

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. Ohya	NDS 111,1619 (2010)	20-Jan-2009

Q(β⁻)=-2.29×10³ 3; S(n)=7.25×10³ 3; S(p)=7.42×10³ 3; Q(α)=-5.7×10² 3 [2012Wa38](#)

Note: Current evaluation has used the following Q record -2292 26 7247 26 7405 27 -565 26 [2009AuZZ](#).

¹²¹Te Levels

Cross Reference (XREF) Flags

A	¹²¹ Te IT decay	E	¹¹⁶ Cd(⁹ Be,4nγ)	I	¹²² Te(pol d,t)
B	¹²¹ I ε decay	F	¹²² Te(p,d)	J	¹²⁷ I(μ ⁻ ,NU6NG)
C	¹¹⁹ Sn(α,2nγ), ¹²¹ Sb(d,2nγ)	G	¹²⁰ Te(d,p)	K	¹²⁰ Te(n,γ)
D	¹¹⁴ Cd(¹¹ B,p3nγ),	H	¹²² Te(³ He,α)		

E(level) [†]	J ^{π‡}	T _{1/2}	XREF	Comments
0.0	1/2 ⁺	19.17 d 4	ABC EFGHIJK	%ε+%β ⁺ =100 Configuration=(ν 3s _{1/2}) J ^π : L=0 in (d,p), (³ He,α). T _{1/2} : from weighted average of 19.16 d 5 (1995Si30) and 19.2 d 1 (2008Ea01); others: 16.78 d 35 (1973Ka45), 17 d 1 (1963Bh04,1946Ed03).
212.191 ^d 17	3/2 ⁺	0.062 ns 15	ABC EFGHIJK	T _{1/2} : from (ce 82γ)(ce 212γ)(t) in IT decay (1963Sc12). J ^π : L=2 in (d,p), (³ He,α),(pol d,t); M1+E2 γ to 1/2 ⁺ .
293.974 [@] 22	11/2 ⁻	164.2 d 8	ABCDEFGHI K	%IT=88.6 11; %ε+%β ⁺ =11.4 11 μ=0.895 10; Configuration=(ν 1h _{11/2}) μ: N/RD (2005St24); reference to μ=+0.605 4 for ¹²⁵ Te (36 keV). J ^π : L=5 in (d,p),(pol d,t); M4 γ to 3/2 ⁺ . T _{1/2} : from 2008Ea01 . Others: 154 d 7 (1963Bh04), 125 d (1940Se01), 143 d 5 (1946Ed03), 140 d (1951Co34), 154 d (1951Hi80).
438.52 [@] 5 443.11 ^c 3	(9/2) ⁻ 7/2 ⁺	85.3 ns 5	BCDE I BC EFGHI	J ^π : from (pol d,t). J=9/2 is consistent with band structure. μ=+0.738 10 XREF: h(450). T _{1/2} : from γ(t) (1980Io01). J ^π : E2 γ to 3/2 ⁺ ; L=4 in (p,d),(pol d,t), J=7/2 is consistent with band structure. μ: DPAD (2005St24); others: +0.774 11 (DPAD), +0.63 7 (DPAD) (2005St24).
475.243 ^d 23	5/2 ⁺		BC EFGHI	Configuration=(ν 2d _{5/2}) XREF: h(450). J ^π : from (pol d,t) band structure.
532.052 24	3/2 ⁺		BC EFG I	J ^π : from (pol d,t).
538.69 [@] 5	7/2 ⁻		BC I	J ^π : L=3 in (pol d,t), γ to 11/2 ⁻ .
594.489 ^b 25	5/2 ⁺		BC E GHI	J ^π : from (pol d,t).
614 5	3/2 ⁺ , 5/2 ⁺		F	J ^π : L=2 in (p,d).
660 20			H	
681.28 6	1/2 ⁺		B G I	XREF: I(678.2). J ^π : L=0 in (d,p).
683.05 ^d 3	(7/2) ⁺		BC E I	J ^π : from (pol d,t).
698 10	3/2 ⁺ , 5/2 ⁺		F	J ^π : L=2 in (p,d).
756.1 6	(5/2) ⁺		I	J ^π : from (pol d,t).
757.95 6	(7/2) ⁻		BC	

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Adopted Levels, Gammas (continued)

^{121}Te Levels (continued)

E(level) [†]	J ^π [‡]	XREF	Comments
806.69 5	3/2 ⁺	B ghI	XREF: g(809)h(810). J ^π : from (pol d,t).
810.92 3	(5/2 ⁺ ,7/2 ⁺)	B gh	XREF: g(809)h(810). J ^π : (M1) γ to 3/2 ⁺ ,5/2 ⁺ ; log ft=6.5 from 5/2 ⁺ . J ^π : L=2 in (p,d).
827 5	3/2 ⁺ ,5/2 ⁺	F	J ^π : L=2 in (p,d).
830.53 ^c 10	(9/2 ⁺)	BC E	
887.65 ^b 6	(7/2 ⁺)	BC E I	
912.22 4	5/2 ⁺	B HI	J ^π : from (pol d,t).
925.62 [@] 10	(15/2) ⁻	CDE	
925.7 7	(5/2) ⁻	G I	J ^π : from (pol d,t).
941.0 8	3/2 ⁺ ,5/2 ⁺	F I	J ^π : L=2 in (p,d).
970 20		H	
975.27 [@] 9	(13/2) ⁻	CDE	
994.02 4	3/2 ⁺ ,5/2 ⁺	B I	J ^π : from (pol d,t).
1018.44 ^d 15	(9/2 ⁺)	C EFG I	J ^π : L=4 in (p,d), band structure; however, L=(5) in (pol d,t).
1043.0 5	5/2 ⁺	I	J ^π : from (pol d,t).
1050.7 6	(5/2) ⁻	I	J ^π : from (pol d,t).
1079.0 6		I	
1080.29 ^c 10	(11/2 ⁺)	C E	
1108.2 10	1/2 ⁺	I	J ^π : from (pol d,t).
1119.4 6	7/2 ⁺	I	J ^π : from (pol d,t).
1148.65 4	5/2 ⁺	B GhI	XREF: h(1150). J ^π : from (pol d,t).
1161.6 5	(7/2 ⁺ ,9/2 ⁺)	I	J ^π : from (pol d,t).
1170.19 6	3/2 ⁺ ,5/2 ⁺	B FGhI	XREF: h(1150). J ^π : from (pol d,t).
1171.06 ^b 19	(9/2 ⁺)	C Ef	XREF: f(1170). J ^π : L=4 component in (p,d) and band argument.
1172.86 5	(5/2 ⁻ ,7/2 ⁺)	B f h	XREF: f(1170)h(1150). J ^π : γ's to 3/2 ⁺ and (9/2) ⁻ .
1177.44 [#] 14	(11/2) ⁻	C E I	
1185.58 10		B	
1208.05 ^d 10	(11/2 ⁺)	C E	
1226.88 3	5/2 ⁺	B I	J ^π : from (pol d,t).
1251.5 7	1/2 ⁺	FGHI	J ^π : L=0 in (d,p).
1281.5 6	1/2 ⁻	G I	J ^π : from (pol d,t).
1306.34 4	3/2	B I	J ^π : 3/2 ⁺ from (pol d,t), however 711.69 keV (E1) transition to 5/2 ⁺ in ε decay suggests 3/2 ⁻ .
1324.65 12	(3/2 ⁺ ,5/2 ⁺)	B H	J ^π : L=(2) in (³ He,α).
1340.63 5	5/2 ⁺	B G I	J ^π : from (pol d,t).
1363.96 4	3/2 ⁺ ,5/2 ⁺	B FGHI	J ^π : from (pol d,t).
1388.6 6		I	
1400.2 7	5/2 ⁻	I	J ^π : from (pol d,t).
1404 6	1/2 ⁻ ,3/2 ⁻	G	J ^π : L=1 in (d,p).
1410.6 9		I	
1419.47 ^c 12	(13/2 ⁺)	C E	
1437.18 6		B	
1449 2		I	E(level): doublet (1447+1451).
1473.2 ^b 3	(11/2 ⁺)	E	
1486.62 4	(7/2 ⁺)	B Fg	XREF: g(1486). J ^π : L=4 in (p,d); log ft=6.8 from 5/2 ⁺ .
1487.0 6	(3/2 ⁺)	g I	XREF: g(1486). J ^π : from (pol d,t).

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Adopted Levels, Gammas (continued) ^{121}Te Levels (continued)

E(level) [†]	J ^π [‡]	XREF	Comments
1505.0 6		I	
1516 6	3/2 ⁺ ,5/2 ⁺	Fgh	XREF: g(1516)h(1520). J ^π : L=2 in (p,d).
1517.2 5	5/2 ⁻	ghI	XREF: g(1516)h(1520). J ^π : from (pol d,t).
1540.19 13		B	
1551.2 6	1/2 ⁻	G I	J ^π : from (pol d,t).
1575.8 5	3/2 ⁺ ,5/2 ⁺	g I	XREF: g(1579). J ^π : from (pol d,t).
1579 6	(7/2 ⁺ ,9/2 ⁺)	Fg	XREF: g(1579). J ^π : L=(4) in (p,d). J ^π : from (pol d,t).
1591.0 5	5/2 ⁻	I	J ^π : from (pol d,t).
1599.63 [@] 12	(17/2 ⁻)	CDE	
1607.4 ^d 4	(13/2 ⁺)	E	
1626.37 6		B gh	XREF: g(1627)h(1629).
1627.2 5	7/2 ⁻	ghI	XREF: g(1627)h(1629). J ^π : from (pol d,t). J ^π : from (pol d,t).
1641.6 6		I	J ^π : from (pol d,t).
1654.32 [@] 13	(19/2 ⁻)	CDE	
1657.2 8	(5/2 ⁻)	I	J ^π : from (pol d,t). E(level): doublet (1655+1660).
1669 10	7/2 ⁺ ,9/2 ⁺	F h	XREF: h(1680). J ^π : L=4 in (p,d).
1680.6 5	1/2 ⁺	ghI	XREF: g(1683)h(1680). J ^π : from (pol d,t).
1681.03 5	3/2,5/2 ⁺	B gh	XREF: g(1683)h(1680). J ^π : log ft=6.8 from 5/2 ⁺ ; γ to 1/2 ⁺ .
1693.4 5	5/2 ⁺	I	J ^π : from (pol d,t).
1703.0 6	7/2 ⁺ ,9/2 ⁺	F I	J ^π : from (pol d,t).
1711.88 ^c 14	(15/2 ⁺)	C E	
1730.71 5	3/2,5/2 ⁺	B G	J ^π : log ft=6.7 from 5/2 ⁺ ; γ to 1/2 ⁺ .
1739.6 6		I	
1754.5 5	1/2 ⁺	GhI	XREF: h(1760). J ^π : from (pol d,t).
1769.4 6	(11/2 ⁻)	hI	XREF: h(1760). J ^π : from (pol d,t).
1771 10	3/2 ⁺ ,5/2 ⁺	F h	XREF: h(1760). J ^π : L=2 in (p,d).
1789.3 ^b 3	(13/2 ⁺)	E	
1806.0 7	1/2 ⁻	GhI	XREF: h(1820). J ^π : from (pol d,t).
1806.77 ^d 21	(15/2 ⁺)	C E	
1823.3 3	(17/2 ⁻)	E	
1824.2 7	(9/2 ⁻)	hI	XREF: h(1820). J ^π : from (pol d,t).
1832.0 5	3/2 ⁺ ,5/2 ⁺	GhI	XREF: h(1820). J ^π : L=2 in (d,p). J ^π : from (pol d,t).
1841.6 6	3/2 ⁺	I	J ^π : from (pol d,t).
1851.44 17		C	
1854.9 5	1/2 ⁺	F I	J ^π : from (pol d,t).
1869.6 5	1/2 ⁻	G I	J ^π : from (pol d,t).
1879.5 6	3/2 ⁺	I	J ^π : from (pol d,t).
1886.8 6	1/2 ⁻	I	J ^π : from (pol d,t).
1900.0 7	3/2 ⁺ ,5/2 ⁺	I	J ^π : from (pol d,t).

