Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 196,342 (2024)	1-Sep-2023

Q(β^-)=−2809 *16*; S(n)=7393 *19*; S(p)=2769 *20*; Q(α)=4353 *16* 2021Wa16
S(2n)=16523 *27*, S(2p)=8282 *15* (2021Wa16).

^{202}Bi Levels

Cross Reference (XREF) Flags

- A ^{202}Po ε decay
- B ^{206}At α decay
- C ^{196}Pt(^{11}B,5nγ)
- D ^{203}Tl(α,5nγ)

E(level)†	J$^\pi$‡	T$_{1/2}$	XREF	Comments
0.0	5$^+$	1.71 h *4*	ABCD	%ε+%β^+=100 μ=+4.240 *14* (2019StZV); Q=−1.00 *9* (2001Bi23,2021StZZ) J$^\pi$: From atomic beam measurement (1959Ax98); μ. Direct ε+β^+ feeding to 4$^+$ states in ^{202}Pb favor J^π=5$^+$ rather than 6$^+$. T$_{1/2}$: Weighted average of 1.67 h *2* (1966KaZY), 1.79 h *3* (1970DaZM) and 1.6 h *2* (1970Jo26). Others: 1.58 h (1951Ka03), μ,Q: Measured by laser spectroscopy relative to ^{209}Bi, using μ(^{209}Bi)=4.093 *5* (2019StZV) and Q(^{209}Bi)=−0.516 *15* (2001Bi23). Originally reported μ(^{202}Bi)=+4.259 *14* using μ(^{209}Bi)=4.1106 *2* (1996Ca02,2000Bi23) and Q(^{202}Bi)=−0.72 *8* using Q(^{209}Bi)=−0.370 *26* (1996Ca02,2000Bi23). Δ<r^2>(^{209}Bi,^{202}Bi)=−0.342 fm^2 *8* (1995Ca11). configuration: $\pi(h^{+1}_{9/2})\otimes\nu(p^{-1}_{3/2})$. The assignment is tentative, based on the unfavored α decay from the J^π=(5)$^+$ ground state of ^{206}At (configuration=$\pi(h^{+1}_{9/2})\otimes\nu(f^{-1}_{5/2})$).
7 *5*	(7$^+$)		BCD	Additional information 1. E(level): From the α energy difference of 5774 keV *4* and 5767 keV *3* in ^{206}At α-decay; J$^\pi$: From syst of 7$^+$ levels in neighboring nuclei. configuration: $\pi(h^{+1}_{9/2})\otimes\nu(f^{-1}_{5/2})$. The assignment is tentative.
41.30? *9*	(4$^+$)		AB	E(level): From 41.30 keV *9* γ ray in ^{202}Po ε decay (1986Va31). J$^\pi$: 41.30γ M1 to 0$^+$.
68.0 *30*	(5)$^+$		B	E(level): From 68 keV *3* M1 γ ray to 5$^+$. J$^\pi$: Favored α decay from the J^π=(5)$^+$ ground state of ^{206}At. configuration: $\pi(h^{+1}_{9/2})\otimes\nu(f^{-1}_{5/2})$.
605 *5*	(8$^-$)		CD	E(level),J$^\pi$: 597.8γ E1 to (7$^+$) at 7 keV *5*.
605+x	(10$^-$)	3.04 μs *6*	CD	μ=+2.55 *3*; Q=0.14 *2* (2021StZZ) Additional information 2. E(level): x<40 keV in ^{203}Tl(α,5nγ) (1981Th03). J$^\pi$: From systematics of similar isomers in neighboring odd-odd nuclei; μ. T$_{1/2}$: From 597.8γ(t) in ^{203}Tl(α,5nγ) (1981Th03). μ: From g=0.255 *3* (1982Hu07); Other: g=0.236 *23* (1980Kl06); both values using the time dependent perturbed angular distribution technique. The expected value for a pure configuration=$\pi(h^{+1}_{9/2})\otimes\nu(i^{-1}_{13/2})$ is μ=+2.64. Q: Recommended in 2021StZZ, based on 0.07 eb 3 (1981Th03, integral perturbed angular distribution), 0.12 eb 2 (1987Ma65, time dependent perturbed angular distribution), 0.12 eb 1 (1990Ha30, level mixing spectroscopy) and 0.12 eb 2 (1991Sc14, level mixing spectroscopy). configuration: $\pi(h^{+1}_{9/2})\otimes\nu(i^{-1}_{13/2})$.

