

Adopted Levels, Gammas

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

$Q(\beta^-) = -4234.5$; $S(n) = 9.84 \times 10^3$; $S(p) = 8004.8$; $Q(\alpha) = -1086.5$ 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	$^{122}\text{Sb} \beta^-$ decay	F	$^{120}\text{Sn}(\alpha, 2n\gamma), ^{119}\text{Sn}(\alpha, n\gamma)$	K	$^{122}\text{Te}(\gamma, \gamma')$
B	$^{122}\text{I} \varepsilon$ decay	G	$^{121}\text{Sb}({}^3\text{He}, d)$	L	$^{122}\text{Te}(d, d')$
C	$^{122}\text{Te}(n, n'\gamma)$ E=1.7, 2.8, 3.4 MeV	H	$^{124}\text{Te}(p, t)$	M	$^{123}\text{Te}(d, t)$
D	$^{122}\text{Te}(n, n'\gamma)$ E=fast	I	Coulomb excitation	N	$^{123}\text{Te}({}^3\text{He}, {}^4\text{He})$
E	$^{116}\text{Cd}({}^9\text{Be}, 3n\gamma)$	J	$^{122}\text{Te}(p, p')$	O	$^{120}\text{Sn}({}^3\text{He}, n)$

E(level) [†]	J^π [‡]	$T_{1/2}$ [#]	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	$\mu = +0.66$ 4; $Q = -0.50$ 5; $B(E2)^\dagger = 0.664$ 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. J^π : 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). J^π : stretched E2 γ to 2 ⁺ , E1 γ from 5 ⁻ .
1256.953 16	2 ⁺	0.8 ps +6–3	ABCDEFGHIJKLMN	J^π : 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	J^π : 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'), (${}^3\text{He}, d$), (d,t), and (${}^3\text{He}, {}^4\text{He}$). J^π : $490\gamma(\theta)$ 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). J^π : stretched E2 γ to 4 ⁺ in ($\alpha, 2n\gamma$).
1752.62 ^{&} 3	2 ⁺	0.38 ps +5–4	ABCD I lmn	XREF: l(1751.5)m(1749.03)n(1750). J^π : (M1+E2) γ to 2 ⁺ , E2 γ to 0 ⁺ .
1909.61 ^{&} 4	4 ⁺	0.85 ps +35–20	CDEFGH J LMN	J^π : stretched E2 γ 's to 2 ⁺ , M1+E2 γ to 4 ⁺ ;
1940.44 9	0 ⁺	>1.39 ps	BCD G L	J^π : 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 (${}^3\text{He}, {}^4\text{He}$). J^π : M1(+E2) γ 's to 2 ⁺ and 4 ⁺ .

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Adopted Levels, Gammas (continued) ^{122}Te Levels (continued)

E(level) [†]	J ^π [‡]	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 ($^3\text{He},d$). J ^π : L=4 in (p,p').
2099.22 4	(2) ⁺	0.261 ps +21-19	BCD G LMN	J ^π : (E2) γ to 0 ⁺ , M1+E2 γ to 2 ⁺ .
2196.81 4	3 ⁻	0.1040 ps 35	CD GHIJ LMN	B(E3) $\uparrow$ =0.12 4 (2002Ki06) XREF: g(2202.8). E(level): unresolved doublet of the near-lying levels in ($^3\text{He},d$). J ^π : L=3 in (p,p'), (p,t). XREF: g(2202.8).
2203.79 4	1,2 ⁺	0.126 ps 7	CD g L	J ^π : D(+Q) γ to 2 ⁺ , γ to 0 ⁺ .
2283.87 ^{&} 8	6 ⁺	0.15 ps +29-7	CDEF 1	XREF: l(2285.36). E(level): unresolved doublet of the near-lying levels in (d,d').
2287.35 4	2 ⁺	0.148 ps 8	BCD Gh LM	J ^π : stretched E2 γ to 4 ⁺ , (M1+E2) γ to 6 ⁺ in ($\alpha,2n\gamma$). XREF: h(2300)l(2285.36). E(level): doublet in (p,t).
2297.45 7	(0 ⁺)	0.9 ps +6-3	BCD Gh Mn	J ^π : γ 's to 0 ⁺ and 4 ⁺ , M1+E2 γ to 2 ⁺ . XREF: h(2300)n(2307).
2310.79 10	(2) ⁺	0.85 ps +31-18	BCD Gh LMn	J ^π : 1733 $\gamma(\theta)$ is isotropic in (n,n' γ) (1990BeYR, 2005Hi04); log ft =7.14 from 1 ⁺ . XREF: h(2300)n(2307). E(level): unresolved doublet of the near-lying levels in (p,t) and ($^3\text{He},^4\text{He}$).
2407.59 ^c 8	5 ⁻	0.210 ps +28-22	CDEFgh J 1 N	J ^π : log ft =5.89 from 1 ⁺ , M1+E2 γ to 2 ⁺ , γ to 4 ⁺ and 0 ⁺ . XREF: g(2409.1)h(2410)l(2407.89).
2407.86 4	(2) ⁺	95 fs 6	BCD gh LM	J ^π : L=5 in (p,p'). XREF: g(2409.1)h(2410)l(2407.89). E(level): doublet in (p,t).
2448.52 5	(4 ⁺)	0.24 ps +4-3	CD GH LMN	J ^π : L=(2) in (p,t); log ft =6.6 from 1 ⁺ ; M1+E2 γ to 2 ⁺ , $\gamma(\theta)$ excludes J ^π =3 ⁺ . E(level): unresolved doublet of the near-lying levels in (d,t).
2477.6 4	(4 ⁺)		J MN	J ^π : 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 ($^3\text{He},^4\text{He}$). J ^π : 1936 $\gamma(\theta)$ is isotropic in (n,n' γ); L=0+2+(4) in ($^3\text{He},d$). XREF: n(2503.9).
2508.71 6	(2) ⁺	63.1 fs 28	BCD GH LMn	E(level): admixture of ^{124}Te component in ($^3\text{He},d$). J ^π : L=(2) in (p,t), M1+E2 γ to 2 ⁺ , γ to 4 ⁺ . J ^π : D+Q γ to 4 ⁻ .
2535.72 7	3,4,5	>0.47 ps	CD	J ^π : D+Q γ to 2 ⁺ .
2538.84 5		>0.76 ps	CD MN	J ^π : L=2+(4) in ($^3\text{He},d$).
2557.88 6	1,2,3	0.292 ps +28-24	CD	XREF: h(2600)j(2590)l(2593.5)m(2593.92).
2560.69 9	⁺		CD G L	E(level): unresolved doublet of the near-lying levels in (d,d') and (d,t).
2592.38 6	1	18.0 fs 14	CD h jKlm	J ^π : D γ to 0 ⁺ in (γ,γ'), γ to 2 ⁺ . T _{1/2} : other: 17 fs 4 from total width in (γ,γ'). XREF: h(2600)j(2590)l(2593.5)m(2593.92).
2593.47 17	2 ⁺		BCD h j lm	J ^π : 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).
2603.77 15	3,4,5		CD Gh j L	J ^π : M1(+E2) γ 's to 4 ⁺ and 2 ⁺ . XREF: h(2600)j(2590).
2636.28 8	1,2,3		CD g LM	J ^π : D(+Q) γ to 4 ⁺ . XREF: g(2639.8). E(level): admixture of other isotopes in (d,t). J ^π : D+Q γ to 2 ⁺ .

