

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 113,2391 (2012)	1-Sep-2012

$Q(\beta^-) = -5.72 \times 10^3$ 4; $S(n) = 8.25 \times 10^3$ 4; $S(p) = 4.86 \times 10^3$ 4; $Q(\alpha) = 1.45 \times 10^3$ 3 [2012Wa38](#)

Note: Current evaluation has used the following Q record -5720 40 8250 404860 401450 30 [2011AuZZ](#).

 ^{115}Te LevelsCross Reference (XREF) Flags

A	^{115}Te IT decay (7.5 μs)	D	^{115}Te IT decay (6.7 min)
B	^{115}I β^+ decay (1.3 min)	E	(HI,xn γ)
C	$^{114}\text{Sn}(^3\text{He}, 2n\gamma)$		

E(level) [‡]	J π [†]	T _{1/2}	XREF	Comments
0.0 ^e	7/2 ⁺	5.8 min 2	ABC E	$\% \epsilon + \% \beta^+ = 100$ T _{1/2} : av: 5.7 min 2 (1976Wi11), 5.76 min 9 (1976CoYV), 6.0 min 2 (1974Ch51 , 1965Re01), 6.0 min 1 (1972Sh37). Other: 6.0 min 5 (1960Se04). J π : log ft $\approx$ 6.7 to 5/2 ⁺ ; log ft $\approx$ 5.1 to 9/2 ⁺ . $\% \epsilon + \% \beta^+ \leq 100$; %IT=? %IT: for B(M3)(W.u.) $\approx$ 0.028 (see ^{113}Sn), %IT $\leq$ 0.06 for E γ = 2.2 increasing to $\leq$ 2.5 for E γ = 18. T _{1/2} : from 1976Wi11 , 770 γ decay curve. Other: 7.5 min 3 (1974Ch51). E(level): M3 isomeric transition not observed in ce spectra; E γ (M3) < 20 keV inferred by 1974Ch51 . J π : log ft $\approx$ 5.4 to 1/2 ⁺ .
280.05 ^b 20	11/2 ⁻	7.5 μs 2	ABC E	%IT = 100 $\mu = -0.954$ 5 (1989Ra17); Q = 0.8 (1982Io01) μ : Other: -1.02 4 (1989Ra17). For near-constant μ values of 11/2 ⁻ isomers in heavier odd-mass telluriums, see 1989Ra17 . Q: estimated. T _{1/2} : 7.5 μs 2 (1972Va38) 280 γ (t) pulsed beam. Others: 6.3 μs 3 (1972Br38), 10 μs (1974MiZW). J π : M2 deexcitation to 7/2 ⁺ g.s.; B(M2)(W.u.) syst; h11/2 isomerism in ^{117}Te , ^{119}Te occurs at $\approx$ 300 keV.
761.1 3	(9/2 ⁻)		E	
871.8 ^e 3	11/2 ⁺		E	
930.59 ^b 24	15/2 ⁻		C E	
1144.6 3	13/2 ⁻		E	
1272.1 3	(13/2 ⁻)		C E	
1653.7 ^b 3	19/2 ⁻		C E	
1750.0 ^e 4	15/2 ⁺		E	
1834.0 3	17/2 ⁻		C E	
2000.7 4			C	
2224.0 [#] 4	(17/2 ⁻)		E	
2286.9 ^b 3	23/2 ⁻		C E	
2466.5 ^e 4	19/2 ⁺		E	
2517.0 3	21/2 ⁻		E	
2639.3 ^a 4	23/2 ⁻		C E	
2834.3 [#] 4	(21/2 ⁻)		E	
3193.1 ^c 3	23/2 ⁺		E	
3208.6 ^e 5	23/2 ⁺		E	

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Adopted Levels, Gammas (continued) ^{115}Te Levels (continued)

