

$^{109}\text{Ag}(\alpha,2n\gamma)$ 1997Lo09,1991Vi08

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

All the references are from the same laboratory.

$E(\alpha)=20-30$ MeV (1997Lo09,1991Vi08,1991ViZY).

1997Lo09 measured: $E\gamma$, $I\gamma$, $\gamma\gamma$, $\gamma(\theta)$.

1991Vi08 measured: $E\gamma$, $I\gamma$, $\gamma\gamma$, $\gamma(\theta)$.

1991ViZY measured: $T_{1/2}$, Doppler shift.

1978He10 measured: $E\gamma$, $I\gamma$, $\gamma\gamma$ coin, $\gamma(\theta)$, $\gamma(t)$, excit.

1980Le05 measured: $\gamma(\theta,H,t)$.

Others: $^{108}\text{Pd}(^6\text{Li},3n\gamma)$ $\gamma\gamma$ -coin, $\gamma(t)$, $\gamma(\theta)$, excit (1976GaZY).

 ^{111}In Levels

E(level)	$J^{\pi\dagger}$	$T_{1/2}^{\ddagger}$	Comments
0.0 [#]	9/2 ⁺		
536.88 21			
802.61 19			
1101.56 9			
1152.87 [#] 9	11/2 ⁺	0.31 ps 7	E(level): syst with first 11/2 ⁺ excitations in ^{109}In (at 1026) and ^{113}In (at 1173).
1217.39 16	5/2 ⁺	1.2 ps +7-5	
1279.7 3	5/2 ⁻		
1344.43 22	3/2 ⁺		
1401.15 [#] 8	13/2 ⁺		
1500.49 14	9/2 ⁺	0.31 ps 10	
1542.41 18	7/2 ⁺		
1610.14 14	9/2 ⁺		
1670.9 3			
1752.53 12	9/2 ⁺	0.4 ps +3-1	
1866.60 19			
1914.62 15	(7/2,9/2 ⁺)		
1917.1 4	(7/2,9/2 ⁺)		
1933.7 5	(7/2 ⁻)		
1969.7 4			
1994.73 [#] 10	15/2 ⁺	0.3 ps 1	
2032.29 22	13/2 ⁺	0.7 ps 3	J^{π} : 11/2 ⁺ in Adopted Levels.
2034.3 6	(5/2,7/2 ⁻)		
2106.49 18			
2112.26 12	13/2 ⁺		
2179.39 18	(11/2 ⁺)		
2228.14 19		0.28 ps 7	
2235.25 [@] 9	13/2 ⁻	0.2 ps 1	
2246.71 19			
2311.1 5			
2340.3 4			
2402.35 [@] 11	15/2 ⁻	0.6 ps 3	
2439.48 17		0.38 ps 10	
2461.64 [#] 11	17/2 ⁺	0.52 ps 17	
2529.73 25			
2580.80 19			
2582.6 4			
2602.00 14			
2614.12 [@] 13	17/2 ⁻		
2650.41? 16	15/2 ⁻		

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$^{109}\text{Ag}(\alpha,2n\gamma)$ **1997Lo09,1991Vi08 (continued)** ^{111}In Levels (continued)

E(level)	$J^{\pi\dagger}$	$T_{1/2}^{\ddagger}$	Comments
2699.07 22			
2707.62 19	15/2 ⁺	1.1 ps 4	
2716.74 23	21/2 ⁺	13.7 ns 4	g=0.502 18 (1980Le05); g=+0.47 2 (1981Va15) T _{1/2} : weighted av of: 13.8 ns 5 (1978He10), 14.8 ns 8 (1980Le05), 13.3 ns 4 (1981Va15). J ^π : g _{9/2} proton-hole state coupled to two-proton 2d _{5/2} ,1g _{7/2} configuration associated with 14-ns, 6 ⁺ state in ^{112}Sn (1978He10).
2737.80@ 15	19/2 ⁻		
2748.33 18	(11/2,13/2 ⁺)		
2768.91 13	17/2 ⁻	>1.4 ps	
2772.5 3	17/2 ⁺	1.0 ps 3	
2780.04 17	19/2 ⁺	1.0 ps +6-3	
2797.9 5			
2825.69 20			
2892.93 23			
2905.03 20			
2920.0 3			
2941.35 23	(17/2 ⁻)		
2968.0 4			
2979.8? 4	(19/2 ⁻)		
3019.30@ 18	21/2 ⁻	>1.4 ps	
3043.71 18	(19/2 ⁻)	1.0 ps +10-3	
3157.3? 4	(21/2 ⁻)		
3209.3 4			
3214.7 5			
3259.3 3	25/2 ⁺		
3363.4 3			
3425.0 3	(21/2,23/2 ⁻)		
3452.6? 5	23/2 ⁻	1.5 ps +15-5	
3461.11@ 21	23/2 ⁻	0.75 ps 25	
3588.7 4	21/2 ⁺		
3862.2 5			
4020.5? 5			
4199.5 4		0.65 ps +25-15	

[†] Based partly on angular distribution coef, γ -ray excitation functions and multipole orders.

