4^+		
		3574.6 *5*	75 *30*	602.7271	2^+		
		4176.3 *10*	100 *80*	0.0	0^+		
4195.06	1,2	1448.1 *3*	71 *16*	2747.04	$1^{(-)}$		
		1493.5 *5*	21 *11*	2701.61	2^-		
		1595.0 *5*	64 *16*	2600.95	1^+		
		2869.5 *7*	36 *21*	1325.5131	2^+		
		3591.1 *5*	100 *9*	602.7271	2^+		
4215.4	$1,2^+$	1614.3 *5*	100 *6*	2600.95	1^+		
		3613.1 *8*	31 *13*	602.7271	2^+		
		4215.2 *5*	69 *40*	0.0	0^+		
4229.22	$1,2^+$	1134.1 *3*	10.5 *12*	3095.07	1^- to 4^+		

$^{124}_{52}Te_{72}$-31

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Mult.[a]	Comments
4229.22	1,2$^+$	3626.4 *6*	68 *16*	602.7271	2$^+$		
		4229.2 *3*	100 *60*	0.0	0$^+$		
4238.39		387.855 *13*	100	3850.54	11	(D)	Mult.: from γ(θ) in (α,2nγ).
4241.0	0$^+$ to 4$^+$	3638.2 *15*	100	602.7271	2$^+$		
4244.8	0$^+$ to 3$^+$	2062.8 *8*	36 *5*	2182.41	2$^+$		
		2918.9 *6*	100 *18*	1325.5131	2$^+$		
		3642.3 *8*	18 *14*	602.7271	2$^+$		
4270.3	1,2$^+$	3665.4 *12*	100 *60*	602.7271	2$^+$		
		4270.6 *5*	100 *60*	0.0	0$^+$		
4286.07		253.337 *23*	38.0 *21*	4032.76	11$^{(-)}$	D	Mult.: from γ(θ) in (α,2nγ).
		297.465 *13*	100.0 *23*	3988.593	11$^{(-)}$	D	Mult.: from γ(θ) in (α,2nγ).
4289.40	2$^+$	2963.59 *13*	67 *5*	1325.5131	2$^+$		
		3042.0 *9*	50 *15*	1248.5811	4$^+$		
		3687.00 *18*	100 *10*	602.7271	2$^+$		
		4290.8 *10*	50 *25*	0.0	0$^+$		
4302.61	0 to 3$^+$	2120.18 *20*	100	2182.41	2$^+$		
4324.4	1,2$^+$	3721.5 *3*	100 *20*	602.7271	2$^+$		
		4324.5 *5*	73 *9*	0.0	0$^+$		
4327.4	1,2$^+$	3723.9 *5*	100 *50*	602.7271	2$^+$		
		4328.0 *5*	100 *50*	0.0	0$^+$		
4375.47	0$^+$ to 4$^+$	3772.68 *15*	100	602.7271	2$^+$		
4379.47	0$^+$ to 3$^+$	1283.65 *25*	5.9 *9*	3095.07	1$^-$ to 4$^+$		
		2195.1 *10*	24 *3*	2182.41	2$^+$		
		3053.98 *12*	76.5 *24*	1325.5131	2$^+$		E_γ: poor fit. Level-energy difference=3053.60.
		3776.96 *17*	100 *9*	602.7271	2$^+$		E_γ: poor fit. Level-energy difference=3776.36.
4415.32	0$^+$ to 3$^+$	3812.53 *16*	100	602.7271	2$^+$		
4439.4	0$^+$ to 3$^{(-)}$	1693.0 *10*	50 *25*	2747.04	1$^{(-)}$		
		3836.4 *5*	100 *7*	602.7271	2$^+$		
4444.8	0$^+$ to 3$^+$	3842.0 *5*	100	602.7271	2$^+$		
4453.7	0$^+$ to 3$^+$	3850.9 *3*	100	602.7271	2$^+$		
4487.3	1,2$^+$	3160.8 *10*	100 *20*	1325.5131	2$^+$		
		4487.4 *5*	86 *40*	0.0	0$^+$		
4501.24	0$^+$ to 3$^+$	3175.71 *16*	100 *11*	1325.5131	2$^+$		
		3898.0 *6*	58 *30*	602.7271	2$^+$		
4504.3	0 to 2	1757.3 *7*	100	2747.04	1$^{(-)}$		
4524.4	0$^+$ to 3$^+$	3921.6 *3*	100	602.7271	2$^+$		
4528.1	0$^+$ to 3$^+$	3202.7 *3*	24 *6*	1325.5131	2$^+$		
		3924.5 *7*	100 *50*	602.7271	2$^+$		
4551.5	1,2$^+$	4551.4 *3*	100	0.0	0$^+$		
4568.9	1,2$^+$	1967.2 *8*	37.5 *25*	2600.95	1$^+$		
		3243.8 *5*	100 *25*	1325.5131	2$^+$		

$^{124}_{52}Te_{72}$-32

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π	Comments
4568.9	1,2$^+$	3966.1 *5*	44 *25*	602.7271	2$^+$	
		4568.8 *5*	31 *25*	0.0	0$^+$	
4580.97	1,2$^+$	2489.6 *5*	26 *17*	2091.603	2$^+$	
		4580.83 *22*	100 *5*	0.0	0$^+$	
4598.5	1,2$^+$	3995.8 *3*	100 *60*	602.7271	2$^+$	
		4598.2 *5*	100 *60*	0.0	0$^+$	
4630.1	1,2$^+$	4027.8 *7*	100 *50*	602.7271	2$^+$	
		4629.1 *10*	67 *50*	0.0	0$^+$	
4643.46	1,2$^+$	2319.2 *9*	18 *15*	2322.95	2$^+$	
		2551.5 *4*	45 *10*	2091.603	2$^+$	
		3318.2 *5*	45 *8*	1325.5131	2$^+$	
		4042.7 *8*	100 *50*	602.7271	2$^+$	
		4643.2 *5*	36 *30*	0.0	0$^+$	
4698.0	1,2$^+$	4094.4 *8*	100 *60*	602.7271	2$^+$	
		4698.5 *7*	100 *50*	0.0	0$^+$	I_γ: uncertainty of 0% in table I of 2006Vo09 seems a misprint, compilers assign 50% for a weak γ ray.
4701.95	0$^+$ to 4$^+$	4099.15 *21*	100	602.7271	2$^+$	
4712.90	0$^+$ to 3$^+$	4110.10 *17*	100	602.7271	2$^+$	
4723.5	0$^+$ to 3$^+$	3398.3 *5*	60 *30*	1325.5131	2$^+$	
		4120.4 *4*	100 *30*	602.7271	2$^+$	
4737.28	0$^+$ to 4$^+$	3411.72 *21*	100	1325.5131	2$^+$	
4739.63	1,2$^+$	3413.6 *8*	16 *12*	1325.5131	2$^+$	
		4136.87 *15*	100 *5*	602.7271	2$^+$	
		4739.48 *22*	72 *30*	0.0	0$^+$	
4754.71	1,2$^+$	4152.6 *3*	100 *17*	602.7271	2$^+$	
		4754.28 *21*	67 *6*	0.0	0$^+$	
4764.4	1,2$^+$	1321.0 *5*	24 *6*	3443.05	1,2$^+$	
		2581.6 *5*	100 *6*	2182.41	2$^+$	
		4766.8 *9*	33 *19*	0.0	0$^+$	
4811.2	0$^+$ to 3$^+$	3485.6 *15*	100	1325.5131	2$^+$	
4818.3	0$^+$ to 3$^+$	2636.2 *5*	100 *50*	2182.41	2$^+$	
		3489.8 *14*	80 *80*	1325.5131	2$^+$	
4883.27	1,2$^+$	4281.4 *5*	31 *6*	602.7271	2$^+$	
		4882.99 *22*	100 *4*	0.0	0$^+$	
4889.30	1,2$^+$	4286.33 *16*	100 *6*	602.7271	2$^+$	
		4890.8 *5*	79 *6*	0.0	0$^+$	E_γ: poor fit. Level-energy difference=4889.3.
4897.6	0$^+$ to 3$^+$	4294.8 *4*	100	602.7271	2$^+$	
4911.41	2$^+$,3$^+$	1811.0 *4*	50 *10*	3100.67	1,2$^+$	
		3586.0 *3*	100 *16*	1325.5131	2$^+$	
		3661.9 *5*	88 *50*	1248.5811	4$^+$	
4915.7	1,2$^+$	3034.0 *6*	71 *40*	1882.92	0$^+$	
		4313.0 *7*	24 *12*	602.7271	2$^+$	

$^{124}_{52}Te_{72}$-33

Adopted Levels, Gammas (continued)

γ(^{124}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ @	E_f	J_f^π
4915.7	1,2$^+$	4915.2 *3*	100 *24*	0.0	0$^+$
4932.0	0$^+$ to 3$^+$	4329.2 *5*	100	602.7271	2$^+$
4941.8	1,2$^+$	4941.7 *4*	100	0.0	0$^+$
4962.51	0$^+$ to 3$^+$	4359.70 *16*	100	602.7271	2$^+$
4979.58	0$^+$ to 3$^+$	4376.77 *17*	100	602.7271	2$^+$
4984.7	0$^+$ to 3$^+$	1884.0 *8*	100	3100.67	1,2$^+$
4990.4	0$^+$ to 3$^+$	3664.8 *3*	100	1325.5131	2$^+$
4993.51	1,2$^+$	4993.40 *21*	100	0.0	0$^+$
5036.9	1,2$^+$	4434.4 *5*	100 *40*	602.7271	2$^+$
		5035.6 *10*	11 *4*	0.0	0$^+$
5050.72	1,2$^+$	5050.61 *25*	100	0.0	0$^+$
5075.83	1,2$^+$	3750.1 *5*	64 *40*	1325.5131	2$^+$
		4472.1 *5*	100 *40*	602.7271	2$^+$
		5076.1 *3*	45 *9*	0.0	0$^+$
5127.29	0$^+$ to 4$^+$	3801.71 *19*	100	1325.5131	2$^+$
5132.3	1,2$^+$	4529.3 *10*	100 *50*	602.7271	2$^+$
5132.3	1,2$^+$	5132.4 *10*	100 *50*	0.0	0$^+$
5155.94	1,2$^+$	2409.1 *5*	53 *9*	2747.04	1$^{(-)}$
		2701.78 *14*	67 *4*	2454.069	2$^+$
		3831.3 *5*	100 *50*	1325.5131	2$^+$
		4553.0 *5*	47 *30*	602.7271	2$^+$
		5154.3 *11*	27 *16*	0.0	0$^+$
5169.7	1,2$^+$	4567.3 *5*	100 *8*	602.7271	2$^+$
		5169.1 *5*	47 *30*	0.0	0$^+$
5285.5	0$^+$ to 4$^+$	3959.9 *6*	100	1325.5131	2$^+$
5319.2	0$^+$ to 3$^+$	831.9 *5*	100	4487.3	1,2$^+$
5423.9	0$^+$ to 3$^+$	4821.1 *4*	100	602.7271	2$^+$
5445.4	1,2$^+$	4119.6 *4*	100 *40*	1325.5131	2$^+$
		5447.7 *15*	29 *21*	0.0	0$^+$
5488.5	1,2$^+$	5488.4 *6*	100	0.0	0$^+$
5751.40	0$^+$ to 3$^+$	5148.56 *23*	100	602.7271	2$^+$

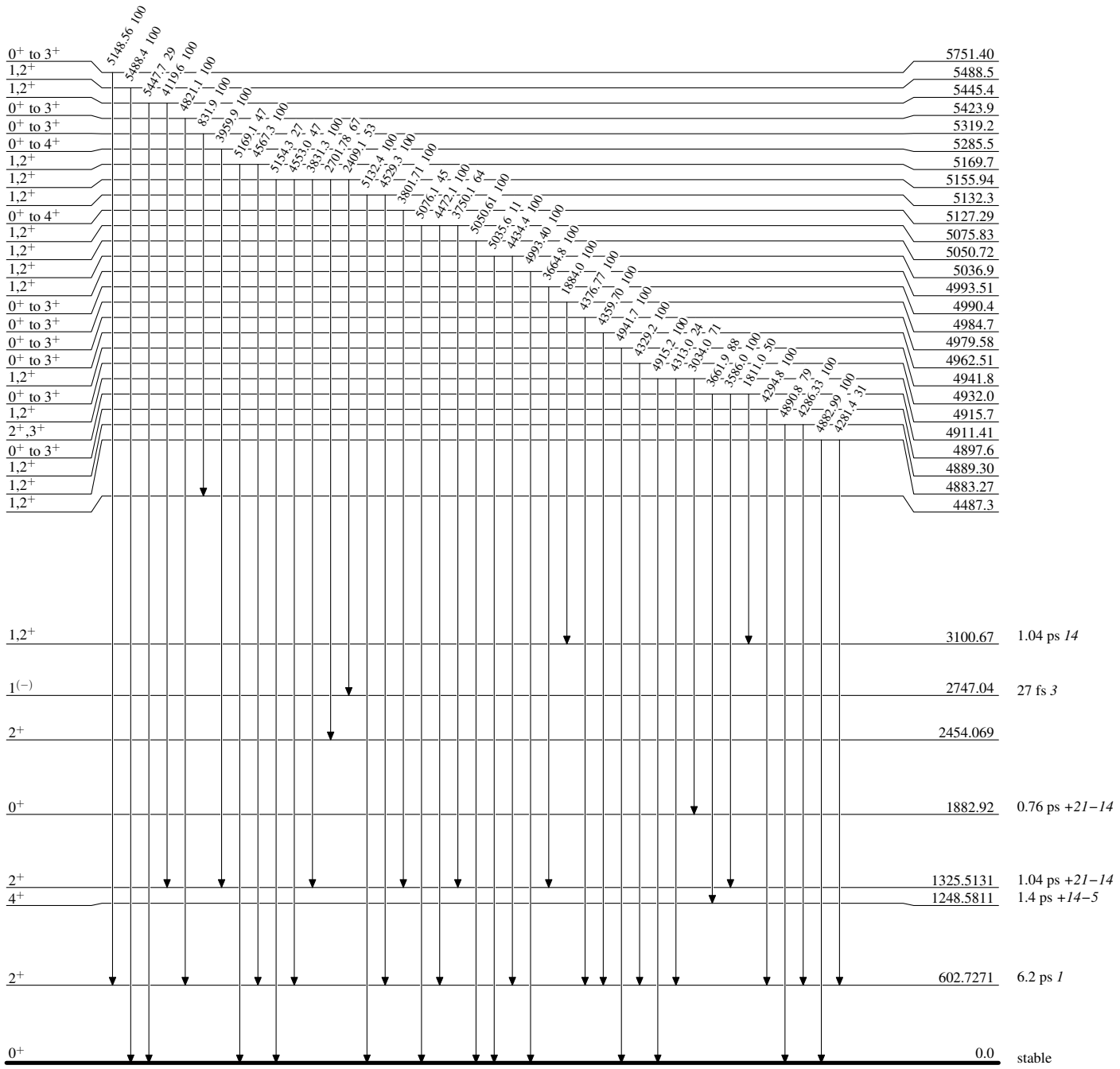
† Average from ^{124}Sb β^- decays (60.20 d, 93 s), ^{124}I ε decay and (n,γ), (α,2nγ) and (n,n′γ), unless otherwise noted.
‡ The final level of the transition was just assumed by evaluator. And it should be one of the 2039[2$^+$] or 2039[3$^+$] level.
# From (n,γ) E=thermal. Energy values are recalculated because 2000Do11 gives them as relative to the transition from the first 2$^+$ state to the ground state.
@ Average from ^{124}Sb β^- decays (60.20 d, 93 s), ^{124}I ε decay and (n,γ), (α,2nγ) and (n,n′γ), unless otherwise noted.
& From (n,γ).
[a] From γγ(θ) and α(K)exp in ^{124}Sb β^- decay (60.20 d), α(K)exp in ^{124}I ε decay and (n,γ), and γ(θ) in (α,2nγ), unless otherwise indicated.
[b] From nuclear orientation in ^{124}Sb β^- decay (60.20 d), unless otherwise indicated.
[c] 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.
[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.