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Adopted Levels, Gammas (continued)

^{202}Bi Levels (continued)

E(level)†	Jπ‡	$T_{1/2}$	XREF	Comments
1229.12+x *8*	(11⁻)		CD	Jπ: 624.1γ M1 to (10⁻).
1471.29+x *8*	(12⁻)		CD	Jπ: 242.1γ M1 to (11⁻); 866.3γ E2 to (10⁻);
1793.72+x *13*	(12)		CD	Jπ: 564.6γ D to (11⁻).
1797.10+x *11*	(13⁻)		CD	Jπ: 325.8γ M1 to (12⁻).
1834.59+x *10*	(14⁻)		CD	Jπ: 363.4γ (E2) to (12⁻).
1842.70+x *11*	(13⁻)		CD	Jπ: 371.4γ M1 to (12⁻).
2026.72+x *11*	(14⁺)		CD	Jπ: 184.0γ E1 to (13⁻); 192.1γ D to (14⁻).
2193.26+x *11*	(12⁻)		CD	Jπ: 135.9γ M1 from (13⁻), 964.2γ D to (11⁻).
2193.26+y#			C	Additional information 3.
2329.11+x *10*	(13⁻)		CD	Jπ: 857.7γ M1(+E2) to (12⁻).
2329.11+z@			C	Additional information 4.
2357.3+y# *10*			C	
2509.1+z@ *10*			C	
2546.37+x *11*	(15⁻)	2.0 ns *2*	CD	Jπ: 217.2γ E2 to (13⁻), 519.7γ E1 to (14⁺). $T_{1/2}$: From 325.8γ(t), 371.4γ(t) and 624.1γ(t) in ^{203}Tl(α,5nγ) (1981Th03). configuration: $\pi(h^{+1}_{9/2})\otimes\nu(p^{-1}_{3/2},f^{-1}_{5/2},i^{-1}_{13/2})$. The assignment is tentative.
2597.07+x *25*	(17⁺)	310 ns *50*	CD	μ=+2.06 *5*; Q=0.45 *2* Jπ: From systematics of similar isomers in neighboring odd-odd nuclei; μ. $T_{1/2}$: From 217γ(t), 326γ(t), 520γ(t), 624γ(t), 712γ(t) and 866γ(t) in ^{203}Tl(α,5nγ) (1981Th03). μ: Recommended in 2020StZV, from g=0.121 *3* (1982Hu07), determined using the time dependent perturbed angular distribution technique. Q: Recommended in 2021StZZ, based on Q(17⁺)=0.40 *2* in 1987Ma65 determined using the time dependent perturbed angular distribution technique. configuration: $\pi(h^{+1}_{9/2})\otimes\nu(f^{-1}_{5/2},i^{-2}_{13/2})$. It is unlikely that the isomer decays via 50.7-keV, M2 transition to the 2546.37+x−keV, 15⁻ level, since B(M2)(W.u.) ≈ 14 W.u., which would exceed RUL by more than 3σ. It is suggested in 1981Th03 that the depopulating transition is most likely E1 or E2, thus requiring an intermediate level with J^π=15⁺, 16⁻ or 17⁻ which has not been observed yet.
2616.3+y# *14*			C	
2723.1+z@ *14*			C	
2968.3+y# *17*			C	
2988.1+z@ *17*			C	
3050.38+x *15*	(16⁻)		CD	Jπ: 504.0γ M1 to (15⁻).
3150.98+x *23*	(18⁺)		CD	Jπ: 553.9γ M1 to (17⁺).
3313.1+z@ *20*			C	
3386.58+x *27*			D	
3392.3+y# *20*			C	
3590.08+x *25*			D	
3629.78+x *18*	(17⁻)		D	Jπ: 579.4γ (M1+E2) to (16⁻).
3703.1+z@ *22*			C	
3744.18+x *21*	(18)		CD	Jπ: 114.4γ D to (17⁻); 593.2γ D (ΔJ=0) to (18⁺).
3873.3+y# *22*			C	
4140.28+x *23*	(19)		CD	Jπ: 396.1γ M1 to (18).
4403.3+y# *25*			C	
4973.3+y# *27*			C	
4973.3+w&			C	Additional information 5.
5223.3+w& *10*			C	
5523.3+w& *14*			C	

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Adopted Levels, Gammas (continued)

^{202}Bi Levels (continued)

E(level)[†]	XREF
5880.3+w[&] *17*	C
6293.3+w[&] *20*	C
6758.3+w[&] *22*	C
7275.3+w[&] *25*	C

[†] From a least-squares fit to Eγ for levels above 605+x keV. When ΔEγ is not explicitly given, it is assumed that ΔEγ=1 keV.
[‡] Based on deduced transition multipolarities using γ(θ) and α(K)exp (1981Th03), and angular correlation (1993Cl02).
[#] Band(A): Band 1.
[@] Band(B): Band 2.
[&] Band(C): Band 3.

