Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	G. Gürdal and F. G. Kondev	NDS 113, 1315 (2012)	1-Aug-2011

Q(β^-)=2891.0 *13*; S(n)=6809.19 *10*; S(p)=7140.1 *14*; Q(α)=−3521 *6* 2012Wa38
Note: Current evaluation has used the following Q record.
Q(β^-)=2892.9 *15*; S(n)=6809.20 *10*; S(p)=7143.0 *20*; Q(α)=−3522 *6* 2011AuZZ

^{110}Ag Levels

Cross Reference (XREF) Flags

A	^{110}Ag IT decay (249.83 d)	D	^{109}Ag(d,p)
B	^{109}Ag(n,γ) E=thermal	E	^{110}Pd(p,nγ), ^{109}Ag(d,pγ)
C	^{109}Ag(n,γ) E=5.2 eV res	F	^{176}Yb(^{28}Si,Xγ)

E(level)†	J$^\pi$	T$_{1/2}$‡	XREF	Comments
0.0	1$^+$	24.56 s *11*	ABC EF	%β^-=99.70 *6*; %ε=0.30 *6* %ε: From 1965Fr01. J$^\pi$: J=1 from atomic beam magnetic resonance technique (1969Cu09); π=+ from ^{110}Ag β^- Decay (1962Ka07) and μ. T$_{1/2}$: Weighted average of 24.7 s *7* (1970Va08), 24.93 s *22* (1967Yu01), 24.42 s *14* (1962Ma38), 24.2 s *12* (1957Se19), 24 s *2* (1954Bo39) and 24.5 s *3* (1946Hi06). Others: 22 s (2010Sc10), 24 s (1944Fl01), 23 s (1938Re04), 22 s (1938Po03) and 22 s (1935Am01). μ: 2.7111 *10* (using NMR in 1976Wi03). Other:2.84 *5* (using atomic beam magnetic resonance technique in 1969Cu09). Q: 0.24 *12*, determined by measuring the spin-lattice relaxation time (1981Do17). configuration: π7/2[413]⊗ν5/2[413] (for prolate deformation), the Gallagher-Moszkowski rule favors J^π= 1$^+$ assignment.
1.112 *16*	2$^-$	660 ns *40*	AB DEF	Additional information 1. E(level): From a least-squares fit to Eγ pairs that populate this level and g.s. in ^{109}Ag(n,γ) E=thermal. ΔEγ are from 1975Cl03, but estimated by the evaluators if not reported reported in 1975Cl03. Others: 1.28 keV *10* (1970Ka05), 1.113 keV (1979Bo41) and 3.18 keV (1968El03). J$^\pi$: From L(d,p)=2; 1.112γ E1 to 1$^+$. T$_{1/2}$: From ce-inner shell vacancy delayed coincidences (1975Cl03). configuration: π1/2[301]⊗ν5/2[402] (for prolate deformation).
117.59 *5*	6$^+$	249.83 d *4*	A EF	%β^-=98.67 *8*; %IT=1.33 *8* μ=+3.588 *3* %IT: From Ti(116γ)=100 − Ti(658γ+1476γ+1783γ). J$^\pi$: From atomic-beam technique (1958Ew84); 116.48γ M4 to 2$^-$. T$_{1/2}$: Weighted average of 249.950 d *24* (2002Un02), 249.790 d *16* (1983Wa26) 249.74 d *5* (1980Ho17), 249 d *3* (1962Ni01) and 252.5 d *15* (1957Ge07). Others: 270 d (1950Gu54) and 225 d *20* (1938Li07). μ: Weighted average of +3.589 *4* (NMR on brute force oriented nuclei in 1992Hu09) and +3.587 *4* (from atomic-beam magnetic resonance technique in 1967Sc04). Q: +1.44 *10* (1984Be53). configuration: π7/2[413]⊗ν5/2[413] (for prolate deformation).
118.719 *10*	3$^+$	36.6 ns *6*	B E	μ=3.79 *6* J$^\pi$: 117.607γ E1(+M2) to 2$^-$; J=3 from $\gamma(\theta)$ and γ-ray excitation function (1976Ha57); π=+ from comparison of experimental and calculated g-factors (1974Be47). T$_{1/2}$: Weighted average of 36.7 ns *7* (from 117.607γ(t) pulsed-beam delayed coincidence method in 1976Ha57), 37 ns *5* (using pulsed-beam delayed coincidence method in 1974Be47), 36.5 ns *20*, 37 ns *4*, 37 ns *2* (using delayed coincidence

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Adopted Levels, Gammas (continued)

^{110}Ag Levels (continued)

E(level)†	Jπ	T1/2‡	XREF	Comments
				technique in 1971Gu05, 1967Es03 and 1963Be51, respectively) and 33 ns *3* (1967WiZZ as quoted in 2000De11). μ: Weighted average of 3.87 *5* (1974Be47) (reevaluated value using adopted lifetime. μ=3.83 *5* using $T_{1/2}$=37 ns *5* in 1974Be47) and 3.74 *4* (1976Ha57), (reevaluated value using adopted lifetime. μ=3.73 *4* using $T_{1/2}$=36.7 ns *7* in 1976Ha57) (both μ, deduced from pulsed-beam time-differential perturbed angular correlation technique).
191.622 *12*	3^+		B E	Jπ: 191.2γ (E2) to 1^+; 72.903γ M1 to 3^+.
198.689 *10*	2^+	<0.08 ns	B E	Jπ: 198.69γ M1(+E2) to 1^+.
236.859 *12*	1^-	<0.24 ns	B d	XREF: d(235). Jπ: L(d,p)=0; 235.75γ M1 to 2^-.
237.069 *11*	$(1,2,3^+)$	0.43 ns *8*	B dE	XREF: d(235). Jπ: 235.94γ to 2^-; 237.05γ to 1^+.
242.09# *21*	(6^-)		F	Jπ: 124.5γ to 6^+; band assignment (2002Po11).
242.09+x@	(7^-)		F	Jπ: Assigned as band head in 2002Po11.
267.229 *10*	$1^+,2^+$	<0.08 ns	B E	Jπ: 68.552γ M1(+E2) to 2^+; 267.22γ (M1) to 1^+.
269& *4*	$1^-,2^-,3^-$		D	Jπ: L(d,p)=2.
271.470 *13*	$2^+,3^+,4^+$		B E	Jπ: 79.847γ to 3^+; 152.755γ M1(+E2) to 3^+.
293.3+x# *4*	(8^-)		F	Additional information 2. Jπ: 51.2γ to (7^-); band member.
302.1 *4*	$(1^+,2,3^+)$		E	Jπ: 110.5γ to 3^+; 302.0γ to 1^+.
304.525 *10*	$1^+,2^+,3^+$	<0.16 ns	B E	Jπ: 105.824γ M1 to 2^+; 304.538γ to 1^+.
338.960 *14*	$0^-,1^-$	<0.08 ns	B DE	XREF: D(337). Jπ: L(d,p)=0; 337.80γ to 2^-; 338.92γ to 1^+.
360.618 *10*	$1^+,2^+$	<0.04 ns	BC E	Jπ: 93.402γ M1(+E2) to $1^+,2^+$; 161.920γ M1(+E2) to 2^+; 123.766γ to 1^-.
381.207 *12*	$1^-,2^-$	<0.42 ns	BCDE	XREF: C(380)D(378). Jπ: L(d,p)=2; 381.20γ to 1^+.
411.973 *24*	$(1^+,2,3^+)$		B	Jπ: 293.26γ to 3^+; 411.96γ to 1^+.
424.721 *16*	$(1,2,3^+)$	<0.13 ns	BC E	XREF: C(427). Jπ: 424.71γ to 1^+; 423.60γ to 2^-. In ^{110}Pd(p,nγ), ^{109}Ag(d,pγ) a 231.7γ is observed, so that this level can be a close-lying doublet.
432.376 *15*	$(2)^-$	<0.08 ns	B DE	Jπ: L(d,p)=0+2; 240.76γ to 3^+; 431.38γ to 2^-.
446.6		0.86 ns *6*	B	
456.53 *3*	$(2^+,3,4^+)$		B	Jπ: 337.80γ to 3^+.
466.885 *21*	$(1^+,2,3^+)$		B	Jπ: 275.23γ to 3^+.
468.850 *12*	$(1^+,2,3)$	0.22 ns *5*	B	Jπ: 270.15γ to 2^+; 350.12γ to 3^+.
471.239 *19*	$(1,2,3)$		B	Jπ: 272.54γ to 2^+.
484& *4*	$0^-,1^-$		cD	XREF: c(488). Jπ: L(d,p)=0.
484.40+x@ *20*	(9^-)		F	Jπ: 191.1γ to (8^-); band member.
485.737 *13*	$(1^+,2,3^-)$	<0.1 ns	Bc	XREF: c(488). Jπ: 367.05γ to 3^+;248.91γ to 1^-.
496.886 *13*	$(1,2,3^+)$	<0.08 ns	BCD	XREF: D(494). Jπ: 298.18γ to 2^+; 495.76γ to 2^-; 496.87γ to 1^+.
525.677 *17*	$(1,2,3^-)$	<0.08 ns	B	Jπ: 186.76γ to $0^-,1^-$; 326.97γ to 2^+; 524.54γ to 2^-.
527.428 *16*	$(1^+,2,3^-)$	<0.4 ns	BC	Jπ: 188.17γ to $0^-,1^-$; 328.80γ to 2^+; 335.91γ to 3^+; 526.39γ to 2^-.
536.209 *13*	$0^-,1^-$	<0.16 ns	B D	Jπ: L(d,p)=0.
540 *3*		<0.1 ns	BC	
549.397 *13*	$(1,2,3)$	<0.08 ns	B E	Jπ: 312.53γ to 1^-; 549.38γ to 1^+.
557.1		<0.34 ns	B	
586.8 *5*			E	
589.8		<0.14 ns	B	
592.9	$1^-,2^-,3^-$	<0.34 ns	B d	XREF: d(594). Jπ: L(d,p)=2.