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Adopted Levels, Gammas (continued)

^{122}Te Levels (continued)					
E(level) [†]	J ^π [‡]	T _{1/2} [#]	XREF		Comments
2637.8 4			C	g	XREF: g(2639.8).
2642.80 22				g L	XREF: g(2639.8).
2654.84 20	1,2,3	0.5 ps +5-2	CD		E(level): admixture of ^{124}Te component in ($^3\text{He},d$).
2659.2 16	+			G	J ^π : D(+Q) γ 's to 2 ⁺ .
					E(level): admixture of ^{124}Te component in ($^3\text{He},d$).
2669.43 5	3 ⁺	0.34 ps +23-10	CD	g m	J ^π : L=2+4 in ($^3\text{He},d$).
					XREF: g(2671.8)m(2668.6).
2669.78 ^{&} 14	8 ⁺	0.34 ps +23-10	DEFg	LmN	J ^π : M1+E2 γ to 2 ⁺ , M1(+E2) γ to 4 ⁺ .
					XREF: g(2671.8)m(2668.6).
					E(level): triplet in ($^3\text{He},d$).
2679.67 4	4 ⁺	0.41 ps +18-10	CD	Gh j LM	J ^π : stretched E2 γ to 6 ⁺ in ($\alpha,2n\gamma$).
					XREF: h(2690)j(2690).
					E(level): triplet in ($^3\text{He},d$).
2693.57 7	3 ⁺ ,4 ⁺	0.15 ps +4-3	CD	Gh j LMN	J ^π : stretched E2 γ 's to 2 ⁺ .
					XREF: h(2690)j(2690).
2719.30 6	1,2 ⁺	68 ps +13-10	BCD		J ^π : M1(+E2) γ to 4 ⁺ , γ to 2 ⁺ .
2742.54 7	1,2,3	80 ps +13-10	CD	Gh LMN	J ^π : D+Q γ to 2 ⁺ , γ to 0 ⁺ .
					XREF: h(2750).
					E(level): admixture of other isotopes in (d,d'), (d,t) and ($^3\text{He},^4\text{He}$); unresolved doublet of the near-lying levels in (d,d').
2756.08 10	0 ⁺ ,1 ⁺ ,2 ⁺	0.143 ps +34-24	BCD	gh l n	J ^π : D(+Q) γ 's to 2 ⁺ .
					XREF: g(2761)h(2750)l(2757.7)n(2758.4).
					E(level): doublet in (α,α').
					J ^π : 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 ($^3\text{He},d$).
					J ^π : M1+E2 γ to 4 ⁺ ; excitation function and 717 γ (θ) 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.
2771.39 9		0.18 ps +6-4	C	lm	J ^π : D+Q γ to 5 ⁻ , γ to 6 ⁺ ; (6 ⁻) member of band 5.
2772.26 21		0.20 ps +9-5	CD	lmN	XREF: l(2772.8)m(2771.9).
					XREF: l(2772.8)m(2771.9).
2777.8 3	1,2,3	0.118 ps +10-9	CD	G LM	E(level): admixture of other isotopes in ($^3\text{He},^4\text{He}$).
2789.16 9			D	h j	J ^π : D(+Q) γ to 2 ⁺ .
					XREF: h(2800)j(2790).
2789.70 9			C	h j	E(level): doublet in (p,t).
2796.43 19	1,2,3	19.4 fs 14	CD	G j LM	XREF: h(2800)j(2790).
					XREF: j(2790).
					J ^π : 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 ^π : 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 ^π : 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 ^π : 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 ^π : 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) [†]	J ^{π‡}	T _{1/2} [#]	XREF		Comments
2839.60 5	3 ⁺	96 fs 10	CD	1mn	XREF: l(2839.9)m(2840.1)n(2840.9). J ^π : M1+E2 γ's to 2 ⁺ and 4 ⁺ .
2840.2 2			C	1mn	XREF: l(2839.9)m(2840.1)n(2840.9).
2860.53 6	4,5	0.148 ps +19–23	CD	LMN	J ^π : 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		J ^π : M1+E2 γ's to 2 ⁺ .
2890.56 ^b 18	(7 ⁻)		C EF h		XREF: h(2900). J ^π : D(+Q) γ to 6 ⁺ .
2897.6 3			C		
2898.93 15		0.20 ps +10–5	C h	1mn	XREF: h(2900)l(2899.1)m(2900.36)n(2901.8).
2901.08 12		0.29 ps +15–8	C h	1mn	XREF: h(2900)l(2899.1)m(2900.36)n(2901.8).
2911.24 10	1 ⁺ ,2 ⁺	0.102 ps 8	BCD gh	1m	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). J ^π : 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). J ^π : 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'). J ^π : excited in (γ,γ'), (D,Q) γ to 0 ⁺ .
2919.35 13	1,2 ⁺	37 fs 4	C	K MN	J ^π : excited in (γ,γ'), γ to 0 ⁺ .
2930.18 9	1,2,3	0.18 ps +4–3	CD	L	J ^π : D+Q γ to 2 ⁺ .
2930.55 8	3,4	42 fs +6–5	C		J ^π : 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'). XREF: h(2950).
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). J ^π : D(+Q) γ to 4 ⁺ ; γ to 2 ⁺ .
2959.12 15	1,2 ⁺		C h		XREF: h(2950). J ^π : γ to 0 ⁺ .
2961.39 22			C G	MN	
2969.5 6				LM	
2971.88 ^c 12	(7 ⁻)		DEF		J ^π : D γ to 6 ⁺ , γ to 5 ⁻ in (α,2nγ).
2975.43 14	2,3,4		C		J ^π : D+Q γ to 3 ⁻ .
2982.36 8	1,2 ⁺	46 fs +13–10	CD g		XREF: g(2982). J ^π : 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). J ^π : L=0+2 in (³ He,d).
2993.50 10	4 ⁺	0.51 ps +28–14	CD		J ^π : stretched E2 γ to 2 ⁺ , M1+E2 γ to 4 ⁺ .
2994.7 2			g	1MN	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).
2997.99 8	2 ⁺ ,3,4 ⁺	51 fs 6	CD g	1M	J ^π : D+Q γ to 4 ⁺ . XREF: g(2997.3)l(2995.5). E(level): admixture of other isotope in (d,t). J ^π : 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). J ^π : D+Q γ to 4 ⁺ , D(+Q) γ to 2 ⁺ .

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Adopted Levels, Gammas (continued)