[‡] From 1991ViZY, otherwise noted.

Band(A): g_{9/2} proton-hole state coupled to ^{112}Sn core quadrupole vibrations. For comparison of γ -ray branching and mixing ratios (exp vs theory), see 1978He10.

@ Band(B): possibly g_{9/2} proton-hole state coupled to 3⁻,5⁻,7⁻ excitations in ^{112}Sn core (1978He10). $\Delta J=1$ $\pi=-$ sequence is consistent with γ -cascade observed by 1976GaZY via ($^6\text{Li},3n\gamma$).

 $\gamma(^{111}\text{In})$

E_{γ}^{\dagger}	I_{γ}^{\dagger}	$E_i(\text{level})$	J_i^{π}	E_f	J_f^{π}	Mult. @	$\delta\&$	Comments
118.4 2	1.6 3	2768.91	17/2 ⁻	2650.41?	15/2 ⁻	M1+E2		Mult.: A ₂ =- 0.22 5, A ₄ =+ 0.06 8.
123.7 1	10.7 5	2737.80	19/2 ⁻	2614.12	17/2 ⁻	M1+E2	0.02 3	$\alpha(\text{K})_{\text{exp}}=0.45$ 15 Mult.: A ₂ =- 0.24 5, A ₄ =+ 0.05 7.
^x 127.5 [‡] 3								Mult.: A ₂ =- 0.30 6, A ₄ =- 0.03 6.
167.0 3	0.9 2	2402.35	15/2 ⁻	2235.25	13/2 ⁻	M1+E2	0.00 5	Mult.: A ₂ =- 0.12 6, A ₄ =+ 0.05 12.

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$^{109}\text{Ag}(\alpha, 2n\gamma)$ **1997Lo09, 1991Vi08 (continued)** $\gamma(^{111}\text{In})$ (continued)