E(level) [‡]	J ^π [†]	XREF	E(level) [‡]	J ^π [†]	XREF	E(level) [‡]	J ^π [†]	XREF
3326.0 [@] 4	27/2 ⁻	E	4794.0 6		E	7361.0 ^{&} 13	(43/2 ⁻)	E
3331.3 ^b 4	25/2 ⁺	E	4829.4 ^b 4	31/2 ⁻	E	7426.4 6		E
3389.0 ^d 4	(23/2 ⁻)	E	5013.6 6		E	7547.4 5		E
3529.2 [#] 5	(25/2 ⁻)	E	5069.0 [#] 5	(33/2 ⁻)	E	7703.4 ^b 5	45/2 ⁺	E
3600.4 ^a 4	(27/2 ⁻)	E	5102.5 ^c 4	35/2 ⁺	E	7799.4 8		E
3663.6 7	27/2 ⁽⁻⁾	E	5149.5 ^d 14	(31/2 ⁻)	E	7813.5 8	(45/2 ⁺)	E
3675.3 ^c 4	27/2 ⁺	E	5252.3 ^b 4	35/2 ⁻	E	7855.2 [#] 11	(45/2 ⁻)	E
3683.4 4	27/2 ⁽⁻⁾	E	5317.6 [@] 8	35/2 ⁻	E	8101.5 6		E
3772.9 4	27/2 ⁽⁺⁾	E	5441.4 ^a 7		E	8165.6 ^d 18	(43/2 ⁻)	E
3785.1 4	(29/2)	E	5511.0 ^b 5	37/2 ⁺	E	8439.3 ^{&} 14	(47/2 ⁻)	E
3946.2 ^e 6	27/2 ⁺	E	5661.2 ^e 7	(35/2 ⁺)	E	8464.0 ^b 7	47/2 ⁺	E
4122.9 5	29/2	E	5911.1 [#] 7	(37/2 ⁻)	E	9351.4 ^d 20	(47/2 ⁻)	E
4245.5 ^d 7	(27/2 ⁻)	E	5938.3 ^c 4	(37/2)	E	9562.4 ^{&} 15	(51/2 ⁻)	E
4289.5 ^c 4	(31/2 ⁺)		6070.9 ^d 15	(35/2 ⁻)	E	10585.8 ^d 22	(51/2 ⁻)	E
4289.7 [#] 4	(29/2 ⁻)	E	6233.9 [@] 8	39/2 ⁻	E	10765.2 ^{&} 20	(55/2 ⁻)	E
4318.5 [@] 4	31/2 ⁻	E	6320.0 ^{&} 10	(39/2 ⁻)	E	11881.0 ^d 24	(55/2 ⁻)	E
4370.8 ^b 4	29/2 ⁺	E	6614.8 ^b 5	41/2 ⁺	E	12022.0 ^{&} 22	(59/2 ⁻)	E
4387.1 4	(31/2 ⁺)	E	6624.4 5		E	13286 ^d 3	(59/2 ⁻)	E
4500.0 5	(31/2 ⁻)	E	6837.6 [#] 8	(41/2 ⁻)	E	14783 ^d 3	(63/2 ⁻)	E
4571.6 ^a 5	(29/2)	E	7067.0 ^d 18	(39/2 ⁻)	E			
4766.2 ^e 7	(31/2 ⁺)	E	7216.3 [@] 11	(43/2 ⁻)	E			

[†] J^π without comments are based on rotational band structure, on γ mult and decay patterns.

[‡] From least-squares fit to γ energies.

Band(A): band 1.

@ Band(B): band 2.

& Band(C): band 3.

^a Band(D): band 4.

^b Band(E): Sequence 5.

^c Band(F): band 6.

^d Band(G): band 7.

^e Band(H): Sequence 8. Built on g.s. Proposed by 1997Mo02 but not confirmed in 1998Se05.

 $\gamma(^{115}\text{Te})$

E _i (level)	J _i ^π	E _γ	I _γ	E _f	J _f ^π	Mult. [†]	α [‡]
280.05	11/2 ⁻	280.1 2	100	0.0	7/2 ⁺	M2	0.188
761.1	(9/2 ⁻)	481.0 2		280.05	11/2 ⁻		
871.8	11/2 ⁺	871.7 3	100	0.0	7/2 ⁺	E2	
930.59	15/2 ⁻	650.7 2	100	280.05	11/2 ⁻	E2	
1144.6	13/2 ⁻	864.5 3	100	280.05	11/2 ⁻		
1272.1	(13/2 ⁻)	341.6 3	100	930.59	15/2 ⁻		
		511.0 3	82	761.1	(9/2 ⁻)		
		992.0 3	<88	280.05	11/2 ⁻		
1653.7	19/2 ⁻	723.1 2	100	930.59	15/2 ⁻	E2	
1750.0	15/2 ⁺	878.1 3	100	871.8	11/2 ⁺	E2	
1834.0	17/2 ⁻	180.3 3	20.5	1653.7	19/2 ⁻		
		561.8 3	23.5	1272.1	(13/2 ⁻)		