^{122}Te Levels (continued)					
E(level) [†]	J ^π [‡]	T _{1/2} [#]	XREF		Comments
3026.87 7	2 ⁺ ,3 ⁺	0.169 ps +33-24	CD		J ^π : 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). J ^π : M1+E2 γ to 2 ⁺ , γ to 4 ⁺ . XREF: n(3039.7).
3042.03 13		52 fs +6-5	C	n	XREF: l(3049)n(3039.7).
3044.71 12	1 ⁺ ,2 ⁺	0.21 ps +12-6	BC	G LMn	E(level): Probable doublet in (³ He,d). J ^π : 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).
3052.25 13	0 ⁺ ,1,2	60 fs +21-15	BCD	h l	J ^π : D+Q γ's to 2 ⁺ and 4 ⁺ . XREF: h(3060)l(3049).
3057.2 19			C	h	E(level): doublet in (p,t). J ^π : log ft=6.69 from 1 ⁺ ; γ's to 2 ⁺ ;
3061.38 22	1 ⁺ ,2 ⁺	0.194 ps +24-22	CD	gh LM	XREF: h(3060). XREF: g(3066)h(3060). E(level): unresolved doublet of the near-lying levels in (³ He,d); probable multiplet in (p,t).
3068.7 4			C	gh L	J ^π : M1(+E2) γ to 2 ⁺ , γ to 0 ⁺ . XREF: g(3066)h(3060).
3069.05 12	3,4,5 ⁻	0.141 ps +33-24	CD		J ^π : D+Q γ to 4 ⁺ , γ to 3 ⁻ .
3071.18 17			C		
3074.07 ^b 12	(8 ⁻)		EF		J ^π : D+Q γ to (7 ⁻) in (⁹ Be,3nγ).
3074.91 11	1,2 ⁺		CD	N	J ^π : 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). J ^π : 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). J ^π : γ to 0 ⁺ .
3113.49 18	2,3	<0.76 ps	CD		J ^π : 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		J ^π : (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). J ^π : 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). J ^π : 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		J ^π : D+Q γ to 4 ⁺ .
3196.7 6	4,5,6		C		J ^π : 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) [†]	J ^π [‡]	T _{1/2} [#]	XREF		Comments
3199.3 6	1,2 ⁺	26 fs +6-5	C	1	J ^π : D(+Q) γ to 2 ⁺ . XREF: l(3198.5).
3207.86 21	1,2 ⁺	15.9 fs 28	C	g K M	J ^π : γ to 0 ⁺ . XREF: g(3209.8).
3209.89 16	0 ⁺ ,1,2,3	5.5 fs 21	C	g	J ^π : excited in (γ,γ'), (D,Q) γ's to 0 ⁺ . XREF: g(3209.8).
3210.33 13			C	1 n	J ^π : γ to 2 ⁺ ; J ^π =0 ⁺ is probable from 2646γ(θ) is isotropic.
3210.8 ^a 5	(9 ⁺)		EF		XREF: l(3211.0)n(3211.7).
3211.3 4		40 fs +14-11	C	1 n	J ^π : (D+Q) γ to (8 ⁺) in (⁹ Be,3nγ).
3212.8 7			C	h mn	XREF: l(3211.0)n(3211.7).
3216.0 7				h Lmn	XREF: h(3220)m(3213.3)n(3211.7).
3223.37 9	4 ⁺	68 fs +10-8	CD		E(level): admixture of other isotope in (³ He, ⁴ He). XREF: h(3220)m(3213.3)n(3211.7).
3247.0 3		0.11 ps +9-4	CD	g N	E(level): from (d,d').
3252.52 16	1,2 ⁺	58 fs +27-17	C	g	J ^π : stretched E2 γ to 2 ⁺ . XREF: g(3250).
3256.1 4			C	GH	XREF: g(3250).
3262.44 23			C		J ^π : γ's to 2 ⁺ and 0 ⁺ .
3283.79 15			CD	G	E(level): from (³ He,d).
3289.0 3	1,2 ⁺		C	K	
3290.93 ^{&} 14	(10 ⁺)		EF		J ^π : excited in (γ,γ'), (D,Q) γ to 0 ⁺ . J ^π : stretched Q γ to 8 ⁺ in (α,2nγ), 1996Pal1 suggested mixture of a possible configuration= (νh _{11/2} 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		J ^π : 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).
3335.8 4			CD		Triplet in (³ He,d).
3339.1 5			C		J ^π : D γ to 8 ⁺ , (Q) γ to 7 ⁻ .
3350 17				H	
3355.40 ^c 17	(8 ⁻)		E	g	E(level): probable multiplet in (p,t). XREF: g(3360.0).
3357.2 5			C	g	J ^π : γ's to (7 ⁻) and (6 ⁻).
3389.7 20				G	XREF: g(3360.0).
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		J ^π : stretched Q γ to 7 ⁻ , D γ to 8 ⁺ .
3483.53 10	1,2 ⁺		B D	K	J ^π : 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) [†]	J ^π [‡]	XREF	Comments
3552.1 3		Gh	XREF: h(3540).
3573.9 ^a 5	(10 ⁺)	E	E(level): probable multiplet in (p,t).
3590.67 6	1 ⁺ , 2 ⁺	B D G	J ^π : γ to (9 ⁺).
3635 18		GH	J ^π : γ's to 0 ⁺ and 2 ⁺ ; log ft=5.73 from 1 ⁺ .
3698.5 15		G	E(level): weighted average of levels in (³ He,d) and (p,t); doublet in (p,t) and multiplet in (³ He,d).
3727.1 15		G	
3744.1 15		G	
3745.73 ^b 17	(10 ⁻)	E	J ^π : 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	J ^π : γ to (10 ⁺).
3983 6		G	
3995.0 ^c 3	(10 ⁻)	E	J ^π : γ to (8 ⁻).
3996.23 ^{&} 25	(12 ⁺)	EF	J ^π : stretched Q γ to (10 ⁺).
3998 5		G	
3998.89 25		E	
4020 6		G	
4038.49 ^b 18	(11 ⁻)	E	J ^π : stretched (Q) γ to (9 ⁻).
4111 6		G	
4130 6		G	
4168 6	+	G	J ^π : L=0+2 in (³ He,d).
4173.27 ^d 20	(11 ⁻)	E	J ^π : stretched Q γ to (9 ⁻).
4240 21		G	
4387.9 ^a 6	(12 ⁺)	E	J ^π : γ to (11 ⁺).
4441.69 ^b 19	(12 ⁻)	E	J ^π : stretched Q γ to (10 ⁻), γ to (11 ⁻).
4476.6 3	(12)	E	J ^π : D γ to 11 ⁻ .
4518.6 4		E	
4544.9 4		E	
4681.2 3	(14 ⁺)	E	J ^π : stretched Q γ to (12 ⁺).
4782.26 ^b 21	(13 ⁻)	E	J ^π : stretched Q γ to (11 ⁻).
4804.53 ^d 23	(13 ⁻)	E	J ^π : γ's to (11 ⁻) and (12 ⁻).
4906.9 ^{&} 3	(14 ⁺)	EF	J ^π : stretched Q γ to (12 ⁺), D+Q γ to (14 ⁺).
4942.0 4		E	
5239.85 ^b 23	(14 ⁻)	E	J ^π : stretched Q γ to (12 ⁻), D+Q γ to (13 ⁻).
5247.2 3	(15 ⁺)	E	J ^π : D+Q γ to (14 ⁺).
5267.7 3		E	
5407.5 4	(16 ⁺)	E	J ^π : D+Q γ to (15 ⁺).
5642.9 4		E	
5705.5 4		E	
5716.9 ^b 3	(15 ⁻)	E	J ^π : stretched Q γ to (13 ⁻).
5751.0 ^{&} 4	(16 ⁺)	E	J ^π : stretched Q γ to (14 ⁺).
5867.9 4	(15)	E	J ^π : D γ to (14 ⁺).
5969.1 ^b 3	(16 ⁻)	E	J ^π : stretched Q γ to (14 ⁻).
5971.5 4	(15)	E	J ^π : D γ to (14 ⁺).
6023.9 4	(15)	E	J ^π : 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^π [‡]	XREF	Comments
6377.6 ^{& 4}		E	
6391.1 ⁴		E	
6613.1 ^{b 4}	(17 ⁻)	E	J^π : γ to (15 ⁻).
6633.3 ⁴		E	
6646.6 ⁵		E	
6708.5 ⁵		E	
6914.1 ^{b 4}	(18 ⁻)	E	J^π : 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 $^{120}\text{Sn}(\alpha, 2n\gamma)$ and $^{116}\text{Cd}(^9\text{Be}, 3n\gamma)$; 5) (γ, γ') and Coulomb excitation; 6) J-dependence of $\gamma(\theta)$ and excitation functions in $^{122}\text{Te}(n, n'\gamma)$ as far as data are presented.