γ(^{202}Bi)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[@]	Comments
41.30?	(4^+)	41.30 *9*	100	0.0	5^+	M1	25.4 *4*	α(L)=19.38 *30*; α(M)=4.56 *7* α(N)=1.168 *18*; α(O)=0.239 *4*; α(P)=0.0284 *4* E_γ,I_γ,Mult.: From ^{202}Po ε decay (1986Va31).
68.0	$(5)^+$	68 *3*	100	0.0	5^+	M1	5.9 *8*	α(L)=4.5 *6*; α(M)=1.06 *15* α(N)=0.27 *4*; α(O)=0.055 *8*; α(P)=0.0066 *9* E_γ,I_γ: From ^{206}At α decay (1963Ho18). ΔEγ estimated by the evaluator from the observed Eγ= 65.17 keV *5*, 67.25 keV *4* and 70.70 keV *9* in ^{202}Po ε decay (1986Va31). Mult.: From α(exp)=5.3 *13* (1963Ho18).
605	(8^-)	597.8 *1*	100	7	(7^+)	E1	0.00689 *10*	α(K)=0.00570 *8*; α(L)=0.000912 *13*; α(M)=0.0002120 *30* α(N)=5.39×10^{-5} *8*; α(O)=1.089×10^{-5} *15*; α(P)=1.253×10^{-6} *18* Mult.: α(K)exp=0.007 *2*; A_2=−0.09 *1*, A_4=0.01 *1*.
1229.12+x	(11^-)	624.1 *1*	100	605+x	(10^-)	M1	0.0653 *9*	α(K)=0.0535 *7*; α(L)=0.00906 *13*; α(M)=0.002123 *30* α(N)=0.000543 *8*; α(O)=0.0001110 *16*; α(P)=1.325×10^{-5} *19* Mult.: α(K)exp=0.071 *21*; A_2=−0.44 *2*, A_4=0.00 *3*.
1471.29+x	(12^-)	242.1 *1*	11.1 *17*	1229.12+x	(11^-)	M1	0.837 *12*	α(K)=0.682 *10*; α(L)=0.1184 *17*; α(M)=0.0278 *4* α(N)=0.007117 *99*; α(O)=0.001454 *20*; α(P)=0.0001731 *24* Mult.: α(K)exp=0.9 *3*; A_2=−0.27 *3*, A_4=0.03 *4*.
		866.3 *1*	100 *15*	605+x	(10^-)	E2	0.00929 *13*	α(K)=0.00725 *10*; α(L)=0.001545 *22*;

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Adopted Levels, Gammas (continued)

