

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 114, 1041 (2013)	1-Mar-2012

Q(β^-)=-4217 SY; S(n)=6584 I2; S(p)=3440 SY; Q(α)=8414 4 2012Wa38
 Estimated $\Delta Q(\beta^-)$ =202, $\Delta S(p)$ =131 (2012Wa38).

Calculations, compilations:

g.s. properties: 1997Mo25, 1995Mo29, 2005Pa73.

Favored α decays: 1992Bu03.

Single-particle Nilsson levels: 1994Cw02, 2005Pa73.

1994Cw02 have calculated the following single-particle level sequence: g.s., 9/2[734]; 0.24 MeV, 7/2[624]; 0.41 MeV, 5/2[622]; 0.67 MeV, 1/2[620]; 0.80 MeV, 3/2[622]; 0.95 MeV, 7/2[613]; 1.00 MeV, 11/2[725]; 1.50 MeV, 9/2[615].

2005Pa73 have calculated the following single-particle level sequence: g.s., 9/2[734]; 0.20 MeV, 7/2[624]; 0.32 MeV, 5/2[622]; 0.66 MeV, 1/2[620]; 0.71 MeV, 1/2[501].

²⁵³No Levels

Cross Reference (XREF) Flags

A	²⁵⁷ Rf α decay (4.4 s)	D	²⁵³ No IT decay (706 μ s)
B	²⁵⁷ Rf α decay (4.1 s)	E	²⁵³ No IT decay (627 μ s)
C	²⁰⁷ Pb(⁴⁸ Ca,2n γ)		

E(level) ^b	J ^{π} ^{†‡}	T _{1/2}	XREF	Comments
0 [#]	(9/2 ⁻)	1.62 min 15	ABCDE	$\% \alpha = 55.3$; $\% \epsilon + \% \beta^+ = 45.3$ (2011An13) $\% \alpha$: other: $\% \alpha = 47.8$, $\% \epsilon + \beta^+ = 53.8$ (2009Qi04). $\% \alpha$: only α decay observed. $\% \epsilon$: from $\log ft \approx 6$, T _{1/2} (ϵ) \approx 10 min. J ^{π} : from analogy with N=151 nuclei (²⁴⁵ Pu, ²⁴⁷ Cm, ²⁴⁹ Cf, ²⁵¹ Fm). Tentative configuration= 9/2[734] (2004He23, 2002He24, 2002Bu04, 2001Du02, 2004He28). T _{1/2} : weighted average of 95 s 10 (1967Mi03) and 105 s 20 (1967Gh01, 1971GhZV).
64.0 [@] 10	(11/2 ⁻)		BCD	
132.8 [#] 16	(13/2 ⁻)		CD	
167.5 5	5/2 ⁺	31.1 μ s 21	A CDE	T _{1/2} : from 2007Lo11. Other value: 31.3 μ s 41 (2010St14). J ^{π} : Configuration=(ν 5/2[622]) (2007Lo11).
220.0 [@] 15	(15/2 ⁻)		CD	
258.2 12			A	
317.5 [#] 16	(17/2 ⁻)		CD	
427.7 [@] 16	(19/2 ⁻)		CD	
450.9 12	(1/2 ⁺)		A	
551.2 [#] 17	(21/2 ⁻)		CD	
670	(1/2 ⁺)		A	1/2[620] state.
686.7 [@] 18	(23/2 ⁻)		CD	
834.2 [#] 18	(25/2 ⁻)		C	
934.5 ^{&} 15	(15/2 ⁻)		D	
994.2 [@] 19	(27/2 ⁻)		C	
1022.6 ^a 16	(17/2 ⁻)		D	
1122.0 ^{&} 16	(19/2 ⁻)		D	
1165.2 [#] 19	(29/2 ⁻)		C	

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Adopted Levels, Gammas (continued)

²⁵³No Levels (continued)

E(level) ^b	J ^π †‡	T _{1/2}	XREF	Comments
1232.1 ^a 16	(21/2 ⁻)		D	
1346.7 [@] 20	(31/2 ⁻)		C	
1352.0 ^{&} 18	(23/2 ⁻)		D	
1541.7 [#] 20	(33/2 ⁻)		C	
1744.7 [@] 21	(35/2 ⁻)		C	
1962.7 [#] 21	(37/2 ⁻)		C	
2184.7 [@] 22	(39/2 ⁻)		C	
2423.7 [#] 23	(41/2 ⁻)		C	
2665.7 [@] 23	(43/2 ⁻)		C	
2925.7 [#] 25	(45/2 ⁻)		C	
3183? [@]	(47/2 ⁻)		C	
3465? [#]	(49/2 ⁻)		C	
0+x	(19/2 ⁺)	706 μs 24	CD	Additional information 1. T _{1/2} : from (ER)(α) correlated events and mult-component fitting procedure of the decay curve (2011Lo06). This half-life either may be from one isomer or a composite of two isomers, Other: 0.97 ms 21 (2007Lo11). J ^π : Possibly a high-K isomer with configuration= π9/2[624]⊗π1/2[521]⊗ν9/2[734].
1440+x		627 μs 5	E	T _{1/2} : From 2011An13. May be the same as the 0+x isomer.
0+y?	(25/2 ⁺)	?	D	Additional information 2. J ^π : Possibly a high-K isomer with configuration= π9/2[624]⊗π7/2[514]⊗ν9/2[734].