From DSA in $^{122}\text{Te}(n, n'\gamma)$ 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)

$\gamma(^{122}\text{Te})$									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	$I_{(\gamma+ce)}$	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 ($\alpha, 2n\gamma$) 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			
		495.52 5	7.4 8	1256.953	2 ⁺	M1+E2	-0.55 +19-18		B(E2)(W.u.)=188 +24-18 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); 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).
		1188.52 8	51.9 5	564.094	2 ⁺	(M1+E2)	+0.04 3		B(E2)(W.u.)=1.50 +17-21 B(E2)(W.u.)=21 +5-21 δ : others: -0.57 5 in ($\alpha, 2n\gamma$), +4.5 +7-6 in (n,n' γ) (1990BeYR).
1909.61	4 ⁺	1752.68 4	100 2	0.0	0 ⁺	E2			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).
		652.62 5	26.6 11	1256.953	2 ⁺	E2			B(E2)(W.u.)=1.6 +4-7
		728.35 4	100 5	1181.248	4 ⁺	M1+E2	-0.69 3		X(E0/E2)=51 10 (2005Ki02).
1940.44	0 ⁺	1345.64 18	75.3 24	564.094	2 ⁺	E2			
		583.1 2		1357.401	0 ⁺	E0		0.16 5	
		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		δ : other: -4.3 +8-5 in (n,n' γ) (1990BeYR).
		770.34 26	30 1	1181.248	4 ⁺	M1(+E2)	-0.22 +19-18		δ : -32 +16-1223 in (n,n' γ) (2005Hi04); -0.3< δ <0.0 in ($\alpha, 2n\gamma$); -70 +28-180 in (n,n' γ) (1990BeYR).
		1387.79 13	34 1	564.094	2 ⁺	M1+E2			
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 ($\alpha, 2n\gamma$); +0.4 3 in (n,n' γ) (1990BeYR).
2099.22	(2) ⁺	1477.07 6	100 11	564.094	2 ⁺	E2			B(E2)(W.u.)=1.8 1
		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).

Adopted Levels, Gammas (continued)

$\gamma(^{122}\text{Te})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	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
		1632.88 5	100 10	564.094	2 ⁺	E1		E_γ : poor fit. Level-energy difference=1015.51. B(E1)(W.u.)=0.00058 9
		2196.8 1	0.036 10	0.0	0 ⁺	E3		Mult., δ : E1(+M2), δ =+0.02 2 in (n,n' γ) (1990BeYR). B(E3)(W.u.)=18 6 branching from BE3 $\uparrow$ =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 ,2n γ). B(E2)(W.u.)=27 +13-27
2287.35	2 ⁺	1102.49 12	70 6	1181.248	4 ⁺	E2		δ : +12< δ <-0.32 in (n,n' γ) (2005Hi04).
		1030.18 ^c 15	6.0 1	1256.953	2 ⁺	M1+E2		
		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 $J^\pi(2407.95)=3^+$ 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)

$\gamma(^{122}\text{Te})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	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 ⁺			

Adopted Levels, Gammas (continued)

$\gamma(^{122}\text{Te})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	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 ,2n γ).
		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 ,2n γ).
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		

Adopted Levels, Gammas (continued)

$\gamma(^{122}\text{Te})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	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). B(E2)(W.u.)=0.064 +18-35
2996.3	3,4,5	2429.49 22	24.9 6	564.094	2 ⁺	E2		
		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)

$\gamma(^{122}\text{Te})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	Comments
3037.12	$2^+, 3^+$	1780.08 9	64.5 26	1256.953	2 ⁺	M1+E2		$\delta: +14 < \delta < -0.4: \tan^{-1} \delta = 1.32$ +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 ⁺			
		1860.77 12	100	1181.248	4 ⁺			
3042.03								
3044.71	$1^+, 2^+$	945.73 & 21	46 8	2099.22	(2) ⁺			
		1787.46 24	<32	1256.953	2 ⁺	M1(+E2)		$\delta: +1.9 < \delta < -0.4: \tan^{-1} \delta = 1.32$ +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)		$\delta: +3.4 < \delta < -3.5.$
		2484.17 18	100.0 18	564.094	2 ⁺	D+Q		$\delta: +34 < \delta < -2.5.$
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)		$\delta: \text{all values possible.}$
		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 ⁻			$E_\gamma: \text{poor fit. Level-energy difference}=872.23.$
		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 ⁻			$E_\gamma: \text{poor fit. Level-energy difference}=898.03.$
		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 ⁺			$E_\gamma: \text{poor fit. Level-energy difference}=1837.88.$
		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)

$\gamma(^{122}\text{Te})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	$\delta^\#$	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	$0^+, 1, 2$	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		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		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	$2^+, 3, 4^+$	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		2011.40 10	100	1181.248	4 ⁺	D+Q	-0.8 +6-17	
3196.7		2015.4 6	100	1181.248	4 ⁺	D+Q	-0.8 +5-7	
3198.18		2634.06 12	100	564.094	2 ⁺	D(+Q)	0.00 3	
3199.3		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		2645.76 16	100	564.094	2 ⁺			
3210.33	$0^+, 1, 2, 3$	1300.65 ^{&} 17		1909.61	4 ⁺			
		2029.12 ^{&} 17		1181.248	4 ⁺			
3210.8		297.30 11	100	2913.5	(8) ⁺	(D+Q)		
3211.3	(9^+)	1954.2 ^{&} 5	75.7 26	1256.953	2 ⁺			
		2647.4 5	100.0 26	564.094	2 ⁺			
3223.37		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	4^+	1990.1 ^{&} 3	100.0 20	1256.953	2 ⁺			
		2681.4 15	34.4 16	564.094	2 ⁺			

Adopted Levels, Gammas (continued)

$\gamma(^{122}\text{Te})$ (continued)							Comments
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [‡]	
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 ⁻)		

Adopted Levels, Gammas (continued)

$\gamma(^{122}\text{Te})$ (continued)

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

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

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

From $\gamma(\theta)$ in ¹²²Te(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 ¹²²Te(n,n' γ) E=1.7,2.8,3.4 MeV.

