Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. De Frenne and A. Negret	NDS 109,943 (2008)	1-May-2007

Q(β^-)=190 *3*; S(n)=7943 *6*; S(p)=5813 *3*; Q(α)=−2587 *6* 2012Wa38
Note: Current evaluation has used the following Q record 195 8 *7941* 115813 3-2587 7 2003Au03.

^{106}Ag Levels

Cross Reference (XREF) Flags

A	(HI,xnγ)	E	^{105}Pd(^{3}He,d)
B	^{103}Rh(α,nγ)	F	^{106}Pd(p,nγ)
C	^{104}Pd(^{3}He,p)	G	^{107}Ag(p,d)
D	^{104}Pd(α,pnγ)		

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$	XREF	Comments
0.0[#]	1$^+$	23.96 min *4*	BCD	%ε+%β^+=99.5 *5*; %β^-<1 (1953Be42) μ=+2.85 *20* (1989Ra17) $T_{1/2}$: from γ-decay (1965Eb01). Others: 24.0 min *2* (1953Be42), 24.0 min 10 (1973ArZI); see also: 1938Du01, 1938Po03, 1939En02, 1948Mo33, 1961Ra06, 1967St10. J$^\pi$: J=1 from atomic beam (1958Re10,1959Ew89). π=+ from log *ft*=4.9 to 0$^+$.
89.66[e] *7*	6$^+$	8.28 d *2*	AB DE	%ε+%β^+=100 μ=(+)3.709 *4* (1989Ra17) Q=+1.08 *6* XREF: E(85). For B(M5)(W.u.)≤10 and α(90γ)≈1200 one gets branching(IT)≤4.2×10^{-6}%. %β^- will be completely negligible since the only allowable branch has ΔJ=6. $T_{1/2}$: from β^+ counting (1988Ry01). Others: 8.46 d *10* from γ decay (1961Sm04); 8.4 d *2* (1960Ro12), 8.2 d *2* (1938Po03). J$^\pi$: J=6 from atomic beam (1959Ew89). π=+ from log *ft*=5.09 to 5$^+$. E(level): based on Eγ from J=4$^+$, 503- and 712-keV states via (α,nγ) 1980Sa05; other: 87.95 (1975An07). Q: Weighted average of +1.11 *11* (1989Ra17) and +1.06 *16* (1989Di12) from collinear LASER spectroscopy.
110.66[#] *3*	(2)$^+$		BCDE	J$^\pi$: π=+ from L=4 (^{3}He,d); J=2 suggested from γ transition to ground state. Member of probable band built on the g.s.
205.95[#] *4*	(3)$^+$		BCDE	J$^\pi$: π=+ from L=4 (^{3}He,d); J=(3) from strong feeding to (2)$^+$, weak feeding to 1$^+$ and absence of feeding to 6$^+$.
234.66 *4*	(1$^+$,2$^+$,3$^+$)		B	J$^\pi$: J^π=(2$^+$) suggested from γ-ray branchings to 1$^+$,(3)$^+$ states.
257 *3*			E	
277.04 *3*	1$^-$,2$^-$		BCDE G	J$^\pi$: from L=2 (p,d); L=1 (^{3}He,d); γ to 1$^+$.
328.87 *8*	5$^+$		B DE	J$^\pi$: π=+ from L(^{3}He,d)=4. 1980Sa05 note that spectroscopic strength of 330-keV excitation in (^{3}He,d) of 1975An07 suggests a doublet, J^π=5$^+$,7$^+$. J=5 from ΔJ(239γ,M1+E2)=1. J=5 preferred above J=7 because excitation energy is lower than for 332-keV level.
332.66[e] *8*	7$^+$		ABCD	J$^\pi$: π=+ from L(^{3}He,d)=4. 1980Sa05 note that spectroscopic strength of 330-keV excitation in (^{3}He,d) of 1975An07 suggests a doublet, J^π=5$^+$,7$^+$. J=7 from ΔJ(242γ,M1+E2)=1 in ^{96}Zr(^{14}N,4nγ) preferred above J=5 because excitation energy is higher than 328-keV level.
364.43 *4*	(2,3)$^-$		B DE G	J$^\pi$: π=− from L=2 (p,d); γ to (3)$^+$.
389.16 *4*	3$^+$		B E	XREF: E(382).

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Adopted Levels, Gammas (continued)

^{106}Ag Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	$T_{1/2}$	XREF	Comments
				J$^{\pi}$: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
416.62 *6*	(1$^-$)		B	J$^{\pi}$: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
425.04 *5*	(2,3)$^-$		B E G	J$^{\pi}$: π=− from L=2 (p,d); γ to (3)$^+$.
449.11[#] *5*	(4)$^+$		B DE	J$^{\pi}$: π=+ from L=4 (^{3}He,d); deexcitation to (3)$^+$ state only. Member of probable band built on the g.s.
468.84 *23*			BC G	
503.03 *4*	(3$^+$,4,5$^+$)		B	J$^{\pi}$: suggested from deexcitation to (3)$^+$,5$^+$ states.
518.24 *5*	(3,4)$^-$		B DE G	J$^{\pi}$: π=− from L=4 (p,d) and γ to (3)$^+$ state.
542.58 *9*	6		B	J$^{\pi}$: J=6 from ΔJ(213γ,D+Q)=−1.
556.81[#] *9*	(5$^+$)		B D	J$^{\pi}$: γ's to 4$^+$,6$^+$ states. Member of probable g.s. band.
565.14 *5*	(2,3)$^-$		B E G	J$^{\pi}$: π=− from L=2 (p,d), L=1 (^{3}He,d); γ to (3)$^+$.
596.07 *6*	1$^-$,2$^-$,3$^-$		BC E G	J$^{\pi}$: L(p,d)=2.
597.26 *6*	1$^-$,2$^-$,3$^-$		B	J$^{\pi}$: From L(p,d)=2.
602.77 *8*	(2$^-$,3$^-$)		B	J$^{\pi}$: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
625.74 *8*	7$^+$		AB D	J$^{\pi}$: π=+ from M1+E2 to 6$^+$. J=7 from ΔJ(536γ,M1+E2)=1 in ^{96}Zr(^{14}N,4nγ) to J^{π}=6$^+$ 89 keV level. J=7 preferred over J=5 because excitation energy is much higher than J=6 level.
661.31 *8*	1$^-$		B E G	J$^{\pi}$: L=0 (p,d), L=1 (^{3}He,d).
676.29 *6*	(5$^+$)		B	J$^{\pi}$: γ to (4)$^+$.
				J$^{\pi}$: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
680 *1*	0$^-$,1$^-$		C E G	J$^{\pi}$: L(p,d)=0.
698.20 *6*	1$^-$,2$^-$,3$^-$		B G	XREF: G(696).
				J$^{\pi}$: from L=2 (p,d).
712.15 *7*	(4$^+$)		B	J$^{\pi}$: J^{π}=4$^+$ suggested by 1980Sa05 in ^{103}Rh(α,nγ).
721.5 *3*	7$^+$		A	J$^{\pi}$: ΔJ(393γ,Q)=2 from $\gamma(\theta)$ in ^{96}Zr(^{14}N,4n) to J^{π}=5$^+$ 329 keV level. J=7 preferred above J=3 due to its position in the level scheme. π=+ because 393γ is very unlikely to be M2.
730.43 *13*	(2$^+$)		B	J$^{\pi}$: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
741.58 *9*	(3$^+$,4$^+$)		B	J$^{\pi}$: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
749 *2*			E	
765.24[&] *8*	6$^-$		ABCDE G	J$^{\pi}$: from ΔJ(436γ,E1)=1 in ^{96}Zr(^{14}N,4n). E1 γ to 6$^+$, γ's to 5$^+$ and 7$^+$. Levels at 765.14 and 765.62 seen in (α,nγ) are considered as one level by the evaluators.
769.68 *16*	1$^-$,2$^-$,3$^-$		B	J$^{\pi}$: π=− from L=2 (p,d); γ to 1$^-$,2$^-$.
769.96 *11*	6		B	J$^{\pi}$: from ΔJ(441γ,D+Q)=1 to 328 keV (J^{π}=5$^+$) level in ^{96}Zr(^{14}N,4n).
773.50 *11*	(5$^+$)		B	J$^{\pi}$: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
775.65 *9*	(4$^+$,5)		B	J$^{\pi}$: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
797.48 *13*			B	
809 *2*	0$^-$,1$^-$		G	J$^{\pi}$: from L=0 in (p,d).
812.02 *7*	(3$^-$)		B	J$^{\pi}$: γ-decay pattern suggests (3$^-$).
816.49 *8*	(4$^+$)		B	J$^{\pi}$: γ branchings to 3$^+$,5$^+$ states suggest (4$^+$).
829.41[a] *8*	7$^-$		AB D	J$^{\pi}$: from ΔJ(739γ,E1+M2)=−1 to 89 keV level (J^{π}=6$^+$) in ^{96}Zr(^{14}N,4n).
835.39 *12*	(2$^+$,3$^+$)		B	J$^{\pi}$: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
851 *2*			E	
861.58 *9*	(3$^-$,4,5$^-$)		B G	J$^{\pi}$: L(p,d)=4,5; γ to (2,3)$^-$.
874.24[&] *8*	8$^-$	157 ps *31*	AB DE	J$^{\pi}$: from ΔJ(541γ,E1+M2)=−1 to 332 keV (J^{π}=7$^+$) level in ^{96}Zr(^{14}N,4n). $T_{1/2}$: from DSA in ^{96}Zr(^{14}N,4nγ) (1990VoZW).
881.24 *9*	(6$^+$)		B G	XREF: G(886).
				J$^{\pi}$: deexcites to 5$^+$,7$^+$ states.
887.68 *8*	(5$^+$)		B G	XREF: G(886).
				J$^{\pi}$: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
				J$^{\pi}$: L(p,d)=5,6.
902.98 *21*	1$^-$,2$^-$,3$^-$		B E G	J$^{\pi}$: L=2 (p,d).