$^{124}_{52}Te_{72}$-34

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

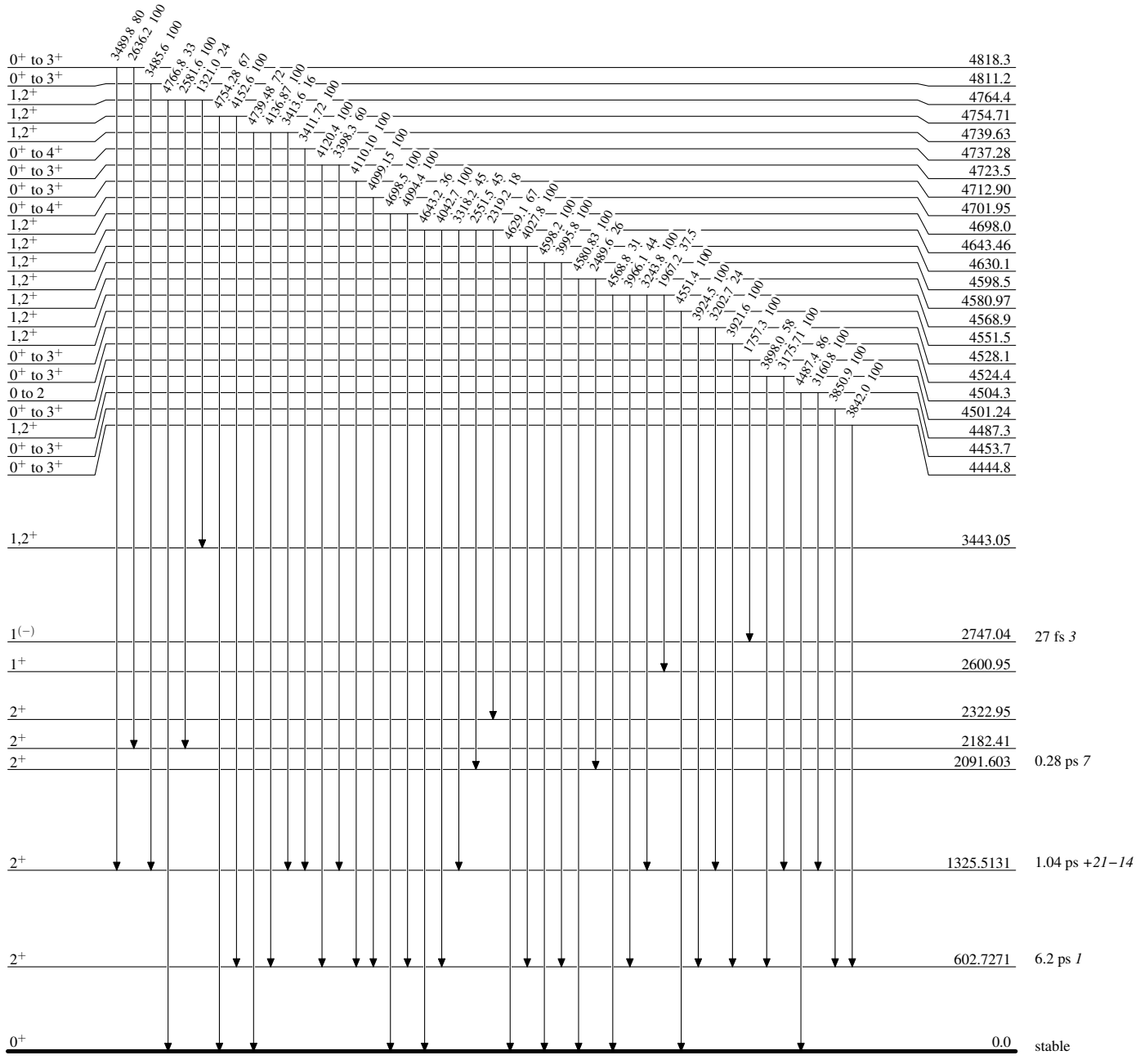


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

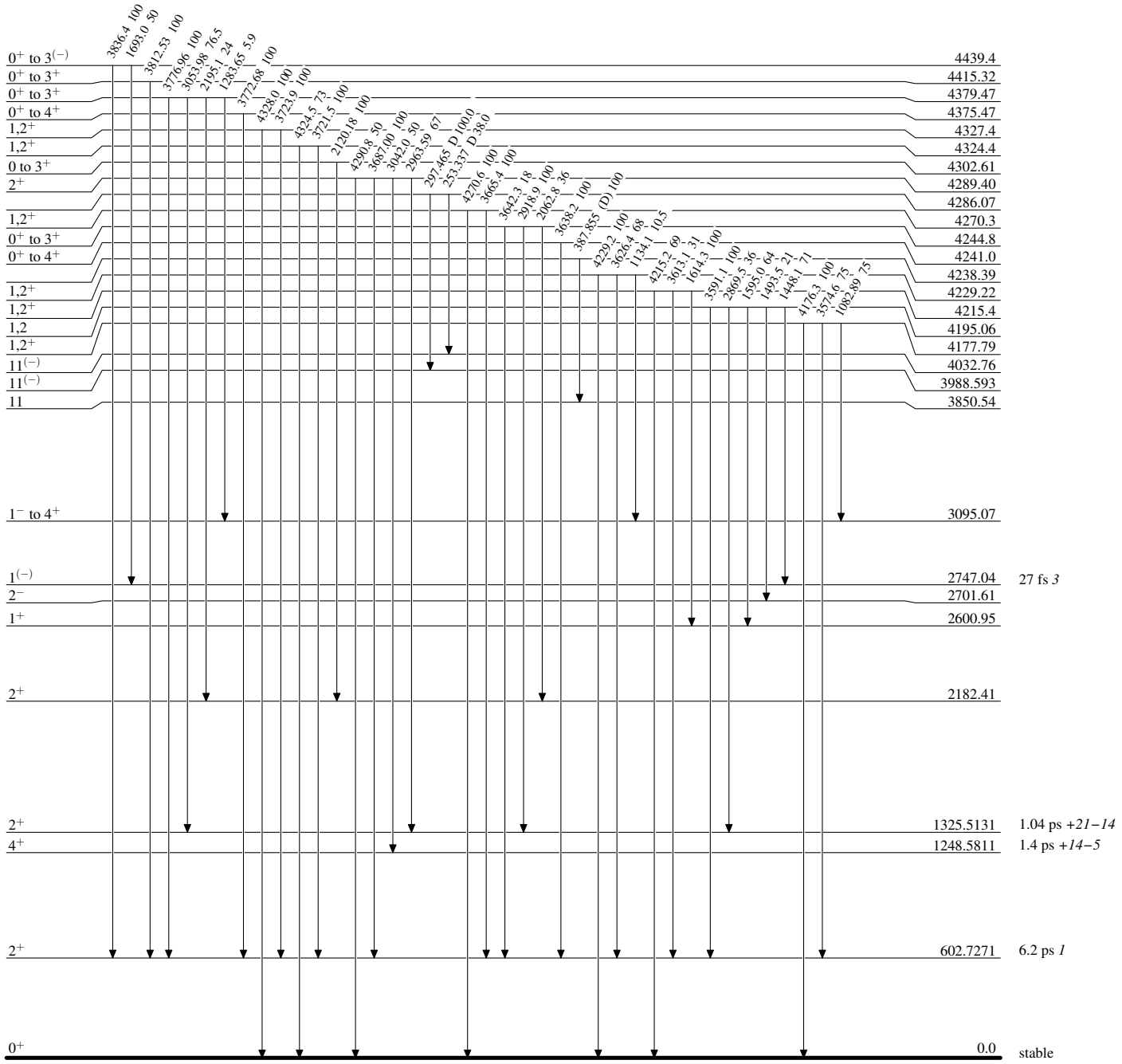


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

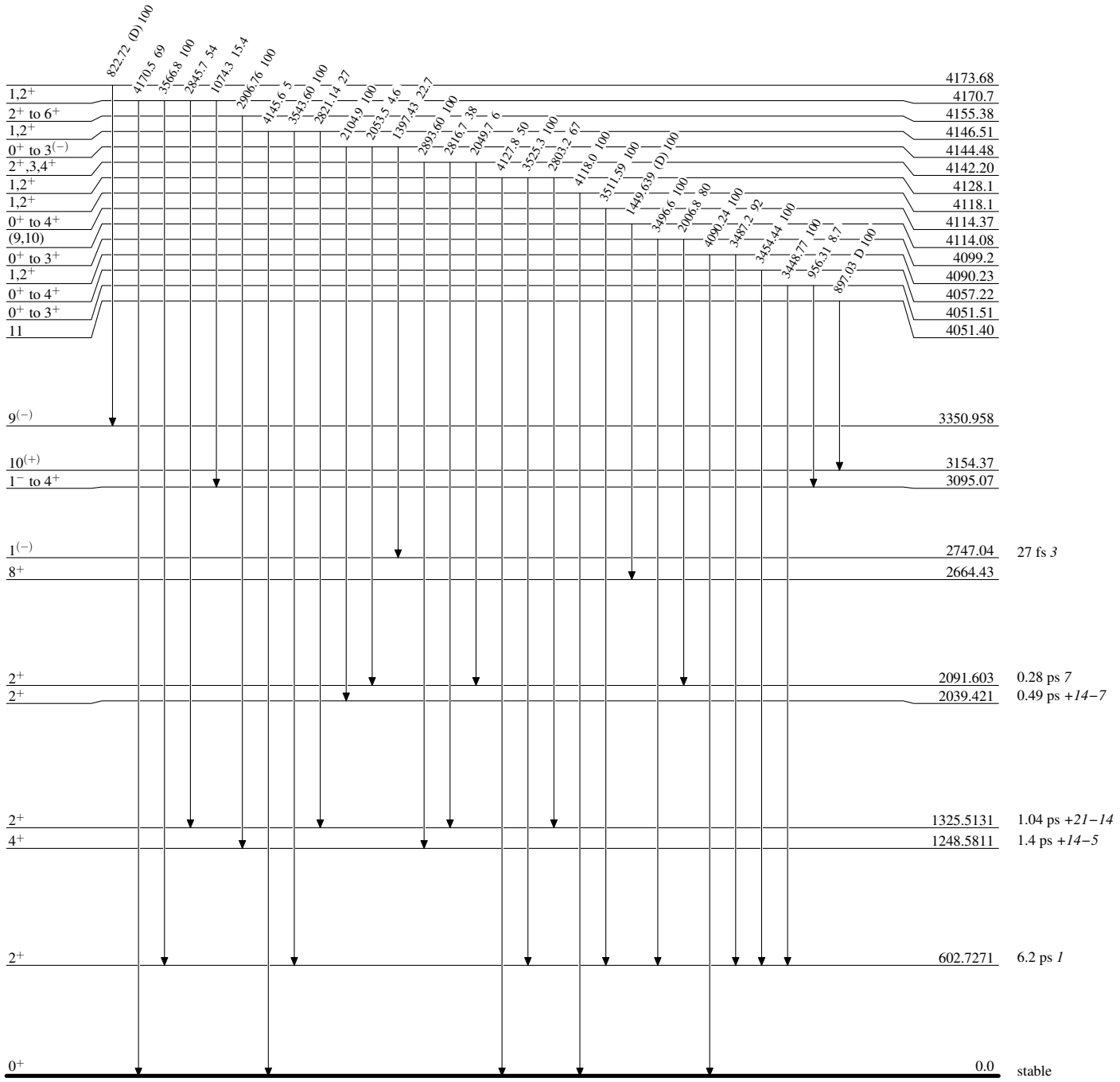


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

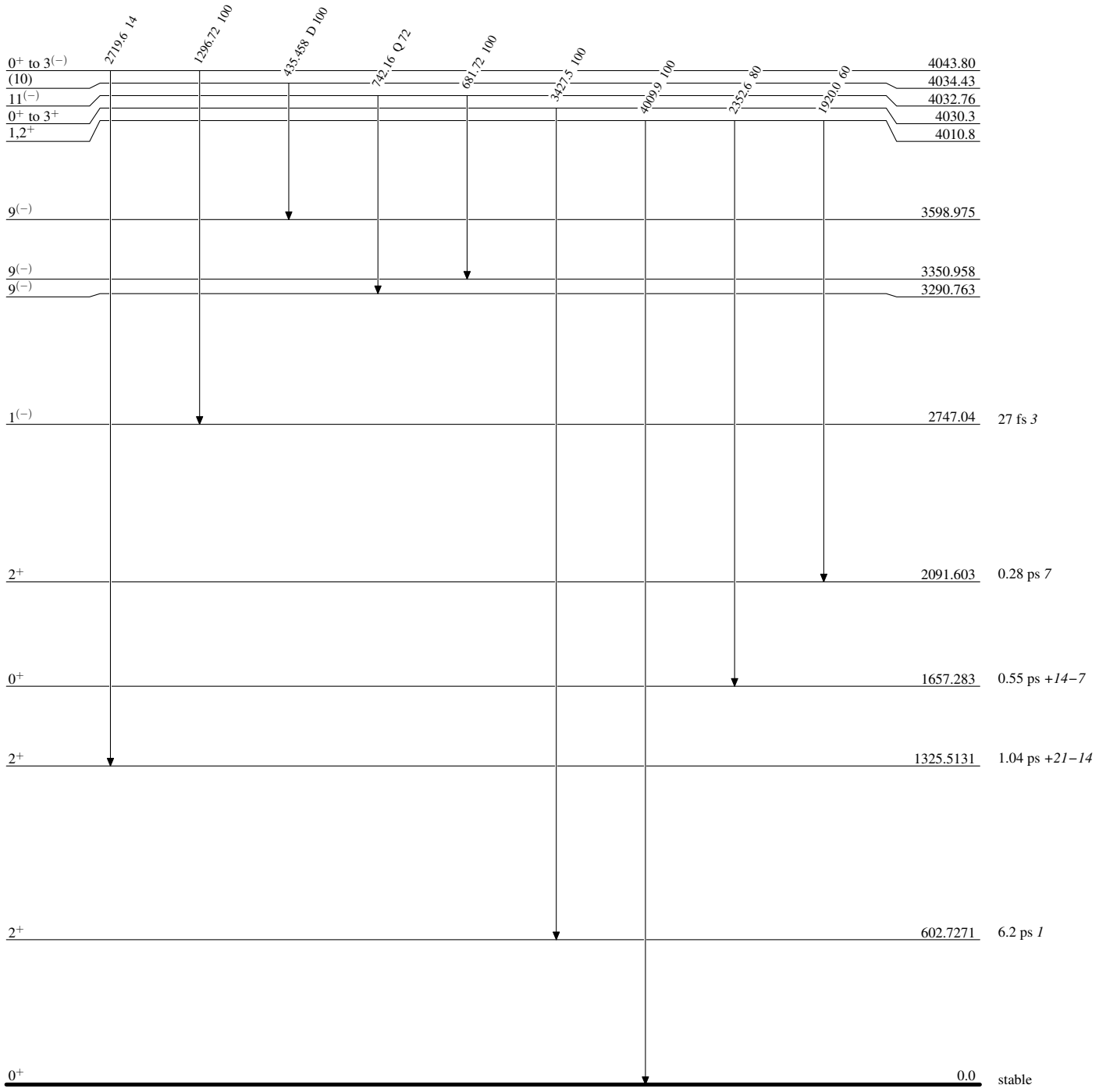


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

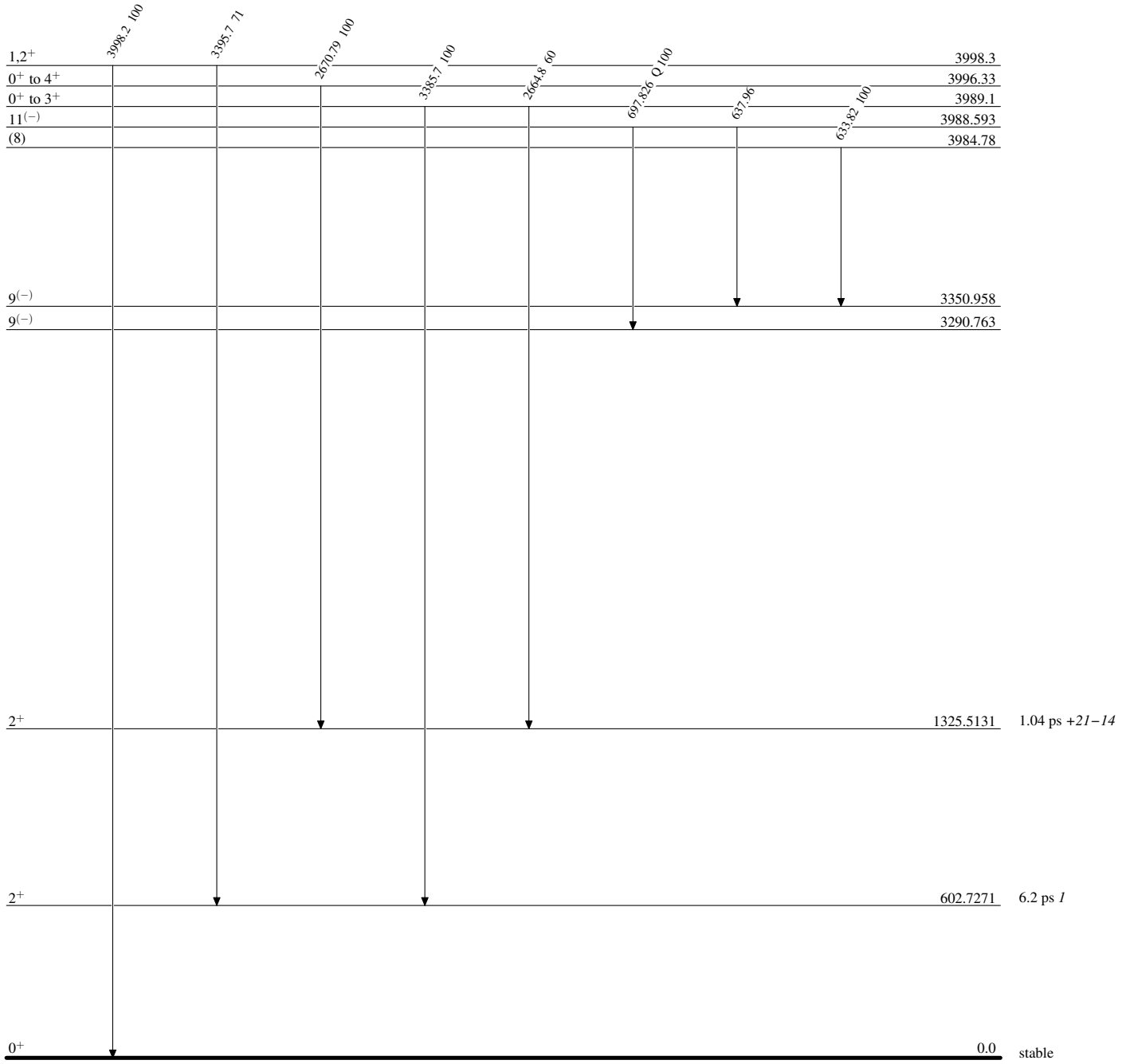


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

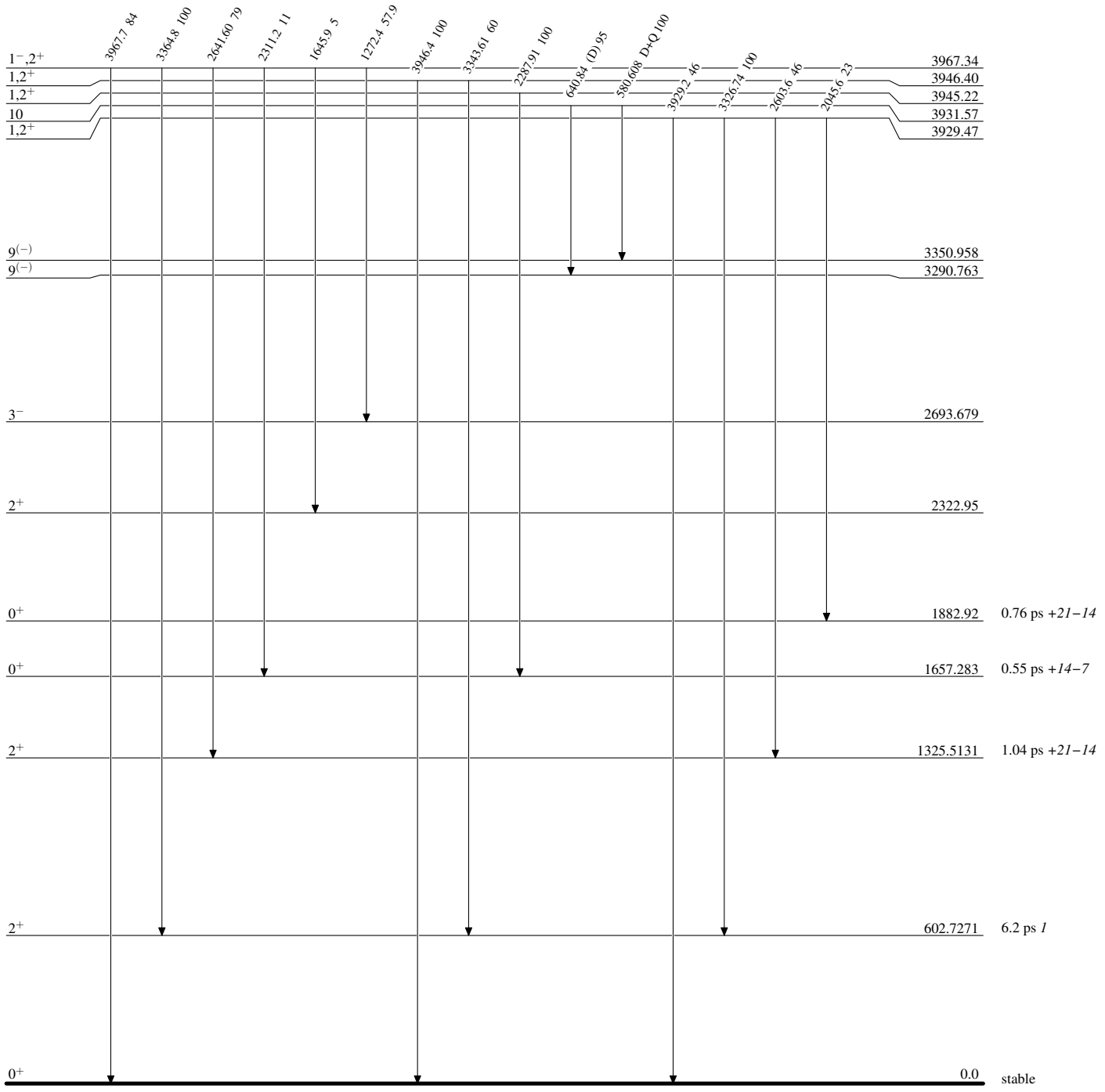


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

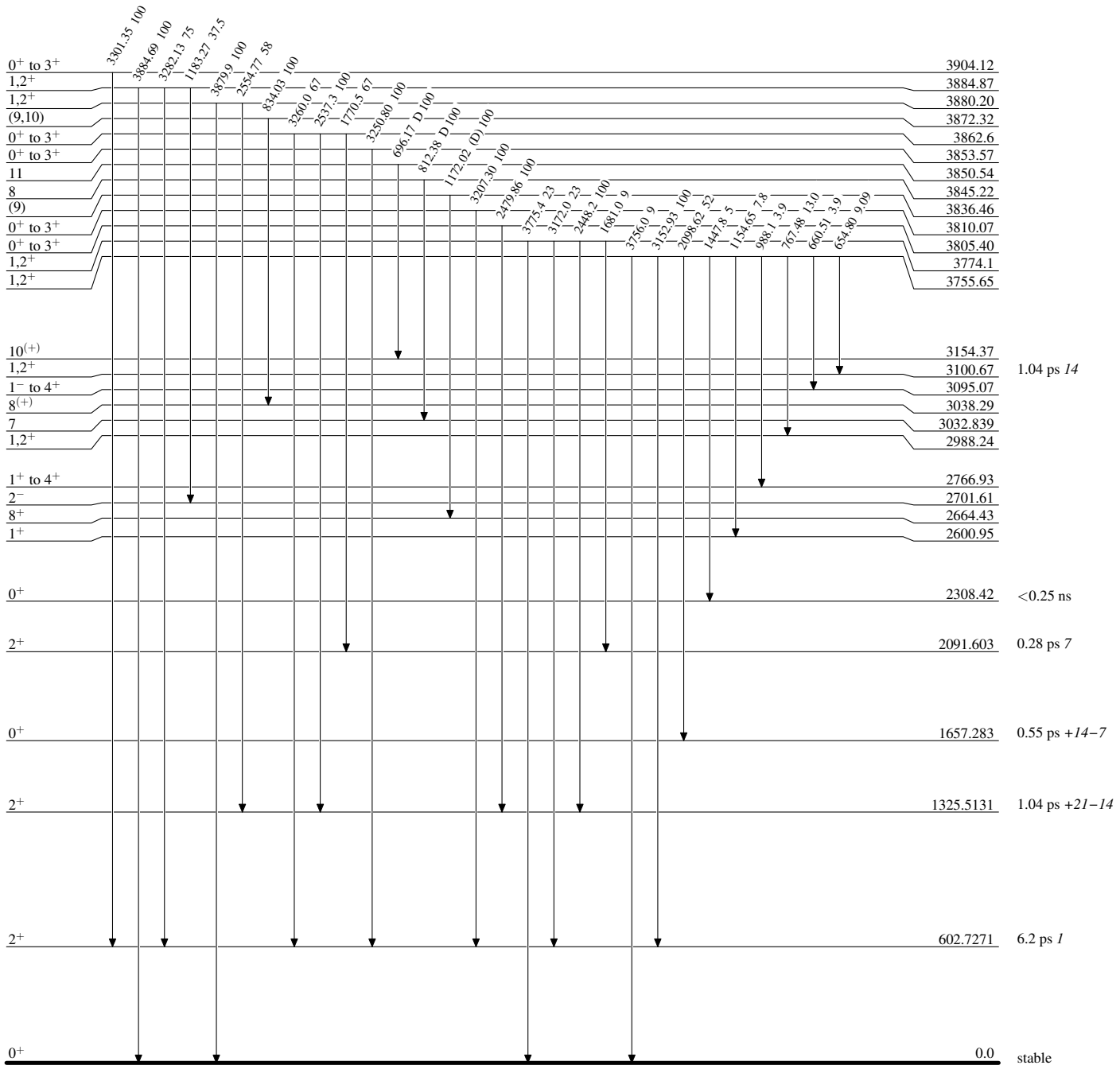


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

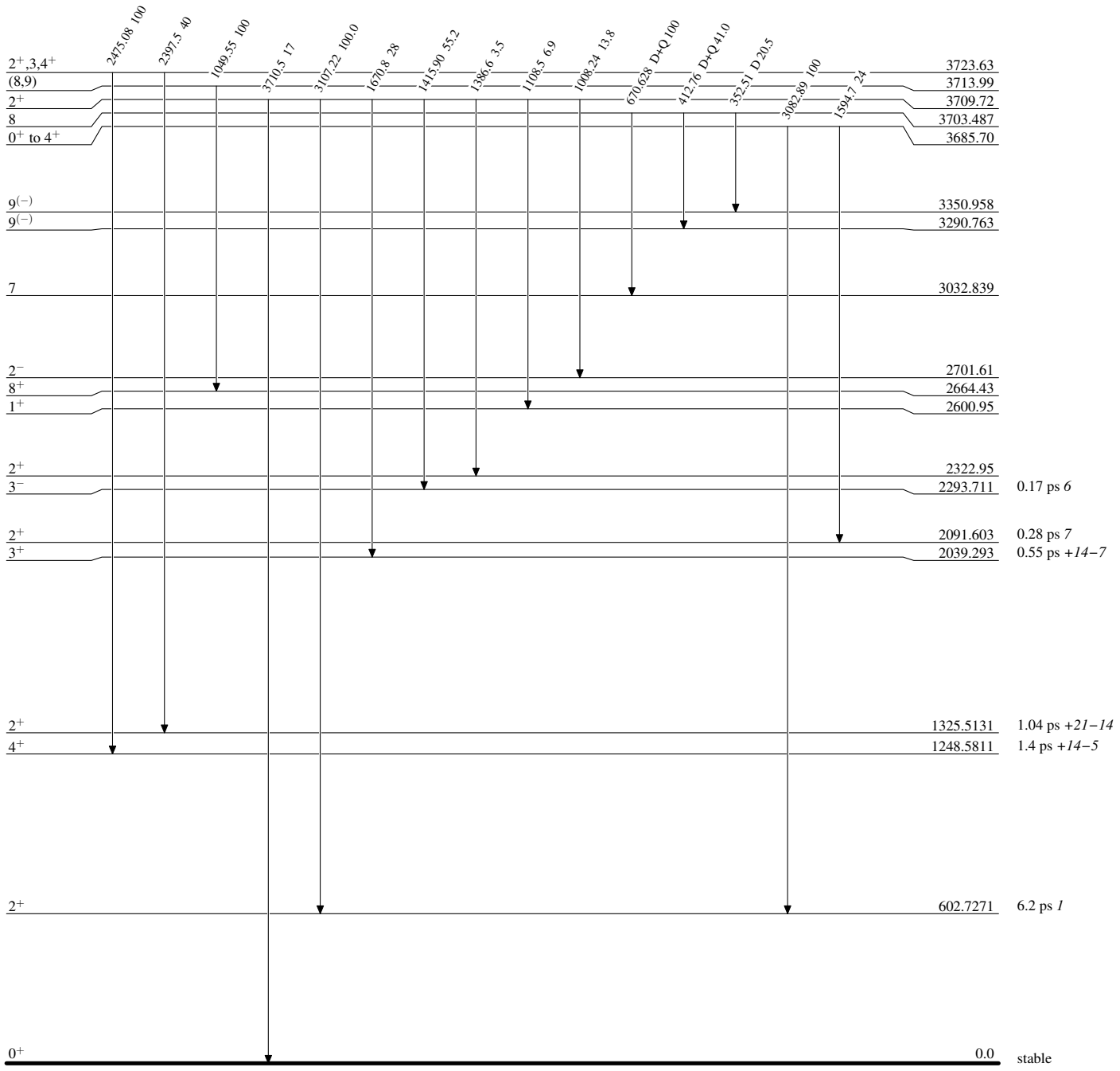


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

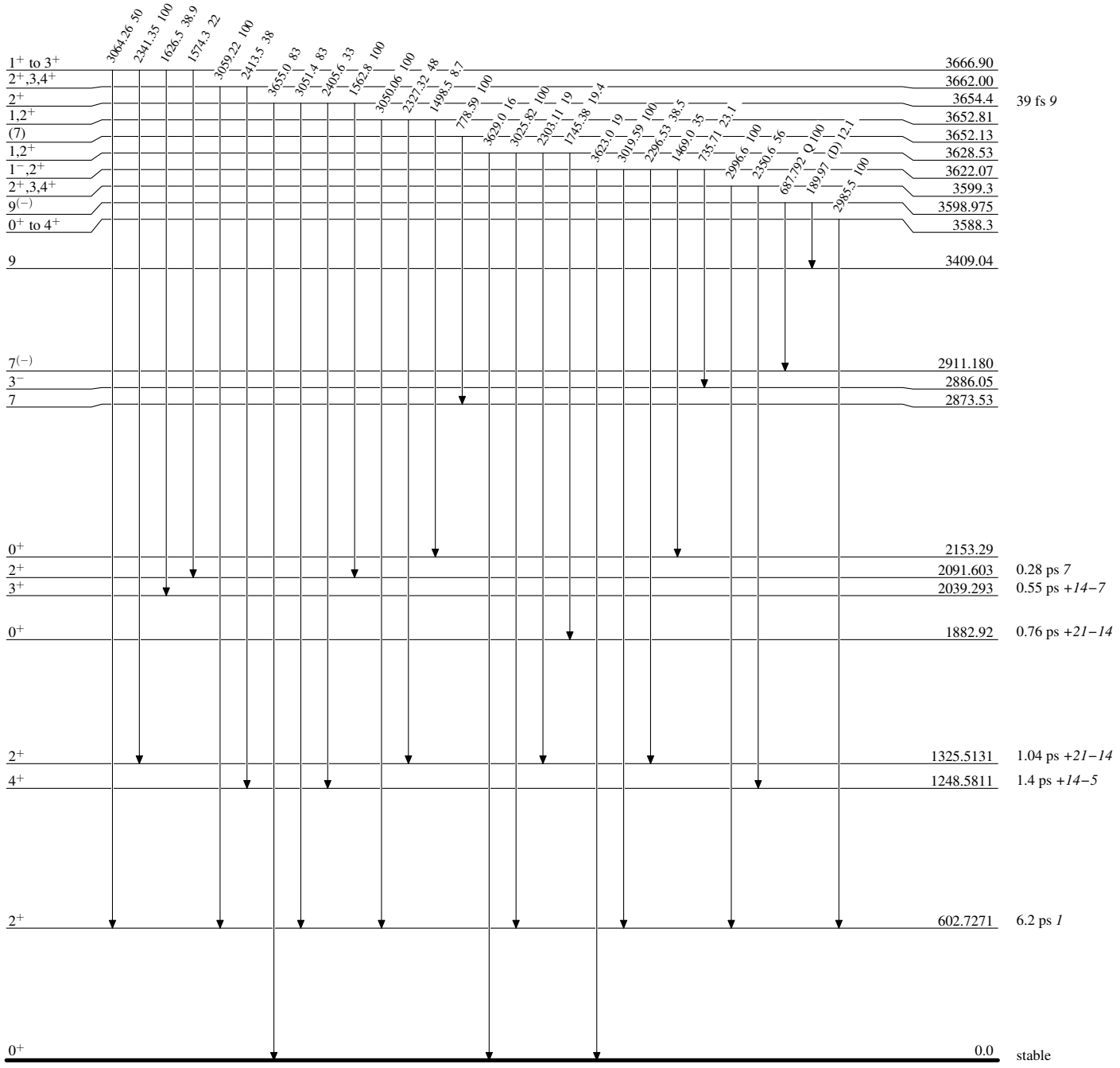


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

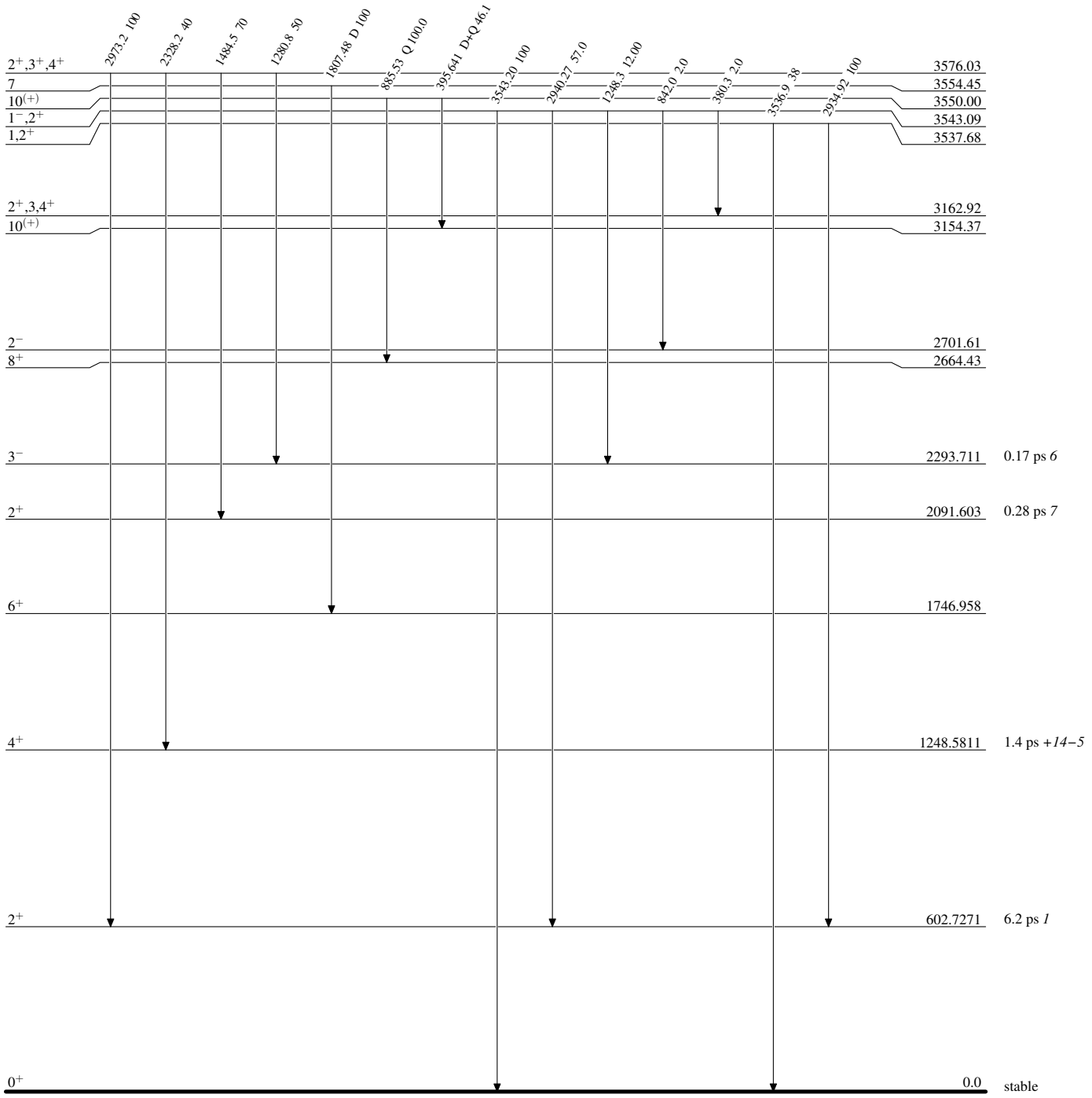


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

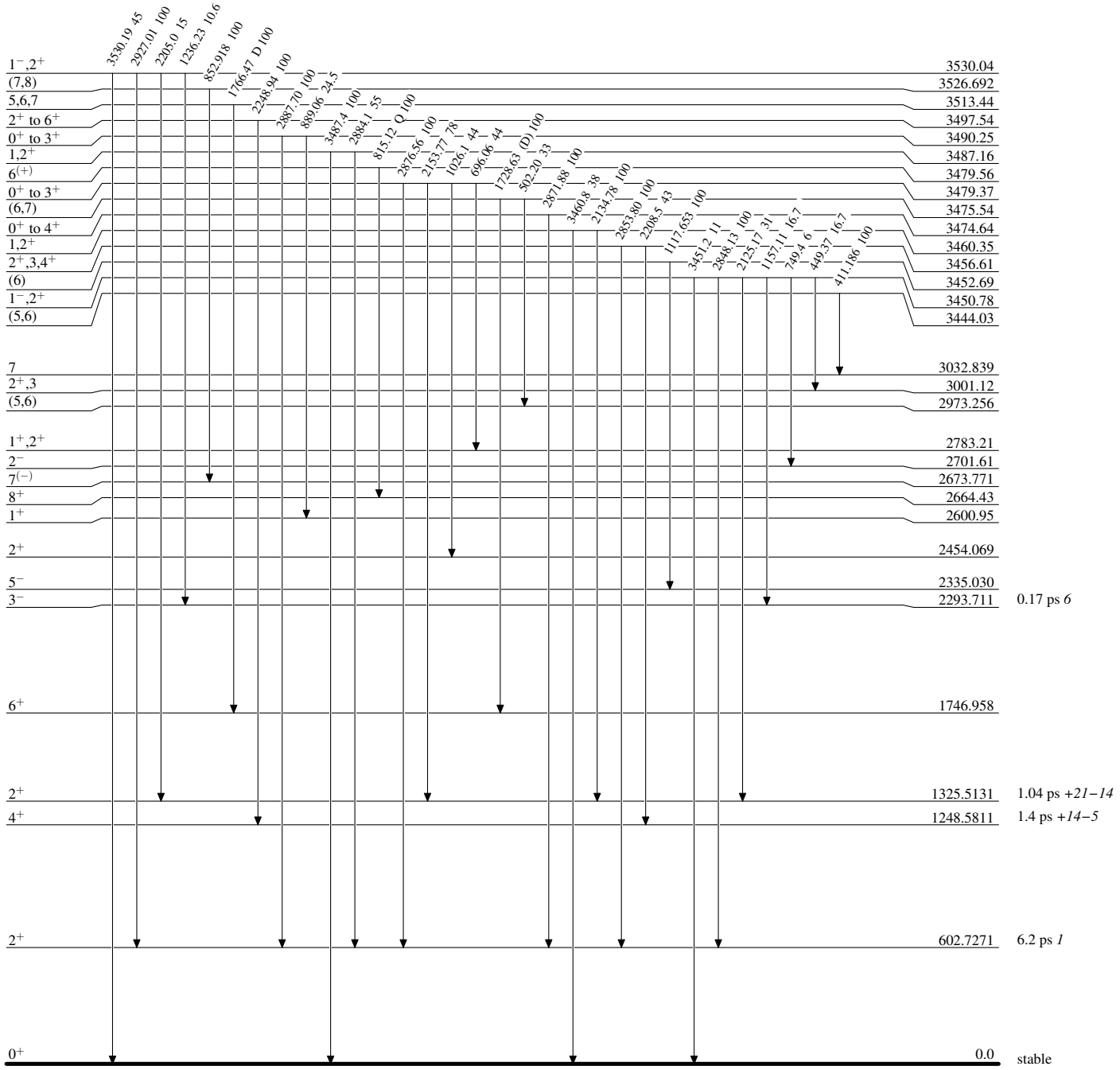


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

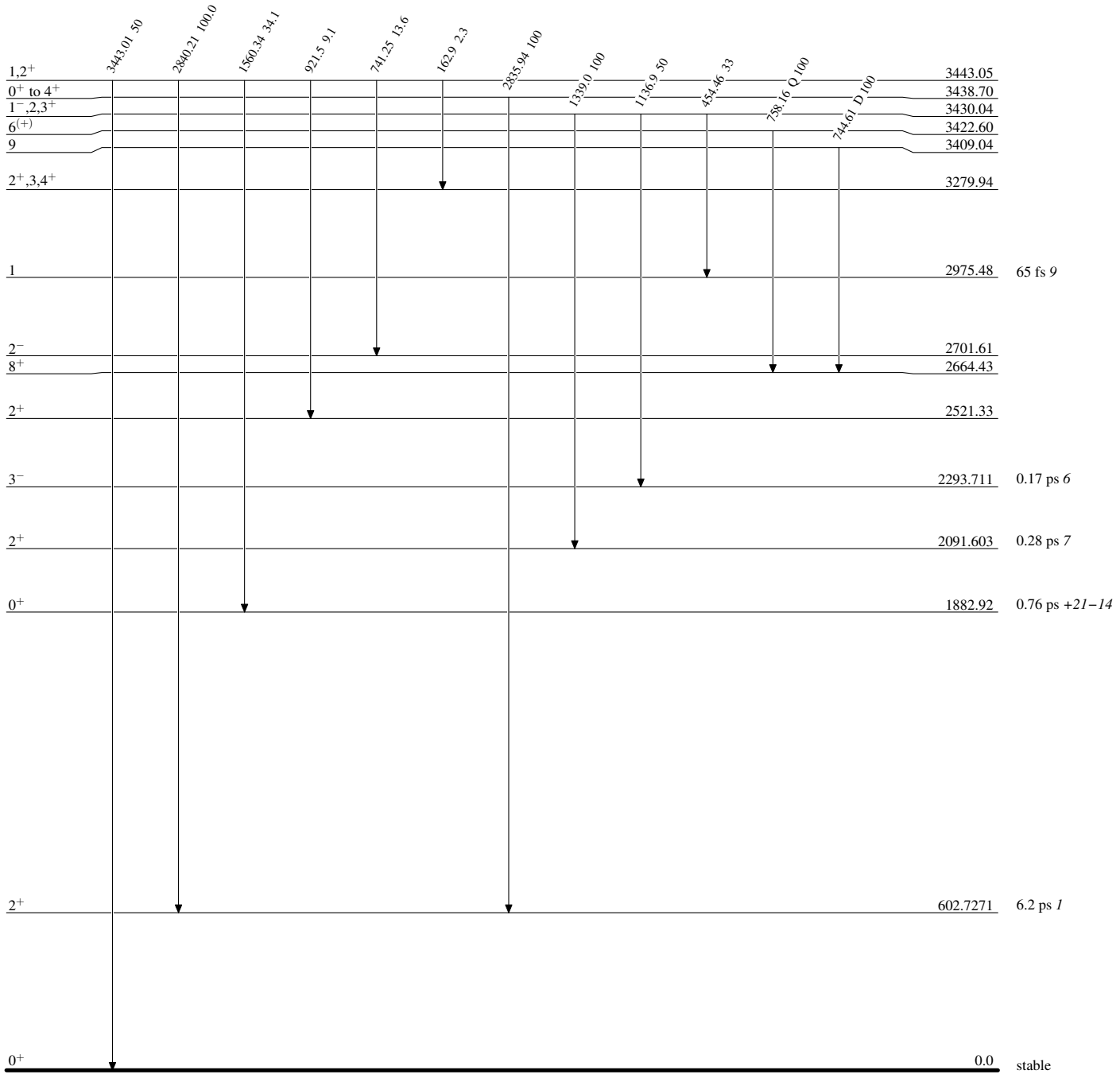


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

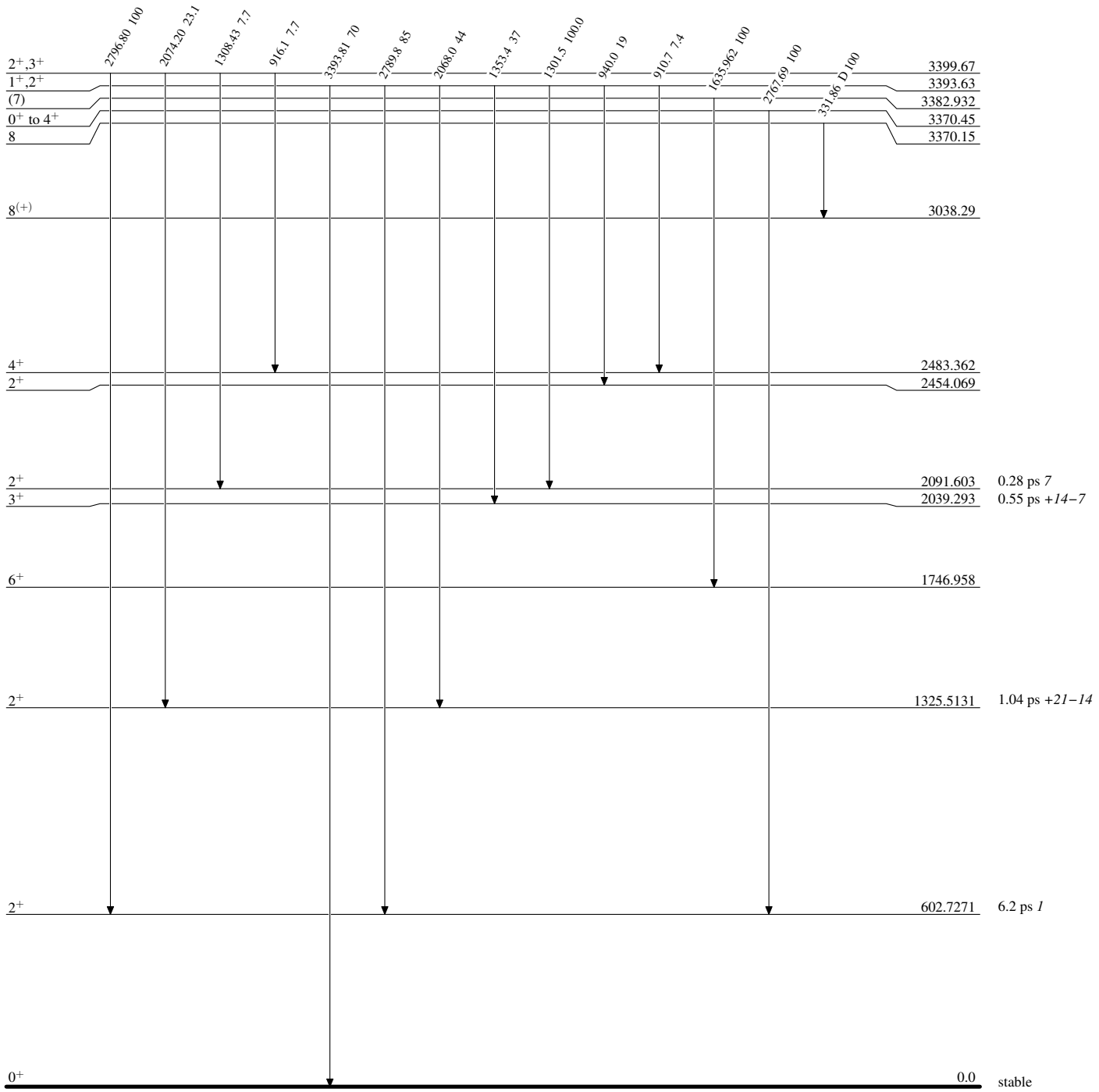


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

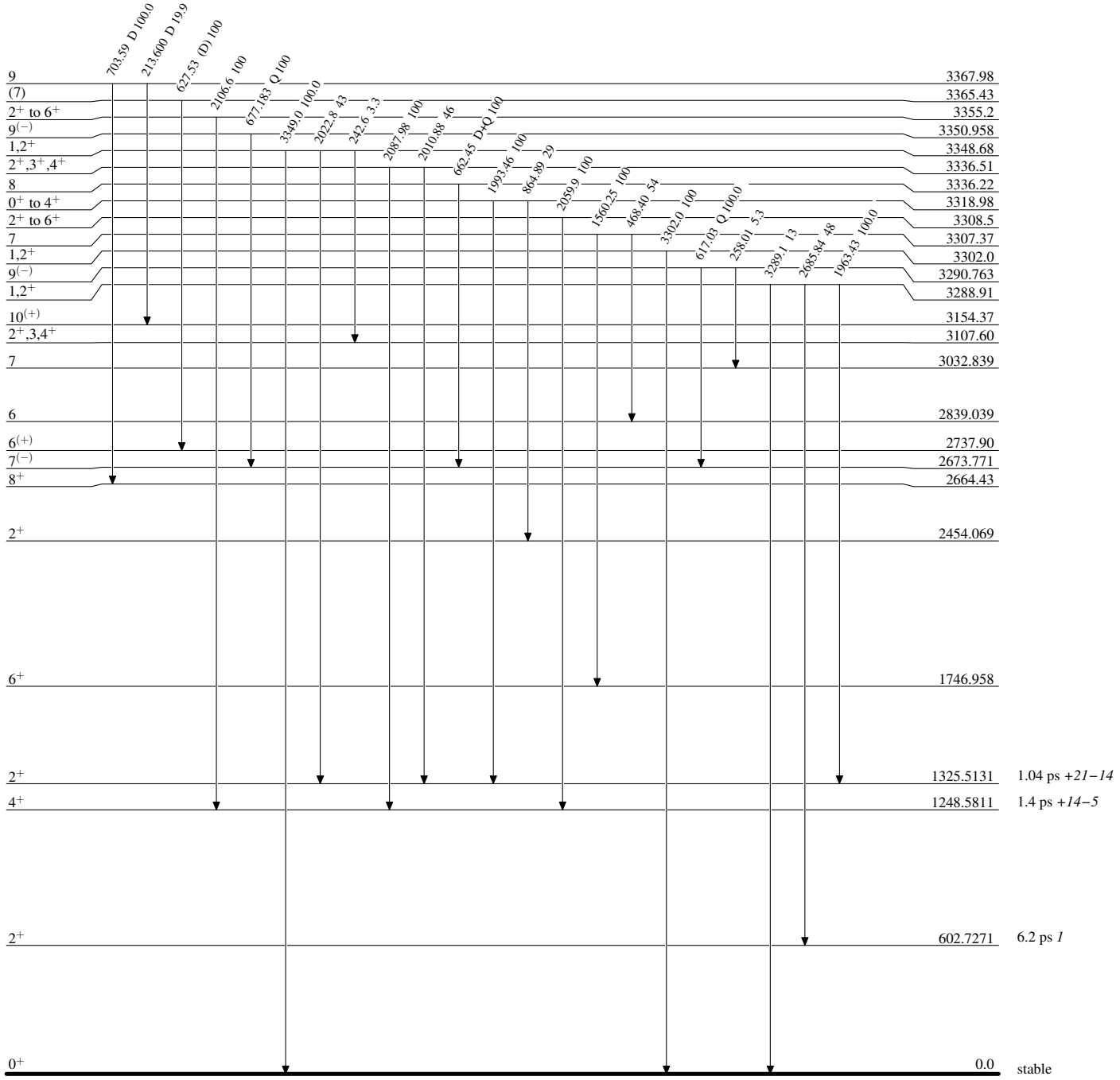


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

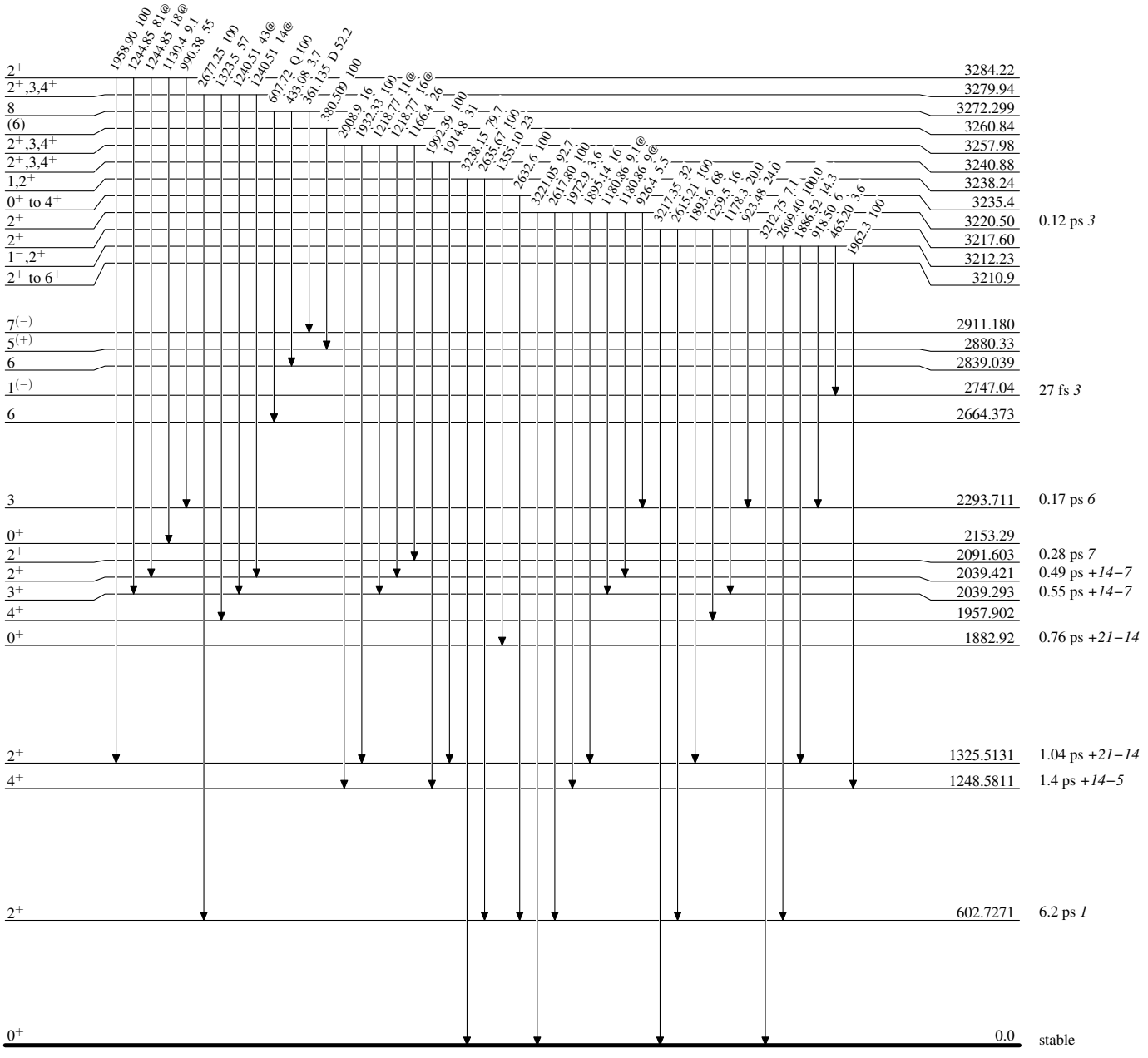


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

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

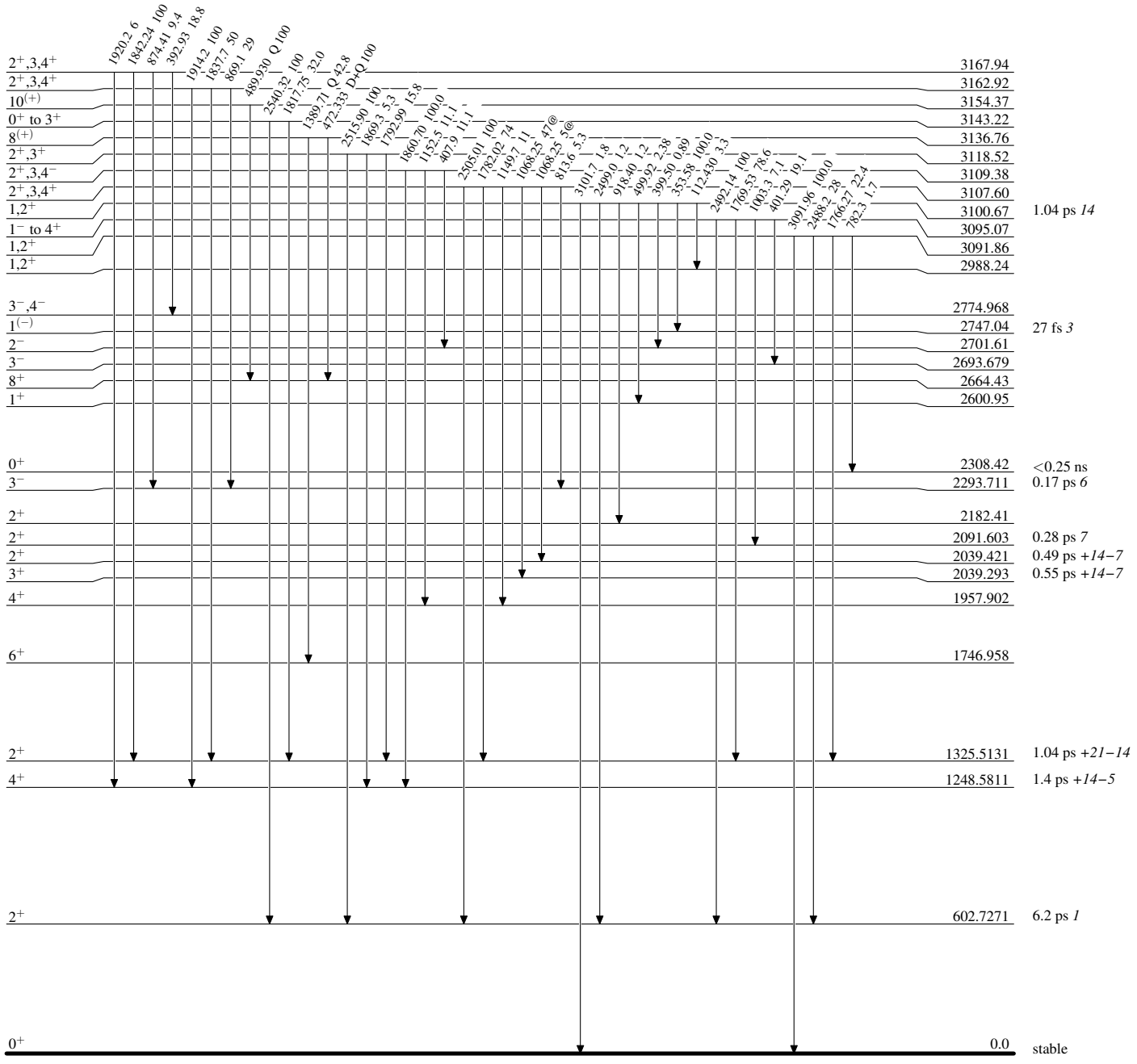


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

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

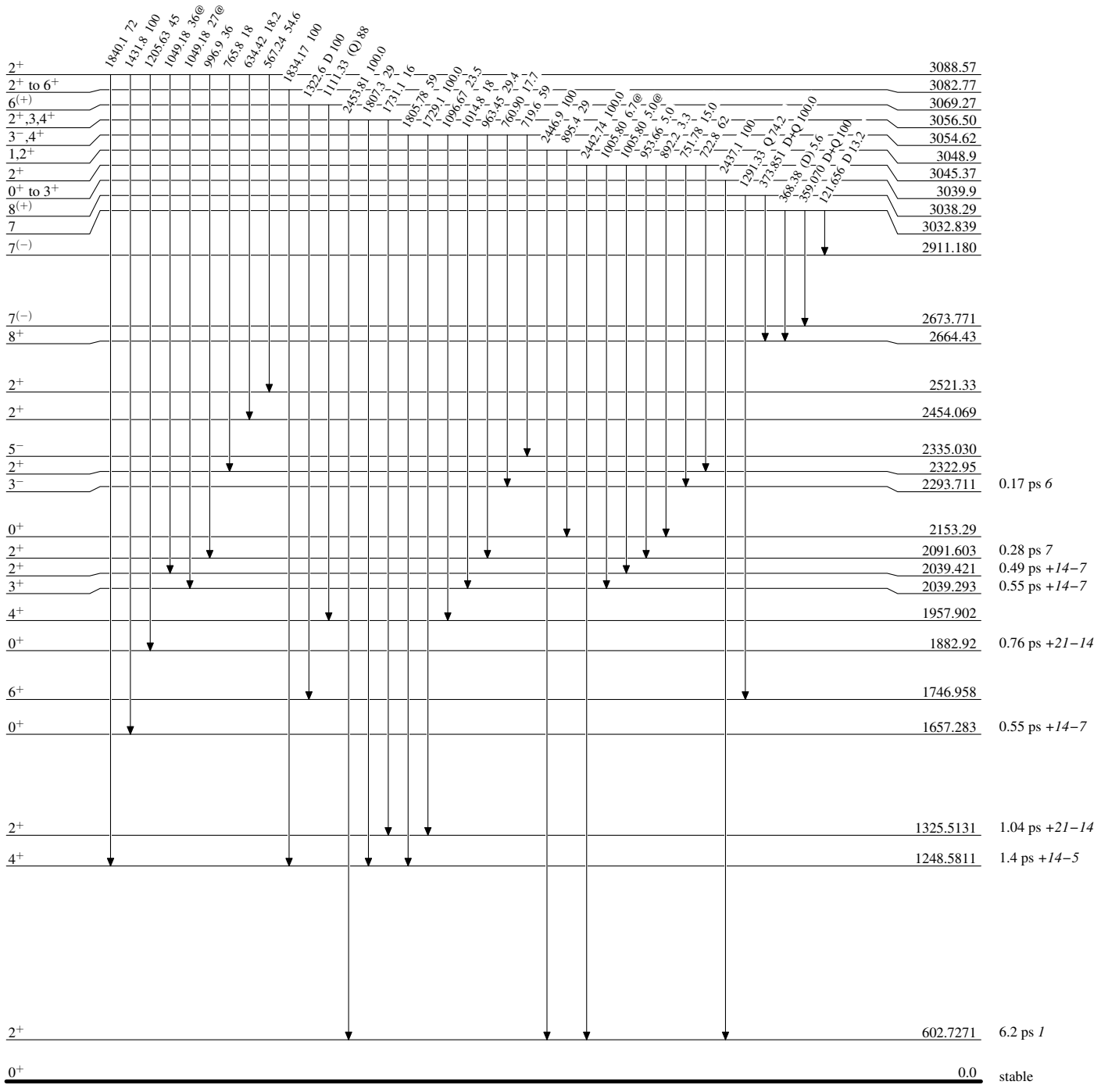


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

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

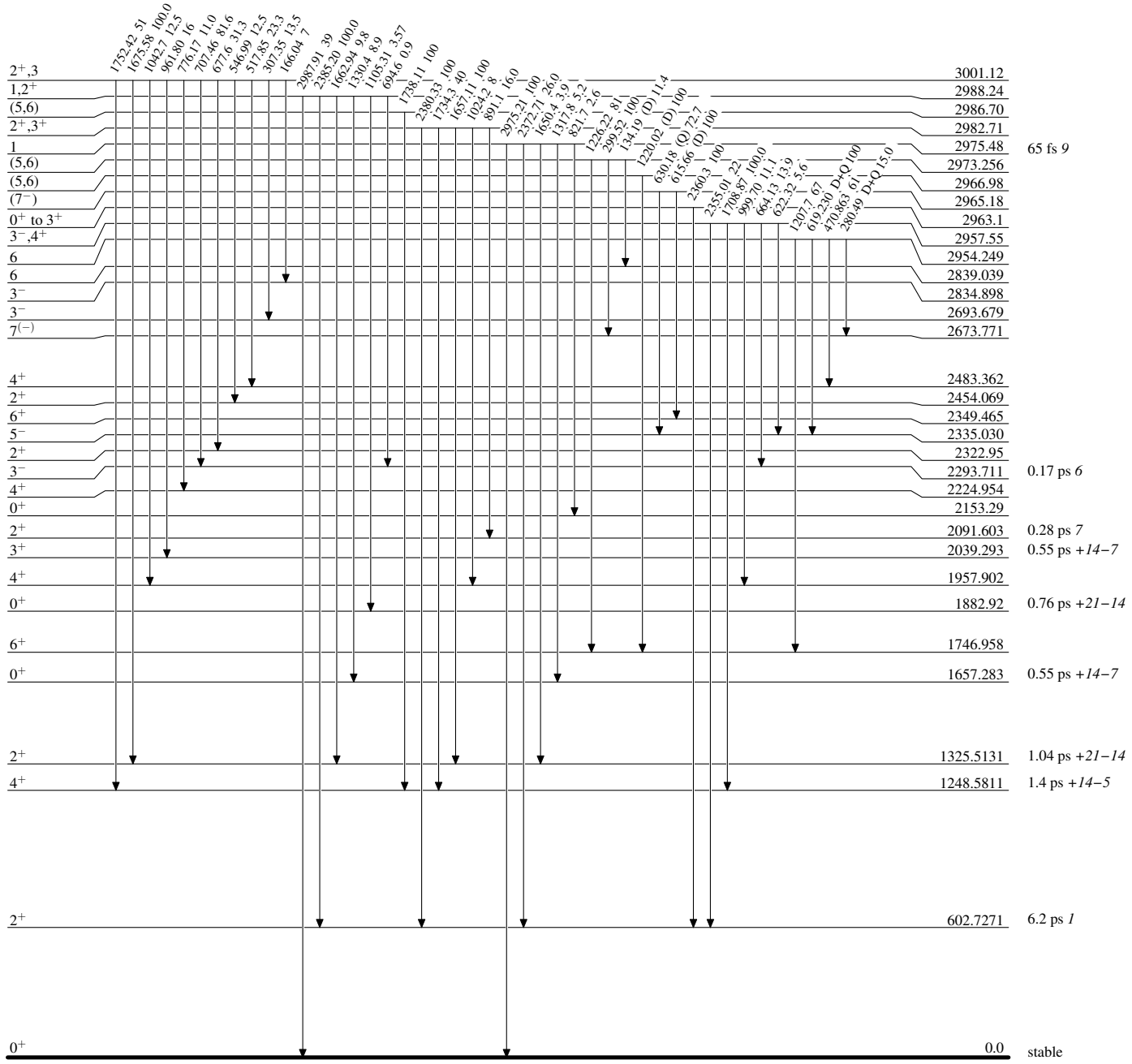


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

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

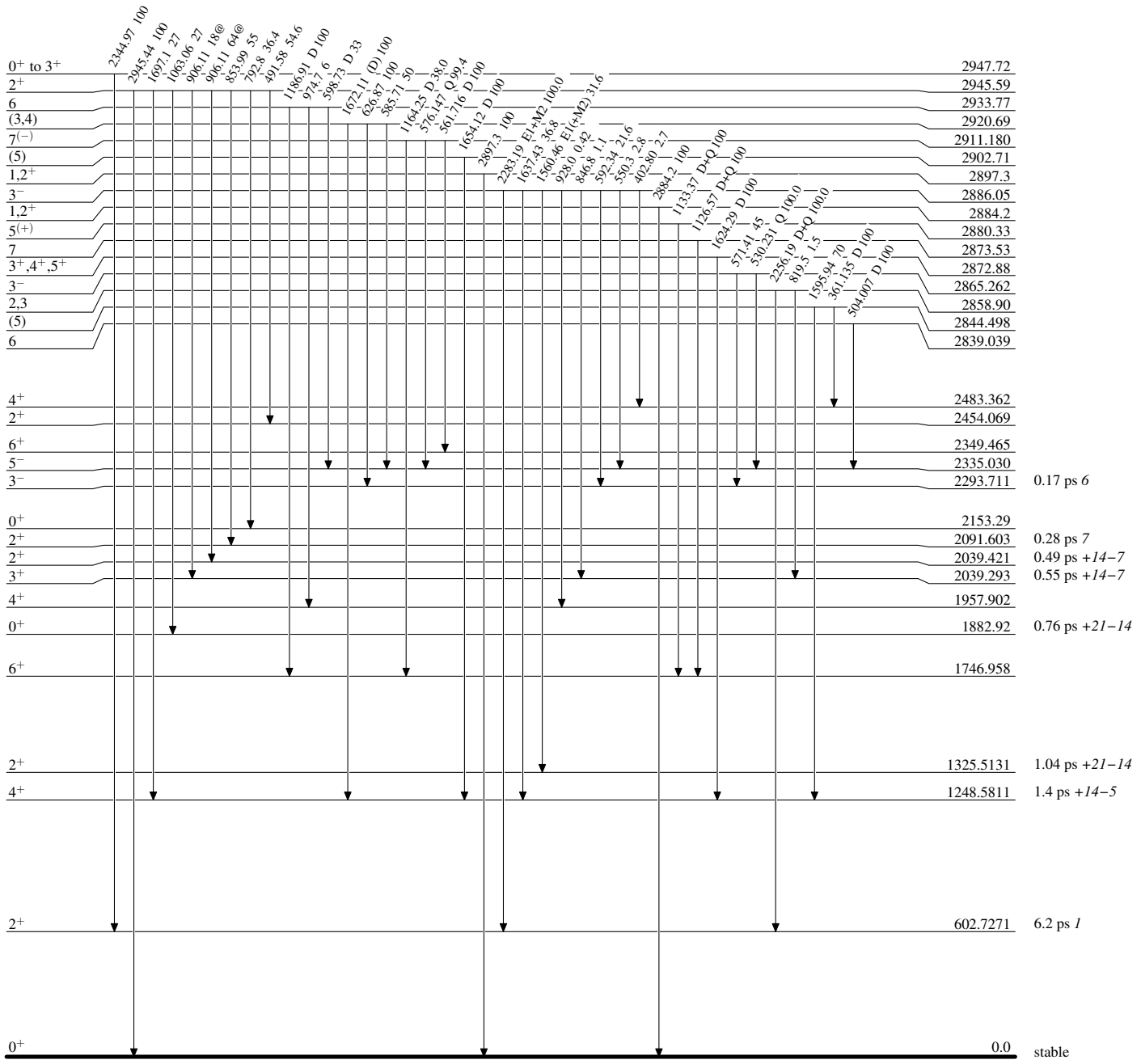


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

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



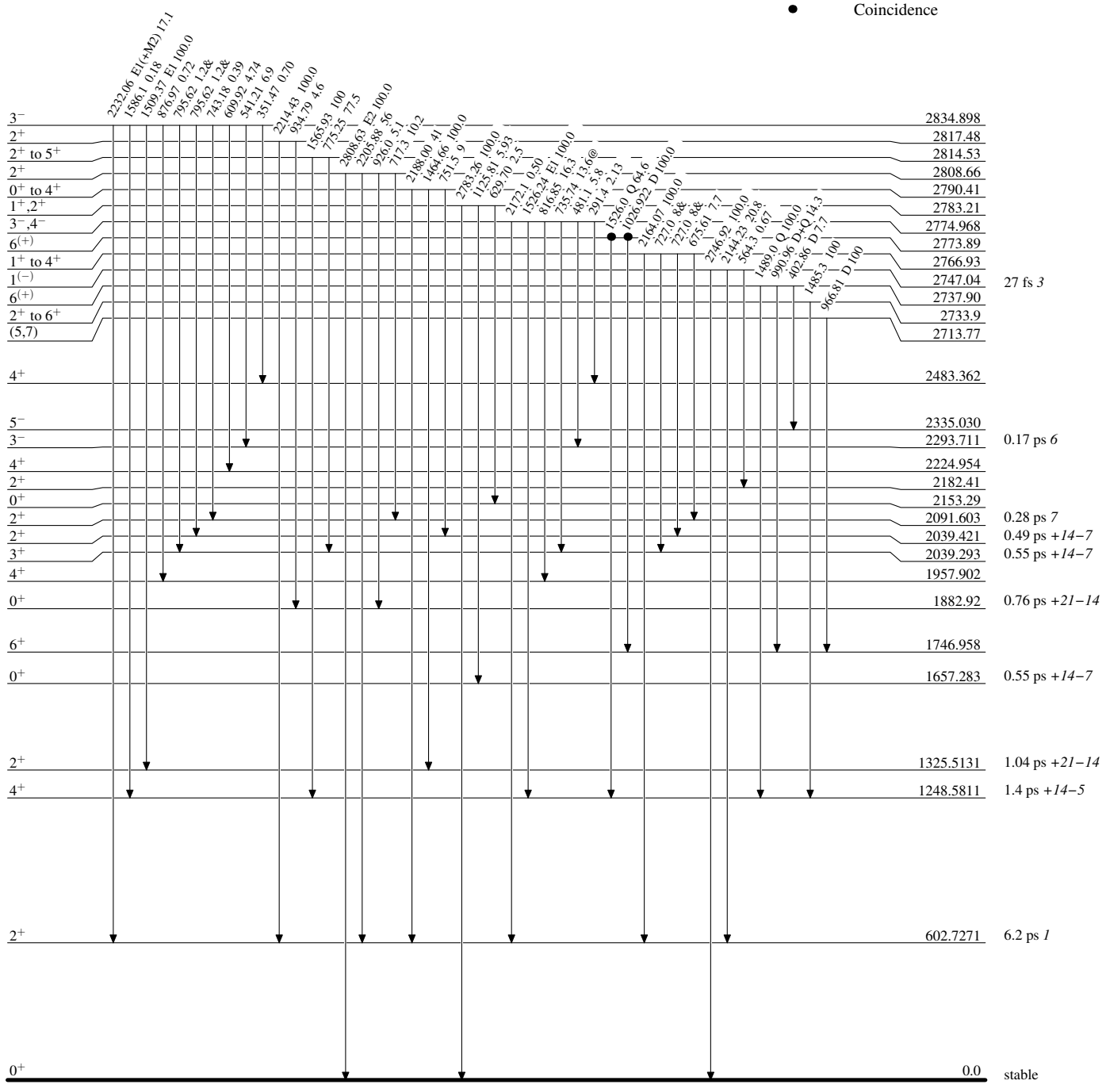
$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

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

Legend
● Coincidence



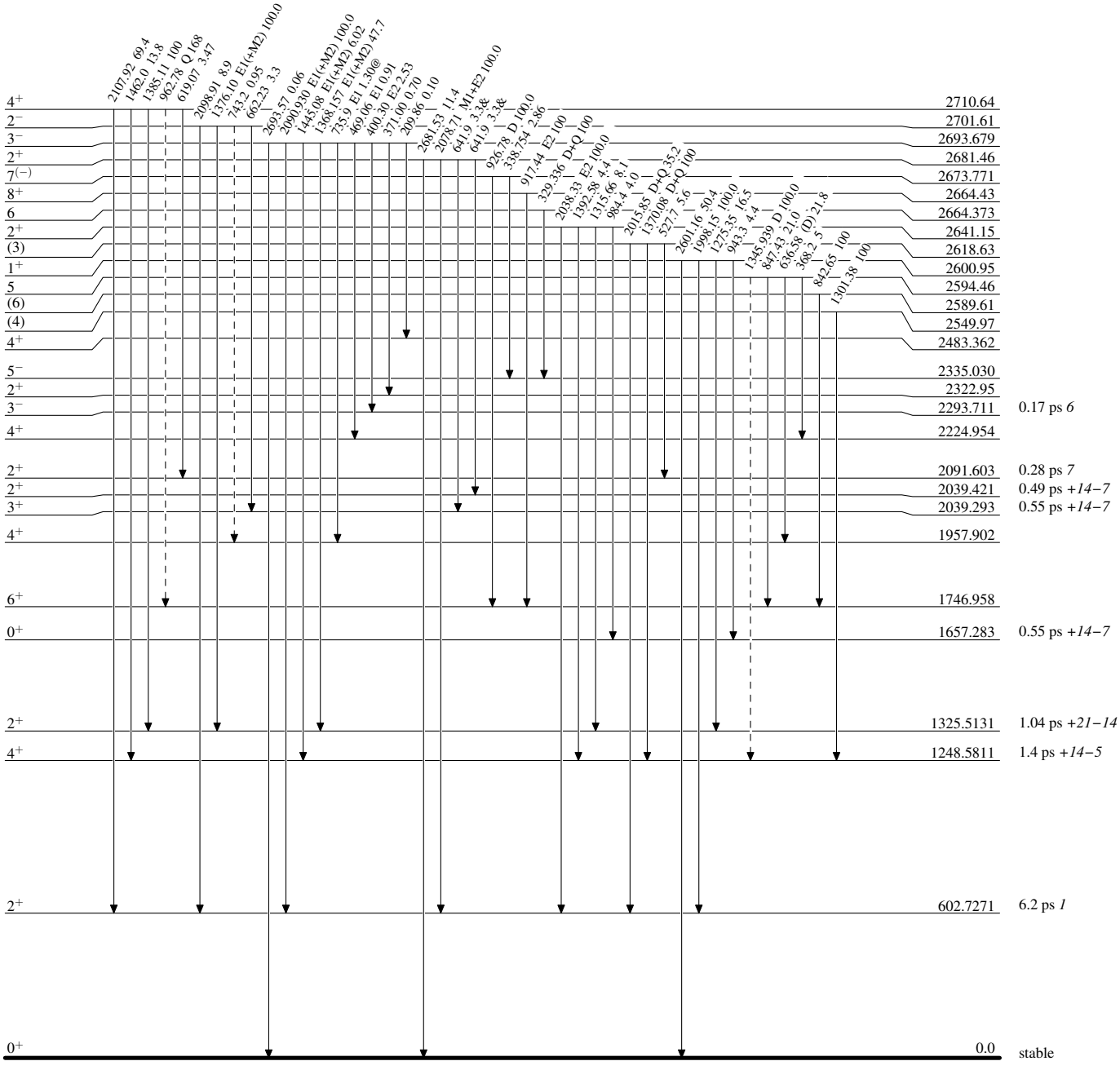
$^{124}_{52}Te_{72}$

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)

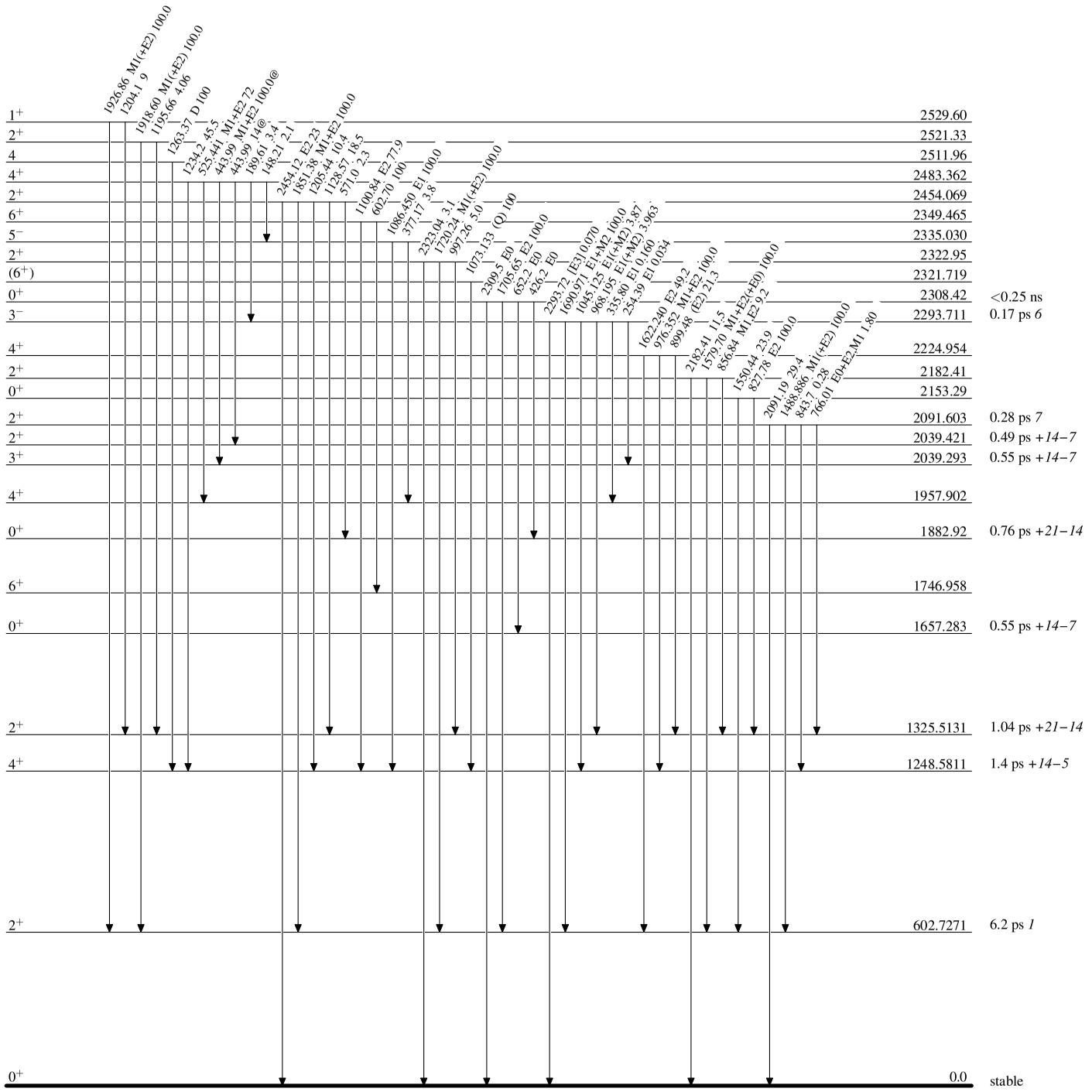


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

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

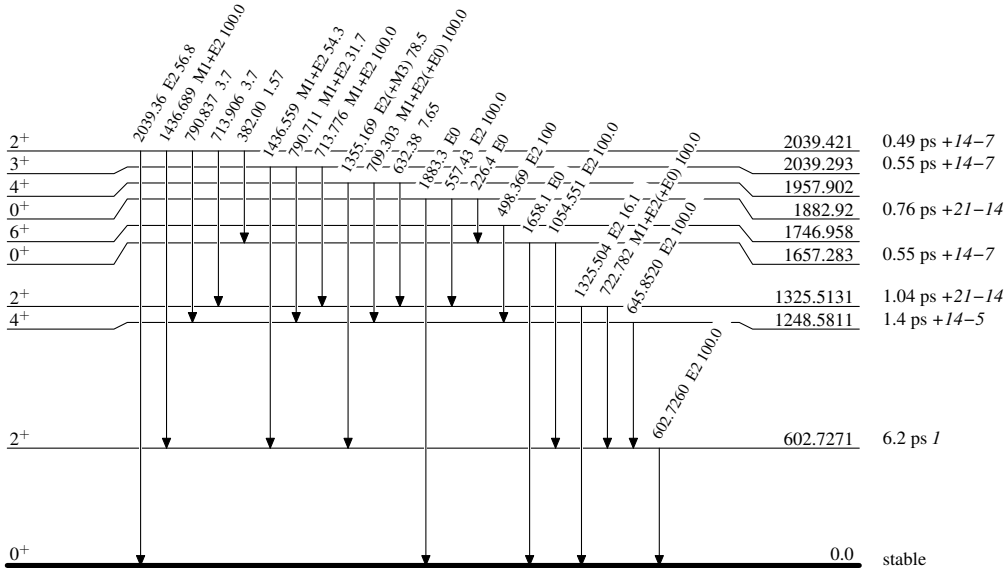


$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

Level Scheme (continued)

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



$^{124}_{52}Te_{72}$

Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	H. Iimura, J. Katakura, S. Ohya	NDS 180, 1 (2022)	1-Oct-2021

Q(β^-)=−2154 *4*; S(n)=9113.69 *8*; S(p)=9098.0 *21*; Q(α)=−2549.1 *24* 2021Wa16
See 1989Sh02 for μ mesic atom, isotope shift.
1993Wy03 reports antiprotonic atom.

^{126}Te Levels

Cross Reference (XREF) Flags

A	^{126}I ε decay	H	^{130}Te(^{64}Ni,Xγ)	O	^{127}I(d,^{3}He)
B	^{126}Sb β^- decay (12.35 d)	I	^{127}I(μ^-,νnγ)	P	^{128}Te(p,t)
C	^{126}Sb β^- decay (19.15 min)	J	^{124}Sn(^{3}He,n)	Q	^{232}Th(^{37}Cl,Xγ)
D	Coulomb excitation	K	^{125}Te(d,p)	R	^{238}U(^{12}C,Fγ)
E	^{124}Sn(α,2nγ)	L	^{126}Te(γ,γ')	S	^{124}Sn(^{7}Li,p4nγ)
F	^{125}Te(n,γ) E=th	M	^{126}Te(d,d′)		
G	^{126}Te(n,n′γ)	N	^{126}Te(p,p′)		

E(level)[†]	J$^\pi$	T$_{1/2}$[‡]	XREF	Comments
0.0[#]	0$^+$	stable	ABCDEFGHIJKLMNOPQRS	
666.338[#] *9*	2$^+$	4.56 ps *8*	ABCDEFGHI KLMNOPQRS	μ=+0.67 *3*; Q=−0.23 *5* μ: weighted av. of +0.68 *3* (2007St24, 2020StZV), +0.62 *8* (1988Du10), +0.68 *6* (1985ThZX).(transient field technique). Others: +0.64 *2* (2017St11) using recoil-in-vacuum method and calibration data for Te isotopes (excluding the uncertainty in the parametrization), +0.66 *2* (2017St11) using calibration data without ^{125}Te 3/2$^+$ state, +0.38 *6* (1981Sh15). Q from 2016St14, 2021StZZ. J$^\pi$: E2 γ to 0$^+$. T$_{1/2}$: from B(E2)↑=0.471 *6* in Coulomb excitation.
1361.363[#] *13*	4$^+$	2.8 ps *+21−9*	ABCDEFGHI K MNOPQRS	J$^\pi$: stretched E2 γ to 2$^+$. T$_{1/2}$: from B(E2)(2$^+$ to 4$^+$)=0.23 *10* in Coulomb excitation.
1420.186 *11*	2$^+$	1.23 ps *12*	A DEFGHI KLMNOP S	T$_{1/2}$: from (n,n′γ). Other:0.78 ps *+25−15* from B(E2)=0.0042 *10* in Coulomb excitation. J$^\pi$: E2 γ to 0$^+$.
1776.251[#] *22*	6$^+$	68 ps *2*	BC EFGHI MNOPQRS	T$_{1/2}$: from β^- decay (12.35 d). J$^\pi$: stretched E2 γ to 4$^+$ in (α,2nγ).
1873.391 *19*	0$^+$	0.67 ps *+8−6*	A FG IJK MNOP	XREF: J(1920). J$^\pi$: L(p,t)=0.
2013.124 *14*	4$^+$	0.395 ps *35*	FG I MNOP S	J$^\pi$: L(p,p′)=4.
2045.154 *14*	2$^+$	0.73 ps *5*	A FG I K MNOP	XREF: N(2054)P(2049). J$^\pi$: E2γ to 0$^+$.
2113.558 *21*	0$^+$	0.52 ps *+7−6*	FG I K M O	J$^\pi$: from angular distribution analysis of 1447.21 γ in (n,n′γ) (2004Va16).
2128.392 *16*	3$^+$	0.59 ps *+10−8*	FG I O	J$^\pi$: M1+E2 γ's to 2$^+$ and 4$^+$.
2181.492 *17*	1$^+$	0.263 ps *12*	FG I n p	XREF: n(2190)p(2183). J$^\pi$: M1 γ to 0$^+$.
2184.308 *19*	2$^+$	0.0658 ps *14*	FG I K MnOp	XREF: n(2190)p(2183). J$^\pi$: $\gamma(\theta)$ and linear pol. in (n,n′γ).
2218.085 *19*	5$^-$	>1.4 ps	B EFGHI K MN P RS	XREF: N(2227). J$^\pi$: L(p,t), (p,p′)=5 and E1 γ to 4$^+$.
2309.132 *21*	4$^+$	0.312 ps *21*	FG Ij MN P	XREF: j(2310)N(2320).

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Adopted Levels, Gammas (continued)

^{126}Te Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
				Jπ: E2 γ to 2+ and γ to 6+ Inconsistent with L(^{3}He,n)=2 for E=2310 *40*.
2350.8 *12*			j M	XREF: j(2310).
2385.810 *17*	3−	0.159 ps *5*	D FG I K MN p	XREF: p(2391). Jπ: L(p,t)=3. B(E3)=0.117 *20* in Coulomb excitation. B(E3) and $T_{1/2}$ imply a branching to gs of 0.075% *13*.
2385.976 *20*	4−		FG p	XREF: p(2391). Jπ: E1+(M2) γ to 3+ and M1+E2 γ to 5−.
2396.43 *4*	6+	0.09 ps *+12−4*	BC EFG I O S	Jπ: E2 γ to 4+ and M1(+E2) γ to 6+.
2421.132 *21*	2+	0.0284 ps *14*	FG I K MN P	Jπ: E2 γ to 0+. E(level): (p,t) reports 2430 and 2440 keV states, but the assignment of two states seems to be questionable.
2479.79 *3*	3+,4+	0.284 ps *+28−21*	FG I M	Jπ: E2 γ to 2+ and M1+E2 γ to 4+.
2496.89[@] *5*	7−	0.152 ns *5*	B EFGHI MN pQRS	XREF: N(2480)p(2500). $T_{1/2}$: from ^{126}Sb β− decay (12.35 d). Jπ: L(p,t)=7. γ(θ) in (α,2nγ).
2503.568 *25*	2+	0.208 ps *+21−14*	FG I K Mn p	XREF: n(2505)p(2510). Jπ: E2 γ to 0+.
2515.422 *24*	5−		B FG I K Mn p	XREF: n(2505)p(2510). Jπ: M1+E2 γ to 5−, E1 γ to 6+ and γ to 4+.
2519.28 *20*	4+,5+,6+		G n p	XREF: n(2505)p(2510). Jπ: E1 γ to 5−.
2533.80 *3*	4+	0.340 ps *14*	FG I M P	Jπ: E2 γ to 6+ and γ from 2+.
2577.784 *18*	3+	0.111 ps *7*	FG m Op	XREF: m(2578.0)p(2582). Jπ: M1(+E2) γ's to 2+ and 4+.
2578.5 *5*	0+,1+		K m p	XREF: m(2578.0)p(2582). Jπ: L(d,p)=0.
2585.487 *17*	2+,3+	0.62 ps *8*	FG I M p	XREF: p(2582). Jπ: M1+E2 γ to 2+ and γ to 4+.
2589.02 *13*	5−,6−		G K Op	XREF: p(2582). Jπ: M1+E2 γ's to 5− and E1 γ to 6+.
2639.84 *3*	+	0.152 ps *14*	FG K M P	Jπ: E2 γ's to 2+.
2661.39 *3*	3+,4+,5+	0.21 ps *+25−8*	G I	Jπ: M1+E2 γ's to 4+.
2678.847 *16*	2+	0.53 ps *+25−13*	FG M p	XREF: p(2680). Jπ: E2 γ to 0+.
2682.008 *22*	2+	0.085 ps *+5−4*	FG K Op	XREF: p(2680). Jπ: L(d,p)=2;γ's to 0+ and 4+.
2686.49 *4*	3+,4+,5+	0.174 ps *+28−18*	G p	XREF: p(2680). Jπ: M1+E2 γ to 4+.
2704.55 *7*	(5+,6+)		C G	Jπ: log *ft*=6.32 from (5+) ^{126}Sb; (D+Q) γ to 6+.
2731.12 *4*	(3)+	0.43 ps *+16−9*	FG K Mn	XREF: n(2742). Jπ: γ(θ) and linear pol. in (n,n′γ); negative parity is ruled out by δ(2064.77γ) and $T_{1/2}$, inconsistent with L(d,p)=(3+5).
2737.64 *15*	1+,2+,3+	0.277 ps *+26−18*	G n	XREF: n(2742). Jπ: M1+E2 γ to 2+.
2744.15 *3*	(4+)	0.202 ps *14*	FG K Mn P	XREF: n(2742). Jπ: L(p,p′)=(4), γ to 2+.
2766.11[#] *6*	8+		B EFGHI M pQRS	XREF: p(2770). Jπ: stretched E2 γ to 6+.
2776.23 *20*	4−,5−,6−		G p	XREF: p(2770). Jπ: M1+E2 γ to 5−.
2782.908 *21*	3−,4+	0.0499 ps *28*	FG K M O	Jπ: γ's to 2+ and 5−, inconsistent with L(d,p)=5.
2789.87 *10*		0.38 ps *+13−8*	G	
