		Tuna	Assth	History								
		Type Full Evaluati	ion Jean Bl	lachot ENSDE 1-Jul-2006								
		1 411 2 (41444		2								
$Q(\beta) = -5498 5; S(n) = 11268 7; S(p) = 3396 19; Q(\alpha) = -1.16 \times 10^{6} 4 2012 Wa38$ Note: Current evaluation has used the following Q record. $Q(\beta^{-}) = -5.48 \times 10^{3} 11; S(n) = 11.15 \times 10^{3} 13; S(p) = 3.29 \times 10^{3} 10; Q(\alpha) = -1.06 \times 10^{3} 11 2003 Au03$												
<sup>101</sup> Ag Levels												
	Cross Reference (XREF) Flags											
		A 1 B 1 C (1 D 1	<sup>01</sup> Ag IT deca <sup>01</sup> Cd $\varepsilon$ decay HI,xn $\gamma$ ) <sup>02</sup> Pd(p,2n $\gamma$ )	y (3.10 s) E ${}^{102}Pd({}^{3}He, 3np\gamma)$ F ${}^{50}Cr({}^{58}Ni, 3p\alpha\gamma)$ G ${}^{70}Ge({}^{35}Cl, 2n2p\gamma)$								
E(level)	$J^{\pi \dagger}$	$T_{1/2}$ ‡	XREF	Comments								
0.0#	9/2+	11.1 min 3	ABCDEFG	$%ε+%β^+=100$ μ=5.627 <i>11</i> (1989Di12) μ: other: 5.74 <i>41</i> (1983Va09,2005St24). J <sup>π</sup> : J=9/2 (1970Wa35) atomic beam; mass number inferred from 9 min 2 decay rate of silver isotope formed by 80 to 100 MeV on palladium target with chem. Measured μ establishes positive parity. T <sub>1/2</sub> : unweighted av of 11.4 min 3 (1978Ha11), 10.8 min 2 (1967Da05) 11.2 min <i>1</i> (1966Pa14) Others: 1966Bu05 1967Ba26								
98.00 9	$(7/2)^+$		ABCD	$J^{\pi}$ : from M1(+E2) $\gamma$ decay to 9/2 <sup>+</sup> g.s. and E3 population from 1/2 <sup>-</sup> isomeric state.								
274.1 3	(1/2) <sup>-</sup>	3.10 s <i>10</i>	AB D	$^{10}$ MT=100 T <sub>1/2</sub> : unweighted av: 3.08 s 8 (1978Ha11), 3.12 s 12 (1975Ca01). $I_{1}^{17}$ : $1/2^{-1}$ isometric processing 103 Ag at 134 keV and in $^{105}$ Ag for g s								
687.01 <sup>@</sup> 9 750.2 3 797.3 3	11/2 <sup>+</sup> (3/2) <sup>-</sup> (5/2) <sup>-</sup>	1.87 ps 21	CDEFG B D B D	M1 $\gamma$ to 9/2 <sup>+</sup> g.s. fed by M1 $\gamma$ from 13/2 <sup>+</sup> . J <sup><math>\pi</math></sup> : M1 $\gamma$ to (1/2) <sup>-</sup> , not fed from (5/2 <sup>+</sup> ). J <sup><math>\pi</math></sup> : E2 $\gamma$ to (1/2) <sup>-</sup> , log <i>ft</i> =6.4 from (5/2 <sup>+</sup> ).								