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Adopted Levels, Gammas (continued)

^{121}Te Levels (continued)

E(level) [†]	J ^π [‡]	XREF	Comments
1913.23 12		B f	XREF: f(1917).
1920.1 5	3/2 ⁺	f I	XREF: f(1917). J ^π : from (pol d,t).
1943 6		G	
1953.1 5	1/2 ⁺	I	J ^π : from (pol d,t).
1973.2 5	3/2 ⁺	I	J ^π : from (pol d,t).
1989.5 6	3/2 ⁺ ,5/2 ⁺	G I	J ^π : from (pol d,t).
1994.0 [#] 3	(15/2 ⁻)	E	
1995.4 6	(5/2 ⁻)	I	J ^π : from (pol d,t).
2005.9 7		I	
2016.05 [@] 14	(21/2 ⁻)	CDE	Probable admixture of non-collective configuration= $((\pi 1g_{7/2})_{6+}^{+2}(\nu 1h_{11/2}))$, J ^π =21/2 ⁻ .
2026.0 6	(3/2 ⁺)	I	J ^π : from (pol d,t).
2046.2 15	(5/2 ⁻)	hI	XREF: h(2060). J ^π : from (pol d,t).
2049 6	1/2 ⁻ ,3/2 ⁻	Gh	XREF: h(2060). J ^π : L=1 in (d,p). J ^π : L=4 in (p,d).
2059.3 6	7/2 ⁺ ,9/2 ⁺	F I	J ^π : L=4 in (p,d).
2070.36 ^c 22	(17/2 ⁺)	C E	
2077.1 7	(⁻)	G I	J ^π : L=(3) in (d,p),L=(5) in (pol d,t).
2106.4 7	(3/2 ⁺ ,5/2 ⁺)	I	J ^π : from (pol d,t).
2112.3 6	3/2 ⁻	G I	J ^π : from (pol d,t).
2119.1 ^b 4	(15/2 ⁺)	E	
2129.1 6	(11/2 ⁻)	I	J ^π : from (pol d,t).
2136.4 9	(9/2 ⁻)	I	J ^π : from (pol d,t).
2143 10	7/2 ⁺ ,9/2 ⁺	F	J ^π : L=4 in (p,d).
2146 6	(3/2 ⁺ ,5/2,7/2 ⁻)	G	J ^π : L=(2,3) in (d,p).
2149.1 6	1/2 ⁺	I	J ^π : from (pol d,t).
2169.5 6		I	
2187.8 6	(3/2 ⁺)	G I	J ^π : from (pol d,t).
2215.9 6	3/2 ⁺ ,5/2 ⁺	I	J ^π : from (pol d,t).
2236.1 5	3/2 ⁺ ,5/2 ⁺	I	J ^π : from (pol d,t).
2247.8 5	1/2 ⁻	G I	J ^π : from (pol d,t).
2281.55 17	(23/2 ⁺)	C	J ^π : E1 γ to (21/2 ⁻).
2284.3 6	5/2 ⁺	G I	J ^π : from (pol d,t).
2292.5 6	3/2 ⁺ ,5/2 ⁺	I	J ^π : from (pol d,t).
2310 10	⁺	F	J ^π : L=2+4 in (p,d).
2317.5 15	11/2 ⁻	I	J ^π : from (pol d,t).
2332.21 [@] 16	(23/2 ⁻)	CDE	Probable admixture of non-collective configuration= $((\pi 1g_{7/2})_{6+}^{+2}(\nu 1h_{11/2}))$, J ^π =23/2 ⁻ .
2339.3 8	3/2 ⁺ ,5/2 ⁺	G I	J ^π : L=2 in (d,p) and (pol d,t).
2360.1 6	3/2 ⁺ ,5/2 ⁺	I	J ^π : from (pol d,t).
2376 6	3/2 ⁺ ,5/2 ⁺	G	J ^π : L=2 in (d,p).
2389.4 7	3/2 ⁺	I	J ^π : from (pol d,t).
2396.1 ^d 5	(17/2 ⁺)	E	
2406.8 8	11/2 ⁻	g I	XREF: g(2416). J ^π : from (pol d,t).
2414.7 6	7/2 ⁺ ,9/2 ⁺	Fg I	XREF: g(2416). J ^π : L=4 in (p,d).
2422.2 5	(21/2 ⁻)	E	
2426.5 7	1/2 ⁻	I	J ^π : from (pol d,t).
2441 6	(5/2 ⁻ ,7/2 ⁻)	G	J ^π : L=(3) in (d,p).
2456.9 5	3/2 ⁺ ,5/2 ⁺	F I	J ^π : from (pol d,t).
2469.8 ^c 4	(19/2 ⁺)	E	

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Adopted Levels, Gammas (continued) ^{121}Te Levels (continued)

E(level) [†]	J ^π [‡]	XREF	Comments
2486 6	(5/2 ⁻ ,7/2 ⁻)	G	J ^π : L=(3) in (d,p).
2516.2 5	1/2 ⁻	I	J ^π : from (pol d,t).
2536.8 7	(1/2 ⁻ ,3/2 ⁻)	g I	XREF: g(2538). J ^π : from (pol d,t).
2548 10		Fg	XREF: g(2538).
2549.9 6	3/2 ⁺	I	J ^π : from (pol d,t).
2568.8 8	1/2 ⁺	G I	J ^π : from (pol d,t).
2582.6 ^d 5	(19/2 ⁺)	E	
2600.2 7		G I	
2611.7 7	(3/2 ⁺)	f I	XREF: f(2620). J ^π : from (pol d,t).
2630.2 9		f I	XREF: f(2620).
2641.5 7	(5/2 ⁺)	I	J ^π : from (pol d,t).
2679.5 ^a 3	(19/2 ⁻)	E	
2716.96 [@] 23	(23/2 ⁻)	DE	
2725 6		G	
2854.1 [#] 3	(19/2 ⁻)	E	
2857 6		G	
2896 6		G	
2915.0 ^c 5	(21/2 ⁺)	E	
2933 6		G	
2937.0 ^a 5	(21/2 ⁻)	E	
2952.73 ^{&} 25	(23/2,25/2)	CDE	J ^π : 25/2 ⁻ assigned in $^{114}\text{Cd}(^{11}\text{B},\text{p}3\text{n}\gamma)$ from mult.(939γ)=(E1), while 23/2 ⁺ assigned in $^{116}\text{Cd}(^9\text{Be},4\text{n}\gamma)$ from mult.(937γ)=(E2).
2966 6	(1/2 ⁻ ,3/2 ⁻)	G	J ^π : L=(1) in (d,p).
2996.5 5	(21/2)	E	
3027 6		G	
3057 6		G	
3073.2 7	(25/2 ⁻)	E	
3136.45 [@] 21	(25/2 ⁻)	DE	
3228.9 ^d 7	(21/2 ⁺)	E	
3255.0 ^a 5	(23/2 ⁻)	E	
3320.8 ^c 6	(23/2 ⁺)	E	
3321.0 5	(23/2)	E	
3389.0 ^d 6	(23/2 ⁺)	E	
3401.8 [@] 3	(27/2 ⁻)	DE	
3423.8 [#] 4	(23/2 ⁻)	E	
3432 6		G	
3443.1 6		E	
3461 6		G	
3496 6		G	
3536 6		G	
3594.8 6		E	
3613 6		G	
3642.6 ^a 5	(25/2 ⁻)	E	
3655.4 5	(27/2 ⁻)	E	
3671.2 ^{&} 3	(27/2,29/2)	DE	
3715 6		G	
3779.2 ^c 6	(25/2 ⁺)	E	
3834.0 5		E	
3935.3 3	(29/2)	D	
3936.9 5		E	

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Adopted Levels, Gammas (continued) ^{121}Te Levels (continued)

E(level) [†]	J^π [‡]	XREF	Comments
3956 6		G	
4083.1 ^a 5	(27/2 ⁻)	E	
4146.8 ^c 7	(27/2 ⁺)	E	
4188.0 [#] 6	(27/2 ⁻)	E	
4238.2 [@] 3	(29/2 ⁻)	DE	
4372.4 [@] 4	(31/2 ⁻)	DE	
4411.3 ^{&} 4	(31/2)	DE	
4442.7 5		E	
4520.2 4		D	
4785.2 [@] 3	(33/2 ⁻)	DE	
4898.4 4	(33/2)	DE	
5012.7 ^{&} 6		E	
5020.7 ^{&} 4	(35/2)	DE	
5179.3 [@] 4	(35/2 ⁻)	DE	Probable admixture of non-collective configuration= $((\pi 1g_{7/2})_{6+}^{+2}(\nu 1h_{11/2})_{25/2-}^{+3})$, $J^\pi=35/2^-$.
5281.2 7		E	
5308.6 4		DE	
5503.5 6		E	
5533.4 [@] 4	(39/2 ⁻)	DE	Probable admixture of non-collective configuration= $((\pi 1g_{7/2})_{6+}^{+2}(\nu 1h_{11/2})_{27/2-}^{+3})$, $J^\pi=39/2^-$.
5689.1 [@] 4	(37/2)	DE	
5906.5 [@] 5	(39/2)	D	
6545.2 [@] 6	(41/2)	D	
6774.1 [@] 5	(43/2 ⁻)	D	
7059.8 [@] 7	(43/2 ⁻)	D	
7061.8 [@] 6	(47/2)	D	Probable admixture of non-collective configuration= $((\pi 1g_{7/2})_{6+}^{+2}(\nu 1h_{11/2})_{35/2-}^{+5})$, $J^\pi=47/2^-$.
7106.9 [@] 7		D	
7671.2 [@] 7		D	
7683.6 [@] 7		D	
8292.5 [@] 7	(51/2 ⁻)	D	
8583.2 [@] 8		D	

[†] E(levels) with γ decay are from least-squares fit to $E\gamma$'s.

[‡] From rotational band arguments based on shell model configurations; band structures evidenced from M1, M1+E2 (D(+Q)) cascades, and E2(Q) cross over transitions, and available information from in-beam studies, except where noted otherwise.

Band(A): γ vibrational band on $1h_{11/2}$.

@ Band(B): built on $1h_{11/2}$.

& Band(C): 3quasi-particle configuration. $\pi=-$ in $^{116}\text{Cd}(^9\text{Be},4n\gamma)$, whereas $\pi=(+)$ in $^{114}\text{Cd}(^{11}\text{B},p3n\gamma)$ with different spin sequence.

^a Band(D): Built on (19/2⁻) level. Possible 3quasi-particle configuration.

^b Band(E): built on $2d_{5/2}$.

^c Band(F): built on $1g_{7/2}$.

^d Band(G): built on $2d_{3/2}$.

