

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 192,1 (2023)	1-Aug-2023

$Q(\beta^-) = -7954$ 26; $S(n) = 9774$ 9; $S(p) = 3433$ 13; $Q(\alpha) = 5981.6$ 18 [2021Wa16](#)

 ^{200}Po LevelsCross Reference (XREF) Flags

A	^{200}At ε decay (43.1 s+47 s)	D	$^{184}\text{W}(^{20}\text{Ne}, 4n\gamma), ^{183}\text{W}(^{22}\text{Ne}, 5n\gamma)$
B	^{204}Rn α decay	E	$^{194}\text{Pt}(^{12}\text{C}, 6n\gamma)$
C	Coulomb excitation	F	$^{191}\text{Ir}(^{14}\text{N}, 5n\gamma)$

E(level) [†]	J^π ^a	$T_{1/2}$	XREF	Comments
0.0	0 ⁺	11.54 min 9	ABCDEF	$\% \alpha = 11.3$ 4; $\% \varepsilon + \% \beta^+ = 88.7$ 4 $\delta \langle r^2 \rangle (^{200}\text{Po}, ^{210}\text{Po}) = -0.560$ fm ² 9(stat) 11(syst) (2011Co01). Other: $\delta \langle r^2 \rangle (^{200}\text{Po}, ^{208}\text{Po}) = -0.379$ fm ² 7 (1991Ko32). $\% \alpha$: weighted average of 11.1% 3 (1993Wa04) and 12.2% 6 (1967Le08); Others: 14% 2 (1971Ho01) and 17% (1969Ha03). $\% \varepsilon + \% \beta^+$ was not directly measured. $T_{1/2}$: Weighted average of 11.4 min 2 (1967Le08), 11.6 min 1 (1970Ra14), and 11.3 min 3 (1971Ho01); Other: 11.9 min +17-11 (1996Ta18). J^π : 665.9 γ E2 to 0 ⁺ . $T_{1/2}$: From B(E2) $\uparrow$ =1.06 eb 6 in Coulomb Excitation. J^π : 1136.5 γ E0 to 0 ⁺ . J^π : 611.0 γ E2 to 2 ⁺ . J^π : 726.4 γ E0+M1+E2 to 2 ⁺ , 1392.3 γ to 0 ⁺ . J^π : 986.1 γ M1+E2 to 2 ⁺ . J^π : 484.5 γ E2 to 4 ⁺ . J^π : 496.3 γ M1(+E2) to 4 ⁺ . $\mu = +7.44$ 16 (1990Ma14); $Q = -1.38$ 7 (1987Ma65) J^π : 361.5 γ E1 from 7 ⁻ ; μ ; systematics of similar isomers in the neighboring nuclei. $T_{1/2}$: From $\gamma\gamma(t)$ in $^{184}\text{W}(^{20}\text{Ne}, 4n\gamma), ^{183}\text{W}(^{22}\text{Ne}, 5n\gamma)$ (1990Ma14) by gating on transitions below and above the isomer. Others: 90 ns 15 from 484.8 $\gamma(t)$ in $^{194}\text{Pt}(^{12}\text{C}, 6n\gamma)$ (1985We05) where contributions from the $J^\pi = 11^-$ ($T_{1/2} = 120$ ns 20) and $J^\pi = 12^+$ (267 ns 4) isomers were taken into account; 190 ns 60 from 484 $\gamma(t)$, 611 $\gamma(t)$ and 666 $\gamma(t)$ in $^{191}\text{Ir}(^{14}\text{N}, 5n\gamma)$ (1972Na02), but the value was not corrected for contributions from the $J^\pi = 11^-$ and 12 ⁺ isomers. μ, Q : using time dependent perturbed angular distribution technique. μ value recommended in 2014StZZ , 2020StZV ; Q value (and its sign) recommended in 2016St14 .
665.90 10	2 ⁺	2.01 ps 11	A CDEF	
1136.50 20	0 ⁺		A	
1276.90 14	4 ⁺		A DEF	
1392.30 15	2 ⁺		A	
1652.00 23	(1,2,3) ⁺		A	
1761.40 17	6 ⁺		A DEF	
1773.20 25	(3,4,5) ⁺		A	
1773.61 [‡] 24	8 ⁺	61 ns 3	A DEF	
1776.20 23			A	
1791.50 25			A	
1811.41 17	5 ⁻		A DE	J^π : 534.5 γ E1 to 4 ⁺ .
1850.60 25			A	
1883.20 25	(3,4,5) ⁺		A	J^π : 606.3 γ M1+E2 to 4 ⁺ .
2085.6 8	(6) ⁺		A	J^π : 808.7 γ E2 to 4 ⁺ , consistent with $J^\pi = 2^+, 4^+$ or 6 ⁺ . The lack of observed γ 's to 0 ⁺ and 2 ⁺ would argue against $J^\pi = 2^+$ or 4 ⁺ .
2135.22 ^{&} 21	7 ⁻		A DE	J^π : 323.8 γ E2 to 5 ⁻ , 373.8 γ E1 to 6 ⁺ .
2220.7 3	(4,5,6) ⁻		A	J^π : 409.3 γ M1+E2 to 5 ⁻ .
2235.9? 11	8 ⁻		E	J^π : 100.7 γ M1 to 7 ⁻ .
2261.28 ^{&} 25	9 ⁻	<2 ns	A DE	J^π : 125.7 γ E2 to 7 ⁻ , 487.8 γ E1 to 8 ⁺ .

