

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 110,1239 (2009)	1-Feb-2008

Q(β⁻)=1036.8 15; S(n)=8829.8 20; S(p)=7173.7 16; Q(α)=-3777 13 2012Wa38
 Note: Current evaluation has used the following Q record 1036.8 148831.5 227161 11-3782 12 2003Au03.

¹¹¹Ag Levels

Cross Reference (XREF) Flags

A	¹⁰⁹ Ag(t,p)	E	¹¹¹ Pd β ⁻ decay (5.5 h)
B	¹¹⁰ Pd(³ He,d)	F	¹¹² Cd(d, ³ He)
C	¹¹¹ Ag IT decay (64.8 s)	G	¹¹⁰ Pd(³ He,pnγ)
D	¹¹¹ Pd β ⁻ decay (23.4 min)		

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
0.0 [#]	1/2 ⁻	7.45 d 1	ABCDEF G	%β ⁻ =100 μ=-0.146 2 (1989Ra17) J ^π : from atomic beam (1976Fu06), L(d, ³ He)=1. T _{1/2} : from 7.45 d 1 (1960Ba49), 7.450 d 17 (1974Ro18). Others: 7.48 d 1 (1968RoZZ), 7.5 d 1 (1950Jo53).
59.82 4	7/2 ⁺	64.8 s 8	CDE G	%IT=99.3 2; %β ⁻ =0.7 2 T _{1/2} : 64.8 s 8 (1974Gr29) 4πβ, on-line ms. Other: 74 s 3 (1957Sc22). J ^π : based on E3 γ decay to g.s. Isomeric 7/2 ⁺ analogs: 39.6-s ¹⁰⁹ Ag at 88 keV and 44.3-s ¹⁰⁷ Ag at 93 keV.
130.28 5	9/2 ⁺	1.22 ns 2	B DEFG	T _{1/2} : from β(ce(K) 70γ)(t) (1976Sv04). Other: 0.92 ns 4 (1972Ja01) (415γ,575γ,694γ)(70γ)(t). J ^π : L=4 (³ He,d),(d, ³ He), M1+E2 γ to 7/2 ⁺ , no feeding from J ^π =5/2 ⁺ . Analog: 2.6-ns ¹⁰⁹ Ag at 133 keV, 2.8-ns ¹⁰⁷ Ag at 126 keV.
289.71 [#] 5	3/2 ⁻		AB DEFG	J ^π : based on L=1 (³ He,d), L=1 (d, ³ He), L=2 (t,p).
376.71 ^{&} 5	3/2 ⁺	16 ns 1	B DEFG	T _{1/2} : from 1977GI06 (377γ)(t). J ^π : L=2 (³ He,d), γ decay to 1/2 ⁻ , RUL.
391.28 [#] 5	5/2 ⁻		A DEFG	J ^π : L=2 (t,p), γ decay from 9/2 ⁻ states.
404.86 ^{&} 9	1/2 ⁺		B D fG	J ^π : L=0 (³ He,d).
545.72 ^{&} 6	7/2 ⁺		B DE G	J ^π : L=4 (³ He,d) and γ decay to 3/2 ⁺ .
568.67 19	5/2 ⁺		D G	J ^π : E2 γ from 9/2 ⁺ and γ decay to 3/2 ⁻ .
568.8 2	5/2 ⁺		B D FG	J ^π : L=2 (³ He,d),(d, ³ He), γ decay to 9/2 ⁺ .
606.87 ^{&} 6	5/2 ⁺		B D G	J ^π : L=2 (³ He,d) and γ decay to 9/2 ⁺ .
641.93 [‡] 7	3/2 ⁻		AB D FG	J ^π : L=1 (³ He,d),(d, ³ He) and L=2 (t,p).
683.05 7	9/2 ⁺		B DE G	J ^π : from L=4 (³ He,d), excit in (³ He,pnγ).
705.42 9	11/2 ⁽⁺⁾		E G	J ^π : consistent with (1282γ)(575γ)(θ), excit in (³ He,pnγ).
710.29 7	(5/2 ⁺ ,7/2 ⁺)		D G	J ^π : based on decays to 5/2 ⁺ and 9/2 ⁺ , excit in (³ He,pnγ).
809.17 [@] 9	5/2 ⁻		A DEFG	XREF: F(790). J ^π : L=2 (t,p).
817			B	
824.46 8	11/2 ⁺ ,13/2 ⁺		B EFG	XREF: B(817). J ^π : excit and γ(θ) in (³ He,pnγ), (³ He,d) excitation at 817 keV with L=(4) do not correspond.
845.88 [#] 8	7/2 ⁻		A E G	J ^π : γ decay to 3/2 ⁻ and from 11/2 ⁻ state.
876.63 8	9/2 ⁺		B DE G	J ^π : γ(θ) and excit in (³ He,pnγ). L=1+4 for E=868, assigned in (³ He,d).
958.96 ^{&} 11	11/2 ⁺		E G	J ^π : log ft=8.1 from 11/2 ⁻ parent. γ's to 7/2 ⁺ and 9/2 ⁺ . Excit in (³ He,pnγ).

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Adopted Levels, Gammas (continued) ^{111}Ag Levels (continued)

E(level) [†]	J ^π	XREF	Comments
986.82 [‡] 8	5/2 ⁻	A E G	J ^π : log ft=8.1 from 11/2 ⁻ parent. γ's to 7/2 ⁺ and 9/2 ⁺ . Excit in (³ He,pnγ).
1013.06 12	9/2 ⁺	B G	J ^π : L=2 (t,p). Band assignment.
1023.98 [#] 8	9/2 ⁻	A E G	J ^π : from L=4 (³ He,d) and γ(θ) in (³ He,pnγ).
1062.27 15	3/2 ⁺	D G	J ^π : from γ decays to 5/2 ⁻ and from 11/2 ⁻ states. Excit in (³ He,pnγ).
1082 5	1/2 ⁻	AB	J ^π : γ decays to 1/2 ⁺ , 7/2 ⁺ states, excit in (³ He,pnγ). XREF: A(1085). Additional information 1. J ^π : L=0 (t,p).
1085.48 8	(7/2 ⁺)	D G	J ^π : excit and γ(θ) in (³ He,pnγ).
1086.64 10	(3/2 ⁺ ,5/2 ⁺)	D G	J ^π : excit and γ(θ) in (³ He,pnγ).
1119.68 10	(3/2 ⁺)	D G	J ^π : excit and γ(θ) in (³ He,pnγ).
1125.35 9	11/2 ⁺	G	J ^π : γ's to 7/2 ⁺ , 9/2 ⁺ , and γ(θ) in (³ He,pnγ).
1147 5		B	Additional information 2. E(level): doublet with L=0+2.
1153.41 [@] 8	7/2 ⁻	E G	J ^π : γ decays to 3/2 ⁻ , 9/2 ⁺ states. Excit and γ(θ) in (³ He,pnγ).
1159.78 24		E G	
1170.2 4	(3/2 ⁺ ,5/2 ⁺)	D G	J ^π : excit and γ(θ) in (³ He,pnγ).
1180.16 10	5/2 ⁺	B D fG	J ^π : L=2 (³ He,d). Excit in (³ He,pnγ).
1198.88 11	(1/2)	fG	J ^π : γ to 3/2 ⁻ . Excit in (³ He,pnγ).
1201 5	3/2 ⁻ ,5/2 ⁻	A	Additional information 3. J ^π : L=2 in (t,p).
1202.3 5	11/2,13/2	G	J ^π : γ to 7/2 ⁺ ,9/2 ⁺ . Excit in (³ He,pnγ).
1210.38 9	3/2 ⁺	B D G	XREF: B(1218). J ^π : L=2 (³ He,d). Excit in (³ He,pnγ) rules out 5/2.
1262.79 21		G	
1276.6 ^{&} 5	9/2 ⁺	G	J ^π : γ to 7/2 ⁺ , excit and γ(θ) in (³ He,pnγ).
1278 7	1/2 ⁻ ,3/2 ⁻	aB F	XREF: F(1300). Additional information 4. J ^π : L=1 (³ He,d).
1284.6 5	(7/2 ⁻ ,5/2 ⁻)	a G	J ^π : γ to 5/2 ⁻ , and γ(θ) in (³ He,pnγ).
1299.17 11	5/2 ⁻ ,7/2 ⁻	A G	J ^π : excit and γ(θ) in (³ He,pnγ).
1300 7	1/2 ⁻ ,3/2 ⁻	F	Additional information 5. J ^π : L=1 (d, ³ He).
1301.5 5		G	J ^π : γ to 7/2 ⁺ , so different from the 1300 level in (d, ³ He).
1376.8 [‡] 3	7/2 ⁻	G	J ^π : excit in (³ He,pnγ).
1388.0 5	(11/2)	G	J ^π : γ to 11/2 ⁺ , excit in (³ He,pnγ).
1417.91 11	5/2 ⁻	A G	J ^π : L(t,p)=2. Excit and γ(θ) in (³ He,pnγ) exclude 3/2.
1419 7	1/2 ⁻ ,3/2 ⁻	F	Additional information 6. J ^π : L(d, ³ He)=1.
1440.44 10	7/2 ⁺ ,9/2	G	J ^π : excit and γ(θ) in (³ He,pnγ).
1441.9 5	(5/2 ⁻)	G	J ^π : γ(θ) in (³ He,pnγ).
1443 8	1/2 ⁺	B	Additional information 7. J ^π : L=0 (³ He,d).
1448 7	(1/2 ⁻)	A	Additional information 8. J ^π : L=(0) in (t,p).
1451.9 5		G	
1463.62 [@] 11	(5/2 ⁻ ,7/2 ⁻)	E G	J ^π : excit and γ(θ) in (³ He,pnγ).
1467.0 5	(1/2)	G	J ^π : excit in (³ He,pnγ).
1471.4 4		G	
1474.6 3	(15/2 ⁺ ,13/2 ⁺)	G	J ^π : excit in (³ He,pnγ).
1476 8	1/2 ⁺	B	Additional information 9.