Adopted Levels, Gammas (continued)

E _i (level)	J _i ^π	E _γ [†]	I _γ [‡]	E _f	J _f ^π	Mult.&	γ(¹²¹ Te)		Comments
							δ ^a	α ^b	
212.191	3/2 ⁺	212.19 3	100 2	0.0	1/2 ⁺	M1+E2	+0.226 8	0.0869 1	α(K)=0.0747 11; α(L)=0.00982 14; α(M)=0.00196 3; α(N+..)=0.000429 7 α(N)=0.000387 6; α(O)=4.16×10 ⁻⁵ 6 B(M1)(W.u.)=0.033 8; B(E2)(W.u.)=27 7 Mult.,δ: from ¹²¹ Te IT decay.
293.974	11/2 ⁻	81.788 18	100	212.191	3/2 ⁺	M4		1735	α(K)=677 10; α(L)=820 12; α(M)=197 3; α(N+..)=41.2 6 α(N)=37.9 6; α(O)=3.25 5 B(M4)(W.u.)=3.18 7
438.52	(9/2) ⁻	144.58 5	100	293.974	11/2 ⁻	M1+E2	-0.29 10	0.259 13	α(K)=0.220 9; α(L)=0.031 4; α(M)=0.0063 7; α(N+..)=0.00137 14 α(N)=0.00124 13; α(O)=0.000130 11
443.11	7/2 ⁺	230.95 5	100	212.191	3/2 ⁺	E2		0.0918	α(K)=0.0749 11; α(L)=0.01353 19; α(M)=0.00276 4; α(N+..)=0.000581 9 α(N)=0.000530 8; α(O)=5.07×10 ⁻⁵ 8 B(E2)(W.u.)=0.2602 16
475.243	5/2 ⁺	263.07 7	6.8 4	212.191	3/2 ⁺	M1(+E2)		0.054 6	α(K)=0.045 4; α(L)=0.0068 16; α(M)=0.0014 4; α(N+..)=0.00029 7 α(N)=0.00027 6; α(O)=2.7×10 ⁻⁵ 5
		475.28 4	100 4	0.0	1/2 ⁺	(E2)		0.00942 14	Mult.: from D(+Q) and no parity change of relevant states. α(K)=0.00801 12; α(L)=0.001134 16; α(M)=0.000228 4; α(N+..)=4.91×10 ⁻⁵ 7 α(N)=4.45×10 ⁻⁵ 7; α(O)=4.60×10 ⁻⁶ 7 Conflicting mult. proposed M1+E2 in ¹²¹ I ε+β ⁺ decay and (E2) in (α,2nγ).
532.052	3/2 ⁺	56.8 1	0.97 8	475.243	5/2 ⁺	[M1,E2]		8 5	α(K)=4.6 16; α(L)=2.9 25; α(M)=0.6 6; α(N+..)=0.12 11 α(N)=0.11 10; α(O)=0.009 8
		319.90 4	15.4 7	212.191	3/2 ⁺	M1,E2		0.0302 13	α(K)=0.0256 7; α(L)=0.0036 5; α(M)=0.00073 11; α(N+..)=0.000158 21 α(N)=0.000143 20; α(O)=1.49×10 ⁻⁵ 14
		532.08 4	100 4	0.0	1/2 ⁺	E2		0.00686 10	α(K)=0.00585 9; α(L)=0.000808 12; α(M)=0.0001621 23; α(N+..)=3.50×10 ⁻⁵ 5 α(N)=3.17×10 ⁻⁵ 5; α(O)=3.31×10 ⁻⁶ 5
538.69	7/2 ⁻	244.75 6	100	293.974	11/2 ⁻	[E2]		0.0755	α(K)=0.0619 9; α(L)=0.01089 16; α(M)=0.00222 4; α(N+..)=0.000468 7 α(N)=0.000427 6; α(O)=4.11×10 ⁻⁵ 6
594.489	5/2 ⁺	62.7 2	0.5 3	532.052	3/2 ⁺				
		151.3 1	2.3 4	443.11	7/2 ⁺				
		382.25 4	100 5	212.191	3/2 ⁺	M1		0.0184	α(K)=0.01589 23; α(L)=0.00199 3; α(M)=0.000396 6; α(N+..)=8.70×10 ⁻⁵ 13 α(N)=7.84×10 ⁻⁵ 11; α(O)=8.55×10 ⁻⁶ 12

Adopted Levels, Gammas (continued)

$\gamma(^{121}\text{Te})$ (continued)									
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. &	δ^a	α^b	Comments
594.489	5/2 ⁺	594.50 [#] 5	73 [#] 4	0.0	1/2 ⁺	(E2)		0.00508 8	$\alpha(\text{K})=0.00435$ 6; $\alpha(\text{L})=0.000588$ 9; $\alpha(\text{M})=0.0001177$ 17; $\alpha(\text{N}+..)=2.55\times 10^{-5}$ 4 $\alpha(\text{N})=2.31\times 10^{-5}$ 4; $\alpha(\text{O})=2.42\times 10^{-6}$ 4
681.28	1/2 ⁺	469.18 ^c 7	100 ^c 6	212.191	3/2 ⁺				
683.05	(7/2) ⁺	681.1 ^c 1	27 ^c 3	0.0	1/2 ⁺				
		207.81 7	17.6 2	475.243	5/2 ⁺	D(+Q)		0.111 21	
		239.9 [#] 1	2.9 [#] 7	443.11	7/2 ⁺				
		470.83 4	100 6	212.191	3/2 ⁺	Q			
		683.10 7	8.6 6	0.0	1/2 ⁺				
757.95	(7/2) ⁻	219.3 1	100 10	538.69	7/2 ⁻				
		319.6 1	@	438.52	(9/2) ⁻				
		546.2 ^d 2	39 7	212.191	3/2 ⁺				
806.69	3/2 ⁺	594.5 [#] 1	9.2 [#] 23	212.191	3/2 ⁺				
		806.63 5	100 4	0.0	1/2 ⁺				
810.92	(5/2 ⁺ , 7/2 ⁺)	127.9 [#] 1	0.17 [#] 6	683.05	(7/2) ⁺				
		278.87 6	8.7 5	532.052	3/2 ⁺	(M1)		0.0413	$\alpha(\text{K})=0.0357$ 5; $\alpha(\text{L})=0.00451$ 7; $\alpha(\text{M})=0.000900$ 13; $\alpha(\text{N}+..)=0.000197$ 3 $\alpha(\text{N})=0.0001781$ 25; $\alpha(\text{O})=1.94\times 10^{-5}$ 3
		335.7 2	0.74 23	475.243	5/2 ⁺				
		367.80 5	6.2 3	443.11	7/2 ⁺				
		598.74 5	100 4	212.191	3/2 ⁺				
		810.91 6	8.6 4	0.0	1/2 ⁺				
830.53	(9/2) ⁺	387.4 1	100	443.11	7/2 ⁺	M1+E2	-4.6 6	0.01728	$\alpha(\text{K})=0.01459$ 21; $\alpha(\text{L})=0.00216$ 3; $\alpha(\text{M})=0.000435$ 7; $\alpha(\text{N}+..)=9.33\times 10^{-5}$ 14 $\alpha(\text{N})=8.47\times 10^{-5}$ 12; $\alpha(\text{O})=8.62\times 10^{-6}$ 12
887.65	(7/2) ⁺	293.27 6	100 5	594.489	5/2 ⁺				
		412.0 [#] 1	8.1 [#] 14	475.243	5/2 ⁺				
912.22	5/2 ⁺	154.2 1	3.9 8	757.95	(7/2) ⁻				
		317.82 6	36 2	594.489	5/2 ⁺				
		380.2 1	8.5 8	532.052	3/2 ⁺				
		437.0 1	8.9 8	475.243	5/2 ⁺				
		469.18 ^c 7	27 ^c 2	443.11	7/2 ⁺				
		699.96 5	100 8	212.191	3/2 ⁺				
925.62	(15/2) ⁻	631.6 1	100	293.974	11/2 ⁻	E2		0.00433 6	$\alpha(\text{K})=0.00372$ 6; $\alpha(\text{L})=0.000497$ 7; $\alpha(\text{M})=9.94\times 10^{-5}$ 14; $\alpha(\text{N}+..)=2.16\times 10^{-5}$ 3 $\alpha(\text{N})=1.95\times 10^{-5}$ 3; $\alpha(\text{O})=2.06\times 10^{-6}$ 3
975.27	(13/2) ⁻	536.6 4	29 1	438.52	(9/2) ⁻	(E2)		0.00670 10	$\alpha(\text{K})=0.00572$ 8; $\alpha(\text{L})=0.000789$ 12; $\alpha(\text{M})=0.0001581$ 23; $\alpha(\text{N}+..)=3.42\times 10^{-5}$ 5 $\alpha(\text{N})=3.10\times 10^{-5}$ 5; $\alpha(\text{O})=3.23\times 10^{-6}$ 5

Adopted Levels, Gammas (continued)

$\gamma(^{121}\text{Te})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult.&	α^b	Comments
975.27	(13/2) ⁻	681.3 ^c 1	100 ^c 3	293.974	11/2 ⁻	M1+E2	0.0040 5	$\alpha(\text{K})=0.0035$ 4; $\alpha(\text{L})=0.00044$ 4; $\alpha(\text{M})=8.8\times 10^{-5}$ 7; $\alpha(\text{N+..})=1.92\times 10^{-5}$ 16 $\alpha(\text{N})=1.73\times 10^{-5}$ 15; $\alpha(\text{O})=1.86\times 10^{-6}$ 19 $\delta: -0.35$ 8 or -2.0 4.
994.02	3/2 ⁺ , 5/2 ⁺	518.9 1 550.8 1 781.85 6 994.03 6	12 3 18 3 96 5 100 5	475.243 443.11 212.191 0.0	5/2 ⁺ 7/2 ⁺ 3/2 ⁺ 1/2 ⁺	M1,E2	0.00166 20	$\alpha(\text{K})=0.00144$ 18; $\alpha(\text{L})=0.000177$ 19; $\alpha(\text{M})=3.5\times 10^{-5}$ 4; $\alpha(\text{N+..})=7.7\times 10^{-6}$ 9 $\alpha(\text{N})=7.0\times 10^{-6}$ 8; $\alpha(\text{O})=7.6\times 10^{-7}$ 9
1018.44	(9/2 ⁺)	543.2 2	100	475.243	5/2 ⁺	(Q)		
1080.29	(11/2 ⁺)	249.8 2 637.2 1	4.7 12 100 5	830.53 443.11	(9/2) ⁺ 7/2 ⁺	(E2)	0.00424 6	$\alpha(\text{K})=0.00363$ 5; $\alpha(\text{L})=0.000485$ 7; $\alpha(\text{M})=9.70\times 10^{-5}$ 14; $\alpha(\text{N+..})=2.10\times 10^{-5}$ 3 $\alpha(\text{N})=1.90\times 10^{-5}$ 3; $\alpha(\text{O})=2.01\times 10^{-6}$ 3
1148.65	5/2 ⁺	554.2 1 673.34 6 705.5 [#] 1 936.44 5	10.9 13 34.7 19 12.2 [#] 16 100 3	594.489 475.243 443.11 212.191	5/2 ⁺ 5/2 ⁺ 7/2 ⁺ 3/2 ⁺	M1	0.00212 3	$\alpha(\text{K})=0.00185$ 3; $\alpha(\text{L})=0.000224$ 4; $\alpha(\text{M})=4.46\times 10^{-5}$ 7; $\alpha(\text{N+..})=9.80\times 10^{-6}$ 14 $\alpha(\text{N})=8.83\times 10^{-6}$ 13; $\alpha(\text{O})=9.68\times 10^{-7}$ 14
1170.19	3/2 ⁺ , 5/2 ⁺	1148.9 1 487.1 1 957.96 7 1170.3 1	20.6 13 29 4 100 6 100 8	0.0 683.05 212.191 0.0	1/2 ⁺ (7/2) ⁺ 3/2 ⁺ 1/2 ⁺			
1171.06	(9/2 ⁺)	283.3 2	100	887.65	(7/2) ⁺			
1172.86	(5/2 ⁻ , 7/2 ⁺)	489.9 2 634.0 2 640.8 1 697.68 7 734.3 1	11 2 19 2 100 4 64 3 19 2	683.05 538.69 532.052 475.243 438.52	(7/2) ⁺ 7/2 ⁻ 3/2 ⁺ 5/2 ⁺ (9/2) ⁻			
1177.44	(11/2 ⁻)	202.1 2 739.0 2 883.9 4	8 2 100 10 55 6	975.27 438.52 293.974	(13/2) ⁻ (9/2) ⁻ 11/2 ⁻			
1185.58		502.5 1 1185.7 2	100 10 47 10	683.05 0.0	(7/2) ⁺ 1/2 ⁺			
1208.05	(11/2 ⁺)	189.6 2 525.0 1	6 2 100 4	1018.44 683.05	(9/2) ⁺ (7/2) ⁺	(E2)	0.00712 10	$\alpha(\text{K})=0.00607$ 9; $\alpha(\text{L})=0.000841$ 12; $\alpha(\text{M})=0.0001686$ 24; $\alpha(\text{N+..})=3.64\times 10^{-5}$ 6 $\alpha(\text{N})=3.30\times 10^{-5}$ 5; $\alpha(\text{O})=3.43\times 10^{-6}$ 5