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Adopted Levels, Gammas (continued) ^{200}Po Levels (continued)

E(level) [†]	J ^π ^a	T _{1/2}	XREF	Comments
2329.9 4			A	T _{1/2} : From $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).
2338.2 3	(7,8,9) ⁺		A	J ^π : 564.6γ M1 to 8 ⁺ .
2360.7 4			A	
2414.6 3	(5) ⁻		A	J ^π : 603.2γ E0+M1+E2 to 5 ⁻ .
2461.7 3	(5,6,7) ⁺		A	J ^π : 700.3γ M1 to 6 ⁺ .
2462.2 3	(4,5,6) ⁻		A	J ^π : 650.8γ M1+E2 to 5 ⁻ .
2596.09 [#] 25	11 ⁻	100 ns 10	DE	μ=+11.88 22 (1990Ma14) J ^π : 334.8γ E2 to 9 ⁻ , 822.5γ E3 to 8 ⁺ . T _{1/2} : From γγ(t) in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14) by gating on transitions below and above the isomer. Other: 120 ns 20 from 335.2γ(t) in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05) where the contribution from the J ^π =12 ⁺ (267 ns 4) isomer was taken into account. μ: Using time dependent perturbed angular distribution technique. Value recommended in 2014StZZ, 2020StZV.
2681.5 5			D	
2715.9 4			D	
2804.4 3	10 ⁺		DE	E(level): Due to observation of prompt component for the 208.4γ, that depopulates this state, the level is placed below the 12 ⁺ isomer. J ^π : 208.4γ E1 to 9 ⁻ .
2804.4+x [@]	(12 ⁺)	268 ns 4	DE	μ=-1.788 24 (1990Ma14) Additional information 1. E(level): x<25 keV estimated in 2021Ko07. J ^π : μ, systematics of similar isomers in neighboring nuclei. T _{1/2} : Weighted average of 270 ns 5 from γγ(t) by gating on transitions below and above the isomer in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14) and 267 ns 4 from 208.4γ(t) in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05). Other: 298 ns 24 in 2004GI04 and 2003GI05. μ: Using time dependent perturbed angular distribution technique. Value recommended in 2014StZZ, 2020StZV.
2962.5 4	11 ⁻		DE	J ^π : 701.2γ E2 to 9 ⁻ .
3227.3 11	(11)		E	J ^π : 422.9γ D to 10 ⁺ .
3371.60+x 10	(14 ⁺)		DE	J ^π : 567.1γ E2 to (12 ⁺).
3502.4 4	13 ⁻		DE	J ^π : 539.9γ E2 to 11 ⁻ .
3625.4 5		<2 ns	DE	T _{1/2} : From $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).
3689.7 5	(15 ⁻)	<2 ns	DE	J ^π : 187.3γ (E2) to 13 ⁻ . T _{1/2} : From $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).
3944.60+x 23	(16 ⁺)		DE	J ^π : 573.0γ E2 to (14 ⁺).
4125.8+x 4			DE	
4171.7 5			DE	
4307.9+x 4			D	
4446.6+x 5	(17)		DE	J ^π : 502.0γ D to (16 ⁺).
4670.3+x 4	(17,18) ⁺		DE	J ^π : 725.7γ (M1,E2) to (16 ⁺).
4702.0+x 11	(18)		E	J ^π : 255.4γ D to (17).
5226.9+x 11			E	

[†] From a least squares fit to Eγ.[‡] Configuration= $\pi(h_{9/2}^{+2})_{8+}$.[#] Admixture between configuration= $\pi(h_{9/2}^{+1}, i_{13/2}^{+1})_{11-}$ and configuration= $\pi(h_{9/2}^{+2})_{8+} \otimes 3^-$.[@] Configuration= $\nu(i_{13/2}^{-2})_{12+}$.[&] Configuration= $\nu(f_{5/2}^{-1}, i_{13/2}^{-1})$.^a From deduced transition multiplicities in ^{200}At ε decay, $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ and $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$. Specific arguments are given with each level.