† For additional possible J^π and band assignments by 1997He29 see the ²⁵⁷Rf α decay (4.4 s) data set. These assignments have not been adopted here, because the α decay HF are not in agreement with the proposed orbitals.

‡ For 7/2⁺[624] bands J^π deduced from rotational model fit of spins and (kinetic and dynamic) moments of inertia (1999Re02).

Band(A): ν9/2[734], α=+1/2.

@ Band(a): ν9/2[734], α=-1/2.

& Band(B): K^π=15/2⁻ band, α=-1/2. Configuration=π7/2[514]⊗π1/2[521]⊗ν9/2[734]; from the analogy to neighboring ²⁵⁴No.

^a Band(b): K^π=15/2⁻ band, α=+1/2. Configuration=π7/2[514]⊗π1/2[521]⊗ν9/2[734]; from the analogy to neighboring ²⁵⁴No.

^b From least-squares fit to E_γ assuming ΔE_γ=1 keV.

γ(²⁵³No)

E _i (level)	J _i ^π	E _γ	I _γ	E _f	J _f ^π	Mult.	α [†]	Comments
64.0	(11/2 ⁻)	64		0	(9/2 ⁻)			
132.8?	(13/2 ⁻)	70 [#]		64.0	(11/2 ⁻)			
167.5	5/2 ⁺	132 [#]		0	(9/2 ⁻)	M2	51.1 9	α(K)=28.5 5; α(L)=16.3 3; α(M)=4.55 9; α(N+.)=1.74 4 α(N)=1.317 25; α(O)=0.353 7; α(P)=0.0660 13; α(Q)=0.00322 6 B(M2)(W.u.)=0.0036 3
220.0	(15/2 ⁻)	86 [#]		132.8?	(13/2 ⁻)	M1	20.1	α(L)=15.02 21; α(M)=3.73 6; α(N+.)=1.391 20 α(N)=1.051 15; α(O)=0.282 4; α(P)=0.0550 8; α(Q)=0.00296 5
		156	1.0×10 ² 3	64.0	(11/2 ⁻)	E2	4.33	α(K)=0.1077 15; α(L)=3.02 5; α(M)=0.875 13;

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Adopted Levels, Gammas (continued)

