Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, I. Mitropolsky, A. Rodionov	NDS 107, 2715 (2006)	17-Jul-2006

Q(β^-)=2231.8 *7*; S(n)=5929.38 *6*; S(p)=10214 *15*; Q(α)=−4165 *10* 2012Wa38
Note: Current evaluation has used the following Q record.
Q(β^-)=2234.9 *22*; S(n)=5929.38 *6*; S(p)=10207 *17*; Q(α)=−4135 *25* 2003Au03
In this evaluation, as compared with 1994Se10, ^{130}Te(n,γ): Reactor Spectrum dataset is dropped, as experimental data (1984Ho18) relate to thermal neutron capture cross-section. Measured three γ's in 1984Ho18 are included in ^{130}Te(n,γ) E=th dataset.
Neutron resonance parameters: see 1981MuZQ, 2004BrZU.

^{131}Te Levels

The level scheme is based on β-decay, (n,γ), (d,p), and (t,d) data. The (d,p) data are more reliable than (t,d) ones. The levels at 1036, 1467 and 1853 suggested in 1994Se10 have not been adopted in the present evaluation whereas the level at 2017 has been adopted; see β^- decay data for discussion. Also is not adopted the level at 1400 suggested in 1994Se10, which was excited in (d,p) (1967Gr21) and (t,d) with L(t,d)=5 (1981Sh21), but was not excited in (n,γ) and (d,p) (2003To08). Apparently, there exist two close levels at 2496 keV, which are excited in β-decay, in (n,γ) and in (d,p) reactions. One of them de-excites by γ's 619, 1553, 1854, 2496 in β- decay (embedded on the base of energy relations) and another one de-excites by 708, 837, 1230, 1615, 1642, 2200 in (n,γ) and (d,p) (embedded because of $\gamma\gamma$ coincidences).

Cross Reference (XREF) Flags

A	^{131}Sb β^- decay	D	^{130}Te(n,γ) E=th
B	^{131}Te IT decay (33.25 h)	E	^{130}Te(d,p),(pol d,p)
C	^{131}Te IT decay (93 ms)	F	^{130}Te(t,d)

E(level)†	Jπ	$T_{1/2}$@	XREF	Comments
0.0	3/2$^+$‡	25.0 min *1*	ABCDEF	%β^-=100 μ=0.696 *9* (2005St24,1979Ge04) Configuration=$\nu h^{-1}_{3/2}$. Jπ: log *ft*=7.1 to 877, 1/2$^+$ in ^{131}I. μ: NMR on orientated nuclei; ^{125}Te(36-keV state) standard.
182.258 *18*	11/2$^-$‡	33.25 h *25*	ABCDEF	%β^-=74.1 *5*; %IT=25.9 *5* μ=−1.04 *4* (2005St24,1975Lh01) μ: NMR on orientated nuclei; ^{125}Te(36-keV state) standard. Other:(−)1.123 *7* (1998Wh05). %IT from 2002Re30. Others: of 22.2 % *16* (1975Ja03), 18.3 % *12* (1961Be20), 21 % (1955He88). Configuration=$\nu h^{-1}_{11/2}$.
296.023 *19*	1/2$^+$‡		A DEF	Configuration=$\nu s^{-1}_{1/2}$.
642.331 *16*	5/2$^+$‡		A DEF	Jπ: log *ft*=7.16 from 7/2$^+$ to 5/2$^+$.
776.90 *10*			A	
802.214 *25*	(9/2$^-$)		DE	Jπ: from decay pattern and systematics of the odd-Te isotopes.
854.396 *19*	3/2$^+$‡		DEF	Jπ: L(d,p)=2 in (d,p),(pol d,p); L(t,d)=0 in (t,d) discrepant.
880.315 *23*	7/2$^-$‡		DEF	
943.43 *4*	7/2$^+$‡		A DEF	
1014.96 *20*	(13/2$^-$)		C	Configuration=$\nu h_{11/2}\otimes$(2$^+$ ^{130}Te core) from 1998FoZY. Jπ: E2 γ from (17/2)$^-$ level, M1,E2 γ to 11/2$^-$.
1041.68 *8*	1/2$^+$‡		DEF	
1050.834 *17*	3/2$^+$,(5/2$^+$)		A DE	Jπ: L(d,p)=(2); γ to 1/2$^+$,3/2$^+$,5/2$^+$ states and from 1/2$^+$ capture state.

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Adopted Levels, Gammas (continued)

^{131}Te Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$[@]	XREF	Comments
1207.14 *6*	5/2+[‡]		A DEF	
1267.50 *11*	5/2+,(7/2)+		A DEF	Jπ: (7/2+,9/2+) from L(d,p)=(4) (2003To08); 5/2+,7/2+ from L(d,p)=2 (1967Gr21) and L(t,p)=2. ≠(9/2+) from γ to 3/2+. E(level): 1274 *5* in (t,d).
1398.90 *7*	(3/2+,5/2+)		A DEF	Jπ: from L(d,p)=(2); from decay pattern; L(t,d)=5 contradicts to level scheme.
1400 *5*	9/2−,11/2−		EF	Jπ: from L(t,d)=5.
1469.68 *8*	5/2+[‡]		A DEF	
1579.7 *3*	(17/2−)	71 ps *20*	C	Jπ: E3 γ from (23/2)+ state, E2 γ to (13/2)−. Configuration=$\nu h_{11/2}\otimes(4^+$ ^{130}Te core) from 1998FoZY. $T_{1/2}$: from IT Decay (93 ms), γγ(t).
1601.81 *22*	(3/2,5/2)+		A E	Jπ: log *ft*=7.0; from decay pattern. E(level): tentative level in ^{130}Te(d,p), ln=(2).
1659.42 *4*	7/2−		DEF	Jπ: from L(d,p)=3, ≠5/2− from γ to 11/2−. L(t,d)−2 discrepant.
1669.81 *9*	(5/2,7/2)+		A DE	Jπ: from log *ft*=6.73; from decay pattern. E(level): tentative level in ^{130}Te(d,p).
1678.26 *8*	1/2,3/2,5/2(+)		D	Jπ: from γ's to states with $J^\pi=1/2^+$.
1683.01 *6*	1/2(+),3/2,5/2+		D	Jπ: from γ's to states with $J^\pi=5/2^+$; primary γ from capture state.
1721.64 *6*	5/2+		A DEF	Jπ: from L(d,p)=3,2; L(t,d)=2; π=− contradicts to γ decay.
1755.94 *4*	(5/2−)		D	Jπ: from decay pattern.
1781.15 *4*	3/2−[‡]		DE	
1787.90 *5*	(5/2−),7/2−		DEF	Jπ: from L(d,p)=3 (2003To08) and decay pattern. L(d,p)=1 (1967Gr21), L(t,p)=3 (1981Sh02).
1841.9 *5*	(5/2+,7/2−)[‡]		EF	
1852.4 *6*	(7/2,9/2)[‡]		DE	
1855.78 *7*	(1/2+,3/2)[#]		D	
1867.00 *14*	7/2−		DEF	Jπ: 7/2−,5/2+ from Ay in (d,p), L(d,p)≠0; γ to (9/2−) suggests $J^\pi\neq5/2^+$; L(t,d)=0 in (t,d) discrepant.
1876.41 *9*	(5/2+,7/2+,9/2+)		A E	Jπ: log *ft*=5.65; from decay pattern. E(level): tentative level in ^{130}Te(d,p).
1916.6? *5*			E	
1940.0 *4*	(23/2+)	93 ms *12*	C	%IT=100 Configuration=$\nu h_{11/2}\otimes(7^-$ ^{130}Te core) from 1998FoZY. Jπ: from systematics and decay pattern. $T_{1/2}$: from γγ(t) IT Decay (93 ms).
1951.62 *9*	1/2+,3/2[#]		D	
2015.41 *4*	5/2+		A DEF	Jπ: from L(d,p)=2 (2003To08) and log *ft*=7.09 from (7/2+) state; L(d,p)=1 (1967Gr21) and (t,d)=(1) discrepant.
2066.96 *19*	(7/2+,9/2+)		A F	Jπ: from L(t,d)=(4), log *ft*=5.93; from decay pattern.
2092.01 *5*	3/2−		DEF	Jπ: from L(d,p)=1; ≠1/2− from γ to 7/2− state.
2147.5 *6*	3/2+		EF	
2179.8 *3*	(5/2,7/2)		A	Jπ: log *ft*=6.25; from decay pattern.
2226.13 *14*	(5/2,7/2,9/2)		A	Jπ: log *ft*=6.58; from decay pattern.
2231.08 *6*	1/2(+),3/2,5/2		D	Jπ: 1/2(+),3/2,5/2 from γ to 5/2+ and primary γ from 1/2+ capture state.
2275.2 *5*	7/2−[‡]		EF	
2330.47 *11*	5/2−,7/2−[‡]		DEF	
2335.50 *19*	(5/2−)		A	Jπ: log *ft*=6.16; from decay pattern.
2373.7 *4*	5/2,7/2−[‡]		DEF	
2393.7 *6*	(3/2+,5/2+)[‡]		E	
2398.53 *10*	(5/2,7/2)		A	Jπ: log *ft*=5.88; from decay pattern.
2457.01 *10*	3/2+[‡]		DE	
2496.49 *18*	(5/2,7/2)+		A	Jπ: from log *ft*=5.66.

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Adopted Levels, Gammas (continued)

^{131}Te Levels (continued)

E(level)[†]	Jπ	XREF	Comments
2496.55 *8*	1/2,3/2,5/2$^{(+)}$	DE	Jπ: from γ to 1/2$^+$.
2503.6 *6*		E	
2512.00 *4*	3/2$^-$	DE	Jπ: from L(d,p)=1 and γ to 7/2$^-$ state.
2544.21 *9*	(5/2$^-$,7/2$^+$)	D	Jπ: from decay pattern.
2547.64 *7*	3/2$^-$	DE	Jπ: from L(d,p)=1; ≠1/2$^-$ from γ to 5/2$^+$ state.
2552.06 *18*	(5/2$^+$)	A	Jπ: from log *ft*=5.61; from decay pattern.
2582.534 *24*	3/2$^-$[‡]	DE	
2598.94 *24*	(5/2$^+$,7/2$^+$,9/2$^+$)	A	Jπ: from log *ft*=5.43; from decay pattern.
2662.20 *19*	(5/2$^+$,7/2$^+$)	A	Jπ: from log *ft*=5.61; from decay pattern.
2671.30 *20*	1/2,3/2[#]	D	
2706.30 *7*	1/2$^-$,3/2$^-$[‡]	DE	
2754.21 *6*	3/2$^-$	DE	Jπ: from L(d,p)=1; ≠1/2$^-$ from γ's to 5/2$^+$ and 7/2$^-$ states.
2780.2 *5*	7/2$^-$[‡]	E	
2788.4 *8*		E	
2828.8 *5*	7/2$^-$[‡]	E	
2932.29 *8*	1/2$^-$[‡]	DE	
2980.7 *6*	(3/2$^+$)[‡]	E	
3001.96 *3*	1/2$^-$[‡]	DE	
3028.3 *6*		E	
3054.1 *5*	7/2$^-$[‡]	E	
3073.2 *5*	5/2$^-$[‡]	E	
3082.8 *6*	7/2$^-$[‡]	E	
3097.0 *6*	5/2$^-$[‡]	E	
3123.7 *11*		E	
3142.3 *5*	5/2$^-$[‡]	E	
3146.23 *18*	1/2,3/2,5/2$^+$[#]	D	
3170.8 *3*	1/2,3/2,5/2$^+$[#]	D	
3184.7 *6*	5/2$^-$[‡]	E	
3186.87 *14*	1/2$^{(+)}$,3/2$^+$,5/2$^+$	D	Jπ: from γ's to states with 5/2$^+$; primary γ from 1/2$^+$ capture state.
3203.4 *6*	9/2$^-$[‡]	E	
3209.2 *6*	7/2$^-$[‡]	E	
3239.6 *6*	9/2$^-$,7/2$^+$[‡]	E	
3262.5 *6*	7/2$^-$[‡]	E	
3274.5 *6*		E	
3291.3 *7*	7/2$^-$,5/2$^+$[‡]	E	
3301.9 *8*	5/2$^+$,7/2$^-$[‡]	E	
3311.6 *8*	5/2$^-$[‡]	E	
3322.4 *6*	7/2$^-$[‡]	E	
3333.6 *7*		E	
3354.0 *5*	7/2$^-$[‡]	E	
3375.6 *8*	11/2$^-$,9/2$^+$[‡]	E	
3379.2 *6*	(5/2$^+$)[‡]	E	
3404.1 *5*	7/2$^-$[‡]	E	
3417.2 *6*	7/2$^-$[‡]	E	
3425.5 *5*	7/2$^-$[‡]	E	
3437.8 *5*	(5/2$^-$)[‡]	E	
3443.0 *6*	7/2$^-$,(5/2$^+$)[‡]	E	
3458.8 *6*	7/2$^-$[‡]	E	

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Adopted Levels, Gammas (continued)

^{131}Te Levels (continued)