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Adopted Levels, Gammas (continued) ^{111}Ag Levels (continued)

E(level) [†]	J ^π	XREF	Comments
1496.4 5	(1/2)	G	J ^π : L=0 (³ He,d).
1506.0 5		D G	J ^π : excit in (³ He,pnγ).
1518.68 9	5/2 ⁺ ,7/2 ⁺	D FG	J ^π : γ to 9/2 ⁺ state and log ft=5.8 from 5/2 ⁺ parent.
1540 8	1/2 ⁻ ,3/2 ⁻	F	Additional information 10. J ^π : L=1 (d, ³ He).
1542.5 4	(13/2)	E G	
1545 7	(5/2 ⁺ ,7/2 ⁺)	A	Additional information 11. J ^π : L=(3) in (t,p).
1546.1 4	1/2 ⁻ ,3/2 ⁻	G	J ^π : L=1 (d, ³ He).
1549.60 [‡] 11	9/2 ⁻ ,11/2 ⁻	E G	J ^π : γ decays to 7/2 ⁻ ,9/2 ⁻ states, excit and γ(θ) in (³ He,pnγ).
1574.1 ^{&} 6	(11/2 ⁺ ,13/2 ⁺)	G	J ^π : excit and γ(θ) in (³ He,pnγ).
1588 8	3/2 ⁺ ,5/2 ⁺	B	Additional information 12. J ^π : L=2 (³ He,d).
1602.5 4	5/2 ⁺	A D G	J ^π : L=2 (³ He,d), excit and γ(θ) in (³ He,pnγ).
1611.7 6		G	
1621.3 4	3/2 ⁺	B D G	J ^π : L=2 (³ He,d). Excit in (³ He,pnγ) rules out J=5/2.
1630 8	3/2 ⁻ ,5/2 ⁻	A	Additional information 13. J ^π : L=2 in (t,p).
1638.8 3		G	
1654 9	3/2 ⁺ ,5/2 ⁺	B	Additional information 14. J ^π : L=2 (³ He,d).
1665.3 5		G	
1674.5 4	(3/2 ⁻)	D G	J ^π : excit and γ(θ) in (³ He,pnγ), L(t,p)=2.
1682.2 5	5/2 ⁺ ,3/2 ⁺	B G	XREF: B(1683). J ^π : L=2 (³ He,d).
1705.11 11	(5/2 ⁺ ,7/2 ⁺)	D G	J ^π : excit and γ(θ) in (³ He,pnγ).
1705.86 14	(9/2 ⁻)	E G	J ^π : γ's to 5/2 ⁻ and (11/2 ⁺); log ft=7.3 from 11/2 ⁻ .
1719 8	1/2 ⁻	A	Additional information 15. J ^π : L(t,p)=0.
1727 9	3/2 ⁺ ,5/2 ⁺	B	Additional information 16. J ^π : L=2 (³ He,d).
1748.56 [#] 13	11/2 ⁻ ,13/2 ⁻	G	J ^π : excit and γ(θ) in (³ He,pnγ).
1751.6 5	11/2 ⁺ ,13/2 ⁺	G	Additional information 17.
1752 8	3/2 ⁻ ,5/2 ⁻	A	J ^π : excit and γ(θ) in (³ He,pnγ). Additional information 18. J ^π : L=2 in (t,p).
1765.3 5	11/2 ⁺ ,13/2	G	Additional information 19. J ^π : excit and γ(θ) in (³ He,pnγ).
1768.5 5		G	Additional information 20.
1770 9	7/2 ⁺ ,9/2 ⁺	B	Additional information 21. J ^π : L=4.
1781.67 15	(9/2 ⁺ ,11/2 ⁺)	E G	J ^π : γ decays to 7/2 ⁺ ,9/2 ⁺ states. γ(θ) in (³ He,pnγ).
1798.8 3	7/2,9/2	G	Additional information 22. J ^π : excit in (³ He,pnγ).
1802.4 3	(3/2,5/2)	G	Additional information 23. J ^π : excit in (³ He,pnγ).
1819 8	3/2 ⁻ ,5/2	A	Additional information 24. J ^π : L=2 in (t,p).
1821.59 9	(9/2 ⁻ ,11/2 ⁻)	E G	J ^π : γ decays to 7/2,11/2 states. Excit in (³ He,pnγ).
1832 9	3/2 ⁺ ,5/2 ⁺	B	Additional information 25. J ^π : L=2 (³ He,d).
1862 9	3/2 ⁻ ,5/2 ⁻	A	Additional information 26.

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Adopted Levels, Gammas (continued) ^{111}Ag Levels (continued)

E(level) [†]	J ^π	XREF	Comments
1905.87 16 1934 9	(9/2 ⁻ ,11/2 ⁻) 7/2 ⁻ ,9/2 ⁻	E G A	J ^π : L(t,p)=2. J ^π : γ decays to 7/2 ⁻ ,(11/2 ⁺) states. Additional information 27.
1941 9	1/2 ⁺	B	J ^π : L=4 in (t,p). Additional information 28.
1956 9	(5/2 ⁺ ,7/2 ⁺)	A	J ^π : L=0 (³ He,d). Additional information 29.
1959.8 6 1964.7 4 1965.8 6 1985 9	5/2 ⁺	G E G AB	J ^π : L=(3) in (t,p). Additional information 30. Additional information 31.
1987.90 18	(13/2 ⁻)	E G	J ^π : L=2 (³ He,d) and L=3 (t,p). J ^π : consistent with (1282 γ)(575 γ)(θ) (1976Be34). Excit in (³ He,pn γ). E(level): a 166 γ is placed deexciting this level in ¹¹¹ Pd decay, but in (³ He,pn γ) this transition is from a 876-keV level.
2068 10	5/2 ⁺ ,7/2 ⁺	A	Additional information 32. J ^π : L=3 in (t,p).
2069.4 5 2087.0 4 2093 10	7/2 ⁺	E E G AB	Additional information 33. J ^π : L=4 (³ He,d) and L=3 (t,p).
2101.05 25 2125 10	(11/2) 7/2 ⁻ ,9/2 ⁻	E G A	J ^π : consistent with (1971 γ)(70 γ)(θ) (1976Be34). γ 's to 9/2 ⁺ ,11/2 ⁺ . Additional information 34.
2130.8 4 2136 10	11/2,13/2	G B	J ^π : L=4 in (t,p). J ^π : excit in (³ He,pn γ). Additional information 35.
2165 10	5/2 ⁺ ,7/2 ⁺	A	J ^π : L=0+2+4 multiplet. Additional information 36.
2188 10	+	B	J ^π : L=3 in (t,p). Additional information 37.
2197 10	(7/2 ⁻ ,9/2 ⁻)	A	J ^π : L=0+4. Additional information 38.
2222 10	(7/2 ⁻ ,9/2 ⁻)	A	J ^π : L=(4) in (t,p). Additional information 39.
2223 10	+	B	J ^π : L=(4) in (t,p). Additional information 40.
2258 10	9/2 ⁺ ,11/2 ⁺	A	J ^π : L=0+4 in (³ He,d). Additional information 41.
2282 10	7/2 ⁻ ,9/2 ⁻	A	J ^π : L=5 in (t,p). Additional information 42.
2298 10	(3/2 ⁺ ,5/2 ⁺)	B	J ^π : L=4 in (t,p). Additional information 43.
2308 10	(7/2 ⁻ ,9/2 ⁻)	A	J ^π : L=(2) (³ He,d). Additional information 44.
2342 10	(1/2 ⁻ ,3/2 ⁻)	B	J ^π : L=(4) in (t,p). Additional information 45.
2352.7 7	(15/2,17/2)	G	J ^π : L=(1) (³ He,d). Additional information 46.
2375 10	(1/2 ⁺)	B	J ^π : excit in (³ He,pn γ). Additional information 47. J ^π : L=(0) in (³ He,d).