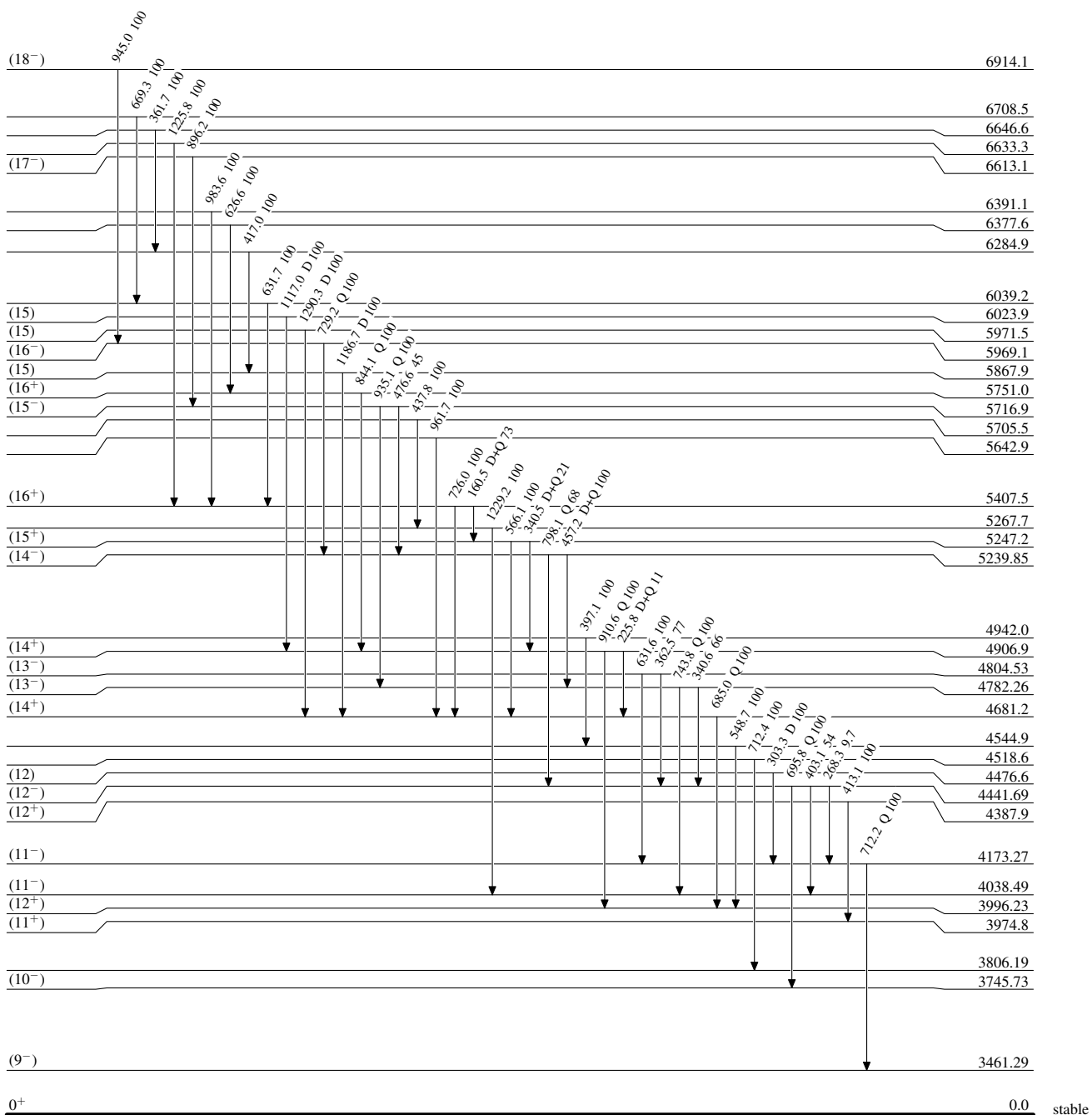
^a Triplet in ¹²²Te(n,n' γ) E=1.7,2.8,3.4 MeV.

^b Multiply placed with intensity suitably divided.

^c Placement of transition in the level scheme is uncertain.

Adopted Levels, Gammas**Level Scheme**

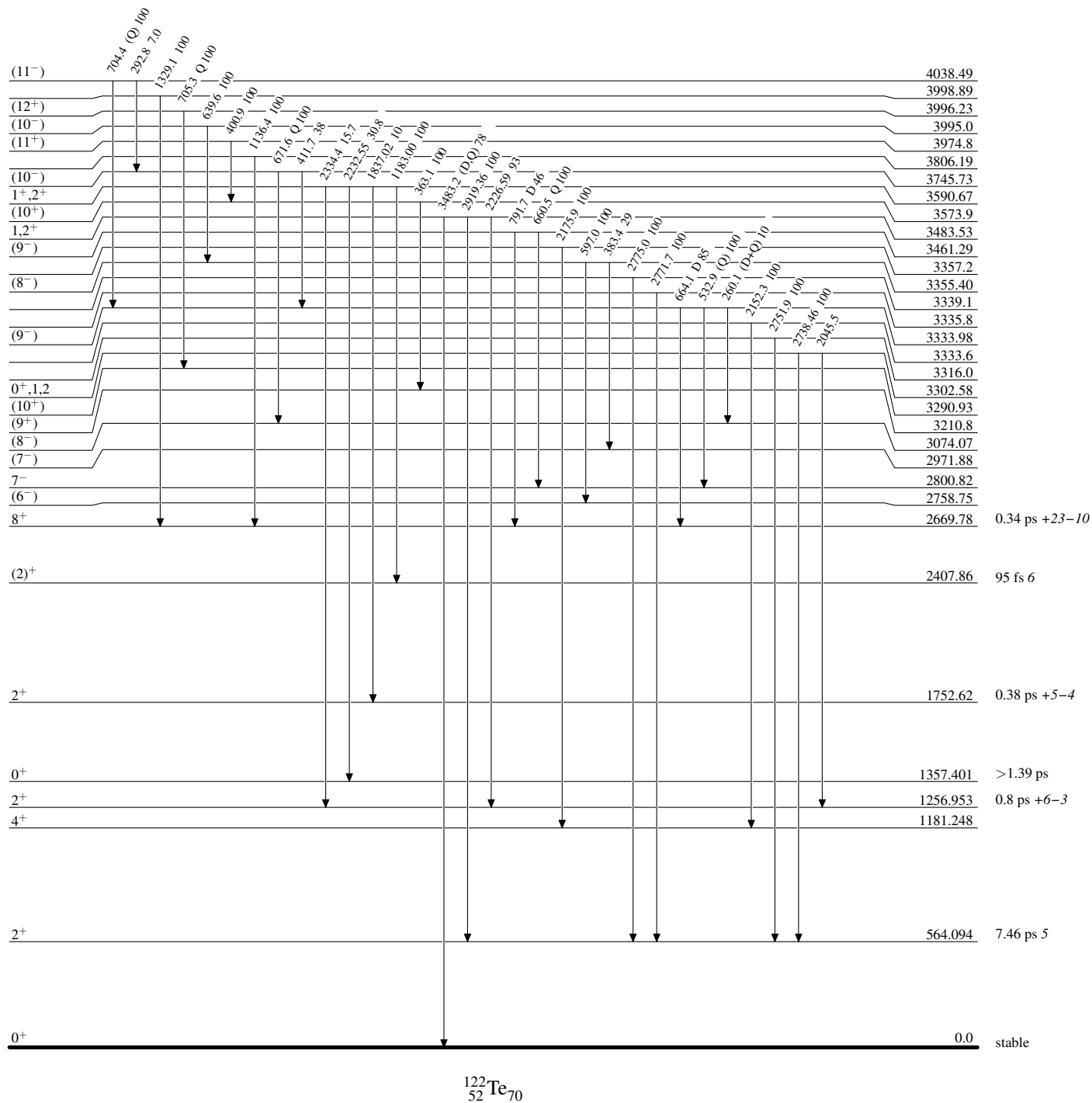
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

