

Adopted Levels, Gammas

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	Jean Blachot	ENSDF	1-Jul-2008

Q(β^-)=7739 12; S(n)=5244 12; S(p)=10652 13; Q(α)=-6520 10 2012Wa38

Note: Current evaluation has used the following Q record.

Q(β^-)=7.72×10³ 5; S(n)=4.92×10³ 20; S(p)=1.030×10⁴ 21; Q(α)=-6.15×10³ 16 2003Au03

¹⁰⁸Tc Levels

Cross Reference (XREF) Flags

- A ¹⁰⁸Mo β^- decay
- B ²⁵²Cf SF decay

E(level)	J ^{π}	T _{1/2}	XREF	Comments
0.0	(2) ⁺	5.17 s 7	AB	% β^- =100 J ^{π} : M1+E2 γ from 1 ⁺ , log ft=6.2 to 2 ⁺ . Probable β^- branch to (3 ⁺). T _{1/2} : from 1970WiZN. Others: 5.0 s 2 (1972Tr08), 5 s 1 (1980Su01).
0.0+x [†]			B	
27.99 10	(2,3) ⁺		A	J ^{π} : M1 γ to (2) ⁺ , no significant β^- feeding from 0 ⁺ .
67.78 8	(2,3) ⁺		A	J ^{π} : M1 γ to (2) ⁺ , no significant β^- feeding from 0 ⁺ .
86.38 7	1 ⁺		AB	J ^{π} : log ft=4.87 from 0 ⁺ parent.
106.18 9	(1) ⁺		AB	J ^{π} : M1 γ to (2) ⁺ , log ft=6.0 from 0 ⁺ parent, but feeding is weak.
176.6+x [†] 7		28 ns 4	B	T _{1/2} : from 1998Hw04.
268.26 7	0 ⁺ ,1 ⁺ ,2 ⁺		A	J ^{π} : M1 γ from 1 ⁺ .
293.2+x [‡] 13			B	
326.91 12	1 ⁺		A	J ^{π} : log ft=5.0 from 0 ⁺ parent.
330.6+x [†] 13			B	
334.03 11	1 ⁺		A	J ^{π} : log ft=5.1 from 0 ⁺ parent.
340.38 7	0 ⁺ ,1 ⁺ ,2 ⁺		A	J ^{π} : M1 γ from 1 ⁺ .
413.1+x [‡] 16			B	
454.0+x [#] 16			B	
458.76 7	1 ⁺		A	J ^{π} : log ft=4.6 from 0 ⁺ parent.
563.78 9	1 ⁺		A	J ^{π} : log ft=5.0 from 0 ⁺ parent.
568.6+x [‡] 18			B	
579.7+x [@] 18			B	
734.0+x [#] 18			B	
773.1+x [‡] 18			B	
904.10 16	(1 ⁺)		A	J ^{π} : log ft=5.2 from 0 ⁺ parent, but feeding is weak.
921.3+x [@] 19			B	
1145.2+x [#] 19			B	
1457.9+x [@] 20			B	
1676.3+x [#] 21			B	
2058.9+x [@] 22			B	
2359.0+x [#] 23			B	

[†] Band(A): Band #1.

[‡] Band(B): Band #2.

Adopted Levels, Gammas (continued) ^{108}Tc Levels (continued)

Band(C): Band #3a.

@ Band(D): Band #3b.