E(level)[†]	Jπ	XREF	Comments
3469.2 *5*	5/2⁻[‡]	E	
3473.5 *8*		E	
3506.4 *6*	5/2⁻[‡]	E	
3507.43 *9*	1/2(⁻),3/2,5/2⁺	D	Jπ: from γ to states with (5/2⁻); primary γ from 1/2⁺ capture state.
3510.7 *8*	5/2⁻[‡]	E	
3518.1 *5*	5/2⁻[‡]	E	
3534.2 *6*	7/2⁻[‡]	E	
3546.84 *7*	3/2⁻	DE	Jπ: from L(d,p)=1; ≠1/2⁻ from γ′s to 5/2⁺ and 7/2⁻ states.
3552.3 *5*	7/2⁺,(9/2⁻)[‡]	E	
3568.26 *5*	3/2⁻	DE	Jπ: from L(d,p)=1; ≠1/2⁻ from γ′s to 5/2⁺ and 7/2⁻ states.
3580.1 *5*	7/2⁻[‡]	E	
3601.76 *7*	3/2⁻	DE	Jπ: from L(d,p)=1; ≠1/2⁻ from γ to 5/2⁺ state.
3623.72 *6*	3/2⁻	DE	Jπ: from L(d,p)=1; ≠1/2⁻ from γ′s to 5/2⁺ and 7/2⁻ states.
3630.6 *9*	(5/2⁻)[‡]	E	
3640.9 *8*	(7/2⁻,5/2⁺)[‡]	E	Jπ: small contribution from ^{128}Te(d,p).
3664.1 *5*	7/2⁻,(5/2⁺)[‡]	E	
3668.25 *10*	(1/2,3/2)[#]	D	
3668.7 *6*	7/2⁻,5/2⁺[‡]	E	
3672.3 *8*	7/2⁻,5/2⁺[‡]	E	
3689.81 *5*	1/2⁻,3/2⁻[‡]	DE	
3698.26 *6*	3/2⁻	DE	Jπ: from L(d,p)=1; ≠1/2⁻ from γ to 5/2⁺ state.
3709.5 *5*	7/2⁻[‡]	E	
3728.1 *10*		E	
3737.84 *11*	(1/2,3/2)[#]	D	
3739.1 *8*	7/2⁻[‡]	E	
3750.7 *5*	3/2⁻[‡]	E	
3763.42 *14*	1/2⁻,3/2⁻[‡]	DE	
3771.4 *5*	7/2⁻[‡]	E	
3776.7 *6*		E	
3803.2 *8*	5/2⁻[‡]	E	
3820.4 *10*	5/2⁺,7/2⁻[‡]	E	
3825.5 *13*	(1/2⁻)[‡]	E	
3842.0 *8*		E	
3847.4 *6*	7/2⁻[‡]	E	
3857.8 *5*	7/2⁻,(5/2⁺)[‡]	E	
3871.1 *10*		E	
3877.4 *6*		E	
3889.8 *11*	(5/2⁻)[‡]	E	
3895.9 *10*	5/2⁻[‡]	E	
3904.9 *6*	5/2⁺,(7/2⁻)[‡]	E	
3920.2 *9*		E	
3922.6 *11*	5/2⁻,3/2⁺[‡]	E	
3934.6 *5*	7/2⁻[‡]	E	
3938.59 *7*	3/2⁻	DE	Jπ: from L(d,p)=1, ≠1/2⁻ from γ to 7/2⁻.
3956.0 *7*	5/2⁺,7/2⁻[‡]	E	
3964.2 *6*	3/2⁺,5/2⁻[‡]	E	
3978.7 *10*		E	
3986.98 *23*	1/2⁻,3/2⁻[‡]	DE	

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Adopted Levels, Gammas (continued)

^{131}Te Levels (continued)

E(level)[†]	Jπ	XREF	Comments
3991.4 *6*	3/2+[‡]	E	
3996.4? *8*		E	
3998.4 *5*	(3/2−)[‡]	E	
4005.8 *5*	7/2−[‡]	E	
4018.2 *5*	5/2−[‡]	E	
4023.6 *6*	7/2−,5/2+[‡]	E	
4028.36 *13*	1/2,3/2,(5/2+)	D	Jπ: from γ to 1/2+.
4028.5 *6*	5/2−[‡]	E	
4036.63 *4*	3/2−	DE	Jπ: from L(d,p)=1; ≠1/2− from γ′s to 5/2+ and 7/2− states.
4041.9 *6*	7/2−,5/2+[‡]	E	
4053.7 *6*	7/2−,5/2+[‡]	E	
4061.18 *14*	1/2−,3/2−[‡]	DE	
4070.41 *5*	3/2−	DE	Jπ: from L(d,p)=1; ≠1/2− from γ′s to 5/2+ and 7/2− states.
4073.8 *11*	(1/2−)[‡]	E	
4093.4 *7*	5/2−[‡]	E	
4109.00 *8*	1/2−,3/2−[‡]	DE	
4115.3 *10*		E	
4124.33 *13*	3/2−	DE	Jπ: from L(d,p)=1; ≠1/2− from γ to 5/2+ state.
4136.2 *5*	5/2−[‡]	E	
4150.0 *8*		E	
4157.4 *5*	5/2−[‡]	E	
4163.2 *8*	7/2−[‡]	E	
4168.7 *6*	13/2+[‡]	E	
4175.9 *6*	11/2−[‡]	E	
4186.8 *6*	9/2+[‡]	E	
4191.8 *7*	9/2+[‡]	E	
4196.2 *12*	5/2+[‡]	E	
4205.1 *6*	9/2+[‡]	E	
4211.7 *5*	13/2+[‡]	E	
4225.1 *8*	7/2+[‡]	E	
4238.97 *9*	1/2−,3/2−[‡]	DE	
4246.0 *5*	9/2+[‡]	E	
4253.58 *6*	1/2−,3/2−[‡]	DE	
4260.5 *6*	7/2−[‡]	E	
4265.6 *6*	5/2−[‡]	E	
4272.3 *8*		E	
4278.57 *15*	3/2−	DE	Jπ: from L(d,p)=1; ≠1/2− from γ to 5/2+ state.
4285.80 *5*	3/2−	DE	Jπ: from L(d,p)=1; ≠1/2− from γ′s to 5/2+ and 7/2− states.
4293.2 *7*	3/2+[‡]	E	
4300.28 *6*	3/2−	DE	Jπ: from L(d,p)=1; ≠1/2− from γ to 5/2+ state.
4309.6 *6*	3/2+[‡]	E	
4324.59 *7*	3/2−	DE	Jπ: from L(d,p)=1; ≠1/2− from γ to 5/2+ state.
4327.3? *9*		E	
4341.3 *7*	7/2−[‡]	E	
4344.6 *5*	(3/2−)[‡]	E	
4354.6? *5*		E	
4358.0 *8*	3/2+,(5/2+)[‡]	E	

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Adopted Levels, Gammas (continued)

^{131}Te Levels (continued)

E(level)[†]	Jπ	XREF	Comments
4363.1 *7*	7/2−[‡]	E	
4364.65 *8*	3/2−[#]	D	
4373.1 *8*	9/2+[‡]	E	
4379.7 *7*	7/2−[‡]	E	
4383.5 *8*	7/2−[‡]	E	
4389.3 *11*	(7/2−)[‡]	E	
4393.1? *8*		E	
4403.7 *7*	7/2−[‡]	E	
4412.1 *5*	7/2−[‡]	E	
4425.07 *10*	3/2+,(5/2+)[‡]	DE	
4437.0 *3*	1/2−,3/2−[‡]	DE	
4445.77 *25*	1/2−,3/2−[‡]	DE	
4453.9 *4*	1/2−,3/2−[‡]	DE	
4461.2 *7*	3/2+[‡]	E	
4472.1 *6*	7/2−,5/2−[‡]	E	
4472.57 *10*	3/2(−),5/2(+)	D	Jπ: from γ's to 1/2+ and 7/2−.
4485.19 *13*	(1/2−,3/2−)[‡]	DE	
4489.48 *17*	(1/2,3/2)[#]	D	
4490.5 *8*	7/2+[‡]	E	
4506.2 *8*	5/2+[‡]	E	
4514.6 *12*	1/2−,3/2−[‡]	E	
4519.97 *8*	(1/2,3/2)[#]	D	
4521.6 *9*	3/2+[‡]	E	
4531.31 *8*	1/2−,3/2−[‡]	DE	
4539.4 *7*	5/2−,(3/2+)[‡]	E	
4545.18 *5*	1/2−,3/2−[‡]	DE	
4558.45 *5*	1/2−,3/2−[‡]	DE	
4563.18 *6*	3/2−	DE	Jπ: from L(d,p)=1; ≠1/2− from γ's to 5/2+ and 7/2− states.
4570.8 *9*	(3/2−)[‡]	E	
4583.14 *12*	1/2−,3/2−[‡]	DE	
4587.1 *11*	3/2−[‡]	E	
4597.9 *8*	9/2+[‡]	E	
4610.6 *7*		E	
4614.3 *14*	(9/2+)[‡]	E	
4620.1 *9*	5/2−[‡]	E	
4628.9 *10*	1/2−,3/2−[‡]	E	
4645.36 *4*	3/2−	DE	Jπ: from L(d,p)=1; ≠1/2− from γ to 5/2+ state.
4649.93 *9*	1/2−,3/2−[‡]	DE	
4654.5 *6*	5/2−,(3/2+)[‡]	E	
4659.2 *6*	5/2−[‡]	E	
4671.9 *6*	5/2−[‡]	E	
4678.0 *8*		E	
4682.5 *6*	13/2+,15/2−[‡]	E	
4694.4 *6*	5/2−[‡]	E	
4707.51 *10*	5/2+,3/2+[‡]	DE	
4716.7 *6*	5/2−[‡]	E	

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Adopted Levels, Gammas (continued)

^{131}Te Levels (continued)

E(level)[†]	Jπ	XREF	Comments
4723.4 *8*	7/2−[‡]	E	
4727.3 *8*	7/2−[‡]	E	
4732.73 *12*	3/2−	DE	Jπ: from L(d,p)=1; ≠1/2− from γ to 5/2+ state.
4738.2 *6*	5/2+,(3/2+)[‡]	E	
4743.7 *8*	(5/2−)[‡]	E	
4749.1 *8*		E	
4753.9? *9*		E	
4756.0? *6*		E	
4759.9 *8*	5/2−[‡]	E	
4765.6 *5*	7/2−[‡]	E	
4770.8 *8*		E	
4775.2 *10*		E	
4783.9 *8*		E	
4789.8 *7*	7/2−[‡]	E	
4801.23 *12*	1/2,3/2,(5/2+)	D	Jπ: from γ to 1/2+.
4801.6 *8*	5/2−[‡]	E	
4808.8 *7*	(7/2−)[‡]	E	
4814.2 *8*	(5/2+)[‡]	E	
4820.8 *6*		E	
4826.5 *6*	7/2−[‡]	E	
4842.9 *6*	5/2−,3/2+[‡]	E	
4847.2 *6*	(3/2−)[‡]	E	
4856.2 *3*	(3/2+,5/2+)[‡]	DE	
4863.5 *7*	1/2−,3/2+	E	
4869.67 *7*	1/2−,3/2−[‡]	DE	
4880.3 *10*		E	
4888.5 *6*		E	
4894.05 *11*	1/2−,3/2−[‡]	DE	
4899.2 *7*	(1/2−)[‡]	E	
4904.8? *8*		E	
4907.3 *8*	5/2−,3/2+[‡]	E	
4911.9 *8*	5/2−,3/2+[‡]	E	
4914.8 *14*	7/2−[‡]	E	
4924.7 *7*	3/2+[‡]	E	
4929.9 *6*	5/2−[‡]	E	
4939.1 *6*	5/2−[‡]	E	
4944.92 *10*	3/2−	DE	Jπ: from L(d,p)=1; ≠1/2− from γ to 5/2+ state.
4958.7 *8*	1/2−[‡]	E	
4964.21 *14*	1/2−,3/2−[‡]	DE	
4970.36 *10*	3/2−	DE	Jπ: from L(d,p)=1; ≠1/2− from γ to 5/2+ state.
4977.0 *6*	(1/2−)[‡]	E	
4984.2? *8*		E	
4989.0 *5*	(1/2−)[‡]	E	
4997.2 *6*		E	
5000.8 *6*		E	
5008.6 *6*		E	Jπ: L(d,p)≥4.
5012.7 *7*	5/2−[‡]	E	
5019.2 *9*	13/2+,15/2−[‡]	E	
5027.6 *5*	13/2+,15/2−[‡]	E	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{131}Te Levels (continued)

E(level)[†]	Jπ	XREF	E(level)[†]	Jπ	XREF	E(level)[†]	XREF
5034.5 *6*	5/2$^-$[‡]	E	5129.0 *8*		E	5256 *5*	E
5040.5 *10*		E	5140.0? *9*		E	5285 *5*	E
5048.56 *16*	(1/2,3/2)[#]	DE	5148.0 *7*		E	5348 *5*	E
5056.4 *6*	7/2$^+$[‡]	E	5156.6 *7*		E	5409 *5*	E
5062.4 *6*	(5/2$^-$)[‡]	E	5161.4 *6*		E	5575 *5*	E
5074.6 *13*		E	5172.21 *25*	(3/2,5/2)[#]	DE	5631 *5*	E
5088.3 *8*		E	5177.1 *9*		E	5680 *5*	E
5096.1 *5*		E	5183.0? *9*		E	5754 *5*	E
5104.0 *5*		E	5191.3 *14*		E	5780 *5*	E
5116.2 *6*		E	5195.0 *8*		E		
5122.4 *8*		E	5203.2 *11*		E		

[†] From least-squares fit to Eγ′s (including primary γ′s from capture state), except as noted: resulted normalized χ^2=1.26.
[‡] The assignments are from angular distributions and asymmetries of (d,p), and also (t,d) reactions.
[#] From decay pattern and primary γ from J^π=1/2$^+$ capture state assuming M1, E1 or E2 multipolarities.
[@] $T_{1/2}$(g.s.)=25.0 min *1* from 1965Wa11; $T_{1/2}$(182)=33.25 h from 2002Re30. Others: $T_{1/2}$(g.s.)=25 min *2*, $T_{1/2}$(182)=30 h *2* (1965Sa23); see 1994Se10 for additional references.