Adopted Levels, Gammas (continued)

$\gamma(^{121}\text{Te})$ (continued)													
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. &	α^b	Comments					
1226.88	5/2 ⁺	420.2 3	4 2	806.69	3/2 ⁺								
		543.5 1	5 1	683.05	(7/2) ⁺								
		632.2 1	8 1	594.489	5/2 ⁺								
		688.1 1	13 10	538.69	7/2 ⁻								
		694.89 5	79 4	532.052	3/2 ⁺								
		751.65 7	18 1	475.243	5/2 ⁺								
		783.8 2	5 1	443.11	7/2 ⁺								
		1014.75 5	100 4	212.191	3/2 ⁺								
		1226.9 1	13 1	0.0	1/2 ⁺								
		1306.34	3/2	548.62 9	30 3	757.95	(7/2) ⁻	(E1)	0.001210 17	$\alpha(\text{K})=0.001053$ 15; $\alpha(\text{L})=0.0001266$ 18; $\alpha(\text{M})=2.51\times 10^{-5}$ 4; $\alpha(\text{N}+..)=5.49\times 10^{-6}$ $\alpha(\text{N})=4.96\times 10^{-6}$ 7; $\alpha(\text{O})=5.38\times 10^{-7}$ 8			
711.69 7	41 3			594.489	5/2 ⁺								
831.2 1	32 3			475.243	5/2 ⁺								
1094.20 6	100 5			212.191	3/2 ⁺								
1306.25 6	94 5			0.0	1/2 ⁺								
1324.65	(3/2 ⁺ , 5/2 ⁺)			849.7 2	82 18	475.243	5/2 ⁺						
				1112.4 2	100 18	212.191	3/2 ⁺						
				1324.4 2	82 9	0.0	1/2 ⁺						
				1340.63	5/2 ⁺	802.1 1	30 4				538.69	7/2 ⁻	
808.3 2	33 5					532.052	3/2 ⁺						
865.35 7	66 4	475.243	5/2 ⁺										
1128.42 7	100 5	212.191	3/2 ⁺										
1363.96	3/2 ⁺ , 5/2 ⁺	681.1 ^c 1	25 ^c 3	683.05	(7/2) ⁺								
		888.91 7	83 5	475.243	5/2 ⁺								
		1151.57 7	100 5	212.191	3/2 ⁺								
		1363.81 8	78 4	0.0	1/2 ⁺								
1419.47	(13/2 ⁺)	339.2 1	22 2	1080.29	(11/2 ⁺)	D(+Q) (E2)	0.00521 8	$\alpha(\text{K})=0.00446$ 7; $\alpha(\text{L})=0.000604$ 9; $\alpha(\text{M})=0.0001209$ 17; $\alpha(\text{N}+..)=2.62\times 10^{-5}$ 4 $\alpha(\text{N})=2.37\times 10^{-5}$ 4; $\alpha(\text{O})=2.49\times 10^{-6}$ 4					
		588.8 2	100 3	830.53	(9/2) ⁺								
1437.18		443.3 1	100 9	994.02	3/2 ⁺ , 5/2 ⁺								
		626.3 1	81 13	810.92	(5/2 ⁺ , 7/2 ⁺)								
		754.2 2	34 6	683.05	(7/2) ⁺								
		842.5 1	75 9	594.489	5/2 ⁺								
1473.2	(11/2 ⁺)	300.9 4	60	1171.06	(9/2 ⁺)								
		584.4 4	100	887.65	(7/2 ⁺)								
1486.62	(7/2) ⁺	892.4 2	14.8 23	594.489	5/2 ⁺								
		954.5 2	11.3 23	532.052	3/2 ⁺								
		1011.23 6	100 6	475.243	5/2 ⁺								
		1043.65 7	77 4	443.11	7/2 ⁺								

Adopted Levels, Gammas (continued)

$\gamma(^{121}\text{Te})$ (continued)									
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. &	δ^a	α^b	Comments
1486.62	(7/2) ⁺	1274.47 9	42 3	212.191	3/2 ⁺				
		1486.6 1	45 2	0.0	1/2 ⁺				
1540.19		628.2 2	100 14	912.22	5/2 ⁺				
		857.0 3	36 14	683.05	(7/2) ⁺				
1599.63	(17/2) ⁻	1540.0 2	64 21	0.0	1/2 ⁺				
		624.3 3	62 4	975.27	(13/2) ⁻	(E2)		0.00447 7	$\alpha(\text{K})=0.00383$ 6; $\alpha(\text{L})=0.000513$ 8; $\alpha(\text{M})=0.0001026$ 15; $\alpha(\text{N}+..)=2.23\times 10^{-5}$ 4
		674.0 ^c 1	100 ^c 3	925.62	(15/2) ⁻	(M1+E2)	-1.0 4	0.00412 22	$\alpha(\text{N})=2.01\times 10^{-5}$ 3; $\alpha(\text{O})=2.12\times 10^{-6}$ 3 $\alpha(\text{K})=0.00356$ 20; $\alpha(\text{L})=0.000452$ 18; $\alpha(\text{M})=9.0\times 10^{-5}$ 4; $\alpha(\text{N}+..)=1.97\times 10^{-5}$ 8 $\alpha(\text{N})=1.78\times 10^{-5}$ 8; $\alpha(\text{O})=1.91\times 10^{-6}$ 9
1607.4	(13/2) ⁺	589.0 4	100	1018.44	(9/2) ⁺	Q			
1626.37		1094.2 1	85 25	532.052	3/2 ⁺				
		1151.6 1	100 25	475.243	5/2 ⁺				
		1413.8 1	78 8	212.191	3/2 ⁺				
1654.32	(19/2) ⁻	728.7 1	100	925.62	(15/2) ⁻	E2		0.00302 5	$\alpha(\text{K})=0.00260$ 4; $\alpha(\text{L})=0.000339$ 5; $\alpha(\text{M})=6.77\times 10^{-5}$ 10; $\alpha(\text{N}+..)=1.474\times 10^{-5}$ 21 $\alpha(\text{N})=1.332\times 10^{-5}$ 19; $\alpha(\text{O})=1.415\times 10^{-6}$ 20
1681.03	3/2,5/2 ⁺	768.80 9	100 8	912.22	5/2 ⁺				
		870.1 1	49 5	810.92	(5/2 ⁺ ,7/2 ⁺)				
		874.1 1	77 8	806.69	3/2 ⁺				
		1086.52 9	85 5	594.489	5/2 ⁺				
		1469.1 1	46 5	212.191	3/2 ⁺				
		1681.0 1	82 5	0.0	1/2 ⁺				
1711.88	(15/2) ⁺	292.3 3	16 3	1419.47	(13/2) ⁺				
		631.6 1	100 5	1080.29	(11/2) ⁺				
1730.71	3/2,5/2 ⁺	1136.0 1	30 2	594.489	5/2 ⁺				
		1198.78 7	100 6	532.052	3/2 ⁺				
		1255.4 1	41 4	475.243	5/2 ⁺				
		1518.5 1	26 2	212.191	3/2 ⁺				
1789.3	(13/2) ⁺	316.0 4	16 2	1473.2	(11/2) ⁺				
		617.0 4	100 10	1171.06	(9/2) ⁺				
1806.77	(15/2) ⁺	199.4 4	1.5 2	1607.4	(13/2) ⁺				
		598.7 2	100 10	1208.05	(11/2) ⁺	(Q)			
1823.3	(17/2) ⁻	848.4 4	78 7	975.27	(13/2) ⁻	(Q)			
		897.3 4	100 10	925.62	(15/2) ⁻	D(+Q)			
1851.44		674.0 ^c 1	100 ^c	1177.44	(11/2) ⁻				
1913.23		686.2 2	79 14	1226.88	5/2 ⁺				
		764.7 2	100 14	1148.65	5/2 ⁺				
		1438.0 2	100 14	475.243	5/2 ⁺				
1994.0	(15/2) ⁻	817.0 4	100 10	1177.44	(11/2) ⁻				

Adopted Levels, Gammas (continued)

γ(¹²¹Te) (continued)

<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_γ[†]</u>	<u>I_γ[‡]</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult. &</u>	<u>δ^a</u>	<u>α^b</u>	<u>Comments</u>
1994.0	(15/2 ⁻)	1068.0 4	71 7	925.62	(15/2) ⁻	D(+Q)			
2016.05	(21/2) ⁻	361.7 1	100 1	1654.32	(19/2) ⁻	M1+E2	-0.15 4	0.0211	α(K)=0.0183 3; α(L)=0.00230 4; α(M)=0.000459 7; α(N+..)=0.0001006 15
		416.4 1	20 1	1599.63	(17/2) ⁻	(E2)		0.01388	α(N)=9.07×10 ⁻⁵ 13; α(O)=9.87×10 ⁻⁶ 14 α(K)=0.01174 17; α(L)=0.001717 24; α(M)=0.000346 5; α(N+..)=7.42×10 ⁻⁵ 11 α(N)=6.74×10 ⁻⁵ 10; α(O)=6.88×10 ⁻⁶ 10
2070.36	(17/2 ⁺)	358.7 ^d 2	19 5	1711.88	(15/2 ⁺)				
		650.9 2	100 7	1419.47	(13/2 ⁺)	Q			
2119.1	(15/2 ⁺)	330.4 4	39	1789.3	(13/2 ⁺)				
		645.3 4	100	1473.2	(11/2 ⁺)				
2281.55	(23/2 ⁺)	265.5 1	100	2016.05	(21/2) ⁻	(E1+M2)	-0.03 7	0.0133 19	α(K)=0.0115 16; α(L)=0.00143 25; α(M)=0.00028 5; α(N+..)=6.2×10 ⁻⁵ 11
									α(N)=5.6×10 ⁻⁵ 10; α(O)=5.9×10 ⁻⁶ 11
2332.21	(23/2) ⁻	316.1 1	100 3	2016.05	(21/2) ⁻	M1+E2	-0.06 4	0.0298	α(K)=0.0258 4; α(L)=0.00325 5; α(M)=0.000648 10; α(N+..)=0.0001423 21
									α(N)=0.0001283 19; α(O)=1.397×10 ⁻⁵ 20
		677.8 3	43 4	1654.32	(19/2) ⁻	Q			
2396.1	(17/2 ⁺)	788.7 4	100	1607.4	(13/2 ⁺)	Q			
2422.2	(21/2) ⁻	598.9 4	100	1823.3	(17/2) ⁻				
2469.8	(19/2 ⁺)	399.5 4	7.8 14	2070.36	(17/2 ⁺)				
		757.9 4	100 10	1711.88	(15/2 ⁺)	Q			
2582.6	(19/2 ⁺)	775.8 4	100	1806.77	(15/2 ⁺)	Q			
2679.5	(19/2) ⁻	856.2 4	97 9	1823.3	(17/2) ⁻				
		1025.0 4	61 6	1654.32	(19/2) ⁻				
		1079.9 4	100 10	1599.63	(17/2) ⁻	D(+Q)			
2716.96	(23/2) ⁻	384.4 3	24 3	2332.21	(23/2) ⁻	D(+Q)			
		700.9 4	42 4	2016.05	(21/2) ⁻	D(+Q)			
		1063.1 4	100 10	1654.32	(19/2) ⁻	Q			
2854.1	(19/2) ⁻	860.3 4	100 11	1994.0	(15/2) ⁻				
		1200.1 4	81 8	1654.32	(19/2) ⁻				
2915.0	(21/2 ⁺)	844.6 4	100	2070.36	(17/2 ⁺)	Q			
2937.0	(21/2) ⁻	257.7 4	100	2679.5	(19/2) ⁻	D(+Q)			
2952.73	(23/2,25/2)	621.3 4	24 2	2332.21	(23/2) ⁻				
		936.8 3	100 10	2016.05	(21/2) ⁻	D,Q			Mult.: D(E1) assignment in ¹¹⁴ Cd(¹¹ B,p3nγ) (1996Si24), while Q(E2) assignment in ¹¹⁶ Cd(⁹ Be,4nγ) (1996Pa11).
2996.5	(21/2)	1342.2 4	100	1654.32	(19/2) ⁻	D			
3073.2	(25/2) ⁻	651.0 4	100	2422.2	(21/2) ⁻				
3136.45	(25/2) ⁻	419.4 3	18 2	2716.96	(23/2) ⁻	D(+Q)			I _γ : average of 22.6 45 (¹¹⁴ Cd(¹¹ B,p3nγ)) and 15.2 15 (¹¹⁶ Cd(⁹ Be,4nγ)).