$\gamma(^{253}\text{No})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	α^\dagger	Comments
								$\alpha(\text{N+..})=0.326\ 5$ $\alpha(\text{N})=0.251\ 4; \alpha(\text{O})=0.0648\ 9; \alpha(\text{P})=0.01048\ 15;$ $\alpha(\text{Q})=6.02 \times 10^{-5}\ 9$
258.2		90.7		167.5	5/2 ⁺			
317.5	(17/2 ⁻)	98	1.0×10 ² 3	220.0	(15/2 ⁻)	M1	13.78	$\alpha(\text{L})=10.28\ 15; \alpha(\text{M})=2.55\ 4; \alpha(\text{N+..})=0.952\ 14$ $\alpha(\text{N})=0.719\ 10; \alpha(\text{O})=0.193\ 3; \alpha(\text{P})=0.0376\ 6;$ $\alpha(\text{Q})=0.00202\ 3$
		184	73 17	132.8?	(13/2 ⁻)	E2	2.19	$\alpha(\text{K})=0.1304\ 19; \alpha(\text{L})=1.473\ 21; \alpha(\text{M})=0.425\ 6;$ $\alpha(\text{N+..})=0.1585\ 23$ $\alpha(\text{N})=0.1219\ 17; \alpha(\text{O})=0.0315\ 5; \alpha(\text{P})=0.00513\ 8;$ $\alpha(\text{Q})=3.50 \times 10^{-5}\ 5$
427.7	(19/2 ⁻)	110	1.0×10 ² 4	317.5	(17/2 ⁻)	M1	9.86	$\alpha(\text{L})=7.35\ 11; \alpha(\text{M})=1.83\ 3; \alpha(\text{N+..})=0.681\ 10$ $\alpha(\text{N})=0.514\ 8; \alpha(\text{O})=0.1382\ 20; \alpha(\text{P})=0.0269\ 4;$ $\alpha(\text{Q})=0.001446\ 21$
		208	100 18	220.0	(15/2 ⁻)	E2	1.346	$\alpha(\text{K})=0.1272\ 18; \alpha(\text{L})=0.874\ 13; \alpha(\text{M})=0.251\ 4;$ $\alpha(\text{N+..})=0.0937\ 14$ $\alpha(\text{N})=0.0720\ 10; \alpha(\text{O})=0.0186\ 3; \alpha(\text{P})=0.00306\ 5;$ $\alpha(\text{Q})=2.39 \times 10^{-5}\ 4$
450.9	(1/2 ⁺)	283.4		167.5	5/2 ⁺	E2	0.438	$\alpha(\text{K})=0.0946\ 14; \alpha(\text{L})=0.247\ 4; \alpha(\text{M})=0.0703\ 10;$ $\alpha(\text{N+..})=0.0262\ 4$ $\alpha(\text{N})=0.0201\ 3; \alpha(\text{O})=0.00522\ 8; \alpha(\text{P})=0.000874\ 13;$ $\alpha(\text{Q})=9.88 \times 10^{-6}\ 14$
551.2	(21/2 ⁻)	123.5		427.7	(19/2 ⁻)	M1	7.06	$\alpha(\text{L})=5.27\ 8; \alpha(\text{M})=1.308\ 19; \alpha(\text{N+..})=0.487\ 7$ $\alpha(\text{N})=0.368\ 6; \alpha(\text{O})=0.0989\ 14; \alpha(\text{P})=0.0193\ 3;$ $\alpha(\text{Q})=0.001034\ 15$
		233.5	100 11	317.5	(17/2 ⁻)	E2	0.869	$\alpha(\text{K})=0.1169\ 17; \alpha(\text{L})=0.540\ 8; \alpha(\text{M})=0.1546\ 22;$ $\alpha(\text{N+..})=0.0577\ 8$ $\alpha(\text{N})=0.0443\ 7; \alpha(\text{O})=0.01147\ 16; \alpha(\text{P})=0.00190\ 3;$ $\alpha(\text{Q})=1.697 \times 10^{-5}\ 24$
