Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 113,2391 (2012)	1-Sep-2012

Q(β^-)=3102 *19*; S(n)=8123 *19*; S(p)=8780 *20*; Q(α)=−5103 *20* 2012Wa38
Note: Current evaluation has used the following Q record 3104 188124 198781 20-5104 20 2011AuZZ.

^{115}Ag Levels

Cross Reference (XREF) Flags

- A ^{115}Pd β^- decay (25 s)
- B ^{115}Ag IT decay (18.0 s)
- C ^{115}Pd β^- decay (50 s)
- D ^{252}Cf SF decay

E(level)[#]	J$^\pi$[†]	T$_{1/2}$[‡]	XREF	Comments
0.0	1/2$^-$	20.0 min *5*	AB D	%β^-=100 T$_{1/2}$: from 1964Ba36. Others: 20 min (1969WiZX,1970OsZZ), 21.1 min *5* (1958Al90), 20.4 min *17* (1990Fo07). J$^\pi$: from log *ft*=6.7 to 1/2$^+$, 1U transition to 5/2$^+$, 360.5 level.
41.16[@] *10*	7/2$^+$	18.0 s *7*	ABCD	%β^-=79.0 *3*; %IT=21.0 *3* T$_{1/2}$: from 1974Gr29 4$\pi\beta$, on-line ms. Others: 20 s *10* (1958Al90), 49 s *6* (1968Kj01), 17 s *5* (1970OsZZ), 55 s *2* (1970We08), 19 s *2* (1973BrXC). E(level): E3 transition observed by 1990Fo07. J$^\pi$: E3 γ to g.s. Isomerism identified in ^{111}Ag (T$_{1/2}$=65 s) at 60 keV, and in ^{109}Ag (T$_{1/2}$=40 s) at 88 keV. %IT: from 1990Fo07.
166.56[@] *12*	9/2$^+$		A D	J$^\pi$: M1 γ to 7/2$^+$.
255.48 *8*	1/2$^-$,3/2$^-$		A	J$^\pi$: M1 γ to 1/2$^-$.
285.5[b] *5*	(11/2$^+$)		D	
303.84[c] *8*	(3/2)$^+$	5.2 ns *3*	A	J$^\pi$: E1 γ to 1/2$^-$, (E2) γ to 7/2$^+$.
342.62 *7*	1/2$^-$,3/2$^-$,5/2$^-$		A	J$^\pi$: M1,E2 γ to 1/2$^-$ g.s.
396.51[c] *8*	(1/2)$^+$	0.8 ns *3*	A	J$^\pi$: (E1) γ to 1/2$^-$ g.s. E2 γ to (3/2)$^+$.
414.11[c] *11*	(7/2)$^+$	1.6 ns *3*	A	J$^\pi$: (E2) γ to (3/2)$^+$ and band assignment.
564.91 *13*			A	
596.7[b] *6*	(13/2$^+$)		D	
597.41[c] *10*	(5/2$^+$)	<0.8 ns	A	J$^\pi$: from syst, member of the K^π=1/2$^+$ band.
607.42 *9*			A	
635.36 *23*			A	
664.16[@] *16*	(11/2$^+$)		A D	
766.09 *11*			A	
787.94 *8*			A C	
803.2[@] *5*	(13/2$^+$)		D	
926.8[b] *3*	(15/2$^+$)		D	
1110.1[&] *5*	(13/2$^-$)		D	
1123.4 *6*	(15/2$^+$)		D	
1298.9[b] *6*	(17/2$^+$)		D	
1480.4[@] *5*	(15/2$^+$)		D	
1560.1[@] *5*	(17/2$^+$)		D	
1723.3[b] *6*	(19/2$^+$)		D	

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Adopted Levels, Gammas (continued)

^{115}Ag Levels (continued)