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Adopted Levels, Gammas (continued)

^{106}Ag Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$	XREF	Comments
912.38 *11*	$(5,7)^-$		B	Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
917.37 *18*	$1^-,2^-,3^-$		B G	Jπ: L=2 (p,d).
923.10 *13*	$(2^+,3^+,4^+)$		B	Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
923.66 *11*	$(1^+,2^+)$		B	Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
926.6 *3*	8^-		A	
927.26 *10*	(6^+)		AB	Jπ: (6^+)suggested from deexcitation to $(5)^+$, $(7)^+$ states in (α,nγ). In disagreement with adopted $J^\pi=8^-$ from (HI,xnγ).
933.18 *10*	(5^+)		B G	Jπ: L(p,d)=0 for the 933.18 and/or 936.46 levels. Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
936.46 *10*	$0^-,1^-$		BC	Jπ: L(p,d)=0 for the 933.18 and/or 936.46 levels.
944.82 *14*	$(2^+,3^+,4^+)$		B	
950 *2*			G	Jπ: L(p,d)=(2).
961.76[e] *9*	8^+		AB	Jπ: from ΔJ(872γ,E2)=−2 to 89 keV level ($J^\pi=6^+$) in ^{96}Zr(^{14}N,4n).
971 *2*	$^+$		E	Jπ: π=+ from L=(2) in (^{3}He,d).
979.14 *12*	8^+		AB D	Jπ: from ΔJ(353γ,M1+E2)=−1 to 626 keV level ($J^\pi=7^+$) in ^{96}Zr(^{14}N,4n).
1001.87 *9*	$(2^-,3^-,4^-)$		B E	XREF: E(998).
1003.41 *11*			B E	XREF: E(998). Levels at 1003.4 and 1003.98 observed by 1980Sa05 are considered as the same level by the evaluators, a possibility suggested by the authors.
1007 *1*	$1^-,2^-,3^-$		G	Jπ: from L=2 in (p,d).
1022 *1*	$1^-,2^-,3^-$		E G	Jπ: from L=2 in (p,d).
1043.90[a] *10*	9^-	2.9 ps *8*	AB D	Jπ: from ΔJ(169γ,D+Q)=1 to 843 keV level ($J^\pi=8^-$) in ^{96}Zr(^{14}N,4n). $T_{1/2}$: from DSA in ^{96}Zr(^{14}N,4nγ) (1990VoZW).
1063.18 *11*	$(4^+,5^+)$		B	Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
1082 *2*	$^+$		E	Jπ: L=2 in (^{3}He,d).
1086.86 *10*	$(4^-,5^-)$		BC	Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
1106 *2*	$0^-,1^-$		G	Jπ: from L=0 (p,d).
1106.33 *10*	$(3^-,4^-)$		B	E(level): should be different from 1106-keV level because this level decays only to $(4)^-$ level. Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
1123.55 *11*	$(5^-,6^-)$		B	Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
1133.88 *16*	(4^+)		B E	Jπ: L(^{3}He,d)=1 for 1133.83 and/or 1135.66, γ to 5^+. Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
1135.66 *12*	$(2^-,3^-,4^-)$		B	Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ). Jπ: L(^{3}He,d)=1 for 1133.83 and/or 1135.66, γ to $(3,4)^-$.
1145.06 *11*	$(2^-,3^-,4^-)$		B	Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
1150.07 *16*	$(2^+,3^+,4^+)$		B	
1166.8 *3*	$(2^-,3^-,4^-)$		BC	Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
1176 *2*	1^-		G	L=0+2 (p,d).
1224.67 *11*	$(6,7)^-$		BC	Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
1230.03 *17*	$(2^-,3^-,4^-)$		B	Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
1263.13 *12*			D	
1288.98 *16*	$(4^+,5^+)$		B	Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
1303.26 *11*	$(5^-,6^-,7^-)$		B	Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
1329.54 *16*	$(3^-,4^-)$		B E	XREF: E(1333). Jπ: L(^{3}He,d)=(1); γ decay to $(3,4)^-$ state.
1387.58[e] *11*	9^+		AB D	Jπ: from ΔJ(1054γ,E2)=−2 to 332 keV level ($J^\pi=7^+$) in ^{96}Zr(^{14}N,4n).
1398 *2*	$^+$		E	Jπ: from L(^{3}He,d)=2.
1413.26 *11*	$(5,6)^-$		ABCD	Jπ: suggested by 1980Sa05 in ^{103}Rh(α,nγ).
1420.72[&] *11*	10^-	0.28 ps *8*	B	Jπ: from ΔJ(376γ,D+Q)=−1 to $9^{(-)}$ in ^{96}Zr(^{14}N,4n). $T_{1/2}$: from DSA in ^{96}Zr(^{14}N,4nγ) (1990VoZW).
1434 *2*			E	Jπ: from L(^{3}He,d)=2.

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Adopted Levels, Gammas (continued)

^{106}Ag Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	$T_{1/2}$	XREF	Comments
1491 *2*	$^{+}$		E	J$^{\pi}$: L(^{3}He,d)=2.
1533.14 *15*			D	
1553.01[d] *16*	10^{-}		A	
1571.95 *21*	9^{+}		A	J$^{\pi}$: from ΔJ(946γ,Q)=−2 to 7^{+} in ^{96}Zr(^{14}N,4n).
1589 *2*	$^{-}$		E	J$^{\pi}$: from L(^{3}He,d)=1.
1616 *2*	$^{+}$		E	J$^{\pi}$: from L(^{3}He,d)=2.
1662 *2*	$^{+}$		E	J$^{\pi}$: from L(^{3}He,d)=2.
1684 *2*	($^{+}$)		E	J$^{\pi}$: from L(^{3}He,d)=(2).
1764.13[a] *12*	11^{-}	0.41 ps *8*	A D	$T_{1/2}$: from DSA in ^{96}Zr(^{14}N,4nγ) (1990VoZW). J$^{\pi}$: from ΔJ(720γ,Q)=−2 to 9$^{(-)}$ in ^{96}Zr(^{14}N,4n).
1863.0 *3*	9^{-}		A	
1902.22 *19*	10^{+}		A	J$^{\pi}$: from ΔJ(923γ,Q)=−2 to 8^{+} in ^{96}Zr(^{14}N,4n).
1925.67[d] *17*	11^{-}		A	
1957.62 *23*	11$^{(-)}$		A	J$^{\pi}$: from ΔJ(536γ,D+Q)=−1 to 10$^{(-)}$ in ^{96}Zr(^{14}N,4n).
2033.48 *16*	9^{-}		A	J$^{\pi}$: from ΔJ(1204γ,Q)=−2 to 7^{-} 829 keV level in ^{96}Zr(^{14}N,4n).
2114.51[e] *21*	10^{+}		A	J$^{\pi}$: from ΔJ(1153γ,Q)=−2 to 8^{+} 962 keV level in ^{96}Zr(^{14}N,4n).
2247.42[d] *21*	12^{-}		A	
2254.47[&] *25*	12^{-}	0.22 ps *7*	A D	$T_{1/2}$: from DSA in ^{96}Zr(^{14}N,4nγ) (1990VoZW). J$^{\pi}$: from ΔJ(833γ,Q)=−2 to 10^{-} in ^{96}Zr(^{14}N,4n).
2272.3[b] *13*	10^{-}		A	J$^{\pi}$: from ΔJ(1398γ,Q)=−2 to 8^{-} in ^{96}Zr(^{14}N,4n).
2441.60[c] *13*	11^{-}		A	
2512.69[d] *22*	13^{-}		A	
2572.0[e] *4*	11^{+}		A	J$^{\pi}$: from ΔJ(1184γ,Q)=−2 to 9^{+} in ^{96}Zr(^{14}N,4n).
2660.79[b] *16*	12^{-}		A	
2745.2[a] *3*	13^{-}	0.27 ps *8*	A	$T_{1/2}$: from DSA in ^{96}Zr(^{14}N,4nγ) (1990VoZW). J$^{\pi}$: from ΔJ(981γ,Q)=−2 to 11$^{(-)}$ in ^{96}Zr(^{14}N,4n).
2764.5[d] *3*	14^{-}		A	
2930.58[c] *18*	13^{-}		A	J$^{\pi}$: from ΔJ(269γ,D+Q)=−1 to 12^{-} 2661 keV level in ^{96}Zr(^{14}N,4n).
3017.2[@] *3*	11^{+}		A	
3179.8[d] *6*	15^{-}		A	
3216.2[@] *11*	12^{+}		A	
3256.87[b] *20*	14^{-}		A	J$^{\pi}$: from ΔJ(326γ,D+Q)=−1 to 13^{-} 2930 keV level in ^{96}Zr(^{14}N,4n).
3260.0[e] *3*	12^{+}		A	
3297.1[&] *3*	14^{-}		A	
3446.2[@] *15*	13^{+}		A	
3490.2 *3*	13^{+}		A	
3686.45[c] *21*	15^{-}		A	J$^{\pi}$: from ΔJ(429γ,D+Q)=−1 to 14^{-} 3257 keV level in ^{96}Zr(^{14}N,4n).
3704.2[@] *18*	14^{+}		A	
3748.6 *3*	14^{+}		A	
3785.4 *5*	(12)		A	
3871.5 *5*	(14)		A	
3891.2[a] *4*	15^{-}		A	
4051.1[@] *20*	15^{+}	0.374 ps *21*	A	
4094.8 *4*	15^{+}		A	
4223.3[b] *3*	16^{-}		A	
4456.0[@] *20*	16^{+}	0.354 ps *14*	A	
4500.0 *4*	16^{+}		A	
4503.4[&] *5*	16^{-}		A	

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Adopted Levels, Gammas (continued)

^{106}Ag Levels (continued)

E(level)†	Jπ‡	$T_{1/2}$	XREF	E(level)†	Jπ‡	XREF
4742.8[c] *5*	17^-		A	5554.8 *4*	18^+	A
4921.2[@] *20*	17^+	0.234 ps *7*	A	5801.4[&] *9*	(18^-)	A
4965.3 *4*	17^+		A	6011.4[@] *21*	19^+	A
5127.3[a] *8*	(17^-)		A	6026.6[c] *7*	19^-	A
5414.9[b] *8*	(18^-)		A	6056.2 *4*	19^+	A
5424.5[@] *21*	18^+	0.215 ps *+14−21*	A	6436.4[a] *10*	(19^-)	A
5468.6 *4*	18^+		A	6760.8[b] *9*	(20^-)	A

† Calculated with a least-squares procedure using adopted gammas.