686.7	(23/2 ⁻)	135.5	20 11	551.2	(21/2 ⁻)	M1	5.41	$\alpha(\text{L})=4.03\ 6; \alpha(\text{M})=1.002\ 14; \alpha(\text{N+..})=0.373\ 6$ $\alpha(\text{N})=0.282\ 4; \alpha(\text{O})=0.0757\ 11; \alpha(\text{P})=0.01474\ 21;$ $\alpha(\text{Q})=0.000791\ 11$
		259	100 20	427.7	(19/2 ⁻)	E2	0.598	$\alpha(\text{K})=0.1052\ 15; \alpha(\text{L})=0.354\ 5; \alpha(\text{M})=0.1010\ 15;$ $\alpha(\text{N+..})=0.0377\ 6$ $\alpha(\text{N})=0.0289\ 4; \alpha(\text{O})=0.00750\ 11;$ $\alpha(\text{P})=0.001247\ 18; \alpha(\text{Q})=1.264 \times 10^{-5}\ 18$
834.2	(25/2 ⁻)	147.5		686.7	(23/2 ⁻)	M1	4.24	$\alpha(\text{L})=3.16\ 5; \alpha(\text{M})=0.785\ 11; \alpha(\text{N+..})=0.292\ 4$ $\alpha(\text{N})=0.221\ 3; \alpha(\text{O})=0.0593\ 9; \alpha(\text{P})=0.01155\ 17;$ $\alpha(\text{Q})=0.000619\ 9$
		283	100 18	551.2	(21/2 ⁻)	E2	0.440	$\alpha(\text{K})=0.0947\ 14; \alpha(\text{L})=0.249\ 4; \alpha(\text{M})=0.0707\ 10;$ $\alpha(\text{N+..})=0.0264\ 4$ $\alpha(\text{N})=0.0202\ 3; \alpha(\text{O})=0.00525\ 8; \alpha(\text{P})=0.000878\ 13;$ $\alpha(\text{Q})=9.92 \times 10^{-6}\ 14$
934.5	(15/2 ⁻)	714.3 5	42 8	220.0	(15/2 ⁻)	M1	0.228	$\alpha(\text{K})=0.1762\ 25; \alpha(\text{L})=0.0386\ 6; \alpha(\text{M})=0.00955\ 14;$ $\alpha(\text{N+..})=0.00355\ 5$ $\alpha(\text{N})=0.00268\ 4; \alpha(\text{O})=0.000721\ 11;$ $\alpha(\text{P})=0.0001401\ 20; \alpha(\text{Q})=7.44 \times 10^{-6}\ 11$
		801.8 4	100 18	132.8?	(13/2 ⁻)	M1	0.1664	$\alpha(\text{K})=0.1287\ 19; \alpha(\text{L})=0.0282\ 4; \alpha(\text{M})=0.00696\ 10;$ $\alpha(\text{N+..})=0.00259\ 4$ $\alpha(\text{N})=0.00196\ 3; \alpha(\text{O})=0.000525\ 8;$ $\alpha(\text{P})=0.0001021\ 15; \alpha(\text{Q})=5.42 \times 10^{-6}\ 8$
994.2	(27/2 ⁻)	160	20 6	834.2	(25/2 ⁻)	M1	14.42	$\alpha(\text{K})=11.06\ 16; \alpha(\text{L})=2.51\ 4; \alpha(\text{M})=0.622\ 9;$ $\alpha(\text{N+..})=0.232\ 4$ $\alpha(\text{N})=0.1751\ 25; \alpha(\text{O})=0.0470\ 7; \alpha(\text{P})=0.00915\ 13;$ $\alpha(\text{Q})=0.000490\ 7$
		307.5	1.0×10 ² 3	686.7	(23/2 ⁻)	E2	0.335	$\alpha(\text{K})=0.0851\ 12; \alpha(\text{L})=0.180\ 3; \alpha(\text{M})=0.0509\ 8;$ $\alpha(\text{N+..})=0.0190\ 3$