Adopted Levels, Gammas (continued)

$\gamma(^{200}\text{Po})$									
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [@]	$\alpha^\&$	Comments	
665.90	2 ⁺	665.9 1	100	0.0	0 ⁺	E2	0.01680 24	$\alpha(\text{K})=0.01250$ 17; $\alpha(\text{L})=0.00325$ 5; $\alpha(\text{M})=0.000800$ 11 $\alpha(\text{N})=0.0002054$ 29; $\alpha(\text{O})=4.15\times 10^{-5}$ 6; $\alpha(\text{P})=4.79\times 10^{-6}$ 7 B(E2)(W.u.)=30.4 17 Mult.: $A_2=0.23$ 3, $A_4=-0.01$ 4, $\alpha(\text{K})_{\text{exp}}=0.012$ 3, $\alpha(\text{L})_{\text{exp}}=0.004$ 2, K/L=3.0 10 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14); $A_2=0.221$ 10, $A_4=-0.010$ 13 $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).	
1136.50	0 ⁺	(1136.5 2)		0.0	0 ⁺	E0		E_γ : No γ ray was observed. The energy determined from the observed ce-K line in ^{200}At ε decay.	
1276.90	4 ⁺	611.0 1	100	665.90	2 ⁺	E2	0.02026 28	Mult.: $\alpha(\text{K})_{\text{exp}}>0.08$ in ^{200}At ε decay (1998Bi06). $\alpha(\text{K})=0.01479$ 21; $\alpha(\text{L})=0.00412$ 6; $\alpha(\text{M})=0.001022$ 14 $\alpha(\text{N})=0.000262$ 4; $\alpha(\text{O})=5.29\times 10^{-5}$ 7; $\alpha(\text{P})=6.01\times 10^{-6}$ 8 Mult.: $A_2=0.17$ 1, $A_4=-0.01$ 2; $\alpha(\text{L})_{\text{exp}}=0.005$ 2, K/L=3.1 10 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14); $A_2=0.173$ 9, $A_4=-0.042$ 12 in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).	
1392.30	2 ⁺	726.4 [‡] 2 1392.3 [‡] 2	100 [‡] 14 86 [‡] 29	665.90 2 ⁺ 0.0 0 ⁺	E0+M1+E2 [E2]		0.00397 6	Mult.: $\alpha(\text{K})_{\text{exp}}=0.11$ 3 in ^{200}At ε decay (1998Bi06). $\alpha(\text{K})=0.00318$ 4; $\alpha(\text{L})=0.000572$ 8; $\alpha(\text{M})=0.0001355$ 19 $\alpha(\text{N})=3.48\times 10^{-5}$ 5; $\alpha(\text{O})=7.21\times 10^{-6}$ 10; $\alpha(\text{P})=9.04\times 10^{-7}$ 13; $\alpha(\text{IPF})=3.32\times 10^{-5}$ 5	
1652.00	(1,2,3) ⁺	986.1 [‡] 2	100 [‡]	665.90	2 ⁺	M1+E2	0.015 7	$\alpha(\text{K})=0.012$ 6; $\alpha(\text{L})=0.0021$ 9; $\alpha(\text{M})=5.0\times 10^{-4}$ 20 $\alpha(\text{N})=1.3\times 10^{-4}$ 5; $\alpha(\text{O})=2.7\times 10^{-5}$ 11; $\alpha(\text{P})=3.4\times 10^{-6}$ 15 Mult.: $\alpha(\text{K})_{\text{exp}}=0.011$ 3 in ^{200}At ε decay (1998Bi06).	
1761.40	6 ⁺	484.5 1	100	1276.90	4 ⁺	E2	0.0346 5	$\alpha(\text{K})=0.02364$ 33; $\alpha(\text{L})=0.00826$ 12; $\alpha(\text{M})=0.002080$ 29 $\alpha(\text{N})=0.000534$ 7; $\alpha(\text{O})=0.0001064$ 15; $\alpha(\text{P})=1.161\times 10^{-5}$ 16 Mult.: $A_2=0.25$ 1, $A_4=-0.01$ 1; $\alpha(\text{K})_{\text{exp}}=0.020$ 5, $\alpha(\text{L})_{\text{exp}}=0.008$ 2, K/L=2.6 10 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14); $A_2=0.225$ 15, $A_4=-0.01$ 2 in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).	
1773.20	(3,4,5) ⁺	496.3 [‡] 2	100 [‡]	1276.90	4 ⁺	M1(+E2)	0.08 5	$\alpha(\text{K})=0.06$ 4; $\alpha(\text{L})=0.013$ 5; $\alpha(\text{M})=0.0031$ 12 $\alpha(\text{N})=8.0\times 10^{-4}$ 31; $\alpha(\text{O})=1.7\times 10^{-4}$ 7; $\alpha(\text{P})=2.0\times 10^{-5}$ 10 Mult.: $\alpha(\text{K})_{\text{exp}}=0.11$ 4 in ^{200}At ε decay (1998Bi06).	
1773.61	8 ⁺	(12.3 3)	100	1761.40	6 ⁺	[E2]	4.9 $\times 10^4$ 6	$\alpha(\text{M})=3.7\times 10^4$ 5 $\alpha(\text{N})=9.5\times 10^3$ 13; $\alpha(\text{O})=1.80\times 10^3$ 24; $\alpha(\text{P})=156$ 20 B(E2)(W.u.)=9.7 18 E_γ : From the energy difference between the 373.8 keV 2 and 361.5 keV 2 gamma-rays that depopulate the $J^\pi=7^-$ level at 2135 keV.	
1776.20		1110.3 [‡] 2	100 [‡]	665.90	2 ⁺				
1791.50		514.6 [‡] 2	100 [‡]	1276.90	4 ⁺				
1811.41	5 ⁻	534.5 1	100	1276.90	4 ⁺	E1	0.00895 13	$\alpha(\text{K})=0.00738$ 10; $\alpha(\text{L})=0.001205$ 17; $\alpha(\text{M})=0.000281$ 4	