861.40 <sup>#</sup> 9 960.9 3 1022.74 16	13/2 <sup>+</sup> (3/2,5/2) <sup>-</sup> (5/2,7/2) <sup>+</sup>	8.1 ps 7	CDEFG B B	$J^{\pi}$ : M1 $\gamma$ to 11/2 <sup>+</sup> fed by M1 $\gamma$ from 13/2 <sup>+</sup> . $J^{\pi}$ : M1,E2 $\gamma$ to (1/2) <sup>-</sup> , log <i>ft</i> =6.4 from (5/2 <sup>+</sup> ). $J^{\pi}$ : log <i>ft</i> =5.86 from (5/2 <sup>+</sup> ) parent, M1,E2 $\gamma$ to (7/2) <sup>+</sup> , $\gamma$ decay to $9/2^{+}$								
1195.9 <i>3</i> 1285.3 <i>3</i> 1300.99 <i>16</i> 1324.6 <i>3</i> 1357.3 <i>3</i> 1417.52 <i>10</i> 1474.1 <i>5</i> 1503.0 <i>5</i>	$\begin{array}{c} (5/2^+,7/2) \\ (3/2)^+ \\ (5/2^+,7/2^+) \\ (5/2^+,7/2) \\ (3/2^+,5/2^+,7/2^+) \\ (5/2,7/2)^+ \\ (3/2,5/2,7/2) \end{array}$		B B B B B B D B D	$J^{\pi}: \log ft=6.2 \text{ from } (5/2^{+}) \text{ parent, } \gamma \text{ decay to } 9/2^{+}.$ $J^{\pi}: E2 \gamma \text{ to } 7/2^{+}.$ $J^{\pi}: \log ft=5.9 \text{ from } (5/2^{+}) \text{ parent, } \gamma \text{ decay to } 9/2^{+}.$ $J^{\pi}: \log ft=6.0 \text{ from } (5/2^{+}) \text{ parent, } \gamma' \text{ s to } 9/2^{+}.$ $J^{\pi}: \log ft=5.8 \text{ from } (5/2^{+}) \text{ parent, } M1,E2 \gamma \text{ to } (7/2)^{+}.$ $J^{\pi}: \log ft=5.5 \text{ from } (5/2^{+}) \text{ parent, } M1,E2 \gamma \text{ to } 9/2^{+}.$ $J^{\pi}: \log ft=6.6 \text{ from } (5/2^{+}) \text{ parent.}$								
1573.35 <sup>@</sup> 12 1598.8 6 1690.7 3 1756.8 3	$\begin{array}{c} 15/2^+ \\ (1/2 \text{ to } 7/2)^+ \\ (5/2^+, 7/2) \\ (15/2^+) \end{array}$	1.46 ps 35	CDEFG B B F	$J^{\pi}$ : M1 $\gamma$ to 13/2 <sup>+</sup> , fed by M1 $\gamma$ from 17/2 <sup>+</sup> . $J^{\pi}$ : E1 $\gamma$ to (3/2 <sup>-</sup> ,5/2 <sup>-</sup> ). $J^{\pi}$ : log <i>ft</i> =6.0 from (5/2 <sup>+</sup> ) parent, $\gamma$ decay to 9/2 <sup>+</sup> .								
1769.44 <sup>#</sup> 12 1783.4 4 1794.9 4 1820.70 22 1859.7 4	$17/2^+ (5/2^+, 7/2^+) (3/2^+, 5/2^+, 7/2^+) (5/2^+, 7/2^+)$	1.32 ps <i>14</i>	CDEFG B B B B B	$J^{\pi}$ : M1 $\gamma$ to 15/2 <sup>+</sup> , fed by M1 $\gamma$ from 17/2 <sup>+</sup> . $J^{\pi}$ : log <i>ft</i> =6.05 from (5/2 <sup>+</sup> ) parent, $\gamma$ decay to 9/2 <sup>+</sup> . $J^{\pi}$ : log <i>ft</i> =5.4 from (5/2 <sup>+</sup> ) parent. $J^{\pi}$ : log <i>ft</i> =5.3 from (5/2 <sup>+</sup> ) parent, $\gamma$ to 9/2 <sup>+</sup> .								