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	δ	α^\dagger
27.99	(2,3) ⁺	28.0 2	100	0.0	(2) ⁺	M1		11.2
67.78	(2,3) ⁺	67.8 1	100	0.0	(2) ⁺	M1		0.85
86.38	1 ⁺	58.4 1	52 17	27.99	(2,3) ⁺	E2		8.7
		86.4 1	100 16	0.0	(2) ⁺	M1+E2	0.54 14	0.18 16
106.18	(1) ⁺	106.2 1	100	0.0	(2) ⁺	M1		0.238
176.6+x		70.4						
		90.4						
		176.6		0.0+x				
268.26	0 ⁺ ,1 ⁺ ,2 ⁺	161.8 3	3.8 11	106.18	(1) ⁺			
		268.3 1	100 15	0.0	(2) ⁺			
293.2+x		116.6		176.6+x				
326.91	1 ⁺	240.5 1	100 15	86.38	1 ⁺			
		299.6 5	7 3	27.99	(2,3) ⁺			
		327		0.0	(2) ⁺			
330.6+x		154.0	100	176.6+x				
334.03	1 ⁺	65.7 1	100 23	268.26	0 ⁺ ,1 ⁺ ,2 ⁺	M1		0.93
		228.2 3	23 6	106.18	(1) ⁺			
		334.6 4	15 5	0.0	(2) ⁺			
340.38	0 ⁺ ,1 ⁺ ,2 ⁺	234.3 3	WEAK	106.18	(1) ⁺			
		254.2 3	17 5	86.38	1 ⁺			
		312.2 2	39 9	27.99	(2,3) ⁺			
		340.3 1	100 17	0.0	(2) ⁺			
413.1+x		119.9		293.2+x				
454.0+x		123.4	100	330.6+x				
458.76	1 ⁺	118.4 1	26 5	340.38	0 ⁺ ,1 ⁺ ,2 ⁺	M1		0.175
		190.5 1	64 13	268.26	0 ⁺ ,1 ⁺ ,2 ⁺	[M1]		0.0483
		372.4 1	100 17	86.38	1 ⁺			
		391.0 1	67 13	67.78	(2,3) ⁺			
		430.8 4	8 3	27.99	(2,3) ⁺			
		458.5 2	19 4	0.0	(2) ⁺			
563.78	1 ⁺	223.3 1	78 14	340.38	0 ⁺ ,1 ⁺ ,2 ⁺			
		295.6 1	100 19	268.26	0 ⁺ ,1 ⁺ ,2 ⁺			
		477.5 2	98 18	86.38	1 ⁺			
		535.8 4	30 10	27.99	(2,3) ⁺			
568.6+x		155.5		413.1+x				
579.7+x		125.7	100	454.0+x				
734.0+x		154.2	100	579.7+x				
		280.0	62	454.0+x				
773.1+x		204.5		568.6+x				
		360.0		413.1+x				
904.10	(1 ⁺)	570.1 2	80 18	334.03	1 ⁺			
		635.8 2	100 20	268.26	0 ⁺ ,1 ⁺ ,2 ⁺			
921.3+x		187.5	100	734.0+x				
		341.6	35	579.7+x				
1145.2+x		224.1	100	921.3+x				
		410.9	64	734.0+x				
1457.9+x		312.7	100	1145.2+x				
		536.7	92	921.3+x				
1676.3+x		218.5	100	1457.9+x				
		531.0	90	1145.2+x				

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

 $\gamma(^{108}\text{Tc})$ (continued)

<u>$E_i(\text{level})$</u>	<u>E_γ</u>	<u>I_γ</u>	<u>E_f</u>
2058.9+x	601.0	100	1457.9+x
2359.0+x	682.7	100	1676.3+x

† 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.

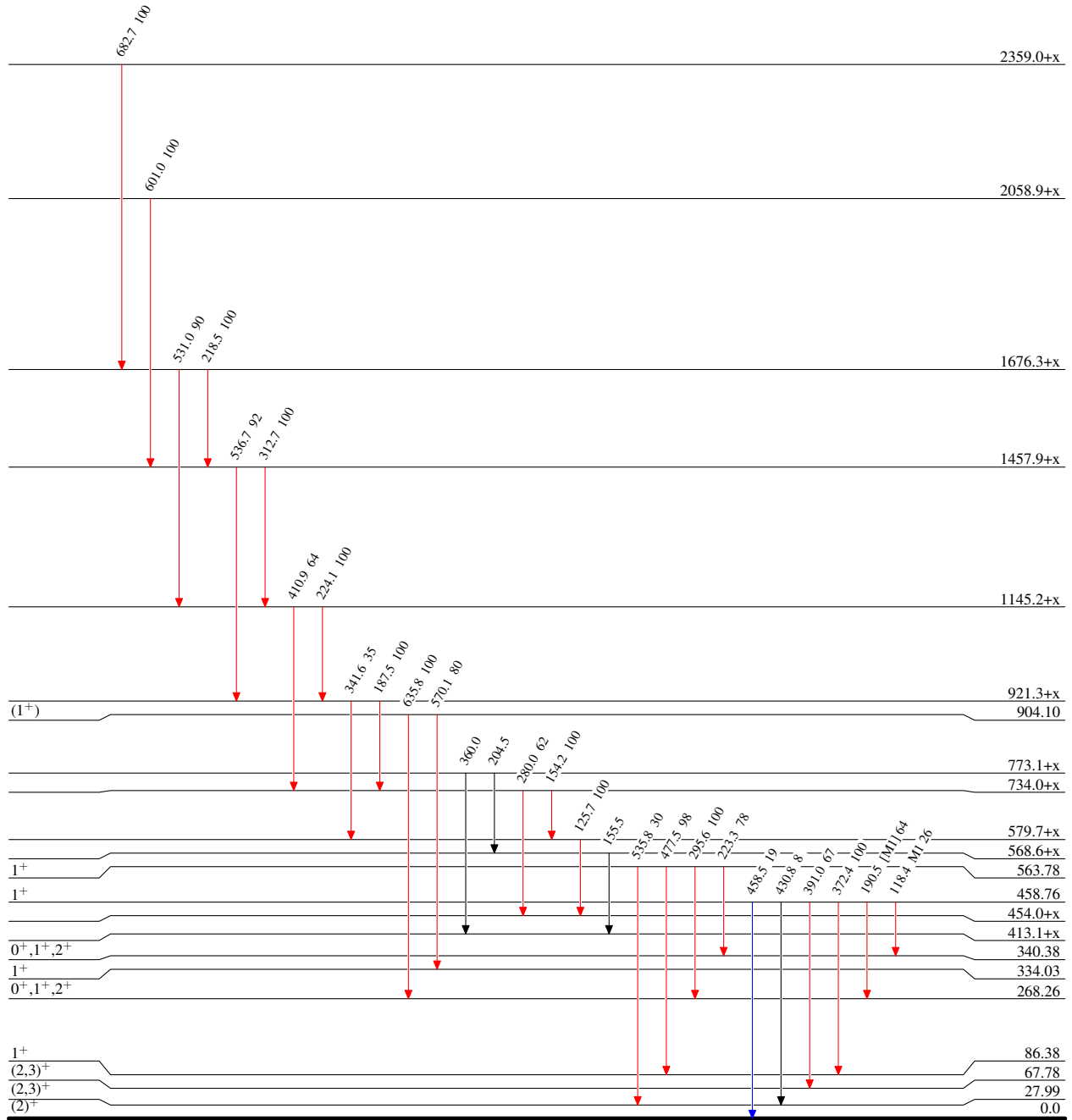
Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