E(level)[#]	Jπ[†]	XREF	E(level)[#]	Jπ[†]	XREF	E(level)[#]	Jπ[†]	XREF
1837.0[&] *6*	(15/2⁻)	D	2602.1[a] *6*	(21/2⁻)	D	2972.0[&] *7*	(⁻)	D
1887.3[&] *5*	(17/2⁻)	D	2624.4[&] *6*	(19/2⁻)	D	3095.2[a] *8*	(25/2⁻)	D
2146.6[a] *5*	(17/2⁻)	D	2634.3[b] *7*	(23/2⁺)	D	3239.0[&] *7*	(⁻)	D
2385.6[a] *6*	(19/2⁻)	D	2849.0[&] *6*	(⁻)	D			
2418.6[@] *6*	(21/2⁺)	D	2856.2[a] *7*	(23/2⁻)	D			

† From band assignments in SF decay, unless given otherwise.
‡ From 1987FoZY, unless otherwise noted.
# From least-squares fit to γ energies.
@ Band(A): π7/2[413] band.
& Band(B): Band based on (13/2⁻). This band may be the yrast portion of 1/2[301], Coriolis mixed with the 3/2[301] band. Negative parity for the highest three members is from figure 4 of 2002Hw06, not given in authors′ table II.
a Band(C): Band based on (17/2⁻). This band may be the yrast portion of K=2, γ band built on 13/2⁻ band.
b Band(D): possibly π5/2[422] band.
c Band(E): Intruder band with K=1/2. Could be fit with A=15.56 keV, a=−2.73 and E0=336.4 keV.

γ(^{115}Ag)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[‡]	Comments
41.16	7/2⁺	41.1 *2*	100	0.0	1/2⁻	E3	1.40×10^3 *5*	α(K)=102.0 *16*; α(L)=1.04×10^3 *4*; α(M)=219 *8*; α(N+..)=33.9 *12* α(N)=33.9 *12*; α(O)=0.01018 *17* B(E3)(W.u.)=0.062 *4*
166.56	9/2⁺	125.52 *10*	100	41.16	7/2⁺	M1	0.222	α(K)=0.193 *3*; α(L)=0.0239 *4*; α(M)=0.00454 *7*; α(N+..)=0.000822 *12* α(N)=0.000786 *12*; α(O)=3.63×10^{-5} *6*
255.48	1/2⁻,3/2⁻	255.53 *10*	100	0.0	1/2⁻	M1	0.0328	α(K)=0.0286 *4*; α(L)=0.00347 *5*; α(M)=0.000659 *10*; α(N+..)=0.0001195 *17* α(N)=0.0001141 *16*; α(O)=5.35×10^{-6} *8*
285.5	(11/2⁺)	118.3	100	166.56	9/2⁺			
303.84	(3/2)⁺	48.3 *2*	1.4	255.48	1/2⁻,3/2⁻	[E1]	1.246 *23*	α(K)=1.074 *20*; α(L)=0.141 *3*; α(M)=0.0266 *5*; α(N+..)=0.00458 *9* α(N)=0.00442 *9*; α(O)=0.000154 *3* B(E1)(W.u.)=6.7×10^{-6}
		262.7	<1.3	41.16	7/2⁺	(E2)	0.0484	α(K)=0.0409 *6*; α(L)=0.00608 *9*; α(M)=0.001166 *17*; α(N+..)=0.000203 *3* α(N)=0.000196 *3*; α(O)=6.79×10^{-6} *10* B(E2)(W.u.)<0.017
		303.87 *10*	100	0.0	1/2⁻	E1		Eγ,Mult.: from 1990Ro16. B(E1)(W.u.)=1.92×10^{-6} *19*
342.62	1/2⁻,3/2⁻,5/2⁻	87.17 *10*		255.48	1/2⁻,3/2⁻	M1	0.619	α(K)=0.537 *8*; α(L)=0.0669 *10*; α(M)=0.01273 *19*;

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Adopted Levels, Gammas (continued)