‡ Unless noted otherwise, based on observed band structure, γγ-DCOQ, (directional correlation from oriented nuclei referred to quadrupole transitions method) γ lin pol.

Band(A): Member of a cascade built on 1^+ g.s.

@ Band(B): (2006De15). Magnetic dipole rotational band based on 11^+. Proposed configuration=$\pi g_{9/2}\otimes\nu h^2_{11/2}\otimes\nu(g_{7/2}/d_{5/2})$ $\pi g_{9/2}\otimes n(h_{11/2})^2\otimes\nu g_{7/2}$ explains high spin bands in ^{106}Ag. Other bands in ^{106}Ag can be described by two quasiparticle configurations.

& Band(C): $\pi g^{-1}_{9/2}\otimes\nu h_{11/2}$, α=0 (2007Jo01).

[a] Band(c): $\pi g^{-1}_{9/2}\otimes\nu h_{11/2}$, α=1 (2007Jo01).

[b] Band(D): Chiral partner of $\pi g^{-1}_{9/2}\otimes\nu h_{11/2}$, α=0 (2005Jo20,2007Jo01).

[c] Band(d): Chiral partner of $\pi g^{-1}_{9/2}\otimes\nu h_{11/2}$, α=1 (2005Jo20,2007Jo01).

[d] Band(E): ΔJ=1 band based on 10^- (1994Je11).

[e] Band(F): Band based on 6^+. Configuration=$\pi g_{9/2}\otimes\nu g_{7/2}$.

γ(^{106}Ag)

E_i(level)	J^π_i	E_γ#	I_γ@	E_f	J^π_f	Mult.†	δ‡	Comments
110.66	$(2)^+$	110.66 *4*	100	0.0	1^+			
205.95	$(3)^+$	95.28 *4*	100.0 *9*	110.66	$(2)^+$			
		205.90 *8*	1.80 *15*	0.0	1^+			
234.66	$(1^+,2^+,3^+)$	28.7 *10*		205.95	$(3)^+$			
		234.66 *5*	100	0.0	1^+			
277.04	$1^-,2^-$	166.34 *10*	0.92 *14*	110.66	$(2)^+$			
		277.04 *4*	100.0 *9*	0.0	1^+			
328.87	5^+	239.257 *29*	100	89.66	6^+	[M1+E2]	0.02 *2*	Mult.: Δπ=no from decay scheme.
332.66	7^+	242.98 *4*	100	89.66	6^+	[M1+E2]	−0.15 *2*	Mult.: Δπ=no from decay scheme.
364.43	$(2,3)^-$	87.40 *4*	21.1 *6*	277.04	$1^-,2^-$			
		158.50 *6*	7.79 *28*	205.95	$(3)^+$			
		253.77 *4*	100.0 *26*	110.66	$(2)^+$			
389.16	3^+	154.51 *5*	100.0 *30*	234.66	$(1^+,2^+,3^+)$			
		278.48 *5*	89.1 *30*	110.66	$(2)^+$			
416.62	(1^-)	139.62 *8*	20.9 *26*	277.04	$1^-,2^-$			
		305.94 *7*	100 *5*	110.66	$(2)^+$			
425.04	$(2,3)^-$	147.99 *7*	22.3 *10*	277.04	$1^-,2^-$			
		219.10 *6*	27.5 *15*	205.95	$(3)^+$			
		314.38 *6*	100 *4*	110.66	$(2)^+$			
449.11	$(4)^+$	243.18 *5*	100	205.95	$(3)^+$			
468.84		262.89 *22*	100	205.95	$(3)^+$			
503.03	$(3^+,4,5^+)$	113.88 *5*	100.0 *27*	389.16	3^+			
		174.15 *8*	19.0 *13*	328.87	5^+			
		297.06 *6*	74 *4*	205.95	$(3)^+$			

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

γ(^{106}Ag) (continued)

E_i(level)	J_i^π	E_γ[#]	I_γ[@]	E_f	J_f^π	Mult.[†]	δ[‡]	Comments
518.24	(3,4)$^-$	153.80 *4*	100.0 *9*	364.43	(2,3)$^-$			
		312.29 *7*	18.2 *9*	205.95	(3)$^+$			
542.58	6	209.88 *6*	100 *12*	332.66	7$^+$	D+Q	0.2 *2*	
		213.55 *10*	94 *25*	328.87	5$^+$	D+Q	−0.03 *9*	
		453.00 *10*	93 *9*	89.66	6$^+$			
556.81	(5$^+$)	53.77 *7*	9.9 *10*	503.03	(3$^+$,4,5$^+$)			
		107.71 *4*	100.0 *9*	449.11	(4)$^+$			
		467.12 *8*	30.5 *20*	89.66	6$^+$			
565.14	(2,3)$^-$	140.07 *8*	14.0 *20*	425.04	(2,3)$^-$			
		200.72 *6*	59 *3*	364.43	(2,3)$^-$			
		288.18 *15*	28.4 *28*	277.04	1$^-$,2$^-$			
		359.12 *8*	100 *8*	205.95	(3)$^+$			
		454.52 *7*	89 *4*	110.66	(2)$^+$			
596.07	1$^-$,2$^-$,3$^-$	361.40 *7*	100 *4*	234.66	(1$^+$,2$^+$,3$^+$)			
		485.43 *10*	37.0 *21*	110.66	(2)$^+$			
597.26	1$^-$,2$^-$,3$^-$	320.20 *6*	100 *4*	277.04	1$^-$,2$^-$			
		391.20 *14*	15.1 *18*	205.95	(3)$^+$			
		486.73 *11*	60.7 *28*	110.66	(2)$^+$			
602.77	(2$^-$,3$^-$)	325.73 *7*	100	277.04	1$^-$,2$^-$			
625.74	7$^+$	293.09 *4*	100 *6*	332.66	7$^+$	M1+E2	−0.17 *8*	I_γ: from (HI,xnγ).
		536.07 *6*	17 *2*	89.66	6$^+$	M1+E2	≈0.5	I_γ: from (HI,xnγ).
661.31	1$^-$	384.27 *7*	100	277.04	1$^-$,2$^-$			
676.29	(5$^+$)	173.26 *8*	13.9 *12*	503.03	(3$^+$,4,5$^+$)			
		227.19 *5*	100 *3*	449.11	(4)$^+$			
698.20	1$^-$,2$^-$,3$^-$	333.79 *7*	100 *5*	364.43	(2,3)$^-$			
		421.14 *7*	58 *3*	277.04	1$^-$,2$^-$			
712.15	(4$^+$)	116.09 *6*	100 *4*	596.07	1$^-$,2$^-$,3$^-$			
		383.28 *10*	86 *7*	328.87	5$^+$			
721.5	7$^+$	392.60 *30*	100 *8*	328.87	5$^+$	Q		
		631.9 *4*	67 *27*	89.66	6$^+$	D		
730.43	(2$^+$)	524.48 *12*	100	205.95	(3)$^+$			
741.58	(3$^+$,4$^+$)	352.42 *8*	100 *5*	389.16	3$^+$			
		535.6 *10*	22 *4*	205.95	(3)$^+$			
765.24	6$^-$	222.50 *10*	2.8 *6*	542.58	6			
		432.40 *11*	2.8 *6*	332.66	7$^+$			
		436.75 *7*	2.8 *6*	328.87	5$^+$	[E1]		E_γ: no final level within 0.29 keV. Mult.: Δπ=yes from decay scheme.
		675.52 *4*	100 *2*	89.66	6$^+$	E1(+M2)	0.00 *13*	
769.68	1$^-$,2$^-$,3$^-$	492.64 *15*	100	277.04	1$^-$,2$^-$			
769.96	6	441.09 *7*	100	328.87	5$^+$	D+Q	0.15 *5*	E_γ: taken from ^{103}Rh(α,nγ). Considered by the evaluators to be identical to the 439.9-keV γ transition observed in ^{96}Zr(^{14}N,4nγ).
773.50	(5$^+$)	324.39 *10*	100	449.11	(4)$^+$			
775.65	(4$^+$,5)	272.62 *8*	100	503.03	(3$^+$,4,5$^+$)			
797.48		468.61 *10*	100	328.87	5$^+$			
812.02	(3$^-$)	447.55 *7*	100 *4*	364.43	(2,3)$^-$			
		535.08 *12*	57 *3*	277.04	1$^-$,2$^-$			
816.49	(4$^+$)	427.23 *9*	54 *5*	389.16	3$^+$			
		487.76 *11*	100 *6*	328.87	5$^+$			
829.41	7$^-$	64.18 *5*	100 *3*	765.24	6$^-$			
		496.73 *6*	37 *9*	332.66	7$^+$	E1+M2	0.8 *2*	
		739.79 *7*	22 *2*	89.66	6$^+$	E1+M2	−0.06 *14*	
835.39	(2$^+$,3$^+$)	600.73 *11*	100	234.66	(1$^+$,2$^+$,3$^+$)			

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Adopted Levels, Gammas (continued)

γ(^{106}Ag) (continued)