2801.10 *21*			G M p	XREF: p(2798).

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Adopted Levels, Gammas (continued)

^{126}Te Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
2802.53 *3*	2^+		F k p	XREF: k(2803.1)p(2798). Jπ: γ's to 0^+ and 4^+.
2803.02 *6*	$3^+,4^+$	0.108 ps *+10−7*	G I k p	XREF: k(2803.1)p(2798). Jπ: E2 γ to 2^+ and M1+E2 γ to 4^+.
2811.34 *21*	5,6,7	0.35 ps *+17−9*	G p	XREF: p(2820). Jπ: D(+Q) γ to 6^+.
2811.5 *3*	(7^-)		B p RS	XREF: p(2820). Jπ: log *ft*=8.37 from (8^-) ^{126}Sb; stretched E2 γ to 5^-.
2812.49 *14*	1		FG LM p	XREF: p(2820). Jπ: D to 0^+ from (γ,γ′).
2813.88 *4*	$2^+,3^+$	0.33 ps *+5−4*	FG K M p	XREF: p(2820). Jπ: M1+E2 γ to 2^+ and γ to 3^-.
2815.94 *8*	$4^-,5^-$		G p	XREF: p(2820). Jπ: M1+E2 γ to 5^- and γ to 3^-.
2833.71 *3*	$1^+,2^+,3^+$	0.136 ps *4*	FG K M p	XREF: p(2820). Jπ: M1+E2 γ to 2^+.
2837.57 *24*		0.004 ps *+4−3*	C G	
2839.7 *6*	$(6)^+$		B M p R	XREF: p(2850). Jπ: log *ft*=9.7 *4* from (8^-); γ's to 6^+ and 4^+.
2858.773 *25*	(3^-)	0.309 ps *35*	FG N p	XREF: p(2850). Jπ: L(p,p′)=(3), γ's to 2^+ and 4^+.
2862.648 *25*	$3^+,4^+$	0.13 ps *+4−3*	FG K M	Jπ: M1+E2 γ to 4^+ and E2 γ to 2^+.
2868.42 *20*	$3^+,4^+,5^+$	0.34 ps *+28−11*	G	Jπ: M1(+E2) γ to 4^+.
2874.23 *20*			G	
2877.25 *3*	2^+	0.160 ps *8*	FG M P	Jπ: E2 γ to 0^+.
2897.92 *5*	1^+	0.152 ps *7*	FG KL p	XREF: p(2910). Jπ: M1 γ to 0^+.
2911.9 *4*		0.122 ps *+28−21*	FG M p	XREF: p(2910).
2927.36 *16*		0.7 ps *+15−3*	G	
2929.5 *8*			M	
2935.84 *3*	2^+	0.259 ps *12*	FG P	Jπ: γ's to 0^+, γ from $3^-,4^+$.
2955.5 *10*			Mn p	XREF: n(2975)p(2960).
2966.78 *10*	$4^+,5,6^+$	0.29 ps *+20−9*	G n p	XREF: n(2975)p(2960). Jπ: γ's to 4^+ and 6^+.
2971.817 *25*	$2^+,3,4^+$	0.193 ps *+33−27*	FG n p	XREF: n(2975)p(2970). Jπ: γ's to 2^+ and 4^+.
2974.47 *3*	1	0.270 ps *+28−21*	FG KLMnOp	XREF: n(2975)p(2970). Jπ: D γ to 0^+.
2975.02[a] *15*	10^+	10.7 ns *9*	B EF H RS	μ=−1.52 *9* (2020StZV) $T_{1/2}$: weighted av of 13.5 ns *10* (1971Ke20), 10.6 ns *10* (1983Go02) and 10.0 ns *5* (1998Zh09); other 13 ns *6* (1970Wa13). All data are from γ(t). Jπ: γ(θ) in (α,2nγ) and E2 γ to 8^+.
2977.8 *6*			Mn p	XREF: n(2975)p(2970). E(level): from (d,d′).
2989.5 *3*	(8^+)		B S	Jπ: stretched (E2) γ to 6^+ in (^{7}Li,p4nγ).
2993.54 *14*	4^+	0.172 ps *+20−15*	G	Jπ: E2 γ's to 4^+ and E1 γ to 5^-.
2995.9 *4*			K M	E(level): from (d,d′).
2996.89 *17*	$3^+,4^+$	0.37 ps *+16−9*	G	Jπ: E2 γ to 2^+ and M1(+E2) γ to 4^+.
2999.4 *5*			M p	XREF: p(3004).
3008.26 *3*	$2^+,3^+$	0.0201 ps *14*	FG NOp	XREF: p(3004). Jπ: M1+E2 γ to 2^+ and γ to 4^+.
3013.79 *21*		0.22 ps *+14−7*	G p	XREF: p(3020).
3015.42 *3*	$1^-,2^+$	0.091 ps *+9−8*	FG L p	XREF: p(3020). Jπ: γ's to 0^+ and 3^-.
3018.47 *3*	$1^+,2^+$		F p	XREF: p(3020).

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Adopted Levels, Gammas (continued)

^{126}Te Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[‡]	XREF	Comments
				Jπ: γ's to 0^+ and 3^+.
3026.4 *6*			K M p	XREF: p(3020).
3034.70 *16*	2^+	0.074 ps *6*	G p	XREF: p(3042). Jπ: E2 γ to 0^+.
3045.15 *4*	2^+	0.126 ps *8*	FG p	XREF: p(3042). Jπ: E2 γ to 0^+.
3049.7 *7*			M	
3066.297 *20*	1^-	0.4 ps *+14−2*	FG n	XREF: n(3070). Jπ: γ's to 0^+ and 3^-.
3069.8[&] *6*	(8^-)		S	Jπ: stretched D γ to 7^- and band structure in (^{7}Li,p4nγ).
3071.19 *21*	5^-,6,7^-		B Mn	XREF: n(3070). Jπ: γ to 7^-, γ to 5^-.
3072.86 *11*	3^+,4^+,5^+		G n	XREF: n(3070). Jπ: M1+E2 γ to 4^+ and E1 γ to 4^-.
3075.5 *7*			Mn	XREF: n(3070).
3096.79 *20*		>0.52 ps	G	
3101.14 *10*			K M P	XREF: P(3090). E(level): from (d,d′).
3114.0 *3*			M	
3126.9 *3*			M	
3131.1 *12*	2^-,3^-,4^-		K p	XREF: p(3140). Jπ: L(d,p)=3.
3132.12 *3*			F p	XREF: p(3140).
3132.37 *17*	1^+		G p	XREF: p(3140). Jπ: M1 γ to 0^+.
3141.8 *5*			M p	XREF: p(3140).
3143.652 *22*	2^+	0.134 ps *+27−21*	FG p	XREF: p(3140). Jπ: γ's to 0^+ and 4^+, M1+E2 γ to 2^+.
3149.2 *4*			M P	XREF: P(3150).
3159.71 *23*			M	
3167.37 *9*	3^+	0.182 ps *+24−19*	G	Jπ: M1+E2 γ's to 2^+ and 4^+.
3171.7 *3*			B M	
3193.88[@] *20*	9^-		B E H K p RS	XREF: p(3200). Jπ: stretched E2 γ to 7^- and band structure based on 7^- in (^{7}Li,p4nγ).
3195.2 *3*	1,2,3		G p	XREF: p(3200). Jπ: D+Q γ to 2^+.
3196.6 *8*			R	
3202.283 *22*	2^+	0.076 ps *+13−11*	FG M p	XREF: p(3200). Jπ: M1+E2 γ to 2^+, γ's to 0^+ and 3^-.
3225.1 *4*			M p	XREF: p(3230).
3231.36 *23*			M p	XREF: p(3230).
3243.6 *4*			M p	XREF: p(3250).
3249.391 *20*	1,2^+		F p	XREF: p(3250). Jπ: γ's to 0^+ and 2^+.
3256.9 *12*			M p	XREF: p(3250).
3262.335 *22*	1,2^+		F	Jπ: γ's to 0^+ and 2^+.
3269.4 *10*			K M P	E(level): weighted av from (d,d′) and (d,p).
3301.1 *19*			K	
3308.867 *20*	2^+		F	Jπ: γ's to 0^+ and 4^+.
3330			P	
3349.15 *3*	1,2^+		F P	Jπ: γ's to 0^+.
3371.7 *21*			K	
3389.8 *18*	(1^+,2^+,3^+)		K	Jπ: L(d,p)=(2).
3450.5 *4*	6^+,7^-		B K	XREF: K(3447.6).

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Adopted Levels, Gammas (continued)

^{126}Te Levels (continued)

E(level)†	Jπ	XREF	Comments
			Jπ: γ's to 5⁻,7⁻ and 8⁺.
3473.7 *7*		B	
3576.29 *3*	1,2⁺	F	Jπ: γ's to 0⁺.
3602.37 *3*	1,2⁺	F	Jπ: γ's to 0⁺.
3688		K	
3688.52[a] *18*	12⁺	H RS	Jπ: stretched E2 γ to 10⁺ and band structure based on 10⁺ in (^{7}Li,p4nγ).
3709.7[&] *4*	(10⁻)	S	Jπ: stretched D γ to 9⁻ and stretched E2 γ to (8⁻) in (^{7}Li,p4nγ).
3759.78 *4*	(1,2)	F KL	XREF: K(3756). Jπ: (D,Q) γ to 0⁺.
3765.6[@] *3*	11⁻	H RS	Jπ: stretched E2 γ to 9⁻ and band structure based on 7⁻ in (^{7}Li,p4nγ).
3798.80 *7*	1,2⁺	F	Jπ: γ to 0⁺.
3807.261 *25*	2⁺	F	Jπ: γ's to 0⁺ and 4⁺.
3838.5 *6*	(11⁺)	S	Jπ: stretched D γ to 10⁺ in (^{7}Li,p4nγ).
3840		K	
3882.17 *4*	(1⁻,2⁺)	F L	Jπ: γ's to 0⁺ and (3⁻,4⁺).
3922.54 *3*		F	
3927.08 *3*	(2⁺)	F	Jπ: γ's to 0⁺ and (4)⁺.
3952.55 *4*	1,2⁺	F	Jπ: γ's to 0⁺ and 2⁺.
3969	2⁻,3⁻,4⁻	K	Jπ: L(d,p)=3.
3973.089 *22*	1,2⁺	F	Jπ: γ's to 0⁺ and 2⁺.
4023.84 *4*	1,2⁺	F	Jπ: γ's to 0⁺ and 2⁺.
4037		K	
4074		K	
4140.0 *6*		RS	
4156.42 *4*		F	
4172.336 *23*	1⁺,2⁺	F	Jπ: γ's to 0⁺ and 3⁺.
4178.0 *5*	(12⁻)	RS	Jπ: stretched D γ to 11⁻ in (^{7}Li,p4nγ).
4275		K	
4324.84 *3*	2⁺	F	Jπ: γ's to 0⁺ and 4⁺.
4336		K	
4374		K	
4414	(1⁺,2⁺,3⁺)	K	Jπ: L(d,p)=(2).
4433.5[&] *7*	(12⁻)	S	Jπ: stretched (E2) γ to (10⁻) and band structure on (8⁻) in (^{7}Li,p4nγ).
4448.39 *4*		F	
4452.4 *5*		RS	XREF: R(4450.3)S(4451.6).
4459	(1⁺,2⁺,3⁺)	K	Jπ: L(d,p)=(2).
4504.83 *3*	2⁺	F	Jπ: γ's to 0⁺ and 4⁺.
4510.62 *5*	(0⁻,1⁻,2⁻)	F K	XREF: K(4501). Jπ: L(d,p)=(1).
4538.81[a] *20*	(14⁺)	H RS	Jπ: stretched E2 γ to 12⁺ and band structure based on 10⁺ in (^{7}Li,p4nγ).
4552	(1⁺,2⁺,3⁺)	K	Jπ: L(d,p)=(2).
4587	0⁻,1⁻,2⁻	K	Jπ: L(d,p)=1.
4587.9[@] *4*	(13⁻)	RS	Jπ: Dγ to (12⁻) and Q γ to 11⁻. Band structure based on 7⁻ in (^{7}Li,p4nγ).
4634.8 *4*	(14⁺)	RS	Jπ: stretched (E2) γ to 12⁺ in (^{7}Li,p4nγ).
4651.78 *4*	2⁺	F	Jπ: γ's to 0⁺ and 4⁺.
4671.34 *4*	(2⁺)	F K	XREF: K(4665). Jπ: γ's to 0⁺ and (4)⁺.
4700.40 *4*	1⁻	F K	XREF: K(4693). Jπ: L(d,p)=1, γ's to 0⁺ and 2⁺.
4726.6 *6*	(13⁻)	RS	Jπ: stretched D γ to (12⁻) in (^{7}Li,p4nγ).
4747.43 *4*		F	
4767.30 *3*	1⁺,2,3⁻	F K	XREF: K(4763). Jπ: γ's to 1⁻ and 3⁺.
4775.97 *4*	3⁻,4⁺	F	Jπ: γ's to 2⁺ and 5⁻.
4792	0⁻,1⁻,2⁻	K	Jπ: L(d,p)=1.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{126}Te Levels (continued)

E(level)[†]	Jπ	XREF	Comments
4879.88 *3*	2^+	F	Jπ: γ′s to 0^+ and 4^+.
4883.233 *23*	2^+	F K	XREF: K(4882). Jπ: γ′s to 0^+ and 4^+.
4918.79 *3*	$1,2^+$	F	Jπ: γ′s to 0^+ and 2^+.
4932	$(0^-,1^-,2^-)$	K	
4934.50 *10*	$1,2^+$	F	Jπ: γ′s to 0^+ and 2^+.
5063	$(0^-,1^-,2^-)$	K	Jπ: L(d,p)=(1).
5096.2[a] *5*	(15^+)	RS	Jπ: stretched D γ to 14^+ in (^{7}Li,p4nγ).
5114.5[@] *4*	(15^-)	R	Jπ: band structure based on 7^- in ^{238}U(^{12}C,Fγ).
5538.7[a] *7*	(16^+)	RS	Jπ: stretched D γ to (15^+), band structure based on 10^+ in (^{7}Li,p4nγ).
5696.0 *7*	(16^+)	R	Jπ: from ^{238}U(^{12}C,Fγ).
6060.3[@] *7*	(17^-)	R	Jπ: band structure based on 7^- in ^{238}U(^{12}C,Fγ).
7790.3 *7*		L	
7915.3 *10*	1^+	L	Jπ: from γ(θ) and γ(pol.) in (γ,γ′).

[†] A least-squares fit to the γ rays adopted, except where noted or where cross reference clearly indicates other source.
[‡] From (n,n′γ) except where noted.
[#] Band(A): Band of yrast structure.
[@] Band(B): Band based on 7^-.
[&] Band(b): Band based on (8^-).
[a] Band(C): Band based on 10^+ isomer.