γ(^{202}Bi) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[@]	Comments
								α(M)=0.000372 *5* α(N)=9.50×10^{-5} *13*; α(O)=1.894×10^{-5} *27*; α(P)=2.071×10^{-6} *29* Mult.: α(K)exp=0.01 *3*; A_2=0.24 *1*, A_4=−0.06 *1*.
1793.72+x	(12)	564.6 *1*	100	1229.12+x	(11$^-$)	D		Mult.: A_2=−0.36 *8*, A_4=0.04 *11*.
1797.10+x	(13$^-$)	325.8 *1*	100	1471.29+x	(12$^-$)	M1	0.370 *5*	α(K)=0.302 *4*; α(L)=0.0521 *7*; α(M)=0.01224 *17* α(N)=0.00313 *4*; α(O)=0.000640 *9*; α(P)=7.62×10^{-5} *11* Mult.: α(K)exp=0.33; A_2=−0.29 *1*, A_4=0.01 *2*.
1834.59+x	(14$^-$)	37.4 *1*	6.7 *22*	1797.10+x	(13$^-$)	M1	34.0 *5*	α(L)=26.0 *4*; α(M)=6.12 *10* α(N)=1.565 *25*; α(O)=0.320 *5*; α(P)=0.0380 *6* Mult.: From intensity balance in ^{203}Tl(α,5nγ) (1981Th03).
		363.4 *1*	100 *15*	1471.29+x	(12$^-$)	E2	0.0696 *10*	α(K)=0.0427 *6*; α(L)=0.02015 *28*; α(M)=0.00515 *7* α(N)=0.001312 *18*; α(O)=0.0002507 *35*; α(P)=2.301×10^{-5} *32* Mult.: A_2=0.22 *4*, A_4=−0.03 *5*.
1842.70+x	(13$^-$)	371.4 *1*	100 *15*	1471.29+x	(12$^-$)	M1	0.260 *4*	α(K)=0.2121 *30*; α(L)=0.0364 *5*; α(M)=0.00856 *12* α(N)=0.002188 *31*; α(O)=0.000447 *6*; α(P)=5.33×10^{-5} *7* Mult.: α(K)exp=0.42; A_2=−0.28 *2*, A_4=−0.03 *3*.
2026.72+x	(14$^+$)	184.0 *1*	100 *15*	1842.70+x	(13$^-$)	E1	0.0981 *14*	α(K)=0.0793 *11*; α(L)=0.01441 *20*; α(M)=0.00339 *5* α(N)=0.000857 *12*; α(O)=0.0001689 *24*; α(P)=1.797×10^{-5} *25* Mult.: From intensity balance in ^{203}Tl(α,5nγ) (1981Th03); A_2=−0.13 *1*, A_4=0.02 *2*.
		192.1 *1*	11.0 *22*	1834.59+x	(14$^-$)	D		Mult.: A_2=0.32 *12*, A_4=−0.05 *16*. ΔJ=0 transition.
		229.7 *1*	≈55	1797.10+x	(13$^-$)			
2193.26+x	(12$^-$)	964.2 *1*	100	1229.12+x	(11$^-$)	D		Mult.: A_2=−0.35 *3*, A_4=0.02 *4*.
2329.11+x	(13$^-$)	135.9 *1*	27 *5*	2193.26+x	(12$^-$)	M1	4.25 *6*	α(K)=3.45 *5*; α(L)=0.605 *9*; α(M)=0.1423 *20* α(N)=0.0364 *5*; α(O)=0.00744 *11*; α(P)=0.000885 *13* Mult.: From α(exp)=4 from intensity balance in ^{203}Tl(α,5nγ) (1981Th03); A_2=−0.17 *6*, A_4=−0.05 *9*.
		857.7 *1*	100 *15*	1471.29+x	(12$^-$)	M1(+E2)	0.019 *10*	α(K)=0.015 *8*; α(L)=0.0028 *12*; α(M)=6.5×10^{-4} *27* α(N)=1.7×10^{-4} *7*; α(O)=3.4×10^{-5} *14*; α(P)=3.9×10^{-6} *18* Mult.: A_2=0.02 *5*, A_4=−0.04 *7*.
2357.3+y		164	100	2193.26+y		M1[#]	2.492 *35*	α(K)=2.029 *28*; α(L)=0.354 *5*; α(M)=0.0833 *12* α(N)=0.02130 *30*; α(O)=0.00435 *6*; α(P)=0.000518 *7*

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Adopted Levels, Gammas (continued)