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Adopted Levels, Gammas (continued) $\gamma(^{115}\text{Te})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult. [†]	$\delta^\dagger$
1834.0	17/2 ⁻	689.3 3	38.2	1144.6	13/2 ⁻		
		903.6 2	100	930.59	15/2 ⁻	M1,E2	
2000.7		1070.1 2	100	930.59	15/2 ⁻	D	
2224.0	(17/2 ⁻)	1293.5 3	100	930.59	15/2 ⁻		
2286.9	23/2 ⁻	633.1 2	100	1653.7	19/2 ⁻	E2	
2466.5	19/2 ⁺	716.3 3	100	1750.0	15/2 ⁺	E2	
2517.0	21/2 ⁻	230.2 3	37	2286.9	23/2 ⁻	M1,E2	
		683.1 3	100	1834.0	17/2 ⁻	E2	
		863.4 3	34.7	1653.7	19/2 ⁻		
2639.3	23/2 ⁻	352.5 3	36.6	2286.9	23/2 ⁻	M1,E2	
		985.7 3	100	1653.7	19/2 ⁻	E2	
2834.3	(21/2 ⁻)	610.4 3	100 15	2224.0	(17/2 ⁻)	(E2)	
		1180.5 3	75 25	1653.7	19/2 ⁻	(M1,E2)	
3193.1	23/2 ⁺	676.2 2	100 10	2517.0	21/2 ⁻	E1	
		726.5 3	39.3	2466.5	19/2 ⁺		
		906.1 3	60.6 25	2286.9	23/2 ⁻	E1	
3208.6	23/2 ⁺	742.1 3	100	2466.5	19/2 ⁺	E2	
3326.0	27/2 ⁻	686.7 2	61 4	2639.3	23/2 ⁻	E2	
		1039.3 3	100 10	2286.9	23/2 ⁻	E2	
3331.3	25/2 ⁺	1044.1 2	100	2286.9	23/2 ⁻	E1	
3389.0	(23/2 ⁻)	872.0 2	100	2517.0	21/2 ⁻	(M1,E2)	
3529.2	(25/2 ⁻)	694.9 7	100	2834.3	(21/2 ⁻)	(E2)	
		1241.3 10	100	2286.9	23/2 ⁻	(M1,E2)	
3600.4	(27/2 ⁻)	961.2 2	100	2639.3	23/2 ⁻	(E2)	
3663.6	27/2 ⁽⁻⁾	337.9 12	100	3326.0	27/2 ⁻		
3675.3	27/2 ⁺	344.0 2	100 5	3331.3	25/2 ⁺	M1,E2	
		482.3 2	80 5	3193.1	23/2 ⁺	E2	
3683.4	27/2 ⁽⁻⁾	1044.0 3	100	2639.3	23/2 ⁻		
3772.9	27/2 ⁽⁺⁾	579.8 3	100	3193.1	23/2 ⁺		
3785.1	(29/2)	109.8 2	75 30	3675.3	27/2 ⁺		
		185.2 4	100 9	3600.4	(27/2 ⁻)		
3946.2	27/2 ⁺	737.6 3	100	3208.6	23/2 ⁺	(E2)	
4122.9	29/2	791.8 10	100	3331.3	25/2 ⁺	E2	
4245.5	(27/2 ⁻)	856.5 5	100	3389.0	(23/2 ⁻)	(E2)	
4289.5	(31/2 ⁺)	614.2 3	100 5	3675.3	27/2 ⁺		
4289.7	(29/2 ⁻)	760.3 4	100 5	3529.2	(25/2 ⁻)	(E2)	
		964.0 3	10	3326.0	27/2 ⁻		
4318.5	31/2 ⁻	992.5 2	100	3326.0	27/2 ⁻	E2	
4370.8	29/2 ⁺	687.3 3	45	3683.4	27/2 ⁽⁻⁾		
		707.2 6	24 6	3663.6	27/2 ⁽⁻⁾		
		1039.3 2	100 10	3331.3	25/2 ⁺	E2	
4387.1	(31/2 ⁺)	97.5 2	100	4289.5	(31/2 ⁺)	(M1,E2)	
4500.0	(31/2 ⁻)	1174.0 3	100	3326.0	27/2 ⁻		
4571.6	(29/2)	971.2 3	100	3600.4	(27/2 ⁻)	D	
4766.2	(31/2 ⁺)	820.0 3	100	3946.2	27/2 ⁺		
4794.0		294.0 3	100	4500.0	(31/2 ⁻)		
4829.4	31/2 ⁻	458.4 2	100 5	4370.8	29/2 ⁺	E1+M2	0.006 +23-22
		706.5 3	75 4	4122.9	29/2	E1	
		1044.0 [#] 6	21 [#] 5	3785.1	(29/2)		
5013.6		442.0 3	100	4571.6	(29/2)		
5069.0	(33/2 ⁻)	778.7 4	100	4289.7	(29/2 ⁻)	(E2)	
5102.5	35/2 ⁺	715.5 2	58 6	4387.1	(31/2 ⁺)	(E2)	
		812.8 2	100 4	4289.5	(31/2 ⁺)	E2	
5149.5	(31/2 ⁻)	904.0 12	100	4245.5	(27/2 ⁻)	(E2)	
5252.3	35/2 ⁻	149.9 2	27 2	5102.5	35/2 ⁺	E1	