γ(^{115}Ag) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[†]	α[‡]	Comments
								α(N+..)=0.00230 *4* α(N)=0.00220 *4*; α(O)=0.0001012 *15*
342.62	1/2$^-$,3/2$^-$,5/2$^-$	342.71 *10*		0.0	1/2$^-$	M1,E2	0.0178 *23*	α(K)=0.0153 *19*; α(L)=0.0020 *4*; α(M)=0.00038 *8*; α(N+..)=6.8×10^{-5} *12* α(N)=6.5×10^{-5} *12*; α(O)=2.72×10^{-6} *21*
396.51	(1/2)$^+$	92.7 *2*	5	303.84	(3/2)$^+$	E2	1.89	α(K)=1.418 *23*; α(L)=0.388 *7*; α(M)=0.0762 *13*; α(N+..)=0.01243 *21* α(N)=0.01223 *21*; α(O)=0.000201 *4* B(E2)(W.u.)=129 *14*
		140.6 *2*	16	255.48	1/2$^-$,3/2$^-$	(E1)	0.0603	α(K)=0.0526 *8*; α(L)=0.00633 *10*; α(M)=0.001195 *18*; α(N+..)=0.000212 *3* α(N)=0.000204 *3*; α(O)=8.57×10^{-6} *13* B(E1)(W.u.)=1.70×10^{-5} *8* Mult.: from 1990Ro16.
		396.56 *10*	100	0.0	1/2$^-$	(E1)		B(E1)(W.u.)=4.74×10^{-6} *4* Mult.: from 1990Ro16.
414.11	(7/2)$^+$	110.4 *2*	28	303.84	(3/2)$^+$	(E2)	1.015	α(K)=0.789 *12*; α(L)=0.184 *3*; α(M)=0.0360 *6*; α(N+..)=0.00594 *10* α(N)=0.00583 *10*; α(O)=0.0001156 *18* B(E2)(W.u.)=105 *10*
		158.7 *2*	2.5	255.48	1/2$^-$,3/2$^-$			
		247.53 *10*	69	166.56	9/2$^+$			
		372.92 *10*	100	41.16	7/2$^+$			
564.91		398.6 *2*		166.56	9/2$^+$			
		523.68 *10*		41.16	7/2$^+$			
596.7	(13/2$^+$)	311.2	100	285.5	(11/2$^+$)			
597.41	(5/2$^+$)	200.7 *2*	11	396.51	(1/2)$^+$			
		293.56 *10*	8	303.84	(3/2)$^+$			
		430.9 *2*	10	166.56	9/2$^+$			
		556.32 *10*	100	41.16	7/2$^+$			
607.42		352.0 *2*		255.48	1/2$^-$,3/2$^-$			
		607.38 *10*		0.0	1/2$^-$			
635.36		468.8 *2*	100	166.56	9/2$^+$			
664.16	(11/2$^+$)	497.56 *10*	100	166.56	9/2$^+$			
766.09		423.52 *10*		342.62	1/2$^-$,3/2$^-$,5/2$^-$			
		510.7 *2*		255.48	1/2$^-$,3/2$^-$			
		599.3 *2*		166.56	9/2$^+$			
787.94		445.39 *10*		342.62	1/2$^-$,3/2$^-$,5/2$^-$			
		532.51 *10*		255.48	1/2$^-$,3/2$^-$			
		749		41.16	7/2$^+$			
		787.84 *10*		0.0	1/2$^-$			
803.2	(13/2$^+$)	138.3 *3*	14 *1*	664.16	(11/2$^+$)			
		636.0 *3*	100 *6*	166.56	9/2$^+$			
926.8	(15/2$^+$)	330.1 *3*	100 *5*	596.7	(13/2$^+$)			
		641.3 *3*	23 *8*	285.5	(11/2$^+$)			
1110.1	(13/2$^-$)	445.1 *3*	100	664.16	(11/2$^+$)			

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Adopted Levels, Gammas (continued)