Adopted Levels, Gammas (continued)

$\gamma(^{131}Te)$

E_i(level)	J_i^π	E_γ[#]	I_γ[@]	E_f	J_f^π	Mult.	α[c]	Comments
182.258	11/2$^-$	182.25[&] *2*	100[&]	0.0	3/2$^+$	(M4)	25.2	B(M4)(W.u.)=4.59 *12* Mult.: E3,M4 from K/L in IT decay; ΔJ^π=4,yes from level scheme.
296.023	1/2$^+$	296.01[†] *3*	100	0.0	3/2$^+$	[M1,E2]	0.038 *3*	
642.331	5/2$^+$	642.28[†] *2*	100	0.0	3/2$^+$			
776.90		134.6[‡] *1*	100	642.331	5/2$^+$			
802.214	(9/2$^-$)	619.93 *2*	100	182.258	11/2$^-$			
854.396	3/2$^+$	211.7 *5*	6.5 *30*	642.331	5/2$^+$	[M1,E2]	0.104 *19*	
		558.2 *4*	10.5 *20*	296.023	1/2$^+$			
		854.39 *2*	100 *11*	0.0	3/2$^+$			
880.315	7/2$^-$	698.07 *2*	100	182.258	11/2$^-$			
943.43	7/2$^+$	301.3[‡] *3*	5.1[‡] *10*	642.331	5/2$^+$	[M1,E2]	0.0359 *22*	
		943.44[†] *4*	100[‡]	0.0	3/2$^+$			
1014.96	(13/2$^-$)	832.7[a] *2*	100	182.258	11/2$^-$	M1,E2	0.0025 *3*	α(K)exp=0.0025 *8* Mult.: from IT Decay (93 ms).
1041.68	1/2$^+$	1041.68 *20*	100	0.0	3/2$^+$			
1050.834	3/2$^+$,(5/2$^+$)	274.26[‡] *29*	<3.7[b]	776.90				
		408.49 *1*	75.6 *7*	642.331	5/2$^+$			
		754.89 *4*	69 *6*	296.023	1/2$^+$			
		1050.91[†] *4*	100 *10*	0.0	3/2$^+$			
1207.14	5/2$^+$	352.5 *8*	1.7 *11*	854.396	3/2$^+$			
		910.67[†] *18*	18.2 *11*	296.023	1/2$^+$			
		1207.15[†] *10*	100 *3*	0.0	3/2$^+$			
1267.50	5/2$^+$,(7/2)$^+$	324.12[†] *24*	32 *10*	943.43	7/2$^+$	[M1,E2]	0.0290 *12*	
		625.41[†] *21*	100 *26*	642.331	5/2$^+$			
		1267.58[†] *16*	68 *11*	0.0	3/2$^+$			
1398.90	(3/2$^+$,5/2$^+$)	455.59 *20*	12 *6*	943.43	7/2$^+$			
		544.3 *5*	4 *3*	854.396	3/2$^+$			
		756.7 *3*	97 *24*	642.331	5/2$^+$			
		1398.93[†] *17*	100 *26*	0.0	3/2$^+$			
1469.68	5/2$^+$	525.87 *17*	13 *3*	943.43	7/2$^+$			
		1470.07[†] *26*	100 *28*	0.0	3/2$^+$			
1579.7	(17/2$^-$)	564.7[a] *2*	100	1014.96	(13/2$^-$)	E2	0.00583	α(K)exp=0.006 *2* B(E2)(W.u.)=3.5 *10* Mult.: from IT Decay (93 ms).
1601.81	(3/2,5/2)$^+$	824.91[‡] *19*	100	776.90				
1659.42	7/2$^-$	779.28 *12*	23 *13*	880.315	7/2$^-$			
		857.15 *3*	100 *7*	802.214	(9/2$^-$)			
		1477.0 *7*	39 *14*	182.258	11/2$^-$			

From ENSDF

$^{131}_{52}Te_{79}$-9

Adopted Levels, Gammas (continued)

γ(^{131}Te) (continued)

E_i(level)	J_i^π	E_γ[#]	I_γ[@]	E_f	J_f^π	Mult.	α[c]	Comments
1669.81	(5/2,7/2)$^+$	619.8 *3*	40 *20*	1050.834	3/2$^+$,(5/2$^+$)			
		726.32[†] *9*	100 *20*	943.43	7/2$^+$			
		789.0 *5*	16 *8*	880.315	7/2$^-$			
		815.0 *8*	12 *8*	854.396	3/2$^+$			
1678.26	1/2,3/2,5/2$^{(+)}$	636.80 *17*	29 *16*	1041.68	1/2$^+$			
		823.85 *18*	29 *8*	854.396	3/2$^+$			
		1382.1 *5*	100 *14*	296.023	1/2$^+$			
		1678.5 *3*	34 *18*	0.0	3/2$^+$			
1683.01	1/2$^{(+)}$,3/2,5/2$^+$	632.03 *19*	19 *6*	1050.834	3/2$^+$,(5/2$^+$)			
		828.59 *8*	58 *4*	854.396	3/2$^+$			
		1040.84 *10*	100 *55*	642.331	5/2$^+$			
		1683.50[f] *12*	137 *11*	0.0	3/2$^+$			
1721.64	5/2$^+$	515.0 *5*	24 *7*	1207.14	5/2$^+$			
		1079.58 *16*	14 *3*	642.331	5/2$^+$			
		1721.55[†] *7*	100 *6*	0.0	3/2$^+$			
1755.94	(5/2$^-$)	875.61 *3*	100 *13*	880.315	7/2$^-$			
		953.71 *15*	35 *11*	802.214	(9/2$^-$)			
		1756.08 *17*	26 *7*	0.0	3/2$^+$			
1781.15	3/2$^-$	739.4 *3*	10 *6*	1041.68	1/2$^+$			
		900.85 *3*	71 *6*	880.315	7/2$^-$			
		926.2 *5*	10 *4*	854.396	3/2$^+$			
		1485.0 *3*	100 *50*	296.023	1/2$^+$			
		1780.89 *12*	84 *30*	0.0	3/2$^+$			
1787.90	(5/2$^-$),7/2$^-$	907.57 *5*	100 *8*	880.315	7/2$^-$			
		985.65 *11*	31 *12*	802.214	(9/2$^-$)			
1852.4	(7/2,9/2)	1050.2 *6*	100	802.214	(9/2$^-$)			
1855.78	(1/2$^+$,3/2)	457.2 *4*	12 *5*	1398.90	(3/2$^+$,5/2$^+$)			
		804.96 *9*	52 *7*	1050.834	3/2$^+$,(5/2$^+$)			
		813.3 *4*	10 *7*	1041.68	1/2$^+$			
		1000.9 *4*	14 *5*	854.396	3/2$^+$			
		1213.2 *4*	14 *5*	642.331	5/2$^+$			
		1855.82 *12*	100 *10*	0.0	3/2$^+$			
1867.00	7/2$^-$	986.73 *17*	100 *30*	880.315	7/2$^-$			
		1064.69 *22*	46 *15*	802.214	(9/2$^-$)			
1876.41	(5/2$^+$,7/2$^+$,9/2$^+$)	669.00[‡] *19*	7.3 *12*	1207.14	5/2$^+$			
		933.09[‡] *10*	100 *5*	943.43	7/2$^+$			
		1233.76[‡] *19*	8.8 *17*	642.331	5/2$^+$			
1940.0	(23/2$^+$)	360.3[a] *2*	100	1579.7	(17/2$^-$)	E3	0.0735	α(K)exp=0.08 *2* B(E3)(W.u.)=0.0151 *20* Mult.: from IT Decay (93 ms).
1951.62	1/2$^+$,3/2	229.9 *3*	15 *9*	1721.64	5/2$^+$			
		744.49 *11*	46 *9*	1207.14	5/2$^+$			

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Adopted Levels, Gammas (continued)

γ(^{131}Te) (continued)

E_i(level)	J_i^π	E_γ[#]	I_γ[@]	E_f	J_f^π
1951.62	1/2$^+$,3/2	900.9 *3*	28 *11*	1050.834	3/2$^+$,(5/2$^+$)
		909.97 *20*	13 *7*	1041.68	1/2$^+$
		1097.4 *3*	50 *20*	854.396	3/2$^+$
		1309.20 *24*	22 *7*	642.331	5/2$^+$
		1951.3 *4*	100 *50*	0.0	3/2$^+$
2015.41	5/2$^+$	227.1 *3*	4 *2*	1787.90	(5/2$^-$),7/2$^-$
		332.2 *7*	12 *6*	1683.01	1/2$^{(+)}$,3/2,5/2$^+$
		355.89 *5*	57 *10*	1659.42	7/2$^-$
		545.8 *5*	8 *4*	1469.68	5/2$^+$
		616.4 *5*	8 *4*	1398.90	(3/2$^+$,5/2$^+$)
		807.8 *3*	24 *4*	1207.14	5/2$^+$
		1135.13 *5*	55 *6*	880.315	7/2$^-$
		1161.8 *5*	25 *8*	854.396	3/2$^+$
		2015.96[†] *29*	100 *10*	0.0	3/2$^+$
2066.96	(7/2$^+$,9/2$^+$)	1123.63[‡] *19*	100 *9*	943.43	7/2$^+$
2092.01	3/2$^-$	310.9 *3*	9 *4*	1781.15	3/2$^-$
		335.9 *3*	7 *4*	1755.94	(5/2$^-$)
		1041.5 *7*	9 *4*	1050.834	3/2$^+$,(5/2$^+$)
		1211.85 *16*	33 *6*	880.315	7/2$^-$
		1795.94 *6*	100 *4*	296.023	1/2$^+$
		2092.10 *10*	91 *17*	0.0	3/2$^+$
2179.8	(5/2,7/2)	456.7[‡][f] *5*	≤63	1721.64	5/2$^+$
		1538.0[‡] *4*	21 *13*	642.331	5/2$^+$
		2179.2[‡] *4*	100 *15*	0.0	3/2$^+$
2226.13	(5/2,7/2,9/2)	159.9[‡] *5*	77 *23*	2066.96	(7/2$^+$,9/2$^+$)
		958.59[‡] *10*	100 *30*	1267.50	5/2$^+$,(7/2)$^+$
		1284.7[d][‡][f] *8*	85[d] *15*	943.43	7/2$^+$
2231.08	1/2$^{(+)}$,3/2,5/2	1024.1 *3*	12 *6*	1207.14	5/2$^+$
		1180.6 *4*	20 *4*	1050.834	3/2$^+$,(5/2$^+$)
		1187.3 *14*	14 *6*	1041.68	1/2$^+$
		1588.48 *14*	42 *6*	642.331	5/2$^+$
		1935.7 *6*	6 *4*	296.023	1/2$^+$
		2231.07[d] *7*	100[d] *10*	0.0	3/2$^+$
2330.47	5/2$^-$,7/2$^-$	670.29[f] *12*	52 *13*	1659.42	7/2$^-$
		1450.8 *5*	100 *16*	880.315	7/2$^-$
		1528.04 *16*	100 *13*	802.214	(9/2$^-$)
2335.50	(5/2$^-$)	866[‡][f] *1*	25 *5*	1469.68	5/2$^+$
		1284.7[d][‡][f] *5*	28[d] *5*	1050.834	3/2$^+$,(5/2$^+$)
		1392.0[‡] *4*	43 *15*	943.43	7/2$^+$
		1559.0[‡] *4*	23 *10*	776.90	

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$^{131}_{52}Te_{79}$-11

Adopted Levels, Gammas (continued)

γ(^{131}Te) (continued)

E_i(level)	J_i^π	E_γ[#]	I_γ[@]	E_f	J_f^π
2335.50	(5/2$^-$)	2335.03[‡] *29*	100 *5*	0.0	3/2$^+$
2373.7	5/2,7/2$^-$	1492.9 *10*	33 *22*	880.315	7/2$^-$
		1571.6 *4*	100 *60*	802.214	(9/2$^-$)
2398.53	(5/2,7/2)	1191.9[d][‡][f] *6*	92[d] *8*	1207.14	5/2$^+$
		1455.1[‡] *1*	42 *21*	943.43	7/2$^+$
		1756.1[‡] *2*	100 *13*	642.331	5/2$^+$
		2398.6[‡] *6*	100 *8*	0.0	3/2$^+$
2457.01	3/2$^+$	1250.8 *8*	8 *4*	1207.14	5/2$^+$
		1405.4 *10*	31 *15*	1050.834	3/2$^+$,(5/2$^+$)
		1414.3 *15*	17 *17*	1041.68	1/2$^+$
		1602.9 *3*	49 *8*	854.396	3/2$^+$
		2161.2 *7*	32 *14*	296.023	1/2$^+$
		2456.7 *4*	100 *5*	0.0	3/2$^+$
2496.49	(5/2,7/2)$^+$	619.78[‡] *26*	38[‡] *7*	1876.41	(5/2$^+$,7/2$^+$,9/2$^+$)
		1553.5[‡] *4*	13[‡] *7*	943.43	7/2$^+$
		1854.31[‡] *29*	100[‡] *13*	642.331	5/2$^+$
		2496.3[‡] *7*	16[‡] *2*	0.0	3/2$^+$
2496.55	1/2,3/2,5/2$^{(+)}$	708.60 *15*	35 *17*	1787.90	(5/2$^-$),7/2$^-$
		837.06 *21*	39 *17*	1659.42	7/2$^-$
		1230.1 *4*	39 *17*	1267.50	5/2$^+$,(7/2)$^+$
		1615.9 *3*	30 *13*	880.315	7/2$^-$
		1642.3 *3*	87 *22*	854.396	3/2$^+$
		2200.56 *15*	100 *17*	296.023	1/2$^+$
2512.00	3/2$^-$	419.9 *3*	0.9 *4*	2092.01	3/2$^-$
		496.5 *3*	0.9 *4*	2015.41	5/2$^+$
		755.4 *4*	1.1 *7*	1755.94	(5/2$^-$)
		829.2 *6*	2.0 *9*	1683.01	1/2$^{(+)}$,3/2,5/2$^+$
		853.2 *5*	1.1 *7*	1659.42	7/2$^-$
		1303.9 *6*	1.3 *7*	1207.14	5/2$^+$
		1459.7 *9*	0.7 *4*	1050.834	3/2$^+$,(5/2$^+$)
		1470.2 *3*	2.4 *7*	1041.68	1/2$^+$
		2215.93 *5*	100 *3*	296.023	1/2$^+$
		2512.05 *6*	72.1 *7*	0.0	3/2$^+$
2544.21	(5/2$^-$,7/2$^+$)	1277.3 *6*	48 *24*	1267.50	5/2$^+$,(7/2)$^+$
		1663.9 *3*	76 *40*	880.315	7/2$^-$
		1689.4 *3*	100 *20*	854.396	3/2$^+$
		1742.05 *9*	60 *24*	802.214	(9/2$^-$)
		1901.1 *4*	32 *12*	642.331	5/2$^+$
2547.64	3/2$^-$	791.62 *14*	40 *8*	1755.94	(5/2$^-$)
		1496.78 *16*	20 *6*	1050.834	3/2$^+$,(5/2$^+$)
		1505.3 *6*	13 *6*	1041.68	1/2$^+$