E_γ †	I_γ †	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. @	$\delta\&$	Comments
177.5 2	3.6 3	3157.3?	(21/2 ⁻)	2979.8?	(19/2 ⁻)			$\alpha(\text{K})\text{exp}=0.029$ 14 Mult.: $A_2=-0.23$ 3, $A_4=+0.03$ 6.
197.4# 1	2.3 3	2905.03		2707.62	15/2 ⁺			Mult.: $A_2=-0.34$ 6, $A_4=-0.10$ 12. $\alpha(\text{K})\text{exp}=0.046$ 20 Mult.: $A_2=-0.21$ 2, $A_4=+0.02$ 2.
^x 204.1‡ 2								
210.9 3	5.0 4	2979.8?	(19/2 ⁻)	2768.91	17/2 ⁻	(M1+E2)		
211.6 2	49 2	2614.12	17/2 ⁻	2402.35	15/2 ⁻	M1+E2	+0.00 3	Mult.: $\alpha(\text{K})\text{exp}=0.053$ 20, K/L=9.6 45, $A_2=-0.19$ 1, $A_4=+0.01$ 2 for $E_\gamma=210.9+221.6$.
242.9 2	1.3 3	1344.43	3/2 ⁺	1101.56		M1,(E2)		
248.2 2	1.0 5	1401.15	13/2 ⁺	1152.87	11/2 ⁺	M1+E2	-0.03 3	$\alpha(\text{K})\text{exp}=0.029$ 12 Mult.: $A_2=-0.20$ 3, $A_4=-0.04$ 5.
252.0 3	0.2 1	1752.53	9/2 ⁺	1500.49	9/2 ⁺	M1+E2		
255.1 2	7.9 4	2716.74	21/2 ⁺	2461.64	17/2 ⁺	E2		$\alpha(\text{K})\text{exp}=0.040$ 10 Mult.: $A_2=0.22$ 2, $A_4=-0.07$ 4. Mult.: $A_2=-0.14$ 3, $A_4=-0.03$ 5.
265.7 1	6.7 4	802.61		536.88		M1+E2		
274.8 2	2.8 3	3043.71	(19/2 ⁻)	2768.91	17/2 ⁻	(M1+E2)	+0.05 7	Mult.: $A_2=-0.19$ 4, $A_4=-0.09$ 8.
281.5 1	11.4 5	3019.30	21/2 ⁻	2737.80	19/2 ⁻	M1+E2	+0.01 3	$\alpha(\text{K})\text{exp}=0.025$ 18 Mult.: $A_2=-0.21$ 4, $A_4=-0.01$ 16. Mult.: $A_2=-0.16$ 4, $A_4=+0.01$ 7.
295.3 2	3.0 3	3452.6?	23/2 ⁻	3157.3?	(21/2 ⁻)	(M1+E2)	+0.05 2	
298.9 3	0.2 1	1101.56		802.61		E1		
318.4# 2	1.0 2	2780.04	19/2 ⁺	2461.64	17/2 ⁺	M1+E2	+0.06 5	Mult.: $A_2=-0.13$ 7, $A_4=-0.07$ 13.
319.7# 2	1.3 2	3363.4		3043.71	(19/2 ⁻)			
329.4# 2	1.2 2	2768.91	17/2 ⁻	2439.48				Mult.: $A_2=-0.13$ 11, $A_4=+0.05$ 19.
335.4 2	1.2 2	2737.80	19/2 ⁻	2402.35	15/2 ⁻			
347.4# 4	0.3 1	2582.6		2235.25	13/2 ⁻			
^x 360.7‡ 3								Mult.: $A_2=0.14$ 8, $A_4=-0.18$ 9. $\alpha(\text{K})\text{exp}=0.010$ 4 Mult.: $A_2=-0.17$ 3, $A_4=+0.01$ 6. Mult.: $A_2=-0.13$ 6, $A_4=-0.03$ 6. Mult.: $A_2=-0.14$ 5, $A_4=-0.01$ 9.
366.6 1	7.9 4	2768.91	17/2 ⁻	2402.35	15/2 ⁻	M1+E2	+0.02 2	
^x 371.3‡ 3								
381.3# 2	1.0 2	3425.0	(21/2, 23/2 ⁻)	3043.71	(19/2 ⁻)	(M1+E2)		
398.7 3	0.3 1	1500.49	9/2 ⁺	1101.56		E2		
414.8 2	12.3	1217.39	5/2 ⁺	802.61		E1		$I_\gamma: I_\gamma(414.8\gamma+415.1\gamma)=12.3$.
415.1 2	12.3	2650.41?	15/2 ⁻	2235.25	13/2 ⁻	M1+E2	+0.09 1	Mult.: $A_2=-0.08$ 3, $A_4=+0.01$ 6. I_γ : see $E_\gamma=414.8$.
422.2# 5	0.4 2	2032.29	13/2 ⁺	1610.14	9/2 ⁺	(E2)		
429.6 2	1.6 2	3043.71	(19/2 ⁻)	2614.12	17/2 ⁻			Mult.: $A_2=-0.13$ 4, $A_4=-0.08$ 8.
441.8 1	3.7 3	3461.11	23/2 ⁻	3019.30	21/2 ⁻	M1+E2	+0.07 2	$\alpha(\text{K})\text{exp}=0.015$ 6 Mult.: $A_2=-0.13$ 4, $A_4=-0.03$ 6.
457.2 2	1.4 2	1610.14	9/2 ⁺	1152.87	11/2 ⁺	M1+E2	+0.18 5	Mult.: $A_2=-0.19$ 3, $A_4=0.04$ 6.
466.9 1	13.3 6	2461.64	17/2 ⁺	1994.73	15/2 ⁺	M1+E2	+0.05 2	$\alpha(\text{K})\text{exp}=0.017$ 7 Mult.: $A_2=-0.13$ 2, $A_4=-0.01$ 3.
472.4# 5	0.2 1	2707.62	15/2 ⁺	2235.25	13/2 ⁻	(E1)		
476.8 3	0.2 1	1279.7	5/2 ⁻	802.61		(M1+E2)		
498.0# 4	0.8 3	3214.7		2716.74	21/2 ⁺			
502.9# 4	0.6 2	2905.03		2402.35	15/2 ⁻			Mult.: $A_2=0.07$ 5, $A_4=0.26$ 11.
531.8 2	4.4 4	2032.29	13/2 ⁺	1500.49	9/2 ⁺	E2		Mult.: $A_2=0.27$ 3, $A_4=-0.09$ 6.
536.9 2		536.88		0.0	9/2 ⁺	M4		
539.0# 2	2.0 3	2941.35	(17/2 ⁻)	2402.35	15/2 ⁻	(M1+E2)	-0.1 5	Mult.: $A_2=-0.32$ 6, $A_4=-0.04$ 12.
542.6# 2	1.3 2	3259.3	25/2 ⁺	2716.74	21/2 ⁺	E2		Mult.: $A_2=0.20$ 5, $A_4=0.06$ 9.
564.11 3	0.7 3	2106.49		1542.41	7/2 ⁺			Mult.: $A_2=-0.17$ 4, $A_4=-0.05$ 7.
565.7# 3	1.1 2	2968.0		2402.35	15/2 ⁻			Mult.: $A_2=-0.16$ 5, $A_4=-0.11$ 10.

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$^{109}\text{Ag}(\alpha,2n\gamma)$ 1997Lo09,1991Vi08 (continued) $\gamma(^{111}\text{In})$ (continued)