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Adopted Levels, Gammas (continued)

$\gamma(^{253}\text{No})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	α^\dagger	Comments
1022.6	(17/2 ⁻)	87.7 5	100	934.5	(15/2 ⁻)	M1(+E2)	39 20	$\alpha(\text{N})=0.01457$ 21; $\alpha(\text{O})=0.00379$ 6; $\alpha(\text{P})=0.000637$ 9; $\alpha(\text{Q})=7.96 \times 10^{-6}$ 12 $\alpha(\text{L})=28$ 14; $\alpha(\text{M})=8$ 5; $\alpha(\text{N}+..)=2.9$ 16 $\alpha(\text{N})=2.2$ 13; $\alpha(\text{O})=0.6$ 4; $\alpha(\text{P})=0.10$ 5; $\alpha(\text{Q})=0.0017$ 12
1122.0	(19/2 ⁻)	98.6 6	100 24	1022.6	(17/2 ⁻)	M1(+E2)	24 11	$\alpha(\text{L})=17$ 7; $\alpha(\text{M})=4.8$ 23; $\alpha(\text{N}+..)=1.8$ 9 $\alpha(\text{N})=1.4$ 7; $\alpha(\text{O})=0.35$ 17; $\alpha(\text{P})=0.060$ 23; $\alpha(\text{Q})=0.0012$ 9 $\alpha(\text{K})=0.1307$ 19; $\alpha(\text{L})=1.32$ 3; $\alpha(\text{M})=0.382$ 9; $\alpha(\text{N}+..)=0.142$ 4 $\alpha(\text{N})=0.110$ 3; $\alpha(\text{O})=0.0283$ 7; $\alpha(\text{P})=0.00462$ 11; $\alpha(\text{Q})=3.24 \times 10^{-5}$ 7
1165.2	(29/2 ⁻)	171	30 7	994.2	(27/2 ⁻)	M1	11.97	$\alpha(\text{K})=9.19$ 13; $\alpha(\text{L})=2.07$ 3; $\alpha(\text{M})=0.514$ 8; $\alpha(\text{N}+..)=0.192$ 3 $\alpha(\text{N})=0.1448$ 21; $\alpha(\text{O})=0.0389$ 6; $\alpha(\text{P})=0.00756$ 11; $\alpha(\text{Q})=0.000405$ 6 $\alpha(\text{K})=0.0769$ 11; $\alpha(\text{L})=0.1358$ 19; $\alpha(\text{M})=0.0383$ 6; $\alpha(\text{N}+..)=0.01429$ 20 $\alpha(\text{N})=0.01095$ 16; $\alpha(\text{O})=0.00285$ 4; $\alpha(\text{P})=0.000482$ 7; $\alpha(\text{Q})=6.59 \times 10^{-6}$ 10
1232.1	(21/2 ⁻)	110.0 5	67 15	1122.0	(19/2 ⁻)	M1(+E2)	15 6	$\alpha(\text{L})=11$ 4; $\alpha(\text{M})=3.0$ 12; $\alpha(\text{N}+..)=1.1$ 5 $\alpha(\text{N})=0.9$ 4; $\alpha(\text{O})=0.23$ 9; $\alpha(\text{P})=0.038$ 12; $\alpha(\text{Q})=0.0008$ 7 $\alpha(\text{K})=0.1267$ 18; $\alpha(\text{L})=0.848$ 13; $\alpha(\text{M})=0.244$ 4; $\alpha(\text{N}+..)=0.0909$ 14 $\alpha(\text{N})=0.0699$ 11; $\alpha(\text{O})=0.0181$ 3; $\alpha(\text{P})=0.00297$ 5; $\alpha(\text{Q})=2.34 \times 10^{-5}$ 4
1346.7	(31/2 ⁻)	181.5	24 7	1165.2	(29/2 ⁻)	M1	10.11	$\alpha(\text{K})=7.77$ 11; $\alpha(\text{L})=1.748$ 25; $\alpha(\text{M})=0.434$ 6; $\alpha(\text{N}+..)=0.1617$ 23 $\alpha(\text{N})=0.1221$ 17; $\alpha(\text{O})=0.0328$ 5; $\alpha(\text{P})=0.00638$ 9; $\alpha(\text{Q})=0.000341$ 5 $\alpha(\text{K})=0.0704$ 10; $\alpha(\text{L})=0.1073$ 15; $\alpha(\text{M})=0.0302$ 5; $\alpha(\text{N}+..)=0.01125$ 16 $\alpha(\text{N})=0.00862$ 12; $\alpha(\text{O})=0.00224$ 4; $\alpha(\text{P})=0.000382$ 6; $\alpha(\text{Q})=5.62 \times 10^{-6}$ 8
1352.0	(23/2 ⁻)	120		1232.1	(21/2 ⁻)			
		230		1122.0	(19/2 ⁻)			
1541.7	(33/2 ⁻)	195	18 6	1346.7	(31/2 ⁻)	M1	8.26	$\alpha(\text{K})=6.35$ 9; $\alpha(\text{L})=1.426$ 20; $\alpha(\text{M})=0.354$ 5; $\alpha(\text{N}+..)=0.1318$ 19 $\alpha(\text{N})=0.0996$ 14; $\alpha(\text{O})=0.0267$ 4; $\alpha(\text{P})=0.00520$ 8; $\alpha(\text{Q})=0.000278$ 4 $\alpha(\text{K})=0.0639$ 9; $\alpha(\text{L})=0.0843$ 12; $\alpha(\text{M})=0.0236$ 4; $\alpha(\text{N}+..)=0.00880$ 13 $\alpha(\text{N})=0.00674$ 10; $\alpha(\text{O})=0.001757$ 25; $\alpha(\text{P})=0.000300$ 5; $\alpha(\text{Q})=4.78 \times 10^{-6}$ 7
1744.7	(35/2 ⁻)	203	39 9	1541.7	(33/2 ⁻)	M1	7.38	$\alpha(\text{K})=5.67$ 8; $\alpha(\text{L})=1.272$ 18; $\alpha(\text{M})=0.316$ 5; $\alpha(\text{N}+..)=0.1176$ 17 $\alpha(\text{N})=0.0888$ 13; $\alpha(\text{O})=0.0239$ 4; $\alpha(\text{P})=0.00464$ 7; $\alpha(\text{Q})=0.000248$ 4 $\alpha(\text{K})=0.0589$ 9; $\alpha(\text{L})=0.0691$ 10; $\alpha(\text{M})=0.0193$ 3; $\alpha(\text{N}+..)=0.00719$ 10 $\alpha(\text{N})=0.00550$ 8; $\alpha(\text{O})=0.001435$ 20; $\alpha(\text{P})=0.000246$ 4; $\alpha(\text{Q})=4.19 \times 10^{-6}$ 6
1962.7	(37/2 ⁻)	218		1744.7	(35/2 ⁻)	M1	6.03	$\alpha(\text{K})=4.64$ 7; $\alpha(\text{L})=1.040$ 15; $\alpha(\text{M})=0.258$