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Adopted Levels, Gammas (continued)

 ${}^{111}\text{Ag}$ Levels (continued)

† From least-squares fit to $E\gamma$'s (by evaluator).

‡ Band(A): negative parity rotational band $3/2^-$ [301].

Band(B): negative parity rotational band $1/2^-$ [301].

@ Band(C): negative parity rotational band $5/2^-$ [303].

& Band(D): Positive parity rotational band $1/2^+$ [431], $K^\pi=1/2^+$ [431] band in analogy with ${}^{107}\text{In}$ - ${}^{119}\text{In}$ based on strongly retarded E1 and E2 transitions from $3/2^+$ bandhead. Parameters $A=18.7$, $a=-1.5$ derived from low-lying $1/2, 3/2, 7/2$ states.

Adopted Levels, Gammas (continued)

$\gamma(^{111}\text{Ag})$									
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ	E_f	J_f^π	Mult. [‡]	δ^\ddagger	$\alpha^\#$	Comments
59.82	7/2 ⁺	59.78 4	100	0.0	1/2 ⁻	E3		181	B(E3)(W.u.)=0.046 1
130.28	9/2 ⁺	70.44 5	100	59.82	7/2 ⁺	M1+E2	≤0.12	1.18 3	B(M1)(W.u.)=0.024 1
289.71	3/2 ⁻	289.77 6	100	0.0	1/2 ⁻				
376.71	3/2 ⁺	87.0	3.4	289.71	3/2 ⁻	(E1)		0.22	B(E1)(W.u.)=7.3×10 ⁻⁹ 7
		316.90 9	3.41 14	59.82	7/2 ⁺	(E2)		0.026	B(E2)(W.u.)=0.0109 14
		376.71 6	100.0 11	0.0	1/2 ⁻	(E1)			B(E1)(W.u.)=3.2×10 ⁻⁷ 3
391.28	5/2 ⁻	101.71 7	3.6 1	289.71	3/2 ⁻			0.41	I_γ : weighted average of values of 1969Be11, 1977Kr14 and 1987Zc04.
		391.28 6	100	0.0	1/2 ⁻				
404.86	1/2 ⁺	404.88 9	100	0.0	1/2 ⁻				
545.72	7/2 ⁺	169.00 9	33.9 14	376.71	3/2 ⁺			0.22	
		415.49 9	100.0 14	130.28	9/2 ⁺				
		485.86 7	30.4 6	59.82	7/2 ⁺				
568.67	5/2 ⁺	279.0 2	5.0 13	289.71	3/2 ⁻				
		508.6 5	100 33	59.82	7/2 ⁺				
568.8	5/2 ⁺	438.5 1	25.0 23	130.28	9/2 ⁺				
		509.0 5	100 25	59.82	7/2 ⁺				
606.87	5/2 ⁺	202.1 3	3.6 6	404.86	1/2 ⁺				
		230.3 2	6.9 7	376.71	3/2 ⁺				
		476.68 9	20.1 3	130.28	9/2 ⁺				
		547.00 8	100.0 16	59.82	7/2 ⁺				
641.93	3/2 ⁻	250.6 5	4.8 9	391.28	5/2 ⁻				
		352.21 10	36 3	289.71	3/2 ⁻				
		641.92 10	100.0 22	0.0	1/2 ⁻				
683.05	9/2 ⁺	552.6 2	5.8 9	130.28	9/2 ⁺				I_γ : from β - decay. $I_\gamma/I_\gamma(623\gamma)=0.113$ 12 in (³ He,pn γ).
		623.26 7	100 6	59.82	7/2 ⁺				
705.42	11/2 ⁽⁺⁾	575.10 10	100.0 14	130.28	9/2 ⁺				
		645.5 3	6.0 8	59.82	7/2 ⁺				
710.29	(5/2 ⁺ ,7/2 ⁺)	141.6 3	0.05 2	568.8	5/2 ⁺				I_γ : from β - decay. $I_\gamma/I_\gamma(580\gamma)=0.042$ 7 in (³ He,pn γ).
		580.02 6	100	130.28	9/2 ⁺				
		650.4 1	62 5	59.82	7/2 ⁺				
809.17	5/2 ⁻	417.93 10	100 4	391.28	5/2 ⁻				
		519.31 14	71 6	289.71	3/2 ⁻				
		809.6 3	13 6	0.0	1/2 ⁻				
824.46	11/2 ⁺ ,13/2 ⁺	118.9 4	5.0 17	705.42	11/2 ⁽⁺⁾				
		694.19 7	100.0 17	130.28	9/2 ⁺				
845.88	7/2 ⁻	454.6 5	100 3	391.28	5/2 ⁻	M1+E2			δ : from 1988Br31. $\delta=-0.014$ 46 or +8.1 +4.9-2.3.
		556.16 7	20.9 10	289.71	3/2 ⁻				
876.63	9/2 ⁺	166.2 4	41 3	710.29	(5/2 ⁺ ,7/2 ⁺)				
		746.28 10	100.0 14	130.28	9/2 ⁺				
		816.82 10	68 3	59.82	7/2 ⁺				

Adopted Levels, Gammas (continued)

$\gamma(^{111}\text{Ag})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ	E_f	J_f^π	Mult. [‡]	Comments
958.96	11/2 ⁺	413.25 10	100.0 16	545.72	7/2 ⁺	E2	
		828.7 5	3.2 11	130.28	9/2 ⁺		
986.82	5/2 ⁻	344.87 10	26 5	641.93	3/2 ⁻		
		595.7 4	100 4	391.28	5/2 ⁻		
		697.08 10	83 5	289.71	3/2 ⁻		
1013.06	9/2 ⁺	406.8 5	59 7	606.87	5/2 ⁺		
		444.30 10	100 3	568.8	5/2 ⁺		
		467.0 5	26 7	545.72	7/2 ⁺		
1023.98	9/2 ⁻	632.76 10	100.0 15	391.28	5/2 ⁻	[E2]	
		893.9 5	1.9 15	130.28	9/2 ⁺		
1062.27	3/2 ⁺	494.1 4	15 8	568.8	5/2 ⁺		
		657.3 4	39 4	404.86	1/2 ⁺		
		685.5 2	87.9 22	376.71	3/2 ⁺		
		773 1	7 3	289.71	3/2 ⁻		
		1002.3 3	100 7	59.82	7/2 ⁺		
1085.48	(7/2 ⁺)	478.63 10	35 8	606.87	5/2 ⁺		
		516.73 10	65 2	568.8	5/2 ⁺		
		955.18 10	100 4	130.28	9/2 ⁺		
1086.64	(3/2 ⁺ , 5/2 ⁺)	540.7 5	16 3	545.72	7/2 ⁺		
		709.95 9	100.0 22	376.71	3/2 ⁺		
		1026.6 5	7.9 12	59.82	7/2 ⁺		
1119.68	(3/2 ⁺)	742.8 3	43 16	376.71	3/2 ⁺		
		830.3 5	30 11	289.71	3/2 ⁻		
		1059.86 10	100 5	59.82	7/2 ⁺		
1125.35	11/2 ⁺	248.67 10	30 6	876.63	9/2 ⁺		
		442.35 10	100 3	683.05	9/2 ⁺		
1153.41	7/2 ⁻	307.8 4	14.4 19	845.88	7/2 ⁻		
		762.16 7	100.0 19	391.28	5/2 ⁻		
		863.2 4	8.1 19	289.71	3/2 ⁻		
		1022.7 4	11.0 10	130.28	9/2 ⁺		
1159.78		454.4 5	100 4	705.42	11/2 ⁽⁺⁾		
		1029.7 5	17.9 20	130.28	9/2 ⁺		
1170.2	(3/2 ⁺ , 5/2 ⁺)	624.4 5	19 9	545.72	7/2 ⁺		
		793.6 4	100 12	376.71	3/2 ⁺		
1180.16	5/2 ⁺	611.3 4	16.6 17	568.8	5/2 ⁺		
		635 1	16 13	545.72	7/2 ⁺		
		775.4 3	18 7	404.86	1/2 ⁺		
		803.7 3	12 5	376.71	3/2 ⁺		
		890 1	12 5	289.71	3/2 ⁻		
		1120.30 10	100 3	59.82	7/2 ⁺		
1198.88	(1/2)	909.16 10	100	289.71	3/2 ⁻		

I_γ : seen only in β - decay.
 I_γ : from (³He,pn γ). $I_\gamma=31$ 3 in β - decay.
 I_γ : from (³He,pn γ). $I_\gamma=26$ 4 in β - decay.
 I_γ : seen only in β - decay.