Adopted Levels, Gammas (continued)

γ(^{126}Te)

E_i(level)	J_i^π	E_γ[†]	I_γ[†‡]	E_f	J_f^π	Mult.[c]	δ[c]	α[d]	Comments
666.338	2+	666.337 *12*	100	0.0	0+	E2		0.00378 *5*	B(E2)(W.u.)=25.1 *5* E_γ: weighted av. of values in (n,n′γ), (n,γ) and ε decay.
1361.363	4+	695.03 *2*	100	666.338	2+	E2		0.00340 *5*	B(E2)(W.u.)=33 *+11−25* E_γ: weighted av. of values in (n,n′γ), (n,γ) and ε decay. Mult.: from α(K)exp and γ(θ) in (α,2nγ).
1420.186	2+	753.822 *13*	100.0 *8*	666.338	2+	M1+E2	−4.25 *+15−10*	0.00282 *4*	B(M1)(W.u.)=0.00204 *25*; B(E2)(W.u.)=44 *5* E_γ,I_γ: weighted av. of Iγ′s in ε decay, (n,γ) and (n,n′γ) (1988Be51 and 2004Va16). δ: From γγ(θ) in ε decay (1971Ta04).
		1420.17 *2*	7.06 *23*	0.0	0+	E2			B(E2)(W.u.)=0.140 *15* E_γ,I_γ: weighted av. of Eγ′s in (n,n′γ), (n,γ) and ε decay.
1776.251	6+	414.82 *6*	100.0	1361.363	4+	E2		0.0140 *2*	B(E2)(W.u.)=17.8 *6* E_γ: weighted av. of Eγ′s in (n,n′γ), (n,γ) and β^- decay (12.35 d).
1873.391	0+	1207.03 *2*	100	666.338	2+	E2			B(E2)(W.u.)=8.8 *+8−11* E_γ: weighted av. of Eγ′s in (n,n′γ), (n,γ) and ε decay.
2013.124	4+	236.09[#] *17*	0.8[#] *3*	1776.251	6+				I_γ: From (n,γ).
		592.84[#] *5*	2.33[#] *24*	1420.186	2+				I_γ: From (n,γ).
		651.77 *2*	100 *8*	1361.363	4+	M1+E2	−0.22 *+3−2*	0.00491 *7*	B(M1)(W.u.)=0.131 *18*; B(E2)(W.u.)=10 *3* I_γ: from (n,γ).
		1346.79 *2*	42.6 *22*	666.338	2+	E2			B(E2)(W.u.)=2.5 *3* I_γ: from (n,γ). Large branching of 73 *3* and 74 *3* from (n,n′γ) suggests that not all of the intensity of this transition in (n,n′γ) belongs with the level.
2045.154	2+	624.93 *3*	15.0 *6*	1420.186	2+	M1(+E2)	−0.03 *6*	0.00548 *8*	B(M1)(W.u.)=(0.0115 *10*); B(E2)(W.u.)=(0.018 *+73−18*) I_γ: weighted av. of Iγ′s in (n,n′γ). Large branching of 22.4 *11* from (n,γ) suggests that not all of the intensity of this transition in (n,γ) belongs with the level.
		1378.76 *3*	45.9 *14*	666.338	2+	M1+(E2)			δ: +0.03 *+9−6]* (2004Va16). −0.03 *+9−6* (2008Hi17). −0.04 *3* (p=94%) or +2.84 *24* (p=6%) (1988Be51). 0.09 *14* or +1.8 *+7−4* (1980De07).
		2045.16 *2*	100 *2*	0.0	0+	E2			B(E2)(W.u.)=0.36 *3* E_γ: weighted av. of Eγ′s in (n,n′γ), (n,γ) and ε decay.
2113.558	0+	693.41[@] *20*	35[@] *3*	1420.186	2+	E2		0.00342 *5*	B(E2)(W.u.)=47 *+7−8*
		1447.20 *3*	100 *3*	666.338	2+	E2			B(E2)(W.u.)=3.4 *5* I_γ: From (n,n′γ).
2128.392	3+	708.18 *3*	100 *2*	1420.186	2+	M1+E2	−8.4 *+6−7*	0.00325 *5*	B(M1)(W.u.)=0.00087 *+18−20*; B(E2)(W.u.)=84 *+12−15*
		766.98 *3*	31 *3*	1361.363	4+	M1+E2		0.0030 *4*	δ: +2.7 *+25−6* or +0.47 *+24−10* (2004Va16), +19 *+10−5* (p=80%) or +0.196 *+23−12* (p=20%) (1988Be51), +0.14 *9* or >+20 (<−20) (1980De07).
		1462.03 *3*	37 *4*	666.338	2+	M1+E2	+1.94 *+15−14*		B(M1)(W.u.)=0.00055 *+12−13*; B(E2)(W.u.)=0.66 *+12−14*
2181.492	1+	761.31[#] *3*	9.0[#] *5*	1420.186	2+				

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Adopted Levels, Gammas (continued)

γ(^{126}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†‡]	E_f	J_f^π	Mult.[c]	δ[c]	α[d]	Comments
2181.492	1+	1515.14 *3*	100.0 *1*	666.338	2+	M1+E2	−0.78 *+36−43*		B(M1)(W.u.)=0.012 *5*; B(E2)(W.u.)=2.2 *13*
		2181.52 *5*	15.9 *11*	0.0	0+	M1			B(M1)(W.u.)=0.00103 *9*
2184.308	2+	764.05# *6*	1.62# *17*	1420.186	2+				
		1517.99 *2*	100 *4*	666.338	2+	M1(+E2)	+0.002 *+18−21*		B(M1)(W.u.)=(0.094 *6*); B(E2)(W.u.)=(0.00011 *+201−11*)
		2184.4 *3*	0.34 *13*	0.0	0+				
2218.085	5−	204.71 *7*	1.88 *13*	2013.124	4+	E1		0.0264 *4*	B(E1)(W.u.)<0.00041 I_γ: Weighted av. of Iγ's in (n,n′γ). Large branching of 21 *8* from (n,γ) suggests that not all of the intensity of this transition in (n,γ) belongs with the level.
		856.80 *2*	100 *3*	1361.363	4+	E1+M2	+0.029 *6*		B(E1)(W.u.)<0.00030; B(M2)(W.u.)<2.2 I_γ: weighted av. of Iγ's in (n,n′γ).
2309.132	4+	532.57e# *5*	≤14.5e#	1776.251	6+				
		889.01 *3*		1420.186	2+	E2		0.00188 *3*	B(E2)(W.u.)=12.4 *20* I_γ: 27.4 *10* (1988Be51), 17.9 *21* (2004Va16), 100 *5* (n,γ).
		947.78 *3*	100 *3*	1361.363	4+	M1+E2	+0.40 *+19−11*	0.00201 *6*	B(M1)(W.u.)=0.067 *12*; B(E2)(W.u.)=8 *7*
2385.810	3−	201.44# *7*	2.9# *11*	2184.308	2+				
		965.59 *3*	8.3 *7*	1420.186	2+	E1+(M2)	+0.01 *4*		B(E1)(W.u.)=0.000129 *12*; B(M2)(W.u.)=(0.06 *+51−6*)
		1024.43 *5*	9.3 *13*	1361.363	4+	E1			B(E1)(W.u.)=0.000122 *18*
		1719.50 *5*	100.0 *11*	666.338	2+	E1+M2	+0.036 *7*		B(E1)(W.u.)=0.000276 *11*; B(M2)(W.u.)=0.55 *22*
2385.976	4−	167.70 *3*	60 *2*	2218.085	5−	M1+E2	+0.35 *2*	0.173 *3*	I_γ: weighted av. of Iγ's in (n,γ) and in (n,n′γ) (1988Be51). other 69.2 *24* from (n,n′γ) (2004Va16) assuming Iγ = 100 for 257.55γ.
		257.55 *3*	50 *10*	2128.392	3+	E1+(M2)	−0.02 *2*	0.0143 *4*	I_γ: weighted av. of Iγ's in (n,γ) and in (n,n′γ) (1988Be51). other 100.0 *24* from (n,n′γ) (2004Va16).
		372.76 *3*	100 *3*	2013.124	4+	E1+(M2)	+0.02 *6*	0.0054 *5*	I_γ: weighted av. of Iγ's in (n,γ) and in (n,n′γ) (1988Be51). other 67.8 *24* from (n,n′γ) (2004Va16) assuming Iγ = 100 for 257.55γ.
2396.43	6+	620.16 *5*	80 *3*	1776.251	6+	M1(+E2)	−0.17 *+6−8*	0.00555 *8*	B(M1)(W.u.)=(0.44 *+20−44*); B(E2)(W.u.)=(23 *+24−23*) E_γ: weighted av. of values in (n,n′γ), β^- decay (12.35 d) and ε decay. I_γ: weighted av. of values in (n,n′γ), β^- decay (12.35 d), ε decay and (^{7}Li,p4nγ). Mult.: Q from (^{7}Li,p4nγ).
		1035.06 *5*	100 *3*	1361.363	4+	E2		1.34×10^{-3} *2*	B(E2)(W.u.)=8.E+1 *+4−8* E_γ: weighted av. of values in (n,n′γ), (n,γ), β^- decay (12.35 d) and ε decay.

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Adopted Levels, Gammas (continued)

γ(^{126}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†‡]	E_f	J_f^π	Mult.[c]	δ[c]	α[d]	Comments
									I_γ: weighted av. of values in (n,n′γ), β^- decay (12.35 d), ε decay and (^{7}Li,p4nγ).
2421.132	2^+	408.00[#] *3*	18.9[#] *10*	2013.124	4^+				
		1754.83 *5*	100.0 *13*	666.338	2^+	M1+E2	−0.32 *+10−5*		B(M1)(W.u.)=0.104 *9*; B(E2)(W.u.)=2.4 *14*
		2421.40 *6*	5.7 *4*	0.0	0^+	E2			B(E2)(W.u.)=0.29 *3*
2479.79	3^+,4^+	1118.33 *9*	100 *5*	1361.363	4^+	M1+E2	+0.12 *+10−7*	1.42×10^{-3} *2*	B(M1)(W.u.)=0.035 *+4−5*; B(E2)(W.u.)=0.3 *+5−3*
		1813.35 *6*	54.3 *17*	666.338	2^+	E2			B(E2)(W.u.)=0.95 *+9−11*
2496.89	7^-	278.2[&] *3*	4.4[&] *11*	2218.085	5^-	E2		0.0493 *7*	B(E2)(W.u.)=2.5 *7* Mult.: from γ(θ) in (α,2nγ) and RUL.
		720.64 *4*	100 *4*	1776.251	6^+	E1(+M2)	−0.01 *3*		B(E1)(W.u.)=(4.5×10^{-6} *3*); B(M2)(W.u.)=(0.004 *+24−4*) E_γ: weighted av. of Eγ′s in (n,n′γ), (n,γ) and β^- decay (12.35 d). I_γ: From β^- decay (12.35 d).
2503.568	2^+	1083.23 *9*	2.0 *3*	1420.186	2^+				
		1837.14 *3*	100 *3*	666.338	2^+	M1+E2	+1.54 *9*		B(M1)(W.u.)=0.0042 *+5−6*; B(E2)(W.u.)=2.02 *+18−23*
		2503.54 *5*	20.9 *8*	0.0	0^+	E2			B(E2)(W.u.)=0.127 *+11−15*
2515.422	5^-	297.25 *3*	100 *4*	2218.085	5^-	M1+E2	−7.0 *7*	0.0397 *6*	E_γ: weighted av. of Eγ′s in (n,n′γ), (n,γ) and β^- decay (12.35 d). I_γ: weighted av. of Eγ′s in (n,n′γ) and (n,γ).
		739.18 *14*	11.0 *6*	1776.251	6^+	E1		1.12×10^{-3} *2*	
		1154.07[#] *4*	17.6[#] *16*	1361.363	4^+				
2519.28	4^+,5^+,6^+	301.19[@] *5*	100[@]	2218.085	5^-	E1		0.00936 *13*	
2533.80	4^+	137.66[#] *17*	17[#] *6*	2396.43	6^+				
		520.55[#] *6*	11.1[#] *21*	2013.124	4^+				
		757.15[#] *9*	11.1[#] *16*	1776.251	6^+	E2		0.00275 *4*	B(E2)(W.u.)=13.2 *21* E_γ,I_γ: 2004Va16 in (n,n′γ) give Eγ=758.00 *16* and branching=33 *7*. However the Eγ is poor fit and the large branching suggests that the γ is doublet line.
		1113.74[#] *11*	11.1[#] *14*	1420.186	2^+				
		1172.51 *6*	100 *5*	1361.363	4^+	M1(+E2)	0.00 *+13−9*	1.28×10^{-3} *2*	B(M1)(W.u.)=(0.0267 *23*)
2577.784	3^+	532.57[e#] *5*	≤7.4[e#]	2045.154	2^+				
		1157.54[#] *5*	6.9[#] *4*	1420.186	2^+				
		1216.41 *3*	61 *3*	1361.363	4^+	M1(+E2)	+0.07 *3*	1.19×10^{-3} *2*	B(M1)(W.u.)=(0.039 *4*); B(E2)(W.u.)=(0.09 *8*) I_γ: From (n,γ). Large branching of 96 *4* and 96 *5* from (n,n′γ) suggests that not all of the intensity of this transition in (n,n′γ) belongs with the level.

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Adopted Levels, Gammas (continued)

γ(^{126}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†‡]	E_f	J_f^π	Mult.[c]	δ[c]	α[d]	Comments
2577.784	3+	1911.47 *3*	100 *6*	666.338	2+	M1(+E2)	+0.110 *10*		B(M1)(W.u.)=(0.0163 *16*); B(E2)(W.u.)=(0.037 *8*)
2585.487	2+,3+	199.33[#] *20*	15[#] *6*	2385.976	4−				
		1224.18 *3*	7.5 *13*	1361.363	4+				
		1919.09 *2*	100 *3*	666.338	2+	M1+E2	−0.9 *+8−4*		B(M1)(W.u.)=0.0023 *19*; B(E2)(W.u.)=0.3 *4*
2589.02	5−,6−	370.73 *12*	100 *9*	2218.085	5−	M1+E2	+1.6 *+28−2*	0.0198 *3*	
		812.47[@] *5*	36[@] *6*	1776.251	6+	E1			
2639.84	+	1220.00 *5*		1420.186	2+	E2			I_γ: 33 *7* (2004Va16) in (n,n′γ), 2.4 *4* in (n,γ).
		1973.47 *4*	100 *5*	666.338	2+	E2			B(E2)(W.u.)=3.3 *4*
2661.39	3+,4+,5+	648.27[@] *5*	23.3[@] *16*	2013.124	4+	M1+E2		0.0045 *5*	
		1299.98[@] *7*	100[@] *4*	1361.363	4+	M1+E2	−1.81 *12*		B(M1)(W.u.)=0.009 *+4−9*; B(E2)(W.u.)=12 *+5−12*
2678.847	2+	565.43[e#] *10*	≤18.3[e#]	2113.558	0+				
		633.64[#] *3*	17.0[#] *9*	2045.154	2+				
		1258.59[#] *3*	40.4[#] *22*	1420.186	2+	E2			B(E2)(W.u.)=1.4 *+4−7*
		1317.46 *6*	100 *4*	1361.363	4+	E2			B(E2)(W.u.)=2.7 *+7−13*
		2012.60[#] *6*	8.5[#] *4*	666.338	2+				
		2678.90 *10*	86 *2*	0.0	0+	E2			B(E2)(W.u.)=0.068 *+17−33*
2682.008	2+	1261.77 *3*	49 *2*	1420.186	2+				E_γ,I_γ: Eγ from (n,γ). Eγ=1258.53 *5* from 2004Va16 in (n,n′γ) is poor fit. Branching from weighted av. from (n,n′γ) and (n,γ).
		1320.37[#] *20*	2.08[#] *21*	1361.363	4+				
		2015.69 *3*	100 *3*	666.338	2+	E2			B(E2)(W.u.)=3.15 *+19−22*
		2682.3[@] *3*	18.3[@] *12*	0.0	0+				
2686.49	3+,4+,5+	673.38[@] *6*	61[@] *6*	2013.124	4+	M1+E2	+0.37 *+21−19*	0.00447 *8*	B(M1)(W.u.)=0.14 *+3−4*; B(E2)(W.u.)=3.E+1 *3*
		1325.11[@] *4*	100[@] *4*	1361.363	4+	M1+E2	+0.41 *+43−27*		B(M1)(W.u.)=0.029 *10*; B(E2)(W.u.)=2 *+4−2*
2704.55	(5+,6+)	928.24[@] *5*	100.0[@]	1776.251	6+	M1+E2	+0.8 *2*		
2731.12	(3)+	685.77[#] *10*	20[#] *2*	2045.154	2+				
		1311.01 *3*	100 *3*	1420.186	2+	D(+Q)	+0.06 *+7−6*		
		1369.81 *3*	64 *13*	1361.363	4+	D+Q	−0.22 *+13−8*		I_γ: Weighted av. from 1988Be51 in (n.n′γ) and (n,γ).
		2064.76 *5*	56.7 *21*	666.338	2+	D+Q	+0.26 *+9−8*		
2737.64	1+,2+,3+	1317.36[@] *5*	100.0[@] *6*	1420.186	2+	M1+E2		0.00092 *9*	doublet.
		2071.37[@] *5*	27.6[@] *4*	666.338	2+	M1+E2			
2744.15	(4+)	731.01[#] *3*	100[#] *6*	2013.124	4+				
		1382.73 *6*	100 *13*	1361.363	4+				
		2077.49[#] *15*	100[#] *22*	666.338	2+				

$^{126}_{52}Te_{74}$-10

Adopted Levels, Gammas (continued)

γ(^{126}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†‡]	E_f	J_f^π	Mult.[c]	δ[c]	α[d]	Comments
2766.11	8^+	989.81 *11*	100.0	1776.251	6^+	E2		1.48×10^{-3} *2*	Mult.: from ^{124}Sn(α,2nγ).
2776.23	$4^-,5^-,6^-$	558.14[@] *5*	100.0[@]	2218.085	5^-	M1(+E2)		0.0066 *6*	
2782.908	$3^-,4^+$	249.13[#] *15*	2.2[#] *6*	2533.80	4^+				
		267.06[#] *12*	1.1[#] *3*	2515.422	5^-				
		396.81[#] *3*	5.5[#] *3*	2385.976	4^-				
		565.82[@] *6*	13.6[@] *6*	2218.085	5^-				
		598.47[#] *20*	6.6[#] *23*	2184.308	2^+				
		654.38[#] *5*	7.7[#] *5*	2128.392	3^+				
		2116.41 *5*	100 *6*	666.338	2^+				
2789.87		1369.68[@] *5*	100.0[@]	1420.186	2^+				Doublet.
2801.10		285.68[@] *5*	100.0[@]	2515.422	5^-				
2802.53	2^+	217.04[e#] *5*	17[e#] *6*	2585.487	$2^+,3^+$				
		1441.16[#] *5*	100[#] *6*	1361.363	4^+				
		2136.12[#] *5*	16.7[#] *9*	666.338	2^+				
		2802.30[#] *10*	20.8[#] *11*	0.0	0^+				
2803.02	$3^+,4^+$	1382.82[@] *5*	100[@] *4*	1420.186	2^+	E2			B(E2)(W.u.)=17.3 *+15−19*
		1441.70[@] *5*	60[@] *3*	1361.363	4^+	M1+E2	−2.5 *+12−37*		B(M1)(W.u.)=0.004 *3*; B(E2)(W.u.)=7.2 *+12−13*
2811.34	5,6,7	1035.08[@] *5*	100.0[@]	1776.251	6^+	D(+Q)			
2811.5	(7^-)	297.1[&] *8*	6.6[&] *3*	2515.422	5^-				
		415.3[&] *8*	13[&] *4*	2396.43	6^+				
		593.2[&] *3*	100[&] *5*	2218.085	5^-	E2			Mult.: from DCO in (^{7}Li,p4nγ).
2812.49	1	699.1[#] *3*	0.9[#] *4*	2113.558	0^+				
		2812.82 *14*	100 *6*	0.0	0^+	D			Mult.: D from (γ,γ′).
2813.88	$2^+,3^+$	392.81[#] *10*	7.7[#] *6*	2421.132	2^+				
		427.85[#] *20*	74[#] *4*	2385.976	4^-				FL=2385.810 and/or FL=2385.976.
		768.73[e#] *4*	≤16.2[e#]	2045.154	2^+				
		1393.10[#] *20*	100[#] *7*	1420.186	2^+	M1+E2	+4 *+13−1*		B(M1)(W.u.)=0.001 *+4−1*; B(E2)(W.u.)=3.2 *+13−14* E_γ,I_γ: Eγ from 2004Va16 is poor fit and branching is poor resolution.
		2147.68[#] *5*	69[#] *4*	666.338	2^+	M1+E2	−8 *+4−17*		B(M1)(W.u.)=3.E−5 *3*; B(E2)(W.u.)=0.26 *+4−5* E_γ,I_γ: Eγ from 2004Va16 is poor fit and branching is poor resolution.
2815.94	$4^-,5^-$	429.93[@] *5*	64[@] *7*	2385.976	4^-				
		597.88[@] *5*	100[@] *7*	2218.085	5^-	M1+E2	−4.5 *+14−7*	0.00507 *9*	

$^{126}_{52}Te_{74}$-11

Adopted Levels, Gammas (continued)

γ(^{126}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†‡]	E_f	J_f^π	Mult.[c]	δ[c]	α[d]	Comments
2833.71	1⁺,2⁺,3⁺	649.22[#] *18*	1.0[#] *3*	2184.308	2⁺				
		1413.53 *4*	100 *5*	1420.186	2⁺				
		2167.42 *4*	45 *5*	666.338	2⁺	M1+E2	+0.19 *+37−14*		B(M1)(W.u.)=0.0047 *9*; B(E2)(W.u.)=0.025 *+94−25*
2837.57		1061.6 *4*	100 *17*	1776.251	6⁺				E_γ,I_γ: Eγ and RI from β^- decay (19.15 min).
		1476.20 *6*	67 *17*	1361.363	4⁺				E_γ,I_γ: Eγ from 2004Va16 in (n,n′γ), RI from β^- decay (19.15 min).
2839.7	(6)⁺	1064.4[&] *15*	100[&] *67*	1776.251	6⁺				
		1476.20[&] *6*	31[&] *3*	1361.363	4⁺				E_γ: From 2004Va16 in (n,n′γ).
2858.773	(3⁻)	846.05[#] *21*	11[#] *4*	2013.124	4⁺				
		1438.51 *5*	83 *5*	1420.186	2⁺	E1			
		2192.45 *6*	100.0 *20*	666.338	2⁺	(D+Q)	−4.1 *+3−5*		
2862.648	3⁺,4⁺	359.06[#] *4*	25.0[#] *17*	2503.568	2⁺				
		553.19[e] *10*	≤42[e]	2309.132	4⁺				
		849.58[#] *3*	100[#] *5*	2013.124	4⁺	M1+E2	−0.59 *24*	0.00251 *10*	B(M1)(W.u.)=0.067 *+23−26*; B(E2)(W.u.)=22 *+15−16*
									I_γ: Branching of 45 *5* in 2004Va16 is omitted due to 1441γ′s doublet.
		1442.30[#] *10*	75[#] *17*	1420.186	2⁺	E2			B(E2)(W.u.)=4.6 *+16−18*
									I_γ: Branching of 100 *2* in 2004Va16 is omitted due to 1441γ′s double.
									t.
		1501.68 *17*	50 *4*	1361.363	4⁺	D(+Q)	+0.2 *+11−3*		
		2196.53 *14*	33 *5*	666.338	2⁺				
2868.42	3⁺,4⁺,5⁺	1507.05[@] *20*	100.0[@]	1361.363	4⁺	M1(+E2)	−0.22 *+31−34*		B(M1)(W.u.)=(0.018 *+7−15*); B(E2)(W.u.)=(0.3 *+8−3*)
2874.23		656.14[@] *20*	100.0[@]	2218.085	5⁻				
2877.25	2⁺	195.33[#] *14*	6.5[#] *23*	2682.008	2⁺				
		198.31[#] *5*	71[#] *3*	2678.847	2⁺				
		2210.95 *6*	71 *4*	666.338	2⁺	M1+E2	+1.1 *4*		B(M1)(W.u.)=0.0016 *7*; B(E2)(W.u.)=0.28 *10*
		2877.28 *5*	100 *5*	0.0	0⁺	E2			B(E2)(W.u.)=0.192 *15*
2897.92	1⁺	394.84[#] *17*	1.3[#] *3*	2503.568	2⁺				
		1477.71[#] *5*	18.2[#] *9*	1420.186	2⁺				
		2231.86 *4*	22.1 *11*	666.338	2⁺	(D,Q)			Mult.: from (γ,γ′).
		2897.82 *9*	100 *5*	0.0	0⁺	M1			B(M1)(W.u.)=0.0042 *4*
2911.9		1550.60[@] *6*	100.0[@]	1361.363	4⁺				
2927.36		1507.00[@] *5*	18[@] *6*	1420.186	2⁺				
		2261.23[@] *6*	100[@] *6*	666.338	2⁺				
2935.84	2⁺	807.36 *6*	8.1 *19*	2128.392	3⁺				
		1515.15[@] *5*	[@]	1420.186	2⁺				Doublet.
		2269.51 *6*	16.2 *9*	666.338	2⁺				
		2935.72[#] *9*	100[#] *11*	0.0	0⁺				

$^{126}_{52}Te_{74}$-12

Adopted Levels, Gammas (continued)

γ(^{126}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†‡]	E_f	J_f^π	Mult.[c]	δ[c]	α[d]	Comments
2966.78	4$^+$,5,6$^+$	1190.53[@] *5*	100[@] *5*	1776.251	6$^+$				
		1605.40[@] *13*	39[@] *3*	1361.363	4$^+$				
2971.817	2$^+$,3,4$^+$	169.02[#] *13*	14[#] *5*	2802.53	2$^+$				
		959.60[@] *7*	[@]	2013.124	4$^+$				Doublet.
		1551.63[#] *5*	77[#] *4*	1420.186	2$^+$				
		2305.47 *12*	100 *5*	666.338	2$^+$	D(+Q)	−0.06 *+12−7*		
2974.47	1	553.19[e#] *5*	2.1[e#] *6*	2421.132	2$^+$				
		2308.15[#] *4*	14.9[#] *10*	666.338	2$^+$	D(+Q)	−0.06 *+12−7*		
		2974.60 *5*	100 *5*	0.0	0$^+$	D			Mult.: from (γ,γ′).
2975.02	10$^+$	208.92[#] *14*	100.0[#]	2766.11	8$^+$	E2		0.1291 *19*	B(E2)(W.u.)=3.1 *3* Mult.: from ^{124}Sn(α,2nγ) and RUL.
2989.5	(8$^+$)	148.7[&] *9*	17[&] *8*	2839.7	(6)$^+$				
		223.9[&] *7*	58[&] *4*	2766.11	8$^+$				
		1213.3[&] *3*	100[&] *8*	1776.251	6$^+$	(E2)			Mult.: from DCO in ^{124}Sn(^{7}Li,p4nγ).
2993.54	4$^+$	403.90[@] *6*	25.5[@] *14*	2589.02	5$^-$,6$^-$	E1		0.00443 *6*	B(E1)(W.u.)=0.0037 *+4−5*
		776.47[@] *6*	39.0[@] *20*	2218.085	5$^-$	E1		1.01×10^{-3} *2*	B(E1)(W.u.)=0.00079 *+9−11*
		2326.90[@] *5*	100.0[@] *12*	666.338	2$^+$	E2			B(E2)(W.u.)=0.78 *+7−10*
2996.89	3$^+$,4$^+$	1576.74[@] *5*	100[@] *4*	1420.186	2$^+$	E2			B(E2)(W.u.)=3.3 *+9−15*
		1635.41[@] *8*	28[@] *3*	1361.363	4$^+$	M1(+E2)	+0.1 *+38−7*		B(M1)(W.u.)=(0.0029 *+24−26*); B(E2)(W.u.)=(0.0 *+6−0*)
3008.26	2$^+$,3$^+$	149.51[#] *3*	30[#] *11*	2858.773	(3$^-$)				
		1646.61 *8*	100 *4*	1361.363	4$^+$				
		2341.85 *6*	17 *3*	666.338	2$^+$	M1+E2	+0.47 *+26−10*		B(M1)(W.u.)=0.0081 *24*; B(E2)(W.u.)=0.22 *21*
3013.79		1237.53[@] *5*	100.0[@]	1776.251	6$^+$				
3015.42	1$^-$,2$^+$	181.85[#] *15*	1.0×10^2[#] *4*	2833.71	1$^+$,2$^+$,3$^+$				
		429.94[#] *3*	10.0[#] *6*	2585.487	2$^+$,3$^+$				
		629.63[#] *5*	4.44[#] *23*	2385.810	3$^-$				
		3015.44 *12*	77 *5*	0.0	0$^+$	(D,Q)			Mult.: from (γ,γ′). I_γ: from (n,γ).
3018.47	1$^+$,2$^+$	440.64[#] *3*	100[#] *5*	2577.784	3$^+$				
		597.52[#] *9*	55[#] *9*	2421.132	2$^+$				
		3018.50[#] *6*	40.9[#] *23*	0.0	0$^+$				
3034.70	2$^+$	1614.46[@] *8*	100[@] *16*	1420.186	2$^+$	M1(+E2)	−0.16 *+22−13*		B(M1)(W.u.)=(0.046 *11*); B(E2)(W.u.)=(0.3 *+9−3*)
		2368.45[@] *5*	42[@] *8*	666.338	2$^+$	M1+E2	−16 *+30−13*		B(M1)(W.u.)=2.4×10^{-5} *+91−24*; B(E2)(W.u.)=0.76 *19*

$^{126}_{52}Te_{74}$-13

Adopted Levels, Gammas (continued)

γ(^{126}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†‡]	E_f	J_f^π	Mult.[c]	δ[c]	α[d]	Comments
3034.70	2+	3034.28[@] *10*	8.6[@] *12*	0.0	0+	E2			B(E2)(W.u.)=0.045 *9*
3045.15	2+	365.91[#] *12*	≤10[#]	2678.847	2+				
		565.43[e#] *10*	23.5[e#] *18*	2479.79	3+,4+				
		2379.45 *5*	100 *4*	666.338	2+	M1+E2			
		3045.18 *12*	40 *4*	0.0	0+	E2			B(E2)(W.u.)=0.116 *18*
3066.297	1−	680.47[#] *3*	29[#] *2*	2385.810	3−				
		884.83[#] *8*	14[#] *3*	2181.492	1+				
		1646.84[@] *6*	[@]	1420.186	2+				Doublet.
		2399.81 *12*	100 *5*	666.338	2+				
		3066.28[#] *20*	36[#] *2*	0.0	0+				
3069.8	(8−)	573.4[b] *3*	100[b]	2496.89	7−	D[b]			
3071.19	5−,6,7−	556.3[&] *3*	25[&] *3*	2515.422	5−				
		573.9[&] *3*	100[&] *4*	2496.89	7−				
3072.86	3+,4+,5+	686.57[@] *5*	100[@] *9*	2385.976	4−	E1		1.31×10^{-3} *2*	
		1711.60[@] *6*	75[@] *9*	1361.363	4+	M1+E2	−0.47 *+29−21*		
3096.79		1676.69[@] *6*	1.0×10^2[@] *4*	1420.186	2+				
		2430.24[@] *8*	59[@] *22*	666.338	2+				
3132.12		401.01[#] *5*	20.0[#] *14*	2731.12	(3)+				
		546.61[#] *3*	100[#] *6*	2585.487	2+,3+				
		2465.84[#] *10*	33[#] *3*	666.338	2+				
3132.37	1+	1711.60[@] *6*	82[@] *19*	1420.186	2+	M1+E2	−0.83		
		3132.90[@] *6*	100[@] *19*	0.0	0+	M1		1.00×10^{-3} *14*	
3143.652	2+	663.72[e#] *10*	100[e#] *18*	2479.79	3+,4+				
		1723.47[#] *3*	50[#] *3*	1420.186	2+				
		2477.33 *4*	41.2 *21*	666.338	2+	M1+E2	+2.3 *+10−5*		B(M1)(W.u.)=0.0004 *4*; B(E2)(W.u.)=0.26 *+11−12*
		3143.40[@] *13*	13.1[@] *15*	0.0	0+	E2			B(E2)(W.u.)=0.029 *+12−13*
3167.37	3+	1747.53[@] *5*	100[@] *11*	1420.186	2+	M1+E2	−1.8 *+1−2*		B(M1)(W.u.)=0.0026 *7*; B(E2)(W.u.)=1.9 *5*
		1804.62[@] *5*	77[@] *14*	1361.363	4+	M1+E2	−0.22 *+16−10*		B(M1)(W.u.)=0.0073 *+21−22*; B(E2)(W.u.)=0.07 *+11−7*
		2500.45[@] *13*	31[@] *35*	666.338	2+				
3171.7		656.3[&] *6*	59[&] *3*	2515.422	5−				
		674.8[&] *3*	100[&] *27*	2496.89	7−				
3193.88	9−	696.9[b] *2*	100[b]	2496.89	7−	E2[b]			
3195.2	1,2,3	2528.85[@] *7*	100.0[@]	666.338	2+	D+Q	−5.2 *+22−47*		
3196.6		356.9[a] *5*	100[a]	2839.7	(6)+				

$^{126}_{52}Te_{74}$-14

Adopted Levels, Gammas (continued)

γ(^{126}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†‡]	E_f	J_f^π	Mult.[c]	δ[c]	Comments
3202.283	2+	816.61[#] *6*	38[#] *4*	2385.810	3−			
		1073.90[#] *4*	30.8[#] *16*	2128.392	3+			
		1088.78[#] *9*	38[#] *4*	2113.558	0+			
		1189.46[#] *14*	7.7[#] *15*	2013.124	4+			
		1782.01 *9*	100 *6*	1420.186	2+	M1+E2	−0.26 *+14−16*	B(M1)(W.u.)=0.018 *4*; B(E2)(W.u.)=0.3 *3*
		2535.58 *6*	54 *3*	666.338	2+	M1+E2	−2.7 *+8−10*	B(M1)(W.u.)=0.00043 *24*; B(E2)(W.u.)=0.33 *+6−7*
3249.391	1,2+	663.72[e] *10*	100[e] *18*	2585.487	2+,3+			
		1065.14 *10*	8.8 *9*	2184.308	2+			
		1829.26 *3*	41.2 *21*	1420.186	2+			
		2583.15[e] *6*	26.5[e] *24*	666.338	2+			
		3249.37 *5*	76 *4*	0.0	0+			
3262.335	1,2+	287.89 *8*	13 *4*	2974.47	1			
		290.48 *3*	100 *7*	2971.817	2+,3,4+			
		2596.07 *5*	29.0 *17*	666.338	2+			
		3262.26 *5*	58 *3*	0.0	0+			
3308.867	2+	293.42 *4*	6.3 *10*	3015.42	1−,2+			
		922.99[e] *3*	≤12.6[e]	2385.810	3−			
		999.63 *7*	56 *3*	2309.132	4+			
		1195.31 *3*	28.2 *14*	2113.558	0+			
		1435.56 *11*	5.6 *10*	1873.391	0+			
		1888.57 *15*	42.3 *22*	1420.186	2+			
		2642.57 *4*	100 *5*	666.338	2+			
3349.15	1,2+	217.04[e] *5*	≤9.2[e]	3132.12				
		282.67 *9*	7 *4*	3066.297	1−			
		1304.08 *7*	5.1 *5*	2045.154	2+			
		2682.79 *4*	100 *5*	666.338	2+			
		3349.20 *20*	76 *4*	0.0	0+			
3450.5	6+,7−	638.8[&] *8*	75[&] *8*	2811.5	(7−)			
		684.7[&] *10*	75[&]	2766.11	8+			
		934[&] *1*	67[&]	2515.422	5−			
		953.7[&] *4*	100[&] *8*	2496.89	7−			
3473.7		958.3[&] *7*	100[&]	2515.422	5−			
3576.29	1,2+	2909.89 *5*	100 *6*	666.338	2+			
		3576.41 *7*	32.1 *17*	0.0	0+			
3602.37	1,2+	536.03 *3*	42.9 *23*	3066.297	1−			
		768.73[e] *4*	≤18[e]	2833.71	1+,2+,3+			
		1488.83 *21*	100 *18*	2113.558	0+			
		3602.9 *3*	2.9 *12*	0.0	0+			
3688.52	12+	713.5 *1*	100	2975.02	10+	E2		E_γ: from ^{130}Te(^{64}Ni,xγ). Mult.: from (^{7}Li,p4nγ).

$^{126}_{52}Te_{74}$-15

Adopted Levels, Gammas (continued)

γ(^{126}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†‡]	E_f	J_f^π	Mult.[c]	Comments
3709.7	(10$^-$)	515.4[b] *5*	50[b] *30*	3193.88	9$^-$	D[b]	
		638.9[b] *5*	100[b] *50*	3069.8	(8$^-$)	E2[b]	
3759.78	(1,2)	497.46 *3*	100 *5*	3262.335	1,2$^+$		
		3093.8 *4*	7.7 *16*	666.338	2$^+$		
		3759.62 *7*	85 *5*	0.0	0$^+$	(D,Q)	Mult.: from (γ,γ').
3765.6	11$^-$	571.7[b] *2*	100[b]	3193.88	9$^-$	E2[b]	
3798.80	1,2$^+$	780.25 *10*	17.1 *10*	3018.47	1$^+$,2$^+$		
		1614.45 *10*	68 *4*	2184.308	2$^+$		
		3132.34 *20*	100 *10*	666.338	2$^+$		
		3798.63 *20*	14.6 *8*	0.0	0$^+$		
3807.261	2$^+$	663.72[e] *10*	≤48[e]	3143.652	2$^+$		
		832.69 *10*	5.9 *22*	2974.47	1		
		1128.56 *6*	7.1 *5*	2678.847	2$^+$		
		1327.33 *4*	8.2 *4*	2479.79	3$^+$,4$^+$		
		1693.76 *8*	4.7 *6*	2113.558	0$^+$		
		1934.3 *6*	2.4 *8*	1873.391	0$^+$		
		3140.8 *4*	100 *5*	666.338	2$^+$		
3838.5	(11$^+$)	863.5[b] *5*	100[b]	2975.02	10$^+$	D[b]	
3882.17	(1$^-$,2$^+$)	1099.23[e] *6*	≤17.4[e]	2782.908	3$^-$,4$^+$		
		1696.9 *5*	16 *10*	2184.308	2$^+$		
		1700.4[e] *3*	≤36[e]	2181.492	1$^+$		
		3215.85 *5*	74 *4*	666.338	2$^+$	(D,Q)	Mult.: from (γ,γ'). I_γ: other:144 *20* from (γ,γ').
		3882.06 *7*	100 *7*	0.0	0$^+$	(D,Q)	Mult.: from (γ,γ').
3922.54		673.26 *5*	100 *5*	3249.391	1,2$^+$		
		1088.78 *9*	33 *4*	2833.71	1$^+$,2$^+$,3$^+$		
		3256.13 *6*	67 *4*	666.338	2$^+$		
3927.08	(2$^+$)	1124.25[e] *10*	<35[e]	2802.53	2$^+$		
		1881.97 *6*	9.5 *10*	2045.154	2$^+$		
		2053.68 *5*	23.8 *19*	1873.391	0$^+$		
		3926.81 *20*	100 *5*	0.0	0$^+$		
3952.55	1,2$^+$	944.25 *3*	100 *5*	3008.26	2$^+$,3$^+$		
		1270.56 *5*	21.1 *11*	2682.008	2$^+$		
		3952.51 *13*	37 *7*	0.0	0$^+$		
3973.089	1,2$^+$	710.73 *4*	100 *7*	3262.335	1,2$^+$		
		840.75 *14*	30 *11*	3132.12			
		906.85 *3*	50 *3*	3066.297	1$^-$		
		1037.09 *9*	30 *3*	2935.84	2$^+$		
		1159.32 *20*	40.0 *20*	2813.88	2$^+$,3$^+$		
		3306.75 *6*	100 *5*	666.338	2$^+$		
4023.84	1,2$^+$	1978.77 *5*	46.2 *23*	2045.154	2$^+$		
		2603.58 *5*	62 *3*	1420.186	2$^+$		

$^{126}_{52}Te_{74}$-16

Adopted Levels, Gammas (continued)

γ(^{126}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†‡]	E_f	J_f^π	Mult.[c]	α[d]	Comments
4023.84	1,2$^+$	4023.90 *11*	100 *5*	0.0	0$^+$			
4140.0		451.5 *5*	100	3688.52	12$^+$			E_γ,I_γ: from (^{7}Li,p4nγ).
4156.42		847.47 *5*	100 *8*	3308.867	2$^+$			
		1141.15 *10*	62 *15*	3015.42	1$^-$,2$^+$			
		1975.18 *10*	50 *7*	2181.492	1$^+$			
		2736.07 *14*	50 *7*	1420.186	2$^+$			
4172.336	1$^+$,2$^+$	245.24 *3*	75 *4*	3927.08	(2$^+$)			
		595.94 *6*	33 *4*	3576.29	1,2$^+$			
		922.99[e] *3*	≤149[e]	3249.391	1,2$^+$			
		1493.77 *10*	58 *4*	2678.847	2$^+$			
		1594.77 *10*	33.1 *17*	2577.784	3$^+$			
		2058.64 *5*	41 *4*	2113.558	0$^+$			
		3505.90 *11*	59 *3*	666.338	2$^+$			
		4171.81 *16*	100 *17*	0.0	0$^+$			
4178.0	(12$^-$)	412.3[b] *5*	100[b]	3765.6	11$^-$	D[b]		
4324.84	2$^+$	748.60 *4*	58 *4*	3576.29	1,2$^+$			
		2311.63 *12*	42 *5*	2013.124	4$^+$			
		2451.11 *15*	33.3 *25*	1873.391	0$^+$			
		3658.39 *6*	75 *5*	666.338	2$^+$			
		4324.82 *7*	100 *5*	0.0	0$^+$			
4433.5	(12$^-$)	723.8[b] *5*	100[b]	3709.7	(10$^-$)	(E2)[b]		
4448.39		1099.23[e] *6*	≤46[e]	3349.15	1,2$^+$			
		1769.43 *5*	41.7 *25*	2678.847	2$^+$			
		2403.44[e] *10*	≤52.5[e]	2045.154	2$^+$			
		3028.3 *7*	25 *14*	1420.186	2$^+$			
		3782.25 *10*	100 *6*	666.338	2$^+$			
4452.4		763.9[b] *4*	100[b]	3688.52	12$^+$	[b]		
4504.83	2$^+$	1486.38 *16*	6.8 *23*	3018.47	1$^+$,2$^+$			
		1760.67 *5*	6.8 *5*	2744.15	(4$^+$)			
		1826.23 *11*	6.8 *7*	2678.847	2$^+$			
		1927.06[e] *5*	≤12.1[e]	2577.784	3$^+$			
		2000.96 *22*	6.8 *16*	2503.568	2$^+$			
		3084.47 *7*	13.6 *7*	1420.186	2$^+$			
		3838.38 *6*	61 *4*	666.338	2$^+$			
		4505.05 *17*	100 *5*	0.0	0$^+$			
4510.62	(0$^-$,1$^-$,2$^-$)	3090.5 *3*	52 *3*	1420.186	2$^+$			
		3844.29 *6*	100 *5*	666.338	2$^+$			
4538.81	(14$^+$)	850.3 *1*	100	3688.52	12$^+$	E2	0.00209	E_γ: from ^{130}Te(^{64}Ni,xγ). Mult.: from DCO in ^{124}Sn(^{7}Li,p4nγ).
4587.9	(13$^-$)	410.1[b] *5*	41[b] *3*	4178.0	(12$^-$)	D[b]		
		822.1[b] *4*	100[b] *3*	3765.6	11$^-$	Q[b]		

Adopted Levels, Gammas (continued)

γ(^{126}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†‡]	E_f	J_f^π	Mult.[c]	Comments
4634.8	(14$^+$)	946.3 *4*	100	3688.52	12$^+$	(E2)	E_γ: from ^{238}U(^{12}C,Fγ). Mult.: from (^{7}Li,p4nγ).
4651.78	2$^+$	729.24 *3*	26.3 *16*	3922.54			
		1817.99 *6*	26.3 *16*	2833.71	1$^+$,2$^+$,3$^+$		
		2638.78[e] *6*	≤44.2[e]	2013.124	4$^+$		
		3984.6 *3*	32 *4*	666.338	2$^+$		
		4651.50 *14*	100 *11*	0.0	0$^+$		
4671.34	(2$^+$)	1927.06[e] *5*	≤22.1[e]	2744.15	(4$^+$)		
		2487.28 *10*	8.3 *9*	2184.308	2$^+$		
		4005.46 *20*	29.2 *17*	666.338	2$^+$		
		4671.26 *9*	100 *5*	0.0	0$^+$		
4700.40	1$^-$	1124.25[e] *10*	≤21.2[e]	3576.29	1,2$^+$		
		1556.79 *11*	11.4 *23*	3143.652	2$^+$		
		1866.62 *10*	14.3 *9*	2833.71	1$^+$,2$^+$,3$^+$		
		2516.04 *5*	25.7 *15*	2184.308	2$^+$		
		4700.3 *5*	100 *20*	0.0	0$^+$		
4726.6	(13$^-$)	548.4 *5*	100 *50*	4178.0	(12$^-$)	D	E_γ,Mult.: from ^{124}Sn(^{7}Li,p4nγ). I_γ: from ^{238}U(^{12}C,Fγ).
		962[a] *1*	80[a] *40*	3765.6	11$^-$		
4747.43		2326.92 *20*	62 *4*	2421.132	2$^+$		
		4081.08 *6*	100 *6*	666.338	2$^+$		
4767.30	1$^+$,2,3$^-$	794.24 *3*	100 *6*	3973.089	1,2$^+$		
		1700.4[e] *3*	≤101[e]	3066.297	1$^-$		
		2345.94[e] *6*	≤38.1[e]	2421.132	2$^+$		
		2583.15[e] *6*	≤90[e]	2184.308	2$^+$		
		2638.78[e] *6*	≤77[e]	2128.392	3$^+$		
		4100.91 *21*	82 *13*	666.338	2$^+$		
4775.97	3$^-$,4$^+$	1840.07 *7*	58 *4*	2935.84	2$^+$		
		1913.39 *8*	50 *6*	2862.648	3$^+$,4$^+$		
		2260.60 *5*	100 *5*	2515.422	5$^-$		
		2730.56 *10*	50 *4*	2045.154	2$^+$		
		4109.50 *8*	75 *5*	666.338	2$^+$		
4879.88	2$^+$	555.20 *10*	12.1 *25*	4324.84	2$^+$		
		1905.47 *5*	9.1 *6*	2974.47	1		
		1944.04 *4*	15.2 *9*	2935.84	2$^+$		
		2345.94[e] *6*	≤12.7[e]	2533.80	4$^+$		
		2458.73 *12*	15.2 *13*	2421.132	2$^+$		
		2834.65 *5*	21.2 *13*	2045.154	2$^+$		
		3459.30 *20*	15.2 *9*	1420.186	2$^+$		
		4213.66 *20*	100 *6*	666.338	2$^+$		
		4880.4 *3*	12.1 *13*	0.0	0$^+$		
4883.233	2$^+$	1075.94 *3*	38.9 *23*	3807.261	2$^+$		

$^{126}_{52}Te_{74}$-18

Adopted Levels, Gammas (continued)

γ(^{126}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †‡	E_f	J_f^π	E_i(level)	J_i^π	E_γ †	I_γ †‡	E_f	J_f^π	Mult.[c]
4883.233	2^+	1864.72 *7*	27.8 *23*	3018.47	$1^+,2^+$	4918.79	$1,2^+$	4918.48 *8*	100 *6*	0.0	0^+	
		2204.36 *6*	33.3 *23*	2678.847	2^+	4934.50	$1,2^+$	3514.22 *20*	21.9 *11*	1420.186	2^+	
		2349.42 *5*	44.4 *23*	2533.80	4^+			4267.87 *16*	100 *5*	666.338	2^+	
		2403.44[e] *10*	≤35[e]	2479.79	$3^+,4^+$	5096.2	(15^+)	461.3[b] *5*	89[b] *11*	4634.8	(14^+)	D[b]
		3009.67 *5*	56 *3*	1873.391	0^+			557.4[b] *5*	100[b] *44*	4538.81	(14^+)	D[b]
		3463.13 *9*	38.9 *23*	1420.186	2^+	5114.5	(15^-)	526.4[a] *4*	100[a] *31*	4587.9	(13^-)	
		4217.20 *20*	100 *5*	666.338	2^+			575.7[a] *5*	31[a] *14*	4538.81	(14^+)	
		4883.18 *8*	100 *5*	0.0	0^+	5538.7	(16^+)	442.5[b] *5*	100[b]	5096.2	(15^+)	D[b]
4918.79	$1,2^+$	1716.51 *5*	29.4 *18*	3202.283	2^+	5696.0	(16^+)	1061.2[a] *5*	100[a]	4634.8	(14^+)	
		1775.16 *4*	65 *4*	3143.652	2^+	6060.3	(17^-)	945.8[a] *5*	100[a]	5114.5	(15^-)	
		1873.71 *4*	23.5 *12*	3045.15	2^+	7790.3		6369		1420.186	2^+	
		2414.91 *8*	29 *4*	2503.568	2^+			7791		0.0	0^+	
		3498.73 *19*	17.6 *18*	1420.186	2^+	7915.3	1^+	7915	100	0.0	0^+	D

† Weighted av. of γ data in (n,γ) and (n,n′γ) (1988Be51,2004Va16) from levels below 3210 keV and γ data in (n,γ) from levels over 3210 keV, unless otherwise noted. The adopted uncertainty of Eγ is no smaller than the smallest of the input uncertainties.