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Adopted Levels, Gammas (continued)

$\gamma(^{253}\text{No})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	α^\dagger	Comments
1962.7	(37/2 ⁻)	421	100 16	1541.7	(33/2 ⁻)	E2	0.1324	4; $\alpha(\text{N}+..)=0.0961$ 14 $\alpha(\text{N})=0.0726$ 11; $\alpha(\text{O})=0.0195$ 3; $\alpha(\text{P})=0.00379$ 6; $\alpha(\text{Q})=0.000202$ 3 $\alpha(\text{K})=0.0541$ 8; $\alpha(\text{L})=0.0567$ 8; $\alpha(\text{M})=0.01575$ 22; $\alpha(\text{N}+..)=0.00587$ 9 $\alpha(\text{N})=0.00449$ 7; $\alpha(\text{O})=0.001173$ 17; $\alpha(\text{P})=0.000202$ 3; $\alpha(\text{Q})=3.67\times 10^{-6}$ 6
2184.7	(39/2 ⁻)	222	42 17	1962.7	(37/2 ⁻)	M1	5.73	$\alpha(\text{K})=4.41$ 7; $\alpha(\text{L})=0.988$ 14; $\alpha(\text{M})=0.245$ 4; $\alpha(\text{N}+..)=0.0912$ 13 $\alpha(\text{N})=0.0689$ 10; $\alpha(\text{O})=0.0185$ 3; $\alpha(\text{P})=0.00360$ 5; $\alpha(\text{Q})=0.000192$ 3 $\alpha(\text{K})=0.0506$ 7; $\alpha(\text{L})=0.0486$ 7; $\alpha(\text{M})=0.01348$ 19; $\alpha(\text{N}+..)=0.00503$ 7 $\alpha(\text{N})=0.00384$ 6; $\alpha(\text{O})=0.001004$ 14; $\alpha(\text{P})=0.0001739$ 25; $\alpha(\text{Q})=3.31\times 10^{-6}$ 5
2423.7	(41/2 ⁻)	239 ^{‡#}		2184.7	(39/2 ⁻)	M1	4.66	$\alpha(\text{K})=3.58$ 5; $\alpha(\text{L})=0.802$ 12; $\alpha(\text{M})=0.199$ 3; $\alpha(\text{N}+..)=0.0741$ 11 $\alpha(\text{N})=0.0560$ 8; $\alpha(\text{O})=0.01503$ 21; $\alpha(\text{P})=0.00292$ 4; $\alpha(\text{Q})=0.0001559$ 22
		461	100 20	1962.7	(37/2 ⁻)	E2	0.1043	$\alpha(\text{K})=0.0471$ 7; $\alpha(\text{L})=0.0415$ 6; $\alpha(\text{M})=0.01146$ 16; $\alpha(\text{N}+..)=0.00427$ 6 $\alpha(\text{N})=0.00327$ 5; $\alpha(\text{O})=0.000854$ 12; $\alpha(\text{P})=0.0001485$ 21; $\alpha(\text{Q})=2.98\times 10^{-6}$ 5
2665.7	(43/2 ⁻)	242	44 16	2423.7	(41/2 ⁻)	M1	4.50	$\alpha(\text{K})=3.46$ 5; $\alpha(\text{L})=0.774$ 11; $\alpha(\text{M})=0.192$ 3; $\alpha(\text{N}+..)=0.0715$ 10 $\alpha(\text{N})=0.0540$ 8; $\alpha(\text{O})=0.01451$ 21; $\alpha(\text{P})=0.00282$ 4; $\alpha(\text{Q})=0.0001505$ 21
		481	100 20	2184.7	(39/2 ⁻)	E2	0.0937	$\alpha(\text{K})=0.0441$ 7; $\alpha(\text{L})=0.0360$ 5; $\alpha(\text{M})=0.00991$ 14; $\alpha(\text{N}+..)=0.00369$ 6 $\alpha(\text{N})=0.00282$ 4; $\alpha(\text{O})=0.000739$ 11; $\alpha(\text{P})=0.0001290$ 18; $\alpha(\text{Q})=2.70\times 10^{-6}$ 4
2925.7	(45/2 ⁻)	260 ^{‡#}		2665.7	(43/2 ⁻)	M1	3.68	$\alpha(\text{K})=2.83$ 4; $\alpha(\text{L})=0.633$ 9; $\alpha(\text{M})=0.1569$ 22; $\alpha(\text{N}+..)=0.0584$ 9 $\alpha(\text{N})=0.0441$ 7; $\alpha(\text{O})=0.01185$ 17; $\alpha(\text{P})=0.00230$ 4; $\alpha(\text{Q})=0.0001229$ 18
		502	100 25	2423.7	(41/2 ⁻)	E2	0.0843	$\alpha(\text{K})=0.0413$ 6; $\alpha(\text{L})=0.0313$ 5; $\alpha(\text{M})=0.00858$ 12; $\alpha(\text{N}+..)=0.00320$ 5 $\alpha(\text{N})=0.00244$ 4; $\alpha(\text{O})=0.000640$ 9; $\alpha(\text{P})=0.0001121$ 16; $\alpha(\text{Q})=2.46\times 10^{-6}$ 4
3183?	(47/2 ⁻)	259 ^{‡#}		2925.7	(45/2 ⁻)	M1	3.72	$\alpha(\text{K})=2.86$ 4; $\alpha(\text{L})=0.640$ 9; $\alpha(\text{M})=0.1586$ 23; $\alpha(\text{N}+..)=0.0591$ 9 $\alpha(\text{N})=0.0446$ 7; $\alpha(\text{O})=0.01198$ 17; $\alpha(\text{P})=0.00233$ 4; $\alpha(\text{Q})=0.0001242$ 18
		519 [#]	100 25	2665.7	(43/2 ⁻)	E2	0.0778	$\alpha(\text{K})=0.0392$ 6; $\alpha(\text{L})=0.0281$ 4; $\alpha(\text{M})=0.00768$ 11; $\alpha(\text{N}+..)=0.00286$ 4 $\alpha(\text{N})=0.00219$ 3; $\alpha(\text{O})=0.000573$ 8; $\alpha(\text{P})=0.0001007$ 14; $\alpha(\text{Q})=2.28\times 10^{-6}$ 4
3465?	(49/2 ⁻)	282 ^{‡#}		3183?	(47/2 ⁻)	M1	2.93	$\alpha(\text{K})=2.26$ 4; $\alpha(\text{L})=0.504$ 7; $\alpha(\text{M})=0.1249$ 18; $\alpha(\text{N}+..)=0.0465$ 7 $\alpha(\text{N})=0.0351$ 5; $\alpha(\text{O})=0.00943$ 14; $\alpha(\text{P})=0.00183$ 3; $\alpha(\text{Q})=9.77\times 10^{-5}$ 14
		541 [#]	1.0×10 ² 4	2925.7	(45/2 ⁻)	E2	0.0705	$\alpha(\text{K})=0.0367$ 6; $\alpha(\text{L})=0.0246$ 4; $\alpha(\text{M})=0.00671$ 10; $\alpha(\text{N}+..)=0.00250$ 4