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Adopted Levels, Gammas (continued)

^{110}Ag Levels (continued)

E(level)†	J^π	$T_{1/2}$‡	XREF	Comments
595.05 *4*	$1^-,2^-$	<0.16 ns	BCd	XREF: C(597)d(594). J^π: L(d,p)=2; 595.07γ to 1^+; 593.91γ to 2^-.
613.058 *25*		<0.07 ns	B	
615.137 *23*	(1,2,3)	<0.06 ns	B	J^π: 378.08γ to 1^-; 614.04γ to 2^-.
633.442 *18*		<0.14 ns	B	
653.929 *17*	$(1^+,2,3^+)$	<0.36 ns	B E	J^π: 462.29γ to 3^+; 652.76γ to 2^-.
663.463 *16*	$(1^-,2^-,3^-)$	<0.22 ns	B d	XREF: d(661). J^π: L(d,p)=2; 464.78γ to 2^+; 662.27γ to 2^-.
664.935 *22*	$(1^-,2^-,3^-)$	<0.5 ns	B d	XREF: d(661). J^π: L(d,p)=2; 663.75γ to 2^-; 466.22γ to 2^-.
683.152 *19*	(1,2,3)	<0.46 ns	B	J^π: 484.45γ to 2^+.
689.47 *4*	$(1^+,2,3^+)$	<0.46 ns	B	J^π: 422.23γ to $1^+,2^+$; 570.76γ to 3^+.
698.561 *15*		<0.16 ns	B	
706.214 *16*	$(1^+,2,3^+)$		B	J^π: 507.41γ to 2^+; 514.45γ to 3^+.
711& *4*	$0^-,1^-$		D	J^π: L(d,p)=0.
724.67 *4*	$1^+,2,3^+$		B d	XREF: d(725). J^π: 605.95γ to 3^+; 723.57γ to 2^-; 724.69γ to 1^+.
725.807 *22*		<0.8 ns	B d	XREF: d(725).
748.598 *22*	$1^-,2^-$	<0.8 ns	B d	XREF: d(751). J^π: L(d,p)=2; 549.87γ to 2^+; 748.63γ to 1^+.
750.837 *25*	$(2)^-$	<0.12 ns	B d	XREF: d(751). J^π: L(d,p)=2; 632.19γ to 3^+; 750.89γ to 1^+.
753 *3*	$1^-,2^-,3^-$	<0.25 ns	BCd	XREF: d(751). J^π: L(d,p)=2.
759.6		<0.21 ns	B	
767.01 *4*	$(1^+,2,3^+)$	<1.3 ns	B d	XREF: d(770). J^π: L(d,p)=2; 648.04γ to 3^+; 765.93γ to 2^-.
773.697 *23*	$(1^+,2,3^+)$	<0.46 ns	BCd	XREF: C(771)d(770). J^π: L(d,p)=2; 574.98γ to 2^+; 654.99γ to 3^+; 773.67γ to 1^+.
785.683 *19*	$(1^+,2,3^+)$	<0.5 ns	B	J^π: 586.97γ to 2^+; 666.84γ to 3^+; 785.66γ to 1^+.
789.7		<0.54 ns	B	
793 *3*	$1,2,3^+$		CD	J^π: L(d,p)=2; 793γ to 1^+.
802.73 *4*			B	
811.419 *24*		<0.22 ns	B d	XREF: d(814).
819.017 *22*		<0.72 ns	B	
820 *3*		<1.1 ns	BC	
854.4		<0.1 ns	B	
864& *4*	$1^-,2^-,3^-$		D	J^π: L(d,p)=2.
881.5		<0.6 ns	B	
890.7+x# *3*	(10^-)		F	J^π: 406.3γ to (9^-); band member.
893& *4*			D	
905 *3*			C	
910.9		<0.42 ns	B	
918 *3*			CD	XREF: D(925).
925& *4*			D	
948& *4*	$1^-,2^-,3^-$		D	J^π: L(d,p)=2.
953.2		<2.0 ns	B	
954.4		<0.3 ns	B	
985.7		<0.7 ns	B	
995.1	$(1^-,2^-,3^-)$	<0.4 ns	B D	XREF: D(993). J^π: L(d,p)=(2).
1013.0		<0.84 ns	B	
1026& *4*	$(1^-,2^-,3^-)$		D	J^π: L(d,p)=(2).
1104 *3*		<1.2 ns	BC	XREF: B(1107).

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Adopted Levels, Gammas (continued)

^{110}Ag Levels (continued)

E(level)†	J$^{\pi}$	XREF	Comments
1111 *4*	1,2,3$^+$	CD	J$^{\pi}$: L(d,p)=2; 1111γ to 1$^+$.
1167 *3*	1,2,3$^+$	CD	XREF: D(1165). J$^{\pi}$: L(d,p)=2; 1167γ to 1$^+$.
1188& *4*		D	
1229.8+x@ *3*	(11$^-$)	F	J$^{\pi}$: 339.1γ to (10$^-$); 745.5γ to (9$^-$); band member.
1230& *4*	1$^-$,2$^-$,3$^-$	D	J$^{\pi}$: L(d,p)=2.
1263& *4*		D	
1315& *4*	0$^-$,1$^-$	D	J$^{\pi}$: L(d,p)=0.
1343& *4*		D	
1377& *4*		D	
1402& *4*	1$^-$,2$^-$,3$^-$	D	J$^{\pi}$: L(d,p)=2.
1480& *4*		D	
1513& *4*		D	
1535& *4*		D	
1568& *4*		D	
1659& *4*	1$^-$,2$^-$,3$^-$	D	J$^{\pi}$: L(d,p)=2.
1707.2+x# *4*	(12$^-$)	F	J$^{\pi}$: 477.4γ to (11$^-$); 816.4γ to (10$^-$); band member.
2198.1+x@ *4*	(13$^-$)	F	J$^{\pi}$: 490.8γ to (12$^-$); 968.4γ to (11$^-$); band member.
2666.1+x# *5*	(14$^-$)	F	
6809.20 *10*	0$^-$,1$^-$	B	E(level): From neutron separation energy (2003Au03). Other: 6810 keV *1* (1967Bo06). J$^{\pi}$: From s-wave capture by ^{109}Ag g.s (J$^{\pi}$=1/2$^-$).

† From least-squares fit to Eγ′s, unless otherwise stated.

‡ From ^{109}Ag(n,γ) E=thermal (1988Ko31), unless otherwise stated.

Band(A): $\pi g_{9/2}\nu h_{11/2}$, α=0 band.

@ Band(a): $\pi g_{9/2}\nu h_{11/2}$, α=1 band.

& From ^{109}Ag(d,p).