$\gamma(^{115}Ag)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π
1123.4	$(15/2^+)$	526.7 *3*	100 *25*	596.7	$(13/2^+)$
		837.9 *3*	50 *17*	285.5	$(11/2^+)$
1298.9	$(17/2^+)$	372.1 *3*	100 *25*	926.8	$(15/2^+)$
		702.2 *3*	25 *8*	596.7	$(13/2^+)$
1480.4	$(15/2^+)$	677.2 *3*	100 *5*	803.2	$(13/2^+)$
		815.5 *3*	25 *8*	664.16	$(11/2^+)$
1560.1	$(17/2^+)$	756.9 *3*	100	803.2	$(13/2^+)$
1723.3	$(19/2^+)$	796.5 *3*	100	926.8	$(15/2^+)$
1837.0	$(15/2^-)$	276.9 *3*	100	1560.1	$(17/2^+)$
1887.3	$(17/2^-)$	407.0 *3*	75 *4*	1480.4	$(15/2^+)$
		777.2 *3*	100 *5*	1110.1	$(13/2^-)$
2146.6	$(17/2^-)$	586.5 *3*	100 *8*	1560.1	$(17/2^+)$
		666.2 *3*	57 *14*	1480.4	$(15/2^+)$
2385.6	$(19/2^-)$	239.0 *3*	100 *5*	2146.6	$(17/2^-)$
		825.5 *3*	50 *17*	1560.1	$(17/2^+)$
2418.6	$(21/2^+)$	858.6 *3*	100	1560.1	$(17/2^+)$
2602.1	$(21/2^-)$	216.5 *3*	100	2385.6	$(19/2^-)$
2624.4	$(19/2^-)$	737.0 *3*	80 *20*	1887.3	$(17/2^-)$
		787.4 *3*	100 *20*	1837.0	$(15/2^-)$
2634.3	$(23/2^+)$	911.0 *3*	100	1723.3	$(19/2^+)$
2849.0	$(^-)$	224.6 *3*	100 *6*	2624.4	$(19/2^-)$
		430.4 *3*	22 *8*	2418.6	$(21/2^+)$
2856.2	$(23/2^-)$	254.1 *3*	100	2602.1	$(21/2^-)$
2972.0	$(^-)$	123.0 *3*	100	2849.0	$(^-)$
3095.2	$(25/2^-)$	239.0 *3*	100	2856.2	$(23/2^-)$
3239.0	$(^-)$	267.0 *3*	100	2972.0	$(^-)$