Continued on next page (footnotes at end of table)

### Adopted Levels, Gammas (continued)

## <sup>101</sup>Ag Levels (continued)

E(level)	$J^{\pi}$	$T_{1/2}$ ‡	XRE	F	Comments
1894.6 5			В		
1990.1 <i>3</i>	$(5/2^+, 7/2^+)$		В		$J^{\pi}$ : log <i>ft</i> =5.5 from (5/2 <sup>+</sup> ) parent,
2016.39 <sup>@</sup> 12	19/2+	6.2 ps 7	CDE	EFG	J <sup><math>\pi</math></sup> : M1 $\gamma$ to 17/2 <sup>+</sup> , fed by M1 $\gamma$ from 19/2 <sup>+</sup> .
2058.9 3	$(5/2^+, 7/2^+)$		В		$J^{\pi}$ : log <i>ft</i> =5.5 from (5/2 <sup>+</sup> ) parent,
2114.33 <sup>b</sup> 18	17/2	138 ps 5	CD	FG	$J^{\pi}$ : From band.
2129.9 3	$(5/2^+, 7/2^+)$		В		$J^{\pi}$ : log <i>ft</i> =5.5 from (5/2 <sup>+</sup> ) parent,
2153.3 6			В		
2154.5 5			B D		
2243.84			B		
2308.1 6			B		
2387.1 5			В		
2391.4 3	$(5/2^+, 7/2^+)$		В		$J^{\pi}$ : log <i>ft</i> =5.4 from (5/2 <sup>+</sup> ) parent,
2430.1 4	$(3/2^+, 5/2^+, 7/2^+)$		В		$\log ft = 5.0$ from $(5/2^+)$ parent.
2447.6 8	$(2/2^+ 5/2^+ 7/2^+)$		C P		$\log t = 5.4$ from $(5/2^+)$ parant
2433.04	(3/2, 3/2, 1/2)	0.42 m 7		EC	$\log f = 5.4 \mod (5/2^{-1})$ patent.
2679.8.6	$(3/2^+ 5/2^+ 7/2^+)$	0.42 ps 7	R	гG	J <sup>*</sup> : M1 $\gamma$ to 19/2 <sup>+</sup> , led from 25/2.
2787.7 4	$(3/2^+, 5/2^+, 7/2^+)$		B		$\log ft = 4.9$ from (5/2 <sup>+</sup> ) parent.
2875.6 4	$(5/2^+, 7/2^+)$		В		$\log ft=5.1$ from $(5/2^+)$ parent.
2909.1 5	$(3/2^+, 5/2^+, 7/2^+)$		В		$\log ft = 5.5$ from (5/2 <sup>+</sup> ) parent.
2921.01 13	$(21/2^+)$		C	FG	
2940.0 4	$(5/2^+)$		B		$\log ft = 4.9$ from $(5/2^+)$ parent.
2943.70	$(3/2^{+}, 3/2^{+}, 1/2^{+})$	1.05 .01	BC	FC	$\log f = 5.0$ from (5/2°) parent.
2955.98 14	$(23/2^{+})$ $(3/2^{+} 5/2^{+} 7/2^{+})$	1.25 ps 21	R	FG	J <sup>*</sup> : 335 $\gamma$ to 21/2 <sup>+</sup> , red from 23/2.
3010.20 16	(3/2 ,3/2 ,1/2 )		Ċ		$\log f = 5.5$ from $(5/2)$ parent.
3162.5 6	$(3/2^+, 5/2^+, 7/2^+)$		В		$\log ft=5.3$ from $(5/2^+)$ parent.
3187.69 19			С	FG	
3209.21 <sup>b</sup> 17	21/2	0.83 ps 7	С	FG	
3228.8 6	$(3/2^+, 5/2^+, 7/2^+)$		В		$\log ft=5.7$ from $(5/2^+)$ parent.
3259.5 5	$(3/2^+, 5/2^+, 7/2^+)$		В	FC	$\log ft = 4.3$ from (5/2 <sup>+</sup> ) parent.
3380.4.6	(3/2 + 5/2 + 7/2 +)		R	FG	$\log t = 5.3$ from $(5/2^+)$ parent
3400.4 8	$(3/2^+, 5/2^+, 7/2^+)$		B		$\log ft = 5.1$ from $(5/2^+)$ parent.
3430.4 5	$(3/2^+, 5/2^+, 7/2^+)$		В		$\log ft=5.3$ from $(5/2^+)$ parent.
3577.81 <sup>#</sup> 15	$(25/2^+)$	<1.39 ps	С	FG	$J^{\pi}$ : 621 $\gamma$ to 23/2.
3614.56 19			С	FG	
3795.86 17			C	FG	
3800.67 <sup>b</sup> 17	23/2		С	FG	
3869.27 <sup>a</sup> 14	$(23/2^{-})$	7.9 ps 8	С	FG	
4158.62 <sup>w</sup> 16	$(27/2^+)$	<1.73 ps	C	FG	
4216.22 <sup><b>a</b></sup> 16	$(25/2^{-})$	0.76 ps 14	C	FG	
4314.13 <sup>0</sup> 24	25/2		C	FG	
4571.57# 17	$(29/2^+)$	9.7 ps 7	С	FG	
4585.5 6	$(27/2^{-})$	0.76	c	F	
4749.14 10	(27/2)	0.76 ps 7	C	FG F	
4801.13 22				F	
4841.6 <i>3</i>				F	
5134.19 <sup>&amp;</sup> 18	(29/2-)	0.58 ps 6	С	FG	
5159.6		-		F	
5183.8				F	