E_γ †	I_γ †	E_i (level)	J_i^π	E_f	J_f^π	Mult. @	$\delta\&$	Comments
567.9 2	1.5 2	4020.5?		3452.6?	23/2 ⁻			
587.8# 5	0.3 1	2582.6		1994.73	15/2 ⁺			
593.5 1	23.0 8	1994.73	15/2 ⁺	1401.15	13/2 ⁺	M1+E2	+0.16 5	$\alpha(K)\text{exp}=0.0057$ 15 Mult.: $A_2=0.05$ 4, $A_4=-$ 0.02 5.
599.5# 3	1.0 2	1752.53	9/2 ⁺	1152.87	11/2 ⁺	M1+E2	+0.3 1	Mult.: $A_2=-$ 0.26 5, $A_4=-$ 0.08 9.
605.9 3	1.3 3	2106.49		1500.49	9/2 ⁺			Mult.: $A_2=0.40$ 10, $A_4=-$ 0.13 15.
619.2 2	3.1 3	2614.12	17/2 ⁻	1994.73	15/2 ⁺	[E1]		Mult.: $A_2=-$ 0.24 6, $A_4=-$ 0.05 9.
636.6# 2	1.0 2	2246.71		1610.14	9/2 ⁺			
649.3 3	0.2 1	1866.60		1217.39	5/2 ⁺			
650.9 2	2.3 3	1752.53	9/2 ⁺	1101.56		E2		Mult.: $A_2=0.16$ 4, $A_4=-$ 0.03 7.
655.5# 4	0.4 2	2650.41?	15/2 ⁻	1994.73	15/2 ⁺	(E1)		Mult.: $A_2=0.33$ 11, $A_4=0.27$ 22.
685.6# 4	0.6 2	2797.9		2112.26	13/2 ⁺			Mult.: $A_2=-$ 0.07 7, $A_4=-$ 0.05 14.
738.4 3	1.1 2	4199.5		3461.11	23/2 ⁻			
740.2# 2	2.5 3	2772.5	17/2 ⁺	2032.29	13/2 ⁺	E2		Mult.: $A_2=0.28$ 4, $A_4=-$ 0.15 8.
742.9 2	2.9 3	1279.7	5/2 ⁻	536.88		E2		Mult.: $A_2=0.27$ 4, $A_4=-$ 0.02 5.
761.6 2	0.9 3	1914.62	(7/2,9/2 ⁺)	1152.87	11/2 ⁺			
765.0 2	0.4 2	1866.60		1101.56				
774.1# 3	0.6 2	2768.91	17/2 ⁻	1994.73	15/2 ⁺			
785.3# 2	4.7 4	2780.04	19/2 ⁺	1994.73	15/2 ⁺	E2		Mult.: $A_2=0.25$ 4, $A_4=-$ 0.05 7.
807.0# 3	1.0 2	3209.3		2402.35	15/2 ⁻			
815.5 3	0.7 3	1917.1	(7/2,9/2 ⁺)	1101.56				
828.2# 2	2.4 3	2580.80		1752.53	9/2 ⁺			
831.1# 4	0.6 2	2825.69		1994.73	15/2 ⁺			
834.1# 1	1.4 3	2235.25	13/2 ⁻	1401.15	13/2 ⁺	(E1)		Mult.: $A_2=-$ 0.01 8, $A_4=+$ 0.09 16.
841.8 2	3.5 3	1994.73	15/2 ⁺	1152.87	11/2 ⁺	E2		$\alpha(K)\text{exp}=0.0010$ 6 Mult.: $A_2=0.18$ 8, $A_4=-$ 0.05 12.
868.3 2	0.2 1	1670.9		802.61				
898.2# 2	1.1 2	2892.93		1994.73	15/2 ⁺			Mult.: $A_2=-$ 0.12 5, $A_4=-$ 0.08 10.
953.7 3	0.5 2	2106.49		1152.87	11/2 ⁺			
959.4# 1	3.6 4	2112.26	13/2 ⁺	1152.87	11/2 ⁺	M1+E2	-0.06 3	Mult.: $A_2=-$ 0.24 3, $A_4=0.07$ 6.
996.1 6	0.2 1	2340.3		1344.43	3/2 ⁺			
1001.2 1	53 3	2402.35	15/2 ⁻	1401.15	13/2 ⁺	E1		$\alpha(K)\text{exp}=0.0004$ 1; K/L=6 3 Mult.: $A_2=-$ 0.26 3, $A_4=+$ 0.01 7.
1026.5 2	1.0 2	2179.39	(11/2 ⁺)	1152.87	11/2 ⁺			
1038.3# 2	4.0 4	2439.48		1401.15	13/2 ⁺			Mult.: $A_2=0.18$ 4, $A_4=0.06$ 8.
1060.5 1	4.7 3	2461.64	17/2 ⁺	1401.15	13/2 ⁺	E2		$\alpha(K)\text{exp}=0.0007$ 4 Mult.: $A_2=0.32$ 5, $A_4=-$ 0.06 9.
1075.2# 2	3.7 3	2228.14		1152.87	11/2 ⁺			
1082.3 1	6.1 4	2235.25	13/2 ⁻	1152.87	11/2 ⁺	E1		$\alpha(K)\text{exp}=0.0004$ 3 Mult.: $A_2=-$ 0.24 3, $A_4=+$ 0.08 9.
1101.5 1	9.0 5	1101.56		0.0	9/2 ⁺	E2		Mult.: $A_2=0.08$ 4, $A_4=-$ 0.01 6.
1127.1# 3	0.9 3	3588.7	21/2 ⁺	2461.64	17/2 ⁺	E2		Mult.: $A_2=0.43$ 4, $A_4=-$ 0.20 7.
1131.1 4	0.5 1	1933.7	(7/2 ⁻)	802.61		E2		Mult.: $A_2=0.18$ 8, $A_4=0.01$ 10.
1152.9 1	36.6 9	1152.87	11/2 ⁺	0.0	9/2 ⁺	M1+E2	0.50 4	$\alpha(K)\text{exp}=0.0007$ 2; K/L=10 5 Mult.: $A_2=+0.27$ 3, $A_4=+0.01$ 3. Others: $\alpha(K)\text{exp}=0.00085$ 15, $A_2=+0.46$ 4, K/L=10 5.
1167.1 3	0.5 2	1969.7		802.61				
1179.8# 3	0.7 3	2580.80		1401.15	13/2 ⁺			
1201.4# 4	0.6 2	2602.00		1401.15	13/2 ⁺			
1212.6# 3	0.8 3	2614.12	17/2 ⁻	1401.15	13/2 ⁺			