Adopted Levels, Gammas (continued)

γ(¹²¹Te) (continued)

<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_γ[†]</u>	<u>I_γ[‡]</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.&</u>	<u>Comments</u>
3136.45	(25/2 ⁻)	804.1 3	26 3	2332.21	(23/2) ⁻	D(+Q)	I _γ : average of 32.8 37 (¹¹⁴ Cd(¹¹ B,p3nγ)) and 19.4 20 (¹¹⁶ Cd(⁹ Be,4nγ)).
		1120.3 3	100 3	2016.05	(21/2) ⁻	Q	
3228.9	(21/2 ⁺)	832.8 4	100	2396.1	(17/2 ⁺)		
3255.0	(23/2 ⁻)	318.1 4	100 10	2937.0	(21/2) ⁻		
		575.4 4	12 2	2679.5	(19/2) ⁻		
3320.8	(23/2 ⁺)	851.0 4	100	2469.8	(19/2 ⁺)	Q	
3321.0	(23/2)	1304.9 4	100	2016.05	(21/2) ⁻	D	
3389.0	(23/2 ⁺)	806.4 4	100	2582.6	(19/2 ⁺)	Q	
3401.8	(27/2 ⁻)	265.4 3	72 7	3136.45	(25/2) ⁻	D(+Q)	
		1069.4 3	100 10	2332.21	(23/2) ⁻	Q	
3423.8	(23/2 ⁻)	570.1 4	57 6	2854.1	(19/2) ⁻		
		1091.1 4	100 10	2332.21	(23/2) ⁻	D(+Q)	
3443.1		446.6 4	100	2996.5	(21/2)		
3594.8		273.8 4	100	3321.0	(23/2)		
3642.6	(25/2 ⁻)	387.5 4	100 10	3255.0	(23/2) ⁻		
		705.7 4	39 4	2937.0	(21/2) ⁻		
3655.4	(27/2 ⁻)	1323.2 4	100	2332.21	(23/2) ⁻	Q	
3671.2	(27/2,29/2)	533.3 4	14 2	3136.45	(25/2) ⁻		
		719.0 3	100 10	2952.73	(23/2,25/2)	Q	
3779.2	(25/2 ⁺)	864.2 4	100	2915.0	(21/2 ⁺)	Q	
3834.0		881.3 4	100	2952.73	(23/2,25/2)		
3935.3	(29/2)	532.7 3	100	3401.8	(27/2) ⁻	D	
3936.9		265.7 4	100 10	3671.2	(27/2,29/2)		
4083.1	(27/2 ⁻)	440.4 4	100 10	3642.6	(25/2) ⁻		
		828.2 4	30 3	3255.0	(23/2) ⁻		
4146.8	(27/2 ⁺)	826.0 4	100	3320.8	(23/2 ⁺)		
4188.0	(27/2 ⁻)	764.2 4	100	3423.8	(23/2) ⁻		
4238.2	(29/2 ⁻)	1102.2 3	100	3136.45	(25/2) ⁻	Q	
4372.4	(31/2 ⁻)	971.0 3	100	3401.8	(27/2) ⁻	Q	
4411.3	(31/2)	740.1 3	100	3671.2	(27/2,29/2)	D,Q	Mult.: Q assignment in ¹¹⁴ Cd(¹¹ B,p3nγ), while D(+Q) assignment in ¹¹⁶ Cd(⁹ Be,4nγ).
4442.7		1040.9 4	100	3401.8	(27/2) ⁻		
4520.2		848.9 3	100 16	3671.2	(27/2,29/2)		
		1120 1	30 6	3401.8	(27/2) ⁻		
4785.2	(33/2 ⁻)	264.9 3	25 6	4520.2			
		373.7 3	38 4	4411.3	(31/2)	(D)	I _γ : average of 48 7 (¹¹⁴ Cd(¹¹ B,p3nγ)) and 38 6 (¹¹⁶ Cd(⁹ Be,4nγ)). Mult=E1 assumed in ¹¹⁴ Cd(¹¹ B,p3nγ).
		547.4 3	100 10	4238.2	(29/2) ⁻	Q	
		849.5 2	51 5	3935.3	(29/2)		
4898.4	(33/2)	487.2 3	100	4411.3	(31/2)	D	
5012.7		601.4 4	100	4411.3	(31/2)		

Adopted Levels, Gammas (continued)

$\gamma(^{121}\text{Te})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult.&	Comments
5020.7	(35/2)	122.4 4	6 6	4898.4	(33/2)		
		609.3 3	100 14	4411.3	(31/2)	Q	
5179.3	(35/2 ⁻)	393.6 3	100 5	4785.2	(33/2 ⁻)	D	
		807.2 3	37 10	4372.4	(31/2 ⁻)	Q	I_γ : average of 53 6 (¹¹⁴ Cd(¹¹ B,p3n γ)) and 22 2 (¹¹⁶ Cd(⁹ Be,4n γ)).
5281.2		838.5 4	100	4442.7			
5308.6		936.2 3	100	4372.4	(31/2 ⁻)		
5503.5		1131.1 4	100	4372.4	(31/2 ⁻)		
5533.4	(39/2 ⁻)	224.9 3	12 2	5308.6			I_γ : average of 12.8 23 (¹¹⁴ Cd(¹¹ B,p3n γ)) and 11.3 19 (¹¹⁶ Cd(⁹ Be,4n γ)).
		354.1 3	100 10	5179.3	(35/2 ⁻)	Q	
5689.1	(37/2)	509.8 3	100 10	5179.3	(35/2 ⁻)	D	
		668.5 3	32 6	5020.7	(35/2)		
5906.5	(39/2)	217.4 3	100	5689.1	(37/2)	D	
6545.2	(41/2)	638.7 3	100	5906.5	(39/2)	D	
6774.1	(43/2 ⁻)	1240.7 3	100	5533.4	(39/2 ⁻)	(Q)	
7059.8	(43/2 ⁻)	514.5 3	100	6545.2	(41/2)	D	
7061.8	(47/2)	287.7 3	100	6774.1	(43/2 ⁻)	Q	
7106.9		561.8 3	100	6545.2	(41/2)		
7671.2		564.3 3	100 20	7106.9			
		611.0 7	71 14	7059.8	(43/2 ⁻)		
7683.6		576.6 3	100	7106.9			
8292.5	(51/2 ⁻)	1230.7 3	100	7061.8	(47/2)	Q	
8583.2		912.0 3	100	7671.2		D	

[†] From ¹²¹I $\epsilon+\beta^+$ decay; others from ¹¹⁹Sn(α ,2n γ), ¹²¹Sb((d,2n γ), ¹¹⁴Cd(¹¹B,p3n γ), ¹¹⁶Cd(⁹Be,4n γ).

[‡] From ¹²¹I $\epsilon+\beta^+$ decay, ¹¹⁹Sn(α ,2n γ); upper limits are given for multiply placed transitions.

Doublet in ¹²¹I $\epsilon+\beta^+$ decay; deduced from coincidence.

@ No value given in ¹²¹I ϵ decay; doublet in both ¹²¹I $\epsilon+\beta^+$ decay and ¹¹⁹Sn(α ,2n γ).

& From α in ¹²¹I $\epsilon+\beta^+$ decay; α , $\gamma(\theta)$, linear polarization in ¹¹⁹Sn(α ,2n γ), ¹²¹Sb((d,2n γ); DCO ratio in ¹¹⁴Cd(¹¹B,p3n γ) and in ¹¹⁶Cd(⁹Be,4n γ).

^a From α in ¹²¹I $\epsilon+\beta^+$ decay; α , $\gamma(\theta)$, linear polarization in ¹¹⁹Sn(α ,2n γ), ¹²¹Sb((d,2n γ).