$\gamma(^{110}Ag)$

E_i(level)	J^π_i	E_γ[‡]	I_γ[‡]	E_f	J^π_f	Mult.[#]	δ[@]	α[†]	Comments
1.112	2^-	1.112 *16*	100	0.0	1^+	E1		933 *66*	B(E1)(W.u.)=0.00035 *4* E_γ: From energy level differences. α: 933 *66*, calculated with the RAINE code using the same atomic and nuclear parameters as BRICC (T. Kibedi, private communication). Mult.: From M1/M2/M3=0.3 *1*/1.0/2.1 *4*, N1/N2/N3=0.25 *10*/1.00/2.0 *6* 1993Ka37). Theoretical α ratios for E1 transition (calculated by T. Kibedi with the RAINE code using the same atomic and nuclear parameters as BRICC by T. Kibedi): M1/M2/M3=0.3/1.0/2.2, N1/N2/N3=0.43/1.00/2.11.
117.59	6^+	116.48 *5*	100	1.112	2^-	M4		164.9 *17*	B(M4)(W.u.)=0.0165 *10* E_γ: From ^{110}Ag IT decay (249.83 d) (1990Me15). Mult.: From conversion electron intensity ratios, K/L=2.04 *6*, L1/L2=4.8 *5*, L1/L3=1.02 *2* (1965Ge01). Other: K/L=2.1 *2* (1963Su07), K/L=1.95 *10* (1965Ha07).
118.719	3^+	117.607 *17*	100	1.112	2^-	E1(+M2)	+0.034 *9*	0.1032 *22*	B(E1)(W.u.)=(4.48×10^{-6} *8*); B(M2)(W.u.)=(1.7 *9*) α(K)=0.0897 *19*; α(L)=0.0110 *3*; α(M)=0.00208 *6*; α(N+..)=0.000368 *10* α(N)=0.000353 *9*; α(O)=1.45×10^{-5} *4* Mult.: A_2=−0.142 *5*, A_4=+0.019 *8* (for E(p)=3.5 MeV), A_2=−0.149 *16*, A_4=+0.019 *8* (for E(p)=3.0 MeV) (1976Ha57); α(K)exp=0.088, α(L1)exp=0.0073 (1968El03).
		118.716 *17*		0.0	1^+				
191.622	3^+	72.903 *11*	100	118.719	3^+	M1		1.031	Mult.: α(K)exp=0.86 17, α(L1)exp=0.11 7 (1968EL03).
		191.2 *5*	100	0.0	1^+	(E2)		0.1447 *25*	α(K)=0.1202 *20*; α(L)=0.0200 *4*; α(M)=0.00387 *7*; α(N+..)=0.000661 *12* α(N)=0.000642 *11*; α(O)=1.92×10^{-5} *4* Mult.: From A_2=+0.235 *13*, A_4=−0.030 *22* (1976Ha57). Authors of 1976Ha57 assign this transition as Q+(O), based on the measured δ=+0.034 *61*.
198.689	2^+	197.58 *3*		1.112	2^-				
		198.69 *3*	100	0.0	1^+	M1(+E2)	+0.017 *17*	0.0637	α(K)=0.0554 *8*; α(L)=0.00677 *10*; α(M)=0.001287 *19*; α(N+..)=0.000233 *4* α(N)=0.000223 *4*; α(O)=1.040×10^{-5} *15* B(M1)(W.u.)>0.033? Mult.: A_2=−0.084 *4*, A_4=+0.014 *6* (1976Ha57) and from α(K)exp=0.048 *3*, α(L1)exp=0.0055 *8* (1968El03).
236.859	1^-	235.75 *3*	100	1.112	2^-	M1		0.0405	B(M1)(W.u.)>0.0067 Mult.: α(K)exp=0.027 1, α(L1)exp=0.0016 7 (1968EL03) (includes L236.62γ).
237.069	$(1,2,3^+)$	235.94 *4*		1.112	2^-				
		237.05 *4*	100	0.0	1^+				

$^{110}_{47}Ag_{63}$-5

$\gamma(^{110}Ag)$ (continued)

E_i(level)	J^π_i	E_γ[‡]	I_γ[‡]	E_f	J^π_f	Mult.[#]	α[†]	Comments
242.09	(6⁻)	124.5[a] *2*	100[a]	117.59	6⁺			
267.229	1⁺,2⁺	68.552 *10*	13 *3*	198.689	2⁺	M1(+E2)	3.4 *22*	α(K)=2.4 *14*; α(L)=0.8 *7*; α(M)=0.16 *14*; α(N+..)=0.026 *21* α(N)=0.025 *21*; α(O)=0.00035 *16* Mult.: α(K)exp=1.04 21, α(L1)exp=0.23 19 (1968El03).
		266.11 *4*	100 *11*	1.112	2⁻			
		267.22 *4*	24.6 *25*	0.0	1⁺	(M1)	0.0292	α(K)=0.0255 *4*; α(L)=0.00308 *5*; α(M)=0.000586 *9*; α(N+..)=0.0001062 *15* α(N)=0.0001015 *15*; α(O)=4.76×10⁻⁶ *7* B(M1)(W.u.)>0.0019 Mult.: A_2=+0.013 *9*, A_4=+0.026 *16* (1976Ha57), coefficient of summed angular distribution for 265.7γ and 267.0γ and from α(K)exp=0.017 *1* (1968El03).
271.470	2⁺,3⁺,4⁺	79.847 *12*	100 *10*	191.622	3⁺	M1(+E2)	2.0 *13*	α(K)=1.5 *9*; α(L)=0.4 *4*; α(M)=0.08 *7*; α(N+..)=0.013 *11* α(N)=0.013 *11*; α(O)=0.00023 *10* Mult.: α(K)exp=0.82 16, α(L1)exp=0.08 3 (1968El03).
		152.755 *22*	26 *5*	118.719	3⁺	M1(+E2)	0.22 *10*	α(K)=0.19 *8*; α(L)=0.031 *18*; α(M)=0.006 *4*; α(N+..)=0.0010 *6* α(N)=0.0010 *6*; α(O)=3.1×10⁻⁵ *10* Mult.: α(K)exp=0.15 2 (1968El03).
293.3+x	(8⁻)	51.2[a] *4*	100[a]	242.09+x	(7⁻)			
302.1	(1⁺,2,3⁺)	110.5 *5*		191.622	3⁺			E_γ: From ^{110}Pd(p,nγ), ^{109}Ag(d,pγ).
		302.0 *5*		0.0	1⁺			E_γ: From ^{110}Pd(p,nγ), ^{109}Ag(d,pγ).
304.525	1⁺,2⁺,3⁺	105.824 *15*	100	198.689	2⁺	M1	0.358	B(M1)(W.u.)>0.085 Mult.: α(K)exp=0.25 4, α(L1)exp=0.037 7 (1968El03).
		304.538 *15*		0.0	1⁺			
338.960	0⁻,1⁻	101.856 *15*		237.069	(1,2,3⁺)			
		337.80 *5*		1.112	2⁻			
		338.92 *5*		0.0	1⁺			
360.618	1⁺,2⁺	93.402 *14*	100 *10*	267.229	1⁺,2⁺	M1(+E2)	1.2 *7*	α(K)=0.9 *5*; α(L)=0.22 *16*; α(M)=0.04 *4*; α(N+..)=0.007 *5* α(N)=0.007 *5*; α(O)=0.00014 *6* Mult.: α(K)exp=0.50 10, α(L1)exp=0.078 24 (1968El03).
		123.571 *18*		237.069	(1,2,3⁺)			
		123.766 *18*		236.859	1⁻			
		161.920 *24*	26 *5*	198.689	2⁺	M1(+E2)	0.19 *8*	α(K)=0.15 *6*; α(L)=0.025 *14*; α(M)=0.005 *3*; α(N+..)=0.0008 *5* α(N)=0.0008 *5*; α(O)=2.6×10⁻⁵ *8* Mult.: α(K)exp=0.12 4 (1968El03).
		359.51 *5*		1.112	2⁻			
		360.62 *5*		0.0	1⁺			
381.207	1⁻,2⁻	113.976 *17*		267.229	1⁺,2⁺			
		144.148 *21*	≤12	237.069	(1,2,3⁺)			
		144.342 *21*	≤12	236.859	1⁻			
		380.09 *6*	24	1.112	2⁻			
		381.20 *6*	100	0.0	1⁺			
411.973	(1⁺,2,3⁺)	220.35 *3*		191.622	3⁺			

γ(^{110}Ag) (continued)