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$^{109}\text{Ag}(\alpha,2n\gamma)$ **1997Lo09,1991Vi08 (continued)** $\gamma(^{111}\text{In})$ (continued)

E_γ †	I_γ †	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. @	δ &	Comments
1217.4 2	4.5 3	1217.39	5/2 ⁺	0.0	9/2 ⁺	E2		Mult.: A ₂ =0.05 5, A ₄ =-0.06 8.
1231.7 5	0.4 2	2034.3	(5/2,7/2 ⁻)	802.61		(E2)		
1238.6 5	0.4 2	2340.3		1101.56				
1297.9# 3	0.8 3	2699.07		1401.15	13/2 ⁺			
1306.4# 2	3.8 3	2707.62	15/2 ⁺	1401.15	13/2 ⁺	M1+E2	-0.06 2	Mult.: A ₂ =- 0.26 2, A ₄ =- 0.03 4.
1347.1# 2	1.4 2	2748.33	(11/2,13/2 ⁺)	1401.15	13/2 ⁺			Mult.: A ₂ = 0.31 8, A ₄ =+ 0.01 3.
1401.1 1	100 4	1401.15	13/2 ⁺	0.0	9/2 ⁺	E2		$\alpha(\text{K})\text{exp}=0.0006$ 2; K/L=8.5 25 Mult.: A ₂ = 0.31 1, A ₄ =- 0.08 5.
1424.5# 2	1.2 2	2825.69		1401.15	13/2 ⁺	E2		Mult.: A ₂ = 0.29 5, A ₄ =- 0.08 8.
1449.7# 3	0.8 2	2602.00		1152.87	11/2 ⁺			
1500.5 2	9.3 5	1500.49	9/2 ⁺	0.0	9/2 ⁺	M1+E2	-0.41 4	
1508.5 4	0.5 2	2311.1		802.61				
1518.8# 3	1.0 3	2920.0		1401.15	13/2 ⁺			Mult.: A ₂ = 0.16 6, A ₄ =- 0.04 11.
1542.4 2	0.5 3	1542.41	7/2 ⁺	0.0	9/2 ⁺	M1+E2	-0.37 9	Mult.: A ₂ = 0.12 4, A ₄ =- 0.03 7.
1546.2# 3	0.8 3	2699.07		1152.87	11/2 ⁺			
1595.6# 3	0.8 2	2748.33	(11/2,13/2 ⁺)	1152.87	11/2 ⁺			Mult.: A ₂ = 0.05 5, A ₄ =- 0.07 9.
1610.2 2	4.9 3	1610.14	9/2 ⁺	0.0	9/2 ⁺	M1+E2		Mult.: A ₂ =- 0.27 3, A ₄ =- 0.10 5.
1727.1# 4	0.4 2	2529.73		802.61				
1752.6 2	2.3 2	1752.53	9/2 ⁺	0.0	9/2 ⁺	M1,E2		Mult.: A ₂ =- 0.28 7, A ₄ =- 0.14 10.
1767.2# 5	0.3 1	2920.0		1152.87	11/2 ⁺			
1867.5# 5	0.3 1	3862.2		1994.73	15/2 ⁺			
1914.7 2	1.1 2	1914.62	(7/2,9/2 ⁺)	0.0	9/2 ⁺			Mult.: A ₂ = 0.12 7, A ₄ = 0.10 12.
2106.5 4	0.4 2	2106.49		0.0	9/2 ⁺			Mult.: A ₂ = 0.22 11, A ₄ = 0.17 22.
2112.2# 2	2.8 2	2112.26	13/2 ⁺	0.0	9/2 ⁺	E2		Mult.: A ₂ = 0.25 3, A ₄ =- 0.14 6.
2179.3 3	0.5 2	2179.39	(11/2 ⁺)	0.0	9/2 ⁺			
2228.2# 4	0.3 1	2228.14		0.0	9/2 ⁺	M1+E2	+0.26 2	Mult.: A ₂ = 0.09 2, A ₄ =- 0.07 4.
2246.6# 3	1.6 3	2246.71		0.0	9/2 ⁺			
2529.7# 3	1.2 3	2529.73		0.0	9/2 ⁺			

† From 1991Vi08.

‡ From 1978He10.