Adopted Levels, Gammas (continued)

$\gamma(^{200}\text{Po})$ (continued)							
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. @	$\alpha\&$
							Comments
							$\alpha(\text{N})=7.20\times 10^{-5}$ 10; $\alpha(\text{O})=1.487\times 10^{-5}$ 21; $\alpha(\text{P})=1.854\times 10^{-6}$ 26 Mult.: $A_2=-0.11$ 8, $A_4=-0.04$ 7 in $^{184}\text{W}(^{20}\text{Ne},4\text{n}\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5\text{n}\gamma)$ (1990Ma14); $A_2=-0.07$ 3, $A_4=-0.11$ 4 in $^{194}\text{Pt}(^{12}\text{C},6\text{n}\gamma)$ (1985We05); $\alpha(\text{K})_{\text{exp}}=0.0075$ 14 in ^{200}At ε decay (1998Bi06).
1850.60		573.7 ‡ 2	100 ‡	1276.90	4 $^+$		
1883.20	(3,4,5) $^+$	606.3 ‡ 2	100 ‡	1276.90	4 $^+$	M1+E2	0.049 28
							$\alpha(\text{K})=0.039$ 24; $\alpha(\text{L})=0.0075$ 33; $\alpha(\text{M})=0.0018$ 7 $\alpha(\text{N})=4.6\times 10^{-4}$ 19; $\alpha(\text{O})=9.\text{E}-5$ 4; $\alpha(\text{P})=1.2\times 10^{-5}$ 6 Mult.: $\alpha(\text{K})_{\text{exp}}=0.06$ 2 in ^{200}At ε decay (1998Bi06).
2085.6	(6) $^+$	808.7 ‡ 7	100 ‡	1276.90	4 $^+$	E2	0.01120 16
							$\alpha(\text{K})=0.00862$ 12; $\alpha(\text{L})=0.001957$ 28; $\alpha(\text{M})=0.000476$ 7 $\alpha(\text{N})=0.0001222$ 17; $\alpha(\text{O})=2.492\times 10^{-5}$ 35; $\alpha(\text{P})=2.96\times 10^{-6}$ 4 Mult.: $\alpha(\text{K})_{\text{exp}}=0.009$ 2 in ^{200}At ε decay (1998Bi06).
2135.22	7 $^-$	323.8 ‡ 2	34 ‡ 8	1811.41	5 $^-$	E2	0.1007 14
							$\alpha(\text{K})=0.0564$ 8; $\alpha(\text{L})=0.0330$ 5; $\alpha(\text{M})=0.00854$ 12 $\alpha(\text{N})=0.002193$ 31; $\alpha(\text{O})=0.000429$ 6; $\alpha(\text{P})=4.34\times 10^{-5}$ 6 Mult.: $A_2=0.17$ 14, $A_4=0.16$ 11 7 in $^{184}\text{W}(^{20}\text{Ne},4\text{n}\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5\text{n}\gamma)$ (1990Ma14); $\alpha(\text{K})_{\text{exp}}=0.23$ 6, $\alpha(\text{L})_{\text{exp}}=0.047$ 13 in ^{200}At ε decay (1998Bi06).
		361.5 ‡ 2	10 ‡ 3	1773.61	8 $^+$	(E1)	0.02057 29