‡ The Iγ′s are relative photon branchings from each level.

From (n,γ).

@ From (n,n′γ).

& From ^{126}Sb β^- decay (12.35 d).

[a] From ^{238}U(^{12}C,Fγ), Systematically Eγ′s are small by 0.4 keV. Evaluators increased the authors′ energies by 0.4 keV.

[b] From ^{124}Sn(^{7}Li,p4nγ).

[c] From (n,n′γ), unless otherwise noted.

[d] 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.

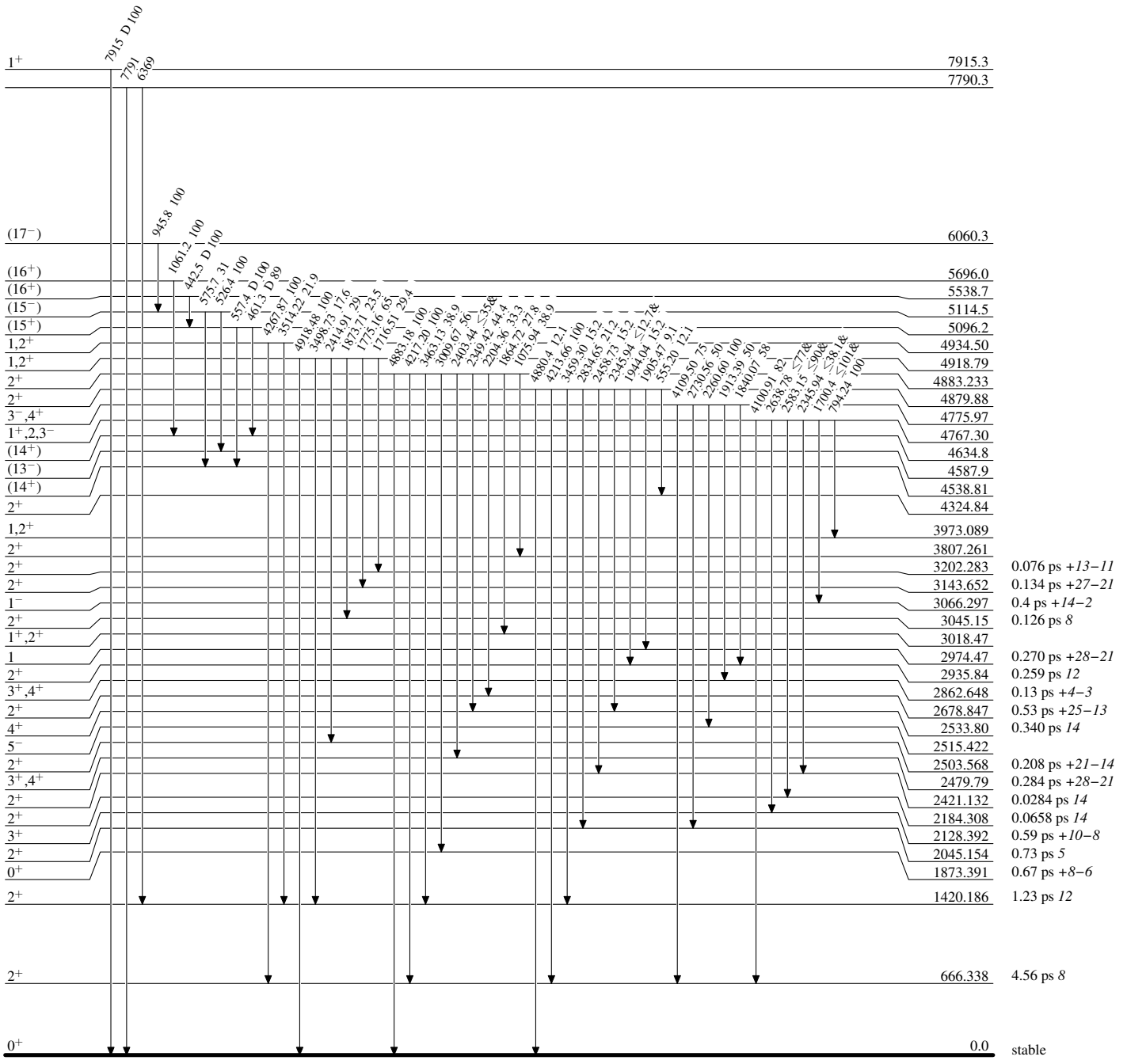
[e] Multiply placed with undivided intensity.

$^{126}_{52}Te_{74}$-19

Adopted Levels, Gammas

Level Scheme

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

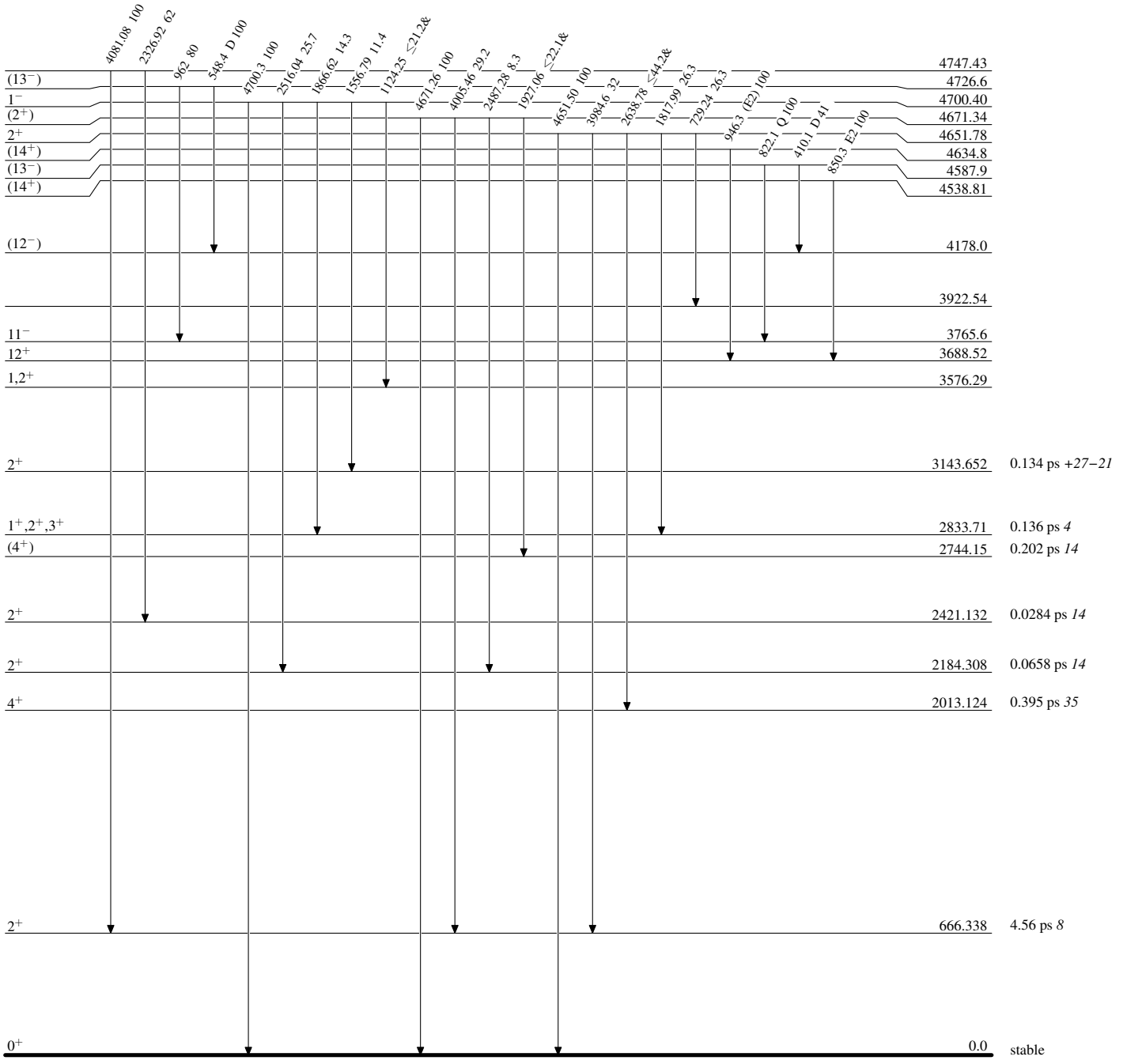


$^{126}_{52}Te_{74}$

Adopted Levels, Gammas

Level Scheme (continued)

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

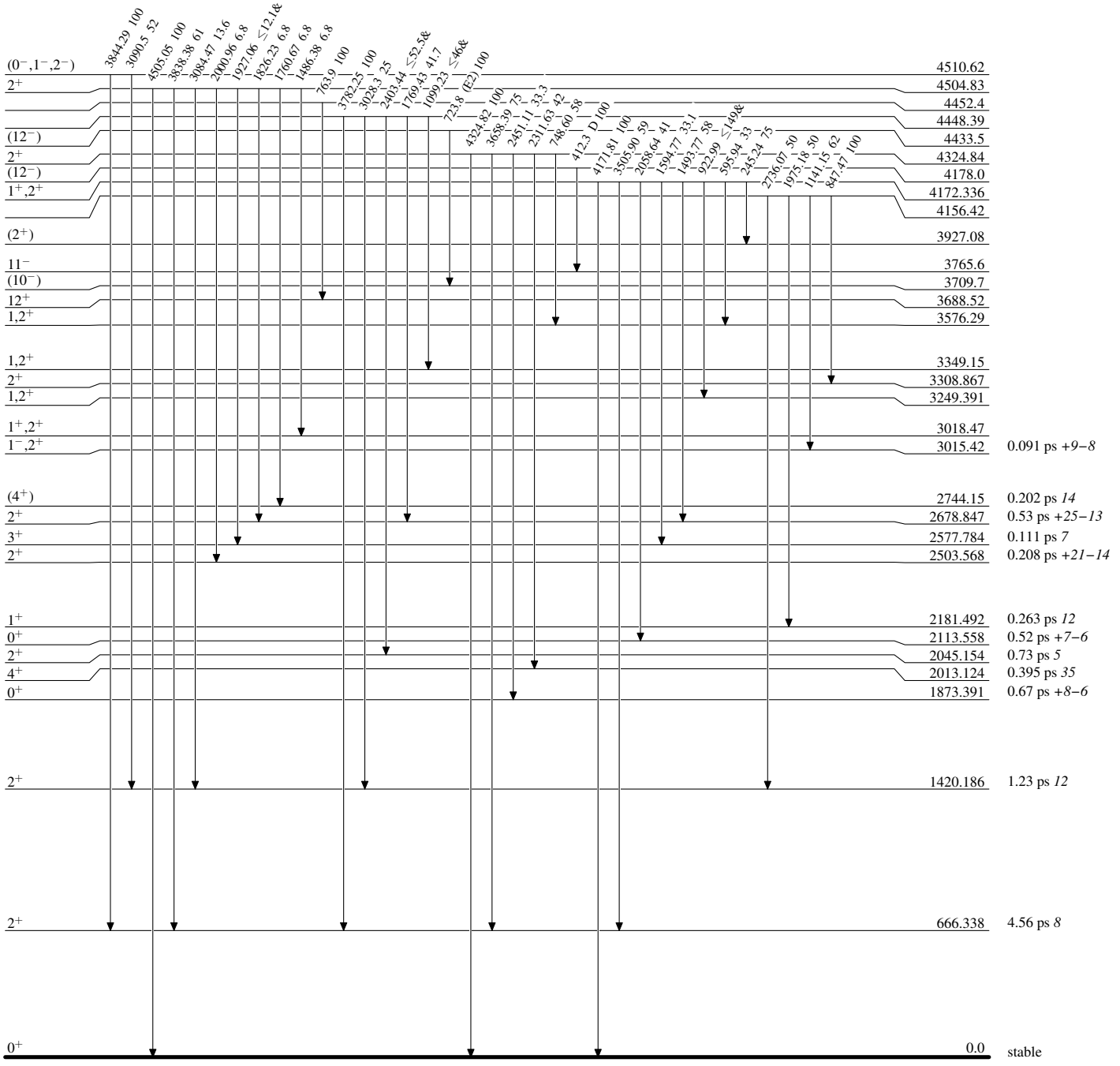


$^{126}_{52}Te_{74}$

Adopted Levels, Gammas

Level Scheme (continued)

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

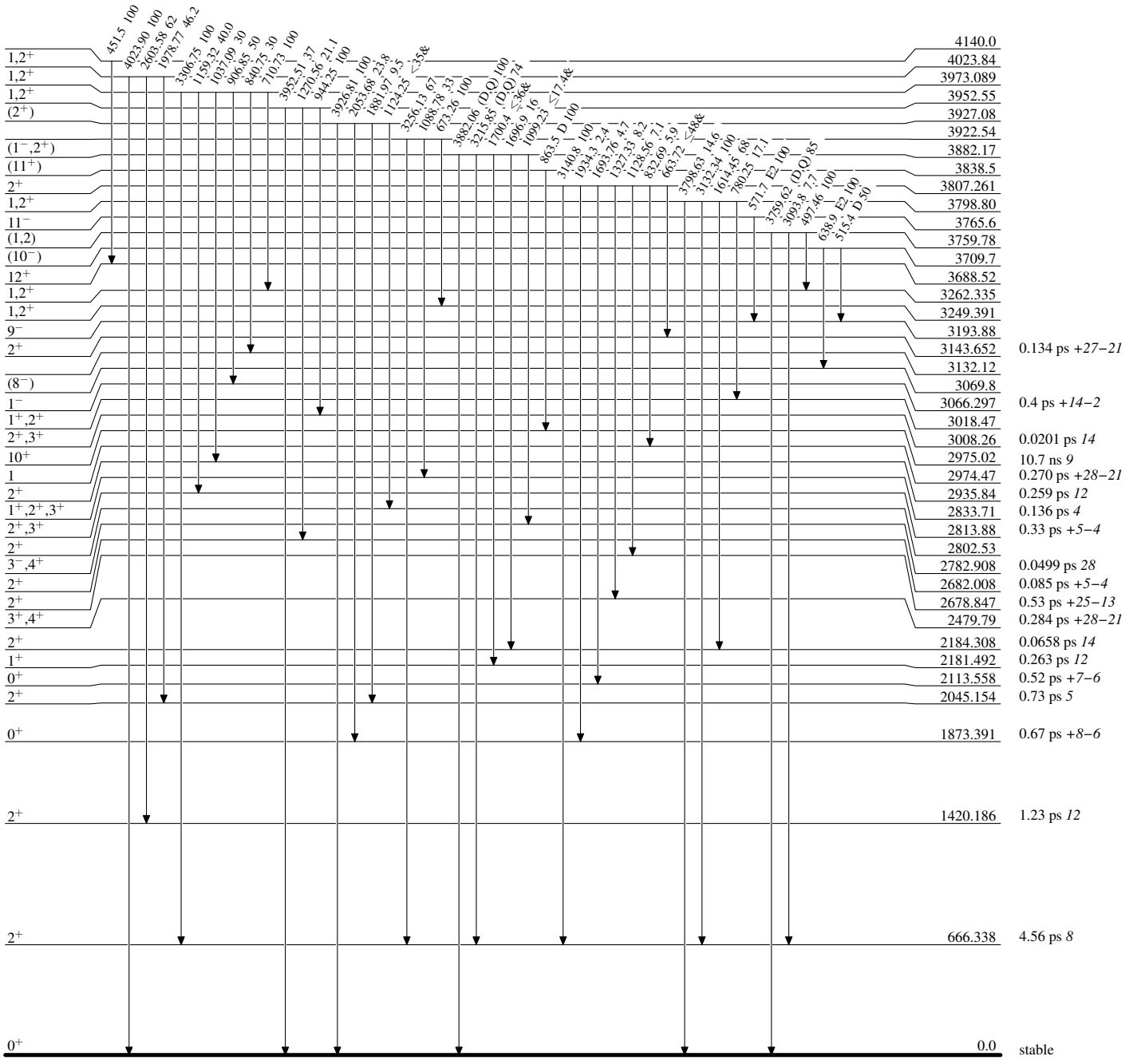


$^{126}_{52}Te_{74}$

Adopted Levels, Gammas

Level Scheme (continued)

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

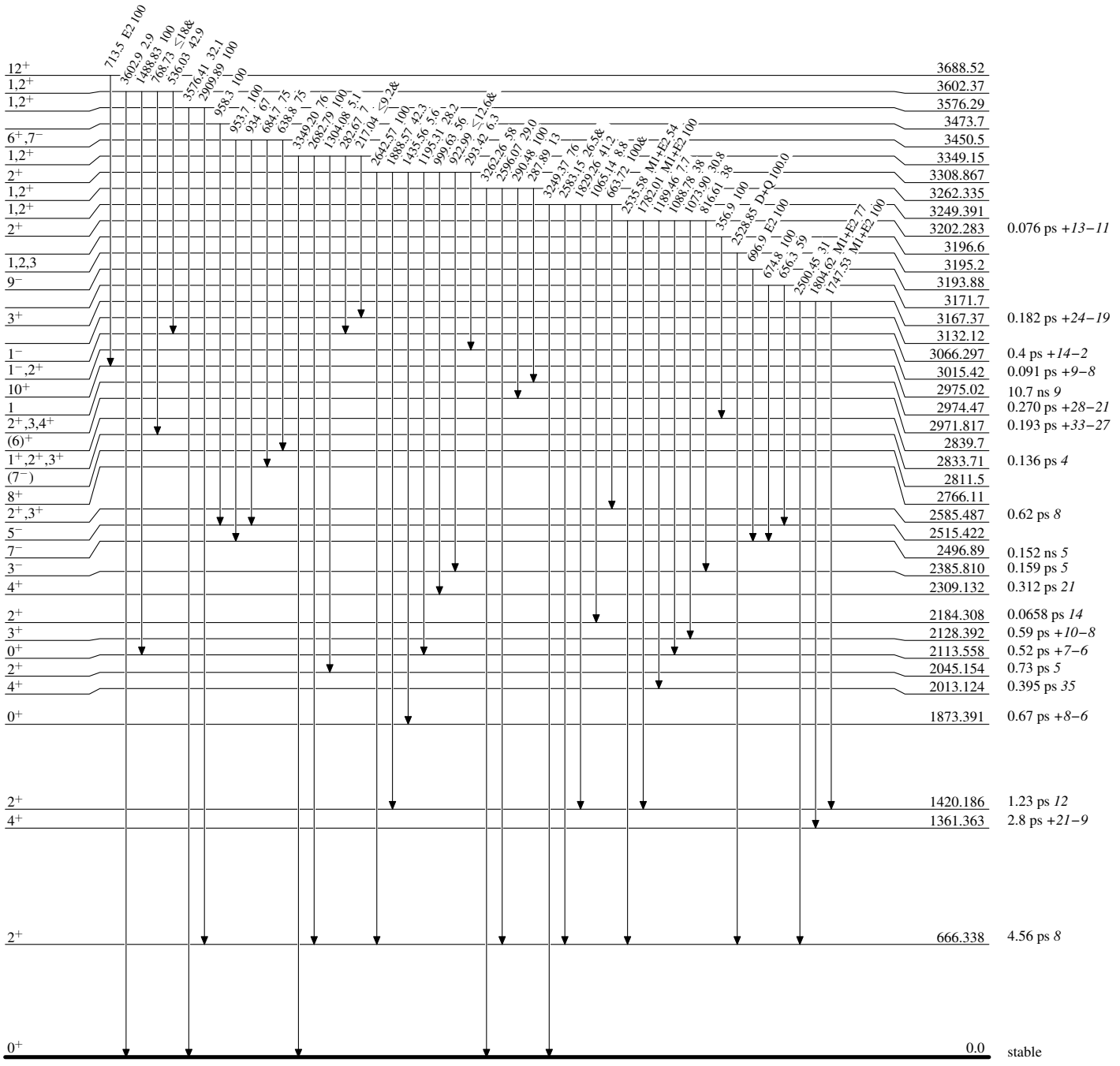


$^{126}_{52}Te_{74}$

Adopted Levels, Gammas

Level Scheme (continued)

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

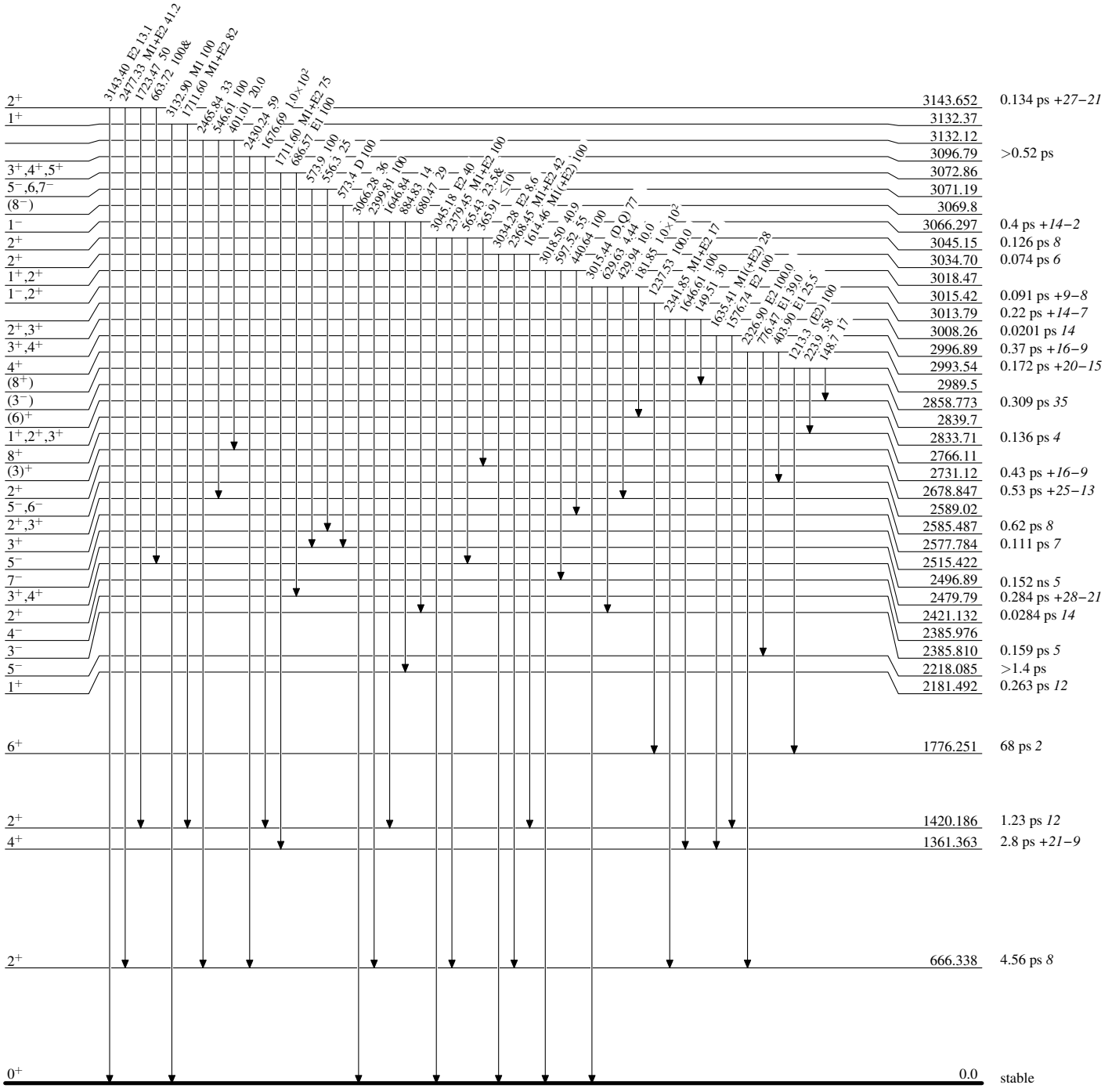


$^{126}_{52}Te_{74}$

Adopted Levels, Gammas

Level Scheme (continued)

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

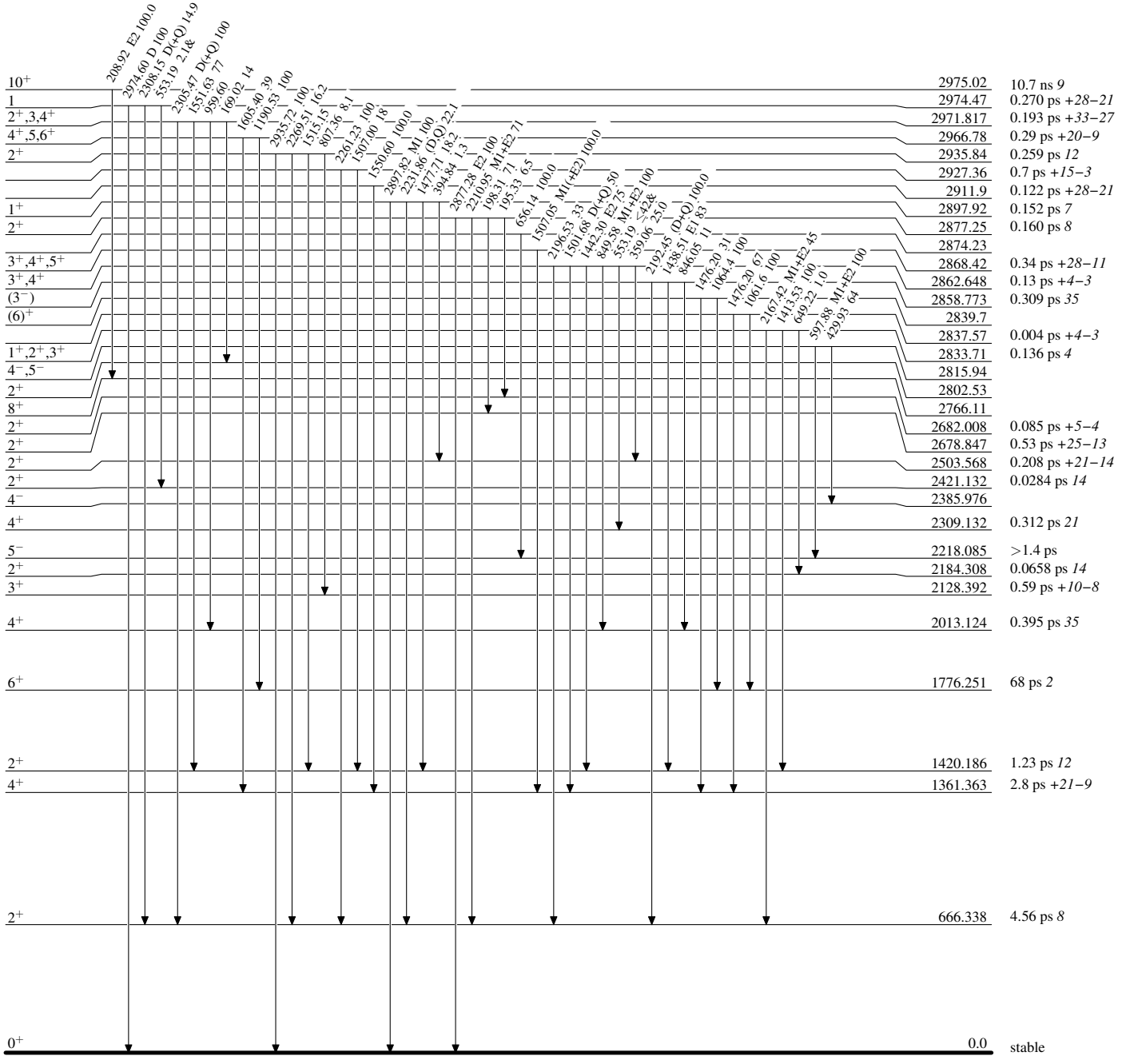


$^{126}_{52}Te_{74}$

Adopted Levels, Gammas

Level Scheme (continued)

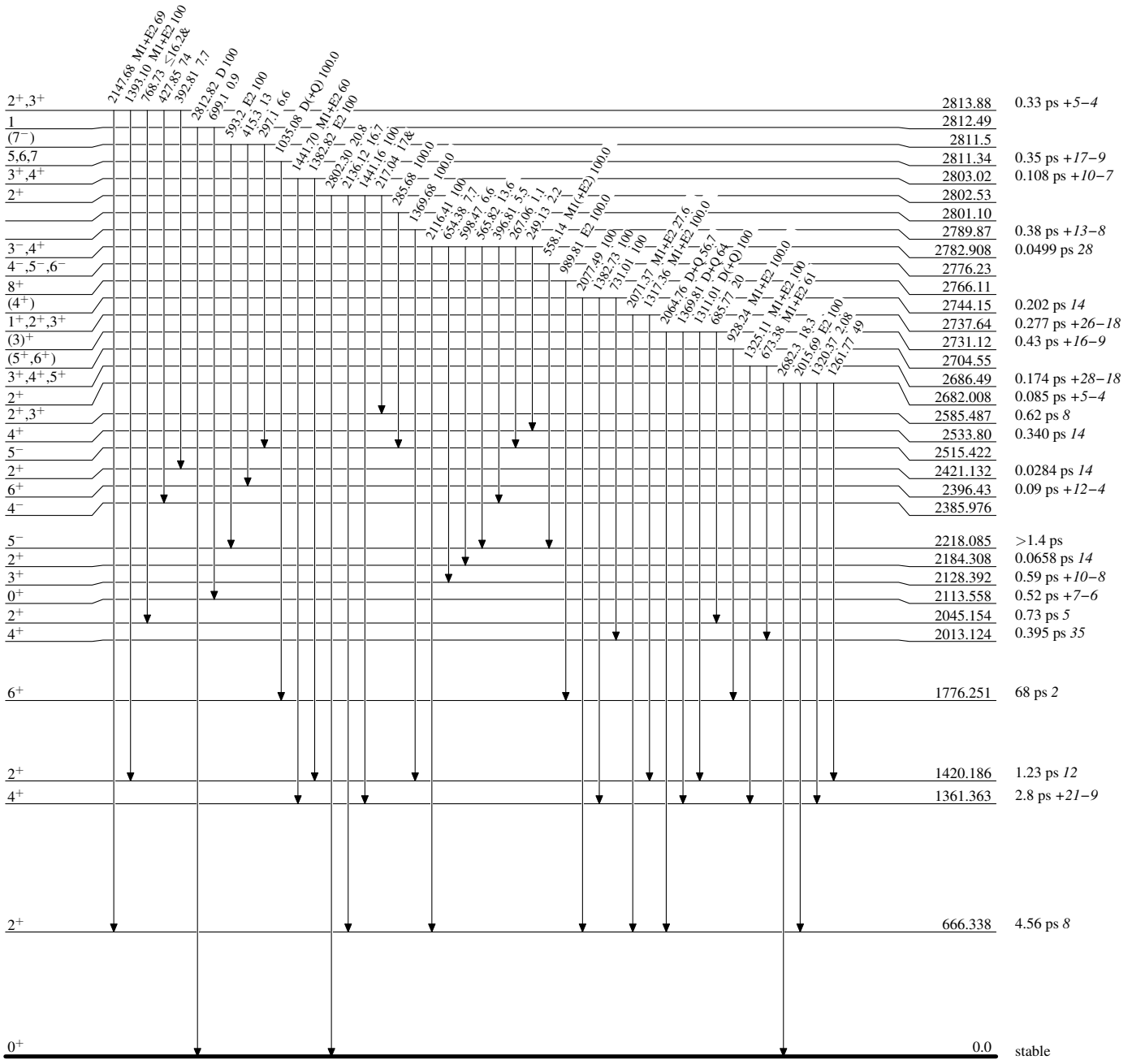
Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given



Adopted Levels, Gammas

Level Scheme (continued)

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

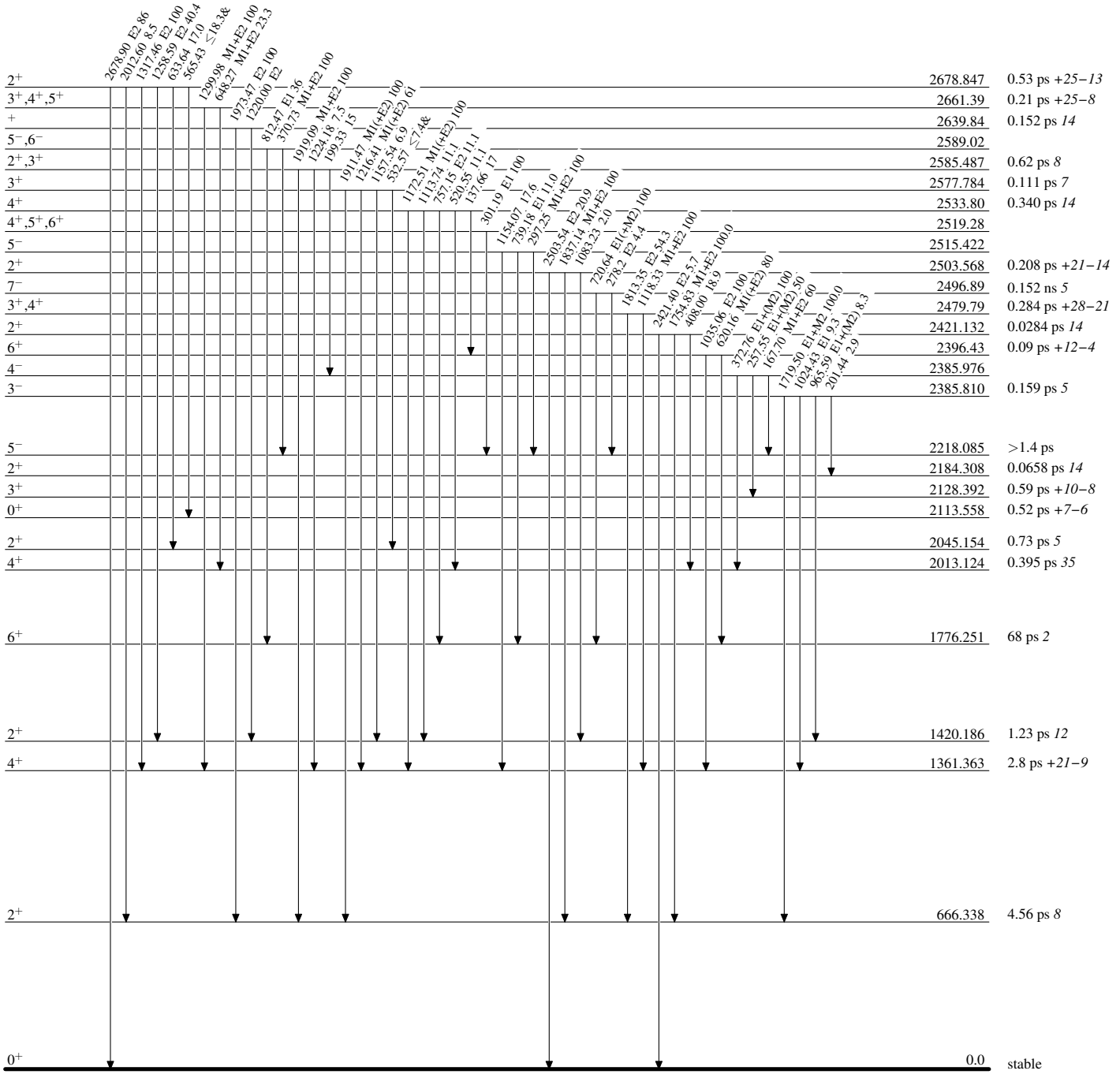


$^{126}_{52}Te_{74}$

Adopted Levels, Gammas

Level Scheme (continued)

