

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 111,717 (2010)	1-Dec-2009

Q(β^-)=6170 4; S(n)=5631 19; S(p)=9405 14; Q(α)=-5.23×10³ 5 [2012Wa38](#)
 Note: Current evaluation has used the following Q record 6176 4 5634 209440 80 -5.21×10³⁵ [2003Au03,2009AuZZ](#).
 α : [Additional information 1](#).

¹¹⁶Ag Levels

Cross Reference (XREF) Flags

- A ¹¹⁶Ag IT decay (9.3 s)
- B ¹¹⁶Pd β^- decay
- C ²⁰⁸Pb(¹⁶O,X γ)
- D ¹¹⁶Ag IT decay (20 s)

E(level) [†]	J ^{π}	T _{1/2}	XREF	Comments
0.0	(0 ⁻)	230 s 5	AB D	% β^- =100 J ^{π} : Before 2005Ba94 J ^{π} was (2) ⁻ but now E3 γ from 3 ⁺ gives 0 ⁺ . T _{1/2} : From 2009BA52 . Other: 237 s 5 (2005Ba94). Previous measurements were lower: 2.5 min 1 (1958A190), 2.68 min 1 (1970OsZZ), 2.58 min 8 (1974Gr29), 2.65 min 6 (1974Bj01), 2.70 min 8 (1990Fo07). These data were contaminated by the 20 s isomer.
47.90 10	(3 ⁺)	20 s 1	B D	%IT=7.0; % β^- =93.0 %IT: from 2005Ba94 . T _{1/2} : From 2005Ba94 .
91.06 15	(1) ⁻		B	J ^{π} : γ to 0 ⁺ , not fed from 0 ⁺ parent.
114.73 9	1 ⁺		B	J ^{π} : log ft=4.1 via 0 ⁺ parent.
129.80 22	(6 ⁻)	9.3 s 3	A	%IT=8.0; % β^- =92.0 %IT: from 2005Ba94 , %IT=6.0 (1990Fo07). J ^{π} : E3 γ to (3 ⁺). T _{1/2} : weighted av: 9.8 s 1 (2005Ba94), 10.4 s 8 (1971Fo22), 10.5 s 5 (1974Bj01), 8.5 s 2 (1974Gr29), 8.7 s 2 (1970OsZZ), 8.2 s 2 (1990Fo07).
215.82 18	(2)		B	J ^{π} : not fed from 0 ⁺ parent, γ 's to 1 ⁺ and (2 ⁻).
393.42 24	1 ⁺		B	J ^{π} : log ft=4.5 via 0 ⁺ parent.
x				
199.3+x [‡]	(8 ⁻)		C	
x+324.70 [#] 20	(9 ⁻)		C	
x+635.2 [‡] 3	(10 ⁻)		C	
x+965.0 [#] 3	(11 ⁻)		C	
x+1161.0 4			C	
x+1336.4 [‡] 3	(12 ⁻)		C	
x+1615.5 6			C	
x+1761.6 [#] 4	(13 ⁻)		C	
x+2188.0 [‡] 4	(14 ⁻)		C	
x+2672.0 [#] 5	(15 ⁻)		C	

[†] From least-squares fit to E γ 's.

[‡] Band(A): $\pi g_{9/2} \nu h_{11/2}$, $\alpha=0$.

[#] Band(a): $\pi g_{9/2} \nu h_{11/2}$, $\alpha=1$.

Adopted Levels, Gammas (continued)