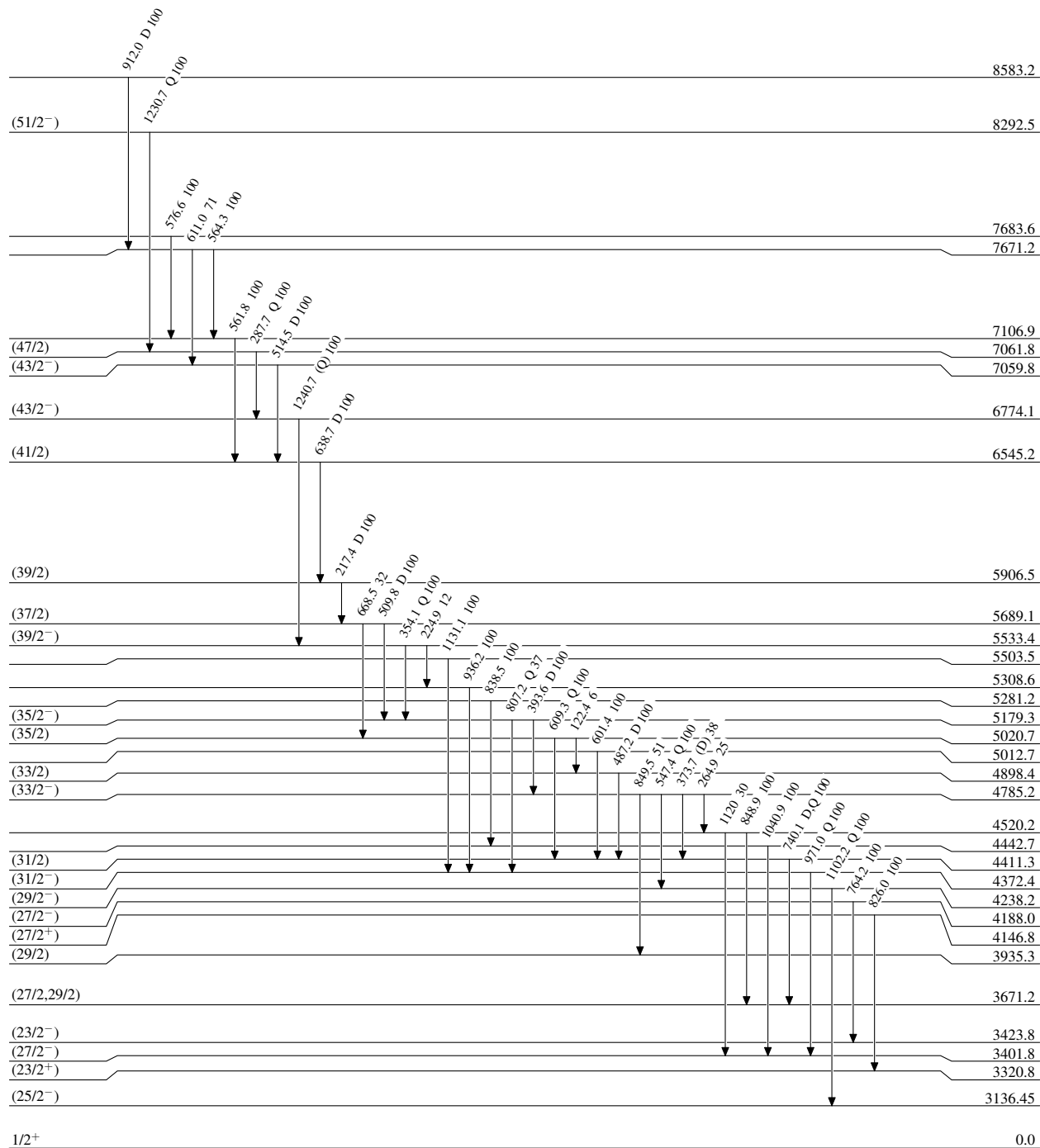
^b Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ -ray energies, assigned multiplicities, and mixing ratios, unless otherwise specified.

^c Multiply placed with undivided intensity.

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

Adopted Levels, Gammas**Level Scheme**

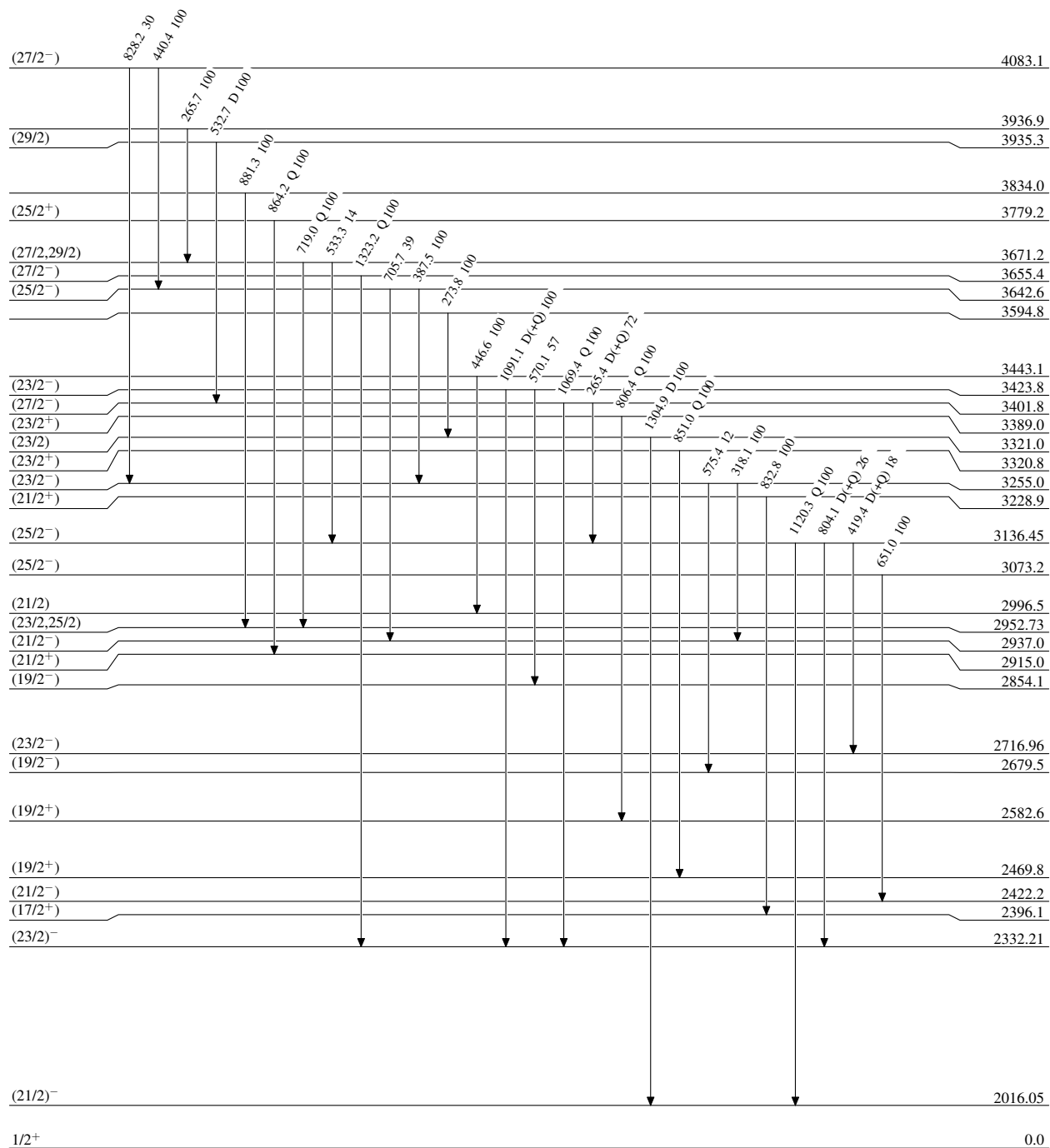
Intensities: Relative photon branching from each level



19.17 d 4

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

Intensities: Relative photon branching from each level



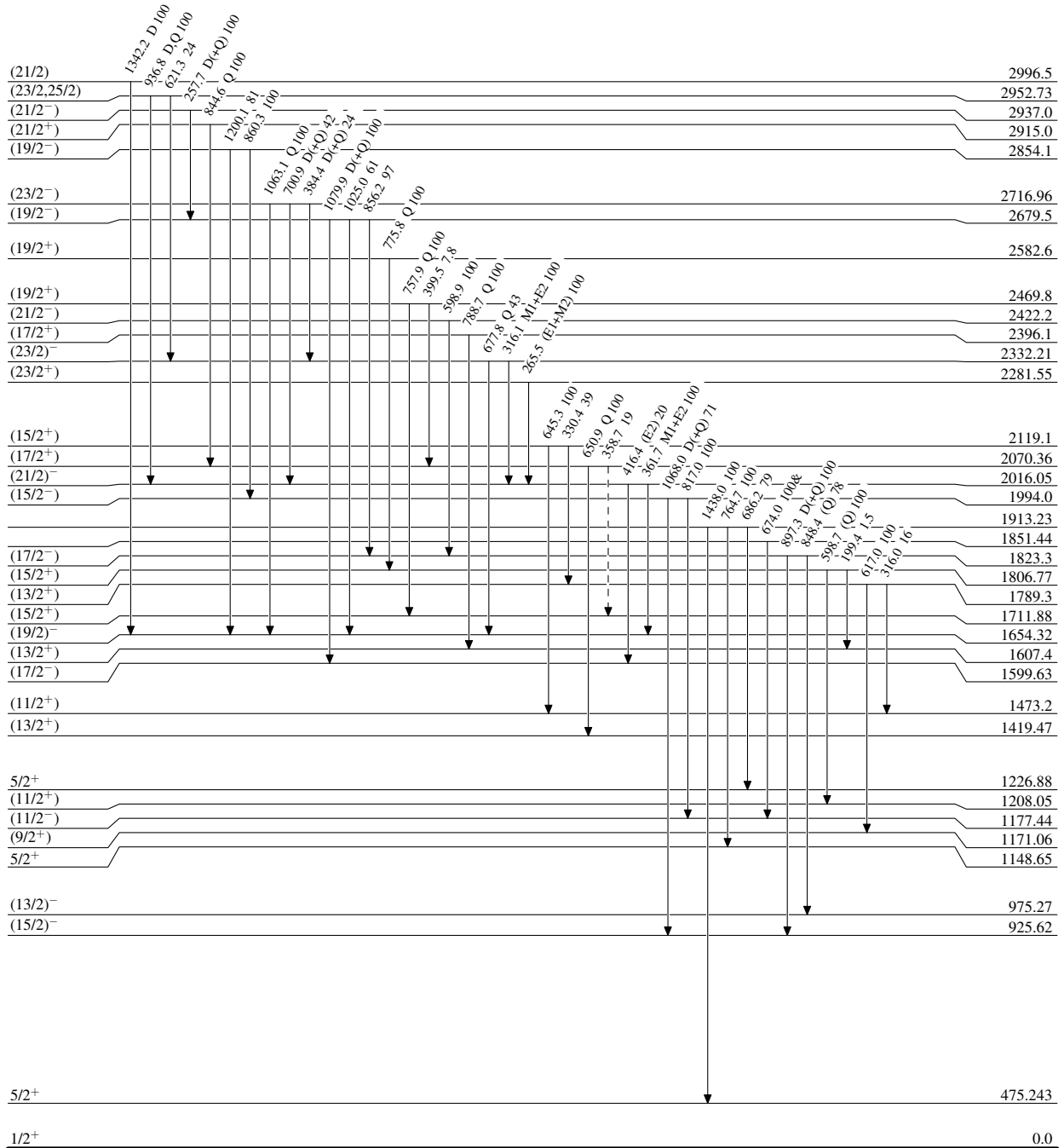
Adopted Levels, Gammas

Legend

Level Scheme (continued)