E_i(level)	J_i^π	E_γ[#]	I_γ[@]	E_f	J_f^π	Mult.[†]	δ[‡]	Comments
861.58	$(3^-,4,5^-)$	497.14 *8*	100	364.43	$(2,3)^-$			
874.24	8^-	44.85 *5*	100 *31*	829.41	7^-			I_γ: from (HI,xnγ).
		541.57 *4*	41 *3*	332.66	7^+	E1(+M2)	0.00 *2*	B(E1)(W.u.)=(3.5×10^{-6} *11*) I_γ: from (HI,xnγ).
881.24	(6^+)	548.61 *8*	74 *5*	332.66	7^+			
		552.36 *9*	100 *6*	328.87	5^+			
887.68	(5^+)	211.43 *10*	26 *4*	676.29	(5^+)			
		438.55 *7*	100 *5*	449.11	$(4)^+$			
902.98	$1^-,2^-,3^-$	625.94 *20*	100	277.04	$1^-,2^-$			
912.38	$(5,7)^-$	147.14 *7*	100	765.24	6^-			
917.37	$1^-,2^-,3^-$	492.32 *17*	100	425.04	$(2,3)^-$			
923.10	$(2^+,3^+,4^+)$	533.94 *12*	100	389.16	3^+			
923.66	$(1^+,2^+)$	689.00 *10*	100	234.66	$(1^+,2^+,3^+)$			
926.6	8^-	594.2 *3*	100	332.66	7^+			
927.26	(6^+)	594.54 *15*	23 *5*	332.66	7^+			
		598.37 *7*	100 *5*	328.87	5^+			
933.18	(5^+)	414.94 *8*	100	518.24	$(3,4)^-$			
936.46	$0^-,1^-$	659.42 *9*	100	277.04	$1^-,2^-$			
944.82	$(2^+,3^+,4^+)$	738.87 *13*	100	205.95	$(3)^+$			
961.76	8^+	629.17 *7*	100 *17*	332.66	7^+	M1+E2	6 *2*	I_γ: from (HI,xnγ). Mult.: Δπ=no from decay scheme.
		872.00 *8*	64 *23*	89.66	6^+	E2		I_γ: from (HI,xnγ).
979.14	8^+	353.44 *8*	100	625.74	7^+	M1+E2	0.05 *2*	
1001.87	$(2^-,3^-,4^-)$	637.43 *8*	100	364.43	$(2,3)^-$			
1003.41		797.46 *10*	100	205.95	$(3)^+$			
1043.90	9^-	169.64 *6*	100	874.24	8^-	D+Q	0.04 *2*	
1063.18	$(4^+,5^+)$	386.90 *8*	100	676.29	(5^+)			
1086.86	$(4^-,5^-)$	568.62 *9*	100	518.24	$(3,4)^-$			
1106.33	$(3^-,4^-)$	588.09 *8*	100	518.24	$(3,4)^-$			
1123.55	$(5^-,6^-)$	605.31 *10*	100	518.24	$(3,4)^-$			
1133.88	(4^+)	805.01 *14*	100	328.87	5^+			
1135.66	$(2^-,3^-,4^-)$	274.08 *8*	100	861.58	$(3^-,4,5^-)$			
1145.06	$(2^-,3^-,4^-)$	780.62 *10*	100	364.43	$(2,3)^-$			
1150.07	$(2^+,3^+,4^+)$	760.90 *15*	100	389.16	3^+			
1166.8	$(2^-,3^-,4^-)$	802.39 *28*	100	364.43	$(2,3)^-$			
1224.67	$(6,7)^-$	459.43 *8*	100	765.24	6^-			
1230.03	$(2^-,3^-,4^-)$	418.01 *15*	100	812.02	(3^-)			
1263.13		219.22 *7*	100	1043.90	9^-			
1288.98	$(4^+,5^+)$	960.11 *14*	100	328.87	5^+			
1303.26	$(5^-,6^-,7^-)$	538.01 *7*	100	765.24	6^-			
1329.54	$(3^-,4^-)$	811.30 *15*	100	518.24	$(3,4)^-$			
1387.58	9^+	1054.90 *7*	100	332.66	7^+	[E2]		Mult.: Δπ=no from decay scheme.
1413.26	$(5,6)^-$	648.01 *8*	100	765.24	6^-			
1420.72	10^-	376.81 *5*	100.0 *4*	1043.90	9^-	D+Q	0.04 *2*	
		546.6 *2*	7.3 *16*	874.24	8^-			E_γ: no final level within 0.70 keV.
1533.14		270.01 *8*	100	1263.13				
1553.01	10^-	509.5 *2*	100 *23*	1043.90	9^-			
		625.2 *3*	35 *9*	927.26	(6^+)			
1571.95	9^+	592.6 *4*	99 *15*	979.14	8^+	D+Q	0.15 *10*	
		945.7 *3*	100 *20*	625.74	7^+	Q		
1764.13	11^-	343.45 *5*	100 *5*	1420.72	10^-	D(+Q)	0.00 *2*	
		719.7 *2*	38 *4*	1043.90	9^-	E2		B(E2)(W.u.)=66 *15*

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

γ(^{106}Ag) (continued)

E_i(level)	J_i^π	E_γ[#]	I_γ[@]	E_f	J_f^π	Mult.[†]	δ[‡]	Comments
								Mult.: M2 ruled out because B(M2)(W.u.)≈3100.
1863.0	9^-	989.9 *4*	100	874.24	8^-			
1902.22	10^+	330.0 *2*	58 *10*	1571.95	9^+			
		923.4 *2*	100 *14*	979.14	8^+	Q		
1925.67	11^-	372.7 *1*	100 *32*	1553.01	10^-			
		504.8 *2*	61 *13*	1420.72	10^-			
1957.62	$11^{(-)}$	536.9 *2*	100	1420.72	10^-	D+Q	−0.3 *2*	
2033.48	9^-	989.4 *4*	100 *3*	1043.90	9^-	D+Q		Mult.: no δ given.
		1204.2 *2*	31 *3*	829.41	7^-	Q		
2114.51	10^+	726.9 *2*	63 *14*	1387.58	9^+			
		1153.0 *10*	100 *33*	961.76	8^+	Q		
2247.42	12^-	321.9 *2*	100 *15*	1925.67	11^-			
		694.4 *2*	9 *3*	1553.01	10^-			
2254.47	12^-	490.1 *4*	100 *13*	1764.13	11^-	D		
		833.9 *4*	19 *4*	1420.72	10^-	E2		B(E2)(W.u.)=34 *14* Mult.: E2 from RUL.
2272.3	10^-	409.0 *2*	77 *32*	1863.0	9^-			
		508		1764.13	11^-			
		851		1413.26	$(5,6)^-$			
		1228.4 *1*	73 *3*	1043.90	9^-	D+Q	−0.5 *3*	
		1398.3 *3*	100 *5*	874.24	8^-	Q		
2441.60	11^-	169.4 *2*	53 *8*	2272.3	10^-			E_γ,I_γ: from 1981Po06 in ^{96}Zr(^{14}N,4n).
		408.2 *2*	57 *6*	2033.48	9^-	D+Q	0.07 *5*	E_γ,I_γ,Mult.,δ: from 1981Po06 in ^{96}Zr(^{14}N,4n). Mult.,δ: if J^π of 2441.60 (11^-), 2033.48 (9^-) levels are correct D+Q is impossible.
		678		1764.13	11^-			
		1020.8 *1*	100 *4*	1420.72	10^-	D+Q		E_γ,I_γ,Mult.: from ^{96}Zr(^{14}N,4n) (1981Po06). δ≥−0.44, ≤−0.06 or ≥0.4, ≤0.9.
		1054.0 *5*	13 *6*	1387.58	9^+			
		1398		1043.90	9^-			E_γ: from ^{100}Mo(^{10}B,4nγ) (2005Jo20).
2512.69	13^-	265.3 *1*	100 *12*	2247.42	12^-			
		586.7 *3*	40 *12*	1925.67	11^-			
2572.0	11^+	1184.3 *4*	100	1387.58	9^+	Q		
2660.79	12^-	219.2 *1*	100	2441.60	11^-	D+Q	0.06 *2*	E_γ,I_γ,Mult.: from ^{96}Zr(^{14}N,4n) (1981Po06).
		389		2272.3	10^-			
		407		2254.47	12^-			
		897		1764.13	11^-			
		1240		1420.72	10^-			
2745.2	13^-	304		2441.60	11^-			
		491.2 *5*	100 *5*	2254.47	12^-	D		
		981.2 *7*	41 *6*	1764.13	11^-	E2		B(E2)(W.u.)=22 *8* Mult.: E2 from RUL.
2764.5	14^-	252.2 *1*	100	2512.69	13^-			
2930.58	13^-	269.8 *1*	100 *8*	2660.79	12^-	D+Q	0.11 *2*	
		488.5 *4*	13 *5*	2441.60	11^-			
		676		2254.47	12^-			
		1167		1764.13	11^-			
3017.2	11^+	1115.1 *3*	100	1902.22	10^+			
3179.8	15^-	414.9 *5*	100	2764.5	14^-			
3256.87	14^-	326.3 *1*	100 *14*	2930.58	13^-	D+Q	0.08 *5*	
		512		2745.2	13^-			
		596.2 *3*	33 *11*	2660.79	12^-			
		1003		2254.47	12^-			
3260.0	12^+	687.9 *3*	63 *14*	2572.0	11^+			
		1145.3 *5*	100 *30*	2114.51	10^+			

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Adopted Levels, Gammas (continued)

γ(^{106}Ag) (continued)