E_i(level)	J^π_i	E_γ[‡]	I_γ[‡]	E_f	J^π_f	Mult.[#]	α[†]	Comments
411.973	(1$^+$,2,3$^+$)	293.26 *4*		118.719	3$^+$			
		411.96 *6*		0.0	1$^+$			
424.721	(1,2,3$^+$)	157.488[b] *23*		267.229	1$^+$,2$^+$			
		187.65 *3*		237.069	(1,2,3$^+$)			
		423.60 *6*		1.112	2$^-$			
		424.71 *6*		0.0	1$^+$			
432.376	(2)$^-$	165.138 *24*		267.229	1$^+$,2$^+$			
		195.52 *3*	100	236.859	1$^-$			
		233.67 *3*		198.689	2$^+$			
		240.76 *4*		191.622	3$^+$			
		313.64 *5*		118.719	3$^+$			
		431.38 *6*		1.112	2$^-$			
456.53	(2$^+$,3,4$^+$)	185.07 *3*		271.470	2$^+$,3$^+$,4$^+$			
		337.80 *5*		118.719	3$^+$			
466.885	(1$^+$,2,3$^+$)	162.371 *24*		304.525	1$^+$,2$^+$,3$^+$			
		275.23 *4*		191.622	3$^+$			
		348.17 *5*		118.719	3$^+$			
468.850	(1$^+$,2,3)	108.229 *16*		360.618	1$^+$,2$^+$			
		164.316 *24*		304.525	1$^+$,2$^+$,3$^+$			
		197.38 *3*		271.470	2$^+$,3$^+$,4$^+$			
		231.77 *3*		237.069	(1,2,3$^+$)			
		270.15 *4*		198.689	2$^+$			
		350.12 *5*		118.719	3$^+$			
471.239	(1,2,3)	166.710 *24*	100	304.525	1$^+$,2$^+$,3$^+$			
		234.18 *3*		237.069	(1,2,3$^+$)			
		272.54 *4*		198.689	2$^+$			
484.40+x	(9$^-$)	191.1[a] *2*	100[a]	293.3+x	(8$^-$)			
485.737	(1$^+$,2,3$^-$)	125.155 *18*	100	360.618	1$^+$,2$^+$	M1+E2	0.44 *22*	α(K)=0.35 *16*; α(L)=0.07 *5*; α(M)=0.013 *9*; α(N+..)=0.0022 *14* α(N)=0.0021 *14*; α(O)=5.7×10^{-5} *21* Mult.: α(K)exp=0.29 4 (1968El03).
		181.27 *3*		304.525	1$^+$,2$^+$,3$^+$			
		218.57 *3*		267.229	1$^+$,2$^+$			
		248.91 *4*		236.859	1$^-$			
		287.08 *4*		198.689	2$^+$			
		294.12 *4*		191.622	3$^+$			
		367.05 *5*		118.719	3$^+$			
496.886	(1,2,3$^+$)	115.685 *17*		381.207	1$^-$,2$^-$			
		229.66 *3*		267.229	1$^+$,2$^+$			
		259.82 *4*		237.069	(1,2,3$^+$)			
		260.02[b] *4*		236.859	1$^-$			
		298.18[b] *4*		198.689	2$^+$			
		495.76 *7*		1.112	2$^-$			

$^{110}_{47}Ag_{63}$-7

γ(^{110}Ag) (continued)

E_i(level)	J^π_i	E_γ‡	I_γ‡	E_f	J^π_f	Comments
496.886	(1,2,3$^+$)	496.87 *7*		0.0	1$^+$	
525.677	(1,2,3$^-$)	186.76 *3*		338.960	0$^-$,1$^-$	
		288.62 *4*		237.069	(1,2,3$^+$)	
		288.82[b] *4*		236.859	1$^-$	
		326.97 *5*		198.689	2$^+$	
		524.54 *8*		1.112	2$^-$	
527.428	(1$^+$,2,3$^-$)	166.891 *24*		360.618	1$^+$,2$^+$	
		188.17 *3*		338.960	0$^-$,1$^-$	
		256.03 *4*		271.470	2$^+$,3$^+$,4$^+$	
		328.80 *5*		198.689	2$^+$	
		335.91 *5*		191.622	3$^+$	
		408.79 *6*		118.719	3$^+$	
		526.39 *8*		1.112	2$^-$	
536.209	0$^-$,1$^-$	175.56 *3*		360.618	1$^+$,2$^+$	
		231.66 *3*		304.525	1$^+$,2$^+$,3$^+$	
		268.96 *4*		267.229	1$^+$,2$^+$	
		299.33 *4*		236.859	1$^-$	
		536.16 *8*		0.0	1$^+$	
540		540[&] *3*		0.0	1$^+$	
549.397	(1,2,3)	188.77 *3*		360.618	1$^+$,2$^+$	
		244.85 *4*		304.525	1$^+$,2$^+$,3$^+$	
		277.88 *4*		271.470	2$^+$,3$^+$,4$^+$	
		282.16 *4*		267.229	1$^+$,2$^+$	
		312.53 *5*		236.859	1$^-$	
		549.38 *8*		0.0	1$^+$	
586.8		586.8 *5*		0.0	1$^+$	E_γ: From ^{110}Pd(p,nγ), ^{109}Ag(d,pγ).
595.05	1$^-$,2$^-$	358.00 *5*		237.069	(1,2,3$^+$)	
		358.17 *5*		236.859	1$^-$	
		593.91 *9*		1.112	2$^-$	
		595.07 *9*		0.0	1$^+$	
613.058		231.84 *3*		381.207	1$^-$,2$^-$	
		274.12 *4*		338.960	0$^-$,1$^-$	
		494.33 *7*		118.719	3$^+$	
615.137	(1,2,3)	182.76 *3*		432.376	(2)$^-$	
		254.51 *4*		360.618	1$^+$,2$^+$	
		378.08 *6*		237.069	(1,2,3$^+$)	
		378.28 *6*		236.859	1$^-$	
		614.04 *9*		1.112	2$^-$	
633.442		136.555 *20*	100	496.886	(1,2,3$^+$)	
		252.24 *4*		381.207	1$^-$,2$^-$	
		272.82 *4*		360.618	1$^+$,2$^+$	
		366.21 *5*		267.229	1$^+$,2$^+$	
		396.39 *6*		237.069	(1,2,3$^+$)	

$^{110}_{47}$Ag$_{63}$-8

$\gamma(^{110}Ag)$ (continued)