							$\alpha(\text{K})=0.01683$ 24; $\alpha(\text{L})=0.00286$ 4; $\alpha(\text{M})=0.000671$ 9 $\alpha(\text{N})=0.0001713$ 24; $\alpha(\text{O})=3.52\times 10^{-5}$ 5; $\alpha(\text{P})=4.30\times 10^{-6}$ 6 Mult.: $A_2=-0.04$ 3, $A_4=0.03$ 4 in $^{184}\text{W}(^{20}\text{Ne},4\text{n}\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5\text{n}\gamma)$ (1990Ma14).
		373.8 ‡ 2	100 ‡ 10	1761.40	6 $^+$	E1	0.01911 27
							$\alpha(\text{K})=0.01564$ 22; $\alpha(\text{L})=0.00265$ 4; $\alpha(\text{M})=0.000621$ 9 $\alpha(\text{N})=0.0001586$ 22; $\alpha(\text{O})=3.26\times 10^{-5}$ 5; $\alpha(\text{P})=3.99\times 10^{-6}$ 6 Mult.: $A_2=-0.08$ 4, $A_4=0.03$ 3 in $^{184}\text{W}(^{20}\text{Ne},4\text{n}\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5\text{n}\gamma)$ (1990Ma14); $\alpha(\text{K})_{\text{exp}}<0.09$ in ^{200}At ε decay (1998Bi06).
2220.7	(4,5,6) $^-$	409.3 ‡ 2	100 ‡	1811.41	5 $^-$	M1+E2	0.14 8
							$\alpha(\text{K})=0.11$ 7; $\alpha(\text{L})=0.023$ 8; $\alpha(\text{M})=0.0054$ 18 $\alpha(\text{N})=0.0014$ 5; $\alpha(\text{O})=2.9\times 10^{-4}$ 10; $\alpha(\text{P})=3.5\times 10^{-5}$ 15 Mult.: $\alpha(\text{K})_{\text{exp}}=0.15$ 5 in ^{200}At ε decay (1998Bi06).
2235.9?	8 $^-$	100.7 10	100	2135.22	7 $^-$	M1	10.87 34
							$\alpha(\text{K})=8.80$ 28; $\alpha(\text{L})=1.58$ 5; $\alpha(\text{M})=0.372$ 12 $\alpha(\text{N})=0.0959$ 31; $\alpha(\text{O})=0.0201$ 7; $\alpha(\text{P})=0.00259$ 8 E_γ : Not observed in 1990Ma14. Mult.: E1 multipolarity is excluded, based on the relative intensity of 100.7 γ in $^{194}\text{Pt}(^{12}\text{C},6\text{n}\gamma)$ (1985We05).
2261.28	9 $^-$	125.7 3	17 11	2135.22	7 $^-$	E2	2.77 5
							B(E2)(W.u.)>13 $\alpha(\text{K})=0.391$ 6; $\alpha(\text{L})=1.761$ 31; $\alpha(\text{M})=0.470$ 8 $\alpha(\text{N})=0.1203$ 21; $\alpha(\text{O})=0.0229$ 4; $\alpha(\text{P})=0.00208$ 4 Mult.: $A_2=0.2$ 2, $A_4=0.1$ 1, $\alpha(\text{L})_{\text{exp}}=1.4$ 10 in $^{184}\text{W}(^{20}\text{Ne},4\text{n}\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5\text{n}\gamma)$ (1990Ma14).
		487.7 1	100 6	1773.61	8 $^+$	(E1)	0.01081 15
							B(E1)(W.u.)> 5.2×10^{-7} $\alpha(\text{K})=0.00890$ 12; $\alpha(\text{L})=0.001465$ 21; $\alpha(\text{M})=0.000343$ 5