First time identified by 1991Vi08.

@ Deduced from $\alpha(\text{K})\text{exp}$ and/or A₂ (1997Lo09).& Deduced from angular distribution coefficients A₂,A₄ (1997Lo09,1978He10).x γ ray not placed in level scheme.

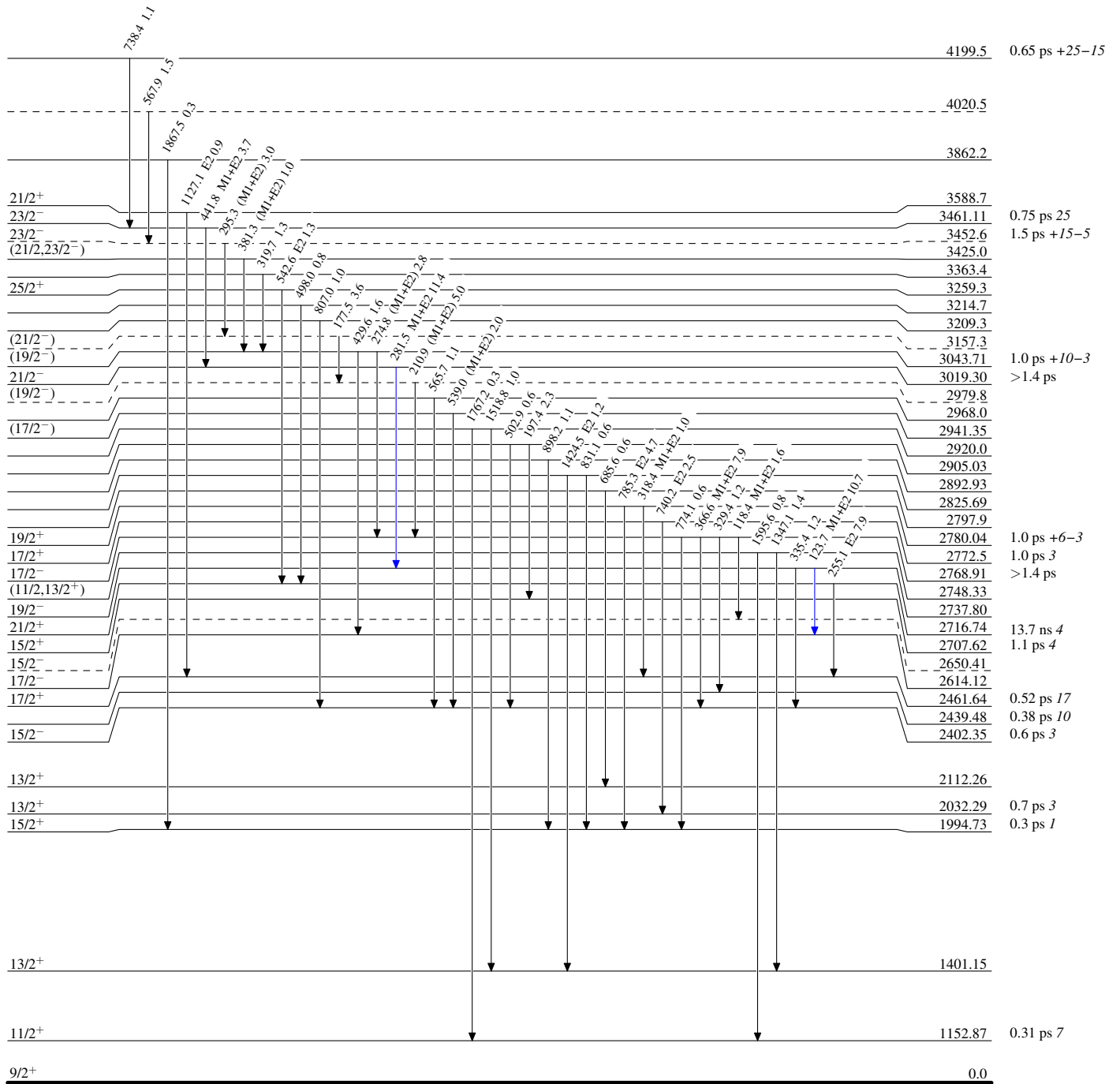
¹⁰⁹Ag($\alpha,2n\gamma$) 1997Lo09,1991Vi08