$\gamma(^{202}Bi)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[@]	Comments
2509.1+z		180	100	2329.11+z		M1[#]	1.917 *27*	α(K)=1.561 *22*; α(L)=0.272 *4*; α(M)=0.0640 *9* α(N)=0.01636 *23*; α(O)=0.00334 *5*; α(P)=0.000398 *6*
2546.37+x	(15$^-$)	217.2 *1*	44 *7*	2329.11+x	(13$^-$)	E2	0.338 *5*	B(E2)(W.u.)=1.6 *3* α(K)=0.1390 *20*; α(L)=0.1480 *21*; α(M)=0.0388 *5* α(N)=0.00987 *14*; α(O)=0.001847 *26*; α(P)=0.0001533 *22* Mult.: α(K)exp=0.11 *3*; A_2=0.17 *2*, A_4=−0.04 *3*.
		519.7 *1*	100 *15*	2026.72+x	(14$^+$)	E1	0.00915 *13*	B(E1)(W.u.)=3.1×10^{-7} *5* α(K)=0.00755 *11*; α(L)=0.001223 *17*; α(M)=0.000285 *4* α(N)=7.24×10^{-5} *10*; α(O)=1.459×10^{-5} *20*; α(P)=1.668×10^{-6} *23* Mult.: α(K)exp=0.009 *3*; A_2=−0.16 *1*;
		711.8 *1*	60 *10*	1834.59+x	(14$^-$)	(M1)	0.0463 *6*	B(M1)(W.u.)=8.2×10^{-6} *15* α(K)=0.0380 *5*; α(L)=0.00640 *9*; α(M)=0.001500 *21* α(N)=0.000383 *5*; α(O)=7.84×10^{-5} *11*; α(P)=9.36×10^{-6} *13* Mult.: α(K)exp=0.009 *3*; A_2=−0.21 *3*, A_4=0.03 *4*.
2616.3+y		259	100	2357.3+y		M1[#]	0.695 *10*	α(K)=0.566 *8*; α(L)=0.0981 *14*; α(M)=0.02306 *32* α(N)=0.00590 *8*; α(O)=0.001205 *17*; α(P)=0.0001435 *20*
2723.1+z		214	100	2509.1+z		M1[#]	1.180 *17*	α(K)=0.961 *13*; α(L)=0.1671 *23*; α(M)=0.0393 *6* α(N)=0.01005 *14*; α(O)=0.002054 *29*; α(P)=0.0002445 *34*
2968.3+y		352	100	2616.3+y		M1[#]	0.300 *4*	α(K)=0.2451 *34*; α(L)=0.0422 *6*; α(M)=0.00990 *14* α(N)=0.002533 *35*; α(O)=0.000518 *7*; α(P)=6.17×10^{-5} *9*
2988.1+z		265	100	2723.1+z		M1[#]	0.652 *9*	α(K)=0.532 *7*; α(L)=0.0921 *13*; α(M)=0.02164 *30* α(N)=0.00554 *8*; α(O)=0.001131 *16*; α(P)=0.0001347 *19*
3050.38+x	(16$^-$)	504.0 *1*	100	2546.37+x	(15$^-$)	M1	0.1148 *16*	α(K)=0.0939 *13*; α(L)=0.01599 *22*; α(M)=0.00375 *5* α(N)=0.000959 *13*; α(O)=0.0001961 *27*; α(P)=2.339×10^{-5} *33* Mult.: α(K)exp=0.066 *20*; A_2=−0.43, A_4=0.01 *5*.
3150.98+x	(18$^+$)	553.9 *1*	100	2597.07+x	(17$^+$)	M1	0.0894 *13*	α(K)=0.0732 *10*; α(L)=0.01243 *17*; α(M)=0.00291 *4* α(N)=0.000745 *10*; α(O)=0.0001524 *21*; α(P)=1.818×10^{-5} *25* Mult.: α(K)exp=0.09 *3*; A_2=−0.45 *2*, A_4=0.02 *3*.
3313.1+z		325	100	2988.1+z		M1[#]	0.373 *5*	α(K)=0.304 *4*; α(L)=0.0525 *7*; α(M)=0.01232 *17*

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Adopted Levels, Gammas (continued)