E_i(level)	J_i^π	E_γ[#]	I_γ[@]	E_f	J_f^π	Mult.[†]	δ[‡]
3297.1	14⁻	551.9 *2*	100 *14*	2745.2	13⁻		
		637		2660.79	12⁻		
		1042.3 *3*	21 *7*	2254.47	12⁻		
3446.2	13⁺	230	100	3216.2	12⁺		
3490.2	13⁺	230.2 *1*	100 *18*	3260.0	12⁺		
		473.0 *2*	29 *7*	3017.2	11⁺		
3686.45	15⁻	389		3297.1	14⁻		
		429.6 *1*	100 *18*	3256.87	14⁻	D+Q	0.08 *6*
		755.6 *3*	42 *9*	2930.58	13⁻		
3704.2	14⁺	258	100	3446.2	13⁺		
3748.6	14⁺	258.4 *1*	100	3490.2	13⁺		
3785.4	(12)	1213.4 *4*	100	2572.0	11⁺		
3871.5	(14)	611.5 *4*	100	3260.0	12⁺		
3891.2	15⁻	593.9 *2*	100 *27*	3297.1	14⁻		
		1146.4 *3*	75 *12*	2745.2	13⁻		
4094.8	15⁺	346.7	100	3748.6	14⁺		
4223.3	16⁻	536.6 *3*	100 *14*	3686.45	15⁻		
		926		3297.1	14⁻		
		966.7 *4*	22 *10*	3256.87	14⁻		
4456.0	16⁺	404.7		4051.1	15⁺		
		752.0		3704.2	14⁺		
4500.0	16⁺	405.1 *1*	100 *15*	4094.8	15⁺		
		752.5 *3*	18 *5*	3748.6	14⁺		
4503.4	16⁻	612.1 *4*	100 *21*	3891.2	15⁻		
		1206.6 *6*	54 *18*	3297.1	14⁻		
4742.8	17⁻	519.2 *5*	62 *10*	4223.3	16⁻		
		1056.5 *5*	100 *27*	3686.45	15⁻		
4921.2	17⁺	464.8		4456.0	16⁺		
		870.0		4051.1	15⁺		
4965.3	17⁺	465.4 *1*	100 *19*	4500.0	16⁺		
		870.9 *5*	30 *10*	4094.8	15⁺		
5127.3	(17⁻)	624		4503.4	16⁻		
		1236		3891.2	15⁻		
5414.9	(18⁻)	672		4742.8	17⁻		
		1192		4223.3	16⁻		
5424.5	18⁺	503.0		4921.2	17⁺		
		969.0		4456.0	16⁺		
5468.6	18⁺	503.2 *1*	100 *14*	4965.3	17⁺		
		968.3 *2*	54 *11*	4500.0	16⁺		
5554.8	18⁺	588.9 *2*	100 *17*	4965.3	17⁺		
		1054.3 *3*	76 *32*	4500.0	16⁺		
5801.4	(18⁻)	674		5127.3	(17⁻)		
		1298		4503.4	16⁻		
6011.4	19⁺	587		5424.5	18⁺		
		1090		4921.2	17⁺		
6026.6	19⁻	1283.8 *5*	100	4742.8	17⁻		
6056.2	19⁺	586.8 *2*	91 *17*	5468.6	18⁺		
		1091.5 *4*	100 *15*	4965.3	17⁺		
6436.4	(19⁻)	635		5801.4	(18⁻)		
		1309		5127.3	(17⁻)		
6760.8	(20⁻)	734		6026.6	19⁻		
		1346		5414.9	(18⁻)		

[†] Deduced from γ(θ) and γγ-DCOQ (directional correlation from oriented nuclei referred to quadrupole transitions method) γ lin

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Adopted Levels, Gammas (continued)

$\gamma(^{106}Ag)$ (continued)

pol. and J^{π} assignments.

‡ Deduced from $\gamma(\theta)$ and $\gamma\gamma$-DCOQ (directional correlation from oriented nuclei referred to quadrupole transitions method).

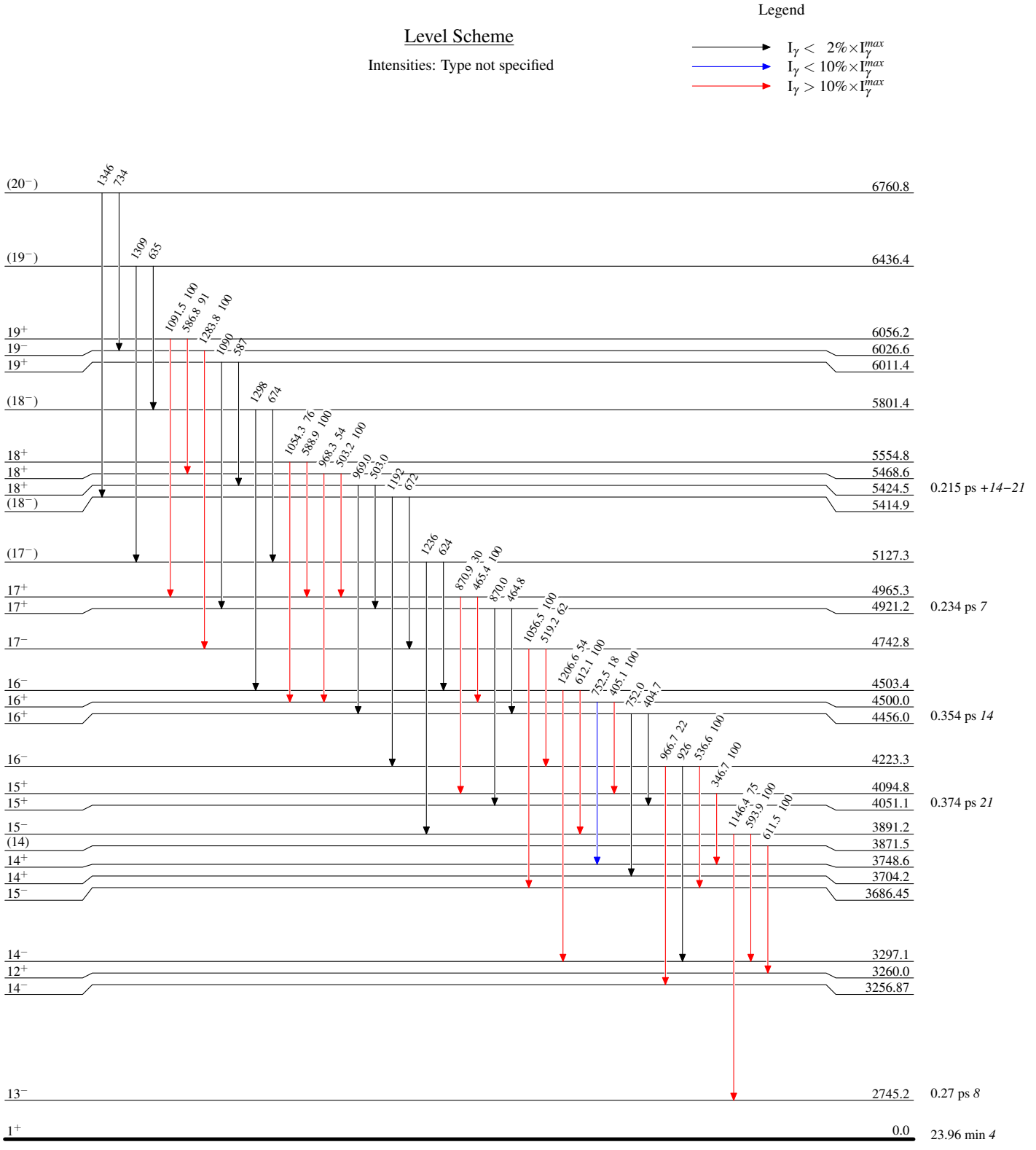
calculated with a least-squares procedure using gammas from (HI,xnγ), ^{103}Rh(α,nγ), ^{104}Pd(α,pnγ) and ^{106}Pd(p,nγ) if all available, if not only available data sets used.

@ Unless noted otherwise, relative photon branchings for each level were calculated with a least-squares procedure using data from (HI,xnγ), ^{103}Rh(α,nγ), ^{104}Pd(α,pnγ) and ^{106}Pd(p,nγ) if all available, if not only available data sets used.