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Adopted Levels, Gammas (continued)

$\gamma(^{115}\text{Te})$ (continued)							
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult. [†]	$\delta^\dagger$
5252.3	35/2 ⁻	422.8 2	100 5	4829.4	31/2 ⁻	E2	
5317.6	35/2 ⁻	999.1 6	100	4318.5	31/2 ⁻	E2	
5441.4		869.8 5	100	4571.6	(29/2)		
5511.0	37/2 ⁺	258.7 2	100	5252.3	35/2 ⁻	E1+M2	-0.004 17
5661.2	(35/2 ⁺)	895.0 3	100	4766.2	(31/2 ⁺)		
5911.1	(37/2 ⁻)	842.1 4	100	5069.0	(33/2 ⁻)	(E2)	
5938.3	(37/2)	686.6 11	57 20	5252.3	35/2 ⁻	D	
		835.8 2	100 8	5102.5	35/2 ⁺	D	
6070.9	(35/2 ⁻)	921.4 6	100	5149.5	(31/2 ⁻)	(E2)	
6233.9	39/2 ⁻	916.3 2	100	5317.6	35/2 ⁻	E2	
6320.0	(39/2 ⁻)	1002.4 6	100	5317.6	35/2 ⁻	(E2)	
6614.8	41/2 ⁺	1103.8 2	100	5511.0	37/2 ⁺	E2	
6624.4		686.0 3	100	5938.3	(37/2)		
6837.6	(41/2 ⁻)	926.5 4	100	5911.1	(37/2 ⁻)	(E2)	
7067.0	(39/2 ⁻)	996.1 9	100	6070.9	(35/2 ⁻)	(E2)	
7216.3	(43/2 ⁻)	982.4 8	100	6233.9	39/2 ⁻	(E2)	
7361.0	(43/2 ⁻)	1041.0 8	100	6320.0	(39/2 ⁻)	(E2)	
7426.4		802.0 3	100	6624.4			
7547.4		932.6 2	100	6614.8	41/2 ⁺	E1	
7703.4	45/2 ⁺	1088.6 2	100	6614.8	41/2 ⁺	E2	
7799.4		961.8 3	100	6837.6	(41/2 ⁻)		
7813.5	(45/2 ⁺)	975.9 3	100	6837.6	(41/2 ⁻)		
7855.2	(45/2 ⁻)	1017.6 7	100	6837.6	(41/2 ⁻)	(E2)	
8101.5		554.1 2	100	7547.4		M1,E2	
8165.6	(43/2 ⁻)	1098.5 4	100	7067.0	(39/2 ⁻)	(E2)	
8439.3	(47/2 ⁻)	1078.3 6	100	7361.0	(43/2 ⁻)	(E2)	
8464.0	47/2 ⁺	760.6 5	100	7703.4	45/2 ⁺	M1,E2	
9351.4	(47/2 ⁻)	1185.8 9	100	8165.6	(43/2 ⁻)	(E2)	
9562.4	(51/2 ⁻)	1123.1 6	100	8439.3	(47/2 ⁻)	(E2)	
10585.8	(51/2 ⁻)	1234.4 8	100	9351.4	(47/2 ⁻)	(E2)	
10765.2	(55/2 ⁻)	1202.8 12	100	9562.4	(51/2 ⁻)	(E2)	
11881.0	(55/2 ⁻)	1295.2 10	100	10585.8	(51/2 ⁻)	(E2)	
12022.0	(59/2 ⁻)	1256.8 10	100	10765.2	(55/2 ⁻)	(E2)	
13286	(59/2 ⁻)	1404.8 10	100	11881.0	(55/2 ⁻)	(E2)	
14783	(63/2 ⁻)	1497.5 15	100	13286	(59/2 ⁻)	(E2)	