Adopted Levels, Gammas (continued)

$\gamma(^{111}\text{Ag})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ	E_f	J_f^π	Comments
1202.3	11/2,13/2	519.2 5	100 4	683.05	9/2 ⁺	
1210.38	3/2 ⁺	603.3 4	29 7	606.87	5/2 ⁺	
		641.7 2	100 16	568.8	5/2 ⁺	
		833.5 5	26 19	376.71	3/2 ⁺	
		920.70 10	77 3	289.71	3/2 ⁻	
1262.79		552.5 2	100	710.29	(5/2 ⁺ ,7/2 ⁺)	
1276.6	9/2 ⁺	730.9 5	100	545.72	7/2 ⁺	
1284.6	(7/2 ⁻ ,5/2 ⁻)	893.3 5	100	391.28	5/2 ⁻	
1299.17	5/2 ⁻ ,7/2 ⁻	1009.45 10	100	289.71	3/2 ⁻	
1301.5		755.8 5	100	545.72	7/2 ⁺	
1376.8	7/2 ⁻	530.8 5	67 7	845.88	7/2 ⁻	
		735.2 5	27 13	641.93	3/2 ⁻	
		985.2 5	100 13	391.28	5/2 ⁻	
1388.0	(11/2)	262.6 5	100	1125.35	11/2 ⁺	
1417.91	5/2 ⁻	1128.19 10	100	289.71	3/2 ⁻	
1440.44	7/2 ⁺ ,9/2	735.3 2	37 11	705.42	11/2 ⁽⁺⁾	
		1310.08 10	100 11	130.28	9/2 ⁺	E_γ, I_γ : placed from 1602 level in β^- decay.
1441.9	(5/2 ⁻)	800.0 5	100	641.93	3/2 ⁻	
1451.9		768.8 5	100	683.05	9/2 ⁺	
1463.62	(5/2 ⁻ ,7/2 ⁻)	439.3 2	100 20	1023.98	9/2 ⁻	
		477 1	≤ 17	986.82	5/2 ⁻	
		617.5 3	36 11	845.88	7/2 ⁻	
		654.6 2	79 9	809.17	5/2 ⁻	
1467.0	(1/2)	1062.1 5	100	404.86	1/2 ⁺	
1471.4		1079.9 5	100 83	391.28	5/2 ⁻	
		1094.8 5	83 33	376.71	3/2 ⁺	
1474.6	(15/2 ⁺ ,13/2 ⁺)	314.9 5	13 3	1159.78		
		650.5 5	100 11	824.46	11/2 ⁺ ,13/2 ⁺	
		768.8 5	34 11	705.42	11/2 ⁽⁺⁾	
1496.4	(1/2)	1091.5 5	100	404.86	1/2 ⁺	
1506.0		937.2 5	100 50	568.8	5/2 ⁺	
		1506 1	12 12	0.0	1/2 ⁻	
1518.68	5/2 ⁺ ,7/2 ⁺	308.4 2	1.64 15	1210.38	3/2 ⁺	
		808.5	3.7 11	710.29	(5/2 ⁺ ,7/2 ⁺)	
		835.6 2	48 3	683.05	9/2 ⁺	
		950.0 10	1.5 6	568.8	5/2 ⁺	
		1388.36 9	96 7	130.28	9/2 ⁺	
		1458.9 3	100 7	59.82	7/2 ⁺	
1542.5	(13/2)	583.5 3	100	958.96	11/2 ⁺	
1546.1	1/2 ⁻ ,3/2 ⁻	903.8 5	100 8	641.93	3/2 ⁻	
		1256.7 5	42 25	289.71	3/2 ⁻	

Adopted Levels, Gammas (continued) $\gamma(^{111}\text{Ag})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ	E_f	J_f^π	Mult. [‡]	Comments
1549.60	9/2 ⁻ ,11/2 ⁻	525.6 1	100 11	1023.98	9/2 ⁻	M1+E2	
		703.8 2	48 6	845.88	7/2 ⁻		
1574.1	(11/2 ⁺ ,13/2 ⁺)	615.1 5	100 10	958.96	11/2 ⁺		
1602.5	5/2 ⁺	1311.2 10	35 9	289.71	3/2 ⁻		E_γ, I_γ : placed from 1440 in (³ He,pn γ).
		1542.9 4	100 8	59.82	7/2 ⁺		
1611.7		598.6 5	100	1013.06	9/2 ⁺		
1621.3	3/2 ⁺	1014.3 5	100 15	606.87	5/2 ⁺		
		1052.7 5	54 15	568.8	5/2 ⁺		
1638.8		829.6 5	38 25	809.17	5/2 ⁻		
		1247.4 5	75 50	391.28	5/2 ⁻		
		1262.3 5	100 50	376.71	3/2 ⁺		
1665.3		840.8 5	100	824.46	11/2 ⁺ ,13/2 ⁺		
1674.5	(3/2 ⁻)	1067.1 5	100 33	606.87	5/2 ⁺		I_γ : reported only in β^- decay.
		1269.9 4	67 20	404.86	1/2 ⁺		
1682.2	5/2 ⁺ ,3/2 ⁺	1290.9 5	100	391.28	5/2 ⁻		
1705.11	(5/2 ⁺ ,7/2 ⁺)	1022 1	22 11	683.05	9/2 ⁺		I_γ : reported only by 1969Be11 in 23.4-min β^- decay.
		1098. 1	22 11	606.87	5/2 ⁺		I_γ : reported only by 1969Be11 in 23.4-min β^- decay.
		1574.3 4	100 11	130.28	9/2 ⁺		
		1644.4 5	69 5	59.82	7/2 ⁺		
1705.86	(9/2 ⁻)	552.2 2	100 21	1153.41	7/2 ⁻		
		718.9 2	64 21	986.82	5/2 ⁻		
		882.1 @ 3	≤ 84 @	824.46	11/2 ⁺ ,13/2 ⁺		
		1000.7 4	36 14	705.42	11/2 ⁽⁺⁾		
1748.56	11/2 ⁻ ,13/2 ⁻	724.58 10	100	1023.98	9/2 ⁻		
1751.6	11/2 ⁺ ,13/2 ⁺	1068.7 5	65 24	683.05	9/2 ⁺		
		1621.1 5	100 12	130.28	9/2 ⁺		
1765.3	11/2 ⁺ ,13/2	940.9 5	100	824.46	11/2 ⁺ ,13/2 ⁺		
1768.5		809.5 5	100	958.96	11/2 ⁺		
1781.67	(9/2 ⁺ ,11/2 ⁺)	1098.5 10	17 7	683.05	9/2 ⁺		
		1651.3 2	100 11	130.28	9/2 ⁺		
		1721.9 2	47 6	59.82	7/2 ⁺		
1798.8	7/2,9/2	774.8 5	100	1023.98	9/2 ⁻		
1802.4	(3/2,5/2)	1256.7 5	100	545.72	7/2 ⁺		
1821.59	(9/2 ⁻ ,11/2 ⁻)	272.0 2	13.0 12	1549.60	9/2 ⁻ ,11/2 ⁻		
		357.9 1	33 3	1463.62	(5/2 ⁻ ,7/2 ⁻)		
		668.5 2	77 8	1153.41	7/2 ⁻	M1+E2	
		797.8 1	80 5	1023.98	9/2 ⁻	M1+E2	
		944.7 5	10 3	876.63	9/2 ⁺		
		975.2 5	12 3	845.88	7/2 ⁻		
		996.3 4	20 3	824.46	11/2 ⁺ ,13/2 ⁺		
		1115.9 2	86 8	705.42	11/2 ⁽⁺⁾		