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

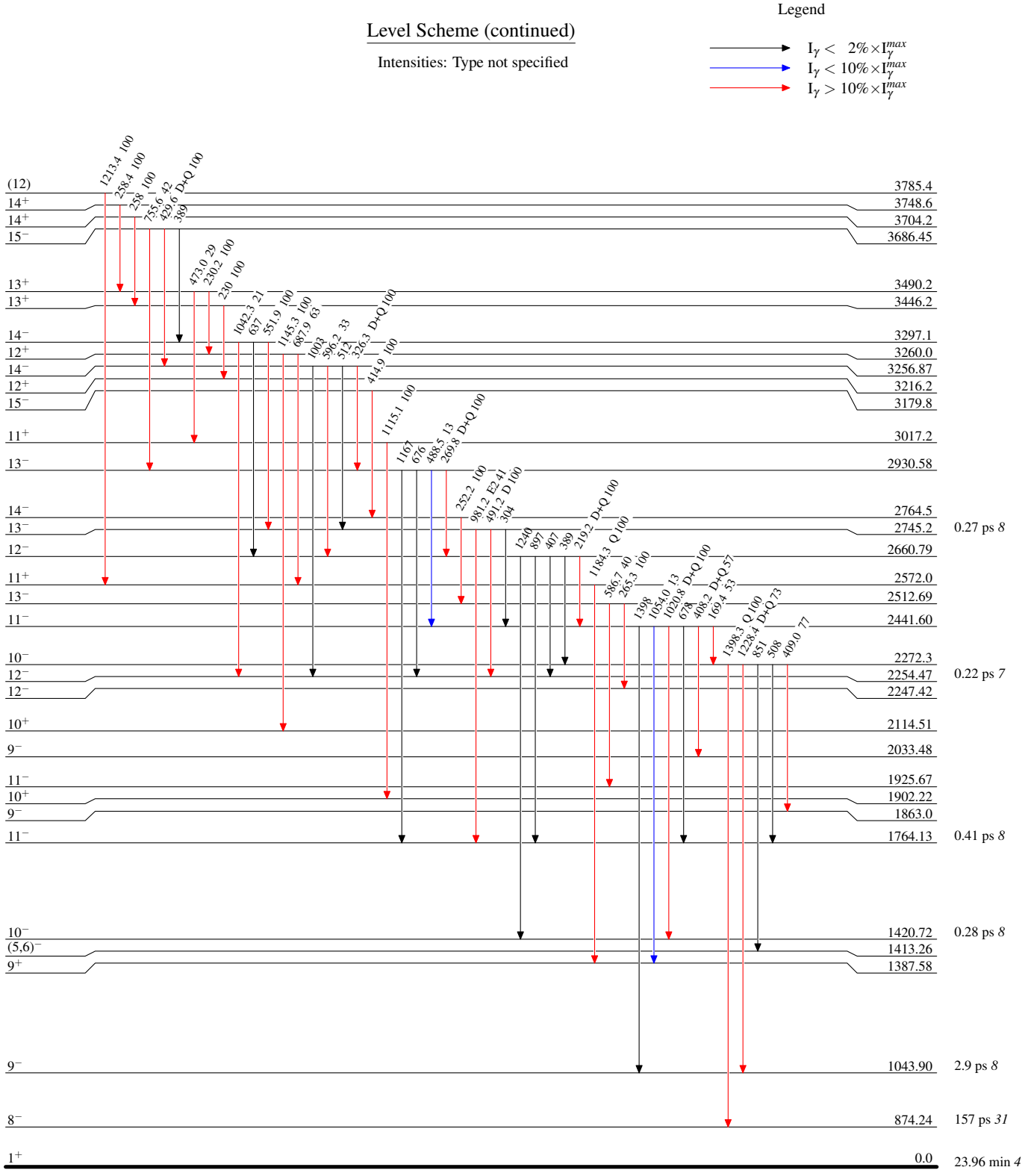


$^{106}_{47}Ag_{59}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

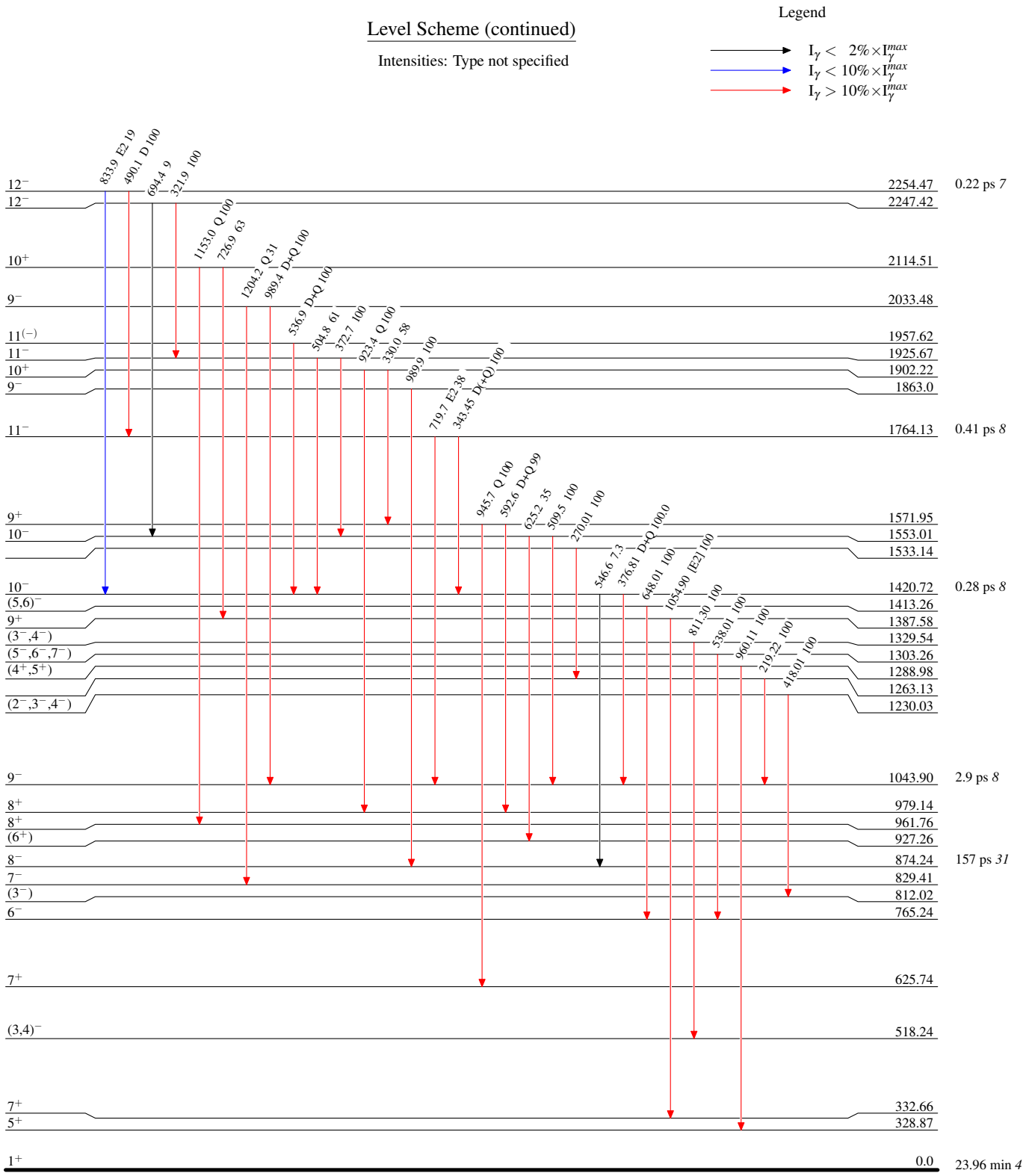


$^{106}_{47}Ag_{59}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

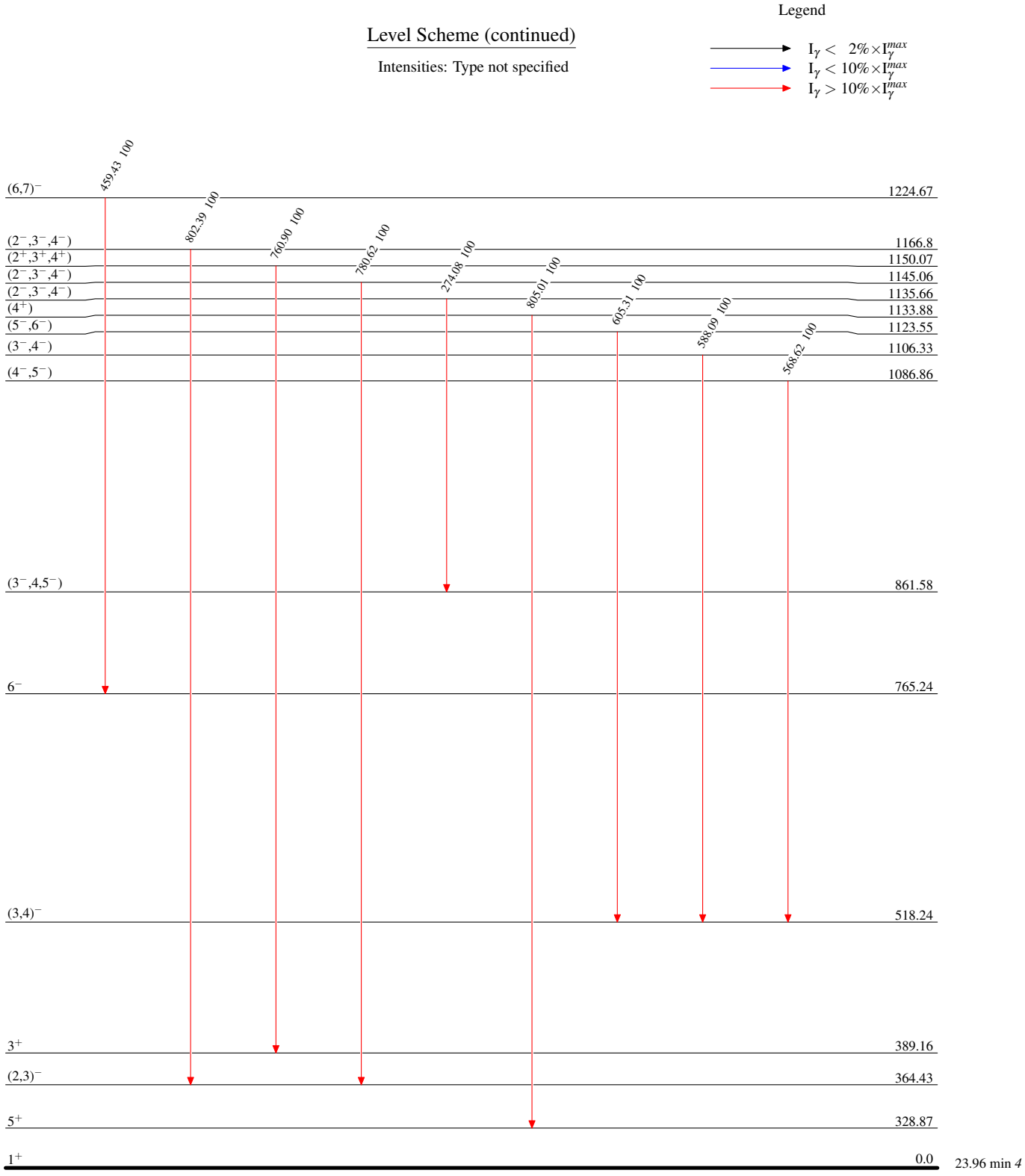