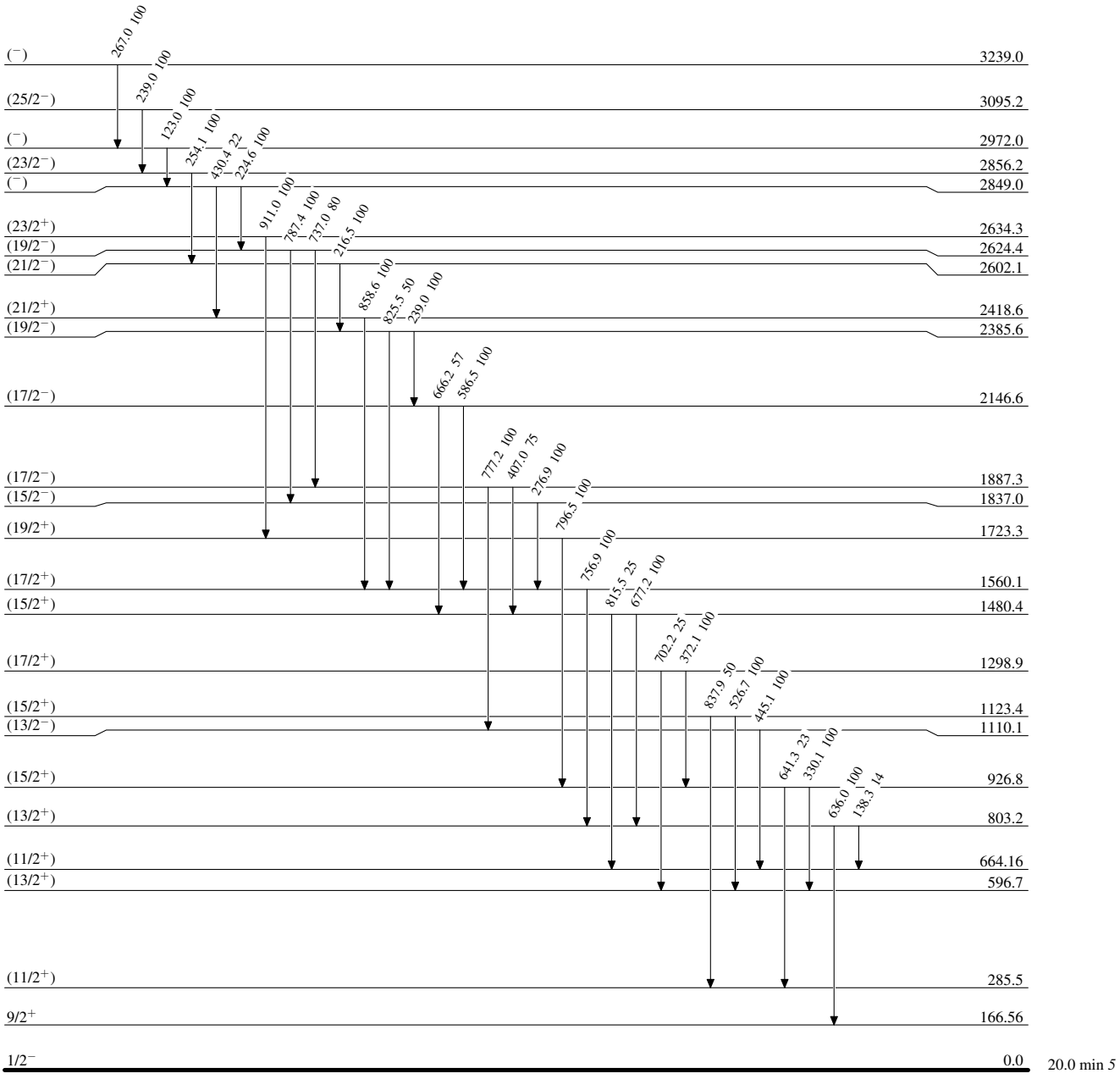
† From ^{115}Pd β^- decay.