E_i(level)	J^{π}_i	E_γ[‡]	E_f	J^{π}_f
653.929	$(1^+,2,3^+)$	157.043 *23*	496.886	$(1,2,3^+)$
		185.07 *3*	468.850	$(1^+,2,3)$
		315.05 *5*	338.960	$0^-,1^-$
		417.06 *6*	236.859	1^-
		462.29 *7*	191.622	3^+
		652.76 *10*	1.112	2^-
663.463	$(1^-,2^-,3^-)$	114.082 *17*	549.397	(1,2,3)
		177.69 *3*	485.737	$(1^+,2,3^-)$
		194.61 *3*	468.850	$(1^+,2,3)$
		302.84 *4*	360.618	$1^+,2^+$
		358.93 *5*	304.525	$1^+,2^+,3^+$
		464.78 *7*	198.689	2^+
		662.27 *10*	1.112	2^-
664.935	$(1^-,2^-,3^-)$	283.73 *4*	381.207	$1^-,2^-$
		304.30 *5*	360.618	$1^+,2^+$
		326.01 *5*	338.960	$0^-,1^-$
		393.49 *6*	271.470	$2^+,3^+,4^+$
		427.87 *6*	237.069	$(1,2,3^+)$
		428.06 *6*	236.859	1^-
		466.22 *7*	198.689	2^+
		663.75 *10*	1.112	2^-
683.152	(1,2,3)	157.488[b] *23*	525.677	$(1,2,3^-)$
		214.29 *3*	468.850	$(1^+,2,3)$
		322.52 *5*	360.618	$1^+,2^+$
		378.62 *6*	304.525	$1^+,2^+,3^+$
		415.91 *6*	267.229	$1^+,2^+$
		484.45 *7*	198.689	2^+
689.47	$(1^+,2,3^+)$	232.94 *3*	456.53	$(2^+,3,4^+)$
		422.23 *6*	267.229	$1^+,2^+$
		570.76 *8*	118.719	3^+
698.561		149.168 *22*	549.397	(1,2,3)
		162.371 *24*	536.209	$0^-,1^-$
		201.68 *3*	496.886	$(1,2,3^+)$
		212.77 *3*	485.737	$(1^+,2,3^-)$
		273.85 *4*	424.721	$(1,2,3^+)$
		317.34 *5*	381.207	$1^-,2^-$
		337.95 *5*	360.618	$1^+,2^+$
		461.51 *7*	237.069	$(1,2,3^+)$
		698.58 *10*	0.0	1^+
706.214	$(1^+,2,3^+)$	156.754 *23*	549.397	(1,2,3)
		169.923 *25*	536.209	$0^-,1^-$
		220.85 *3*	485.737	$(1^+,2,3^-)$
		237.28 *4*	468.850	$(1^+,2,3)$
706.214	$(1^+,2,3^+)$	345.50 *5*	360.618	$1^+,2^+$
		434.65 *6*	271.470	$2^+,3^+,4^+$
		507.41 *7*	198.689	2^+
		514.45[b] *8*	191.622	3^+
		587.46 *9*	118.719	3^+
724.67	$1^+,2,3^+$	253.43 *4*	471.239	(1,2,3)
		605.95 *9*	118.719	3^+
		723.57 *11*	1.112	2^-
		724.69 *11*	0.0	1^+
725.807		228.92 *3*	496.886	$(1,2,3^+)$
		301.06 *4*	424.721	$(1,2,3^+)$
		344.60 *5*	381.207	$1^-,2^-$
		386.90 *6*	338.960	$0^-,1^-$
		488.75 *7*	237.069	$(1,2,3^+)$
748.598	$1^-,2^-$	212.39 *3*	536.209	$0^-,1^-$
		323.86 *5*	424.721	$(1,2,3^+)$
		367.38 *5*	381.207	$1^-,2^-$
		387.97 *6*	360.618	$1^+,2^+$
		409.69 *6*	338.960	$0^-,1^-$
		549.87 *8*	198.689	2^+
		748.63 *11*	0.0	1^+
750.837	$(2)^-$	223.37 *3*	527.428	$(1^+,2,3^-)$
		390.25 *6*	360.618	$1^+,2^+$
		446.34 *7*	304.525	$1^+,2^+,3^+$
		483.68 *7*	267.229	$1^+,2^+$
		632.19 *9*	118.719	3^+
		750.89 *11*	0.0	1^+
753	$1^-,2^-,3^-$	753[&] *3*	0.0	1^+
767.01	$(1^+,2,3^+)$	298.18[b] *4*	468.850	$(1^+,2,3)$
		406.44 *6*	360.618	$1^+,2^+$
		648.04 *10*	118.719	3^+
		765.93 *11*	1.112	2^-
773.697	$(1^+,2,3^+)$	237.49 *4*	536.209	$0^-,1^-$
		276.80 *4*	496.886	$(1,2,3^+)$
		348.98 *5*	424.721	$(1,2,3^+)$
		469.14 *7*	304.525	$1^+,2^+,3^+$
		536.72 *8*	237.069	$(1,2,3^+)$
		574.98 *8*	198.689	2^+
		654.99 *10*	118.719	3^+
		773.67 *11*	0.0	1^+
785.683	$(1^+,2,3^+)$	236.27 *4*	549.397	(1,2,3)
		249.47 *4*	536.209	$0^-,1^-$
		260.02[b] *4*	525.677	$(1,2,3^-)$

$^{110}_{47}Ag_{63}$-9

$\gamma(^{110}Ag)$ (continued)

E_i(level)	J^π_i	E_γ[‡]	E_f	J^π_f
785.683	$(1^+,2,3^+)$	288.82[b] 4	496.886	$(1,2,3^+)$
		316.82 5	468.850	$(1^+,2,3)$
		481.21 7	304.525	$1^+,2^+,3^+$
		586.97 7	198.689	2^+
		666.84 10	118.719	3^+
		785.66 12	0.0	1^+
793	$1,2,3^+$	793[&] 3	0.0	1^+
802.73		277.07 4	525.677	$(1,2,3^-)$
		611.04 9	191.622	3^+
		683.98 10	118.719	3^+
811.419		275.23 4	536.209	$0^-,1^-$
		325.64 5	485.737	$(1^+,2,3^-)$
		342.62 5	468.850	$(1^+,2,3)$
		450.78 7	360.618	$1^+,2^+$
		506.83 7	304.525	$1^+,2^+,3^+$
		544.20 8	267.229	$1^+,2^+$
		612.71 9	198.689	2^+
819.017		165.093 24	653.929	$(1^+,2,3^+)$
		282.80 4	536.209	$0^-,1^-$

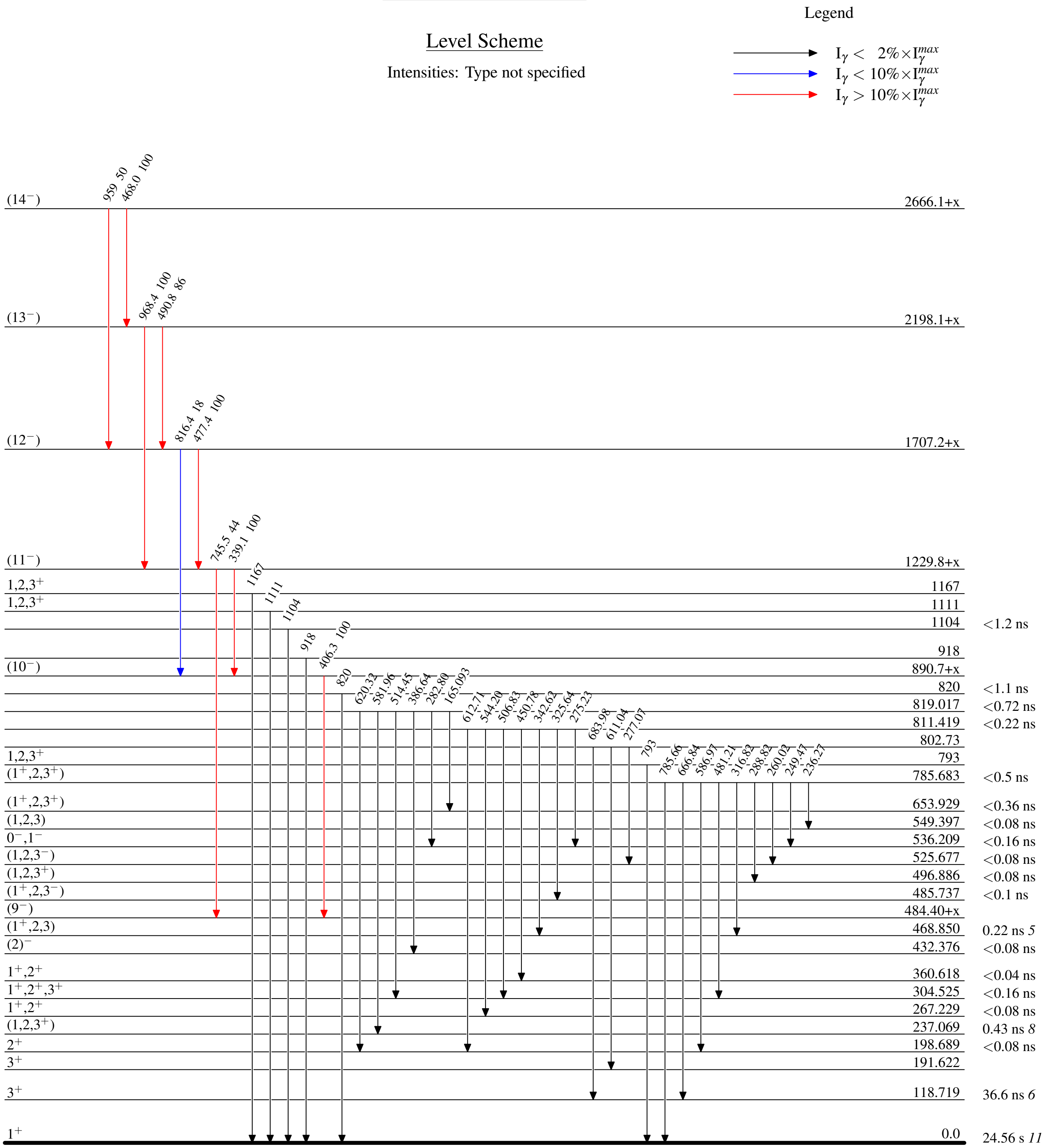
E_i(level)	J^π_i	E_γ[‡]	I_γ[‡]	E_f	J^π_f
819.017		386.64 6		432.376	$(2)^-$
		514.45[b] 8		304.525	$1^+,2^+,3^+$
		581.96 9		237.069	$(1,2,3^+)$
		620.32 10		198.689	2^+
820		820[&] 3		0.0	1^+
890.7+x	(10^-)	406.3[a] 2	100[a]	484.40+x	(9^-)
918		918[&] 3		0.0	1^+
1104		1104[&] 3		0.0	1^+
1111	$1,2,3^+$	1111[&] 4		0.0	1^+
1167	$1,2,3^+$	1167[&] 3		0.0	1^+
1229.8+x	(11^-)	339.1[a] 2	100[a] 12	890.7+x	(10^-)
		745.5[a] 3	44[a] 12	484.40+x	(9^-)
1707.2+x	(12^-)	477.4[a] 2	100[a] 24	1229.8+x	(11^-)
		816.4[a] 4	18[a] 6	890.7+x	(10^-)
2198.1+x	(13^-)	490.8[a] 3	86[a] 29	1707.2+x	(12^-)
		968.4[a] 5	100[a] 29	1229.8+x	(11^-)
2666.1+x	(14^-)	468.0[a] 3	100[a] 33	2198.1+x	(13^-)
		959[a] 1	50[a] 17	1707.2+x	(12^-)