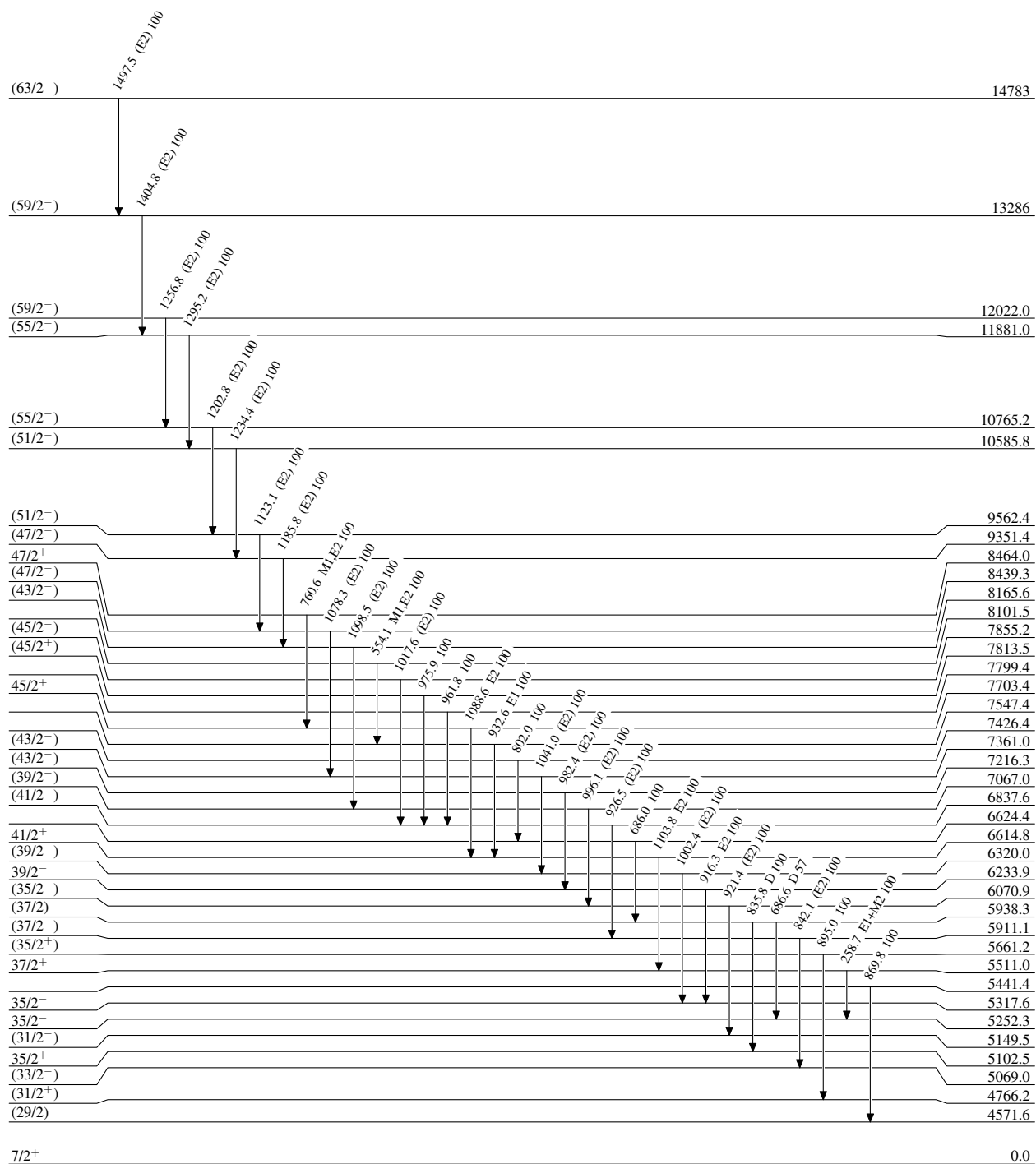
[†] From DCO ratios in (HI,xn γ).

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

Multiply placed with undivided intensity.