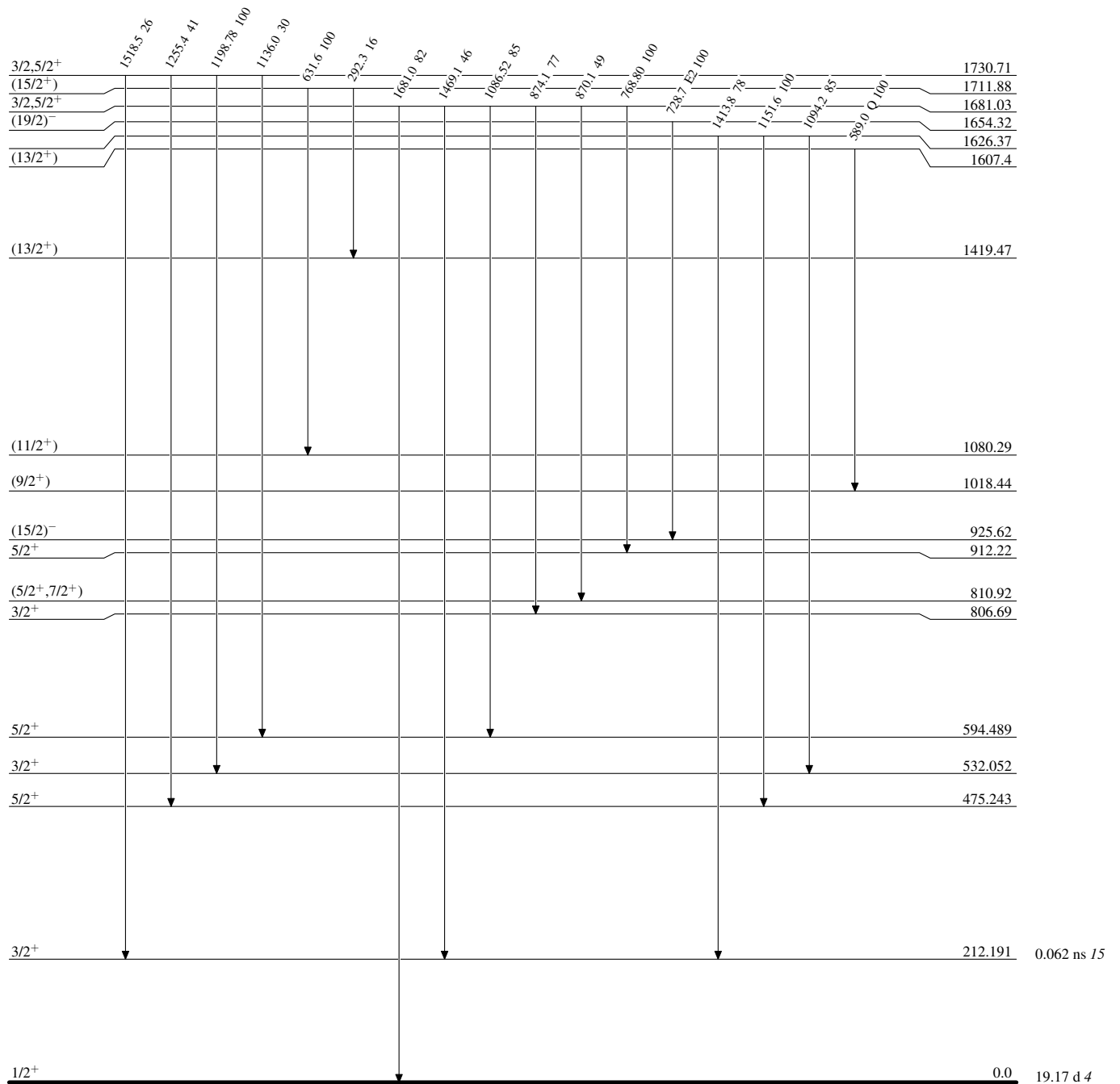
Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

-----▶ γ Decay (Uncertain)



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

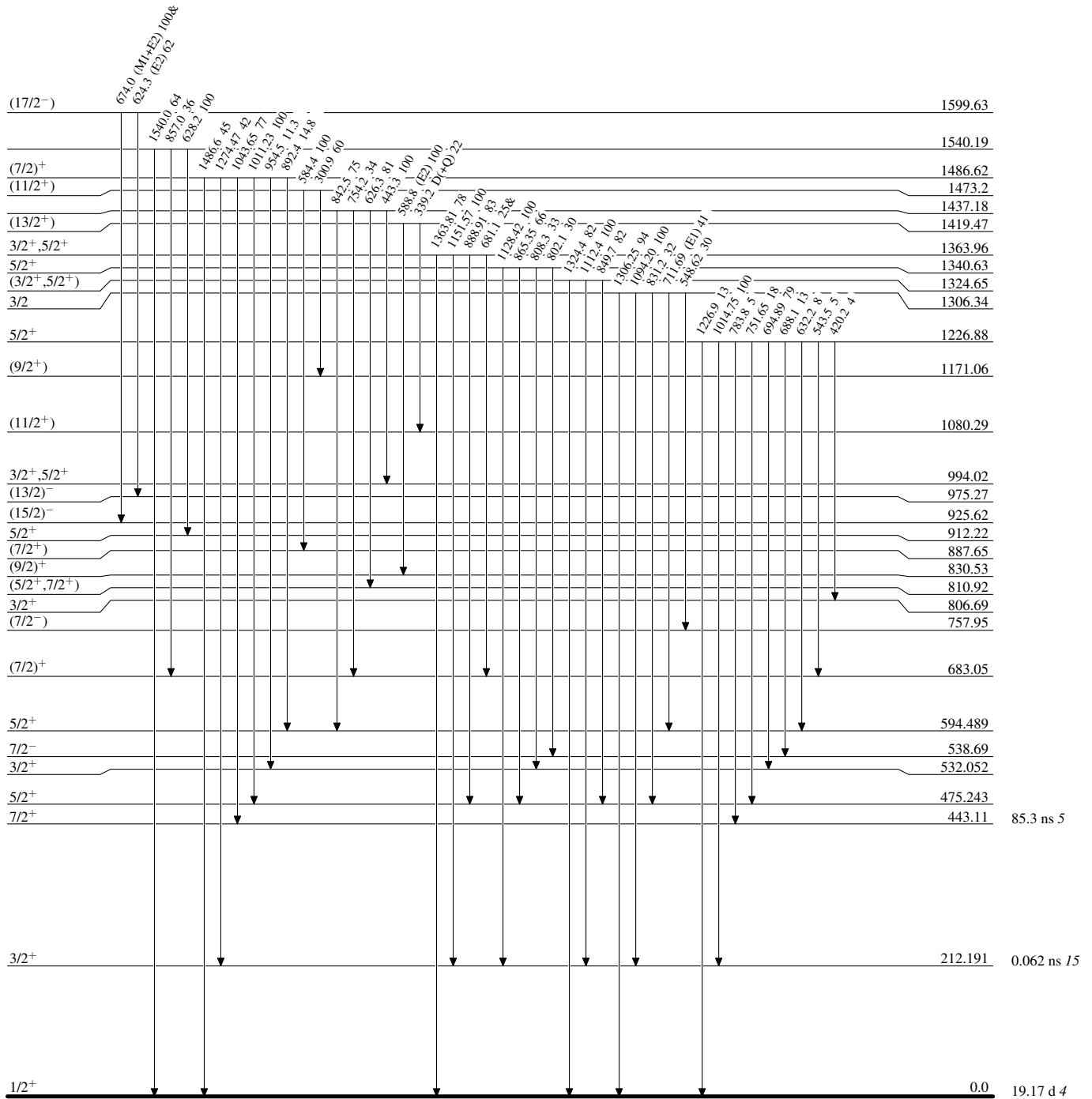
Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given

 $^{121}_{52}\text{Te}_{69}$

Adopted Levels, Gammas

Level Scheme (continued)

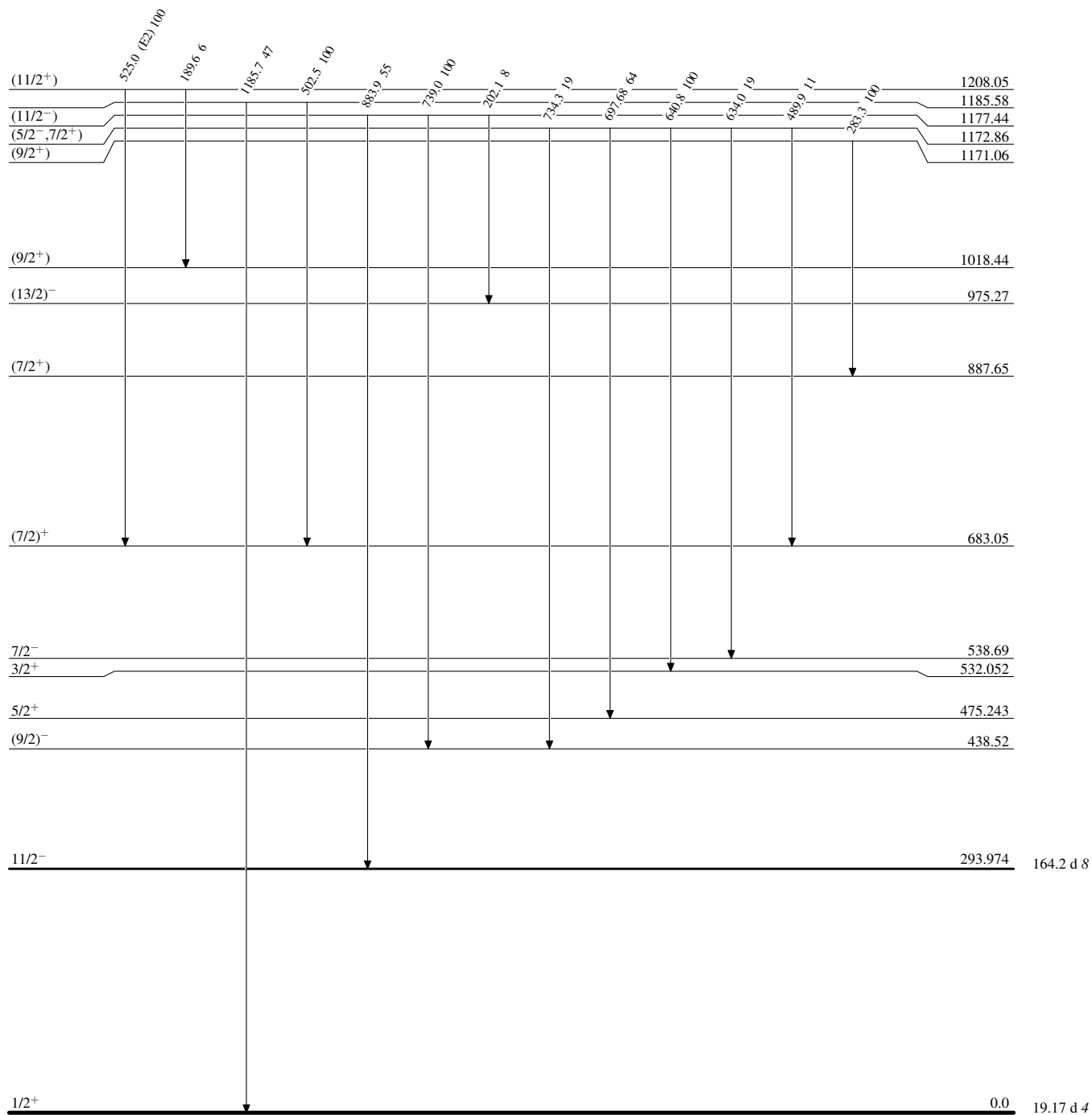
Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given