$\gamma(^{202}Bi)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[@]	Comments
								α(N)=0.00315 *4*; α(O)=0.000644 *9*; α(P)=7.67×10^{-5} *11*
3386.58+x		789.5 *1*	100	2597.07+x	(17$^+$)			Mult.: A_2=0.31 *6*, A_4=−0.05 *9*.
3392.3+y		424	100	2968.3+y		M1[#]	0.1819 *25*	α(K)=0.1486 *21*; α(L)=0.0255 *4*; α(M)=0.00597 *8* α(N)=0.001528 *21*; α(O)=0.000312 *4*; α(P)=3.72×10^{-5} *5*
3590.08+x		439.1 *1*	100	3150.98+x	(18$^+$)			
3629.78+x	(17$^-$)	579.4 *1*	100	3050.38+x	(16$^-$)	M1(+E2)	0.051 *29*	α(K)=0.040 *25*; α(L)=0.0078 *33*; α(M)=0.0018 *7* α(N)=4.7×10^{-4} *19*; α(O)=1.0×10^{-4} *4*; α(P)=1.1×10^{-5} *5* Mult.: A_2=−0.5 *2*, A_4=0.01 *2*.
3703.1+z		390	100	3313.1+z		M1[#]	0.2277 *32*	α(K)=0.1859 *26*; α(L)=0.0319 *4*; α(M)=0.00749 *10* α(N)=0.001916 *27*; α(O)=0.000392 *5*; α(P)=4.67×10^{-5} *7*
3744.18+x	(18)	114.4 *1*	18 *5*	3629.78+x	(17$^-$)	D		Mult.: A_2=−0.32 *14*, A_4=0.11 *19*.
		593.2 *1*	100 *16*	3150.98+x	(18$^+$)	D		Mult.: A_2=0.37 *6*, A_4=0.07 *8*; ΔJ=0 transition.
3873.3+y		481	100	3392.3+y		M1[#]	0.1299 *18*	α(K)=0.1062 *15*; α(L)=0.01813 *25*; α(M)=0.00425 *6* α(N)=0.001087 *15*; α(O)=0.0002223 *31*; α(P)=2.65×10^{-5} *4*
4140.28+x	(19)	396.1 *1*	100	3744.18+x	(18)	M1	0.2184 *31*	α(K)=0.1783 *25*; α(L)=0.0306 *4*; α(M)=0.00718 *10* α(N)=0.001837 *26*; α(O)=0.000375 *5*; α(P)=4.47×10^{-5} *6* Mult.: α(K)exp=0.32 *11*; A_2=−0.30 *3*, A_4=0.00 *4*.
4403.3+y		530	100	3873.3+y		M1[#]	0.1005 *14*	α(K)=0.0822 *12*; α(L)=0.01398 *20*; α(M)=0.00328 *5* α(N)=0.000839 *12*; α(O)=0.0001714 *24*; α(P)=2.045×10^{-5} *29*
4973.3+y		570	100	4403.3+y		M1[#]	0.0829 *12*	α(K)=0.0678 *9*; α(L)=0.01152 *16*; α(M)=0.00270 *4* α(N)=0.000691 *10*; α(O)=0.0001412 *20*; α(P)=1.685×10^{-5} *24*
5223.3+w		250	100	4973.3+w		M1[#]	0.766 *11*	α(K)=0.624 *9*; α(L)=0.1083 *15*; α(M)=0.0254 *4* α(N)=0.00651 *9*; α(O)=0.001330 *19*; α(P)=0.0001583 *22*
5523.3+w		300	100	5223.3+w		M1[#]	0.464 *6*	α(K)=0.378 *5*; α(L)=0.0654 *9*; α(M)=0.01536 *22* α(N)=0.00393 *5*; α(O)=0.000803 *11*; α(P)=9.56×10^{-5} *13*
5880.3+w		357	100	5523.3+w		M1[#]	0.289 *4*	α(K)=0.2359 *33*; α(L)=0.0406 *6*; α(M)=0.00953 *13* α(N)=0.002438 *34*; α(O)=0.000498 *7*; α(P)=5.93×10^{-5} *8*
6293.3+w		413	100	5880.3+w		M1[#]	0.1952 *27*	α(K)=0.1594 *22*; α(L)=0.0273 *4*; α(M)=0.00641 *9*