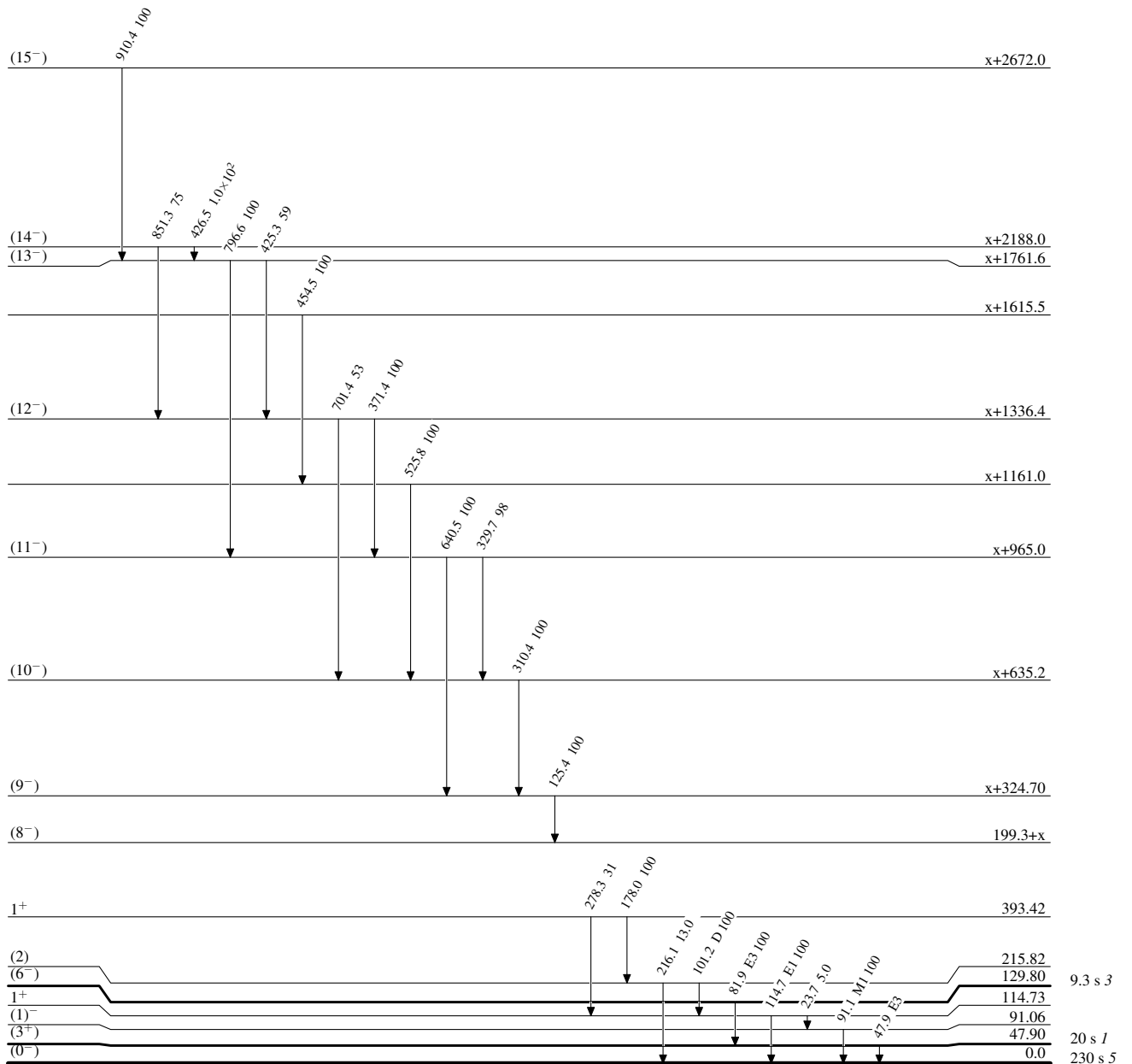
$\gamma(^{116}\text{Ag})$								
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ	E_f	J_f^π	Mult.	α	Comments
47.90	(3 ⁺)	47.9 1		0.0	(0 ⁻)	E3	598 11	$\alpha(\text{K})=76.5$ 12; $\alpha(\text{L})=420$ 8; $\alpha(\text{M})=87.7$ 17; $\alpha(\text{N})=13.6$ 3; $\alpha(\text{O})=0.00766$ 12; $\alpha(\text{N}+..)=13.6$ 3
91.06	(1 ⁻)	91.1 2	100	0.0	(0 ⁻)	M1	0.546	$\alpha(\text{K})=0.474$ 8; $\alpha(\text{L})=0.0590$ 9; $\alpha(\text{M})=0.01123$ 18; $\alpha(\text{N})=0.00194$ 3; $\alpha(\text{O})=8.93 \times 10^{-5}$ 14 $\alpha(\text{N}+..)=0.00203$ 4 E_γ : From 1989Ko22 .
114.73	1 ⁺	23.7 2 114.7 1	5.0 100	91.06 0.0	(1 ⁻) (0 ⁻)	E1	0.1080	E_γ : From 1989Ko22 . $\alpha(\text{K})=0.0940$ 14; $\alpha(\text{L})=0.01142$ 17; $\alpha(\text{M})=0.00215$ 3; $\alpha(\text{N})=0.000366$ 6; $\alpha(\text{O})=1.501 \times 10^{-5}$ 22 $\alpha(\text{N}+..)=0.000381$ 6 E_γ : From 1989Ko22 .
129.80	(6 ⁻)	81.9 2	100	47.90	(3 ⁺)	E3	37.4 7	$\alpha(\text{K})=14.82$ 25; $\alpha(\text{L})=18.2$ 4; $\alpha(\text{M})=3.74$ 8; $\alpha(\text{N})=0.583$ 12; $\alpha(\text{O})=0.00177$ 3; $\alpha(\text{N}+..)=0.585$ 12 B(E3)(W.u.)=0.43 11 E_γ : From 1989Ko22 .
215.82	(2)	101.2 2 216.1 4	100 13.0	114.73 0.0	1 ⁺ (0 ⁻)	D		
393.42	1 ⁺	178.0 3 278.3 3	100 31	215.82 114.73	(2) 1 ⁺			
x+324.70	(9 ⁻)	125.4 2	100	199.3+x	(8 ⁻)			
x+635.2	(10 ⁻)	310.4 2	100	x+324.70	(9 ⁻)			
x+965.0	(11 ⁻)	329.7 2 640.5 3	98 9 100 9	x+635.2 x+324.70	(10 ⁻) (9 ⁻)			
x+1161.0		525.8 3	100	x+635.2	(10 ⁻)			
x+1336.4	(12 ⁻)	371.4 2 701.4 4	100 15 53 9	x+965.0 x+635.2	(11 ⁻) (10 ⁻)			
x+1615.5		454.5 4	100	x+1161.0				
x+1761.6	(13 ⁻)	425.3 3 796.6 4	59 10 100 14	x+1336.4 x+965.0	(12 ⁻) (11 ⁻)			E_γ : 426 in figure 3 of 2003Po11 .
x+2188.0	(14 ⁻)	426.5 3 851.3 5	1.0×10^2 3 75 25	x+1761.6 x+1336.4	(13 ⁻) (12 ⁻)			E_γ : 425 in figure 3 of 2003Po11 .
x+2672.0	(15 ⁻)	910.4 4	100	x+1761.6	(13 ⁻)			