From ENSDF

$^{131}_{52}Te_{79}$-12

Adopted Levels, Gammas (continued)

γ(^{131}Te) (continued)

E_i(level)	J_i^π	E_γ[#]	I_γ[@]	E_f	J_f^π
2547.64	3/2$^-$	1905.02 *21*	38 *10*	642.331	5/2$^+$
		2251.5 *8*	29 *15*	296.023	1/2$^+$
		2548.26[f] *21*	100 *19*	0.0	3/2$^+$
2552.06	(5/2$^+$)	1608.8[‡] *2*	100 *20*	943.43	7/2$^+$
		2255.4[‡] *4*	50 *7*	296.023	1/2$^+$
		2551.3[‡] *9*	27 *7*	0.0	3/2$^+$
2582.534	3/2$^-$	490.74 *24*	0.63 *22*	2092.01	3/2$^-$
		567.07 *5*	1.23 *22*	2015.41	5/2$^+$
		860.7 *3*	0.30 *11*	1721.64	5/2$^+$
		1112.84 *9*	0.86 *15*	1469.68	5/2$^+$
		1183.65 *8*	1.12 *7*	1398.90	(3/2$^+$,5/2$^+$)
		1375.1 *10*	0.15 *7*	1207.14	5/2$^+$
		1531.66 *6*	2.24 *11*	1050.834	3/2$^+$,(5/2$^+$)
		1540.5 *7*	0.52 *19*	1041.68	1/2$^+$
		1702.45 *17*	1.49 *7*	880.315	7/2$^-$
		1940.4 *3*	1.4 *5*	642.331	5/2$^+$
		2286.48 *5*	100.0 *11*	296.023	1/2$^+$
		2582.58 *6*	18.17 *19*	0.0	3/2$^+$
2598.94	(5/2$^+$,7/2$^+$,9/2$^+$)	1331.8[‡] *3*	69 *8*	1267.50	5/2$^+$,(7/2)$^+$
		1821.2[‡] *5*	100 *19*	776.90	
		1956.4[‡] *5*	65 *30*	642.331	5/2$^+$
2662.20	(5/2$^+$,7/2$^+$)	326.2[‡] *4*	100 *50*	2335.50	(5/2$^-$)
		1191.9[d‡f] *6*	85[d] *8*	1469.68	5/2$^+$
		2662.3[‡] *2*	88 *8*	0.0	3/2$^+$
2671.30	1/2,3/2	1629.6 *4*	33 *22*	1041.68	1/2$^+$
		1817.3 *7*	67 *22*	854.396	3/2$^+$
		2671.3 *3*	100 *50*	0.0	3/2$^+$
2706.30	1/2$^-$,3/2$^-$	950.5 *3*	13 *4*	1755.94	(5/2$^-$)
		1665.0 *5*	20 *11*	1041.68	1/2$^+$
		2410.10 *12*	100 *9*	296.023	1/2$^+$
		2706.40 *20*	22 *9*	0.0	3/2$^+$
2754.21	3/2$^-$	661.9 *3*	38 *9*	2092.01	3/2$^-$
		738.87 *15*	91 *12*	2015.41	5/2$^+$
		998.2 *4*	15 *6*	1755.94	(5/2$^-$)
		1071.7 *3*	35 *12*	1683.01	1/2$^{(+)}$,3/2,5/2$^+$
		1075.99 *7*	82 *9*	1678.26	1/2,3/2,5/2$^{(+)}$
		1703.3 *7*	26 *12*	1050.834	3/2$^+$,(5/2$^+$)
		1873.80 *10*	100 *12*	880.315	7/2$^-$
		2754.0 *4*	26 *15*	0.0	3/2$^+$
2932.29	1/2$^-$	475.33 *9*	47 *7*	2457.01	3/2$^+$
		1151.07 *8*	100 *10*	1781.15	3/2$^-$

From ENSDF

$^{131}_{52}Te_{79}$-13

Adopted Levels, Gammas (continued)

γ(^{131}Te) (continued)

E_i(level)	J_i^π	E_γ[#]	I_γ[@]	E_f	J_f^π
2932.29	1/2$^-$	1890.5 *9*	50 *27*	1041.68	1/2$^+$
		2636.21 *23*	40 *10*	296.023	1/2$^+$
		2932.8 *4*	57 *10*	0.0	3/2$^+$
3001.96	1/2$^-$	419.44 *5*	6.41 *28*	2582.534	3/2$^-$
		490.03 *20*	2.1 *6*	2512.00	3/2$^-$
		1951.05 *9*	20.8 *25*	1050.834	3/2$^+$,(5/2$^+$)
		1960.1 *4*	2.0 *7*	1041.68	1/2$^+$
		2147.50 *20*	3.6 *7*	854.396	3/2$^+$
		2705.86 *6*	100 *1*	296.023	1/2$^+$
		3001.87 *6*	67 *7*	0.0	3/2$^+$
3146.23	1/2,3/2,5/2$^+$	2291.9 *9*	100 *50*	854.396	3/2$^+$
		3146.0 *6*	83 *70*	0.0	3/2$^+$
3170.8	1/2,3/2,5/2$^+$	3170.6 *5*	100	0.0	3/2$^+$
3186.87	1/2$^{(+)}$,3/2$^+$,5/2$^+$	1170.9 *4*	35 *20*	2015.41	5/2$^+$
		1405.7 *4*	35 *20*	1781.15	3/2$^-$
		2144.1[f] *3*	100 *25*	1041.68	1/2$^+$
		2332.1 *5*	35 *20*	854.396	3/2$^+$
		2544.3 *6*	35 *20*	642.331	5/2$^+$
3507.43	1/2$^{(-)}$,3/2,5/2$^+$	1751.51 *9*	100 *11*	1755.94	(5/2$^-$)
		2652.8 *5*	32 *18*	854.396	3/2$^+$
		3507.6 *7*	50 *32*	0.0	3/2$^+$
3546.84	3/2$^-$	2495.4 *3*	54 *7*	1050.834	3/2$^+$,(5/2$^+$)
		2504.7 *3*	34 *15*	1041.68	1/2$^+$
		2665.0 *9*	44 *15*	880.315	7/2$^-$
		2691.2 *9*	10 *7*	854.396	3/2$^+$
		2903.0 *13*	7 *7*	642.331	5/2$^+$
		3250.9 *3*	15 *5*	296.023	1/2$^+$
		3547.10 *23*	100 *12*	0.0	3/2$^+$
3568.26	3/2$^-$	861.61 *19*	14 *5*	2706.30	1/2$^-$,3/2$^-$
		1071.80 *17*	14 *6*	2496.55	1/2,3/2,5/2$^{(+)}$
		1476.33 *13*	14 *5*	2092.01	3/2$^-$
		2097.1 *7*	15 *5*	1469.68	5/2$^+$
		2361.1 *3*	38 *8*	1207.14	5/2$^+$
		2689.3 *10*	11 *6*	880.315	7/2$^-$
		2713.6 *9*	14 *8*	854.396	3/2$^+$
		2925.64 *18*	100 *11*	642.331	5/2$^+$
		3271.6 *8*	9 *5*	296.023	1/2$^+$
		3568.1 *3*	38 *6*	0.0	3/2$^+$
3601.76	3/2$^-$	1019.4 *6*	42 *21*	2582.534	3/2$^-$
		2549.7 *5*	55 *27*	1050.834	3/2$^+$,(5/2$^+$)
		2746.1 *7*	27 *15*	854.396	3/2$^+$
		2959.28 *22*	73 *27*	642.331	5/2$^+$
		3305.41 *19*	100 *9*	296.023	1/2$^+$

From ENSDF

$^{131}_{52}Te_{79}$-14

Adopted Levels, Gammas (continued)

γ(^{131}Te) (continued)

E_i(level)	J_i^π	E_γ[#]	I_γ[@]	E_f	J_f^π
3601.76	3/2⁻	3602.0 *3*	85 *27*	0.0	3/2⁺
3623.72	3/2⁻	868.0 *6*	21 *9*	2754.21	3/2⁻
		917.52 *13*	28 *13*	2706.30	1/2⁻,3/2⁻
		1292.7 *3*	27 *15*	2330.47	5/2⁻,7/2⁻
		1532.3 *5*	9 *4*	2092.01	3/2⁻
		1608.27 *22*	30 *13*	2015.41	5/2⁺
		2581.8 *4*	19 *6*	1041.68	1/2⁺
		2743.4 *6*	16 *6*	880.315	7/2⁻
		2768.2 *10*	6 *3*	854.396	3/2⁺
		3327.4 *3*	100 *12*	296.023	1/2⁺
		3623.3 *5*	12 *3*	0.0	3/2⁺
3668.25	(1/2,3/2)	2269.7 *7*	11 *4*	1398.90	(3/2⁺,5/2⁺)
		2617.6 *6*	19 *6*	1050.834	3/2⁺,(5/2⁺)
		3025.9 *6*	19 *6*	642.331	5/2⁺
		3372.4 *5*	19 *6*	296.023	1/2⁺
		3667.80 *24*	100 *11*	0.0	3/2⁺
3689.81	1/2⁻,3/2⁻	1359.34 *16*	47 *12*	2330.47	5/2⁻,7/2⁻
		1737.8[d] *5*	59[d] *29*	1951.62	1/2⁺,3/2
		2648.4 *9*	29 *18*	1041.68	1/2⁺
		3393.93[e] *23*	100[e] *29*	296.023	1/2⁺
		3689.99 *10*	2.9×10^2 *29*	0.0	3/2⁺
3698.26	3/2⁻	1241.0 *3*	16 *4*	2457.01	3/2⁺
		2647.1 *7*	20 *10*	1050.834	3/2⁺,(5/2⁺)
		3055.1 *13*	10 *6*	642.331	5/2⁺
		3402.4 *4*	34 *10*	296.023	1/2⁺
		3698.15[d] *13*	100[d] *10*	0.0	3/2⁺
3737.84	(1/2,3/2)	1226.18 *23*	100 *27*	2512.00	3/2⁻
		2530.6 *8*	54 *27*	1207.14	5/2⁺
		2685.9 *9*	9 *9*	1050.834	3/2⁺,(5/2⁺)
		3095.7 *5*	45 *18*	642.331	5/2⁺
		3442.0 *12*	9 *9*	296.023	1/2⁺
3763.42	1/2⁻,3/2⁻	3468.6 *10*	100 *78*	296.023	1/2⁺
		3762.8 *11*	100 *78*	0.0	3/2⁺
3938.59	3/2⁻	3058.8 *13*	7 *5*	880.315	7/2⁻
		3642.43 *17*	100 *6*	296.023	1/2⁺
		3938.81 *24*	42 *5*	0.0	3/2⁺
3986.98	1/2⁻,3/2⁻	3131.9 *8*	50 *22*	854.396	3/2⁺
		3691.1 *4*	100 *50*	296.023	1/2⁺
		3986.9 *4*	83 *22*	0.0	3/2⁺
4028.36	1/2,3/2,(5/2⁺)	1515.6 *10*	100 *25*	2512.00	3/2⁻
		3175.0 *10*	67 *33*	854.396	3/2⁺
		3732.4 *8*	75 *42*	296.023	1/2⁺
		4028.6 *8*	75 *42*	0.0	3/2⁺

From ENSDF

$^{131}_{52}Te_{79}$-15

Adopted Levels, Gammas (continued)

γ(^{131}Te) (continued)

E_i(level)	J_i^π	E_γ[#]	I_γ[@]	E_f	J_f^π
4036.63	3/2⁻	1805.10[d f] *13*	40[d] *4*	2231.08	1/2(+),3/2,5/2
		2828.7 *12*	8.3 *42*	1207.14	5/2+
		3155.3 *7*	32 *6*	880.315	7/2−
		3181.0 *7*	14 *6*	854.396	3/2+
		3393.93[e] *23*	9.7[e] *56*	642.331	5/2+
		3740.40 *14*	100 *8*	296.023	1/2+
		4036.2 *3*	15 *3*	0.0	3/2+
4061.18	1/2−,3/2−	4060.7 *3*	100 *70*	0.0	3/2+
4070.41	3/2−	2349.2 *4*	19 *8*	1721.64	5/2+
		2599.7 *7*	8 *4*	1469.68	5/2+
		2863.13 *20*	15.5 *40*	1207.14	5/2+
		3019.9 *5*	5.1 *25*	1050.834	3/2+,(5/2+)
		3030.1 *6*	2.5 *25*	1041.68	1/2+
		3189.8 *10*	15.2 *50*	880.315	7/2−
		3774.47 *11*	100 *23*	296.023	1/2+
		4070.4 *4*	13.9 *25*	0.0	3/2+
4109.00	1/2−,3/2−	3812.2 *5*	20 *16*	296.023	1/2+
		4109.1 *3*	100 *9*	0.0	3/2+
4124.33	3/2−	3482.5 *4*	100 *50*	642.331	5/2+
4238.97	1/2−,3/2−	1484.0 *6*	27 *15*	2754.21	3/2−
		2556.3 *6*	27 *15*	1683.01	1/2(+),3/2,5/2+
		3944.0 *5*	85 *18*	296.023	1/2+
		4239.9 *5*	100 *15*	0.0	3/2+
4253.58	1/2−,3/2−	2162.2 *9*	26 *12*	2092.01	3/2−
		2472.5 *4*	19 *10*	1781.15	3/2−
		3203.5 *7*	14 *7*	1050.834	3/2+,(5/2+)
		3212.5 *4*	21 *7*	1041.68	1/2+
		3957.65 *23*	100 *12*	296.023	1/2+
		4253.5 *3*	81 *12*	0.0	3/2+
4278.57	3/2−	1524.5 *3*	58 *16*	2754.21	3/2−
		3635.6 *5*	95 *47*	642.331	5/2+
		3981.7 *6*	63 *37*	296.023	1/2+
		4278.9 *14*	100 *47*	0.0	3/2+
4285.80	3/2−	1737.8[d] *5*	9.5[d] *48*	2547.64	3/2−
		3234.1 *11*	7.1 *36*	1050.834	3/2+,(5/2+)
		3405.6 *8*	7.1 *48*	880.315	7/2−
		3643.6 *8*	7.1 *36*	642.331	5/2+
		3989.60 *11*	100.0 *36*	296.023	1/2+
		4287.1 *6*	4.8 *24*	0.0	3/2+
4300.28	3/2−	2830.6 *8*	33 *17*	1469.68	5/2+
		3250.0 *9*	22 *17*	1050.834	3/2+,(5/2+)
		3257.9 *7*	33 *17*	1041.68	1/2+
		3658.5 *5*	28 *17*	642.331	5/2+