Adopted Levels, Gammas (continued)

γ(¹¹¹Ag) (continued)

<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_γ[†]</u>	<u>I_γ</u>	<u>E_f</u>	<u>J_f^π</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_γ[†]</u>	<u>I_γ</u>	<u>E_f</u>	<u>J_f^π</u>
1821.59	(9/2 ⁻ ,11/2 ⁻)	1691.1 2	100 8	130.28	9/2 ⁺	1987.90	(13/2 ⁻)	1163.3 3	33 4	824.46	11/2 ⁺ ,13/2 ⁺
1905.87	(9/2 ⁻ ,11/2 ⁻)	752.8 3	26 9	1153.41	7/2 ⁻			1282.5 2	100 10	705.42	11/2 ⁽⁺⁾
		882.1 @ 3	≤51 @	1023.98	9/2 ⁻	2069.4		916.2 7	100 60	1153.41	7/2 ⁻
		1200.1 3	70 9	705.42	11/2 ⁽⁺⁾			1045.2 7	100 40	1023.98	9/2 ⁻
		1222.5 5	20 13	683.05	9/2 ⁺			1939 1	100 60	130.28	9/2 ⁺
		1775.4 4	100 13	130.28	9/2 ⁺	2087.0		1063.1 4	100 57	1023.98	9/2 ⁻
1959.8		800.0 5	100	1159.78				1381 1	29 14	705.42	11/2 ⁽⁺⁾
1964.7		1088.0 5	100 30	876.63	9/2 ⁺	2101.05	(11/2)	1142.4 7	19 10	958.96	11/2 ⁺
		1139.6 7	30 20	824.46	11/2 ⁺ ,13/2 ⁺			1417.7 5	10 3	683.05	9/2 ⁺
		1905.2 5	40 30	59.82	7/2 ⁺			1970.8 3	100 10	130.28	9/2 ⁺
1965.8		941.0 5	38 25	1023.98	9/2 ⁻	2130.8	11/2,13/2	1306.4 5	100	824.46	11/2 ⁺ ,13/2 ⁺
		1905.2 5	100 25	59.82	7/2 ⁺	2352.7	(15/2,17/2)	221.9 5	100	2130.8	11/2,13/2
1987.90	(13/2 ⁻)	828.3 5	11 4	1159.78							

† From weighted av of ¹¹¹Pd β⁻ decay and (³He,pnγ).

‡ From 5.5-h ¹¹¹Pd β⁻ decay.

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

@ Multiply placed with undivided intensity.

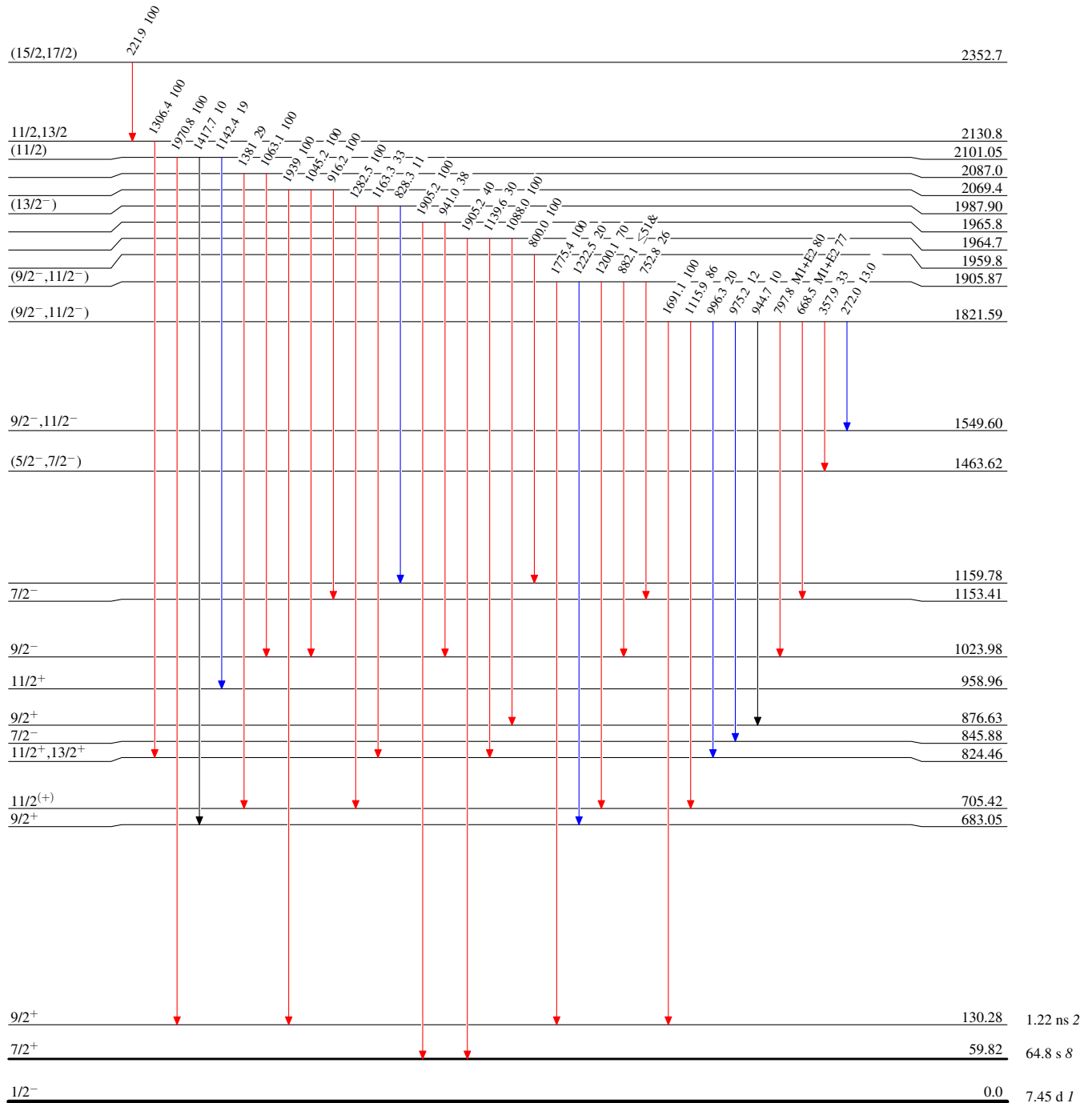
Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified
& Multiply placed: undivided intensity given

Legend

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



¹¹¹Ag₄₇⁶⁴

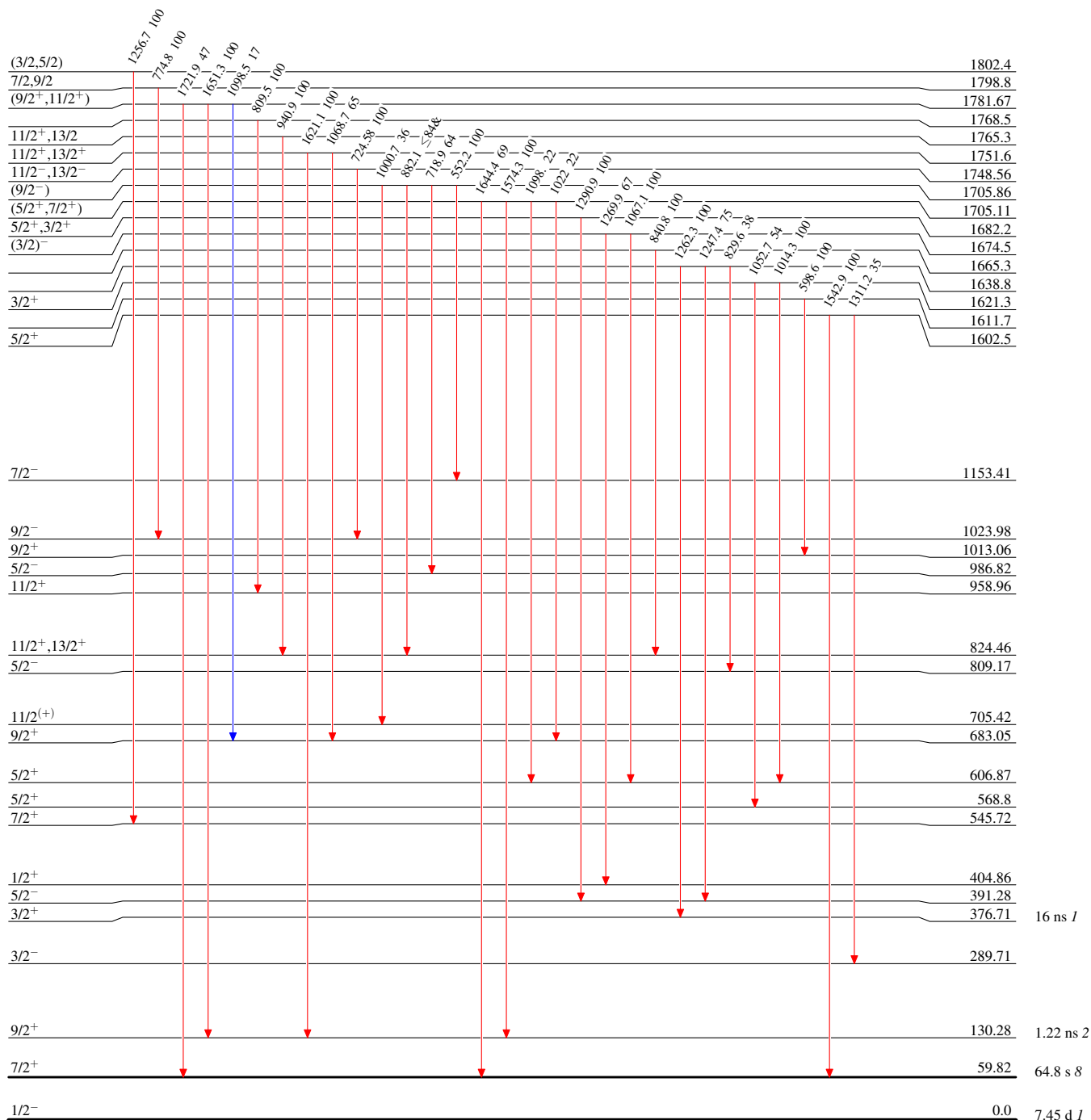
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given