### Adopted Levels, Gammas (continued)

E(level)	$J^{\pi \dagger}$	T <sub>1/2</sub> ‡	XR	EF	E(level)	$J^{\pi \dagger}$	$T_{1/2}^{\ddagger}$	XF	REF
5299.58 <sup>@</sup> 18 5678.36 <sup>a</sup> 20 5755.1 5976.9	$(31/2^+) (31/2^-)$	≤1.18 ps 0.284 ps <i>35</i>	C C	FG FG F F	6917.5 <sup><i>a</i></sup> 3 7393.5 <sup>&amp;</sup> 3 7411.0 7810.0	(35/2 <sup>-</sup> ) (37/2 <sup>-</sup> )	0.125 ps <i>35</i> ≤0.90 ps	C C	FG FG F F
5984.0 6196.81 <sup>&amp;</sup> 21 6307.7 6481.9 6599.3	(33/2 <sup>-</sup> )	0.208 ps 28	С	F FG F F F	8346.1 8547.3 <sup>&amp;</sup> 4 9629.4 9635.3 10706.3	(41/2 <sup>-</sup> )		c	F FG F F F

## <sup>101</sup>Ag Levels (continued)

<sup>†</sup>  $J^{\pi}$  without comments are based on band assignments,  $\gamma$  mult. and decay patterns.

<sup>1</sup> J<sup>\*</sup> Without comments are based on band a <sup>‡</sup> From 2001Ga49, unless otherwise noted. <sup>#</sup> Band(A): g.s. band,  $\alpha$ =+1/2. <sup>@</sup> Band(a): g.s. band,  $\alpha$ =-1/2. <sup>&</sup> Band(B): band based on 23/2<sup>(-)</sup>,  $\alpha$ =+1/2. <sup>a</sup> Band(b): band based on 23/2<sup>(-)</sup>,  $\alpha$ =-1/2. <sup>b</sup> Band(C): Level sequence above 15/2<sup>+</sup>.