Level Scheme

Intensities: Type not specified

Legend

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



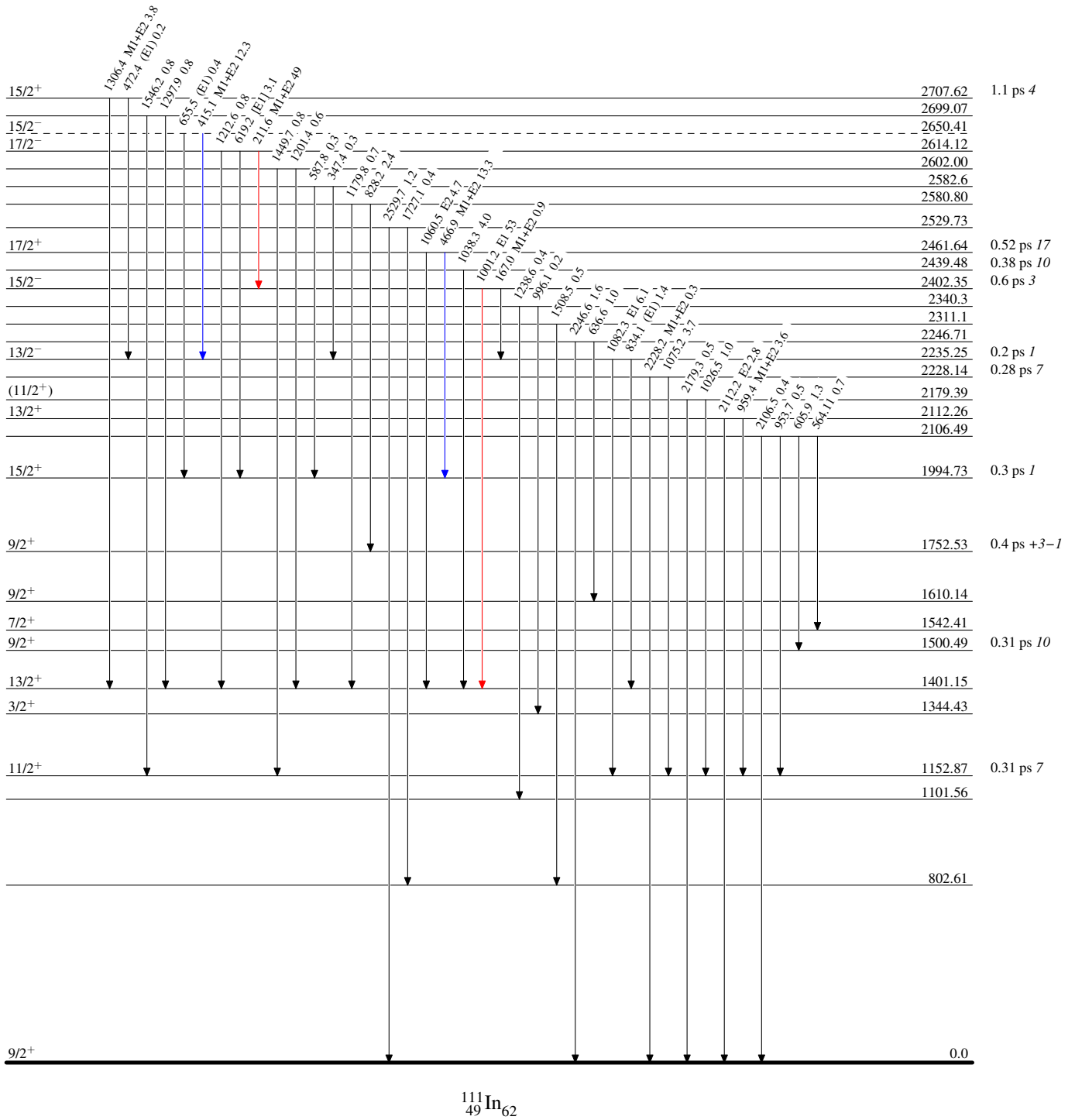
$^{109}\text{Ag}(\alpha,2n\gamma)$ 1997Lo09,1991Vi08

Level Scheme (continued)