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

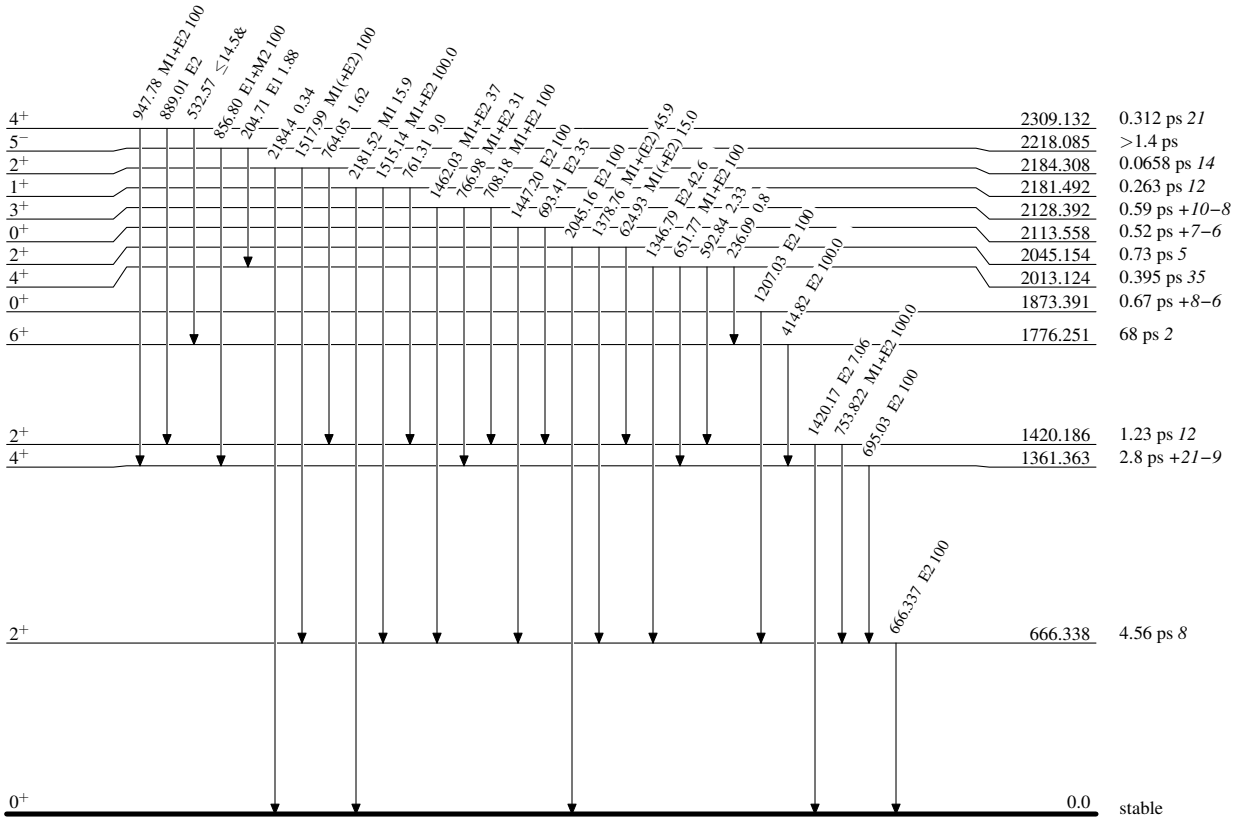


$^{126}_{52}Te_{74}$

Adopted Levels, Gammas

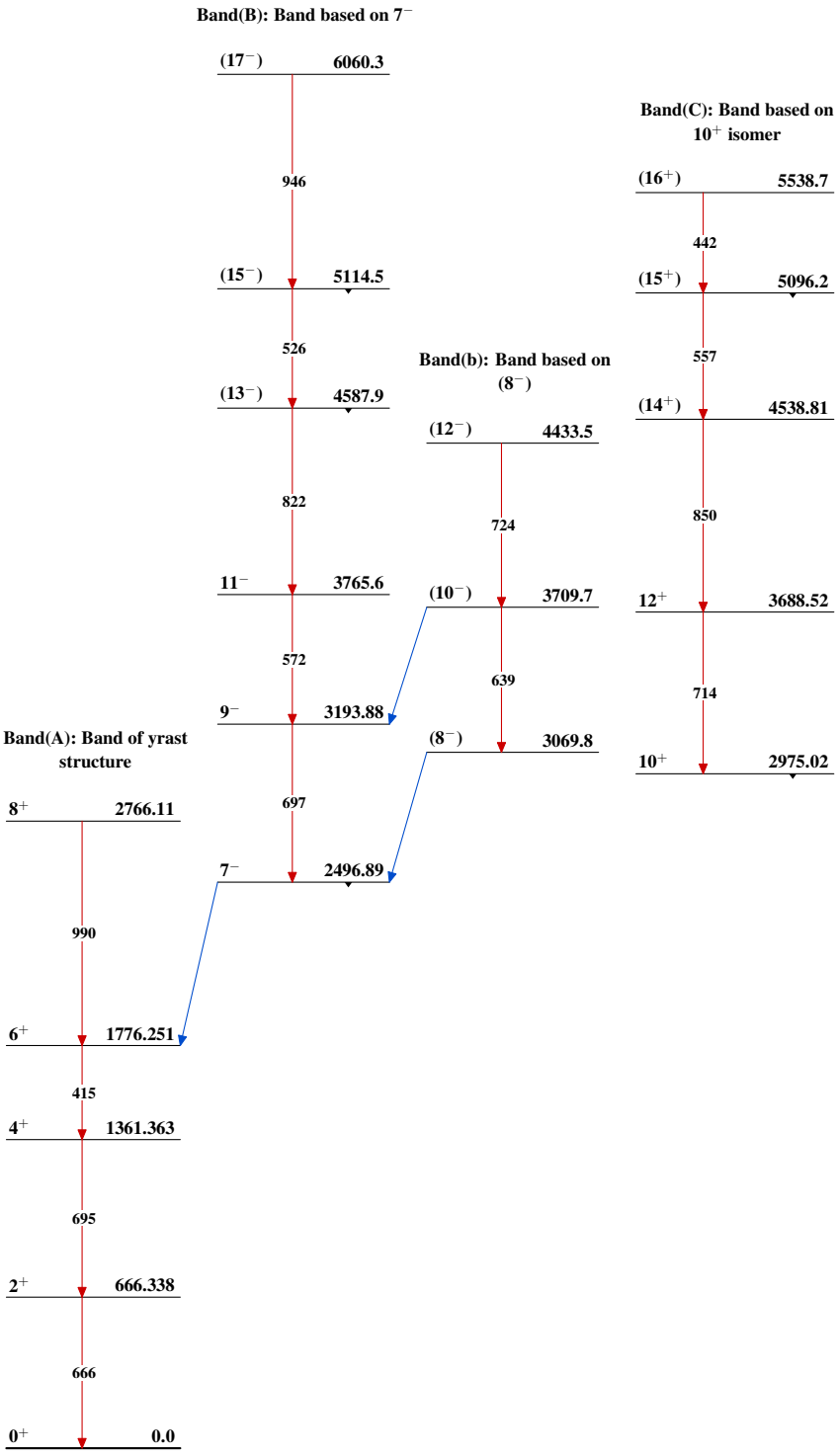
Level Scheme (continued)

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



$^{126}_{52}Te_{74}$

Adopted Levels, Gammas



$^{126}_{52}Te_{74}$

Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Zoltan Elekes and Janos Timar	NDS 129, 191 (2015)	28-Feb-2015

Q(β^-)=−1255 *4*; S(n)=8783.4 *17*; S(p)=9583 *5*; Q(α)=−3184.4 *13* 2012Wa38

^{128}Te Levels

Cross Reference (XREF) Flags

A	^{128}Sb β^- decay (9.05 h)	F	Coulomb excitation	K	^{130}Te(p,t)
B	^{128}Sb β^- decay (10.41 min)	G	^{128}Te(α,α')	L	^{130}Te(^{64}Ni,X)
C	^{128}I ε decay	H	^{128}Te(d,d′)	M	^{235}U(n,Fγ)
D	^{126}Te(t,p)	I	^{128}Te(γ,γ')	N	^{238}U(^{18}O,Fγ)
E	^{128}Te(n,n′γ)	J	^{128}Te(p,p′)	O	^{238}U(^{12}C,Fγ)

E(level)	J$^\pi$	T$_{1/2}$[#]	XREF	Comments
0.0[†]	0$^+$[‡]	7.7×10^{24} y *4*	ABCDEFGHIJKLMNO	%2β^-=100 T$_{1/2}$: T$_{1/2}$(2β^-) if T$_{1/2}$(^{130}Te)/T$_{1/2}$(^{128}Te)= 3.52×10^{-4} *11* and T$_{1/2}$(^{130}Te)=2.7×10^{21} *1* (1992Be30,1993Be04). Others: 2.2×10^{-24} *3* for T$_{1/2}$(^{130}Te)/T$_{1/2}$(^{128}Te)=3.52×10^{-4} *11* and T$_{1/2}$(^{130}Te)=7.9×10^{20} *10* (1996Ta04). <8.6×10^{22} y (2000Al26),>1.1×10^{23} y to g.s. (2003Ar02),>8.8×10^{18} y to g.s.,>1.3×10^{18} y to 443 (2003Ki08),<3.11×10^{19} y (2006Zu02), 5.4×10^{19} y to g.s. (2007Bl15), 1.7×10^{20} y to g.s. (2009Da16), 1.7×10^{20} y to g.s. (2010Zu02).
743.216[†] *17*	2$^+$[‡]	3.30 ps *3*	ABCDEFGH JKLMNO	Q=−0.06 *5*; μ=+0.58 *6* μ: weighted average of +0.50 *6* (1988Du10), +0.62 *8* (1981Sh15) and +0.70 *8* (1985ThZX). Q: from Coulomb excitation reorientation (1978Be10). 1978Be10 also reported −0.14 *12* as recalculated value. J$^\pi$: L(p,p′)=2, L(α,α')=2, E2 γ to 0$^+$. T$_{1/2}$: from B(E2)=0.377 *3* in Coulomb excitation.
1497.020[†] *22*	4$^+$[‡]		AB EFGh JKLMNO	XREF: G(1480)h(1490). J$^\pi$: see 1811 level.
1519.995 *21*	2$^+$	1.7 ps *+8−4*	EF hIJKL	XREF: h(1490). J$^\pi$: E2 γ to 0$^+$.
1811.13[†] *3*	6$^+$[‡]	0.45 ns *3*	AB E J LMNO	J$^\pi$: E1 γ from 7$^-$ 2337 to 1811 and E2 γ's from 1811 to 1497 and from 1497 to 2$^+$ 743 uniquely establish J$^\pi$(1811)=6$^+$ and J$^\pi$(1497)=4$^+$. T$_{1/2}$: weighted average of 0.48 ns *3* in ^{128}Sb β^- decay (9.01 h) and 0.42 ns *3* in ^{128}Sb β^- decay (10.4 min).
1968.485 *25*	1$^+$,2$^+$,3$^+$	209 fs *+17−15*	E g j	XREF: g(2010)j(1972). J$^\pi$: M1+E2 γ to 2$^+$.
1972 *2*			ghIjK	XREF: g(2010)h(2020)j(1972). E(level): from (p,t).
1978.80 *3*	0$^+$	1.4 ps *+12−8*	E K	XREF: K(1982). J$^\pi$: L(p,t)=0.
2027.77 *3*	4$^+$	0.37 ps *+19−10*	E Gh JKL	XREF: G(2010)h(2020). J$^\pi$: M1+E2 γ to 4$^+$, L(p,p′)=4.
2133.29 *3*	5$^-$		A E h JKL NO	XREF: h(2120).

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{128}Te Levels (continued)

E(level)	J^π	$T_{1/2}$[#]	XREF	Comments
				J^π: L(p,t)=5, L(p,p′)=5, E1+M2 γ to 4^+.
2163.542 *24*	3^+	0.57 ps *+16−10*	E h K	XREF: h(2120). J^π: M1+E2 γ′s to 3^+ and 4^+.
2193.48 *3*	2^+	49.9 fs *14*	E K	XREF: K(2196.0). J^π: E2 γ to 0^+, M1+E2 γ to 2^+.
2217.95 *3*	$1^+,2^+,3^+$	0.4 ps *+6−5*	E	J^π: M1+E2 γ to 2^+.
2270.33 *3*	$3^+,4^+,5^+$	177 fs *+28−20*	E K	XREF: K(2274). J^π: M1+E2 γ to 4^+.
2308.30 *4*	0^+	>1.7 ps	E h K	XREF: h(2340)K(2312.2). J^π: L(p,t)=0.
2337.68 *5*	$(7)^-$	2.404 ns *24*	A E h JKL NO	XREF: h(2340)J(2360)K(2341). J^π: E1+M2 γ to 6^+, L(p,t)=7. $T_{1/2}$: from (814γ)(527γ)(t) in ^{128}Sb β^- decay (9.05 h).
2352.11 *3*	2^+	137 fs *+10−7*	E h K	XREF: h(2340)K(2353.8). J^π: E2 γ to 0^+, M1+E2 γ to 2^+.
2395.92 *3*	4^-		E KL	XREF: K(2390). J^π: M1+E2 γ from 2395 to 5^-, and the E1+M2, M1+E2 cascade from 2395 to 2163 to 2^+ uniquely establishes $J^\pi(2395)=4^-$, $J^\pi(2163)=3^+$.
2405.30 *8*	$(4^+,5,6^+)$		AB E KL	XREF: K(2409). J^π: γ′s to 4^+ and 6^+.
2426.00 *4*	$3^+,4^+,5^+$	86 fs *+10−8*	E H K	XREF: H(2480)K(2429). J^π: M1+E2 γ to 4^+.
2.44×10^3 *2*	3^-		FGh	XREF: G(2440)h(2480). J^π: L(α,α')=3.
2456.75 *21*			E O	
2482.22 *7*		0.20 ps *+5−3*	E	
2485 *2*	3^-		h JK	XREF: h(2480). J^π: L(p,t)=3. B(E3)≈0.45 in Coulomb excitation. E(level): from (p,t).
2487.44 *3*	3^+	0.32 ps *+11−7*	E h	XREF: h(2480). J^π: M1+E2 γ′s to 2^+ and 4^+.
2494.20 *3*	$(3)^-$	236 fs *+28−21*	E h jK	XREF: h(2480)j(2490). J^π: E1+M2 γ to 2^+, L(p,t)=(3).
2508.06 *4*	2^+	0.37 ps *+6−5*	E h	XREF: h(2480). J^π: E2 γ to 0^+, M1+E2 γ to 2^+.
2516.64 *6*			E K	
2550.52? *3*	3^+	0.18 ps *+4−3*	E	J^π: M1+E2 γ′s to 2^+ and 4^+.
2571.17 *4*	4,5		E K	XREF: K(2573). J^π: D+Q γ′s to 5^- and 4^-.
2587.14 *22*			A E L	
2598.99 *5*			B E KL	XREF: K(2602).
2630.14 *4*	$1^+,2^+,3^+$	95 fs *10*	E K	XREF: K(2633). J^π: M1+E2 γ to 2^+.
2643.28 *6*		0.16 ps *+5−8*	E	
2655.10 *17*			AB E K	XREF: K(2650).
2665.31 *10*		0.15 ps *+46−8*	E K	
2688.99[†] *24*	(8^+)[‡]		A L NO	J^π: Q (ΔJ=2) γ to 6^+, high spin ordering in ^{238}U(^{12}C,Fγ).
2701.0 *3*			E	
2706.65 *4*	$1^+,2^+,3^+$	80 fs *6*	E gh JK	XREF: g(2720)h(2730). J^π: M1+E2 γ to 2^+.
2712.23? *4*	$1^+,2^+,3^+$	162 fs *11*	E gh	XREF: g(2720)h(2730). J^π: M1+E2 γ to 2^+.

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Adopted Levels, Gammas (continued)

^{128}Te Levels (continued)

E(level)	J$^\pi$	T$_{1/2}$[#]	XREF	Comments
2718.80 *12*			E gh	XREF: g(2720)h(2730).
2736.25 *13*			A E Gh	XREF: G(2720)h(2730).
2748.66 *4*	3$^+$	0.71 ps *+53−21*	E gh	XREF: g(2720)h(2730). J$^\pi$: M1+E2 γ's to 2$^+$ and 4$^+$.
2749.57 *21*			E	
2762.03 *8*	3$^-$,4$^-$,5$^-$,6$^-$,7$^-$		A E K	XREF: K(2759). J$^\pi$: M1,E2 γ to 5$^-$.
2763.96 *10*		16.6 fs *21*	E	
2776.86 *6*			E	
2790 *10*			K	E(level): from (p,t).
2790.8[†] *3*	(10$^+$)[‡]	236 ns *20*	L NO	T$_{1/2}$: from γ(t) in ^{238}U(^{12}C,Fγ), 0.37 μs *3* from γ(t) in ^{130}Te(^{64}Ni,X) and 337ns 59 in 2004Va03. J$^\pi$: E2 γ to (8$^+$), high spin ordering in ^{238}U(^{12}C,Fγ).
2817.18 *23*			A	
2820.71 *5*	(1,2$^+$)	150 fs *+19−17*	E K	XREF: K(2820). J$^\pi$: γ's to 0$^+$ and 2$^+$.
2830.66 *9*		0.29 ps *+13−8*	E	
2851.90 *6*	(4$^+$,5,6$^+$)		B E	J$^\pi$: γ's to 4$^+$ and 6$^+$.
2858.6 *4*			A L	
2861.92 *17*			E	
2869.00? *8*	(1,2$^+$)	0.28 ps *+13−7*	E j	XREF: j(2900). J$^\pi$: γ's to 0$^+$ and 2$^+$.
2884.51 *6*	1$^+$,2$^+$,3$^+$	0.39 ps *3*	E h jk	XREF: h(2910)j(2900)k(2886). J$^\pi$: M1+E2 γ to 2$^+$.
2885.01 *13*	5	98 fs *+40−26*	E h jk	XREF: h(2910)j(2900)k(2886). J$^\pi$: D+Q γ's to 4$^+$ and 6$^+$.
2891.46 *7*	2$^+$	187 fs *+29−24*	E h jk	XREF: h(2886)j(2900)k(2886). J$^\pi$: E2 γ to 0$^+$, M1+E2 γ to 2$^+$.
2901.0 *3*			h jkL	XREF: h(2910)j(2900)k(2910).
2904.42 *11*		0.67 ps *+48−35*	E	
2912.78 *6*		1.1 ps *+23−5*	E h jk	XREF: h(2910)j(2900)k(2910).
2921.55 *14*		1.2 ps *+23−8*	E	
2923.82 *20*			A h L	XREF: h(2910).
2931.86? *5*	3$^+$,4$^+$,5$^+$		E h jK	XREF: h(2910)j(2900)K(2932). J$^\pi$: M1+E2 γ to 4$^+$.
2952.6 *17*			E L	
2954.87 *6*		0.7 ps *+12−3*	E	
2966.9 *4*	(8$^-$)		O	J$^\pi$: D γ to (7)$^-$, high spin ordering in ^{238}U(^{12}C,Fγ).
2969.0 *3*			E	
2983.31? *5*	3$^+$	111 fs *+31−22*	E	J$^\pi$: M1+E2 γ's to 2$^+$ and 4$^+$.
2985.53 *10*		0.3 ps *+9−2*	E	
2997.49 *15*		102 fs *+20−21*	E K	
2997.8 *3*			E	
3030.11 *8*	1,2$^+$	0.90 ps *+60−42*	E h k	XREF: h(3060)k(3031). J$^\pi$: γ's to 0$^+$ and 2$^+$.
3030.53 *21*			A h k	XREF: h(3060)k(3031).
3038.73 *13*			E	
3048.45 *17*			E	
3054.50 *10*		274 fs *+17−12*	E gh jK	XREF: g(3090)h(3060)j(3070).
3067.15 *6*	3	274 fs *+17−12*	E gh jK	XREF: g(3090)h(3060)j(3070). J$^\pi$: D+Q γ's to 2$^+$ and 4$^+$.
3071.60 *11*		130 fs *+40−28*	E g	XREF: g(3090).
3091.1 *3*			E g	XREF: g(3090).
3097.6 *3*			E g	XREF: g(3090).
3100.41 *9*	1,2,3	117 fs *+33−24*	E gh K	XREF: g(3090)h(3060). J$^\pi$: D+Q γ to 2$^+$.

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Adopted Levels, Gammas (continued)

^{128}Te Levels (continued)

E(level)	J^π	$T_{1/2}$[#]	XREF	Comments
3101.29 *9*		0.21 ps *+20–8*	E g	XREF: g(3090).
3104.40? *17*		113 fs *+22–17*	E gh	XREF: g(3090)h(3060).
3125.40? *5*			E g	XREF: g(3090).
3135.80 *23*		0.24 ps *+35–10*	E	
3137.43 *19*	2^+	121 fs *+29–21*	E g K	XREF: g(3090)K(3137). J^π: E2 γ to 0^+.
3140.10 *20*	2,3		A E g	XREF: g(3090). J^π: D+Q γ's to $(3)^-$ and 2^+.
3146.4 *9*			E	
3148.35 *10*		0.26 ps *+12–6*	E	
3151.11 *11*	(9^-)		A E H L O	XREF: H(3150). J^π: Q γ to $(7)^-$, high spin ordering in ^{238}U(^{12}C,Fγ).
3166.51 *18*	3^-		E h J	XREF: h(3150)J(3160). J^π: L(p,p′)=3.
3183.28 *20*	$(5)^-$,$(6)^+$		A L	J^π: γ's to 4^+ and $(7)^-$.
3184.84 *13*		51 fs *8*	E h K	XREF: h(3150).
3188.2 *4*		0.10 ps *+12–5*	E	
3195.6 *11*			E	
3199.1 *17*			E K	XREF: K(3210).
3216.59 *19*		76 fs *+83–35*	E	
3219.3 *4*			E	
3221.4 *3*			E	
3249.4 *4*			E k	XREF: k(3250).
3251.0 *4*			E k	XREF: k(3250).
3255.0 *4*			E k	XREF: k(3250).
3286.3 *4*			E K	XREF: K(3282).
3296.46? *8*	$(2^+,3,4^+)$		E jk	XREF: j(3330)k(3296). J^π: γ's to 2^+ and 4^+.
3296.9 *4*			E jk	XREF: j(3330)k(3296).
3303.8 *4*			E jk	XREF: j(3330)k(3296).
3327 *4*			K	E(level): from (p,t).
3345 *5*			jK	XREF: j(3330). E(level): from (p,t).
3384 *5*			K	E(level): from (p,t).
3407 *5*			K	E(level): from (p,t).
3416.30 *16*	$^-$		A	J^π: M1,E2 γ to 3^-,4^-,5^-,6^-,7^-.
3428.96 *23*			A	
3440 *10*			K	E(level): from (p,t).
3460 *10*			K	E(level): from (p,t).
3489.83 *24*			A JK	XREF: J(3530)K(3480).
3508.1[†] *4*	(12^+)[‡]		JKL NO	XREF: J(3530)K(3512). J^π: Q (ΔJ=2) γ to 10^+, high spin ordering in ^{238}U(^{12}C,Fγ).
3519.19 *19*			A j	XREF: j(3530).
3570 *10*			jK	XREF: j(3530). E(level): from (p,t).
3587.8 *3*			A k	XREF: k(3596).
3597.09 *18*			A k	XREF: k(3596).
3607.42? *11*			E	
3637.0 *6*			O	
3690 *10*			K	E(level): from (p,t).
3714.4 *4*	(11^-)		O	J^π: Q (ΔJ=2) γ to (9^-), high spin ordering.
3731.72? *7*			E	
3734.03 *17*			A	
3764 *5*			K	E(level): from (p,t).
3838.4? *5*	$(1,2^+)$		E	J^π: γ's to 0^+ and 2^+.
4035.7 *6*			O	

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Adopted Levels, Gammas (continued)

^{128}Te Levels (continued)

E(level)	J^π	XREF			Comments
4063.10? *17*		E			
4171.5 *6*				0	
4265.2 *6*				0	
4341.7† *4*	(13^-)‡		L	0	J^π: d (ΔJ=1) γ to (12^+), high spin ordering in ^{238}U(^{12}C,Fγ).
4431.2 *5*	(14^+)		L	0	J^π: Q (ΔJ=2) γ to (12^+), high spin ordering in ^{238}U(^{12}C,Fγ).
4527.3 *7*				0	
4668.4 *5*	(14^-)		L	0	J^π: d (ΔJ=1) γ to (12^+), high spin ordering in ^{238}U(^{12}C,Fγ).
4728.8 *6*	(15^-)			0	J^π: Q (ΔJ=2) γ to (13^-), high spin ordering in ^{238}U(^{12}C,Fγ).
5077.5 *9*				0	
5435.8 *6*				0	
5447.7 *7*				0	
5544.8 *10*				0	
5946.5 *8*				0	
6211.8 *10*				0	
7726.8 *6*	1		I		Level excited by resonance fluorescence in ^{128}Te(γ,γ'). J^π: from dipole excitation from 0^+.

† Band(A): yrast band.
‡ From systematics of the yrast band structure in ^{126}Te, ^{128}Te and ^{130}Te, unless otherwise noted.
# From DSAM in (n,n$'\gamma$) unless otherwise noted.

Adopted Levels, Gammas (continued)

γ(^{128}Te)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[@]	δ[@e]	α[f]	Comments
743.216	2+	743.22 *2*	100	0.0	0+	E2		0.00288	α(K)exp=0.00245 α(K)=0.00248 *4*; α(L)=0.000322 *5*; α(M)=6.44×10^{-5} *9*; α(N)=1.266×10^{-5} *18*; α(O)=1.347×10^{-6} *19* B(E2)(W.u.)=19.68 *18* α(K)exp: from ^{128}Sb β$^-$ decay (9.05 h).
1497.020	4+	753.82 *2*	100	743.216	2+	E2		0.00278	α(K)exp=0.0025 *3* α(K)=0.00239 *4*; α(L)=0.000311 *5*; α(M)=6.21×10^{-5} *9*; α(N)=1.221×10^{-5} *17*; α(O)=1.299×10^{-6} *19* α(K)exp: from ^{128}Sb β$^-$ decay (9.05 h).
1519.995	2+	776.75 *2*	100 *2*	743.216	2+	M1+E2	+4.7 *2*	0.00262	α(K)=0.00225 *4*; α(L)=0.000291 *4*; α(M)=5.80×10^{-5} *9*; α(N)=1.142×10^{-5} *16*; α(O)=1.219×10^{-6} *17* B(E2)(W.u.)=28 *+7−14*; B(M1)(W.u.)=0.0012 *+3−6*
		1520.02 *5*	3.13 *23*	0.0	0+	E2		6.96×10^{-4}	α(K)=0.000529 *8*; α(L)=6.42×10^{-5} *9*; α(M)=1.273×10^{-5} *18*; α(N)=2.52×10^{-6} *4*; α(O)=2.74×10^{-7} *4* B(E2)(W.u.)=0.032 *+8−16*
1811.13	6+	314.12 *2*	100	1497.020	4+	E2		0.0333	α(K)exp=0.032 *5* α(K)=0.0278 *4*; α(L)=0.00442 *7*; α(M)=0.000895 *13*; α(N)=0.0001733 *25*; α(O)=1.721×10^{-5} *24* B(E2)(W.u.)=9.7 *6* α(K)exp: from ^{128}Sb β$^-$ decay (9.05 h).
1968.485	1+,2+,3+	448.8 *3*	0.38 *17*	1519.995	2+				
		1225.27 *2*	100 *2*	743.216	2+	M1+E2	−0.210 *11*	1.16×10^{-3}	α(K)=0.001001 *14*; α(L)=0.0001210 *17*; α(M)=2.40×10^{-5} *4*; α(N)=4.76×10^{-6} *7*; α(O)=5.22×10^{-7} *8* B(E2)(W.u.)=1.08 *+14−15*; B(M1)(W.u.)=0.055 *5*
1978.80	0+	1235.58 *3*	100	743.216	2+				
2027.77	4+	530.75 *2*	100 *3*	1497.020	4+	M1+E2	−0.24 *2*	0.00806	α(K)=0.00698 *10*; α(L)=0.000869 *13*; α(M)=0.0001729 *25*; α(N)=3.42×10^{-5} *5*; α(O)=3.73×10^{-6} *6* B(E2)(W.u.)=33 *+11−18*; B(M1)(W.u.)=0.24 *+7−13*
		1284.54 *3*	55.2 *16*	743.216	2+	E2		8.71×10^{-4}	α(K)=0.000739 *11*; α(L)=9.06×10^{-5} *13*; α(M)=1.80×10^{-5} *3*; α(N)=3.56×10^{-6} *5*; α(O)=3.86×10^{-7} *6* B(E2)(W.u.)=4.0 *+11−21*
2133.29	5−	322.3[&] *2*	8.3[a] *28*	1811.13	6+				I$_\gamma$: other: 25 *3* in ^{130}Te(^{64}Ni,X).
		636.26 *2*	100[a] *6*	1497.020	4+	E1+M2	+0.020 *6*	1.54×10^{-3}	α(K)exp=0.0013 *3* α(K)=0.001343 *19*; α(L)=0.0001622 *24*; α(M)=3.21×10^{-5} *5*; α(N)=6.34×10^{-6} *9*; α(O)=6.87×10^{-7} *10* α(K)exp: from ^{128}Sb β$^-$ decay (9.05 h).
2163.542	3+	643.56 *2*	100 *3*	1519.995	2+	M1+E2	+3.8 *4*	0.00419	α(K)=0.00360 *6*; α(L)=0.000477 *7*; α(M)=9.53×10^{-5}

$^{128}_{52}Te_{76}$-6

Adopted Levels, Gammas (continued)

γ(^{128}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[@]	δ[@e]	α[f]	Comments
									14; α(N)=1.87×10^{-5} *3*; α(O)=1.98×10^{-6} *3* B(E2)(W.u.)=92 *+17−26*; B(M1)(W.u.)=0.0039 *+11−14*
2163.542	3$^+$	666.48 *6*	59 *3*	1497.020	4$^+$	M1+E2	+0.59 *+14−12*	0.00446 *11*	α(K)=0.00386 *10*; α(L)=0.000482 *10*; α(M)=9.60×10^{-5} *19*; α(N)=1.90×10^{-5} *4*; α(O)=2.06×10^{-6} *5* B(E2)(W.u.)=13 *+5−6*; B(M1)(W.u.)=0.024 *+6−8*
		1420.30 *3*	79 *4*	743.216	2$^+$	M1+E2	+0.419 *11*	8.69×10^{-4}	α(K)=0.000712 *10*; α(L)=8.58×10^{-5} *12*; α(M)=1.702×10^{-5} *24*; α(N)=3.37×10^{-6} *5*; α(O)=3.70×10^{-7} *6* B(E2)(W.u.)=0.22 *+5−7*; B(M1)(W.u.)=0.0038 *+7−11*
2193.48	2$^+$	1450.28 *3*	100 *3*	743.216	2$^+$	M1+E2	−0.116 *13*	8.61×10^{-4}	α(K)=0.000697 *10*; α(L)=8.38×10^{-5} *12*; α(M)=1.663×10^{-5} *24*; α(N)=3.30×10^{-6} *5*; α(O)=3.62×10^{-7} *5* B(E2)(W.u.)=0.55 *13*; B(M1)(W.u.)=0.128 *7*
		2193.42 *6*	11.1 *8*	0.0	0$^+$	E2		6.98×10^{-4}	α(K)=0.000267 *4*; α(L)=3.18×10^{-5} *5*; α(M)=6.30×10^{-6} *9*; α(N)=1.247×10^{-6} *18*; α(O)=1.366×10^{-7} *20* B(E2)(W.u.)=0.58 *5*
2217.95	1$^+$,2$^+$,3$^+$	249.24 *9*	7.5 *15*	1968.485	1$^+$,2$^+$,3$^+$				
		697.97 *6*	9.7 *15*	1519.995	2$^+$				
		1474.76 *3*	100 *3*	743.216	2$^+$	M1+E2	+0.16 *16*	8.39×10^{-4} *15*	α(K)=0.000671 *13*; α(L)=8.07×10^{-5} *15*; α(M)=1.60×10^{-5} *3*; α(N)=3.17×10^{-6} *6*; α(O)=3.48×10^{-7} *7* B(E2)(W.u.)=0.1 *+3−1*; B(M1)(W.u.)=0.014 *+18−14*
		2217.68 *13*	4.7 *10*	0.0	0$^+$				
2270.33	3$^+$,4$^+$,5$^+$	773.31 *2*	100	1497.020	4$^+$	M1+E2	+0.25 *+15−8*	0.00327 *8*	α(K)=0.00283 *7*; α(L)=0.000348 *7*; α(M)=6.91×10^{-5} *14*; α(N)=1.37×10^{-5} *3*; α(O)=1.50×10^{-6} *4* B(E2)(W.u.)=18 *+20−18*; B(M1)(W.u.)=0.25 *+4−5*
2308.30	0$^+$	788.29 *8*	39 *4*	1519.995	2$^+$				
		1565.08 *4*	100 *6*	743.216	2$^+$				
2337.68	(7)$^-$	204.4[&] *10*	2.2[a] *5*	2133.29	5$^-$				
		526.57 *4*	100[a] *5*	1811.13	6$^+$	E1+M2	+0.025 *28*	0.00237 *7*	α(K)exp=0.0019 *4* α(K)=0.00206 *6*; α(L)=0.000250 *7*; α(M)=4.96×10^{-5} *15*; α(N)=9.8×10^{-6} *3*; α(O)=1.06×10^{-6} *3*

$^{128}_{52}Te_{76}$-7

Adopted Levels, Gammas (continued)

γ(^{128}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[@]	δ[@e]	α[f]	Comments
									B(E1)(W.u.)=7.4×10^{-7} *6*; B(M2)(W.u.)=0.008 *+17−8*
									α(K)exp: from ^{128}Sb β$^-$ decay (9.05 h).
2352.11	2$^+$	1608.88 *3*	100 *3*	743.216	2$^+$	M1+E2	−0.230 *14*	7.55×10^{-4}	α(K)=0.000555 *8*; α(L)=6.66×10^{-5} *10*; α(M)=1.321×10^{-5} *19*; α(N)=2.62×10^{-6} *4*; α(O)=2.88×10^{-7} *4* B(E2)(W.u.)=0.43 *+6−7*; B(M1)(W.u.)=0.0313 *+21−27*
		2352.08 *8*	17.1 *17*	0.0	0$^+$	E2		7.38×10^{-4}	α(K)=0.000236 *4*; α(L)=2.80×10^{-5} *4*; α(M)=5.54×10^{-6} *8*; α(N)=1.098×10^{-6} *16*; α(O)=1.203×10^{-7} *17* B(E2)(W.u.)=0.22 *3*
2395.92	4$^-$	232.43 *9*	2.2 *4*	2163.542	3$^+$	E1+M2	−0.15 *+10−12*	0.026 *15*	α(K)=0.022 *13*; α(L)=0.0030 *20*; α(M)=0.0006 *4*; α(N)=0.00012 *8*; α(O)=1.2×10^{-5} *9*
		262.63 *2*	100 *3*	2133.29	5$^-$	M1+E2	+0.263 *19*	0.0491	α(K)=0.0422 *6*; α(L)=0.00549 *9*; α(M)=0.001097 *17*; α(N)=0.000217 *4*; α(O)=2.33×10^{-5} *4*
		368.16 *8*	7.3 *12*	2027.77	4$^+$	E1+M2	−0.12 *11*	0.007 *3*	α(K)=0.0057 *23*; α(L)=0.0007 *4*; α(M)=0.00014 *7*
2405.30	(4$^+$,5,6$^+$)	593.5 *3*	100[a] *15*	1811.13	6$^+$				
		908.32 *8*	71[a] *9*	1497.020	4$^+$				
2426.00	3$^+$,4$^+$,5$^+$	398.31 *8*	22 *3*	2027.77	4$^+$	M1+E2	+1.18 *20*	0.01615 *24*	α(K)=0.01378 *22*; α(L)=0.00190 *4*; α(M)=0.000381 *7*; α(N)=7.48×10^{-5} *13*; α(O)=7.82×10^{-6} *12* B(E2)(W.u.)=1.8×10^3 *+4−5*; B(M1)(W.u.)=0.30 *+8−9*
		928.97 *3*	100 *4*	1497.020	4$^+$	M1+E2	−0.147 *17*	0.00215	α(K)=0.00187 *3*; α(L)=0.000228 *4*; α(M)=4.52×10^{-5} *7*; α(N)=8.96×10^{-6} *13*; α(O)=9.82×10^{-7} *14* B(E2)(W.u.)=4.3 *+11−12*; B(M1)(W.u.)=0.26 *+3−4*
2.44×10^3	3$^-$	1700 *30*	100	743.216	2$^+$				E_γ: from Coulomb excitation.
2456.75		323.46 *21*	100	2133.29	5$^-$				
2482.22		1738.99 *7*	100	743.216	2$^+$				
2487.44	3$^+$	967.40 *14*	44 *4*	1519.995	2$^+$				
		990.45[g] *4*	100 *8*	1497.020	4$^+$	M1+E2	+0.43 *+25−24*	0.00181 *7*	α(K)=0.00157 *6*; α(L)=0.000192 *7*; α(M)=3.80×10^{-5} *13*; α(N)=7.5×10^{-6} *3*; α(O)=8.2×10^{-7} *3* B(E2)(W.u.)=3 *+4−3*; B(M1)(W.u.)=0.025 *+8−10*
		1744.18 *4*	97 *5*	743.216	2$^+$	M1+E2	+0.268 *21*	7.10×10^{-4}	α(K)=0.000468 *7*; α(L)=5.60×10^{-5} *8*;

Adopted Levels, Gammas (continued)

γ(^{128}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[@]	δ[@e]	α[f]	Comments
									α(M)=1.110×10^{-5} *16*; α(N)=2.20×10^{-6} *3*; α(O)=2.42×10^{-7} *4* B(E2)(W.u.)=0.077 *+21−30*; B(M1)(W.u.)=0.0049 *+12−17*
2494.20	(3)$^-$	526.25 *13*	3.5 *4*	1968.485	1$^+$,2$^+$,3$^+$				
		974.21 *28*	5.06 *25*	1519.995	2$^+$				
		1750.94 *3*	100 *3*	743.216	2$^+$	E1+M2	+0.029 *10*	6.47×10^{-4}	α(K)=0.000201 *3*; α(L)=2.37×10^{-5} *4*; α(M)=4.68×10^{-6} *7*; α(N)=9.26×10^{-7} *14*; α(O)=1.015×10^{-7} *15* B(E1)(W.u.)=0.000193 *+19−25*; B(M2)(W.u.)=0.24 *17*
2508.06	2$^+$	1764.83 *4*	100 *4*	743.216	2$^+$	M1+E2	+1.8 *3*	6.61×10^{-4} *11*	α(K)=0.000413 *8*; α(L)=4.96×10^{-5} *9*; α(M)=9.82×10^{-6} *18*; α(N)=1.95×10^{-6} *4*; α(O)=2.13×10^{-7} *4* B(E2)(W.u.)=1.32 *+22−25*; B(M1)(W.u.)=0.0019 *6*
		2508.04 *6*	35 *3*	0.0	0$^+$	E2		7.84×10^{-4}	α(K)=0.000210 *3*; α(L)=2.49×10^{-5} *4*; α(M)=4.94×10^{-6} *7*; α(N)=9.78×10^{-7} *14*; α(O)=1.073×10^{-7} *15* B(E2)(W.u.)=0.104 *+18−20*
2516.64		996.64 *6*	100	1519.995	2$^+$				
2550.52?	3$^+$	1030.40 *15*	26 *3*	1519.995	2$^+$	M1+E2	>5	1.36×10^{-3} *2*	α(K)=0.001178 *18*; α(L)=0.0001473 *22*; α(M)=2.93×10^{-5} *5*; α(N)=5.78×10^{-6} *9*; α(O)=6.24×10^{-7} *10* B(E2)(W.u.)>11; B(M1)(W.u.)<0.00070
		1053.50 *3*	100 *4*	1497.020	4$^+$	M1+E2	+0.03 *6*	1.63×10^{-3}	α(K)=0.001413 *20*; α(L)=0.0001713 *24*; α(M)=3.40×10^{-5} *5*; α(N)=6.74×10^{-6} *10* α(O)=7.39×10^{-7} *11* B(E2)(W.u.)=0.04 *+15−4*; B(M1)(W.u.)=0.065 *+12−15*
		1807.30 *6*	34 *3*	743.216	2$^+$	M1+E2	−0.03 *+12−13*	7.04×10^{-4}	α(K)=0.000438 *7*; α(L)=5.24×10^{-5} *8*; α(M)=1.038×10^{-5} *15*; α(N)=2.06×10^{-6} *3*; α(O)=2.26×10^{-7} *4* B(E2)(W.u.)=0.001 *+7−1*; B(M1)(W.u.)=0.0044 *+9−11* δ=−0.06 *5* or −3.2 *+5−7*.
2571.17	4,5	175.27 *4*	42 *6*	2395.92	4$^-$	D+Q	+0.06 *+7−15*		
		437.86 *4*	100 *8*	2133.29	5$^-$	D+Q	−0.40 *+11−7*	0.0126 *6*	α(K)=0.0108 *6*; α(L)=0.00144 *2*; α(M)=0.00029 *1*
		760.16 *12*	7.9 *23*	1811.13	6$^+$				
		1074.14 *10*	15 *3*	1497.020	4$^+$				
2587.14		249.9 *6*		2337.68	(7)$^-$				
		453.78 *23*		2133.29	5$^-$				
2598.99		193.5[b] *7*	14[c] *7*	2405.30	(4$^+$,5,6$^+$)	(D,E2)			

$^{128}_{52}Te_{76}$-9

Adopted Levels, Gammas (continued)

γ(^{128}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[@]	δ[@e]	α[f]	Comments
2598.99		787.86 *4*	100[c] *14*	1811.13	6^+	M1+E2			
		1101.8[b] *8*	5.4[c] *27*	1497.020	4^+				
2630.14	$1^+,2^+,3^+$	1132.90 *18*	8.1 *20*	1497.020	4^+				
		1886.92 *4*	100 *5*	743.216	2^+	M1+E2	+1.91 *11*	6.59×10^{-4}	α(K)=0.000362 *6*; α(L)=4.33×10^{-5} *7*; α(M)=8.59×10^{-6} *13*; α(N)=1.701×10^{-6} *25*; α(O)=1.86×10^{-7} *3* B(E2)(W.u.)=4.7 *6*; B(M1)(W.u.)=0.0069 *11*
2643.28		1900.05 *6*	100	743.216	2^+				
2655.10		249.7[&g] *2*	40[a] *7*	2405.30	$(4^+,5,6^+)$				E_γ: not reported in ^{128}Sb β^- decay (10 min).
		843.9 *5*	100[c] *16*	1811.13	6^+				E_γ: not reported in ^{128}Sb β^- decay (9.01 h).
		1158.3 *5*	79[a] *16*	1497.020	4^+				
2665.31		532.02 *10*	100	2133.29	5^-				
2688.99	(8^+)	283.7[&] *3*	2.5[a] *3*	2405.30	$(4^+,5,6^+)$				
		878.0[&] *4*	100[a] *8*	1811.13	6^+	Q			Mult.: from $\gamma\gamma(\theta)$ in ^{238}U(^{12}C,Fγ).
2701.0		567.67 *32*	100	2133.29	5^-	D+Q	+0.19 *−57+35*		
2706.65	$1^+,2^+,3^+$	1186.7 *2*	9 *3*	1519.995	2^+				
		1963.42 *4*	100 *5*	743.216	2^+	M1+E2	+1.4 *+127−9*	6.70×10^{-4} *22*	α(K)=0.000341 *20*; α(L)=4.07×10^{-5} *24*; α(M)=8.1×10^{-6} *5*; α(N)=1.60×10^{-6} *10*; α(O)=1.75×10^{-7} *11* B(E2)(W.u.)=3 *+20−3*; B(M1)(W.u.)=0.009 *+111−9*
		2706.5 *3*	24 *4*	0.0	0^+				
2712.23?	$1^+,2^+,3^+$	1192.2 *2*	11.1 *24*	1519.995	2^+				
		1969.00 *4*	<100	743.216	2^+	M1+E2	−0.9 *+11−67*	6.80×10^{-4} *25*	α(K)=0.000348 *23*; α(L)=4.2×10^{-5} *3*; α(M)=8.2×10^{-6} *6*; α(N)=1.63×10^{-6} *11*; α(O)=1.79×10^{-7} *13* B(E2)(W.u.)=1.0 *+19−10*; B(M1)(W.u.)=0.007 *+12−7*
		2712.2 *6*	8.2 *22*	0.0	0^+				
2718.80		691.70 *71*		2027.77	4^+				
		1221.75 *12*		1497.020	4^+				
2736.25		602.95 *13*	100	2133.29	5^-				
2748.66	3^+	555.24 *8*	9 *3*	2193.48	2^+	D+Q	+0.06 *+7−6*		
		780.24 *7*	63 *7*	1968.485	$1^+,2^+,3^+$	M1+E2	−0.29 *+13−18*	0.00319 *9*	α(K)=0.00276 *8*; α(L)=0.000339 *8*; α(M)=6.74×10^{-5} *16*; α(N)=1.34×10^{-5} *3*; α(O)=1.46×10^{-6} *4* B(E2)(W.u.)=1.1 *+10−11*; B(M1)(W.u.)=0.012 *+4−9*
		1228.02 *10*	100 *10*	1519.995	2^+	M1+E2	−0.03 *+9−10*	1.16×10^{-3}	α(K)=0.001004 *15*; α(L)=0.0001212 *18*;