	Adopted Levels, Gammas (continued)											
	$\underline{\gamma(^{101}Ag)}$											
E <sub>i</sub> (level)	$\mathbf{J}_i^\pi$	$E_{\gamma}^{\dagger}$	$I_{\gamma}^{\dagger}$	$\mathbf{E}_f \qquad \mathbf{J}_f^{\pi}$	Mult. <sup>‡</sup>	δ	α <b>#</b>	Comments				
98.00	(7/2)+	98.0 1	100	0.0 9/2+	M1+E2	0.39 5	0.59 3	Mult.: From $\alpha$ (K)exp=0.47 5 in IT decay, 0.56 9 in $\varepsilon$ decay and K/L=6.0 3 in $\varepsilon$ decay. K/LM=3.9 in IT decay is discrepant				
274.1	(1/2)-	176.2 5	100	98.00 (7/2)+	E3		1.113	$\alpha(K)\exp=0.069\ 7$ B(E3)(W.u.)=0.0580 24 K/(1+M)= 2.6.2 (1970Hn03)				
687.01	$11/2^{+}$	687.0 <i>1</i>	100	$0.0  9/2^+$	M1+E2	0.43 +12-15		B(M1)(W.u.)=0.031 5; B(E2)(W.u.)=11 6				
750.2	$(3/2)^{-}$	475.9 2	100	$274.1 (1/2)^{-}$	D							
797.3	(5/2)-	47.0 <i>3</i>	100	750.2 (3/2)-								
		523.4 5	100	274.1 (1/2) <sup>-</sup>	E2							
861.40	$13/2^{+}$	174.4 <i>1</i>	15 4	687.01 11/2+	D(+Q)	0.09 +11-10						
		861.4 <i>1</i>	100	$0.0  9/2^+$	E2			B(E2)(W.u.)=4.6 5				
								Mult.: $\gamma(\theta)$ gives Q. RUL rules out M2.				
960.9	$(3/2,5/2)^{-}$	163.5 3	3.3 7	797.3 (5/2)-								
		210.5 3	3.3 7	$750.2 (3/2)^{-1}$								
1022 74	(5/0 7/0)+	687.03	100 20	$2/4.1 (1/2)^{-1}$	M1,E2							
1022.74	$(5/2, 1/2)^{+}$	924.73	100 20	$98.00 (7/2)^{+}$	M1,E2							
1105.0	(5/2 + 7/2)	1022.7 3	32.0	$0.0  9/2^{+}$	_							
1195.9	(3/2, 7/2)	234.9 5	20 4 67 13	900.9 (3/2,3/2)								
		1196.0.5	100 20	98.00 (7/2)								
1285 3	$(3/2)^+$	487.8.5	5110	$797.3 (5/2)^{-1}$								
1205.5	(3/2)	534.8.5	6814	$750.2 (3/2)^{-1}$								
		1011.3 5	14.3	$274.1 (1/2)^{-1}$								
		1187.4 5	100 20	$98.00 (7/2)^+$	(E2)							
1300.99	$(5/2^+, 7/2^+)$	278.24 5	8.7 17	1022.74 (5/2,7/2)	+							
		1203.1 5	100 20	98.00 (7/2)+								
		1301.1 5	5.8 12	$0.0  9/2^+$								
1324.6	$(5/2^+, 7/2)$	1226.7 5	39 8	98.00 (7/2)+								
		1324.6 5	100 20	$0.0  9/2^+$								
1357.3	$(3/2^+, 5/2^+, 7/2^+)$	1259.3 8	100	$98.00 (7/2)^+$	M1,E2							
1417.52	$(5/2,7/2)^+$	394.6 5	6.5 13	1022.74 (5/2,7/2)	÷							
		1319.52 5	33 7	98.00 (7/2)+								
1474 1		1417.18	100 20	$0.0 \ 9/2^+$	M1,E2							
14/4.1	(3/2, 5/2, 1/2)	6/7.4.5	100	797.3 (5/2)								
1503.0	15/0+	706.2.5	100	197.3 (5/2)	D(+0)	$0.01 \pm 11 = 10$						
13/3.33	13/2	/12.0 <i>I</i> 886 1 <i>A</i>	20.2	601.40  15/2	D(+Q)	0.01 + 11 - 10						
1598.8	$(1/2 \text{ to } 7/2)^+$	637 0 5	20.5	960.9 (3/2 5/2)	- F1							
1690.7	(1/2 + 0/1/2) $(5/2^+ - 7/2)$	366 1 5	428	1324.6 $(5/2, 3/2)$								
1090.7	(J/2, I/2)	405 2 5	18 4	$1327.0 (3/2)^+$ 1285 3 (3/2) <sup>+</sup>	9							
		1592.6.5	54 11	$98.00 (7/2)^+$								
		1690.9.5	100 20	$0.0 \ 9/2^+$								
				0.0 2/2								