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

$\gamma(^{202}Bi)$ (continued)

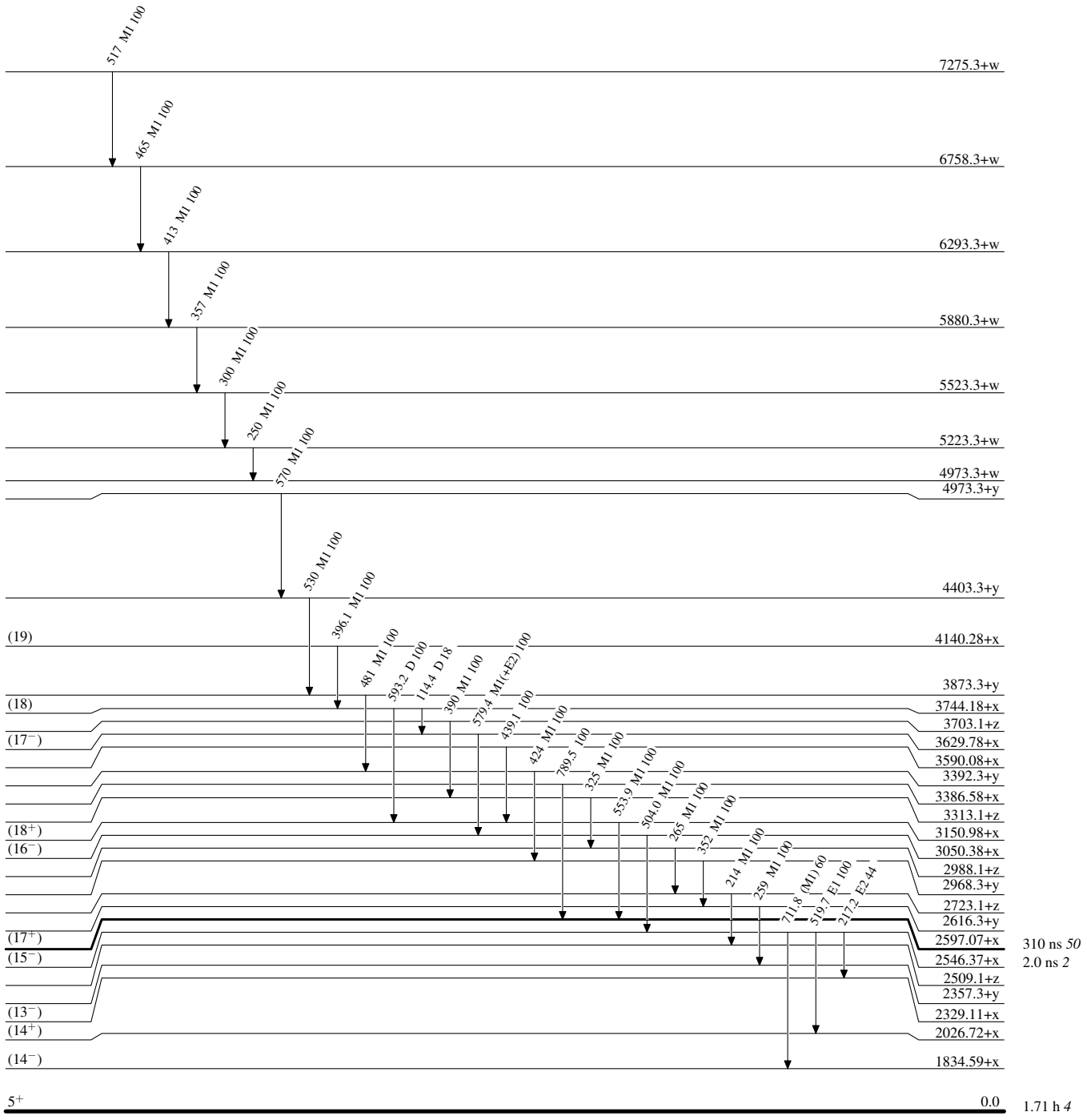
E_i(level)	E_γ[†]	I_γ[†]	E_f	Mult.[‡]	α[@]	Comments
						α(N)=0.001640 *23*; α(O)=0.000335 *5*; α(P)=4.00×10^{-5} *6*
6758.3+w	465	100	6293.3+w	M1[#]	0.1422 *20*	α(K)=0.1162 *16*; α(L)=0.01985 *28*; α(M)=0.00466 *7* α(N)=0.001191 *17*; α(O)=0.0002434 *34*; α(P)=2.90×10^{-5} *4*
7275.3+w	517	100	6758.3+w	M1[#]	0.1073 *15*	α(K)=0.0877 *12*; α(L)=0.01494 *21*; α(M)=0.00350 *5* α(N)=0.000896 *13*; α(O)=0.0001832 *26*; α(P)=2.185×10^{-5} *31*