Adopted Levels, Gammas (continued)

$\gamma(^{200}\text{Po})$ (continued)								
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. @	$\alpha^\&$	Comments
								$\alpha(\text{N})=8.76\times 10^{-5}$ 12; $\alpha(\text{O})=1.807\times 10^{-5}$ 25; $\alpha(\text{P})=2.243\times 10^{-6}$ 31 Mult.: $A_2=-0.06$ 2, $A_4=-0.04$ 3 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14); $A_2=-0.05$ 3, $A_4=-0.05$ 4 in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).
2329.9		518.5 [‡] 3	100 [‡]	1811.41	5 ⁻			
2338.2	(7,8,9) ⁺	564.6 [‡] 2	100 [‡]	1773.61	8 ⁺	M1	0.0924 13	$\alpha(\text{K})=0.0754$ 11; $\alpha(\text{L})=0.01296$ 18; $\alpha(\text{M})=0.00305$ 4 $\alpha(\text{N})=0.000784$ 11; $\alpha(\text{O})=0.0001642$ 23; $\alpha(\text{P})=2.126\times 10^{-5}$ 30 Mult.: $\alpha(\text{K})\text{exp}=0.09$ 2, $\alpha(\text{L})\text{exp}=0.014$ 3 in ^{200}At ε decay (1998Bi06).
2360.7		549.3 [‡] 3	100 [‡]	1811.41	5 ⁻			
2414.6	(5) ⁻	603.2 [‡] 2	100 [‡]	1811.41	5 ⁻	E0+M1+E2		Mult.: $\alpha(\text{K})\text{exp}=0.15$ 4, $\alpha(\text{L})\text{exp}=0.08$ 3 in ^{200}At ε decay (1998Bi06).
2461.7	(5,6,7) ⁺	700.3 [‡] 2	100 [‡]	1761.40	6 ⁺	M1	0.0524 7	$\alpha(\text{K})=0.0429$ 6; $\alpha(\text{L})=0.00732$ 10; $\alpha(\text{M})=0.001721$ 24 $\alpha(\text{N})=0.000443$ 6; $\alpha(\text{O})=9.27\times 10^{-5}$ 13; $\alpha(\text{P})=1.201\times 10^{-5}$ 17 Mult.: $\alpha(\text{K})\text{exp}=0.09$ 5 in ^{200}At ε decay (1998Bi06).
2462.2	(4,5,6) ⁻	650.8 [‡] 2	100 [‡]	1811.41	5 ⁻	M1+E2	0.041 23	$\alpha(\text{K})=0.032$ 19; $\alpha(\text{L})=0.0062$ 27; $\alpha(\text{M})=0.0015$ 6 $\alpha(\text{N})=3.8\times 10^{-4}$ 16; $\alpha(\text{O})=7.8\times 10^{-5}$ 34; $\alpha(\text{P})=1.0\times 10^{-5}$ 5 Mult.: $\alpha(\text{K})\text{exp}=0.033$ 7 in ^{200}At ε decay (1998Bi06).
2596.09	11 ⁻	334.8 1	39.5 23	2261.28	9 ⁻	E2	0.0915 13	B(E2)(W.u.)=0.0052 7 $\alpha(\text{K})=0.0524$ 7; $\alpha(\text{L})=0.0292$ 4; $\alpha(\text{M})=0.00754$ 11 $\alpha(\text{N})=0.001935$ 27; $\alpha(\text{O})=0.000379$ 5; $\alpha(\text{P})=3.86\times 10^{-5}$ 5 Mult.: $A_2=0.29$ 7, $A_4=0.06$ 5 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14); $A_2=0.19$ 10, $A_4=0.04$ 13 in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).
		822.5 1	100 5	1773.61	8 ⁺	E3	0.0275 4	B(E3)(W.u.)=13.8 17 $\alpha(\text{K})=0.01880$ 26; $\alpha(\text{L})=0.00653$ 9; $\alpha(\text{M})=0.001650$ 23 $\alpha(\text{N})=0.000426$ 6; $\alpha(\text{O})=8.57\times 10^{-5}$ 12; $\alpha(\text{P})=9.70\times 10^{-6}$ 14 Mult.: $A_2=0.35$ 2, $A_4=0.05$ 3; $\alpha(\text{K})\text{exp}=0.022$ 5, $\alpha(\text{L})\text{exp}=0.011$ 8, K/L=2.0 8 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14).
2681.5		546.3 4	100	2135.22	7 ⁻	D		Mult.: $A_2=-0.1$ 2, $A_4=0.0$ 1 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14).
2715.9		942.3 3	100	1773.61	8 ⁺	D,Q		Mult.: $A_2=0.2$ 2, $A_4=-0.1$ 2.
2804.4	10 ⁺	208.3 1	100	2596.09	11 ⁻	E1	0.0743 10	$\alpha(\text{K})=0.0600$ 8; $\alpha(\text{L})=0.01088$ 15; $\alpha(\text{M})=0.00257$ 4 $\alpha(\text{N})=0.000654$ 9; $\alpha(\text{O})=0.0001326$ 19; $\alpha(\text{P})=1.563\times 10^{-5}$ 22 Mult.: $A_2=-0.12$ 1, $A_4=0.00$ 1; $\alpha(\text{K})\text{exp}=0.072$ 25, $\alpha(\text{L})\text{exp}=0.015$ 10, K/L=4.5 20 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14).
2962.5	11 ⁻	701.2 2	100	2261.28	9 ⁻	E2	0.01505 21	$\alpha(\text{K})=0.01131$ 16; $\alpha(\text{L})=0.00283$ 4; $\alpha(\text{M})=0.000693$ 10 $\alpha(\text{N})=0.0001781$ 25; $\alpha(\text{O})=3.61\times 10^{-5}$ 5; $\alpha(\text{P})=4.20\times 10^{-6}$ 6 Mult.: $A_2=0.22$ 6, $A_4=-0.01$ 5 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14).
3227.3	(11)	422.9 [#] 10	100 [#]	2804.4	10 ⁺	D		Mult.: $A_2=-0.4$ 2, $A_4=-0.1$ 3 in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).