† Additional information 3.
‡ From $^{109}Ag(n,\gamma)$ ($\Delta E\gamma$ estimated by the evaluators based on $\Delta E\gamma$ given in 1975Cl03), unless otherwise stated.
\# Deduced from α(K)exp and α(L1)exp in $^{109}Ag(n,\gamma)$ (1968El03), or $\gamma(\theta)$ in $^{110}Pd(p,n\gamma)$,$^{109}Ag(d,p\gamma)$ (1976Ha57), unless otherwise stated.
@ From $\gamma(\theta)$ in $^{110}Pd(p,n\gamma)$,$^{109}Ag(d,p\gamma)$ (1976Ha57).
& From $^{109}Ag(n,\gamma)$ E=5.2 eV res.
a From $^{176}Yb(^{28}Si,X\gamma)$.
b Multiply placed.

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

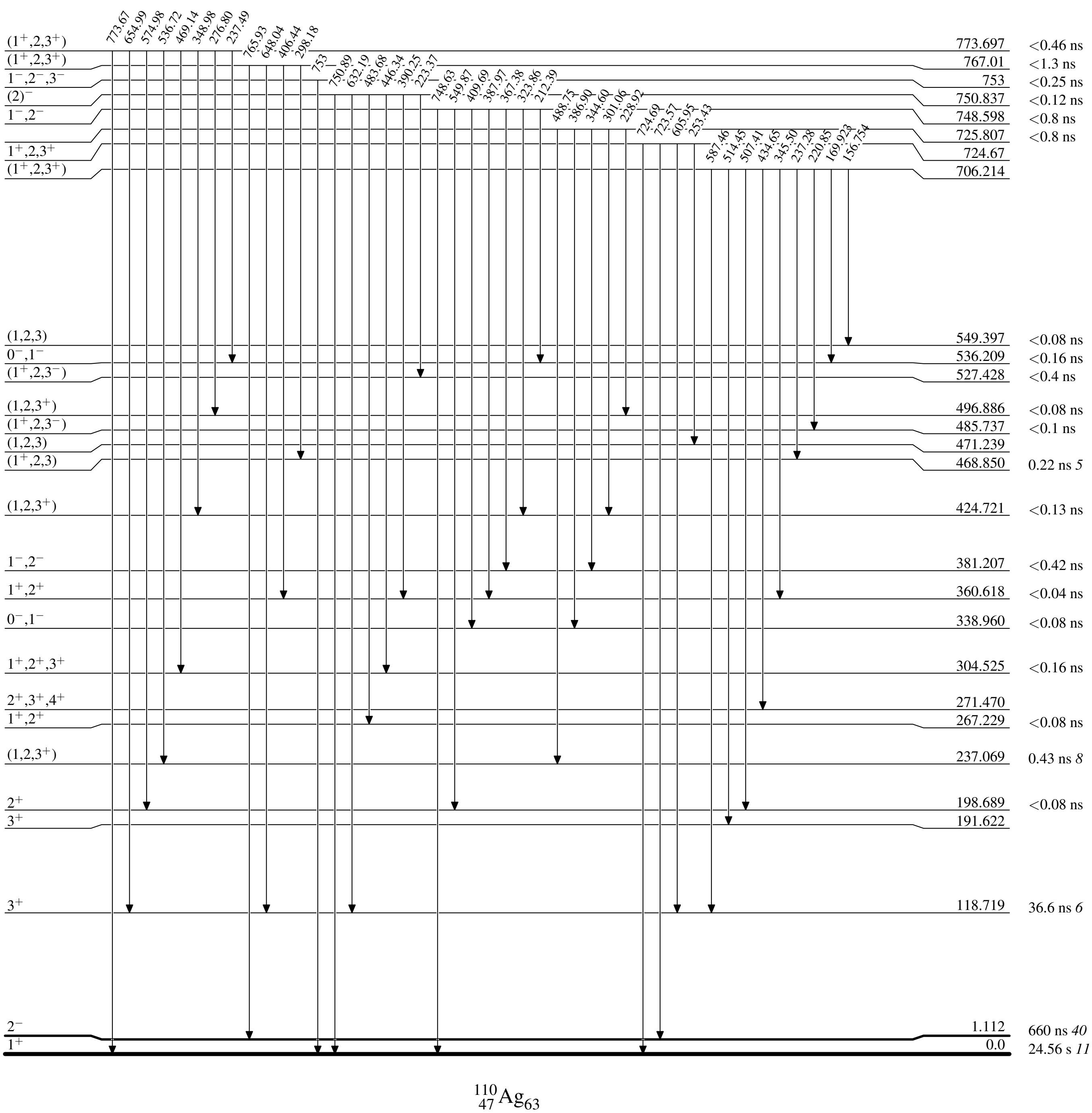


$^{110}_{47}Ag_{63}$

Adopted Levels, Gammas

Level Scheme (continued)