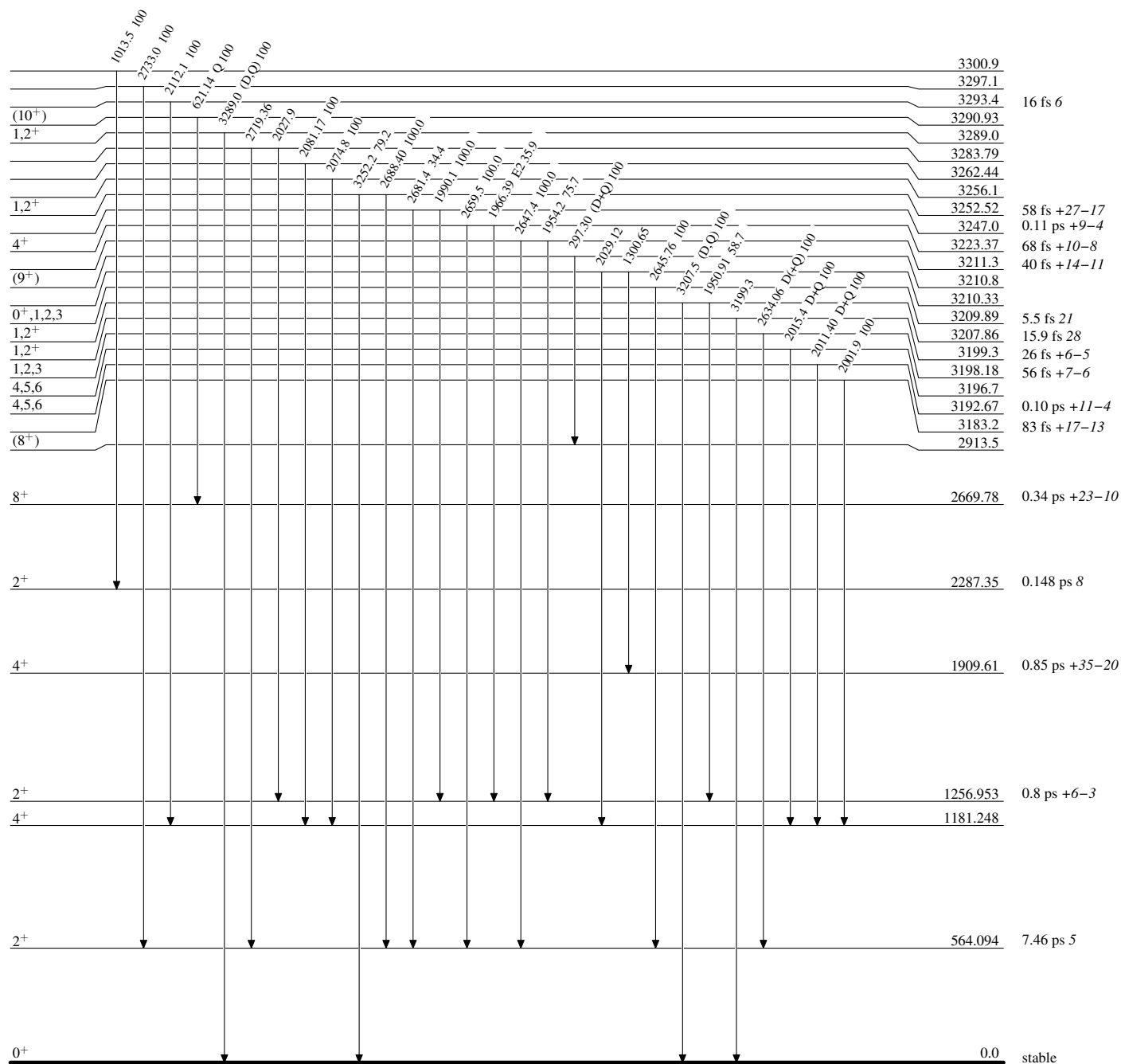
Level Scheme (continued)

Intensities: Relative photon branching from each level



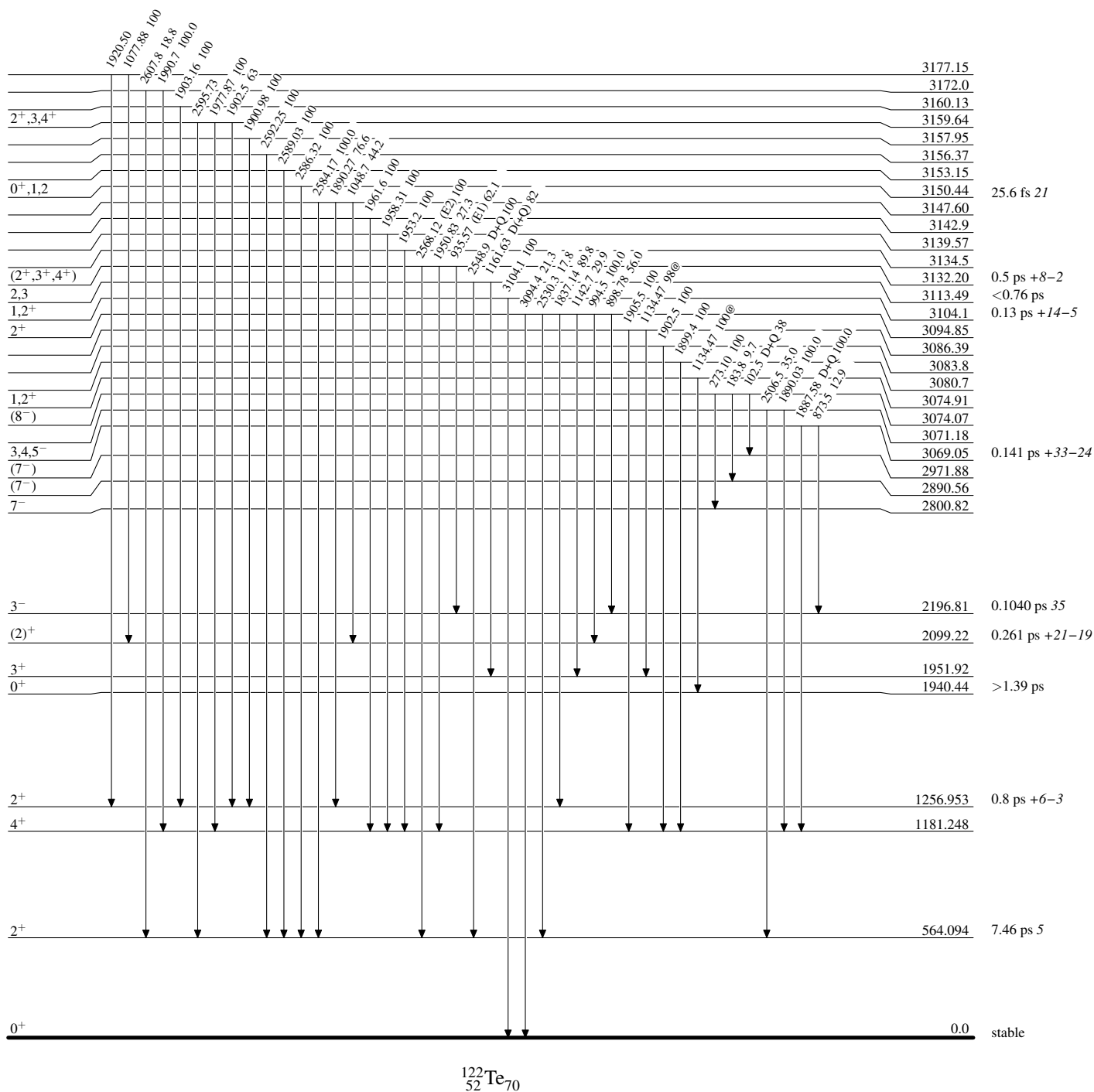
Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Relative photon branching from each level