‡ Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

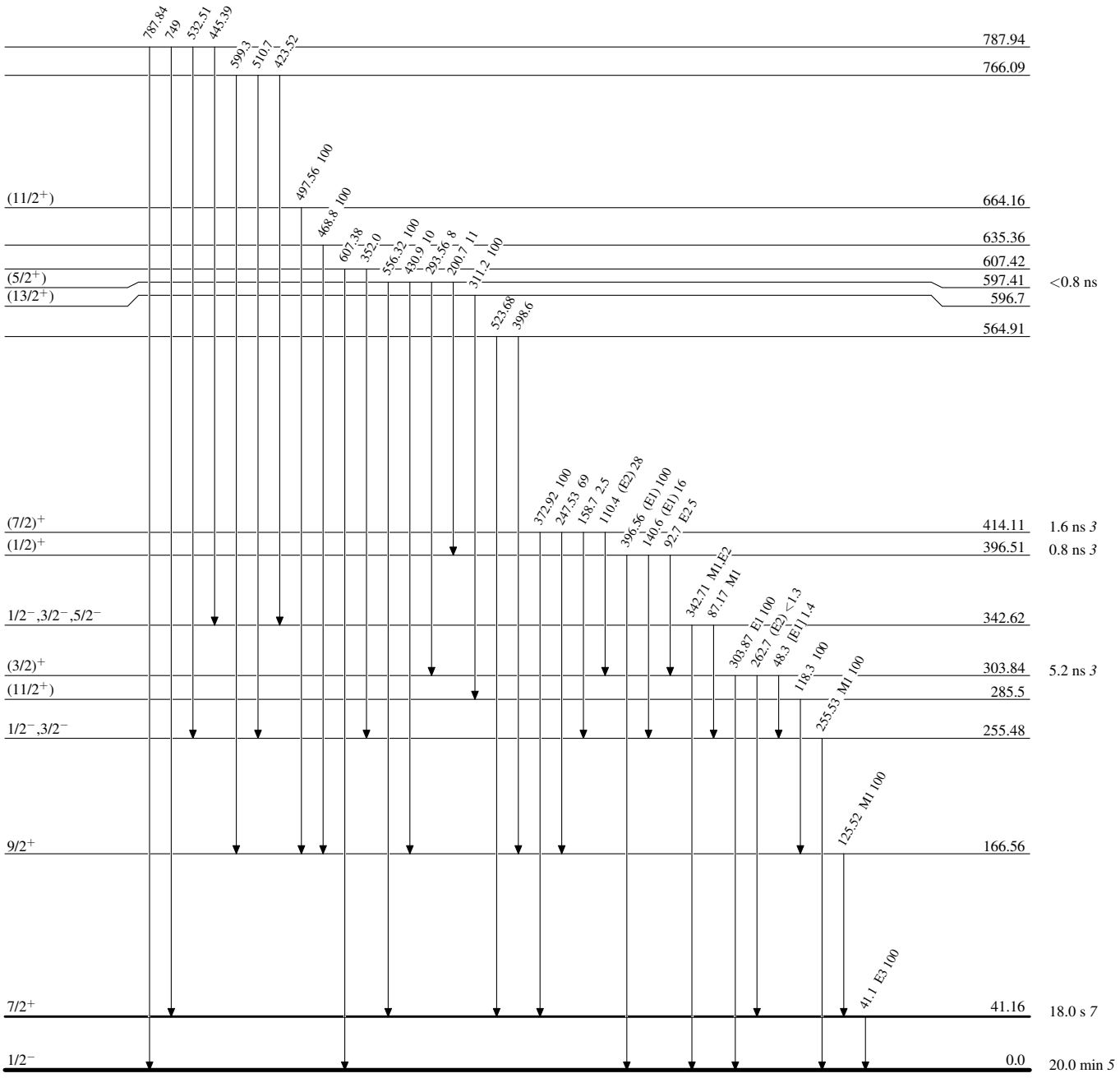


$^{115}_{47}Ag_{68}$

Adopted Levels, Gammas

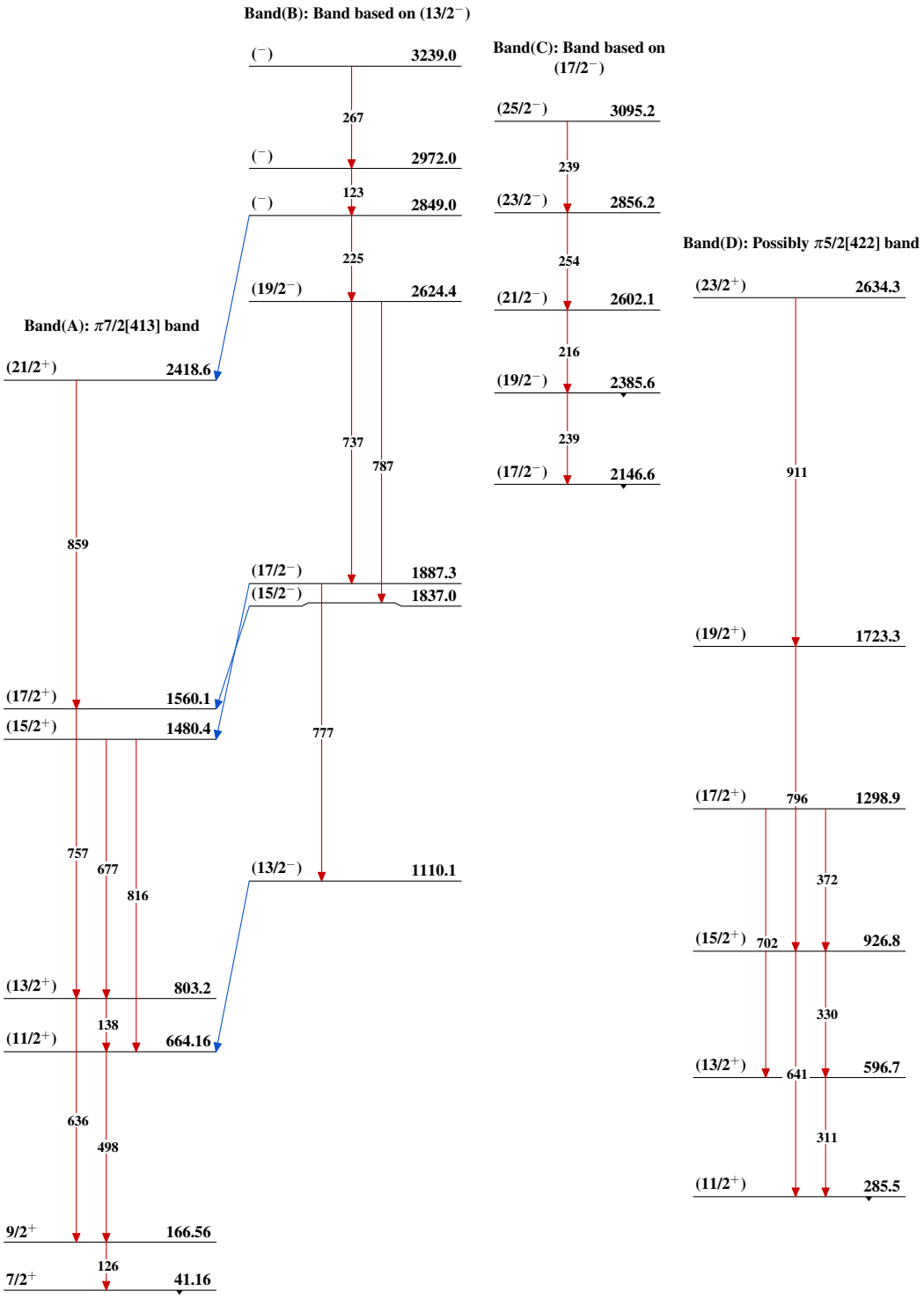
Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