From ENSDF

$^{131}_{52}Te_{79}$-16

Adopted Levels, Gammas (continued)

$\gamma(^{131}Te)$ (continued)

E_i(level)	J_i^π	E_γ[#]	I_γ[@]	E_f	J_f^π
4300.28	$3/2^-$	4004.3 *4*	100 *33*	296.023	$1/2^+$
4324.59	$3/2^-$	3273.4 *13*	22 *13*	1050.834	$3/2^+$,$(5/2^+)$
		3283.0 *8*	48 *22*	1041.68	$1/2^+$
		3471.7 *11*	26 *13*	854.396	$3/2^+$
		3682.4 *4*	47 *22*	642.331	$5/2^+$
		4028.8 *3*	100 *40*	296.023	$1/2^+$
4364.65	$3/2^-$	3483.5 *13*	40 *20*	880.315	$7/2^-$
		4069.0 *5*	100 *60*	296.023	$1/2^+$
		4364.2 *14*	40 *20*	0.0	$3/2^+$
4425.07	$3/2^+$,$(5/2^+)$	3571.4 *7*	100	854.396	$3/2^+$
4437.0	$1/2^-$,$3/2^-$	4438.0 *6*	100	0.0	$3/2^+$
4445.77	$1/2^-$,$3/2^-$	1444.12[d f] *14*	96[d] *12*	3001.96	$1/2^-$
		4149.4 *4*	100 *24*	296.023	$1/2^+$
		4445.8 *5*	60 *32*	0.0	$3/2^+$
4453.9	$1/2^-$,$3/2^-$	4157.7 *7*	73 *37*	296.023	$1/2^+$
		4454.1 *5*	100 *46*	0.0	$3/2^+$
4472.57	$3/2^{(-)}$,$5/2^{(+)}$	3592.3 *9*	38 *25*	880.315	$7/2^-$
		3831.0 *20*	13 *13*	642.331	$5/2^+$
		4176.3 *5*	100 *25*	296.023	$1/2^+$
4485.19	$(1/2^-,3/2^-)$	1483.0 *5*	100 *56*	3001.96	$1/2^-$
		2705.0 *8*	100 *56*	1781.15	$3/2^-$
		4188.2 *5*	100 *56*	296.023	$1/2^+$
4489.48	(1/2,3/2)	1488.3 *4*	23 *8*	3001.96	$1/2^-$
		3437.6 *9*	23 *8*	1050.834	$3/2^+$,$(5/2^+)$
		3447.8 *5*	38 *8*	1041.68	$1/2^+$
		4193.5 *3*	100 *15*	296.023	$1/2^+$
		4489.2 *6*	23 *8*	0.0	$3/2^+$
4519.97	(1/2,3/2)	3312.7 *8*	22 *11*	1207.14	$5/2^+$
		3471.3 *11*	61 *40*	1050.834	$3/2^+$,$(5/2^+)$
		3478.6 *10*	85 *50*	1041.68	$1/2^+$
		4224.5 *8*	100 *60*	296.023	$1/2^+$
		4519.9 *7*	72 *50*	0.0	$3/2^+$
4531.31	$1/2^-$,$3/2^-$	929.35 *11*	48 *12*	3601.76	$3/2^-$
		4531.48 *24*	100 *10*	0.0	$3/2^+$
4545.18	$1/2^-$,$3/2^-$	1542.84 *17*	13 *2*	3001.96	$1/2^-$
		3690.9 *4*	12 *6*	854.396	$3/2^+$
		4249.5 *7*	45 *16*	296.023	$1/2^+$
		4545.37 *11*	100 *3*	0.0	$3/2^+$
4558.45	$1/2^-$,$3/2^-$	1556.52 *18*	22 *4*	3001.96	$1/2^-$
		4558.65 *18*	100 *6*	0.0	$3/2^+$
4563.18	$3/2^-$	3511.9 *16*	10 *5*	1050.834	$3/2^+$,$(5/2^+)$
		3683.5 *7*	17 *10*	880.315	$7/2^-$
		3921.5 *6*	15 *8*	642.331	$5/2^+$

From ENSDF

$^{131}_{52}Te_{79}$-17

Adopted Levels, Gammas (continued)

$\gamma(^{131}Te)$ (continued)

E_i(level)	J_i^π	E_γ[#]	I_γ[@]	E_f	J_f^π
4563.18	3/2$^-$	4267.0 *3*	100 *20*	296.023	1/2$^+$
		4563.1 *5*	41 *10*	0.0	3/2$^+$
4583.14	1/2$^-$,3/2$^-$	3533.3 *14*	44 *22*	1050.834	3/2$^+$,(5/2$^+$)
		4286.9 *4*	100 *56*	296.023	1/2$^+$
		4582.1 *12*	22 *22*	0.0	3/2$^+$
4645.36	3/2$^-$	3175.4 *6*	14 *6*	1469.68	5/2$^+$
		3791.5 *12*	5.7 *29*	854.396	3/2$^+$
		4349.4 *3*	60 *14*	296.023	1/2$^+$
		4646.0 *3*	100 *14*	0.0	3/2$^+$
4649.93	1/2$^-$,3/2$^-$	4354.0 *4*	75 *75*	296.023	1/2$^+$
		4649.9 *4*	100 *75*	0.0	3/2$^+$
4707.51	5/2$^+$,3/2$^+$	1159.2[f] *5*	100 *21*	3546.84	3/2$^-$
		2927.0 *3*	36 *29*	1781.15	3/2$^-$
		3499.8 *11*	21 *14*	1207.14	5/2$^+$
		4065.0 *10*	36 *29*	642.331	5/2$^+$
4732.73	3/2$^-$	3526.9 *8*	100 *60*	1207.14	5/2$^+$
4732.73	3/2$^-$	4092.2 *10*	50 *29*	642.331	5/2$^+$
		4733.1 *8*	100 *60*	0.0	3/2$^+$
4801.23	1/2,3/2,(5/2$^+$)	3759.4 *5*	100	1041.68	1/2$^+$
4856.2	(3/2$^+$,5/2$^+$)	4214.3 *8*	83 *50*	642.331	5/2$^+$
		4558.9 *9*	100 *67*	296.023	1/2$^+$
4869.67	1/2$^-$,3/2$^-$	4574.6 *8*	20 *11*	296.023	1/2$^+$
		4870.1 *4*	100 *14*	0.0	3/2$^+$
4894.05	1/2$^-$,3/2$^-$	4597.2 *5*	100	296.023	1/2$^+$
4944.92	3/2$^-$	3737.7 *13*	63 *40*	1207.14	5/2$^+$
		4648.9 *8*	100 *50*	296.023	1/2$^+$
4964.21	1/2$^-$,3/2$^-$	4668.1 *5*	100	296.023	1/2$^+$
4970.36	3/2$^-$	4324.9 *20*	42 *42*	642.331	5/2$^+$
		4674.4 *4*	100 *40*	296.023	1/2$^+$
5048.56	(1/2,3/2)	5048.0 *6*	100	0.0	3/2$^+$
5172.21	(3/2,5/2)	4876.5 *8*	71 *29*	296.023	1/2$^+$
		5172.3 *5*	100 *60*	0.0	3/2$^+$

[†] Weighted average of β-decay and (n,γ) data.
[‡] From β-decay.
[#] From (n,γ), except as noted.
[@] From (n,γ), except as noted. Relative photon branching on each level.
[&] From IT decay (33.25 h).
[a] From IT decay (93 ms).
[b] Normalized to (n,γ).
[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 with undivided intensity.
[e] Multiply placed with intensity suitably divided.
[f] Placement of transition in the level scheme is uncertain.

From ENSDF

$^{131}_{52}Te_{79}$-18

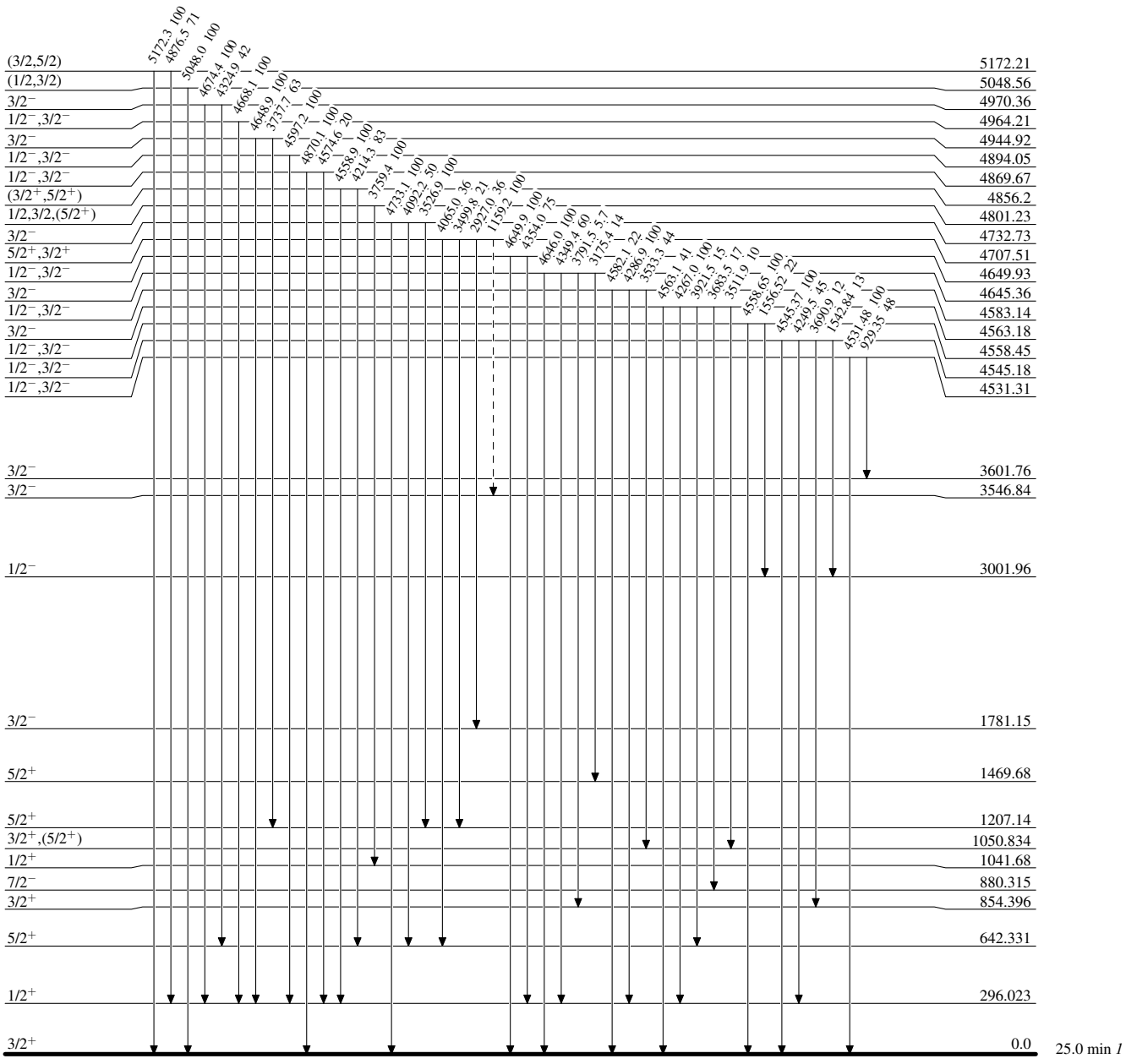
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

– – – – – – ► γ Decay (Uncertain)