Adopted Levels, Gammas**Level Scheme**

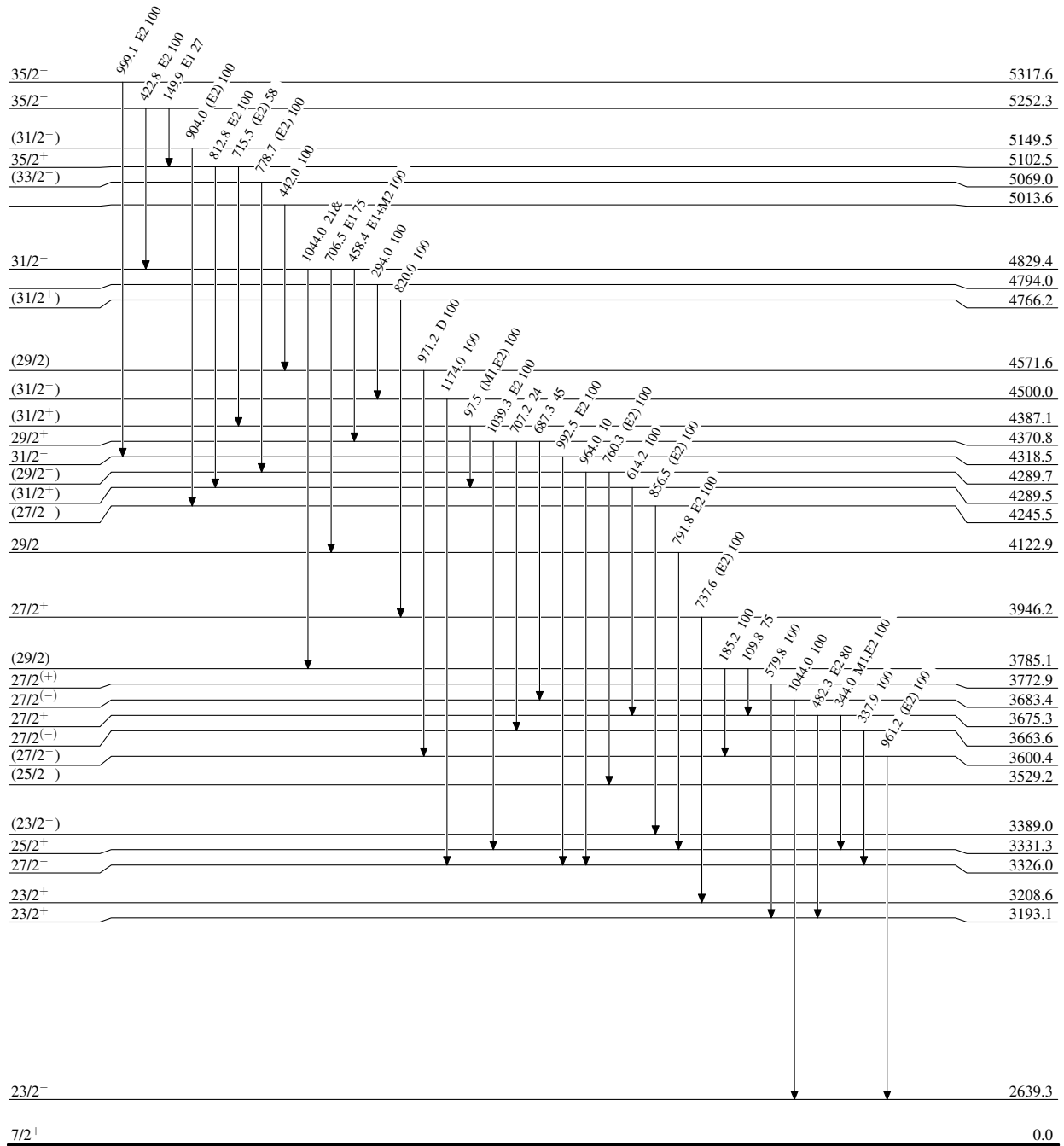
Intensities: Relative photon branching from each level