[†] From 1981Th03 and 1993Cl02, unless otherwise stated.
[‡] From $\gamma(\theta)$, α(K)exp, α(L)exp and intensity balances in 1981Th03, unless otherwise stated.
[#] From angular correlation and intensity balances in 1993Cl02.
[@] Additional information 6.

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

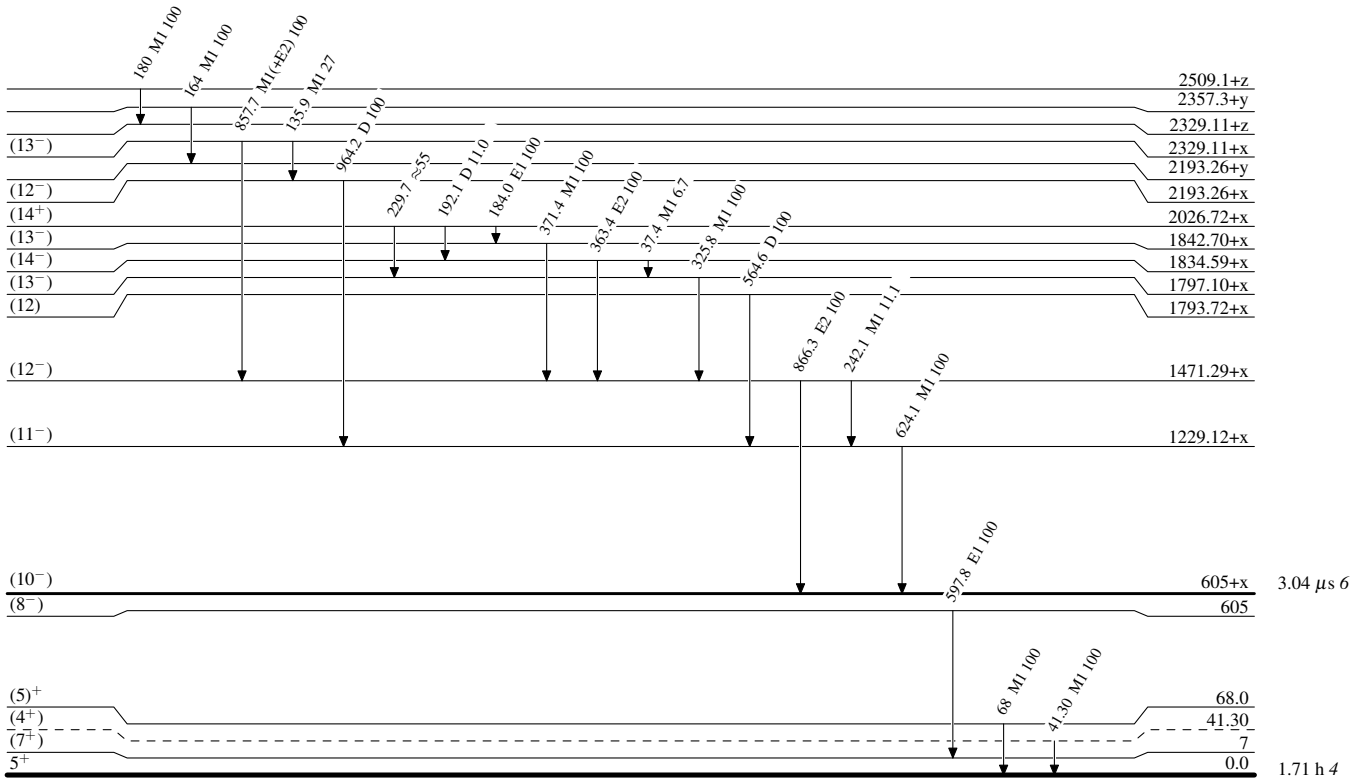


$^{202}_{83}Bi_{119}$

Adopted Levels, Gammas

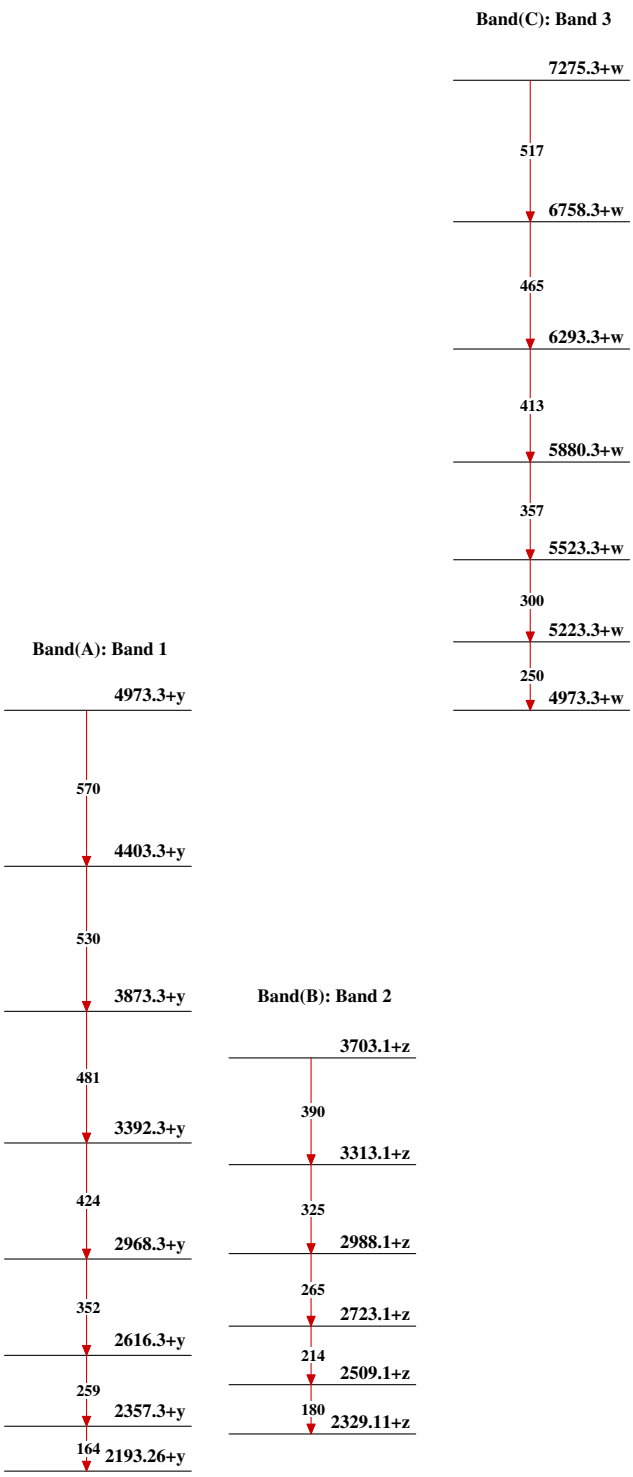
Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{202}_{83}Bi_{119}$

Adopted Levels, Gammas



$^{202}_{83}Bi_{119}$