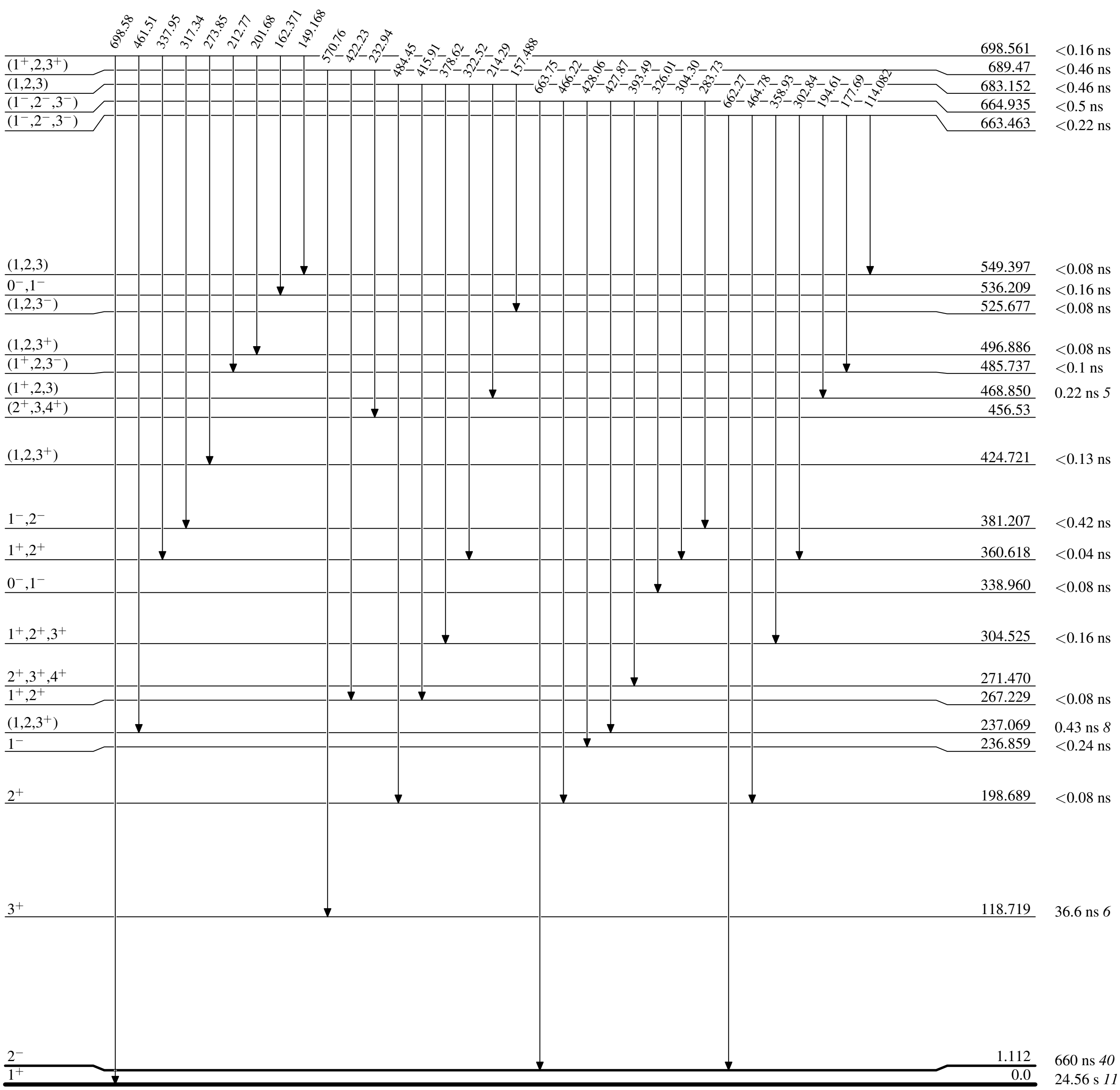
Intensities: Type not specified



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

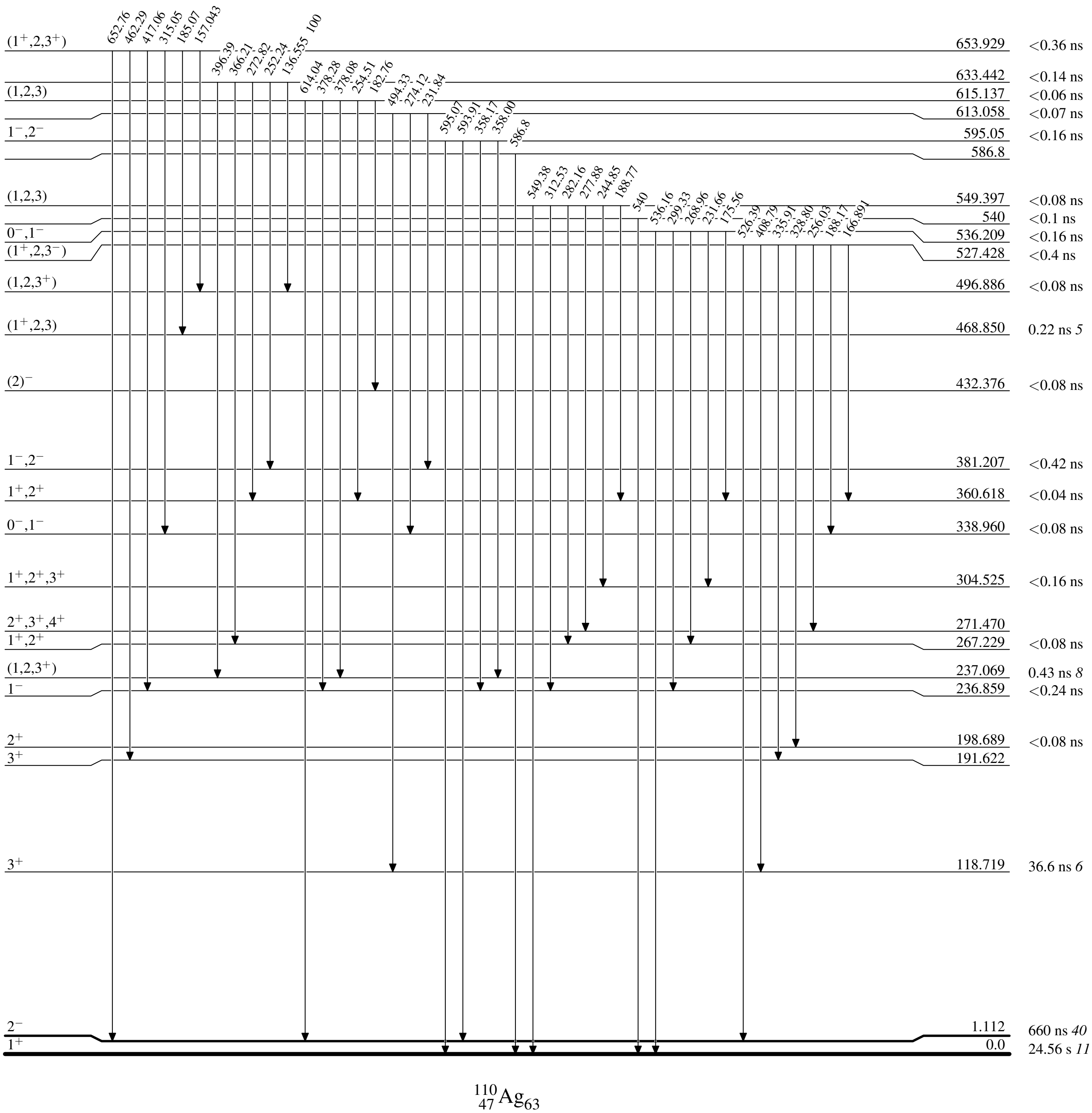


$^{110}_{47}Ag_{63}$

Adopted Levels, Gammas

Level Scheme (continued)