$^{128}_{52}Te_{76}$-10

Adopted Levels, Gammas (continued)

γ(^{128}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult. @	δ @ e	α f	Comments
									α(M)=2.41×10^{-5} *4*; α(N)=4.77×10^{-6} *7*; α(O)=5.23×10^{-7} *8* B(E2)(W.u.)=0.002 *+13−2*; B(M1)(W.u.)=0.0053 *+17−40*
2748.66	3$^+$	1251.81 *8*	59 *7*	1497.020	4$^+$	M1+E2	−0.03 *19*	1.12×10^{-3} *2*	α(K)=0.000963 *16*; α(L)=0.0001162 *19*; α(M)=2.31×10^{-5} *4*; α(N)=4.57×10^{-6} *8*; α(O)=5.01×10^{-7} *9* B(E2)(W.u.)=0.001 *+15−1*; B(M1)(W.u.)=0.0029 *+10−23*
		2005.45 *5*	86 *7*	743.216	2$^+$	M1+E2	−0.03 *16*	7.00×10^{-4}	α(K)=0.000353 *6*; α(L)=4.21×10^{-5} *6*; α(M)=8.35×10^{-6} *12*; α(N)=1.655×10^{-6} *24*; α(O)=1.82×10^{-7} *3* B(E2)(W.u.)=0.0002 *+17−2*; B(M1)(W.u.)=0.0010 *+4−8*
2749.57		353.65 *21*	100	2395.92	4$^-$	D+Q	+0.06 *+7−6*		
2762.03	3$^-$,4$^-$,5$^-$,6$^-$,7$^-$	357.2 *4*	4.8 a *10*	2405.30	(4$^+$,5,6$^+$)				
		628.75 *9*	100 a *6*	2133.29	5$^-$	M1,E2		0.0049 *5*	α(K)exp=0.0045 *1* α(K)=0.0042 *5*; α(L)=0.00054 *4*; α(M)=0.000108 *8*; α(N)=2.12×10^{-5} *15*; α(O)=2.28×10^{-6} *21* α(K)exp: from ^{128}Sb β$^-$ decay (9.05 h). Mult.: from α(K)exp.
2763.96		1243.96 *13*	19.6 *16*	1519.995	2$^+$				
		2020.73 *17*	3.6 *14*	743.216	2$^+$				
		2763.96 *35*	100.0 *20*	0.0	0$^+$				
2776.86		380.66 *23*		2395.92	4$^-$				
		643.58 *5*		2133.29	5$^-$				
2790.8	(10$^+$)	101.9 # *3*	100	2688.99	(8$^+$)	E2		1.59 *3*	α(exp)=1.7 *2* α(K)=1.116 *19*; α(L)=0.380 *8*; α(M)=0.0793 *16*; α(N)=0.0149 *3*; α(O)=0.001262 *24* B(E2)(W.u.)=1.40 *12* α(exp): from ^{130}Te(^{64}Ni,X). Mult.: from α(exp).
2817.18		683.9 & *3*	100 a	2133.29	5$^-$				
2820.71	(1,2$^+$)	852.26 *11*	45 *10*	1968.485	1$^+$,2$^+$,3$^+$				
		1300.45 *11*	42 *5*	1519.995	2$^+$				
		2077.53 *6*	100 *10*	743.216	2$^+$				
		2821.0 *4*	41 *8*	0.0	0$^+$				
2830.66		802.82 *10*	95.3 *19*	2027.77	4$^+$	D+Q	0.0 *+18−3*		
		2087.62 *17*	100.0 *19*	743.216	2$^+$				
2851.90	(4$^+$,5,6$^+$)	1040.73 *6*	100 *13*	1811.13	6$^+$				

$^{128}_{52}Te_{76}$-11

Adopted Levels, Gammas (continued)

γ(^{128}Te) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult. @	δ @ e	α f	Comments
2851.90	(4+,5,6+)	1354.95 *9*	43 *9*	1497.020	4+				
2858.6		1047.5& *4*	100 a	1811.13	6+				E_γ: other: 563.3 *3* in ^{130}Te(^{64}Ni,X).
2861.92		728.63 *17*		2133.29	5−	D+Q	−1.7 *+7−9*		
2869.00?	(1,2+)	675.8 *5*		2193.48	2+				
		890.24 *26*	23 *5*	1978.80	0+				
		900.48 *13*	23 *5*	1968.485	1+,2+,3+	D+Q	−0.5 *+4−29*		
		1349.10 *13*	52 *14*	1519.995	2+				
		2125.59 *17*	49 *13*	743.216	2+				
		2869.0 *3*	100 *19*	0.0	0+				
2884.51	1+,2+,3+	1364.68 *15*	20 *6*	1519.995	2+	M1+E2	−0.8 *+5−12*	0.00089 *7*	α(K)=0.00074 *6*; α(L)=9.0×10^{-5} *7*; α(M)=1.78×10^{-5} *14*; α(N)=3.5×10^{-6} *3*; α(O)=3.9×10^{-7} *3* B(E2)(W.u.)=0.5 *5*; B(M1)(W.u.)=0.0023 *14*
		2141.25 *6*	100 *11*	743.216	2+	M1+E2	−2.5 *+27−20*	0.00069 *3*	α(K)=0.000283 *25*; α(L)=3.4×10^{-5} *3*; α(M)=6.7×10^{-6} *6*; α(N)=1.32×10^{-6} *12*; α(O)=1.45×10^{-7} *14* B(E2)(W.u.)=0.60 *21*; B(M1)(W.u.)=0.0007 *+13−7*
2885.01	5	1074.30 *22*	48.1 *20*	1811.13	6+	D+Q	−8 *+5−19*		
		1387.76 *16*	100.0 *20*	1497.020	4+	D+Q	−0.13 *+10−9*		
2891.46	2+	1371.55 *13*	10 *3*	1519.995	2+				
		1394.45 *34*	8 *5*	1497.020	4+				
		2148.22 *15*	21 *5*	743.216	2+	M1+E2	−0.94 *+60−69*	7.04×10^{-4} *15*	α(K)=0.000293 *12*; α(L)=3.49×10^{-5} *14*; α(M)=6.9×10^{-6} *3*; α(N)=1.37×10^{-6} *6*; α(O)=1.50×10^{-7} *7* B(E2)(W.u.)=0.12 *9*; B(M1)(W.u.)=0.0010 *7*
		2891.34 *12*	100 *8*	0.0	0+	E2		9.05×10^{-4}	α(K)=0.0001645 *23*; α(L)=1.94×10^{-5} *3*; α(M)=3.84×10^{-6} *6*; α(N)=7.61×10^{-7} *11*; α(O)=8.36×10^{-8} *12* B(E2)(W.u.)=0.28 *+5−6*
2901.0		563.3# *3*	100	2337.68	(7)−				
2904.42		876.62 *12*	100 *3*	2027.77	4+	D+Q	+1.44 *25*		
		1384.46 *25*	89 *3*	1519.995	2+				
		2161.36 *44*	27 *3*	743.216	2+				
2912.78		719.5 *3*	43 *10*	2193.48	2+				
		1393.0 *5*	2.6 *7*	1519.995	2+				
		2169.53 *6*	100 *10*	743.216	2+				
2921.55		1401.55 *14*	100 *6*	1519.995	2+				
		2178.5 *24*	18 *6*	743.216	2+				
2923.82		1112.7& *4*	100 a	1811.13	6+				
2931.86?	3+,4+,5+	1434.83 *4*	100	1497.020	4+	M1+E2	+4.0 *3*	7.48×10^{-4}	α(K)=0.000599 *9*; α(L)=7.29×10^{-5} *11*;

$^{128}_{52}Te_{76}$-12

Adopted Levels, Gammas (continued)

γ(^{128}Te) (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [†]	E_f	J_f^π	Mult. [@]	δ [@e]	α [f]	Comments
									α(M)=1.446×10^{-5} *21*; α(N)=2.86×10^{-6} *4*; α(O)=3.11×10^{-7} *5*
2952.6		1141.5[#] *17*	100	1811.13	6$^+$				
2954.87		1434.85 *6*	100.0 *15*	1519.995	2$^+$				
		2211.71 *15*	48.1 *15*	743.216	2$^+$	D+Q	+0.8 *+22−3*		
2966.9	(8$^-$)	629.2 *4*		2337.68	(7)$^-$	D			Mult.: from γγ(θ) ΔJ=1 in ^{238}U(^{12}C,Fγ).
2969.0		1157.82 *25*		1811.13	6$^+$				
2983.31?	3$^+$	1463.32 *7*	<82	1519.995	2$^+$	M1+E2	−0.8 *+4−7*	0.00080 *4*	α(K)=0.00064 *4*; α(L)=7.7×10^{-5} *5*; α(M)=1.53×10^{-5} *9*; α(N)=3.04×10^{-6} *17*; α(O)=3.32×10^{-7} *19* B(E2)(W.u.)=3 *+4−3*; B(M1)(W.u.)=0.014 *+17−14*
		1486.28 *7*	<100	1497.020	4$^+$	M1+E2	−0.9 *+8−7*	0.00078 *6*	α(K)=0.00061 *5*; α(L)=7.4×10^{-5} *6*; α(M)=1.47×10^{-5} *11*; α(N)=2.91×10^{-6} *23*; α(O)=3.2×10^{-7} *3* B(E2)(W.u.)=4 *+6−4*; B(M1)(W.u.)=0.015 *+21−15*
		2240.0 *3*	23 *6*	743.216	2$^+$				
2985.53		589.61 *9*	100	2395.92	4$^-$				
2997.49		1477.15 *25*	90 *3*	1519.995	2$^+$				
		2997.65 *19*	100 *3*	0.0	0$^+$				
2997.8		1186.7 *3*	100	1811.13	6$^+$				
3030.11	1,2$^+$	836.2 *5*	12 *4*	2193.48	2$^+$				
		2286.88 *8*	100 *14*	743.216	2$^+$	D+Q	−1.6 *+9−46*		
		3030.1 *4*	45 *10*	0.0	0$^+$				
3030.53		692.9[&] *3*	100[a]	2337.68	(7)$^-$				
3038.73		467.71 *23*	100.0 *25*	2571.17	4,5	D+Q	−0.9 *+4−8*		
		905.37 *15*	89.8 *25*	2133.29	5$^-$	D+Q	−0.7 *+3−4*		
3048.45		1551.42 *17*	100	1497.020	4$^+$				
3054.50		1534.48 *12*	100.0 *17*	1519.995	2$^+$				
		2311.3 *2*	55.8 *17*	743.216	2$^+$				
3067.15	3	873.24 *20*		2193.48	2$^+$	D+Q	−0.09 *+18−23*		
		1099.3 *2*		1968.485	1$^+$,2$^+$,3$^+$				
		1547.04 *12*	54 *10*	1519.995	2$^+$	D+Q	+0.09 *+17−15*		
		1570.61 *18*	85 *11*	1497.020	4$^+$	D+Q	−0.4 *+3−48*		
		2323.80 *9*	100 *19*	743.216	2$^+$	D+Q	+0.32 *+26−22*		
3071.60		1551.42 *20*	4.0 *16*	1519.995	2$^+$				
		1574.63 *15*	100 *3*	1497.020	4$^+$	D+Q	−3 *+2−90*		
		2328.5 *3*	57.5 *24*	743.216	2$^+$				
3091.1		957.8 *3*	100	2133.29	5$^-$				
3097.6		1600.6 *3*	100	1497.020	4$^+$				
3100.41	1,2,3	1580.37 *12*	88 *18*	1519.995	2$^+$	D+Q	−4 *+2−12*		
		2357.22 *13*	100 *18*	743.216	2$^+$	D+Q	+1.3 *+14−7*		
3101.29		908.03 *13*	100 *4*	2193.48	2$^+$				
		1132.63 *11*	19 *4*	1968.485	1$^+$,2$^+$,3$^+$				
3104.40?		3104.36 *17*	100	0.0	0$^+$				

$^{128}_{52}Te_{76}$-13

Adopted Levels, Gammas (continued)

γ(^{128}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[@]	δ[@e]	α[f]	Comments
3125.40?		1097.62 *6*	88 *19*	2027.77	4^+				
		1628.39 *8*	100 *13*	1497.020	4^+				
3135.80		1638.77 *23*	100 *3*	1497.020	4^+	D+Q	+0.43 *+58−40*		
		2391.3 *41*	43 *3*	743.216	2^+				
3137.43	2^+	1617.9 *4*		1519.995	2^+				
		2393.8 *3*	70 *13*	743.216	2^+				
		3137.5 *3*	100 *18*	0.0	0^+	E2		9.87×10^{-4}	α(K)=0.0001432 *20*; α(L)=1.686×10^{-5} *24*; α(M)=3.34×10^{-6} *5*; α(N)=6.61×10^{-7} *10* α(O)=7.26×10^{-8} *11* B(E2)(W.u.)=0.24 *+7−8*
3140.10	2,3	645.8[&] *3*		2494.20	$(3)^-$	D+Q	+0.6 *+24−9*		
		802.7 *3*	92 *5*	2337.68	$(7)^-$				
		946.1 *5*	62.4 *5*	2193.48	2^+	D+Q	+0.03 *+48−54*		
		1171.2 *26*	100 *5*	1968.485	$1^+,2^+,3^+$	D+Q	−1.5 *+15−24*		
		2397.3 *55*	20.9 *19*	743.216	2^+				
3146.4		1118.6 *9*	100	2027.77	4^+				
3148.35		1628.25 *11*	100.0 *11*	1519.995	2^+				
		2405.37 *19*	31.6 *11*	743.216	2^+				
3151.11	(9^-)	227.3[&g] *2*	11.5[a] *23*	2923.82					E_γ: observed only in ^{128}Sb β^- decay (9.05 h), non-observation in ^{238}U(^{12}C,Fγ).
		813.6[&] *2*	100[a] *15*	2337.68	$(7)^-$	Q		9.18×10^{-4}	α(K)exp=0.0009 *3* α(K)=0.000799 *12*; α(L)=9.57×10^{-5} *14*; α(M)=1.90×10^{-5} *3*; α(N)=3.75×10^{-6} *6*; α(O)=4.07×10^{-7} *6* α(K)exp: from ^{128}Sb β^- decay (9.05 h). Mult.: from γγ(θ) in ^{238}U(^{12}C,Fγ), α(K)exp suggest E1.
		1339.8[&g] *4*	8[a] *8*	1811.13	6^+				E_γ: observed only in ^{128}Sb β^- decay (9.05 h), non-observation in ^{238}U(^{12}C,Fγ).
		2407.60[g] *19*		743.216	2^+				E_γ: observed only in (n,n′γ) in 2012Hi10.
3166.51	3^-	1033.4 *3*		2133.29	5^-				
		1138.63 *22*		2027.77	4^+				
3183.28	$(5)^-,(6)^+$	152.6[&] *3*	20[a] *4*	3030.53					
		366.1[&] *3*	60[a] *12*	2817.18					
		845.8[&] *4*	100[a] *12*	2337.68	$(7)^-$				
		1685.7[&] *5*	20[a] *4*	1497.020	4^+				
3184.84		2441.5 *8*		743.216	2^+				
		3184.80 *13*	100	0.0	0^+				
3188.2		2445.0 *4*	100	743.216	2^+	D+Q	−1.7 *+17−28*		
3195.6		1698.6 *11*	100	1497.020	4^+				
3199.1		1702.1 *17*	100	1497.020	4^+				

$^{128}_{52}Te_{76}$-14

Adopted Levels, Gammas (continued)

γ(^{128}Te) (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [†]	E_f	J_f^π	Mult. [@]	δ [@e]	α [f]	Comments
3216.59		820.57 *20*	100 *3*	2395.92	4^-	D+Q	+1.1 *+34−7*		
		1697.2 *5*	64 *5*	1519.995	2^+				
3219.3		2476.1 *4*	100	743.216	2^+				
3221.4		1701.2 *13*		1519.995	2^+				
		1724.4 *3*		1497.020	4^+				
3249.4		1729.4 *4*	100	1519.995	2^+				
3251.0		1731.0 *4*	100	1519.995	2^+				
3255.0		1735.0 *4*	100	1519.995	2^+				
3286.3		1766.3 *4*	100	1519.995	2^+				
3296.46?	$(2^+,3,4^+)$	1799.41 *9*	100 *18*	1497.020	4^+				
		2553.3 *2*	47 *12*	743.216	2^+				
3296.9		1776.9 *4*	100	1519.995	2^+				
3303.8		1783.8 *4*	100	1519.995	2^+				
3416.30	$^-$	654.2[&] *2*	100[a] *6*	2762.03	$3^-,4^-,5^-,6^-,7^-$	M1,E2		0.0044 *5*	α(K)exp=0.0054 *15* α(K)=0.0038 *5*; α(L)=0.00049 *4*; α(M)=9.7×10^{-5} *7*; α(N)=1.92×10^{-5} *15*; α(O)=2.06×10^{-6} *20* α(K)exp: from ^{128}Sb β^- decay (9.05 h). Mult.: from α(K)exp.
		1078.6[&] *4*	12[a] *6*	2337.68	$(7)^-$				
3428.96		667.1[&] *3*	100[a] *12*	2762.03	$3^-,4^-,5^-,6^-,7^-$				
		773.7[&] *3*	60[a] *12*	2655.10					
3489.83		459.5[&] *3*	38[a] *8*	3030.53					
		727.6[&] *3*	100[a] *25*	2762.03	$3^-,4^-,5^-,6^-,7^-$				
3508.1	(12^+)	717.4[#] *3*	100	2790.8	(10^+)	Q			Mult.: from γγ(θ) in ^{238}U(^{12}C,Fγ).
3519.19		102.8[&] *3*	8.9[a] *22*	3416.30	$^-$				
		1181.6[&] *4*	100[a] *11*	2337.68	$(7)^-$				
		1707.9[&] *5*	6.7[a] *22*	1811.13	6^+				
3587.8		404.3[&] *3*	100[a] *20*	3183.28	$(5)^-,(6)^+$				
		1250.5[&] *4*	1.0×10^2[a] *10*	2337.68	$(7)^-$				
3597.09		445.7[&] *3*	100[a] *20*	3151.11	(9^-)				
		835.8[&] *4*	67[a] *67*	2762.03	$3^-,4^-,5^-,6^-,7^-$				
		860.8[&] *4*	27[a] *7*	2736.25					
		1259.5[&] *4*	67[a] *67*	2337.68	$(7)^-$				
		1785.5[&] *5*	27[a] *7*	1811.13	6^+				
3607.42?		1638.93 *11*	100 *17*	1968.485	$1^+,2^+,3^+$				
		2864.0 *6*	28 *10*	743.216	2^+				
3637.0		670.1[d] *4*		2966.9	(8^-)				

$^{128}_{52}Te_{76}$-15

Adopted Levels, Gammas (continued)

γ(^{128}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[@]	Comments
3714.4	(11$^-$)	563.1[d] *4*		3151.11	(9$^-$)	Q	Mult.: from γγ(θ) in ^{238}U(^{12}C,Fγ).
3731.72?		2211.71 *7*	<100	1519.995	2$^+$		
		2988.2 *5*	16 *6*	743.216	2$^+$		
3734.03		214.8[&] *2*	33[a] *7*	3519.19			
		317.7[&] *2*	100[a] *33*	3416.30	$^-$		
		582.9[&] *3*	33[a] *7*	3151.11	(9$^-$)		
		972.3[&] *4*	33[a] *33*	2762.03	3$^-$,4$^-$,5$^-$,6$^-$,7$^-$		
3838.4?	(1,2$^+$)	3095.1 *6*	97 *31*	743.216	2$^+$		
		3838.3 *9*	100 *31*	0.0	0$^+$		
4035.7		527.6[d] *4*		3508.1	(12$^+$)		
4063.10?		2543.1 *2*	48 *18*	1519.995	2$^+$		
		3319.8 *3*	100 *21*	743.216	2$^+$		
4171.5		457.1[d] *5*		3714.4	(11$^-$)		
4265.2		757.1[d] *4*		3508.1	(12$^+$)		
4341.7	(13$^-$)	627.1[d] *5*	22 *9*	3714.4	(11$^-$)		I_γ: from ^{238}U(^{12}C,Fγ).
		833.7[#] *3*	100 *22*	3508.1	(12$^+$)	D	Mult.: from γγ(θ) in ^{238}U(^{12}C,Fγ). I_γ: from ^{238}U(^{12}C,Fγ).
4431.2	(14$^+$)	923.1[#] *3*	100	3508.1	(12$^+$)	Q	Mult.: from γγ(θ) in ^{238}U(^{12}C,Fγ).
4527.3		262.1[d] *4*		4265.2			
4668.4	(14$^-$)	326.7[#] *3*	100	4341.7	(13$^-$)	D	Mult.: from γγ(θ) in ^{238}U(^{12}C,Fγ).
4728.8	(15$^-$)	387.0[d] *4*	5.4 *22*	4341.7	(13$^-$)	Q	Mult.: from γγ(θ) in ^{238}U(^{12}C,Fγ).
5077.5		550.2[d] *5*	1.6 *8*	4527.3			
5435.8		706.9[d] *5*	60 *29*	4728.8	(15$^-$)		I_γ: from ^{238}U(^{12}C,Fγ).
		767.6[d] *5*	10×10^1 *4*	4668.4	(14$^-$)		I_γ: from ^{238}U(^{12}C,Fγ).
5447.7		1016.5[d] *5*	3.2 *15*	4431.2	(14$^+$)		
5544.8		467.3[d] *5*	1.0 *5*	5077.5			
5946.5		1217.7[d] *6*	1.8 *9*	4728.8	(15$^-$)		
6211.8		764.1[d] *7*	1.9 *9*	5447.7			
7726.8	1	5750[‡]		1972			
		6207[‡]		1519.995	2$^+$		
		7724[‡]		0.0	0$^+$		

[†] From (n,n′γ) unless otherwise noted.
[‡] Primary γ of resonance fluorescence in ^{128}Te(γ,γ′).
[#] From (^{64}Ni,X).

Adopted Levels, Gammas (continued)

$\gamma(^{128}Te)$ (continued)

@ Multipolarities and mixing ratios are based on linear polarization measurements and on A_2 and A_4 values in $\gamma(\theta)$ in (n,n′γ), unless otherwise noted.
& From ^{128}Sb β^- decay (9.05 h).
a From ^{128}Sb β^- decay (9.05 h).
b From ^{128}Sb β^- decay (10.41 min).
c From ^{128}Sb β^- decay (10.41 min).
d From $^{238}U(^{12}C,F\gamma)$.
e If No value given it was assumed δ=1.00 for E2/M1, δ=1.00 for E3/M2 and δ=0.10 for the other multipolarities.
f 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.
g Placement of transition in the level scheme is uncertain.

$^{128}_{52}Te_{76}$-17

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

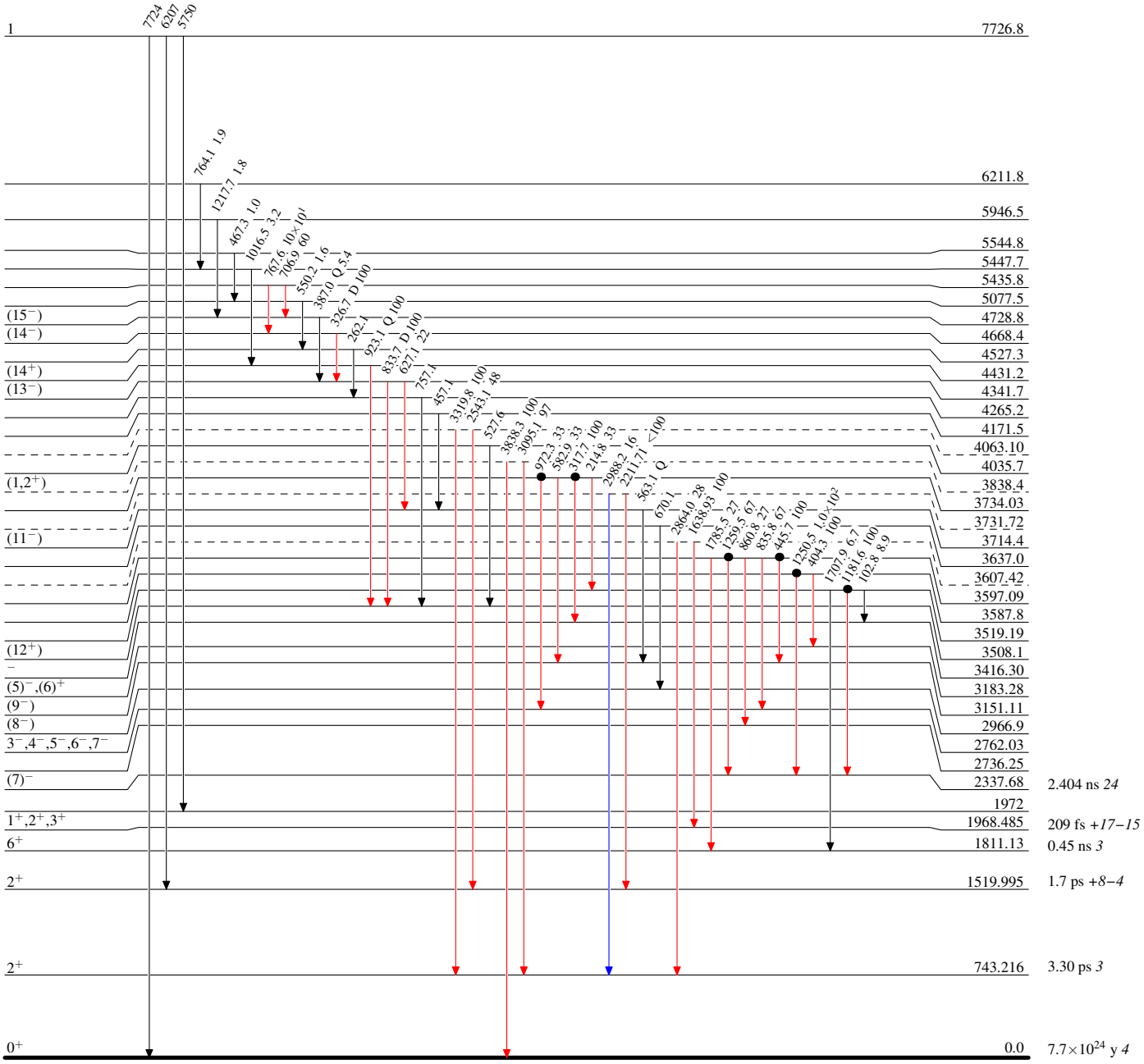
Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$

Coincidence



$^{128}_{52}Te_{76}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

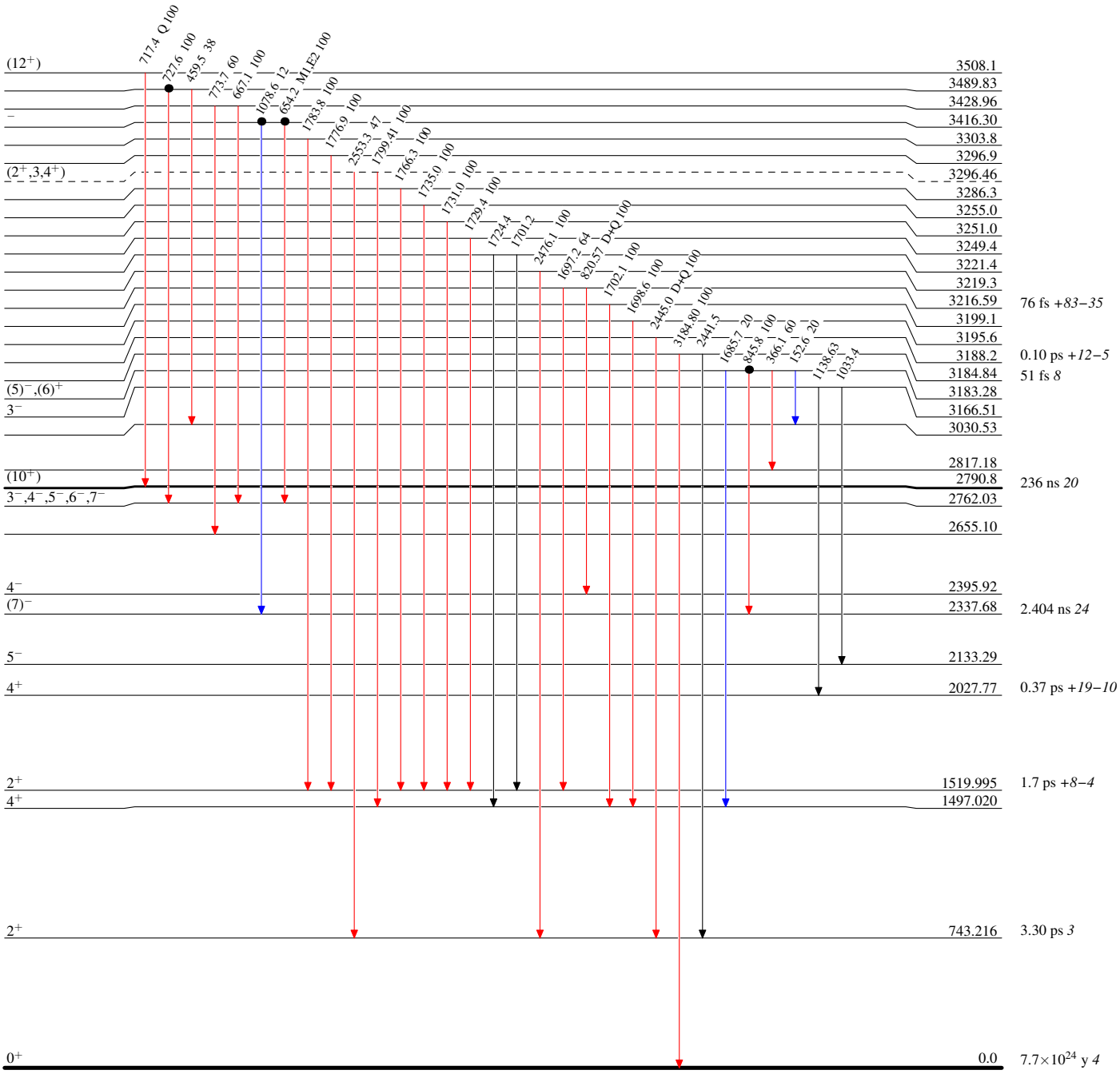
Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$

Coincidence

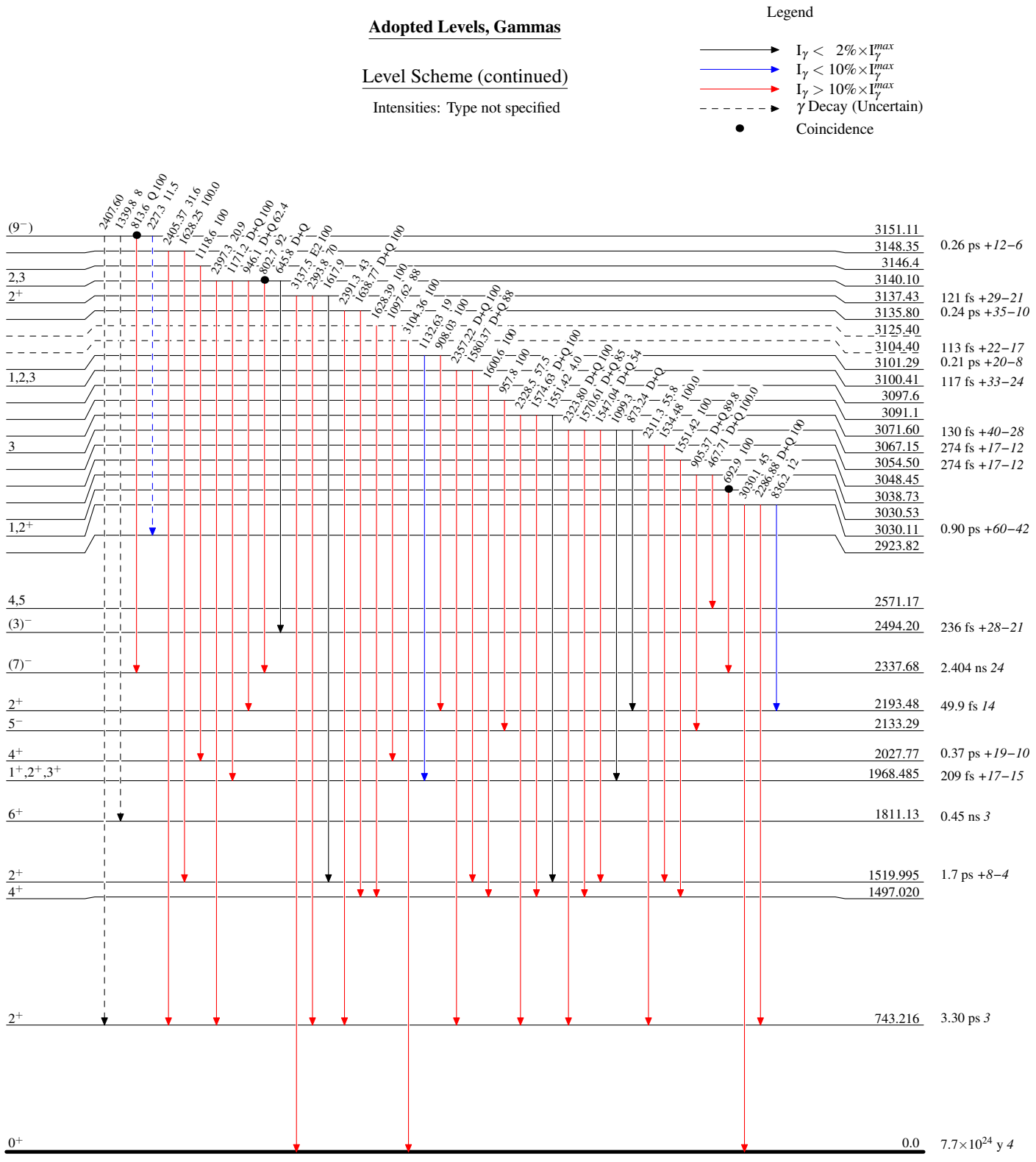


$^{128}_{52}Te_{76}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

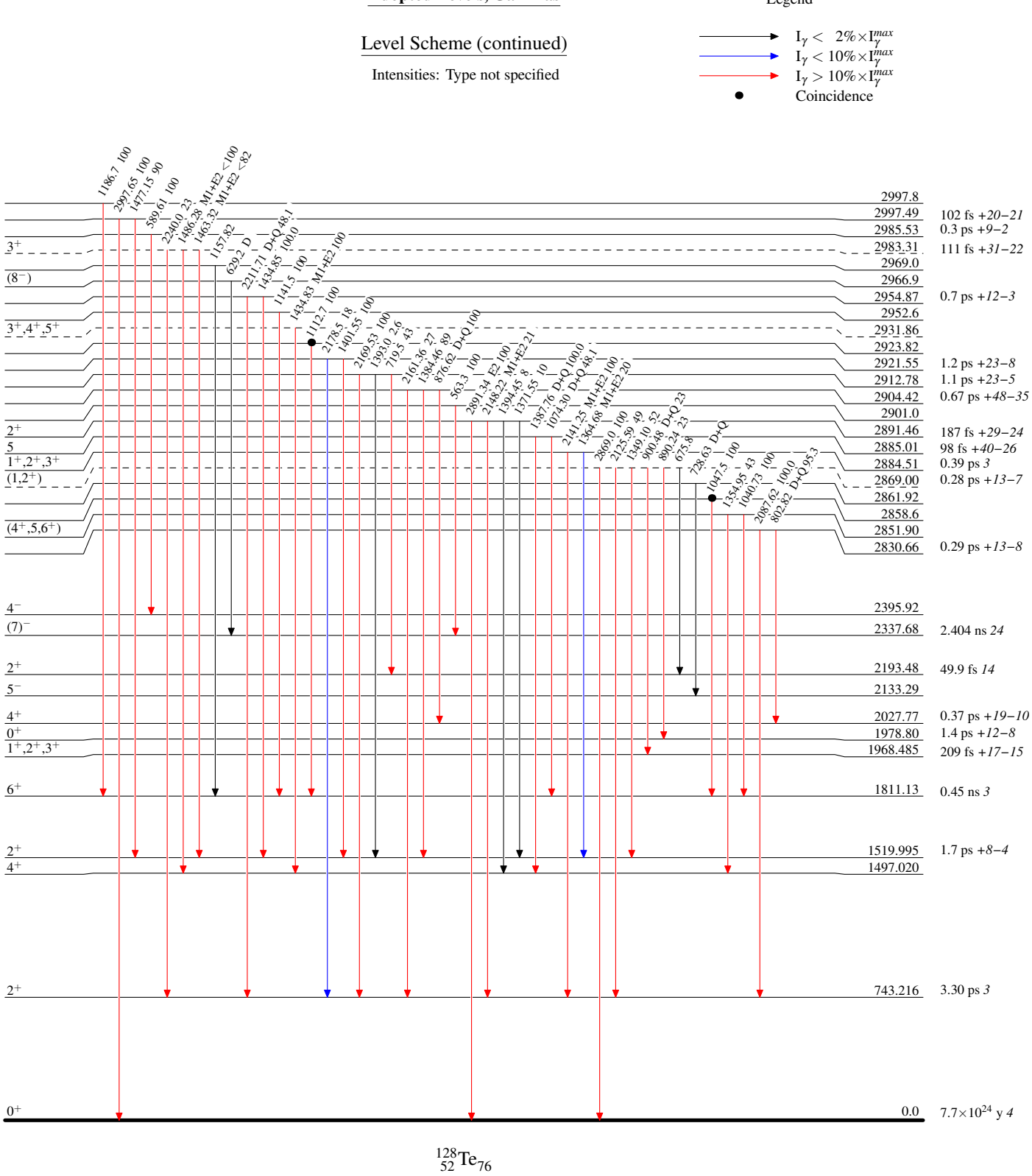


$^{128}_{52}Te_{76}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

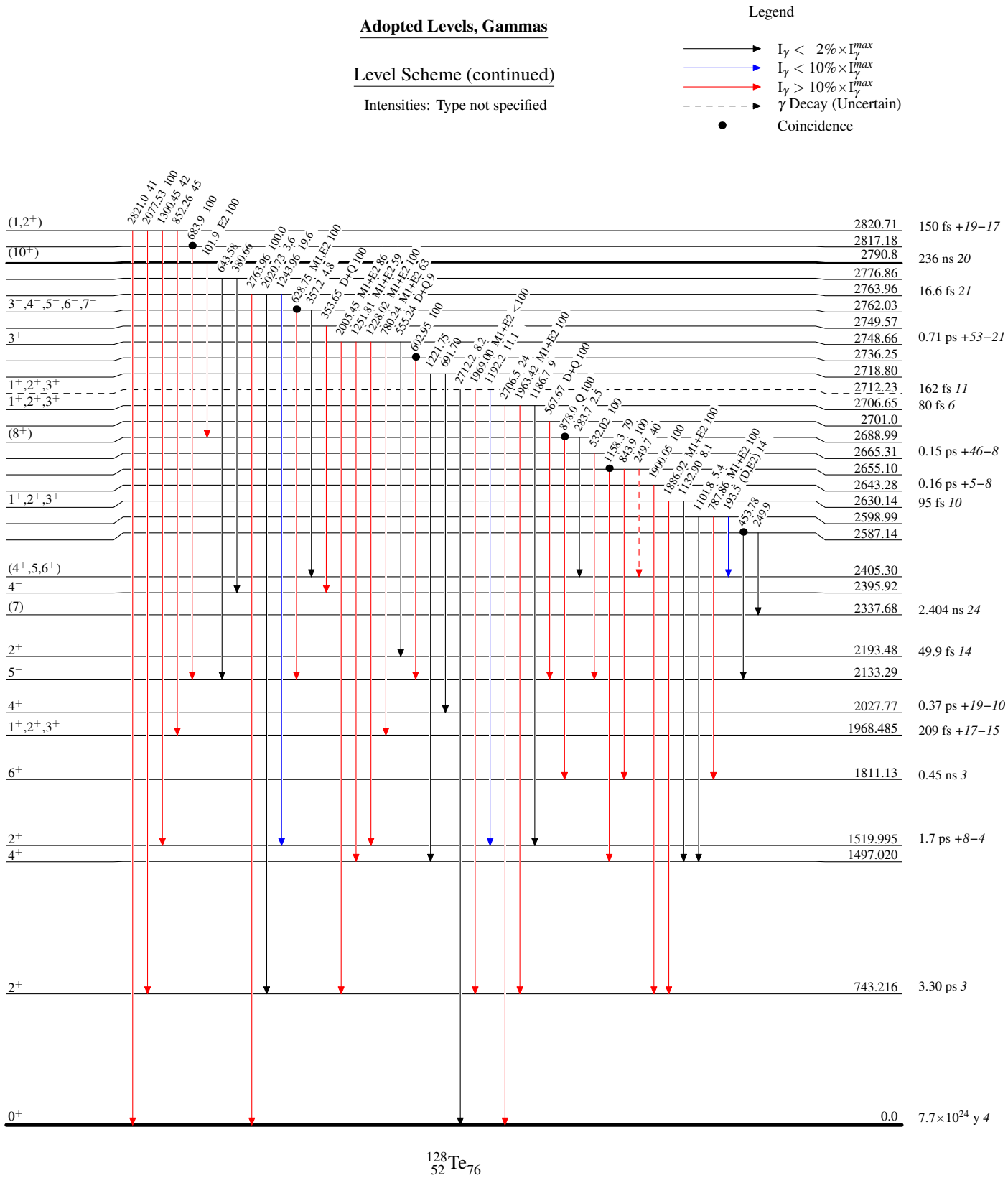


$^{128}_{52}Te_{76}$

Adopted Levels, Gammas

Level Scheme (continued)