 $^{101}_{47}\mathrm{Ag}_{54}\text{-}4$ 

From ENSDF

 $^{101}_{47}\mathrm{Ag}_{54}$ -4

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					Adopted Levels	, Gammas	(continued)					
	$\gamma(^{101}\text{Ag})$ (continued)											
E <sub>i</sub> (level)	$\mathrm{J}_i^\pi$	$E_{\gamma}^{\dagger}$	$I_{\gamma}^{\dagger}$	$\mathbf{E}_{f}$	$\mathrm{J}_f^\pi$	Mult. <sup>‡</sup>	δ	α <b>#</b>	Comments			
1756.8	(15/2+)	183.5 <i>3</i> 895.4 <i>3</i>	24 <i>12</i> 100 <i>12</i>	1573.35 861.40	15/2 <sup>+</sup> 13/2 <sup>+</sup>							
1769.44	17/2+	1069.8 3 196.0 1 908.0 1	30 6 21 3 100 <i>10</i>	687.01 1573.35 861.40	$11/2^{+}$ $15/2^{+}$ $13/2^{+}$	D+Q (E2)		0.0666	B(E2)(W.u.)=20 4			
1783.4	$(5/2^+, 7/2^+)$	1685.7 <i>5</i> 1783 1 5	100 <i>20</i> 47 9	98.00 0.0	$(7/2)^+$ 9/2 <sup>+</sup>				Mult.: $\gamma(\theta)$ gives Q. RUL rules out M2.			
1794.9	$(3/2^+, 5/2^+, 7/2^+)$	493.8 8 1696.7 5	9.9 20 100 20	1300.99 98.00	$(5/2^+,7/2^+)$ $(7/2)^+$							
1820.70	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	403.2 <i>5</i> 798.0 <i>5</i> 1722.5 <i>5</i> 1820 6 <i>5</i>	1.7 <i>3</i> 1.7 <i>3</i> 100 <i>20</i> 2 9 6	1417.52 1022.74 98.00	$(5/2,7/2)^+$ $(5/2,7/2)^+$ $(7/2)^+$ $9/2^+$							
1859.7		1761.7 <i>5</i> 1859.7 <i>5</i>	27 6 100 20	98.00 0.0	$(7/2)^+$ $9/2^+$							
1894.6 1990.1	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	1796.6 <i>5</i> 704.8 <i>6</i> 1892.0 <i>5</i>	100 100 20 53 11	98.00 1285.3 98.00	$(7/2)^+$ $(3/2)^+$ $(7/2)^+$							
2016.39	19/2+	1990.2 5 246.90 <i>3</i> 444	73 15 100	0.0 1769.44 1573.35	9/2 <sup>+</sup> 17/2 <sup>+</sup> 15/2 <sup>+</sup>	M1+E2	-0.01 +3-8		B(M1)(W.u.)=0.24 3; B(E2)(W.u.)=0.4 +22-4			
2058.9	(5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	701.6 5 757.7 5 1960.9 5 2059 0 5	26 5 12.0 24 100 20 6 0 12	1357.3 1300.99 98.00	$(3/2^+, 5/2^+, 7/2^+)$ $(5/2^+, 7/2^+)$ $(7/2)^+$ $9/2^+$							
2114.33 2129.9	17/2 (5/2 <sup>+</sup> ,7/2 <sup>+</sup> )	531.0 5 309.1 5 334.7 5 772.4 5 1108.3 9 1331.8 8 2032.5 8 2130.0 5	100 75 15 18 4 34 7 17 3 100 20 17 3 55 11	1573.35 1820.70 1794.9 1357.3 1022.74 797.3 98.00 0.0	$\begin{array}{c} 7/2 \\ 15/2^+ \\ (5/2^+, 7/2^+) \\ (3/2^+, 5/2^+, 7/2^+) \\ (3/2^+, 5/2^+, 7/2^+) \\ (5/2, 7/2)^+ \\ (5/2)^- \\ (7/2)^+ \\ 9/2^+ \end{array}$							
2153.3 2154.5		796.0 <i>5</i> 652.8 <i>8</i> 682.0 <i>8</i> 2055.4 <i>5</i>	100 93 20 100 20 100	1357.3 1503.0 1474.1 98.00	$(3/2^+, 5/2^+, 7/2^+)$ (3/2, 5/2, 7/2) $(7/2)^+$							
2243.8		2146.0 <i>5</i> 2243.5 <i>5</i>	27 6 100 20	98.00 0.0	$(7/2)^+$ 9/2 <sup>+</sup>							
2269.6 2308.1 2387.1		1308.7 <i>5</i> 1285.4 <i>5</i> 969.6 <i>5</i>	100 100 100	960.9 1022.74 1417.52	$(3/2,5/2)^-$ $(5/2,7/2)^+$ $(5/2,7/2)^+$							

From ENSDF

 $^{101}_{47}\mathrm{Ag}_{54}$ -5

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# $\gamma(^{101}\text{Ag})$ (continued)