Legend

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






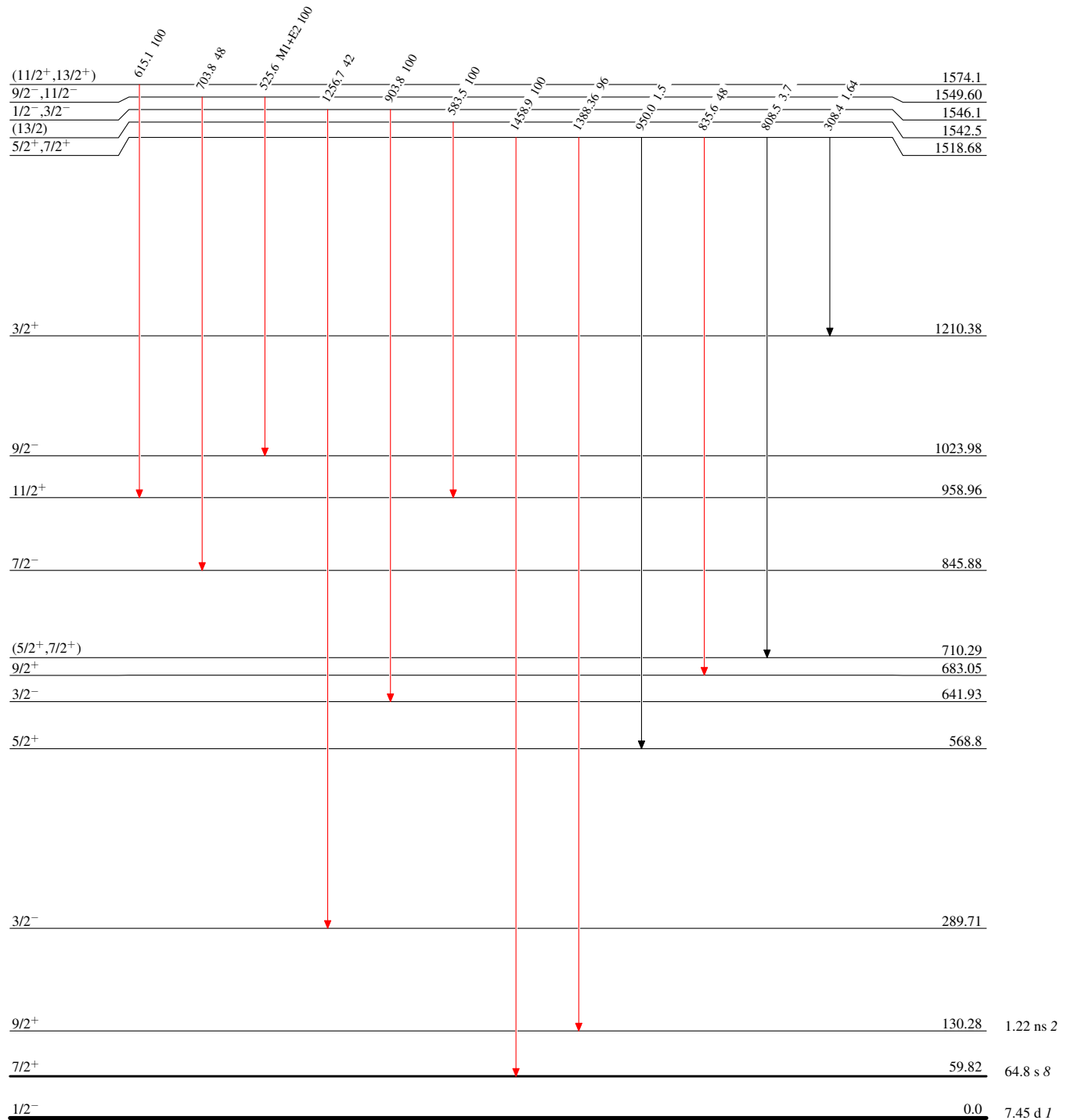
¹¹¹₄₇Ag₆₄

Adopted Levels, GammasLevel Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given

Legend

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

 $^{111}_{47}\text{Ag}_{64}$

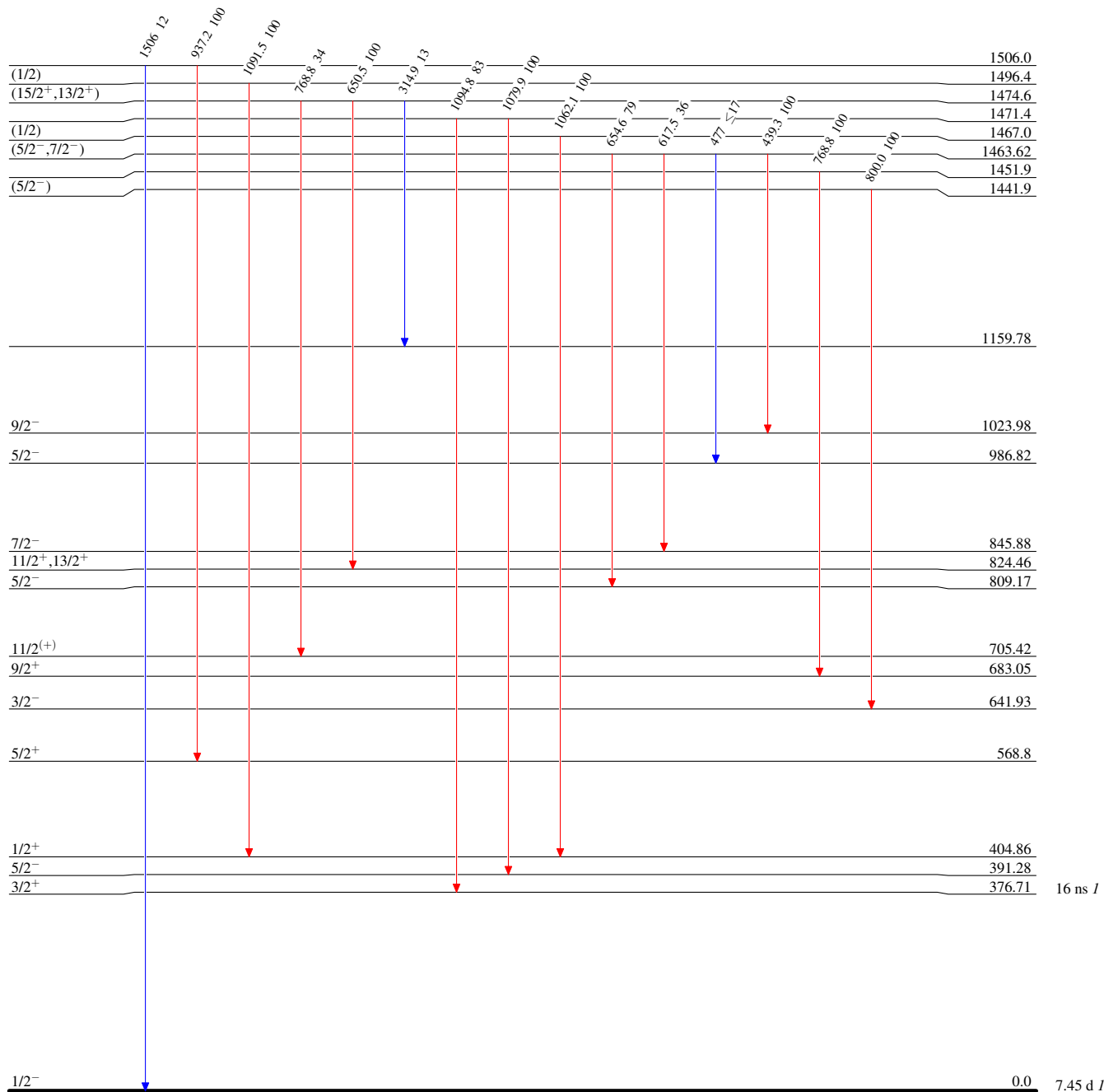
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given