5.8 min 2

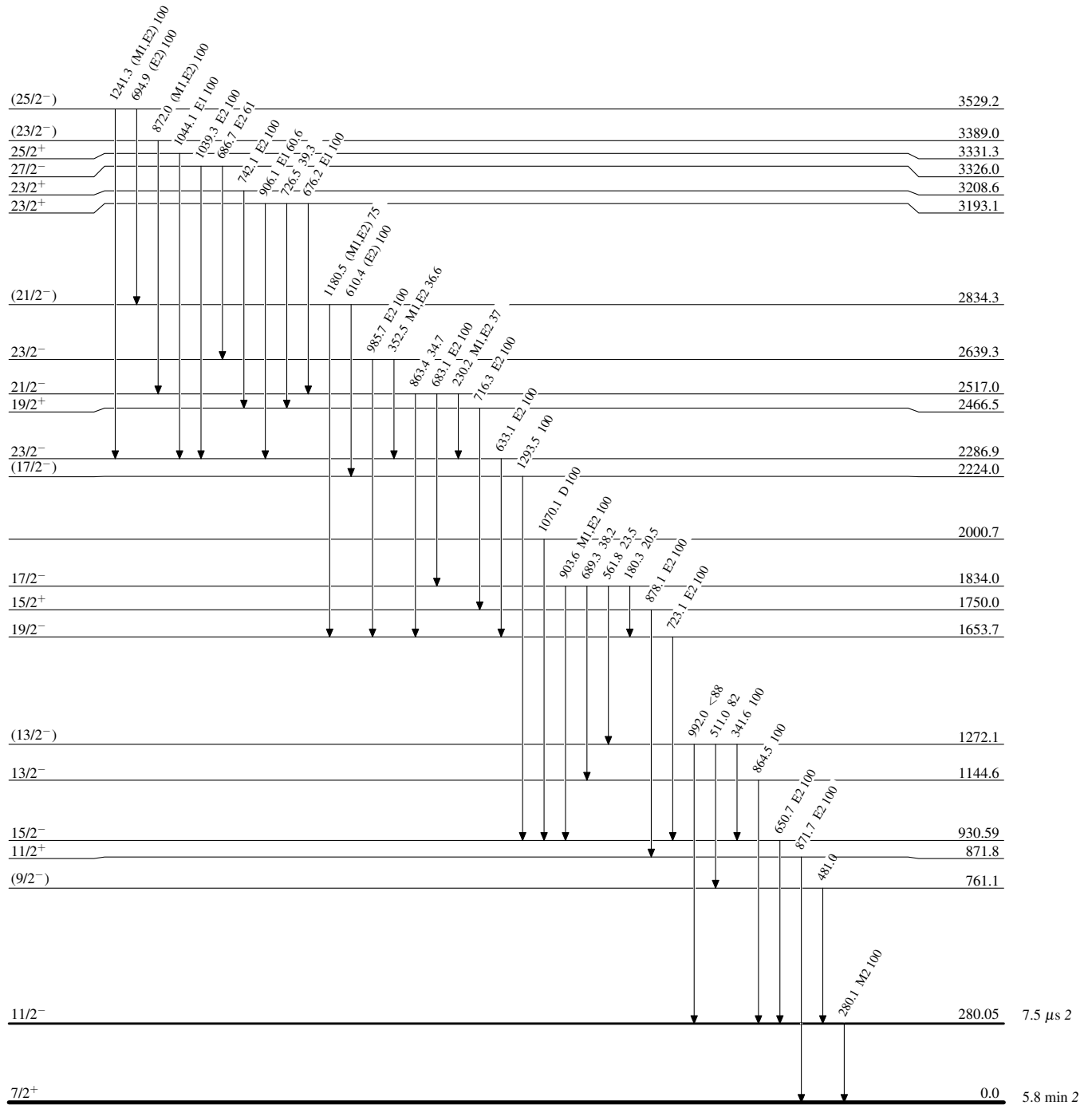
Adopted Levels, Gammas**Level Scheme (continued)**