E <sub>i</sub> (level)	$\mathbf{J}_i^\pi$	$E_{\gamma}^{\dagger}$	$I_{\gamma}^{\dagger}$	$E_f$	$\mathrm{J}_f^\pi$	Mult. <sup>‡</sup>	δ
2391.4	$(5/2^+, 7/2^+)$	570.7 5	19.2	1820.70	$(5/2^+, 7/2^+)$		
		974.1 5	100	1417.52	$(5/2,7/2)^+$		
		2293.3 5	15.4	98.00	$(7/2)^+$		
		2391.2 5	15.4	0.0	9/2+		
2430.1	$(3/2^+, 5/2^+, 7/2^+)$	609.1 8	74 15	1820.70	$(5/2^+, 7/2^+)$	M1,E2	
		635.0 8	19 4	1794.9	$(3/2^+, 5/2^+, 7/2^+)$	,	
		1072.0 8	11 2	1357.3	$(3/2^+, 5/2^+, 7/2^+)$		
		1130.0 8	19 4	1300.99	$(5/2^+, 7/2^+)$		
		1408.4 10	15 <i>3</i>	1022.74	$(5/2,7/2)^+$		
		1632.4 10	100 20	797.3	$(5/2)^{-}$		
2447.6		678.2 8	100	1769.44	$17/2^{+}$		
2455.0	$(3/2^+, 5/2^+, 7/2^+)$	1098.0 5	80 16	1357.3	$(3/2^+, 5/2^+, 7/2^+)$		
		1153.8 5	100 20	1300.99	$(5/2^+, 7/2^+)$		
2621.02	$21/2^+$	604.3 <i>1</i>	100 4	2016.39	19/2+	D(+Q)	0.03 +4-6
		852.0 <i>1</i>	33 <i>3</i>	1769.44	$17/2^{+}$		
2679.8	$(3/2^+, 5/2^+, 7/2^+)$	690.0 8	36 7	1990.1	$(5/2^+, 7/2^+)$		
		1656.8 8	100 20	1022.74	$(5/2,7/2)^+$		
2787.7	$(3/2^+, 5/2^+, 7/2^+)$	728.8 5	100 20	2058.9	$(5/2^+, 7/2^+)$	M1,E2	
		1430.7 5	65 <i>13</i>	1357.3	$(3/2^+, 5/2^+, 7/2^+)$		
		1990.2 5	59 12	797.3	$(5/2)^{-}$		
2875.6	$(5/2^+, 7/2^+)$	445.3 8	58 12	2430.1	$(3/2^+, 5/2^+, 7/2^+)$		
		1853.0 5	67 <i>13</i>	1022.74	$(5/2,7/2)^+$		
		2777.1 10	100 20	98.00	$(7/2)^+$		
		2875.7 5	42 8	0.0	9/2+		
2909.1	$(3/2^+, 5/2^+, 7/2^+)$	1491.6 5	100	1417.52	$(5/2,7/2)^+$		
2921.01	$(21/2^+)$	904.6 <i>1</i>	100 20	2016.39	19/2+		
		1151.5 <i>1</i>	30 7	1769.44	17/2+		
2940.0	$(5/2^+)$	2189.7 8	16 3	750.2	$(3/2)^{-}$		
		2841.9 5	100 20	98.00	$(7/2)^+$		
<b>a</b> a 1 <b>a -</b>		2940.0 5	10.8 22	0.0	9/2+		
2943.7	$(3/2^+, 5/2^+, 7/2^+)$	1586.8 8	100 20	1357.3	$(3/2^+, 5/2^+, 7/2^+)$		
2055.00	(22/2+)	1642.4 8	67 13	1300.99	$(5/2^+, 7/2^+)$		
2955.98	$(23/2^{+})$	335.1 1	40.8 18	2621.02	21/2		
2006.2	$(210 \pm 510 \pm 710 \pm)$	939.5 I	100 22	2016.39	$19/2^{+}$		
3006.3	$(3/2^{+}, 5/2^{+}, 1/2^{+})$	1983.5 5	100	1022.74	$(5/2, 1/2)^{-1}$		
3010.20	(210 + 510 + 710 +)	995.8 1	100	2010.39	$19/2^{-1}$		
5102.5	(3/2, 3/2, 1/2)	2139.2 0	100 20	1022.74	(3/2, 1/2) $(7/2)^+$		
2197 60		1171 0 2	100	2016.20	(1/2) 10/2 <sup>+</sup>		
310/.09	21/2	1005.0.1	100	2010.39	17/2 17/2		
3209.21	(3/2+5/2+7/2+)	2/31 5 5	100	2114.33	$\frac{1}{2}$		
3220.0	(3/2, 3/2, 7/2) (3/2+5/2+7/2+)	1842.0.5	100	1/17 52	(5/2) $(5/2)$ $7/2)^+$		
3239.5	(3/2, 3/2, 1/2)	1603 92 17	100 18	1769 44	(3/2, 7/2) $17/2^+$		
5515.40		1005.72 17	100 10	1/07.44	1//2		

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# $\gamma(^{101}\text{Ag})$ (continued)