$^{131}_{52}Te_{79}$

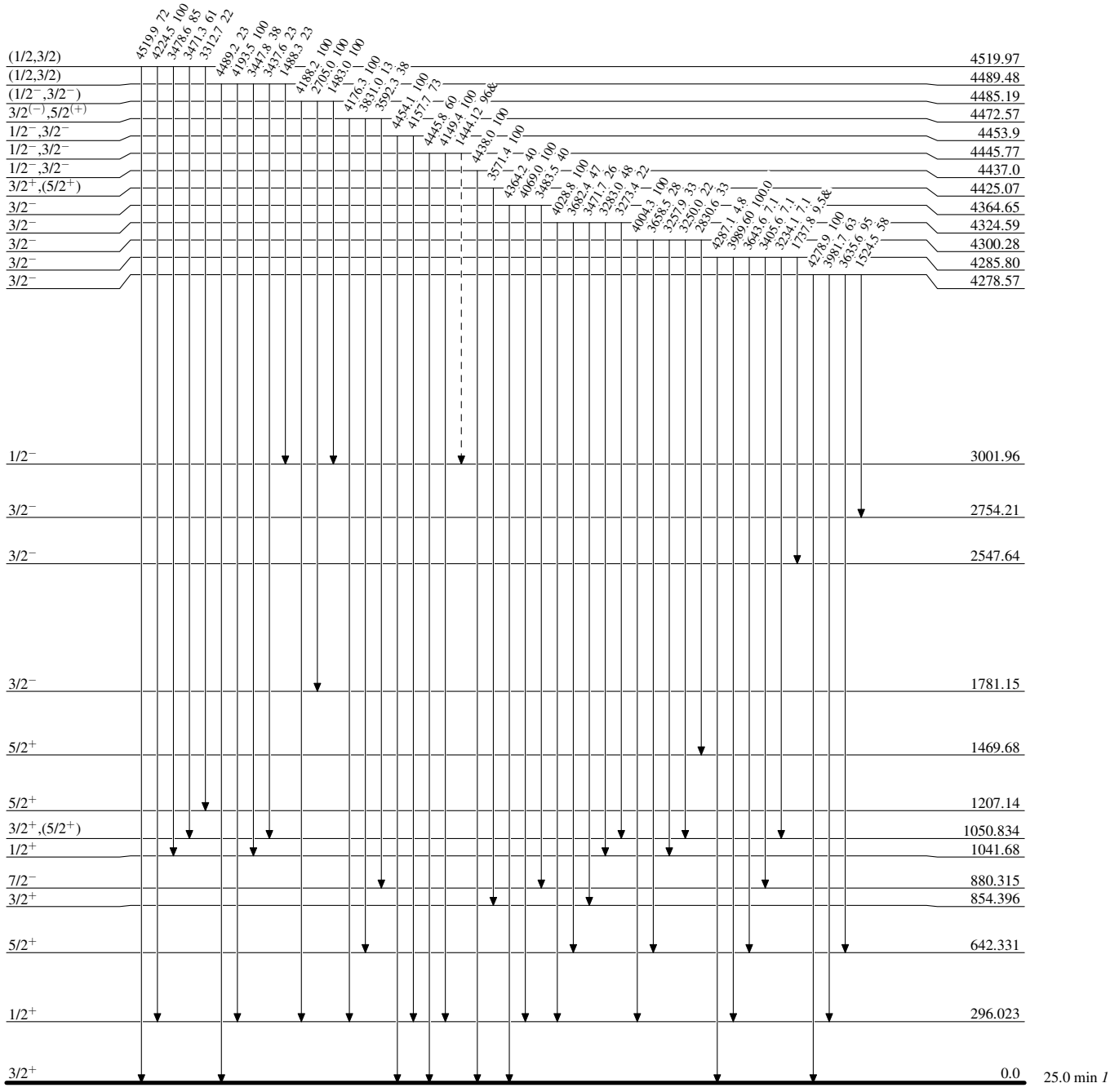
Adopted Levels, Gammas

Legend

Level Scheme (continued)

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

– – – – – – ► γ Decay (Uncertain)



$^{131}_{52}Te_{79}$

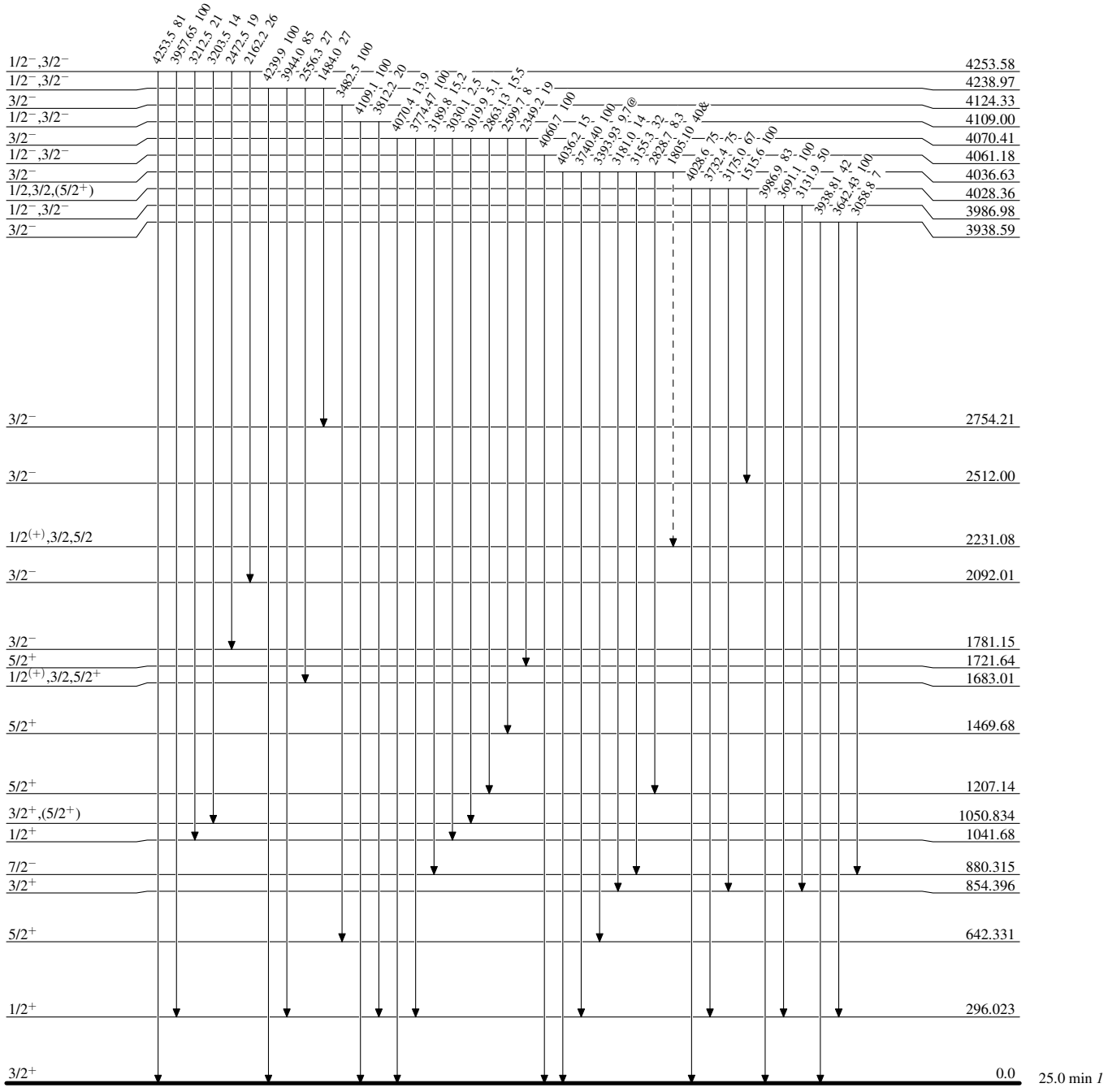
Adopted Levels, Gammas

Level Scheme (continued)

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

Legend

– – – – – – ► γ Decay (Uncertain)

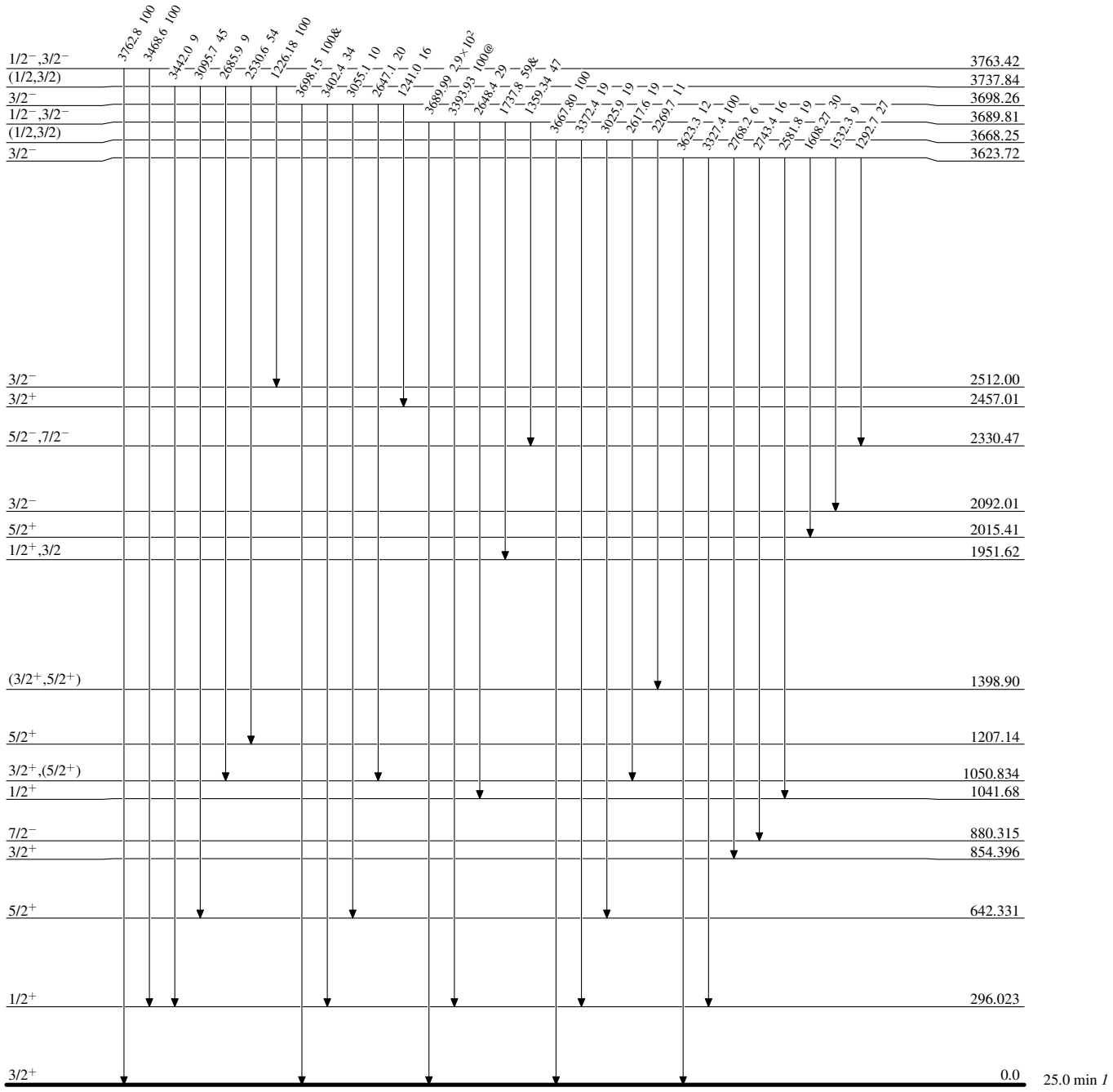


$^{131}_{52}Te_{79}$

Adopted Levels, Gammas

Level Scheme (continued)

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



$^{131}_{52}Te_{79}$

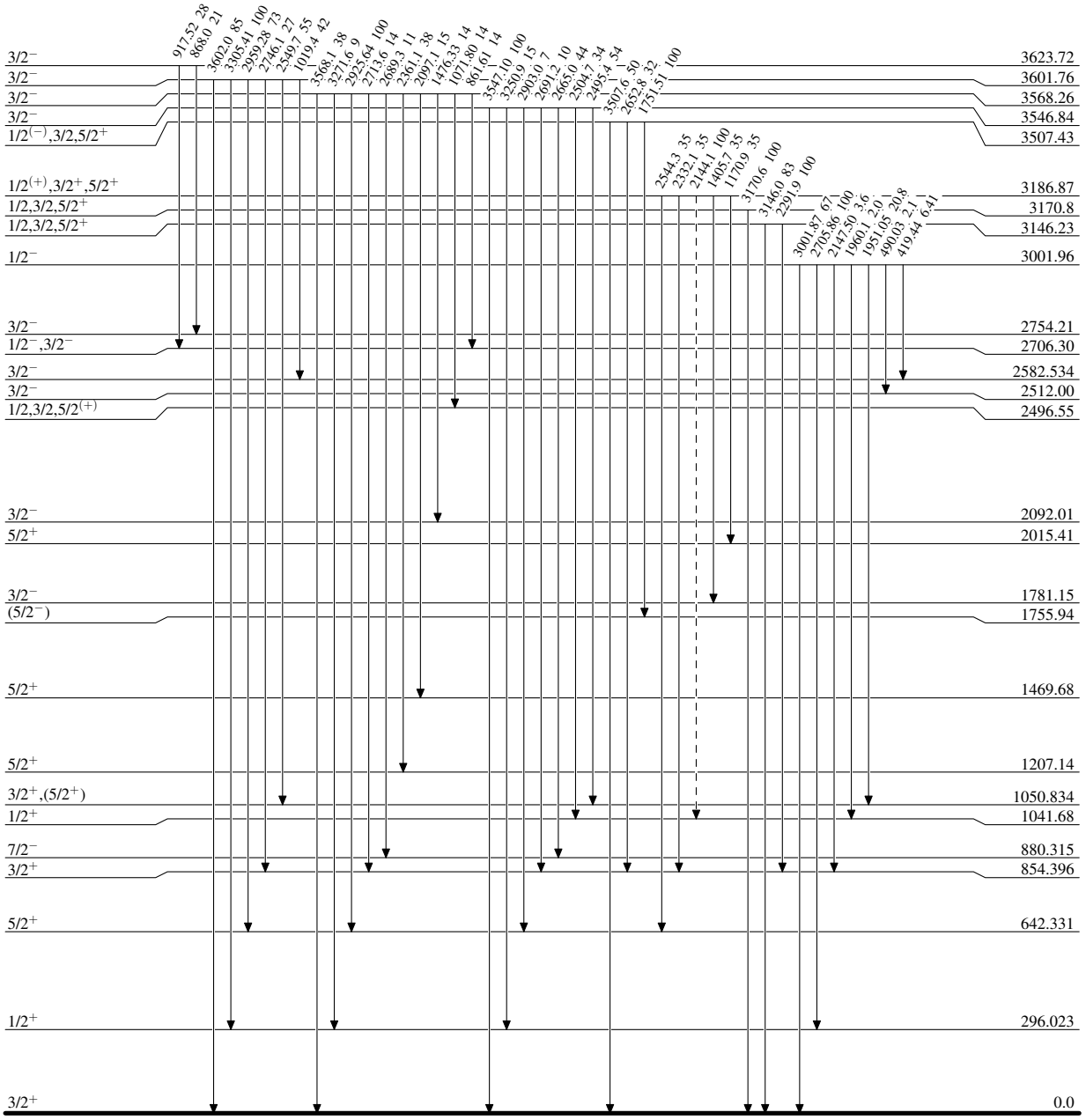
Adopted Levels, Gammas

Level Scheme (continued)