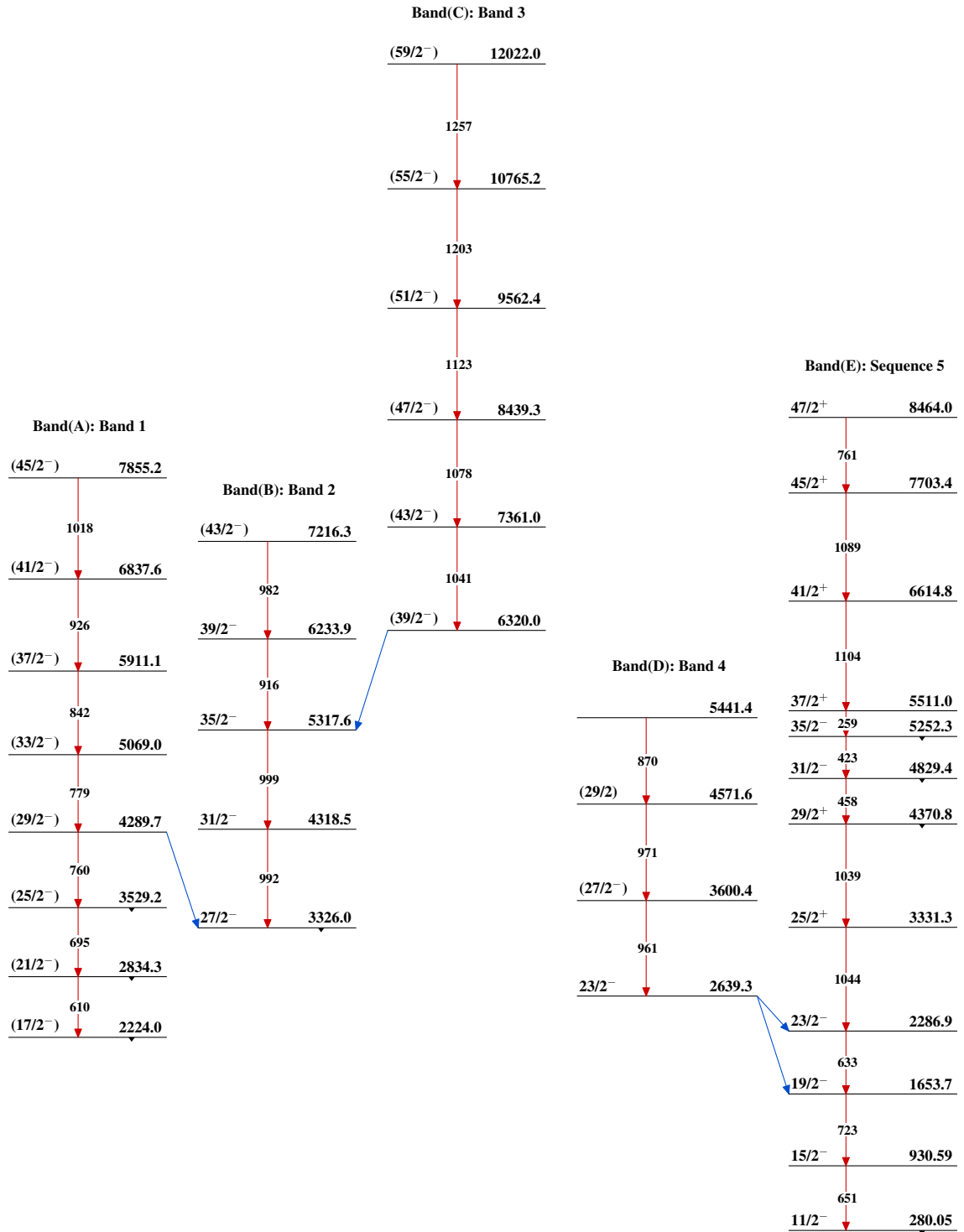
Intensities: Relative photon branching from each level
& Multiplied placed: undivided intensity given



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

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



Adopted Levels, Gammas

Adopted Levels, Gammas (continued)

Band(G): Band 7		
<u>(63/2⁻)</u>	<u>14783</u>	
	1498	
<u>(59/2⁻)</u>	<u>13286</u>	
	1405	
<u>(55/2⁻)</u>	<u>11881.0</u>	
	1295	
<u>(51/2⁻)</u>	<u>10585.8</u>	
	1234	
<u>(47/2⁻)</u>	<u>9351.4</u>	
	1186	
<u>(43/2⁻)</u>	<u>8165.6</u>	
	1098	
<u>(39/2⁻)</u>	<u>7067.0</u>	
	996	
<u>(35/2⁻)</u>	<u>6070.9</u>	
	921	
<u>(31/2⁻)</u>	<u>5149.5</u>	
	904	
<u>(27/2⁻)</u>	<u>4245.5</u>	
	856	
<u>(23/2⁻)</u>	<u>3389.0</u>	
Band(F): Band 6		
<u>(37/2)</u>	<u>5938.3</u>	
	836	
<u>35/2⁺</u>	<u>5102.5</u>	
	813	
<u>(31/2⁺)</u>	<u>4289.5</u>	
	614	
<u>27/2⁺</u>	<u>3675.3</u>	
	482	
<u>23/2⁺</u>	<u>3193.1</u>	
Band(H): Sequence 8		
<u>(35/2⁺)</u>	<u>5661.2</u>	
	895	
<u>(31/2⁺)</u>	<u>4766.2</u>	
	820	
<u>27/2⁺</u>	<u>3946.2</u>	
	738	
<u>23/2⁺</u>	<u>3208.6</u>	
	742	
<u>19/2⁺</u>	<u>2466.5</u>	
	716	
<u>15/2⁺</u>	<u>1750.0</u>	
	878	
<u>11/2⁺</u>	<u>871.8</u>	
	872	
<u>7/2⁺</u>	<u>0.0</u>	