Intensities: Type not specified

Legend

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



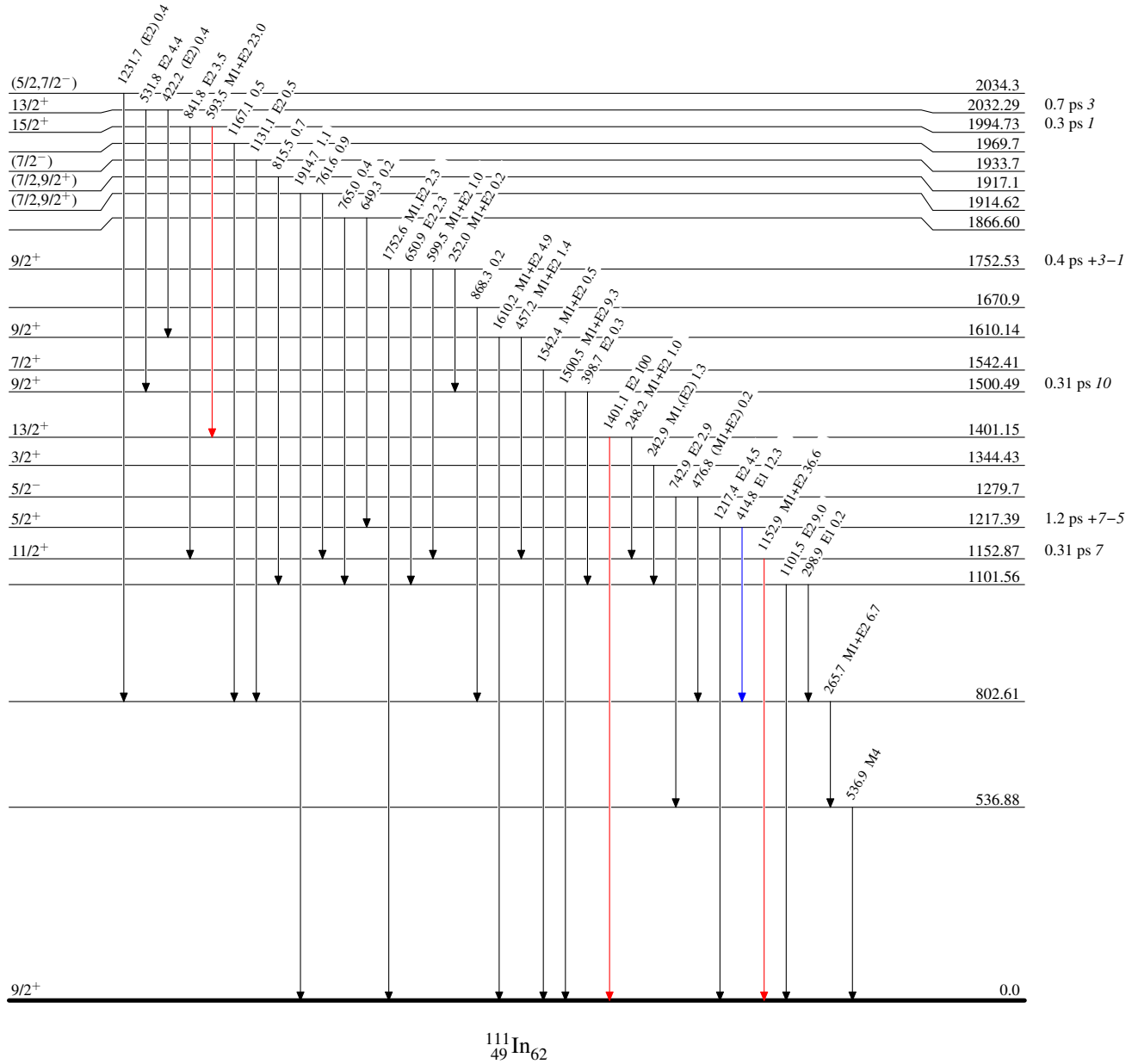
$^{109}\text{Ag}(\alpha,2n\gamma)$ 1997Lo09,1991Vi08

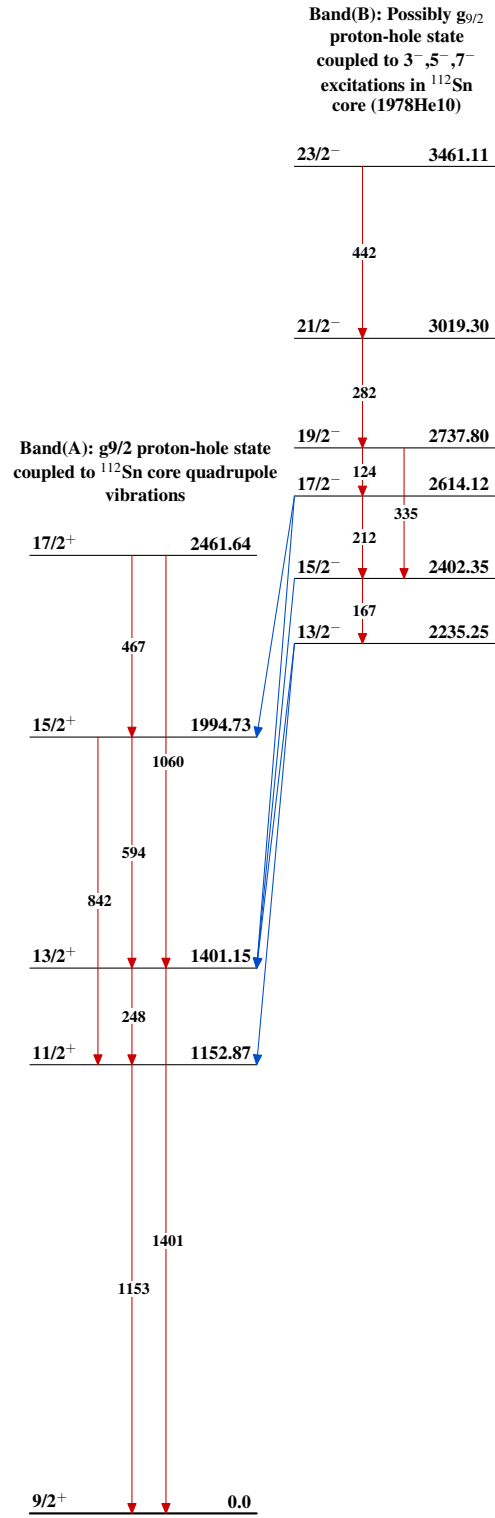
Level Scheme (continued)

Intensities: Type not specified

Legend

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



$^{109}\text{Ag}(\alpha,2n\gamma)$ 1997Lo09,1991Vi08 $^{111}_{49}\text{In}_{62}$