{115}_{47}Ag_{68}$

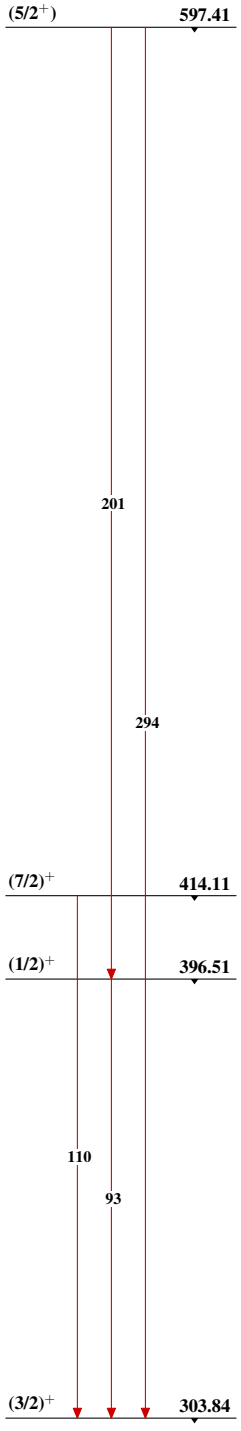
Adopted Levels, Gammas



$^{115}_{47}Ag_{68}$

Adopted Levels, Gammas (continued)

Band(E): Intruder band with K=1/2



$^{115}_{47}Ag_{68}$