† From [2003Po11](#), otherwise noted.

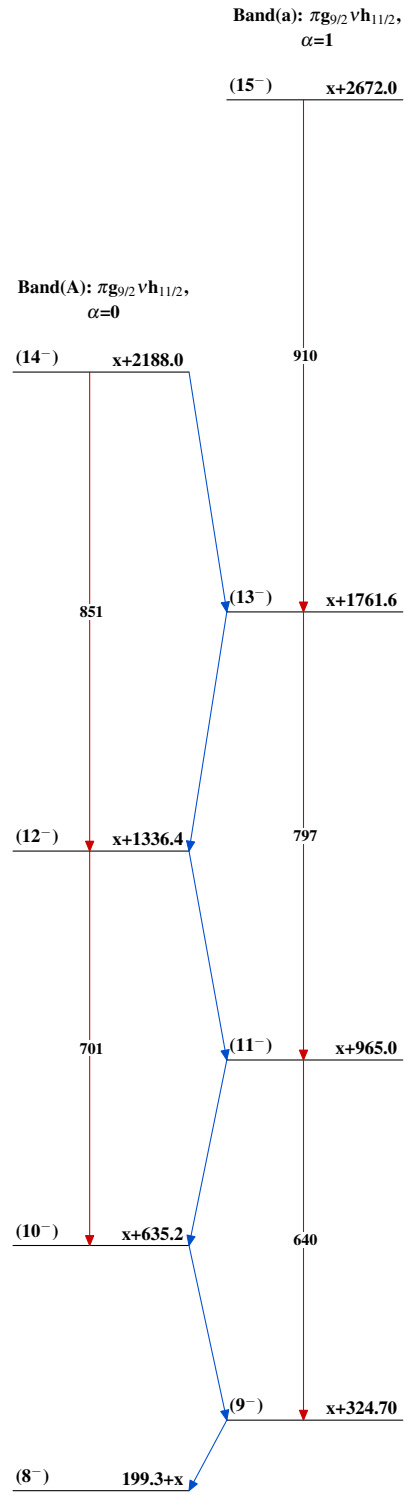
Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level



$^{116}_{47}\text{Ag}_{69}$

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