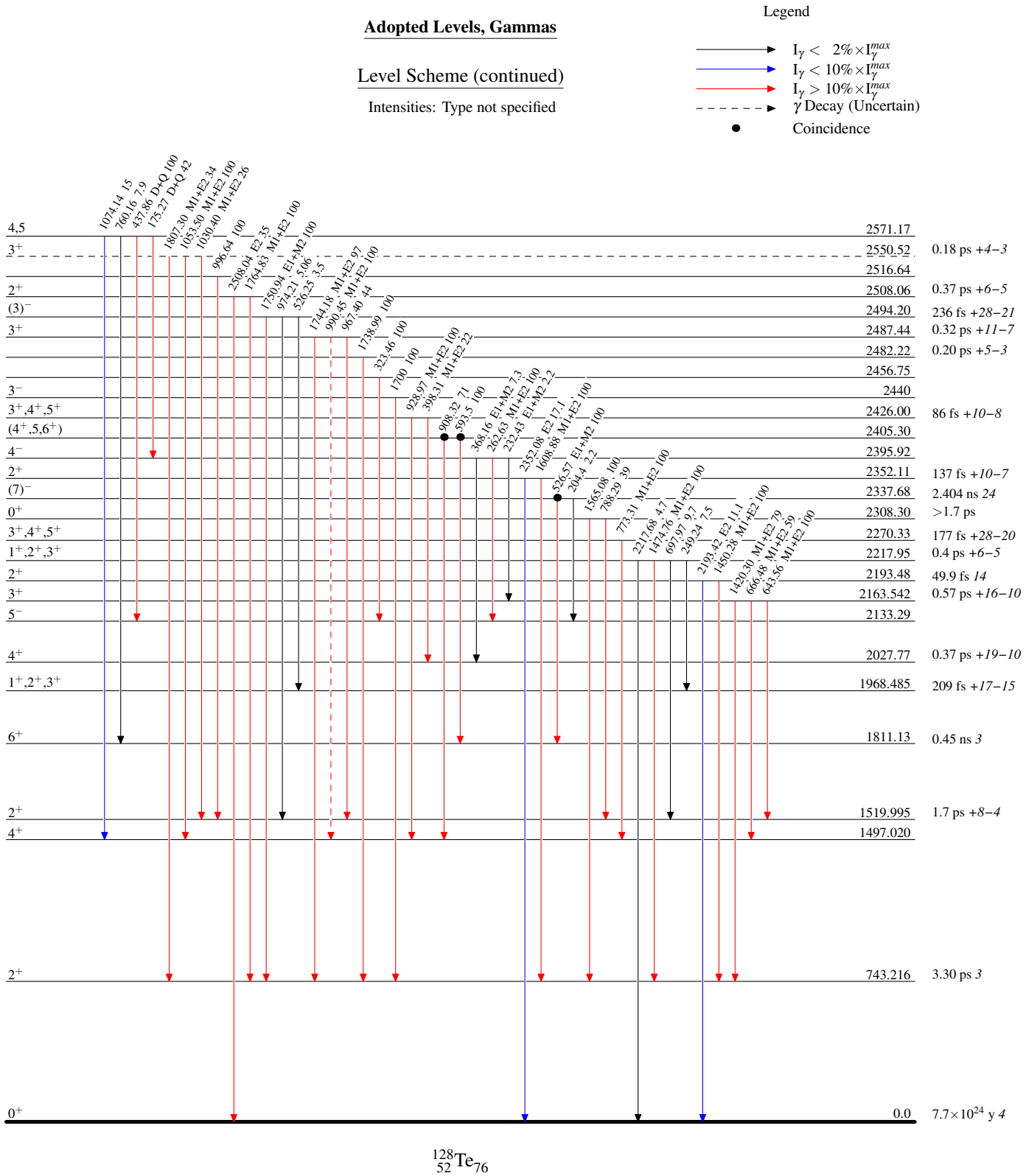
Intensities: Type not specified



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

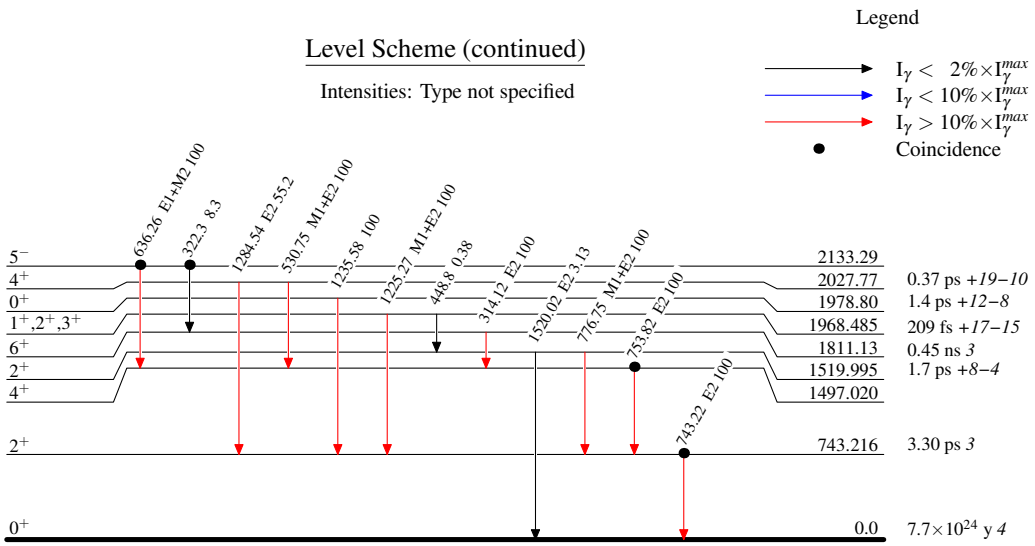


$^{128}_{52}Te_{76}$

Adopted Levels, Gammas

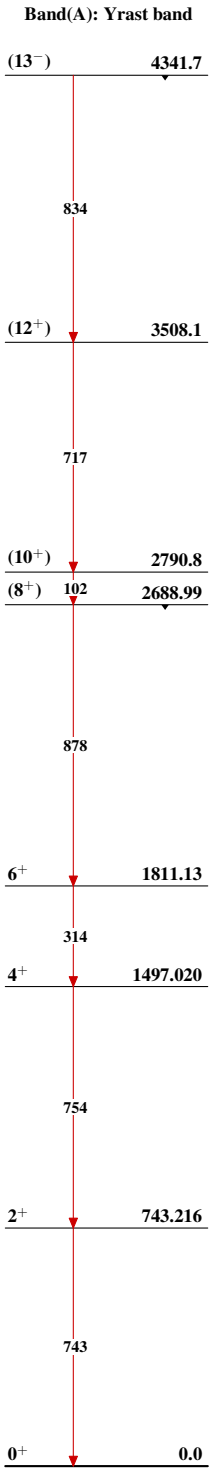
Level Scheme (continued)

Intensities: Type not specified



$^{128}_{52}Te_{76}$

Adopted Levels, Gammas



$^{128}_{52}Te_{76}$

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 93,33 (2001)	11-May-2001

Q(β^-)=−417 *4*; S(n)=8419.4 *9*; S(p)=10013 *22*; Q(α)=−3763 *11* 2012Wa38
Note: Current evaluation has used the following Q record −420 4 *8419* 3 *10016* 21 −3758 *11* 1995Au04.
Additional information 1.
Muonic atom and isotope shifts: 1989Sh02.
Isotope shifts from x-ray data: 1970Me10.
Antiprotonic atoms: 1998Lu05, 1993Wy03.

^{130}Te Levels

Cross Reference (XREF) Flags

A	^{130}Sb β^- decay (39.5 min)	E	^{130}Te(n,n′γ)	I	Coulomb excitation
B	^{130}Sb β^- decay (6.3 min)	F	^{130}Te(p,p′),(p,p′γ)	J	^{238}U(^{12}C,Fγ)
C	^{130}Te(γ,γ′)	G	^{130}Te(d,d′)	K	^{239}Pu(n,Fγ),^{241}Pu(n,Fγ)
D	^{130}Te(^{64}Ni,Xγ)	H	^{130}Te(α,α′)		

E(level)†	J$^\pi$	T$_{1/2}$	XREF	Comments
0.0	0$^+$	>0.79×10^{21} y	ABCDEFGHIJK	%2β^-=100 J$^\pi$: measurement (1933Ra02) by optical-spectroscopy method. T$_{1/2}$: 0.79×10^{21} y *10* (from geochemical method,1996Ta04). The value is treated as a lower limit, as proposed by 2000Al26. T$_{1/2}$: Neutrinoless $\beta\beta$ decay: no evidence found by 2000Al26 with T$_{1/2}$>1.44×10^{23} y (at 90% confidence level). 2000Al26 (also 1998Al19,1994Al49,1994Al25,1992Al09) used bolometric method with an array of 20 tellurite crystals with a total mass of 6.8 Kilograms. 2000Al26 also found no evidence for neutrinoless decay to first 2$^+$ or excited 0$^+$ states in ^{130}Xe. T$_{1/2}$: Geochemical methods: 0.79×10^{21} y *10* (1996Ta04), >1.25×10^{21} y (1988Li11), 2.60×10^{21} y *28* (1983Ki02,1983Ki03), 2.51×10^{21} y *24* (1972Sr03), 2.03×10^{21} y *30* (1969Al22), 2.2×10^{21} y *6* (1968Ki02) and ≤1.00×10^{21} y *12* (1986Li10), 1.0×10^{21} y *3* (1986Ri02), 0.97×10^{21} y *11* (1975He04), 0.82×10^{21} y *6* (1966Ta02), 1.4×10^{21} y (1950In03,1949In03). See also 1993Be04, 1992Be30, 1988Mi13, 1987Be13, 1985HoZN, 1984Fi16, 1980Zd02, 1980Zd03, 1980Zd01, 1970Ki21, 1969Va39, 1967Ge12, 1967Ki04. Compilation and analysis of $\beta\beta$ data: 2001Ej01, 1998Kl25. Additional information 2.
839.494 *17*	2$^+$	2.30 ps *5*	ABCDEFGHIJK	μ=+0.58 *10* (1989Ra17,1988Du10) Q=−0.15 *10* (1989Ra17,1976Bo12) B(E2)↑=0.295 *6* μ: $\gamma(\theta$,H) in Coul. ex. (1988Du10). See other measurements in Coulomb excitation. Q: reorientation method in Coul. ex. for positive sign of the interference term (1976Bo12). See other details in Coulomb excitation. B(E2)↑: from Coul. ex. J$^\pi$: L(p,p′)=2; E2 γ to 0$^+$. T$_{1/2}$: from B(E2) in Coul. ex.
1588.256 *24*	2$^+$		BCDEF HI	J$^\pi$: E2 γ to 0$^+$.
1632.997 *22*	4$^+$		AB DEF IJK	J$^\pi$: E2 γ to 2$^+$; E1 γ from 5$^-$.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{130}Te Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$	XREF	Comments
1815.336 *25*	$(6)^+$	9.8 ns *5*	AB DEF JK	Jπ: E2 γ to 4^+, no γ to 2^+; systematics of even Te isotopes. $T_{1/2}$: γγ(t) in 39.5-min ^{130}Sb decay.
1885.700 *25*	2^+		BCDEFG	Jπ: E2 γ to 0^+.
1964.76 *4*	(0^+)		CDE	Jπ: γ(θ) isotropic in (n,n′γ).
1981.546 *23*	4^+		B DEF H	Jπ: L(p,p′)=4; γ(θ) and γ(lin pol) in (n,n′γ).
2101.25 *3*	5^-		AB DEF H	Jπ: L(p,p′)=5; γ(θ) and γ(lin pol) in (n,n′γ).
2138.63 *3*	3^+		DE	Jπ: M1+E2 γ's to 2^+, 4^+.
2146.41 *4*	$(7)^-$	115 ns *8*	A DEF JK	Jπ: log *ft*=7.4 from from (8^-); E1 γ to $(6)^+$. $T_{1/2}$: βγ(t) in 39.5-min ^{130}Sb decay.
2190.615 *23*	(2^+)		C EF	Jπ: (E2) γ to 0^+ from γ(θ), γ(lin pol) in (n,n′γ).
2282.593 *25*	(2^+)		EF	Jπ: (E2) γ to 0^+ from γ(θ) and γ(lin pol) in (n,n′γ).
2300.22 *4*	(2^+)		EFG	Jπ: (E2) γ to 0^+ from γ(θ) in (n,n′γ).
2330.74 *4*	(4^+)		B DEF	Jπ: log *ft*=7.2 from $(5)^+$; γ to 2^+; γ(θ) in (n,n′γ) rules out J=3.
2404.65 *4*	$(6)^-$		A DE	Jπ: M1+E2 γ's to 5^- and $(7)^-$. But log *ft*=7.65 from (8^-) is inconsistent with $(6)^-$.
2418? *10*	‡		F	
2432.08 *7*	$(7)^-$		A DE	Jπ: log *ft*=8.2 from (8^-); M1+E2 γ to $(7)^-$.
2435.59 *4*	4^-		DE	Jπ: γ(θ) and γ(lin pol) in (n,n′γ).
2449.48 *4*	4^+		B EF h	Jπ: γ(θ) and γ(lin pol) in (n,n′γ).
2466.89 *4*	(2^+)‡		EFGh	Jπ: (E2) γ to 0^+ from γ(θ) in (n,n′γ).
2527.06 *3*	3^-		EF	Jπ: γ(θ) and γ(lin pol) in (n,n′γ).
2575.2? *4*			B	Jπ: γ to 4^+.
2581.15 *5*	(2^+)‡		EFg	Jπ: γ(θ) in (n,n′γ).
2607.33 *5*	1‡		C EF	Jπ: γ to 0^+; γ(θ) in (n,n′γ) rules out J=2.
2648.57 *22*	(8^+)		D JK	Jπ: γ's to 6^+ and 7^-; systematics of even-even Te and Xe nuclides in this mass region.
2648.6+x	(10^+)	1.90 μs *8*	D JK	Jπ: systematics, probable $\nu h_{11/2}^{-2}$ configuration in N=78,80 and Z=52,54 nuclides. $T_{1/2}$: from timing of 182γ in ^{239}Pu(n,Fγ) (2001Ge07). Other: 4.2 μs *9* (from delayed γ rays in (^{64}Ni,Xγ),1998Zh09). E(level): x<25 keV (2001Ge07). Other: x<90 keV (1998Zh09).
2689.12 *5*	1‡		C EF	Jπ: γ to 0^+; γ(θ) in (n,n′γ) rules out J=2.
2714.97? *5*	(4^-)		E	Jπ: γ(θ) and γ(lin pol) in (n,n′γ).
2719.49 *7*	(5^+)		E	Jπ: γ(θ) in (n,n′γ).
2729.5 *10*	3^-		EFGHi	B(E3)↑=0.061 *+20−35* β_3=0.073 *6* XREF: E(2770). β_3: from (p,p′). Others: 0.10 (n,n′); 0.06 (α,α′). Jπ: L(p,p′)=L(α,α′)=3. E(level): from (p,p′). B(E3)↑: from Coul. ex.
2736.31 *5*	(4^+)		B E	Jπ: γ's to 2^+ and $(6)^+$ favor $J^\pi=(4^+)$; but γ(θ) in (n,n′γ) consistent with J=(5).
2743.14? *4*	1		C E	Jπ: γ to 0^+; γ(θ) in (n,n′γ) rules out J=2.
2744.97 *4*	$(2^+,3)$		E	Jπ: γ(θ) in (n,n′γ).
2765.26 *22*	(4^+)		B	Jπ: γ's to 2^+ and $(6)^+$.
2770.84 *8*			A E	
2782.12 *12*	(7^-)		A E	Jπ: log *ft*=7.3 from (8^-); γ to 5^-.
2789.26? *5*			E	
2833.35 *6*	$(4,5,6)^+$		B E	Jπ: log *ft*=5.8 from $(5)^+$.
2878.43 *10*	$(7,8,9)^-$		A D	Jπ: log *ft*=7.3 from (8^-); M1,E2 γ to $(7)^-$.
2950 *20*			FGH	E(level): from (p,p′). Jπ: L=(p,p′)=(4).
3081.38 *15*	$(7,8,9)^-$		A D J	Jπ: log *ft*=7.4 from (8^-); M1,E2 γ to $(7)^-$.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{130}Te Levels (continued)

E(level)†	Jπ	$T_{1/2}$	XREF	Comments
3155.03? *10*			E	
3180 *20*			F H	E(level): from (α,α').
3279 *20*			F	
3287.90 *23*	(7,8$^+$)		A	Jπ: log *ft*=7.0 from (8$^-$); γ to (6)$^+$.
3360 *10*	3$^-$		F H	Jπ: L(p,p′)=3.
3385.1 *3*			A	
3404.9 *4*			A	
3413.1 *3*	(4,5,6)		B	Jπ: log *ft*=5.9 from (5)$^+$.
3470.2 *5*	(7$^-$)		A	Jπ: log *ft*=7.2 from (8$^-$); γ to 5$^-$.
3536.74 *21*	(7,8,9)$^-$		A	Jπ: log *ft*=6.6 from (8$^-$); M1,E2 γ to π=−.
3545.2 *4*			A	
3565.26 *20*	(7,8$^+$)		A	Jπ: log *ft*=6.5 from (8$^-$); γ to (6)$^+$.
3567.7 *3*	(1,2)		C F	XREF: F(3570).
3642 *20*			F h	
3708.17 *19*			A	
3791.4? *11*			J	
3909.1 *4*			A	
3930 *20*			F	
3995 *20*			F	
4073.5 *5*			A	
4170.68 *25*	(7$^-$,8$^-$,9$^-$)		A	Jπ: log *ft*=5.6 from (8$^-$).
4249.4? *15*			J	
4303.7 *3*	(7$^-$,8$^-$,9$^-$)		A	Jπ: log *ft*=5.8 from (8$^-$).
4375.4? *18*		261 ns *33*	J	$T_{1/2}$: from γ(t) (1998HoZP), assumed as $T_{1/2}$ by the evaluator.
4384 *20*	@		F	
4446 *20*	@		F	
4460.3 *4*	(7$^-$,8$^-$,9$^-$)		A	Jπ: log *ft*=5.2 from (8$^-$).
4497 *20*	@		F	
4531.5 *4*	(1,2)		C	
4559 *20*	#		F	
4597 *20*	#		F	
4667 *20*	#		F	
4714? *20*			F	
4748? *20*			F	
4793 *20*	#		F	
4796 *20*	&		F	
4833? *20*			F	
4856 *20*	&		F	
4891 *20*	#		F	
4950 *20*	#		F	
4983? *20*			F	
7538.2 *22*	1	1.9 fs *5*	C	Jπ: dipole γ to 0$^+$. $T_{1/2}$: from Γ_γ=0.24 eV *6* in (γ,γ'). $\Gamma_{\gamma 0}$=0.05 eV *1*.
7636.5 *5*	1$^-$	7.6 fs *40*	C	Jπ: E1 γ to 0$^+$. $T_{1/2}$: from Γ_γ=0.06 eV *3* in (γ,γ'). $\Gamma_{\gamma 0}$=0.030 eV *10*.

† From least-squares adjustment to Eγ's.
‡ (1$^+$,2$^+$) from on-resonance p(θ) in IAR (1971Hi02).
# (3$^-$,4$^-$) from on-resonance p(θ) in IAR (1971Hi02).
@ (3$^-$,4$^-$,5$^-$) from on-resonance p(θ) in IAR (1971Hi02).
& (1$^-$,2$^-$) from on-resonance p(θ) in IAR (1971Hi02).

Adopted Levels, Gammas (continued)

γ(^{130}Te)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[@]	$I_{(\gamma+ce)}$	Comments
839.494	2^+	839.49 *2*	100	0.0	0^+	E2				B(E2)(W.u.)=15.1 *3*
1588.256	2^+	748.76 *2*	100 *14*	839.494	2^+	M1+E2	+0.65 *15*			
		1588.19 *8*	1.6 *3*	0.0	0^+	E2				
1632.997	4^+	793.53 *2*	100	839.494	2^+	E2				
1815.336	$(6)^+$	182.335 *11*	100	1632.997	4^+	E2		0.207		α(K)= 0.1647; α(L)= 0.0339; α(M)=0.00691; α(N+..)=0.00158 B(E2)(W.u.)=6.1 *3*
1885.700	2^+	1046.21 *2*	100 *14*	839.494	2^+	M1+E2	−0.175 *10*			
		1885.69 *18*	2.0 *4*	0.0	0^+	E2				
1964.76	(0^+)	1125.26 *3*	100	839.494	2^+					
1981.546	4^+	348.58 *2*	100 *10*	1632.997	4^+	M1+E2	−0.12 *3*	0.0234		
		1142.02 *2*	70 *9*	839.494	2^+	E2				
2101.25	5^-	468.27 *2*	100	1632.997	4^+	E1(+M2)	+0.03 *2*			
2138.63	3^+	505.63 *3*	37 *4*	1632.997	4^+	M1+E2	+1.2 *5*			
		550.36 *3*	100 *10*	1588.256	2^+	M1+E2	+2.4 *2*			
		1299.16 *3*	94 *13*	839.494	2^+	M1+E2	+0.32 *2*			I_γ: other: 200 in (^{64}Ni,Xγ).
2146.41	$(7)^-$	(46)		2101.25	5^-				≈0.04	
		330.94 *5*	100	1815.336	$(6)^+$	E1+M2	+0.070 *6*			B(E1)(W.u.)=6.3×10^{-8}; B(M2)(W.u.)=0.013 *3*
2190.615	(2^+)	1351.11 *3*	94 *13*	839.494	2^+	(M1+E2)	−0.27 *2*			
		2190.60 *3*	100 *15*	0.0	0^+	(E2)				
2282.593	(2^+)	1443.09 *2*	100 *15*	839.494	2^+	(M1+E2)	−0.10 *2*			
		2282.60 *7*	21 *3*	0.0	0^+	(E2)				
2300.22	(2^+)	1460.72 *3*	100 *14*	839.494	2^+	(M1+E2)	−0.20 *2*			
		2300.0 *3*	4.5 *7*	0.0	0^+	(E2)				
2330.74	(4^+)	697.73 *3*	100 *10*	1632.997	4^+	(M1+E2)				δ: 1.12 *8* or −0.08 *4*.
		1491.24 *7*	29 *5*	839.494	2^+	(E2)				
2404.65	$(6)^-$	258.21 *3*	100 *10*	2146.41	$(7)^-$	M1+E2	+0.21 *6*	0.0516 *4*		α(K)=0.04444 *21*; α(L)=0.00571 *9*; α(M)=0.00114; α(N+..)=0.00027
		303.43 *3*	100 *10*	2101.25	5^-	M1(+E2)	+0.02 *2*	0.0335		α(K)=0.02896; α(L)=0.00364; α(M)=0.00072; α(N+..)=0.00017
2432.08	$(7)^-$	285.61 *7*	35 *4*	2146.41	$(7)^-$	M1+E2		0.043 *2*		
		331.0 *1*	100 *10*	2101.25	5^-					γ from (^{64}Ni,Xγ) only.
2435.59	4^-	334.34 *2*	100	2101.25	5^-	M1+E2	−0.052 *7*	0.0261		α(K)=0.02253; α(L)=0.00283; α(M)=0.00056; α(N+..)=0.00013
2449.48	4^+	816.48 *3*	100 *8*	1632.997	4^+	M1+E2	−0.21 *2*			
		861.6 *4*	3.3 *17*	1588.256	2^+					
2466.89	(2^+)	1627.38 *3*	100 *14*	839.494	2^+	(M1+E2)				δ=−0.48 *4* or 1/δ=−0.02 *3*.
		2466.94 *18*	11 *2*	0.0	0^+	(E2)				
2527.06	3^-	894.06[&] *14*	4.3 *7*	1632.997	4^+					
		1687.56 *2*	100 *16*	839.494	2^+	E1(+M2)	+0.030 *6*			
2575.2?		942.2 *4*	100	1632.997	4^+					

$^{130}_{52}Te_{78}$-4

Adopted Levels, Gammas (continued)

γ(^{130}Te) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[‡]	Comments
2581.15	(2$^+$)	992.95 *13*	12.1 *19*	1588.256	2$^+$			
		1741.64 *4*	100 *15*	839.494	2$^+$	D+Q	+0.18 *2*	
2607.33	1	1767.81 *8*	61 *8*	839.494	2$^+$			
		2607.31 *6*	100 *14*	0.0	0$^+$			
2648.57	(8$^+$)	502.0 *3*	75 *8*	2146.41	(7)$^-$			
		833.4 *3*	100 *10*	1815.336	(6)$^+$			
2689.12	1	2689.09 *5*	100	0.0	0$^+$			
2714.97?	(4$^-$)	613.72 *3*	100	2101.25	5$^-$	(M1+E2)	+0.42 *2*	
2719.49	(5$^+$)	738.1 *2*	32 *6*	1981.546	4$^+$			
		904.04 *10*	100 *16*	1815.336	(6)$^+$			
		1086.54 *9*	74 *11*	1632.997	4$^+$	(M1+E2)		δ: −0.21 *4* or −2.6.
2729.5	3$^-$	1890[&]		839.494	2$^+$			E_γ: tentative γ from Coul. ex.
2736.31	(4$^+$)	405.2 *2*	13 *5*	2330.74	(4$^+$)			
		921.01 *5*	100 *10*	1815.336	(6)$^+$			
		1103.29 *6*	93 *9*	1632.997	4$^+$			
		1896.9 *8*	33 *8*	839.494	2$^+$			
2743.14?	1	2743.11 *4*	100	0.0	0$^+$			
2744.97	(2$^+$,3)	859.30 *4*	91 *13*	1885.700	2$^+$			
		1112.01 *9*	29 *4*	1632.997	4$^+$			
		1905.43 *4*	100 *14*	839.494	2$^+$			
2765.26	(4$^+$)	949.8 *4*	46 *9*	1815.336	(6)$^+$			
		1131.9 *4*	59 *14*	1632.997	4$^+$			
		1177.3 *4*	100 *10*	1588.256	2$^+$			
		1925.7[&] *8*	18 *9*	839.494	2$^+$			
2770.84		669.60 *7*	100 *20*	2101.25	5$^-$			
		1137.6[&] *5*	27 *20*	1632.997	4$^+$			
2782.12	(7$^-$)	635.7 *3*	25 *5*	2146.41	(7)$^-$			
		680.85 *13*	100 *10*	2101.25	5$^-$			
2789.26?		1156.21 *14*	25 *4*	1632.997	4$^+$			
		1949.76 *5*	100 *14*	839.494	2$^+$			
2833.35	(4,5,6)$^+$	502.6 *3*	6.3 *13*	2330.74	(4$^+$)			
		1018.01 *5*	100 *5*	1815.336	(6)$^+$			
		1200.0 *4*	12.0 *12*	1632.997	4$^+$			
2878.43	(7,8,9)$^-$	732.0 *1*	100	2146.41	(7)$^-$	M1,E2		
3081.38	(7,8,9)$^-$	934.9 *2*	100	2146.41	(7)$^-$	M1,E2		
3155.03?		1173.25 *17*	86 *13*	1981.546	4$^+$			
		1522.14 *12*	100 *15*	1632.997	4$^+$			
3287.90	(7,8$^+$)	855.7 *4*	80 *15*	2432.08	(7)$^-$			
		883.3 *4*	60 *15*	2404.65	(6)$^-$			
		1141.4 *4*	100 *20*	2146.41	(7)$^-$			
		1473.1 *8*	30 *10*	1815.336	(6)$^+$			

$^{130}_{52}Te_{78}$-5

Adopted Levels, Gammas (continued)

γ(^{130}Te) (continued)

E_i(level)	J^π_i	E_γ†	I_γ†	E_f	J^π_f	Mult.‡
3385.1		506.7 *3*	100 *20*	2878.43	(7,8,9)$^-$	
		1239.0 *5*	90 *15*	2146.41	(7)$^-$	
3404.9		1000.2 *4*	100 *20*	2404.65	(6)$^-$	
		1258.5 *5*	44 *9*	2146.41	(7)$^-$	
3413.1	(4,5,6)	647.7 *3*	100 *10*	2765.26	(4$^+$)	
		1598.0 *5*	54 *6*	1815.336	(6)$^+$	
3470.2	(7$^-$)	1368.7 *5*	100 *20*	2101.25	5$^-$	
		1655.6 *8*	73 *20*	1815.336	(6)$^+$	
3536.74	(7,8,9)$^-$	455.4 *2*	100 *10*	3081.38	(7,8,9)$^-$	M1,E2
		658.2 *3*	35 *8*	2878.43	(7,8,9)$^-$	
3545.2		1443.7 *5*	100	2101.25	5$^-$	
3565.26	(7,8$^+$)	483.6 *3*	69 *10*	3081.38	(7,8,9)$^-$	
		686.6 *3*	100 *10*	2878.43	(7,8,9)$^-$	
		1134.2 *5*	13 *6*	2432.08	(7)$^-$	
		1419.3 *5*	38 *6*	2146.41	(7)$^-$	
		1749.8 *8*	9 *6*	1815.336	(6)$^+$	
3567.7	(1,2)	2728&	<25	839.494	2$^+$	
		3567.6 *3*	100	0.0	0$^+$	
3708.17		626.7 *3*	100 *10*	3081.38	(7,8,9)$^-$	
		829.8 *3*	64 *14*	2878.43	(7,8,9)$^-$	
		926.0 *5*	14 *7*	2782.12	(7$^-$)	
		1561.6 *8*	21 *7*	2146.41	(7)$^-$	
3791.4?		710		3081.38	(7,8,9)$^-$	
3909.1		1030.7 *4*	60 *12*	2878.43	(7,8,9)$^-$	
		1762.6 *5*	100 *10*	2146.41	(7)$^-$	
4073.5		992.1 *4*	100	3081.38	(7,8,9)$^-$	
4170.68	(7$^-$,8$^-$,9$^-$)	462.5 *4*	22 *5*	3708.17		
		1089.5 *4*	100 *10*	3081.38	(7,8,9)$^-$	
		1292.3 *4*	100 *10*	2878.43	(7,8,9)$^-$	
		2023.3 *8*	11 *5*	2146.41	(7)$^-$	
4249.4?		458		3791.4?		
4303.7	(7$^-$,8$^-$,9$^-$)	595.5 *3*	100 *20*	3708.17		
		1521.1 *8*	80 *20*	2782.12	(7$^-$)	
		1533.7 *8*	90 *20*	2770.84		
4375.4?		126		4249.4?		
4460.3	(7$^-$,8$^-$,9$^-$)	914.9 *4*	95 *20*	3545.2		
		1075.5 *5*	21 *10*	3385.1		
		1581.9 *8*	100 *20*	2878.43	(7,8,9)$^-$	
4531.5	(1,2)	3691&	<10	839.494	2$^+$	
		4531.4 *4*	100	0.0	0$^+$	
7538.2	1	4856 *6*	11 *4*	2689.12	1	

$^{130}_{52}Te_{78}$-6

Adopted Levels, Gammas (continued)

$\gamma(^{130}Te)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	Comments
7538.2	1	4932 *6*	11 *4*	2607.33	1		
		5344 *6*	15 *3*	2190.615	(2^+)		
		5571 *6*	11 *3*	1964.76	(0^+)		
		5650 *6*	10 *3*	1885.700	2^+		
		5950 *6*	100 *16*	1588.256	2^+	D[#]	
		6698 *6*	90 *8*	839.494	2^+	D[#]	
		7538 *6*	80 *16*	0.0	0^+	D[#]	
7636.5	1^-	5749		1885.700	2^+		
		6049		1588.256	2^+		
		6797		839.494	2^+		
		7637		0.0	0^+	E1[#]	B(E1)(W.u.)=3.9×10^{-5} *13*

[†] Generally from (n,n′γ) where most precise and complete data are available. In a few cases weighted averages were taken where common levels were populated.
[‡] From γ(θ) and γ(lin pol) in (n,n′γ), unless otherwise stated.
[#] From γ(θ) and/or γ(lin pol) in (γ,γ′).
[@] 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.
[&] Placement of transition in the level scheme is uncertain.

$^{130}_{52}Te_{78}$-7

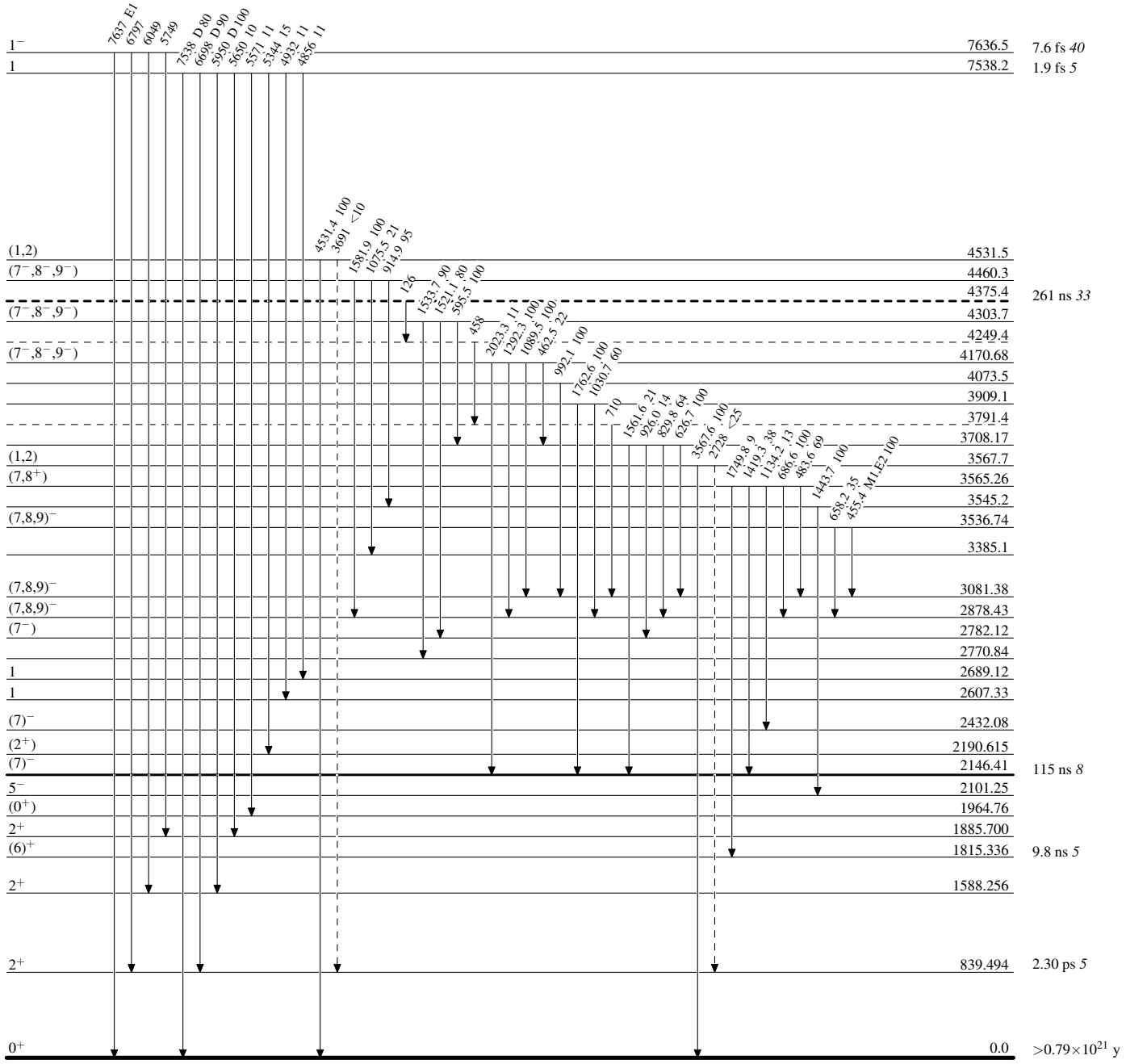
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{130}_{52}Te_{78}$

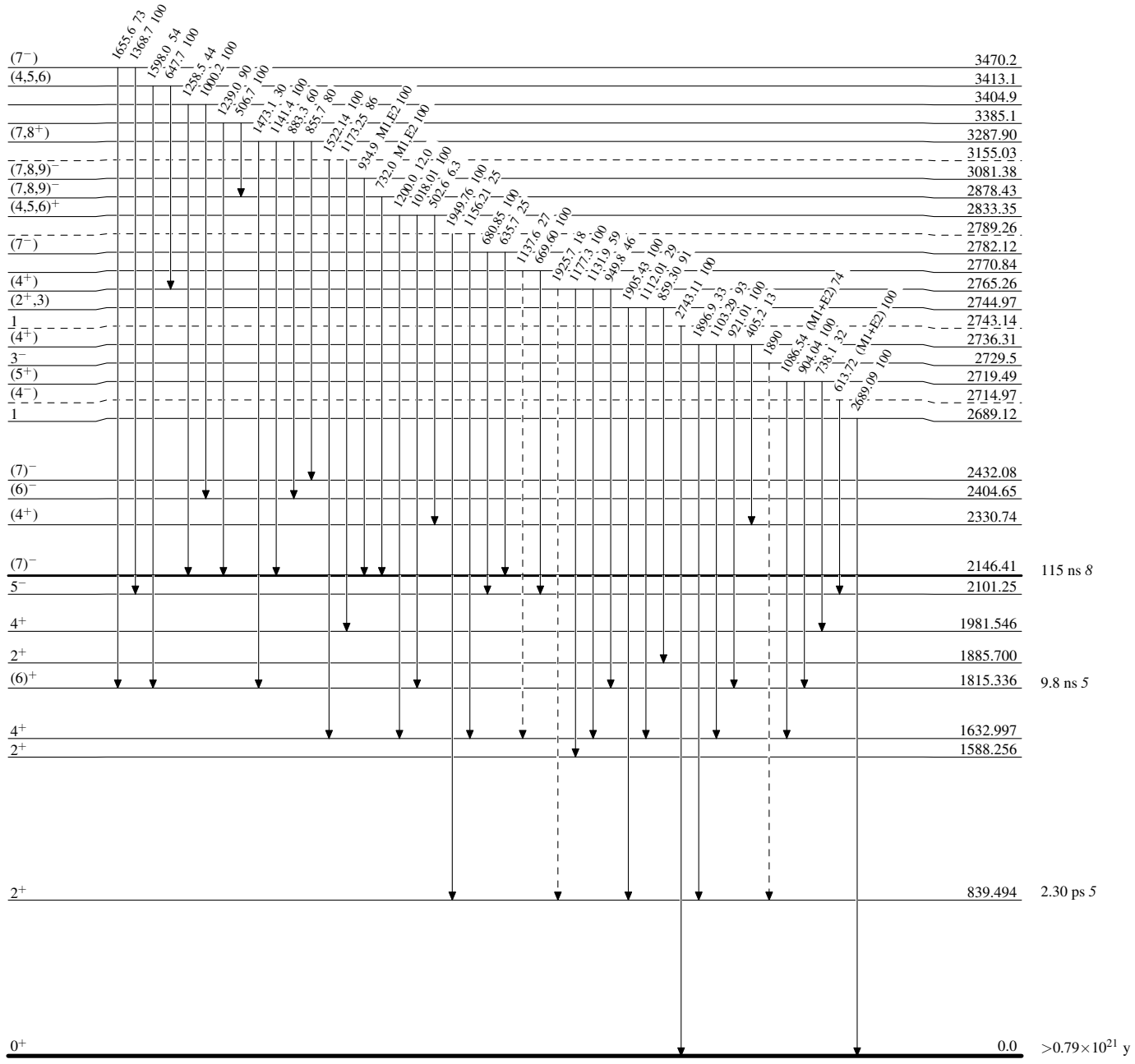
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{130}_{52}Te_{78}$

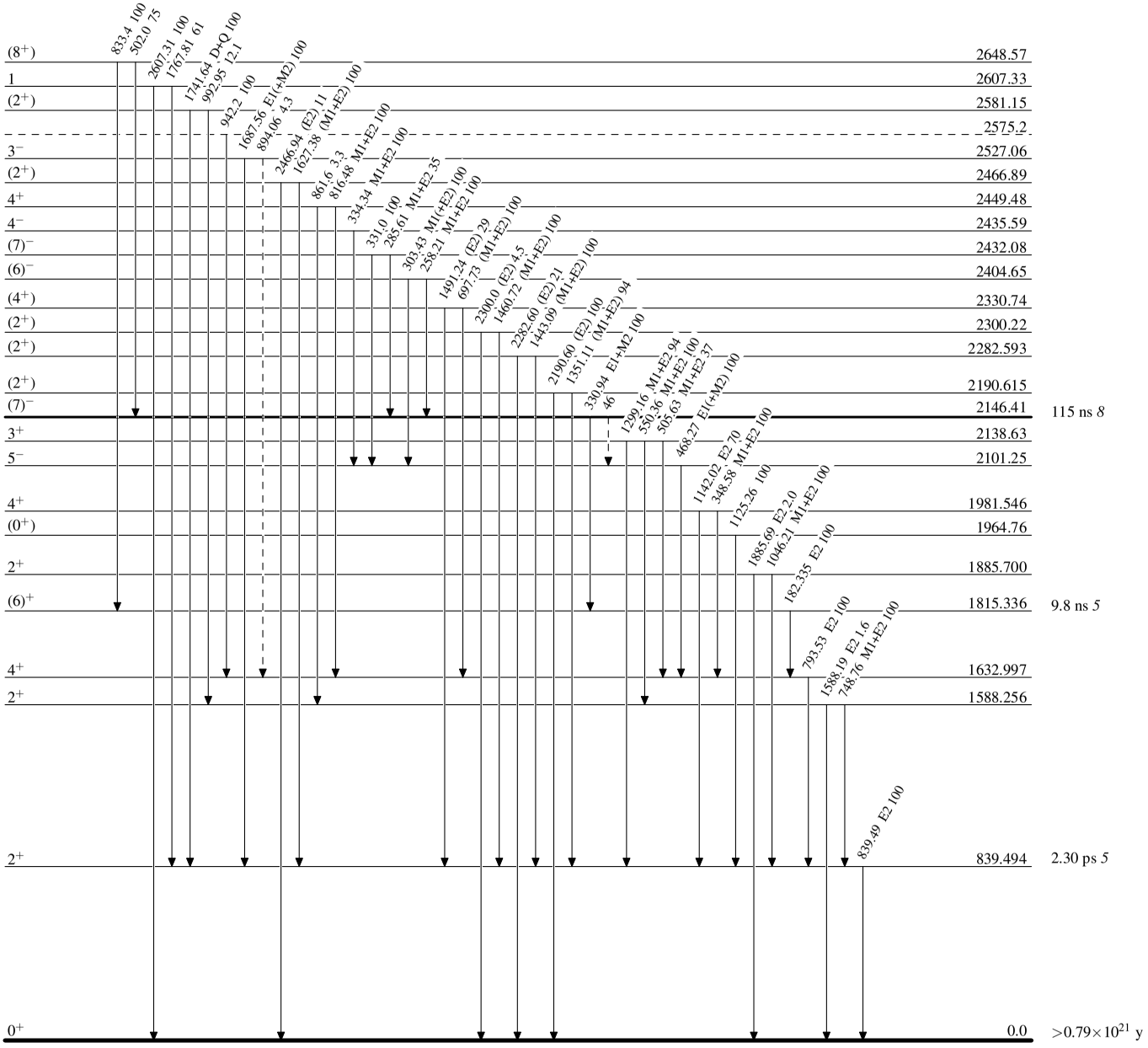
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{130}_{52}Te_{78}$