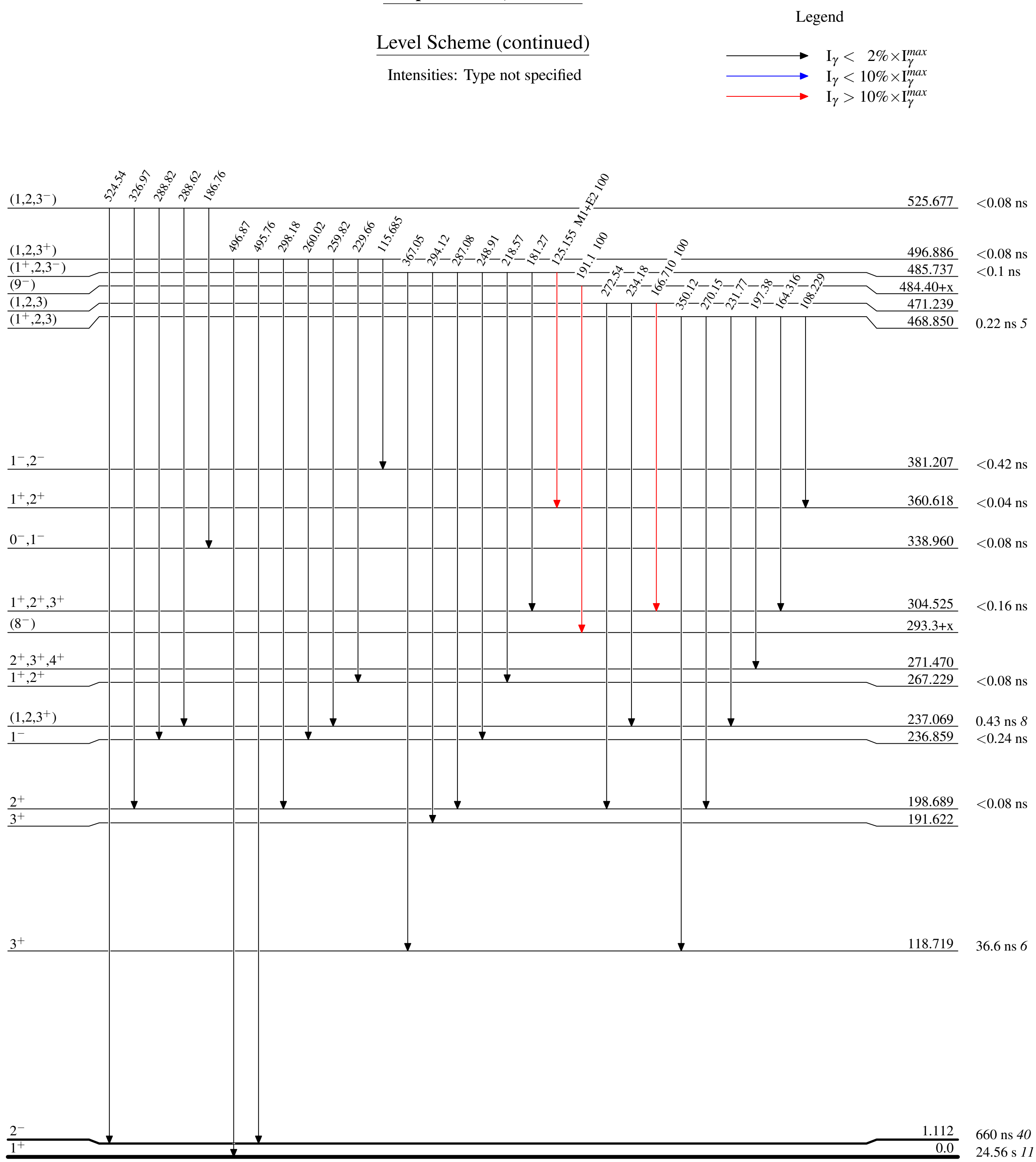
Intensities: Type not specified



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified



$^{110}_{47}Ag_{63}$

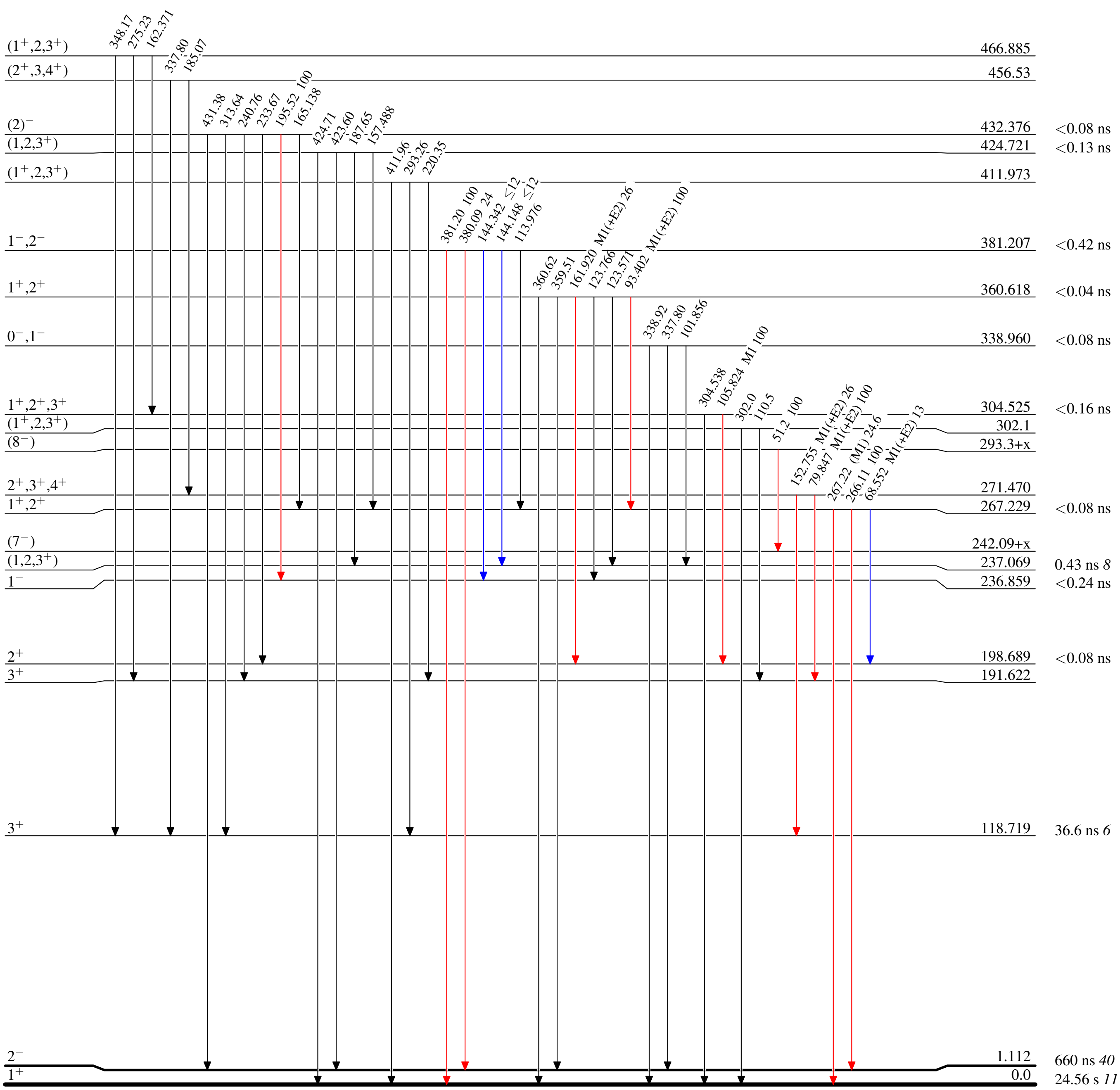
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

Legend

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

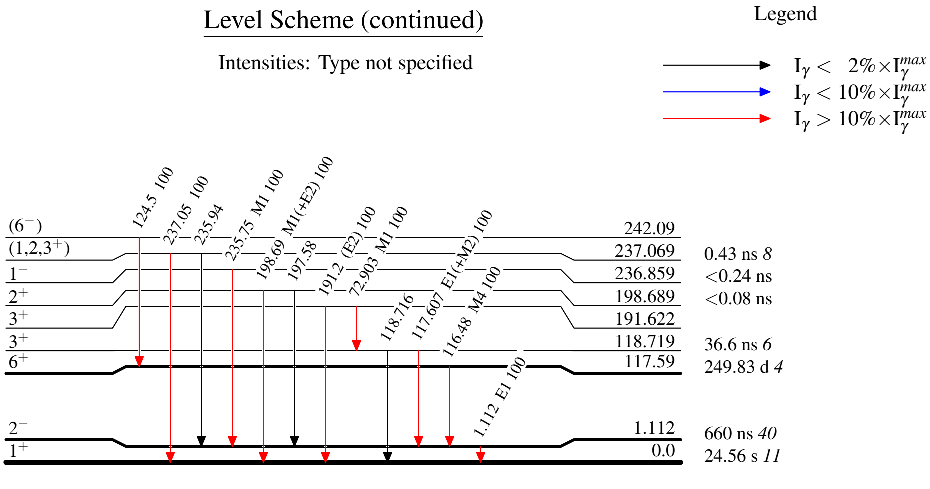


$^{110}_{47}Ag_{63}$

Adopted Levels, Gammas

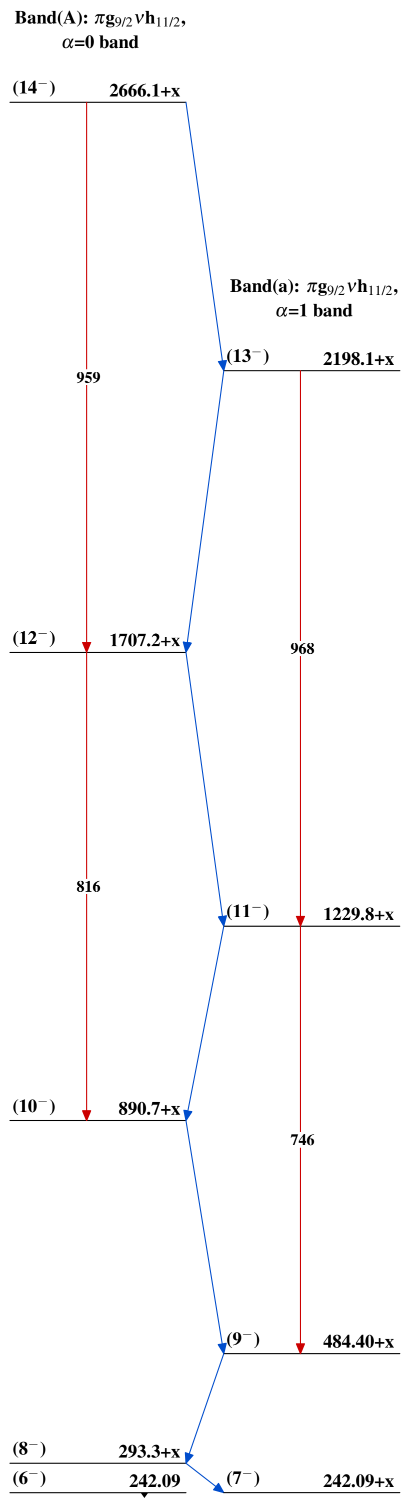
Level Scheme (continued)

Intensities: Type not specified



$^{110}_{47}Ag_{63}$

Adopted Levels, Gammas



$^{110}_{47}Ag_{63}$