$^{106}_{47}Ag_{59}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

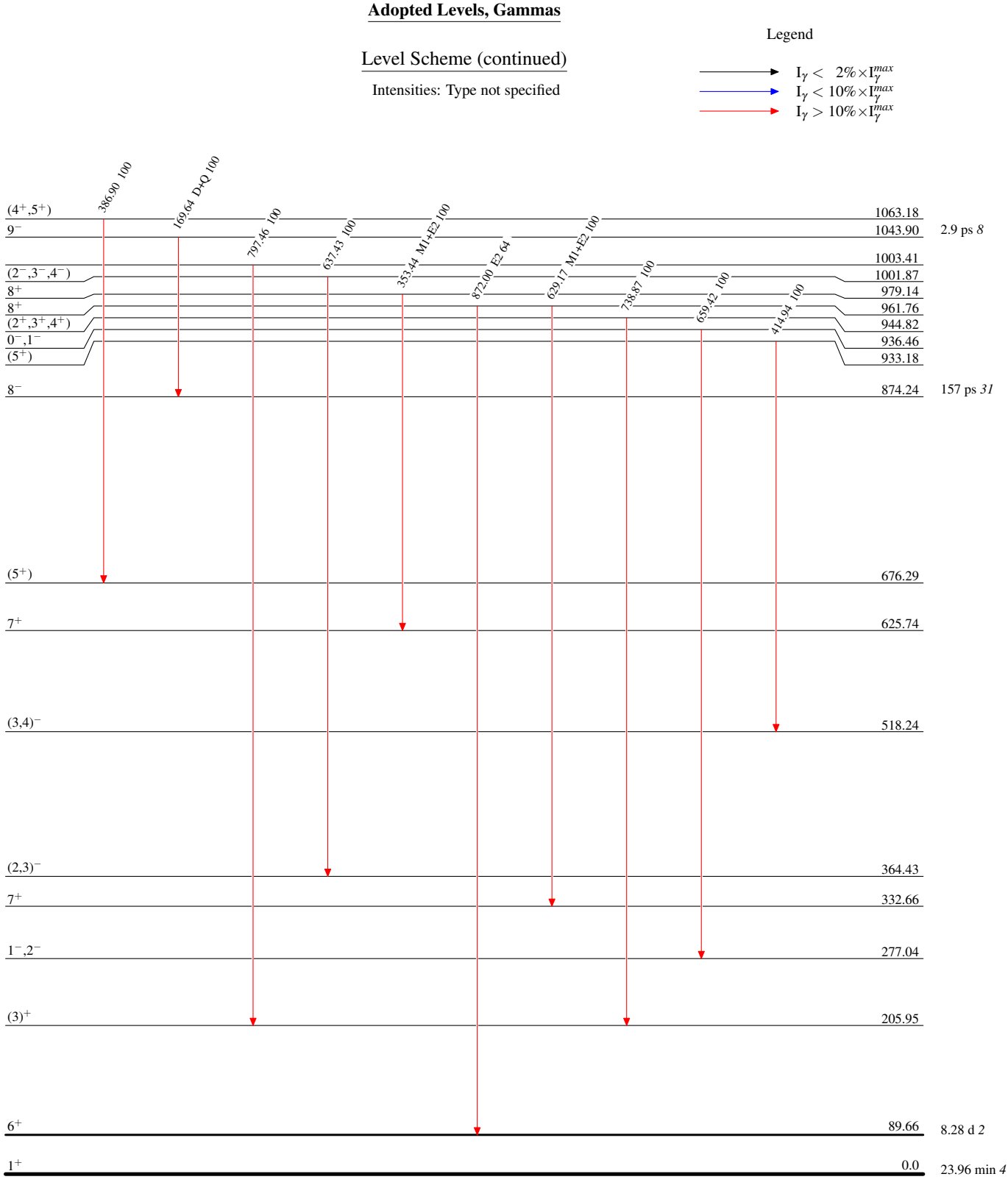


$^{106}_{47}Ag_{59}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

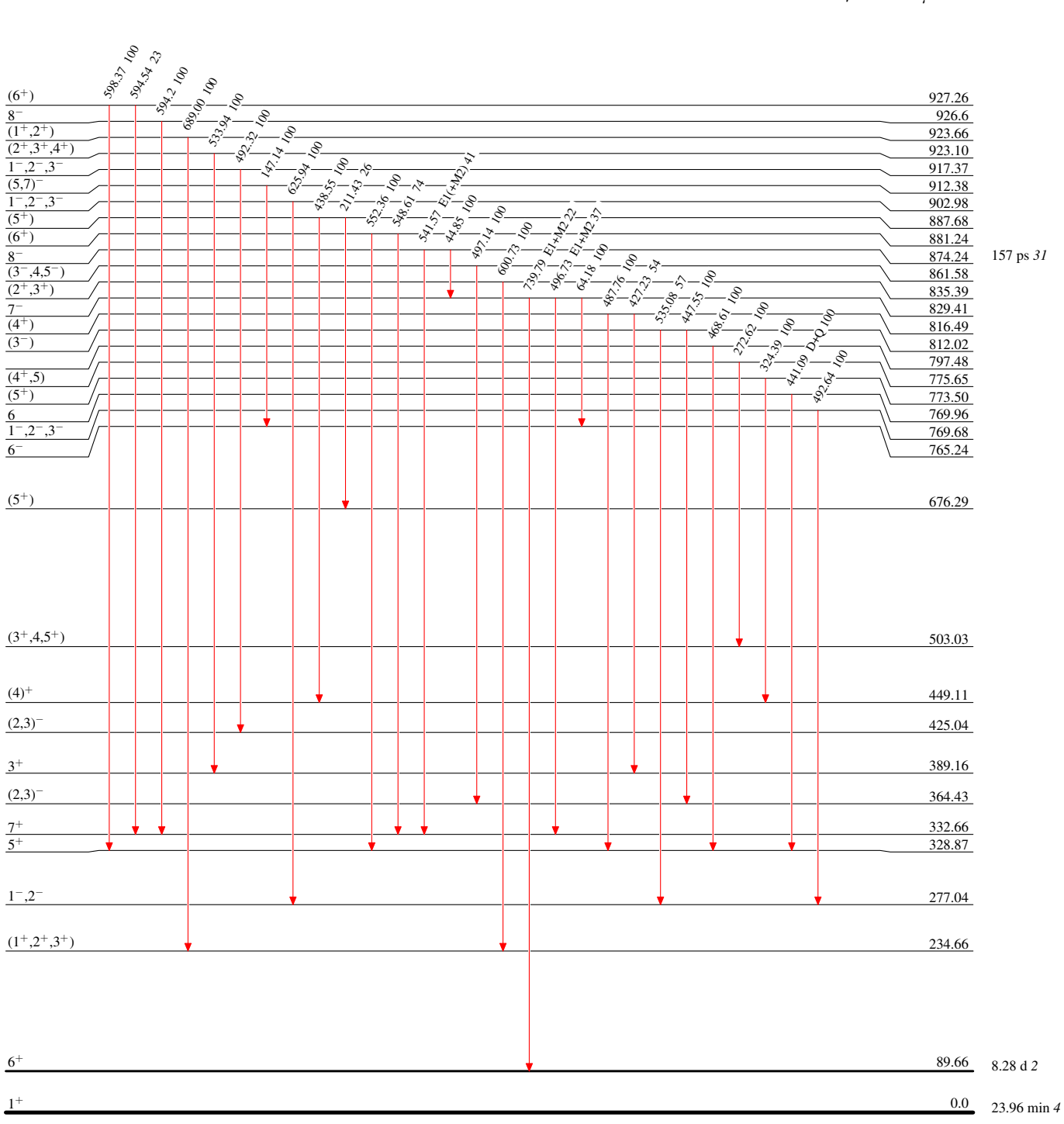


$^{106}_{47}Ag_{59}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

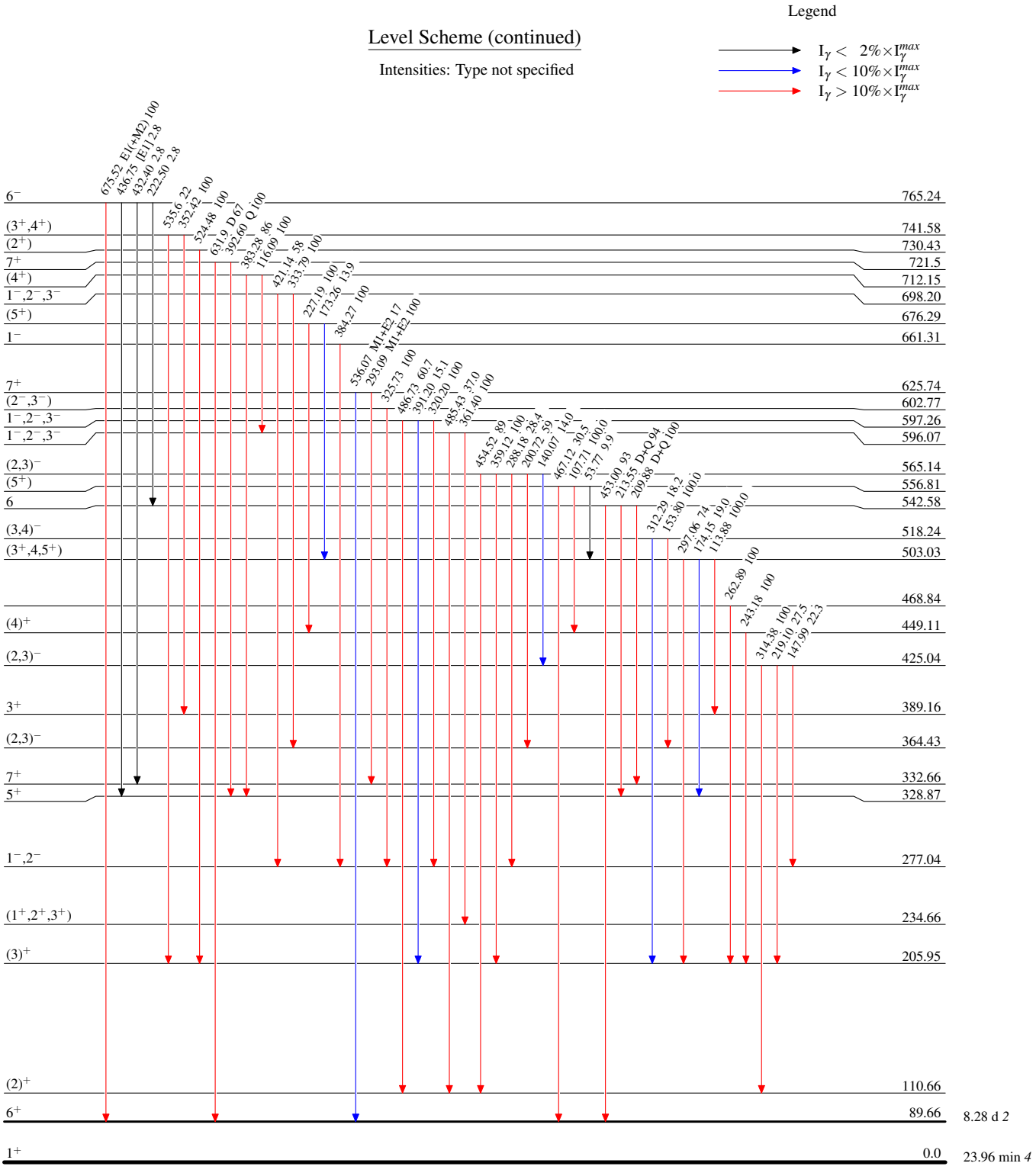


$^{106}_{47}Ag_{59}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