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

 $\gamma(^{253}\text{No})$ (continued)

<u>$E_i(\text{level})$</u>	<u>E_γ</u>	<u>Comments</u>
		$\alpha(\text{N})=0.00191\ 3$; $\alpha(\text{O})=0.000501\ 7$; $\alpha(\text{P})=8.82\times 10^{-5}\ 13$; $\alpha(\text{Q})=2.09\times 10^{-6}\ 3$

† Additional information 3.

‡ Unresolved multiplet.

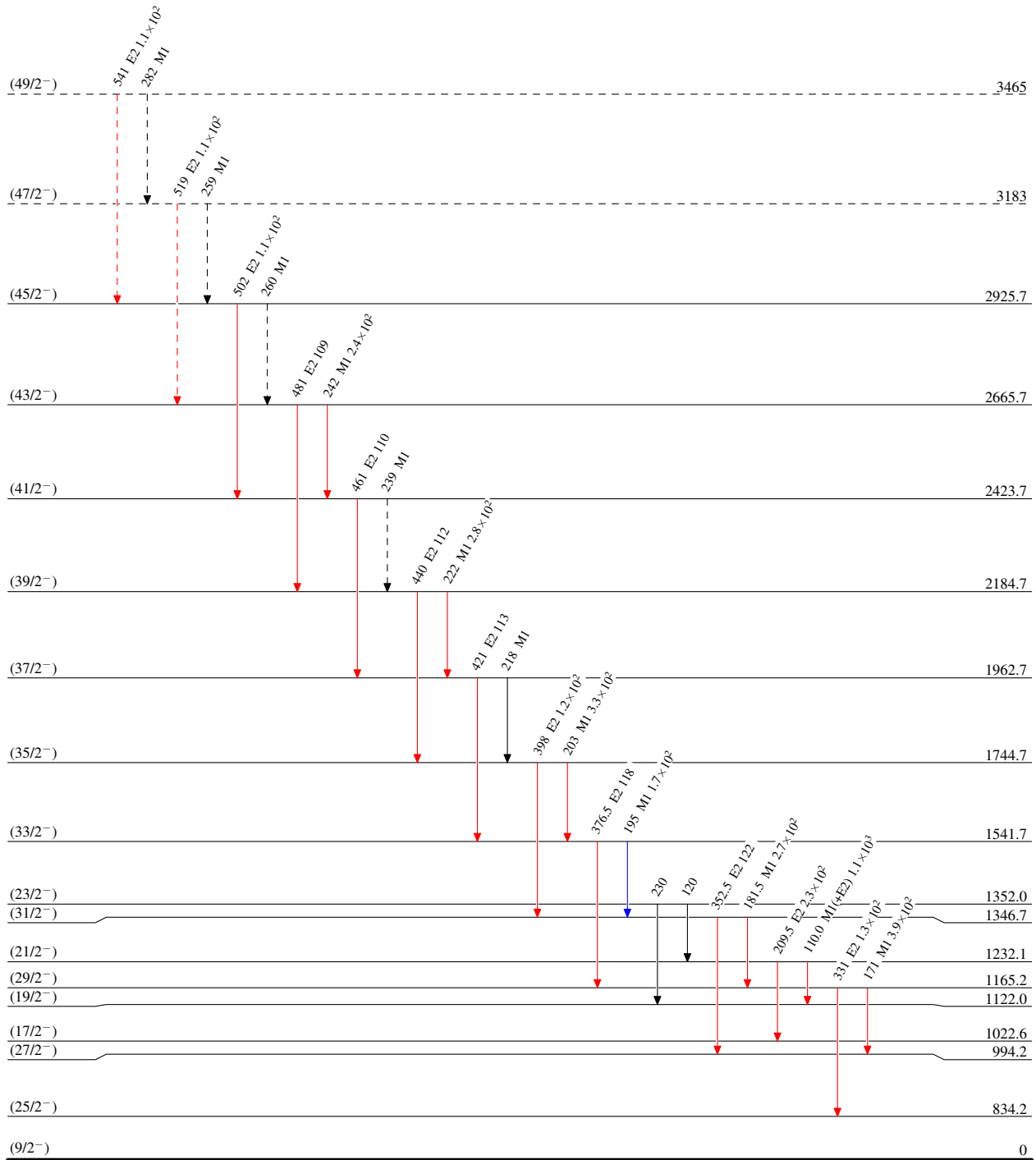
Placement of transition in the level scheme is uncertain.