Adopted Levels, Gammas (continued)

$\gamma(^{200}\text{Po})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. @	$\alpha\&$	Comments
3371.60+x	(14 ⁺)	567.1 1	100	2804.4+x	(12 ⁺)	E2	0.02394 34	$\alpha(\text{K})=0.01716$ 24; $\alpha(\text{L})=0.00511$ 7; $\alpha(\text{M})=0.001274$ 18 $\alpha(\text{N})=0.000327$ 5; $\alpha(\text{O})=6.57\times 10^{-5}$ 9; $\alpha(\text{P})=7.37\times 10^{-6}$ 10 Mult.: $A_2=0.40$ 2, $A_4=-0.12$ 3 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14); $A_2=0.40$ 2, $A_4=-0.09$ 3 in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).
3502.4	13 ⁻	539.9 2	100	2962.5	11 ⁻	E2	0.0268 4	$\alpha(\text{K})=0.01894$ 27; $\alpha(\text{L})=0.00592$ 8; $\alpha(\text{M})=0.001479$ 21 $\alpha(\text{N})=0.000380$ 5; $\alpha(\text{O})=7.61\times 10^{-5}$ 11; $\alpha(\text{P})=8.47\times 10^{-6}$ 12 Mult.: $A_2=0.27$ 8, $A_4=-0.07$ 6 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14); $A_2=0.12$ 3, $A_4=-0.11$ 4 in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).
3625.4		123.0 3	100	3502.4	13 ⁻	D		Mult.: $A_2=-0.2$ 1, $A_4=0.0$ 1 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14); $A_2=-0.31$ 7, $A_4=0.03$ 9 in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).
3689.7	(15 ⁻)	(63.5) 187.3 2	100	3625.4 3502.4	13 ⁻	(E2)	0.596 9	E_γ : Placement from $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05). $B(\text{E}2)(\text{W.u.})>11$ $\alpha(\text{K})=0.1922$ 27; $\alpha(\text{L})=0.300$ 4; $\alpha(\text{M})=0.0793$ 12 $\alpha(\text{N})=0.02034$ 30; $\alpha(\text{O})=0.00391$ 6; $\alpha(\text{P})=0.000366$ 5 Mult.: $A_2=0.2$ 3, $A_4=-0.2$ 4 in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).
3944.60+x	(16 ⁺)	573.0 2	100	3371.60+x	(14 ⁺)	E2	0.02339 33	$\alpha(\text{K})=0.01680$ 24; $\alpha(\text{L})=0.00496$ 7; $\alpha(\text{M})=0.001235$ 17 $\alpha(\text{N})=0.000317$ 4; $\alpha(\text{O})=6.37\times 10^{-5}$ 9; $\alpha(\text{P})=7.17\times 10^{-6}$ 10 Mult.: $A_2=0.35$ 8, $A_4=-0.11$ 9 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14); $A_2=0.31$ 15, $A_4=-0.3$ 2 in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).
4125.8+x		754.2 3	100	3371.60+x	(14 ⁺)	(M1,E2)	0.028 15	$\alpha(\text{K})=0.023$ 13; $\alpha(\text{L})=0.0042$ 18; $\alpha(\text{M})=1.0\times 10^{-3}$ 4 $\alpha(\text{N})=2.6\times 10^{-4}$ 11; $\alpha(\text{O})=5.3\times 10^{-5}$ 23; $\alpha(\text{P})=6.7\times 10^{-6}$ 32 Mult.: $A_2=0.19$ 25, $A_4=0.0$ 3 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14); $A_2=0.22$ 16, $A_4=-0.3$ 2 in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).
4171.7		482.0 2	100	3689.7	(15 ⁻)	D		Mult.: $A_2=-0.18$ 2, $A_4=-0.06$ 3 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14); $A_2=-0.07$ 10, $A_4=-0.01$ 14 in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).
4307.9+x		936.3 3	100	3371.60+x	(14 ⁺)	D		Mult.: $A_2=-0.1$ 2, $A_4=0.0$ 2 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14).
4446.6+x	(17)	502.0 4	100	3944.60+x	(16 ⁺)	D		Mult.: $A_2=-0.14$ 10, $A_4=-0.06$ 9 in $^{184}\text{W}(^{20}\text{Ne},4n\gamma)$, $^{183}\text{W}(^{22}\text{Ne},5n\gamma)$ (1990Ma14); $A_2=-0.60$ 14, $A_4=-0.19$ 19 in $^{194}\text{Pt}(^{12}\text{C},6n\gamma)$ (1985We05).
4670.3+x	(17,18) ⁺	725.7 3	100	3944.60+x	(16 ⁺)	(M1,E2)	0.031 17	$\alpha(\text{K})=0.025$ 14; $\alpha(\text{L})=0.0046$ 20; $\alpha(\text{M})=0.0011$ 5

Adopted Levels, Gammas (continued)

$\gamma(^{200}\text{Po})$ (continued)

<u>E_i(level)</u>	<u>E_{γ}[†]</u>	<u>I_{γ}[†]</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Comments</u>
					$\alpha(\text{N})=2.8\times10^{-4}$ 12; $\alpha(\text{O})=5.9\times10^{-5}$ 26; $\alpha(\text{P})=7.4\times10^{-6}$ 35 Mult.: A ₂ =0.15 13, A ₄ =-0.08 9 in ¹⁸⁴ W(²⁰ Ne,4n γ), ¹⁸³ W(²² Ne,5n γ) (1990Ma14); A ₂ =-0.06 14, A ₄ =-0.18 18 in ¹⁹⁴ Pt(¹² C,6n γ) (1985We05).
4702.0+x	255.4 [#] 10	100 [#]	4446.6+x (17)		Mult.: A ₂ =-0.2 3, A ₄ =-0.2 4 in ¹⁹⁴ Pt(¹² C,6n γ) (1985We05).
5226.9+x	556.6 [#] 10	100 [#]	4670.3+x (17,18) ⁺		