Legend

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$



5.17 s 7

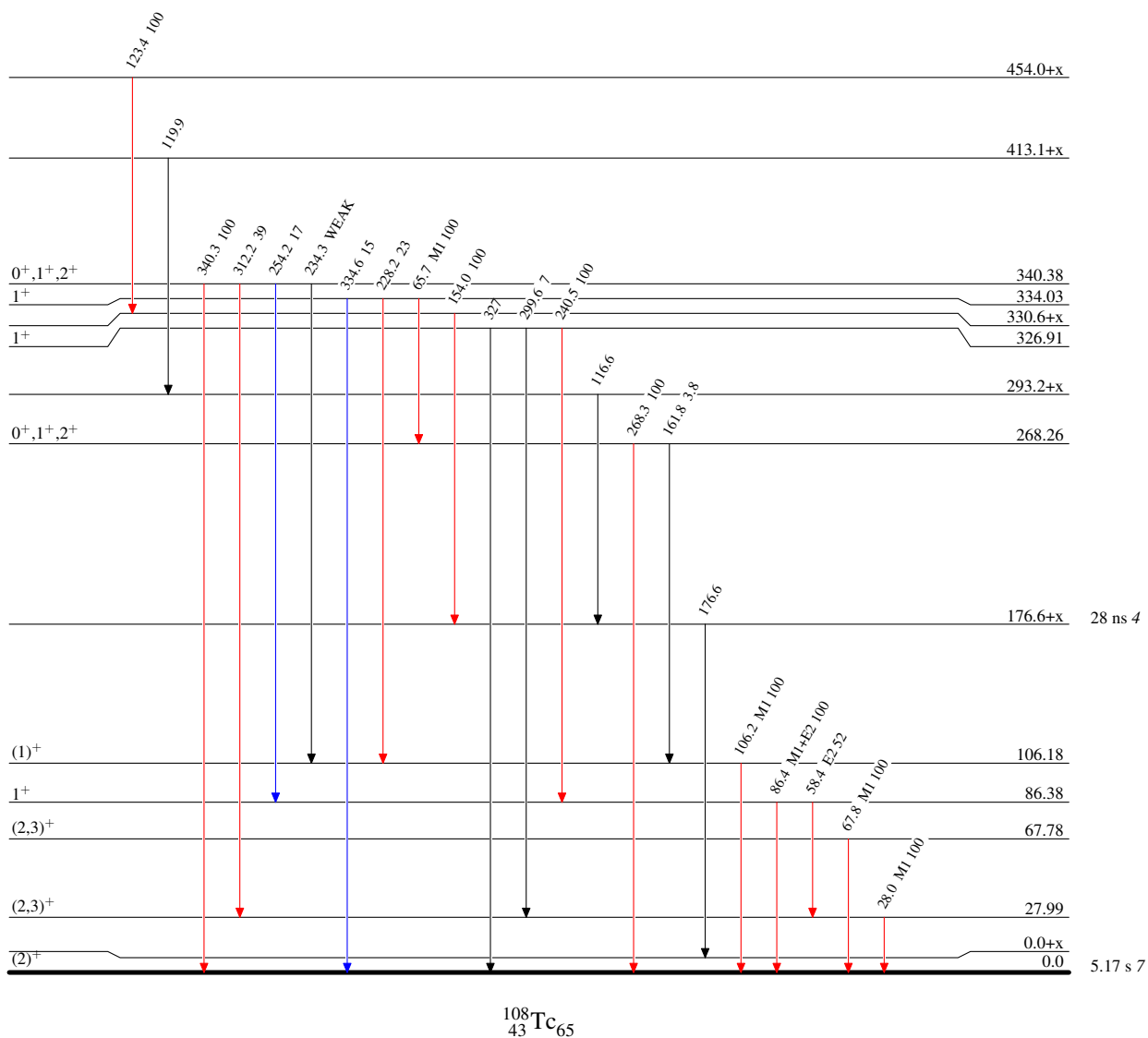
$^{108}_{43}\text{Tc}_{65}$

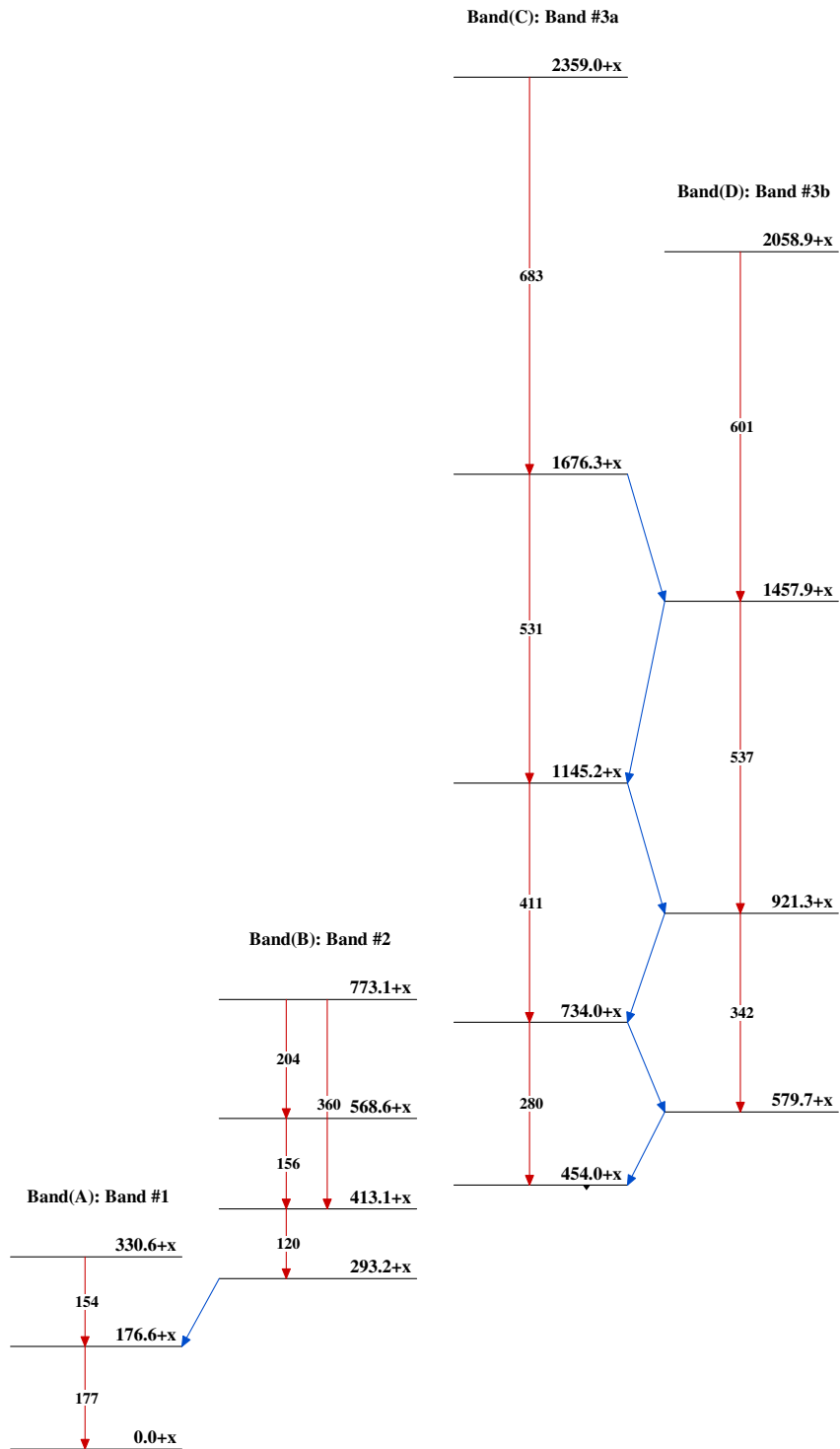
Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Type not specified

Legend

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$

 $^{108}_{43}\text{Tc}_{65}$

Adopted Levels, Gammas $^{108}_{43}\text{Tc}_{65}$