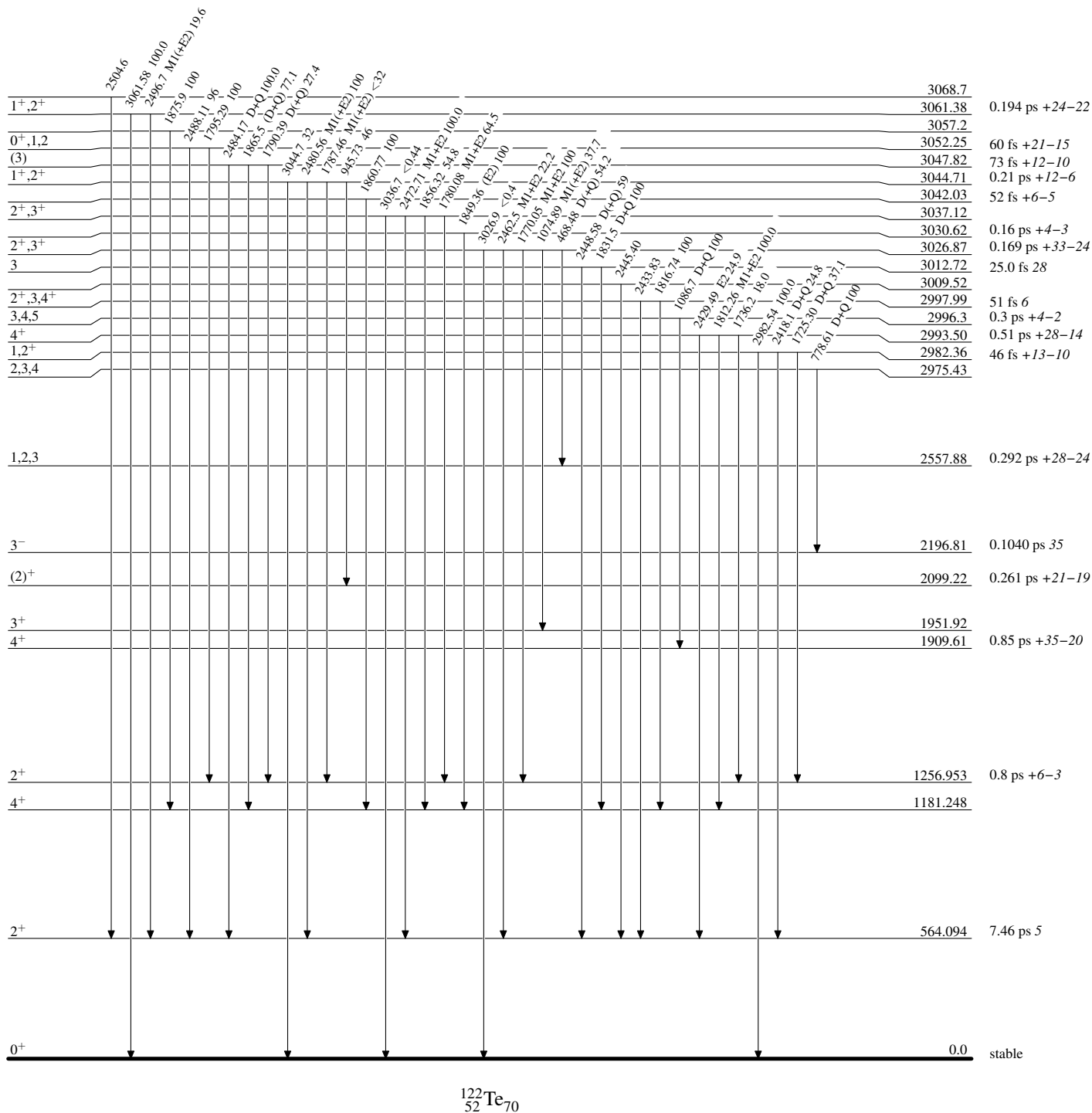
Adopted Levels, Gammas**Level Scheme (continued)**

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



Adopted Levels, Gammas**Level Scheme (continued)**

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



Legend

-----► γ Decay (Uncertain)

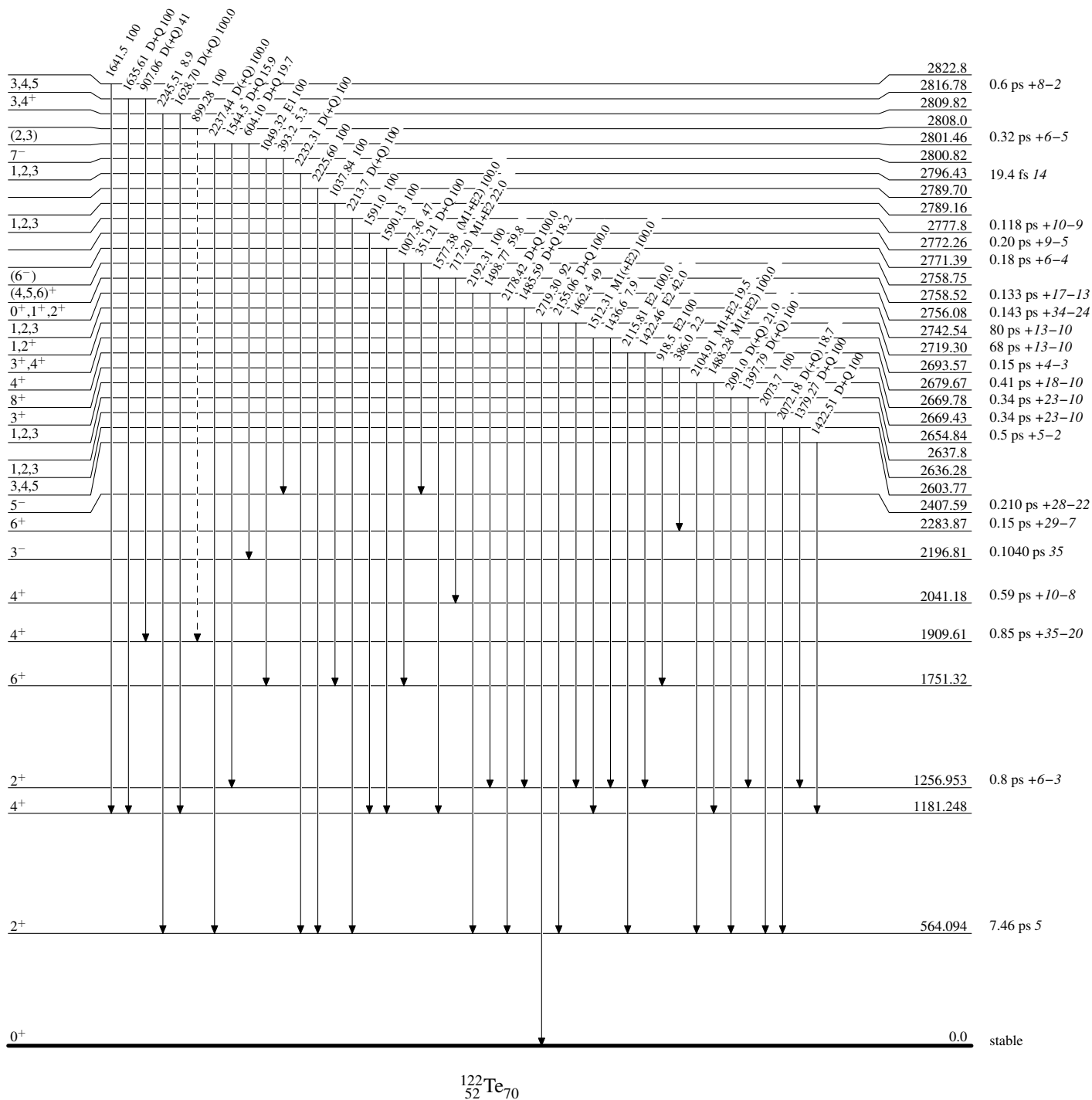
Adopted Levels, Gammas

Legend

Level Scheme (continued)