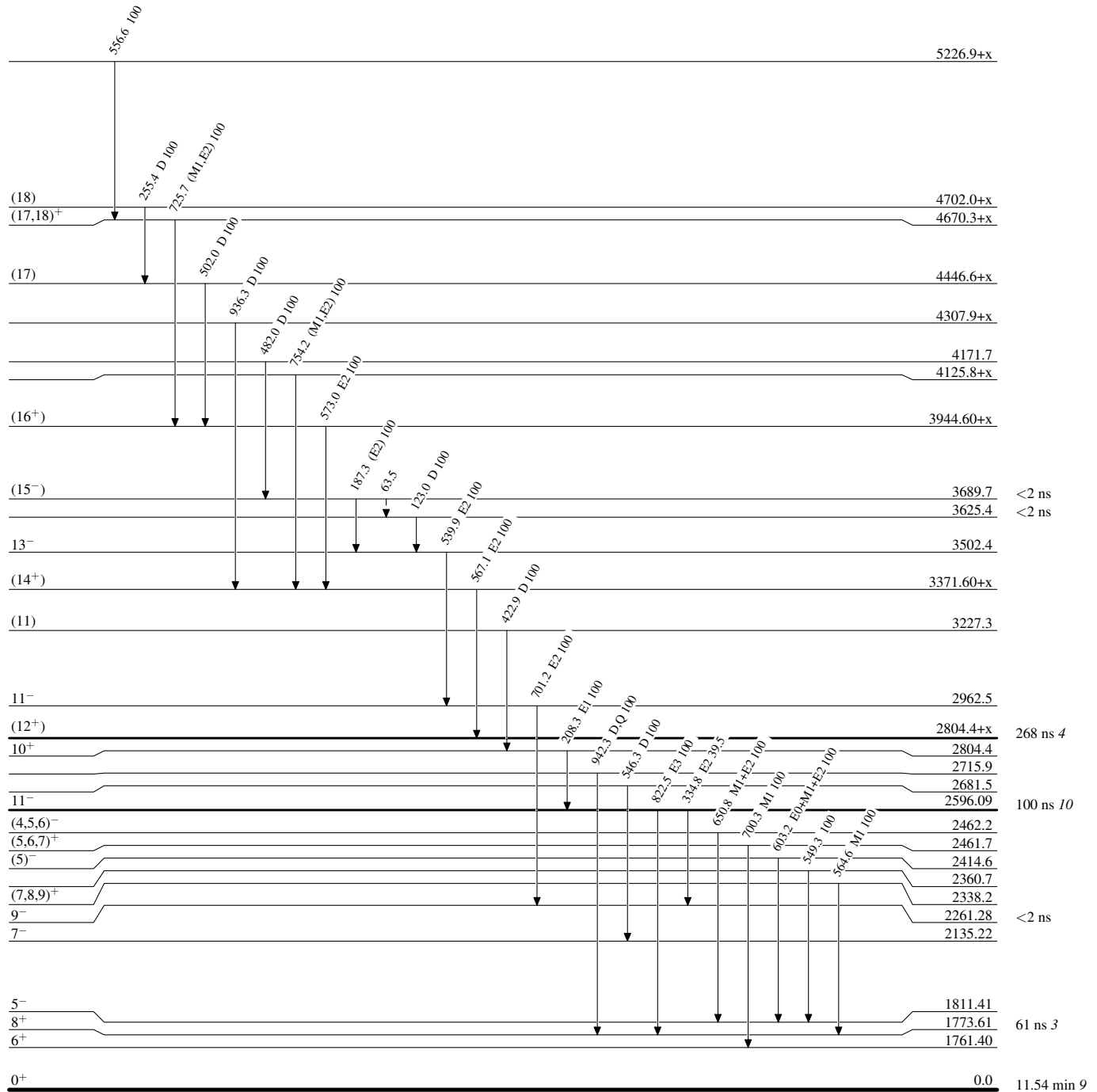
† From ¹⁸⁴W(²⁰Ne,4n γ), ¹⁸³W(²²Ne,5n γ), unless otherwise stated.
‡ From ²⁰⁰At ϵ decay.
From ¹⁹⁴Pt(¹²C,6n γ).
@ From $\gamma(\theta)$ and $\alpha(\text{K})\text{exp}$, $\alpha(\text{L})\text{exp}$ and K/L exp in ¹⁸⁴W(²⁰Ne,4n γ), ¹⁸³W(²²Ne,5n γ), unless otherwise stated.
& [Additional information 2](#).

Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain)


Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain)