^{107}Ag(n,γ) E=thermal: primary 1985Ma54

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	ENSDF	1-Jul-2008

J(^{107}Ag)=1/2$^-$.

^{108}Ag Levels

E(level)†	Jπ‡	Comments
0	1^+	
79.3 *4*	2^-	
193.17 *14*	1^+	
206.67 *16*	2^+	
294.62 *14*	2^+	
338.51 *18*	3^-	
379.27 *15*	1^-	
465.9 *3*	0^-	
508.6 *3*	2^-	
563.80 *14*	2^+	
578.98 *21*	$0^-,2^-$	
606.5 *3*	1^-	
617.7 *6*	2^-	
678.9 *3*	1^-	
705.90 *19*	$1^-,2^-$	
711.4? *9*		
719.365 *6*	$1^-,2^-$	E(level): determined from the secondary γ′s.
804.0 *4*	2^-	
819.0 *4*	2^-	
880.5 *4*	2^+	
899.97 *23*	1^-	
943.1 *10*	3^-	
960.1 *9*	2^-	
974.5 *3*	2^-	
1002.4 *3*	$1^+,2^-$	
1012.9 *4*		E(level): probable multiplet consisting of 1012.55,1012.74,1013.21 levels.
1051.49 *21*		E(level): probable doublet consisting of 1051.566 and 1051.844 levels.
1079.6 *6*	$2^-,3^-,4^-$	E(level): probable doublet consisting of 1079.203 and 1079.817 levels.
1106.676 *21*	2^+	E(level): determined from the secondary γ′s.
1112.03 *14*	1^+	
1144.0 *5*	1^+	
(7269.60 *10*)	$0^-,1^-$	

† From S(n)-(Eγ+E(recoil)) with S(n)= 7269.6 *6*.
‡ From Adopted Levels.

γ(^{108}Ag)

Iγ normalization: from Iγ(633γ)= 1.76% *10* in decay of ^{108}Ag g.s.
Energy and efficiency calibrations determined using γ′s from ^{60}Co and from (n,γ) on natural zinc, ^{56}Fe, ^{12}C, and ^{207}Pb.

E_γ	I_γ†‡	E_i(level)
^{x}5301.9 *10*	0.189 *11*	
^{x}5309.3 *4*	0.221 *16*	

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^{107}Ag(n,γ) E=thermal: primary 1985Ma54 (continued)

γ(^{108}Ag) (continued)

E_γ	I_γ †‡	E_i(level)	J^π_i	E_f	J^π_f
^{x}5317.1 *5*	0.093 *15*				
^{x}5323.7 *8*	0.081 *11*				
^{x}5329.0 *5*	0.122 *15*				
^{x}5377.6 *7*	0.128 *7*				
^{x}5442.69 *20*	0.319 *10*				
^{x}5461.3 *5*	0.080 *8*				
^{x}5476.9 *10*	0.050 *8*				
^{x}5482.8 *3*	0.108 *8*				
^{x}5499.04 *23*	0.81 *3*				
^{x}5512.9 *5*	0.079 *24*				
^{x}5548.3 *3*	1.00 *6*				
^{x}5558.2 *5*	0.082 *11*				
^{x}5567.7 *6*	0.126 *10*				
^{x}5591.2 *10*	0.020 *6*				
^{x}5606.22 *20*	0.143 *7*				
^{x}5614.78 *23*	0.132 *8*				
^{x}5633.94 *23*	0.224 *9*				
^{x}5639.92 *20*	0.413 *13*				
^{x}5669.5 *5*	0.190 *14*				
^{x}5676.1 *3*	0.35 *3*				
^{x}5685.81 *20*	0.233 *24*				
^{x}5700.9 *5*	0.233 *24*				
^{x}5720.2 *4*	0.186 *10*				
^{x}5728.2 *3*	0.237 *10*				
^{x}5751.8 *5*	0.048 *8*				
^{x}5772.1 *5*	0.187 *8*				
^{x}5778.3 *15*	0.068 *7*				
^{x}5786.78 *20*	0.64 *4*				
^{x}5796.20 *23*	0.700 *7*				
^{x}5806.0 *3*	0.176 *18*				
^{x}5830.4 *3*	0.27 *3*				
^{x}5846.3 *3*	0.081 *16*				
^{x}5853.1 *10*	0.048 *15*				
^{x}5863.4 *4*	0.124 *6*				
^{x}5870.7 *10*	0.030 *9*				
^{x}5913.1 *5*	0.269 *11*				
^{x}5926.4 *6*	0.064 *7*				
^{x}5943.5 *5*	0.144 *8*				
^{x}5958.0 *5*	0.136 *6*				
^{x}5987.4 *5*	0.036 *5*				
^{x}5996.67 *22*	0.069 *6*				
^{x}6026.6 *6*	0.229 *9*				
^{x}6037.8 *5*	0.083 *6*				
^{x}6054.7 *5*	0.190 *8*				
^{x}6068.5 *4*	0.046 *5*				
6125.4 *5*	0.029 *5*	(7269.60)	$0^-,1^-$	1144.0	1^+
^{x}6133.3 *4*	0.051 *5*				
6157.38 *9*	0.800 *16*	(7269.60)	$0^-,1^-$	1112.03	1^+
6163.66 *18*	0.187 *8*	(7269.60)	$0^-,1^-$	1106.676	2^+
6189.8 *6*	0.018 *6*	(7269.60)	$0^-,1^-$	1079.6	$2^-,3^-,4^-$
6217.92 *18*	0.279 *9*	(7269.60)	$0^-,1^-$	1051.49	
6256.5 *3*	0.185 *8*	(7269.60)	$0^-,1^-$	1012.9	
6267.0 *3*	0.395 *8*	(7269.60)	$0^-,1^-$	1002.4	$1^+,2^-$
6294.9 *3*	0.090 *6*	(7269.60)	$0^-,1^-$	974.5	2^-
6309.3 *9*	0.020 *5*	(7269.60)	$0^-,1^-$	960.1	2^-
6326.3 *10*	0.011 *5*	(7269.60)	$0^-,1^-$	943.1	3^-
6369.43 *20*	0.042 *4*	(7269.60)	$0^-,1^-$	899.97	1^-

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^{107}Ag(n,γ) E=thermal: primary 1985Ma54 (continued)

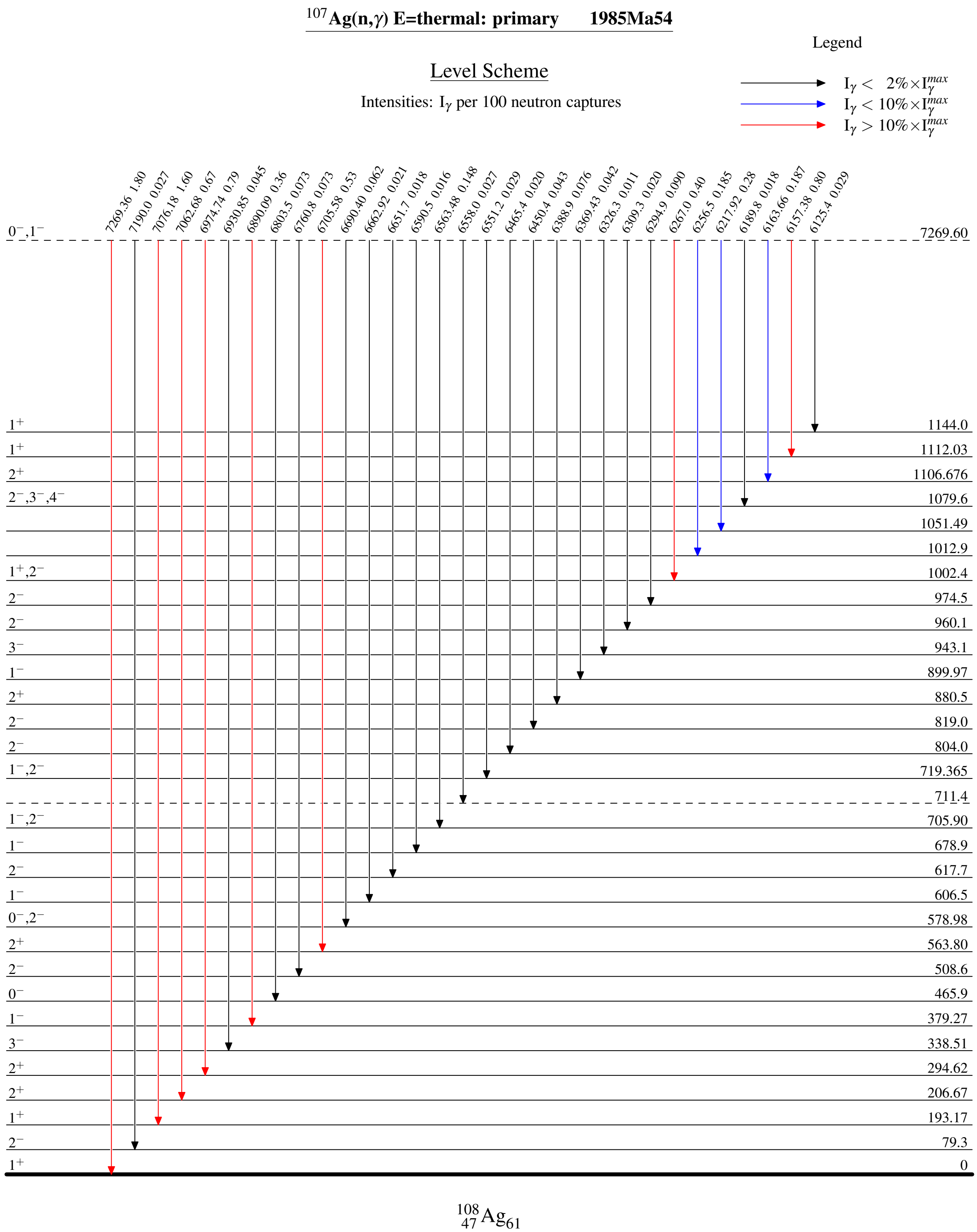
γ(^{108}Ag) (continued)

Eγ	Iγ[†‡]	Ei(level)	J^π_i	Ef	J^π_f	Eγ	Iγ[†‡]	Ei(level)	J^π_i	Ef	J^π_f
6388.9 *3*	0.076 *5*	(7269.60)	$0^-,1^-$	880.5	2^+	6705.58 *10*	0.530 *11*	(7269.60)	$0^-,1^-$	563.80	2^+
6450.4 *4*	0.043 *4*	(7269.60)	$0^-,1^-$	819.0	2^-	6760.8 *3*	0.073 *5*	(7269.60)	$0^-,1^-$	508.6	2^-
6465.4 *3*	0.020 *4*	(7269.60)	$0^-,1^-$	804.0	2^-	6803.5 *3*	0.073 *7*	(7269.60)	$0^-,1^-$	465.9	0^-
6551.2 *6*	0.029 *3*	(7269.60)	$0^-,1^-$	719.365	$1^-,2^-$	6890.09 *11*	0.361 *7*	(7269.60)	$0^-,1^-$	379.27	1^-
6558.0 *9*	0.027 *4*	(7269.60)	$0^-,1^-$	711.4?		6930.85 *15*	0.045 *4*	(7269.60)	$0^-,1^-$	338.51	3^-
6563.48 *16*	0.148 *5*	(7269.60)	$0^-,1^-$	705.90	$1^-,2^-$	6974.74 *10*	0.790 *16*	(7269.60)	$0^-,1^-$	294.62	2^+
6590.5 *3*	0.016 *4*	(7269.60)	$0^-,1^-$	678.9	1^-	7062.68 *12*	0.670 *20*	(7269.60)	$0^-,1^-$	206.67	2^+
6651.7 *6*	0.018 *4*	(7269.60)	$0^-,1^-$	617.7	2^-	7076.18 *10*	1.60 *3*	(7269.60)	$0^-,1^-$	193.17	1^+
6662.92 *24*	0.021 *4*	(7269.60)	$0^-,1^-$	606.5	1^-	7190.0 *3*	0.027 *3*	(7269.60)	$0^-,1^-$	79.3	2^-
6690.40 *18*	0.062 *6*	(7269.60)	$0^-,1^-$	578.98	$0^-,2^-$	7269.36 *8*	1.80	(7269.60)	$0^-,1^-$	0	1^+

† Photons per 100 neutron captures obtained from Iγ(7269) relative to Iγ(633γ in g.s. decay)=1.76% *10* and the assumption that 1% of the neutron captures lead to population of the isomer at 109.5. The uncertainty of 10% in the calibration is not included in the listed intensities but is included in the normalization factor.

‡ For intensity per 100 neutron captures, multiply by 1.00 *10*.

^{x} γ ray not placed in level scheme.


^{107}Ag(n,γ) E=thermal: primary 1985Ma54
Level Scheme
Intensities: I_γ per 100 neutron captures
Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
7269.36 1.80
7190.0 0.027
7076.18 1.60
7062.68 0.67
6974.74 0.79
6930.85 0.045
6890.09 0.36
6803.5 0.073
6760.8 0.073
6705.58 0.53
6690.40 0.062
6662.92 0.021
6651.7 0.018
6590.5 0.016
6563.48 0.148
6558.0 0.027
6551.2 0.029
6465.4 0.020
6450.4 0.043
6388.9 0.076
6369.43 0.042
6326.3 0.011
6309.3 0.020
6294.9 0.090
6267.0 0.40
6256.5 0.185
6217.92 0.28
6189.8 0.018
6163.66 0.187
6157.38 0.80
6125.4 0.029
0⁻,1⁻ 7269.60
1⁺ 1144.0
1⁺ 1112.03
2⁺ 1106.676
2⁻,3⁻,4⁻ 1079.6
1051.49
1012.9
1⁺,2⁻ 1002.4
2⁻ 974.5
2⁻ 960.1
3⁻ 943.1
1⁻ 899.97
2⁺ 880.5
2⁻ 819.0
2⁻ 804.0
1⁻,2⁻ 719.365
711.4
1⁻,2⁻ 705.90
1⁻ 678.9
2⁻ 617.7
1⁻ 606.5
0⁻,2⁻ 578.98
2⁺ 563.80
2⁻ 508.6
0⁻ 465.9
1⁻ 379.27
3⁻ 338.51
2⁺ 294.62
2⁺ 206.67
1⁺ 193.17
2⁻ 79.3
1⁺ 0
$^{108}_{47}Ag_{61}$