Legend

- I_γ < 2% × I_γ^{max}
- I_γ < 10% × I_γ^{max}
- I_γ > 10% × I_γ^{max}



¹¹¹₄₇Ag₆₄

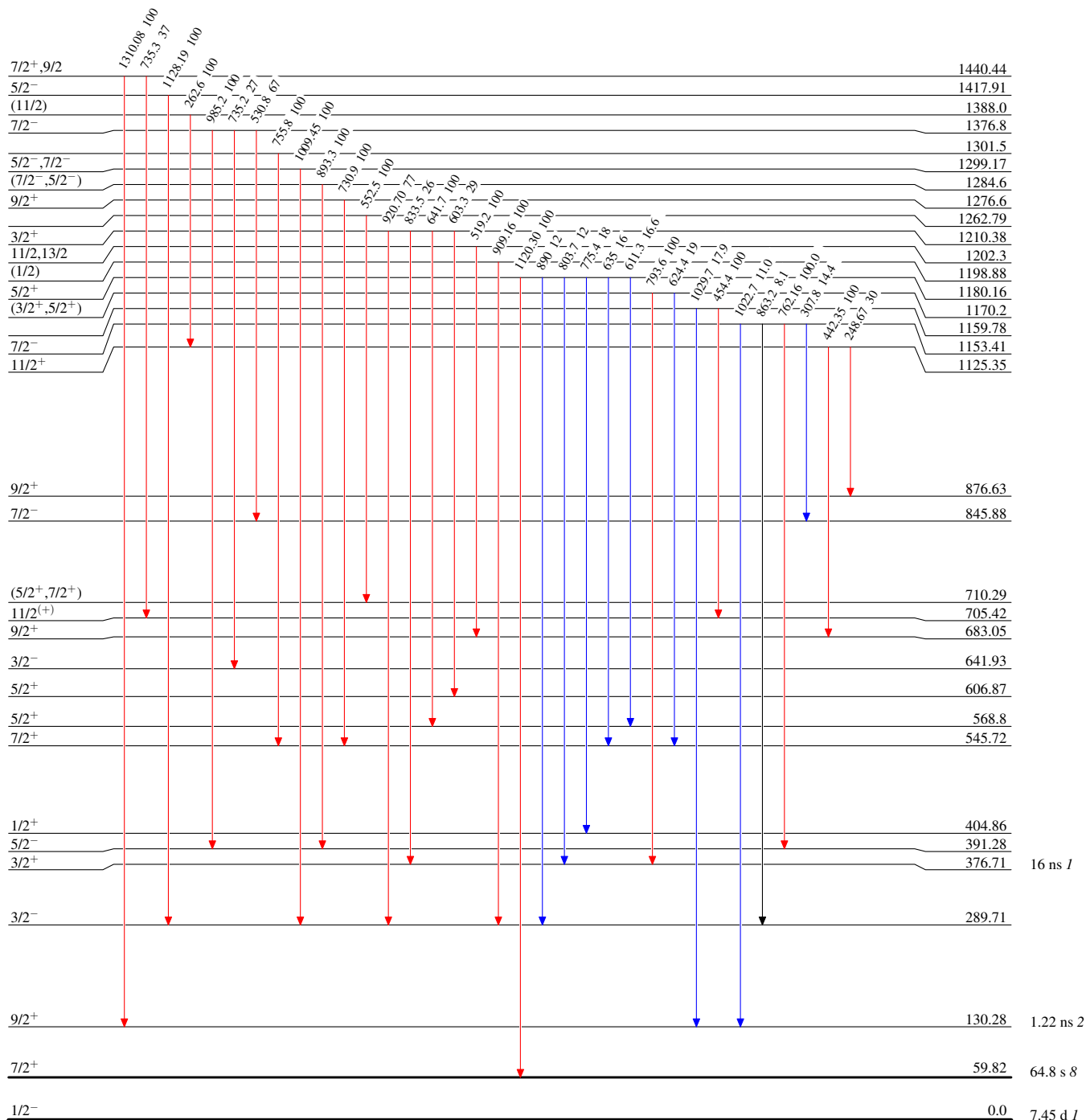
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given

Legend

- I_γ < 2% × I_γ^{max}
- I_γ < 10% × I_γ^{max}
- I_γ > 10% × I_γ^{max}



¹¹¹Ag₆₄

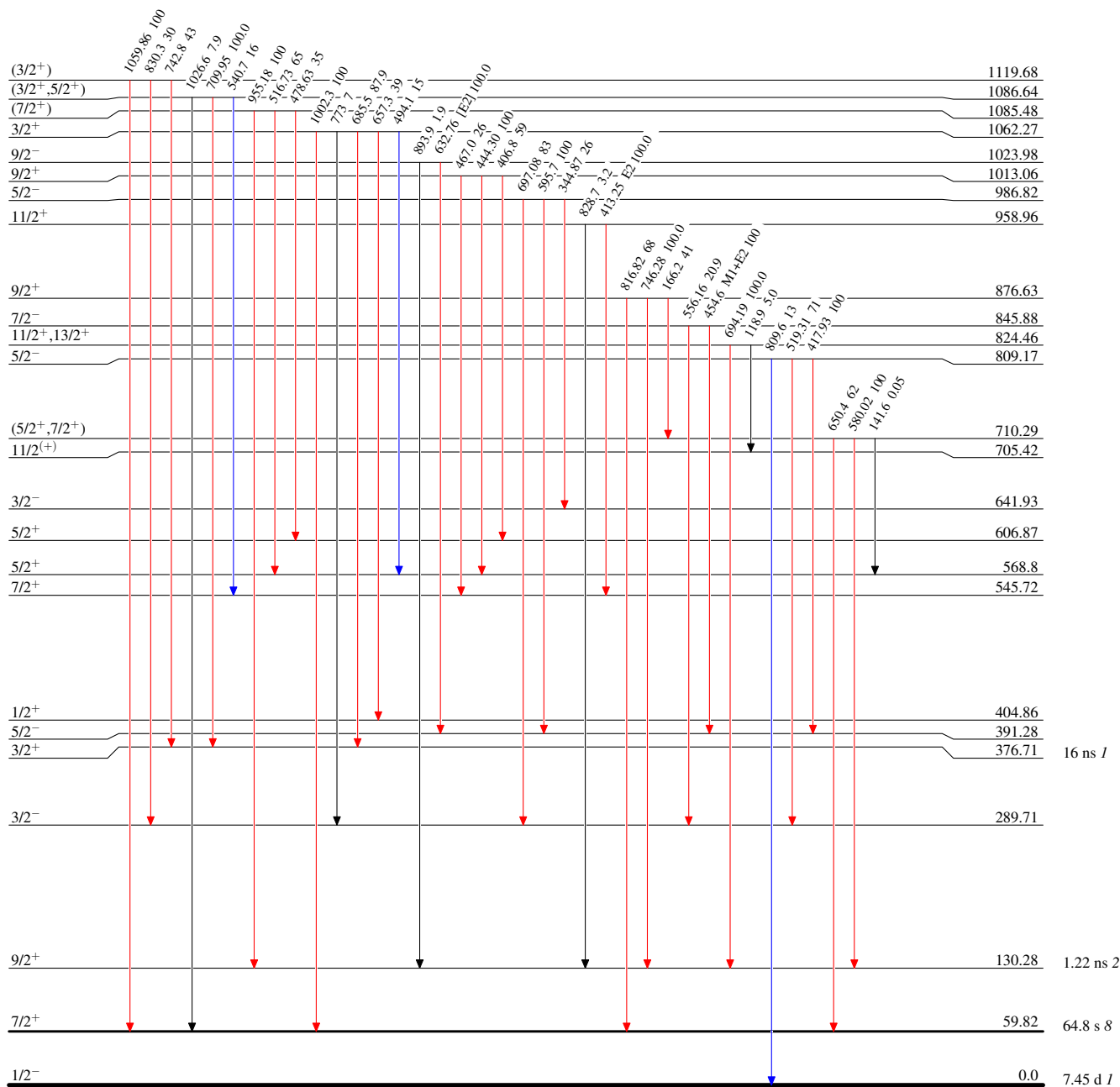
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified
& Multiply placed: undivided intensity given