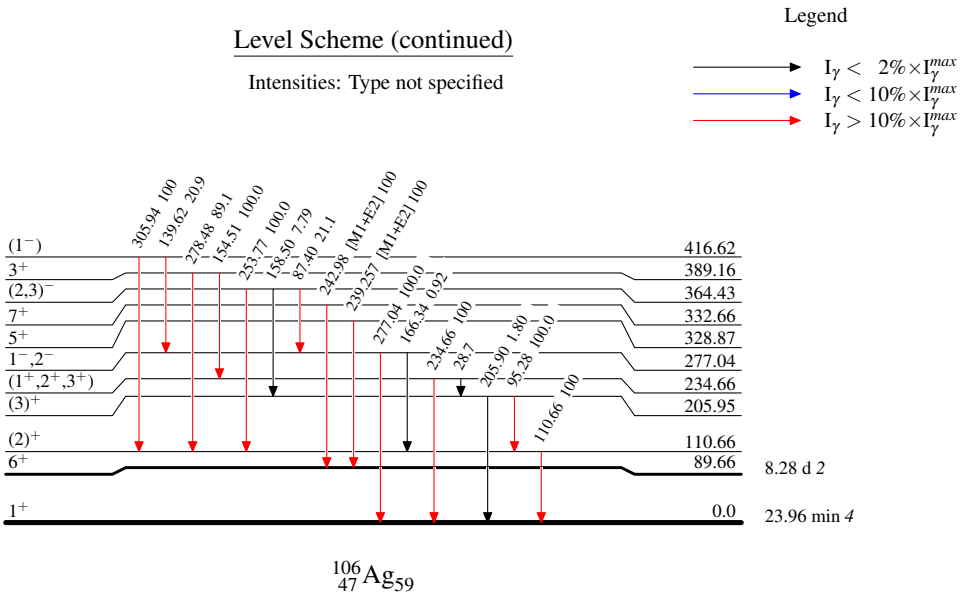


$^{106}_{47}Ag_{59}$

Adopted Levels, Gammas

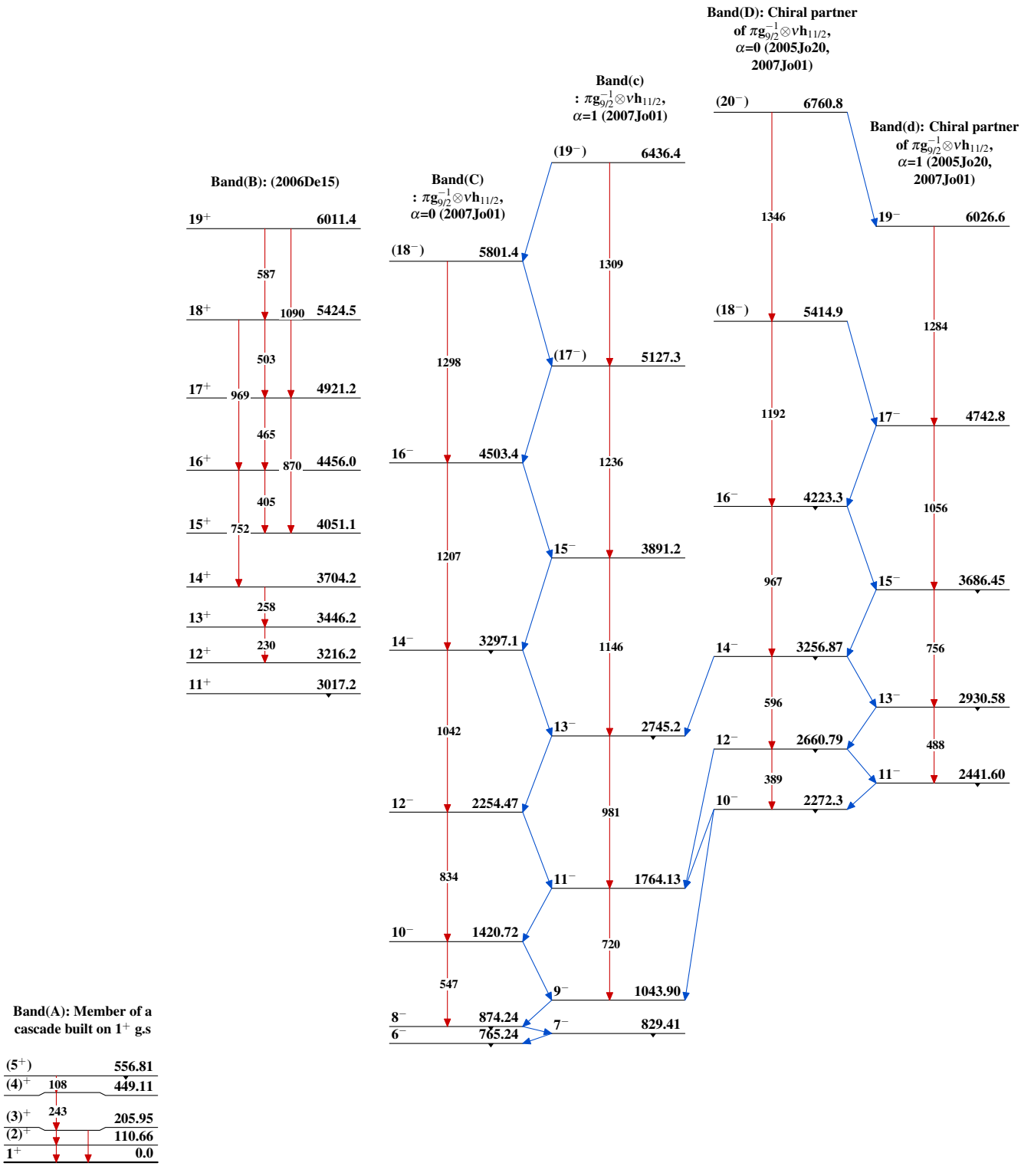
Level Scheme (continued)

Intensities: Type not specified

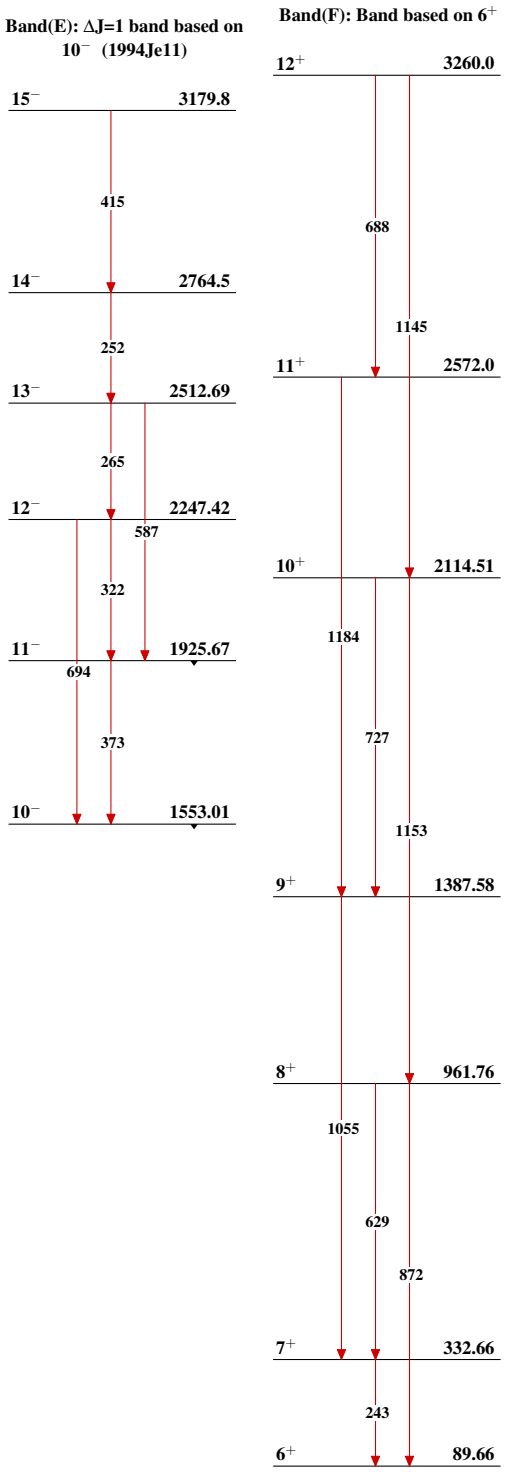


$^{106}_{47}Ag_{59}$

Adopted Levels, Gammas



Adopted Levels, Gammas (continued)



$^{106}_{47}Ag_{59}$