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

Legend

– – – – – – ► γ Decay (Uncertain)



$^{131}_{52}Te_{79}$

Adopted Levels, Gammas

Level Scheme (continued)

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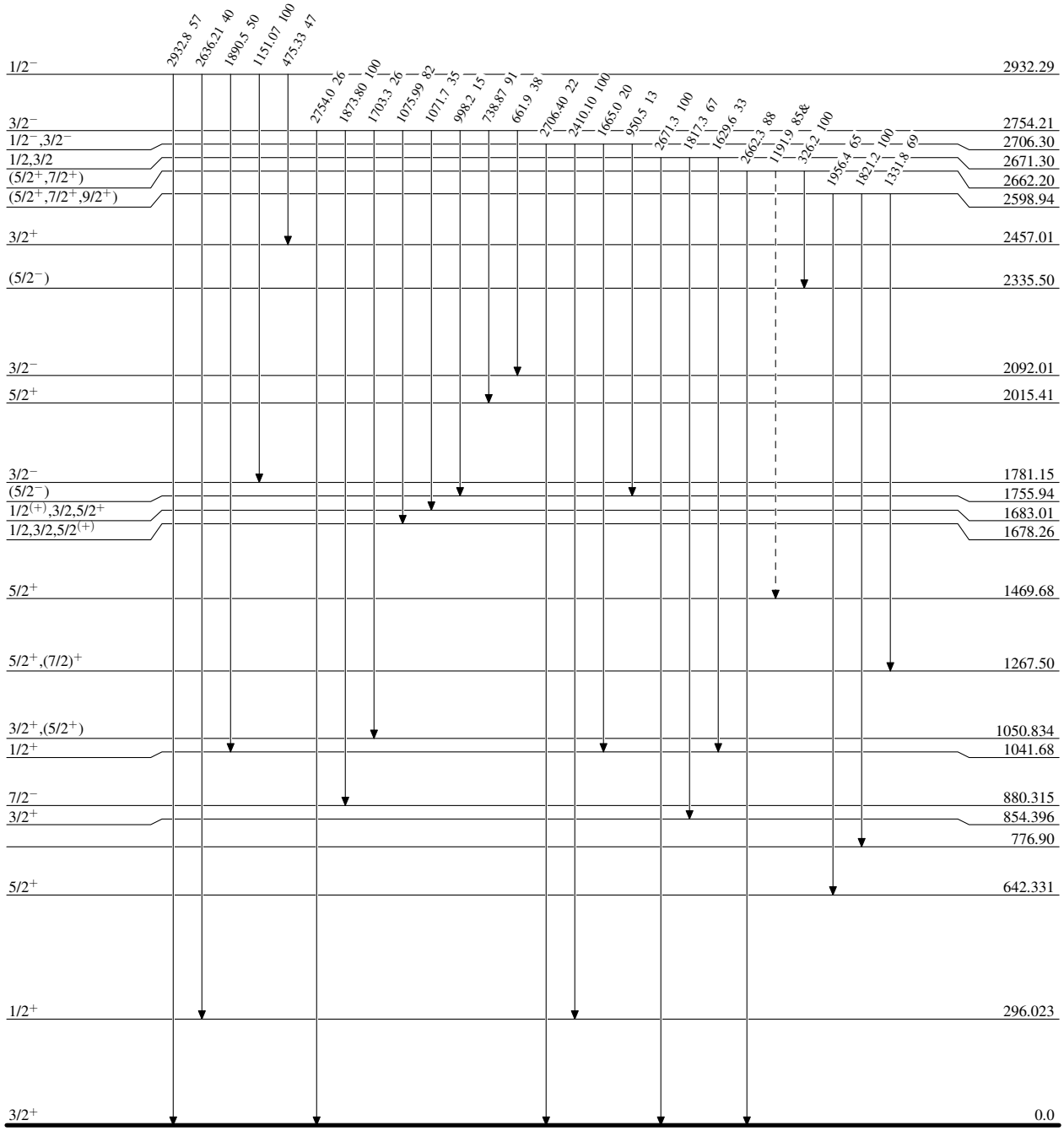
Legend

– – – – – – ► γ Decay (Uncertain)



$^{131}_{52}Te_{79}$

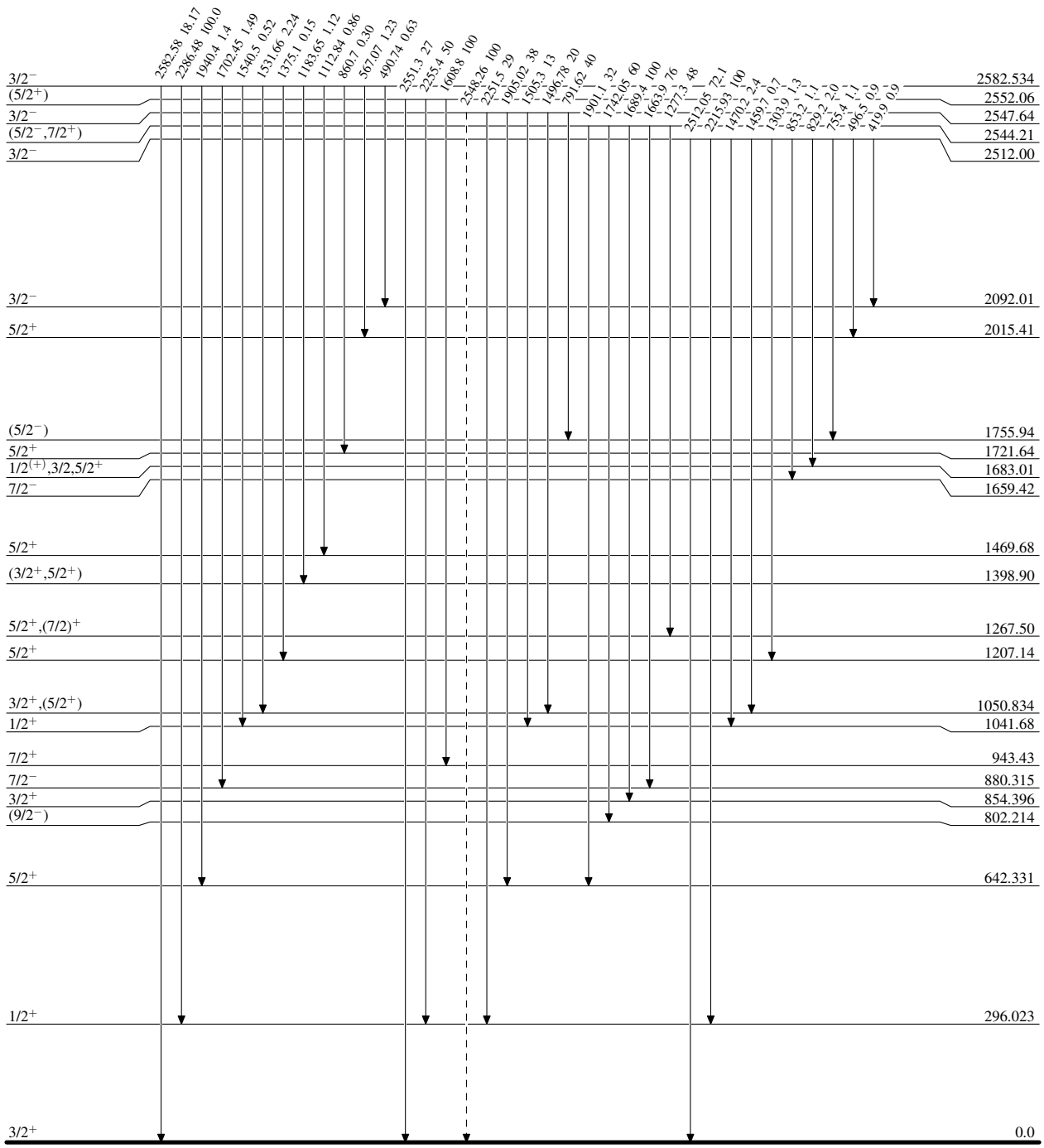
Adopted Levels, Gammas

Level Scheme (continued)

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

Legend

γ Decay (Uncertain)



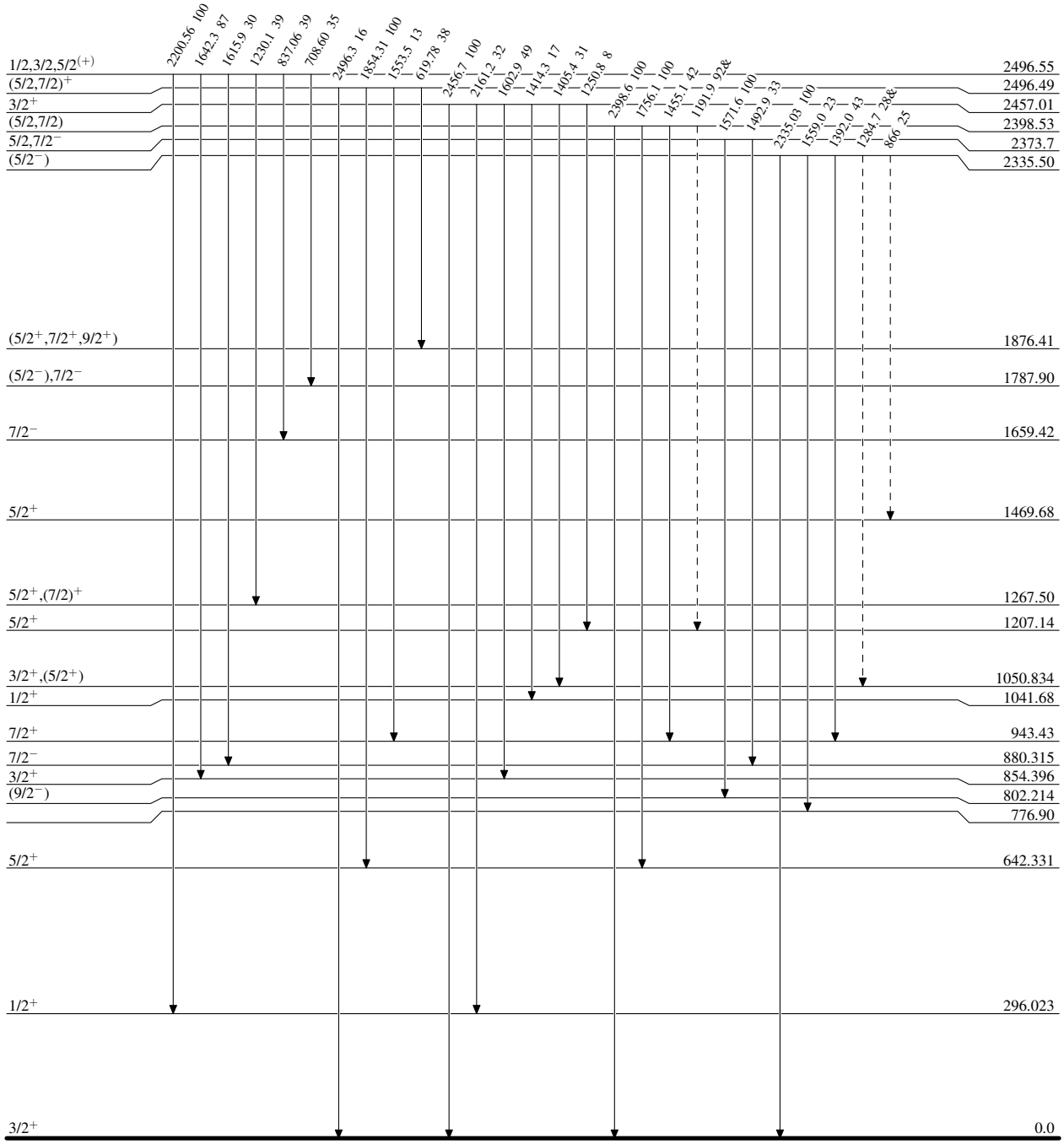
$^{131}_{52}Te_{79}$

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)