Legend

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



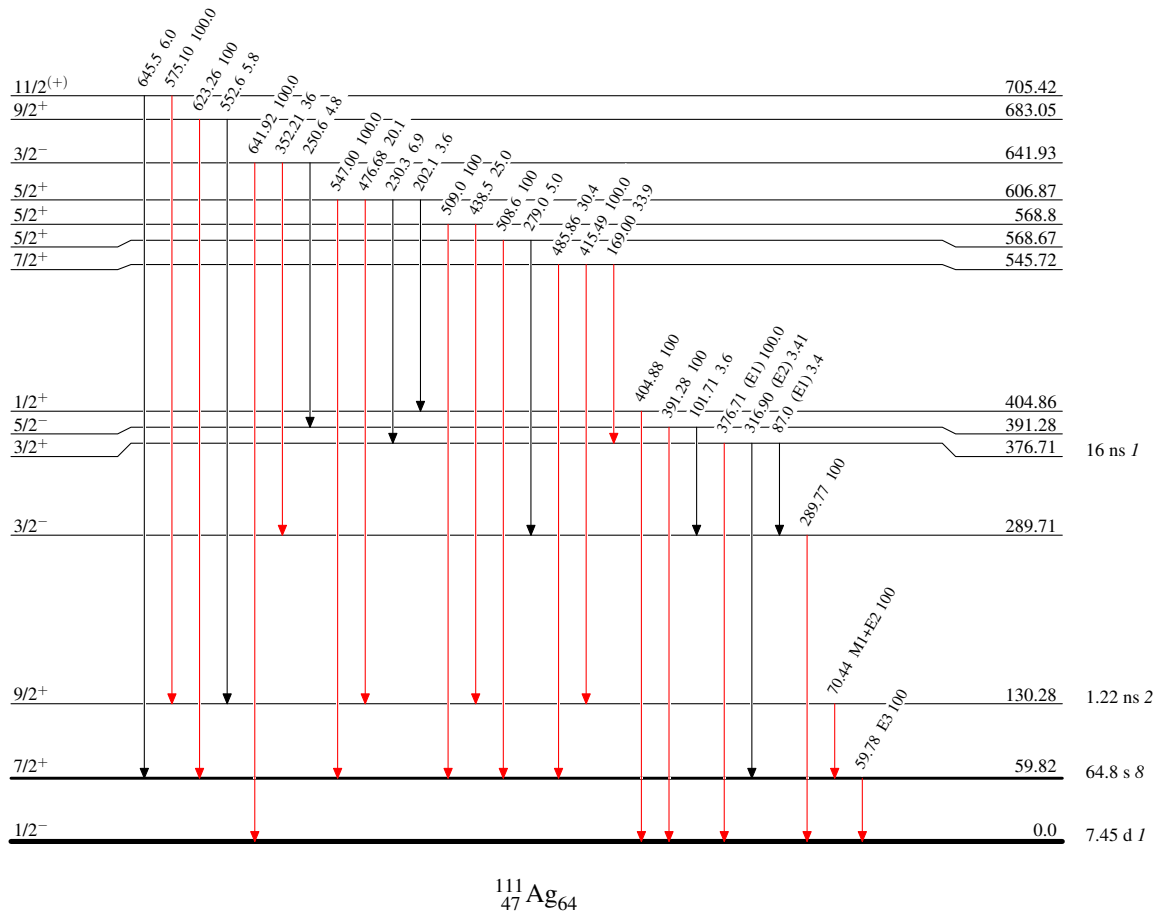
$^{111}_{47}\text{Ag}_{64}$

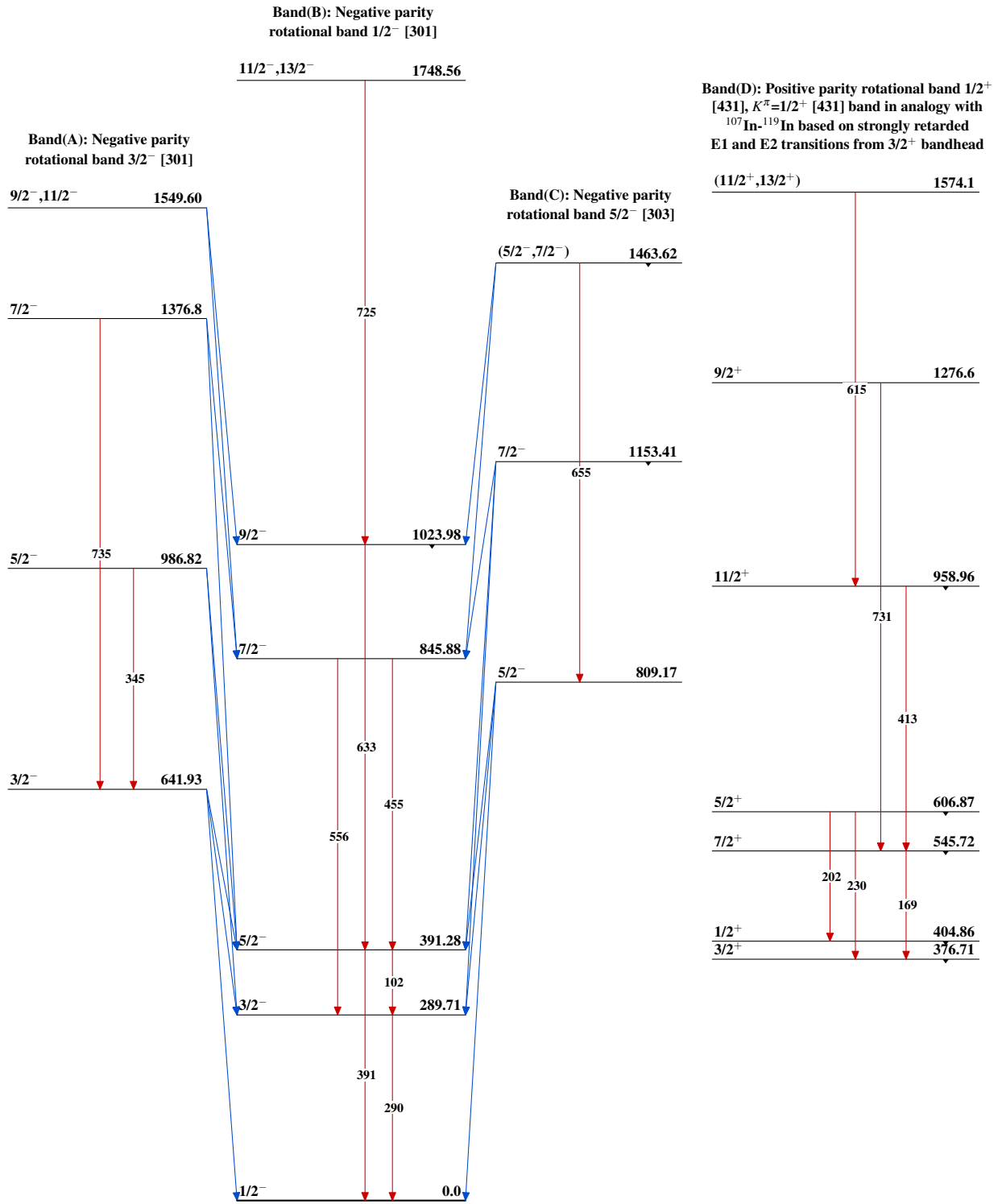
Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Type not specified
& Multiply placed: undivided intensity given

Legend

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

 $^{111}_{47}\text{Ag}_{64}$

Adopted Levels, Gammas $^{111}_{47}\text{Ag}_{64}$