$^{121}_{52}\text{Te}_{69}$

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

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

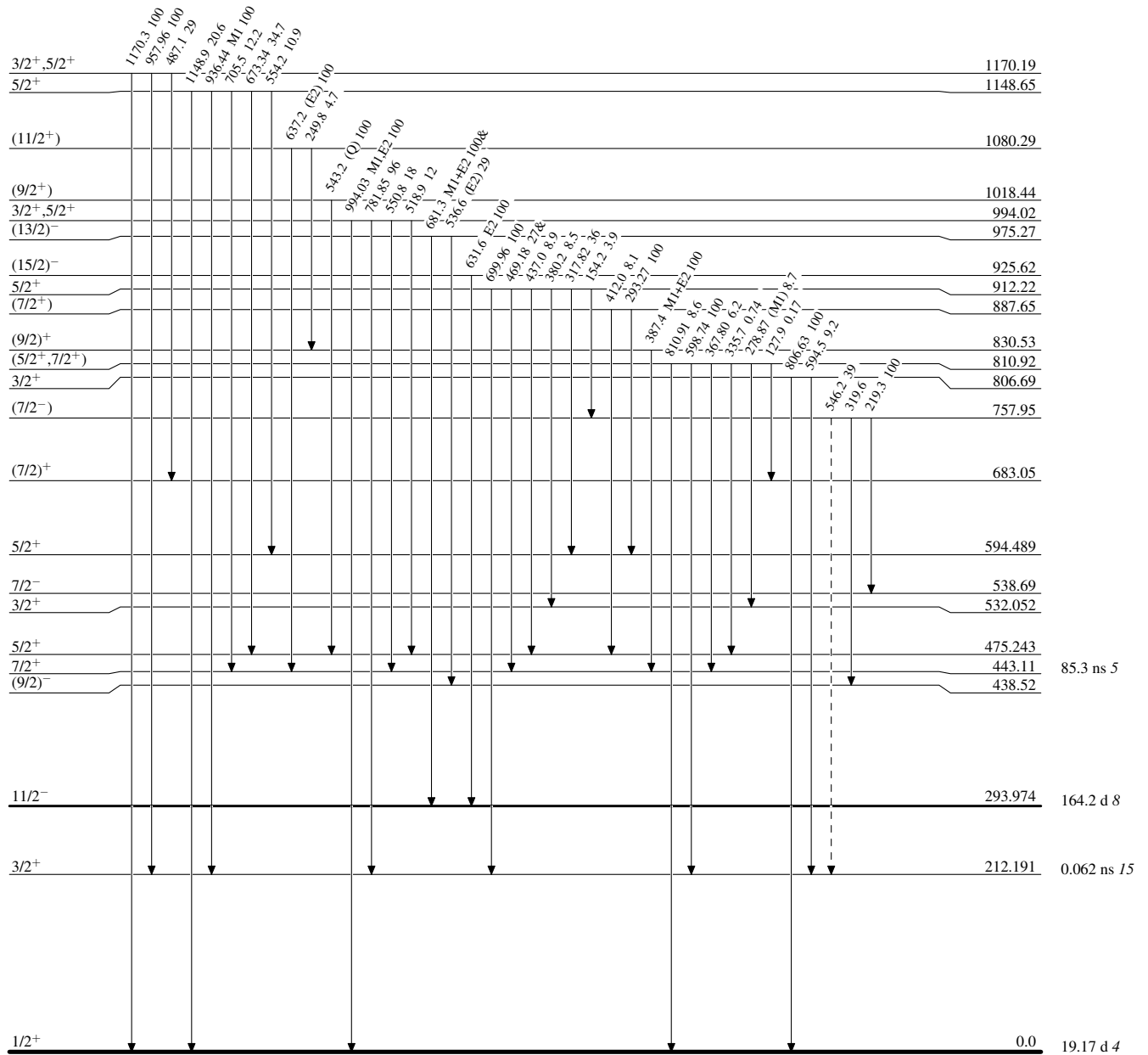
 $^{121}_{52}\text{Te}_{69}$

Adopted Levels, Gammas

Legend

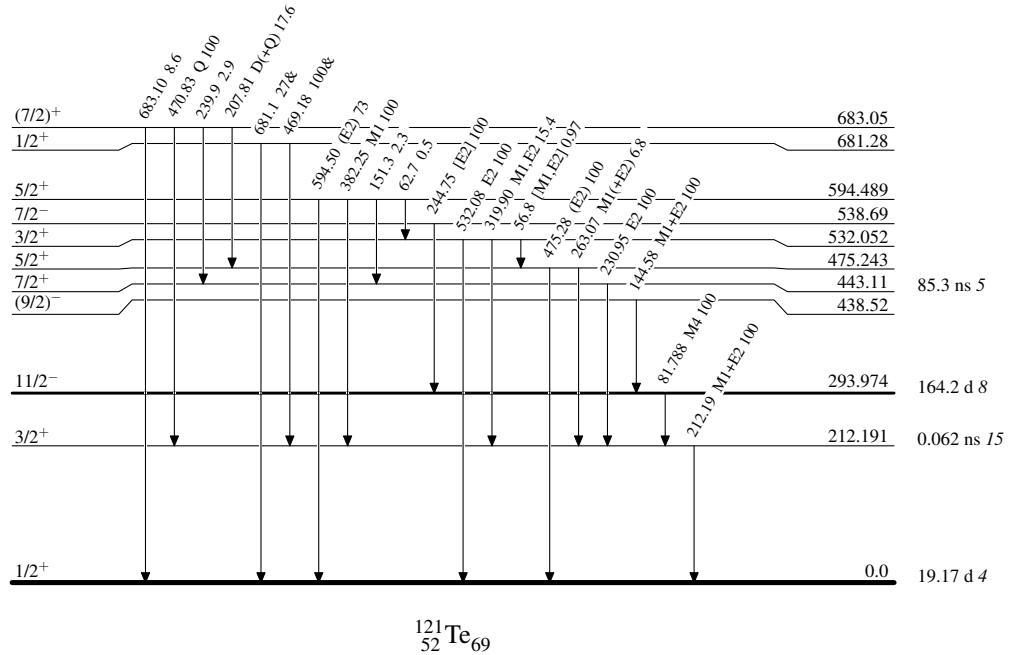
Level Scheme (continued)

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

-----▶ γ Decay (Uncertain) $^{121}_{52}\text{Te}_{69}$

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

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

 $^{121}_{52}\text{Te}_{69}$

Adopted Levels, Gammas**Band(A): γ vibrational
band on $1h_{11/2}$** (27/2⁻) 4188.0

764

(23/2⁻) 3423.8

570

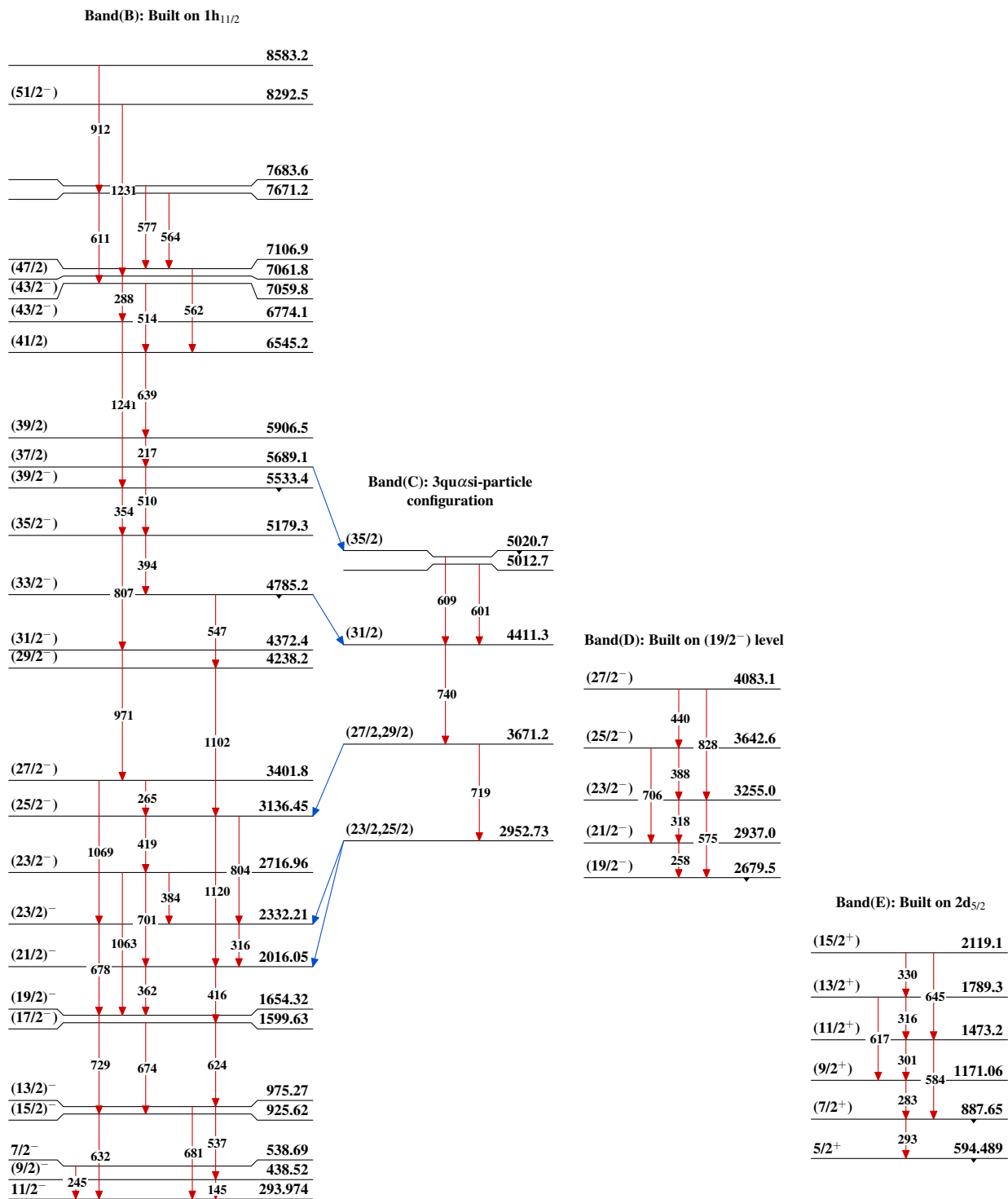
(19/2⁻) 2854.1

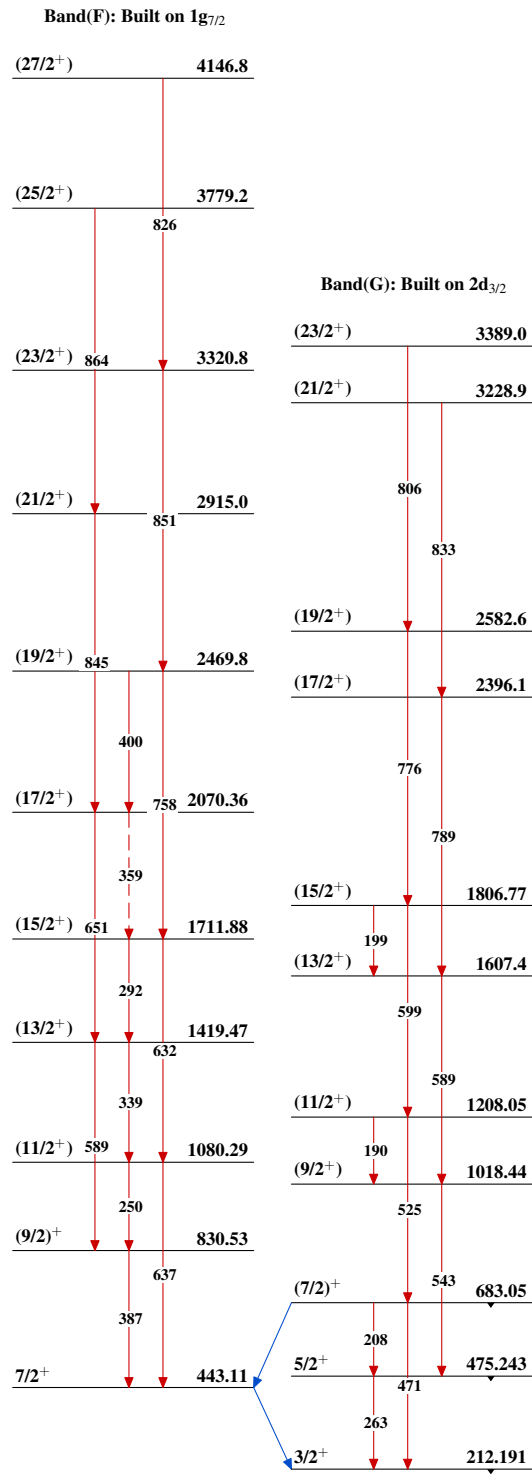
860

(15/2⁻) 1994.0

817

(11/2⁻) 1177.44 $^{121}_{52}\text{Te}_{69}$

Adopted Levels, Gammas (continued)

Adopted Levels, Gammas (continued) $^{121}_{52}\text{Te}_{69}$