$^{131}_{52}Te_{79}$

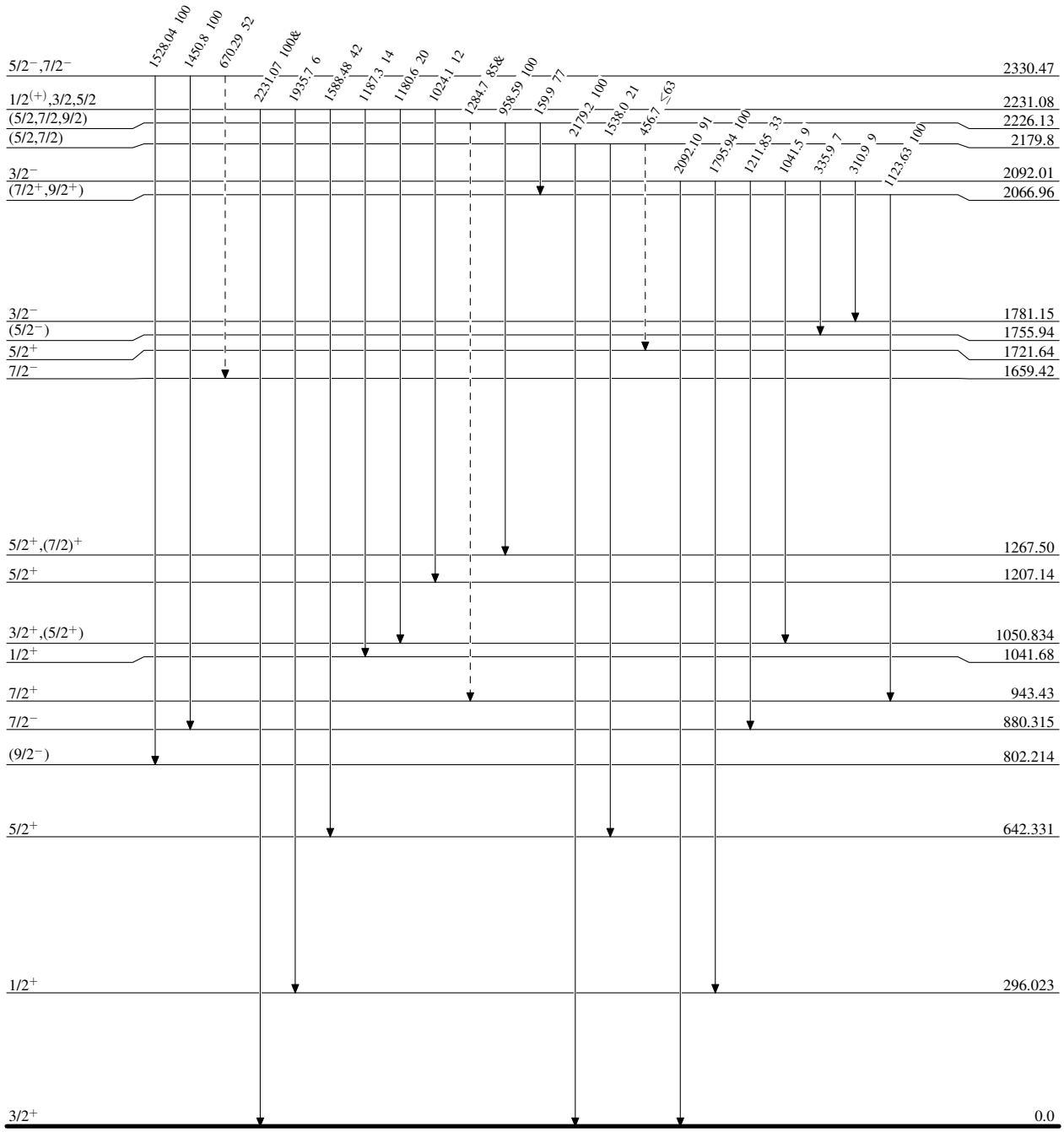
Adopted Levels, Gammas

Level Scheme (continued)

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

Legend

– – – – – – ► γ Decay (Uncertain)

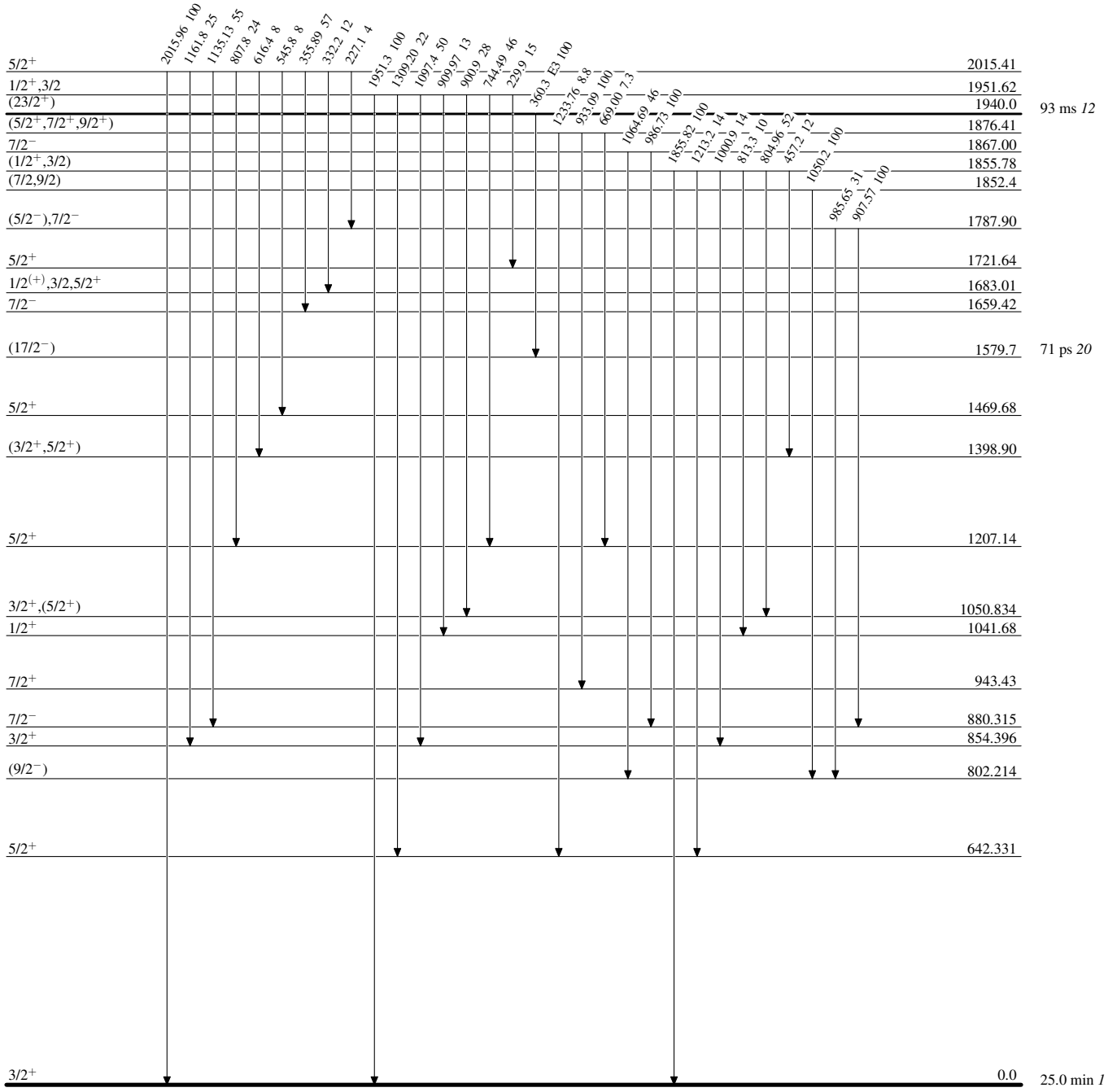


$^{131}_{52}Te_{79}$

Adopted Levels, Gammas

Level Scheme (continued)

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



$^{131}_{52}Te_{79}$

Adopted Levels, Gammas

Level Scheme (continued)

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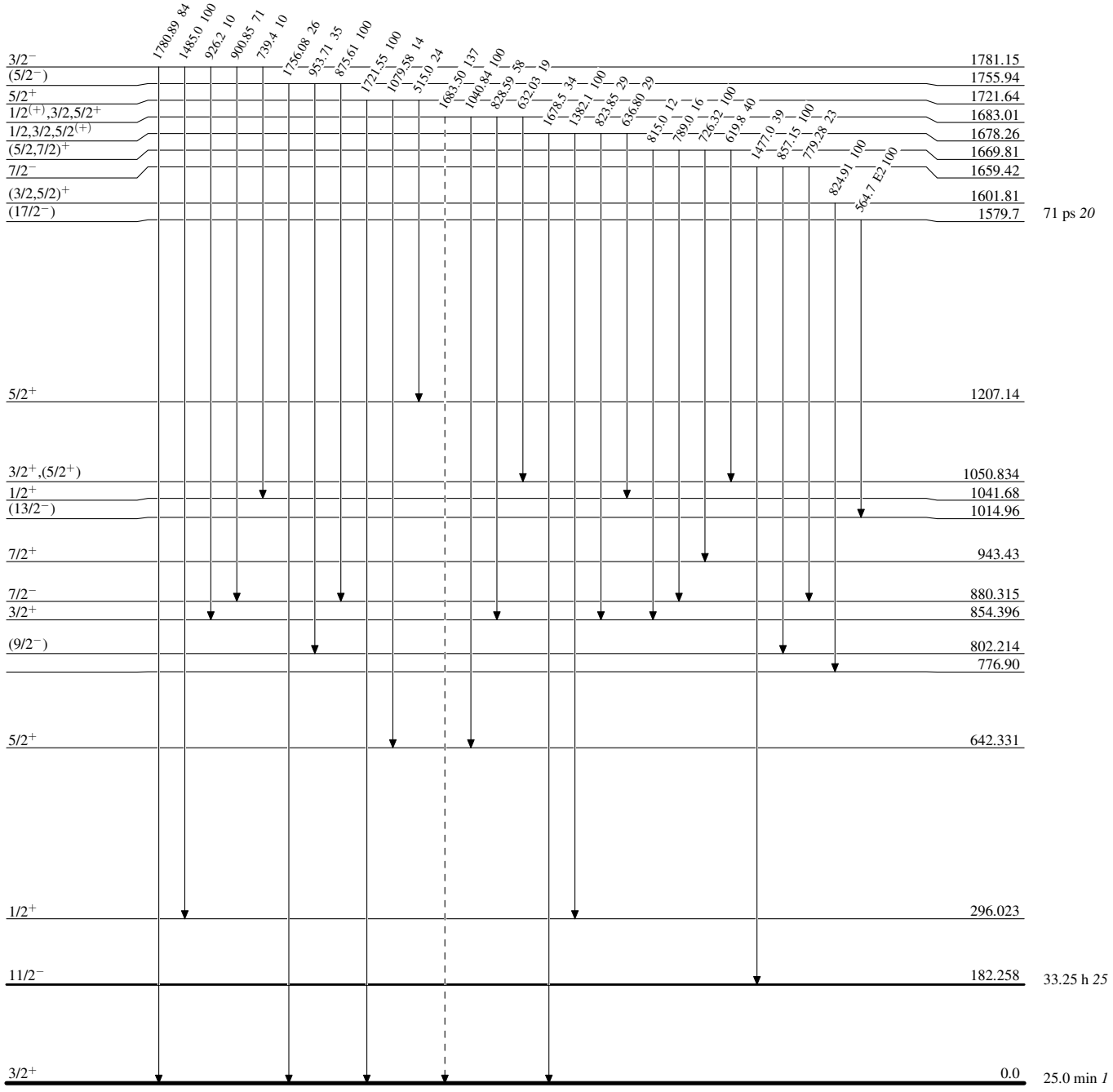
Legend

– – – – – – ► γ Decay (Uncertain)



$^{131}_{52}Te_{79}$

Adopted Levels, Gammas

Level Scheme (continued)

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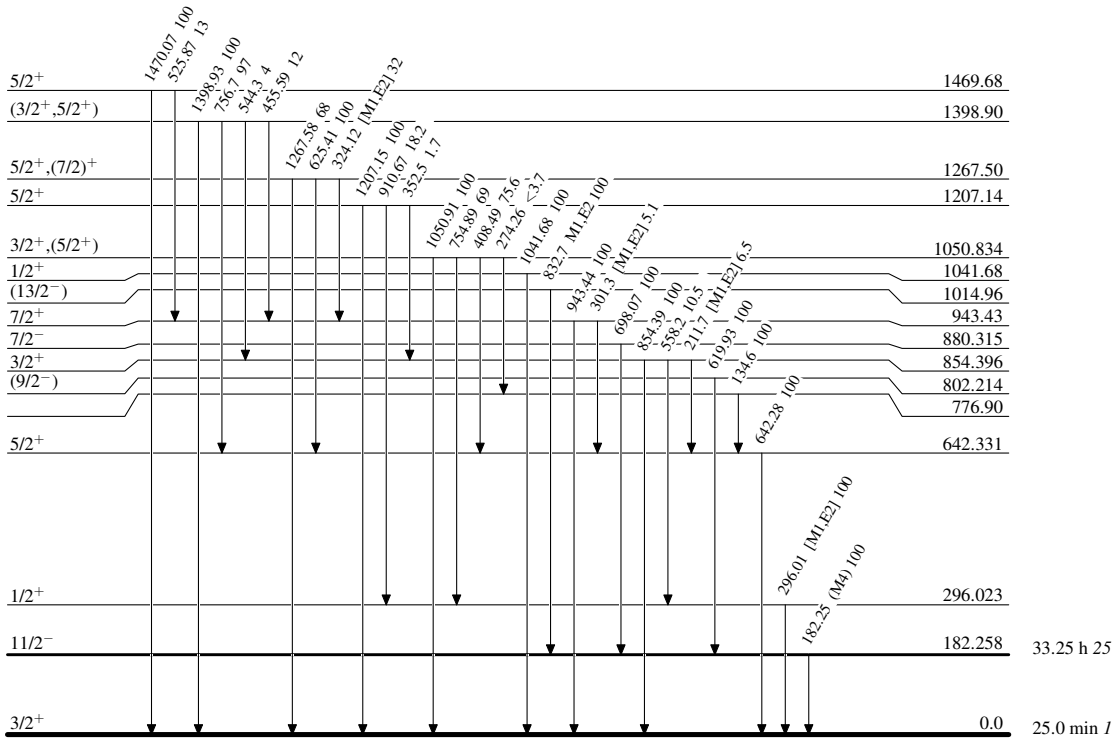

$^{131}_{52}Te_{79}$