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

-----► γ Decay (Uncertain)



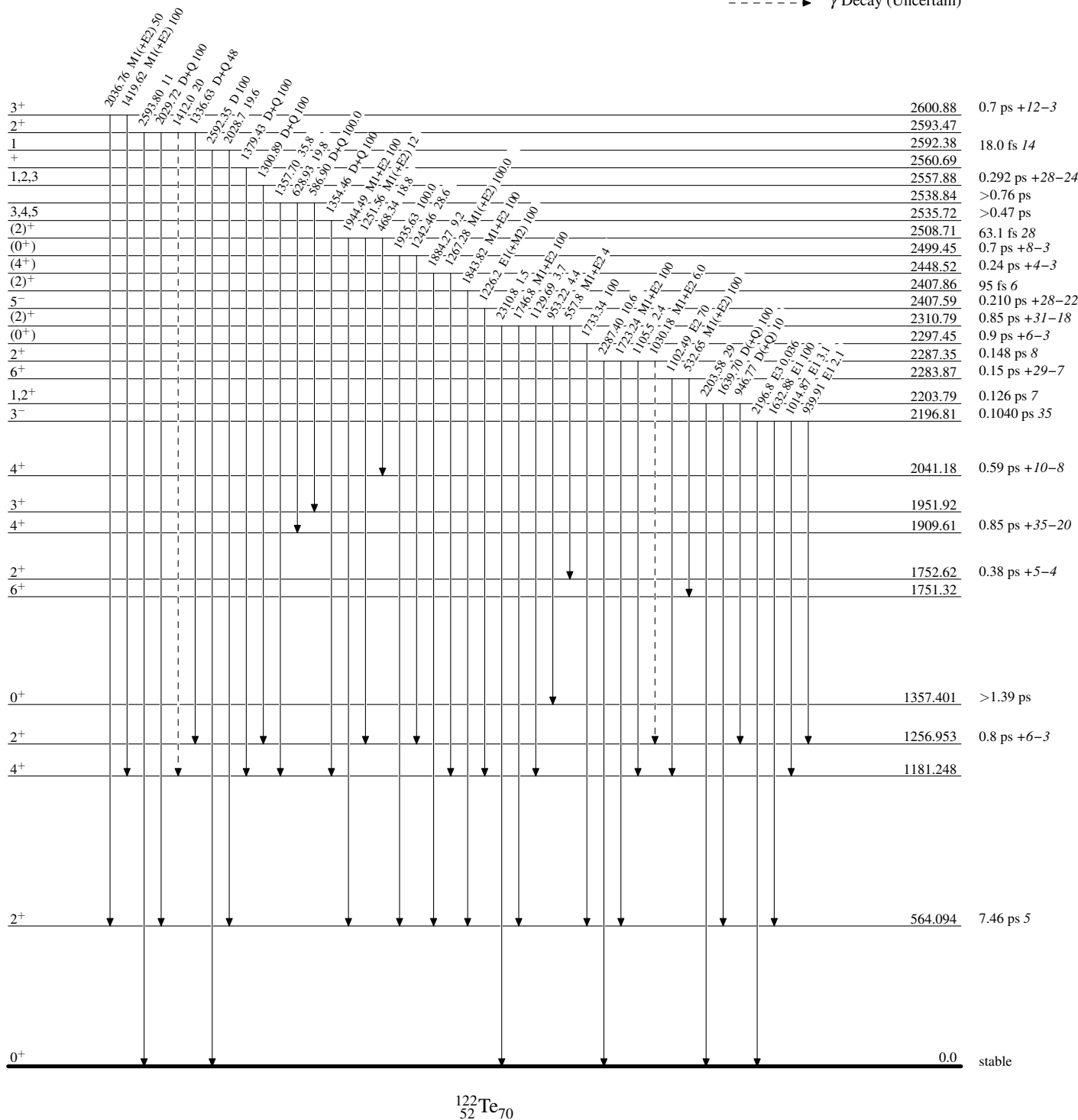
Adopted Levels, Gammas

Legend

Level Scheme (continued)

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

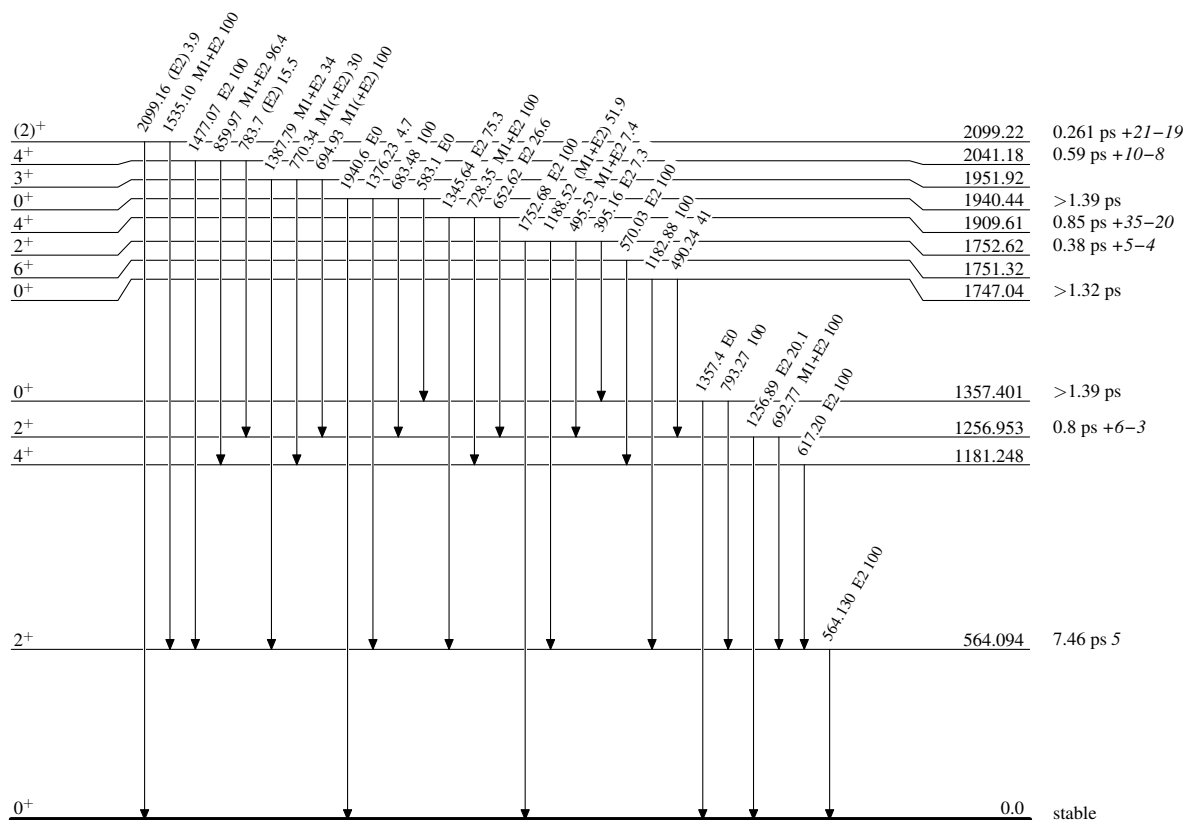
-----► γ Decay (Uncertain)



Adopted Levels, GammasLevel Scheme (continued)

Intensities: Relative photon branching from each level

@ Multiply placed: intensity suitably divided

 $^{122}_{52}\text{Te}_{70}$

Adopted Levels, Gammas