Adopted Levels, Gammas

Legend

Level SchemeIntensities: Relative $I_{(\gamma+ce)}$

- $I_{\gamma} < 2\% \times I_{\gamma}^{\max}$
- $I_{\gamma} < 10\% \times I_{\gamma}^{\max}$
- $I_{\gamma} > 10\% \times I_{\gamma}^{\max}$
- - - - -→ γ Decay (Uncertain)

 $^{253}_{102}\text{No}_{151}$

1.62 min 15

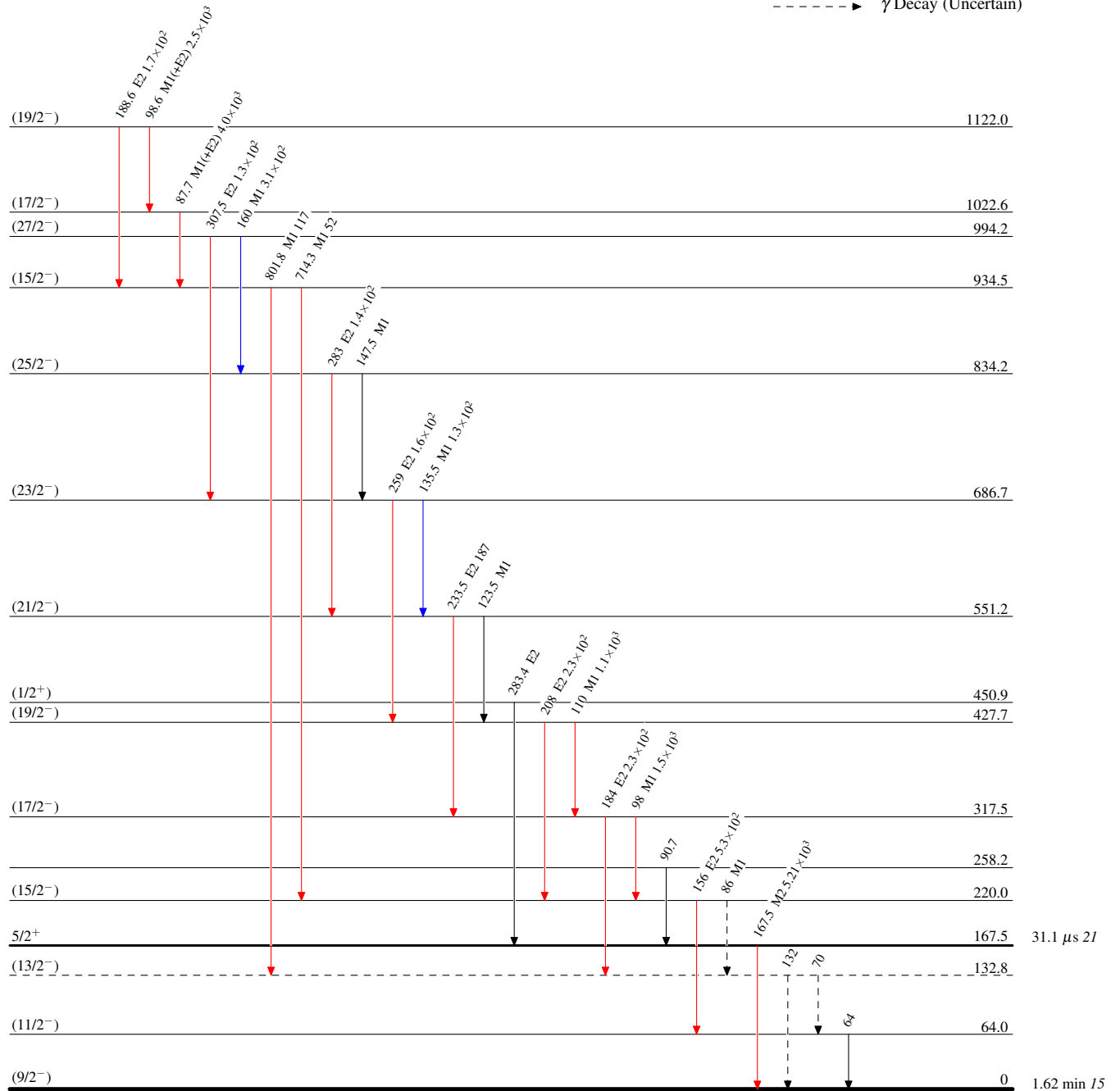
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative $I_{(\gamma+ce)}$

- $I_{\gamma} < 2\% \times I_{\gamma}^{max}$
- $I_{\gamma} < 10\% \times I_{\gamma}^{max}$
- $I_{\gamma} > 10\% \times I_{\gamma}^{max}$
- - - → γ Decay (Uncertain)



$^{253}_{102}\text{No}_{151}$

Adopted Levels, Gammas