E <sub>i</sub> (level)	$\mathbf{J}_i^{\pi}$	$E_{\gamma}^{\dagger}$	$I_{\gamma}^{\dagger}$	$E_f$	$\mathbf{J}_f^{\pi}$
3380.4	$(3/2^+, 5/2^+, 7/2^+)$	950.3 5	100	2430.1	$(3/2^+, 5/2^+, 7/2^+)$
3400.4	$(3/2^+, 5/2^+, 7/2^+)$	1801.6 5	100	1598.8	$(1/2 \text{ to } 7/2)^+$
3430.4	$(3/2^+, 5/2^+, 7/2^+)$	2012.9 5	100	1417.52	$(5/2,7/2)^+$
3577.81	$(25/2^+)$	621.90 7	100 4	2955.98	$(23/2^+)$
		956.59 11	48 <i>3</i>	2621.02	$21/2^{+}$
3614.56		241.10 10	100 10	3373.46	
		1845.02 15	29 8	1769.44	17/2+
3795.86		181.35 9	100 8	3614.56	
		422.45 13	29 9	3373.46	
		586.38 15	64 9	3209.21	21/2
		1779.34 12	15.4 22	2016.39	19/2+
3800.67	23/2	591.5 <i>1</i>	100	3209.21	21/2
3869.27	$(23/2^{-})$	73.51 9	50 4	3795.86	
		681.33 9	32.1 22	3187.69	
		913.30 8	73 4	2955.98	$(23/2^+)$
		948.28 8	100 5	2921.01	$(21/2^+)$
		1247.99 11	16.4 <i>16</i>	2621.02	21/2+
4158.62	$(27/2^+)$	580.7 <i>1</i>	22 8	3577.81	$(25/2^+)$
		1202.7 <i>1</i>	100 8	2955.98	$(23/2^+)$
4216.22	$(25/2^{-})$	346.9 <i>1</i>	100 4	3869.27	$(23/2^{-})$
		415.6 <i>1</i>	18 2	3800.67	23/2
4314.13	25/2	513.4 2	100	3800.67	23/2
4571.57	$(29/2^+)$	412.9 <i>1</i>	22 3	4158.62	$(27/2^+)$
		993.8 <i>1</i>	100 8	3577.81	$(25/2^+)$
4585.5		1007.3 <i>3</i>	1.8 2	3577.81	$(25/2^+)$
4749.14	$(27/2^{-})$	434.80 16	10.6 9	4314.13	25/2
		532.83 9	100.0 23	4216.22	$(25/2^{-})$
		879.81 12	25.6 14	3869.27	$(23/2^{-})$
4789.5		630.8 <i>3</i>	100	4158.62	$(27/2^+)$
4801.13		642.40 17	100 6	4158.62	$(27/2^+)$
		1223.19 17	46 4	3577.81	$(25/2^+)$
4841.6		527.2 3	100	4314.13	25/2
5134.19	$(29/2^{-})$	384.9 <i>1</i>	100 4	4749.14	$(27/2^{-})$
		918.1 <i>I</i>	32.2	4216.22	$(25/2^{-})$
5159.6		574.4 3	100	4585.5	
5183.8		342.2 3	100	4841.6	
5299.58	$(31/2^{+})$	498.59 17	9.3 21	4801.13	$(20/2^{+})$
		/28.03 8	100 4	45/1.57	$(29/2^{+})$
5(70.2)	(21/2-)	1140.99 10	42.3	4158.62	$(21/2^{+})$
56/8.36	(31/2)	544.0 1	100.5	5134.19	(29/2)
5755 1		929.5 4	11 3	4/49.14	(27/2)
5/55.1 5076.0		954.U 3 702 1 2	100	4801.13	
39/0.9		193.1 3	9.5 24	3183.8	

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## $\gamma(^{101}\text{Ag})$ (continued)

E <sub>i</sub> (level)	$\mathbf{J}_i^{\pi}$	$E_{\gamma}^{\dagger}$	$I_{\gamma}^{\dagger}$	$E_f$	$\mathbf{J}_f^{\pi}$	$E_i$ (level)	$\mathbf{J}_i^{\pi}$	$E_{\gamma}^{\dagger}$	$I_{\gamma}^{\dagger}$	$E_f$	$\mathrm{J}_f^\pi$
5976.9		842.81 23	100 5	5134.19	$(29/2^{-})$	6917.5	$(35/2^{-})$	1239.13 14	48.4 25	5678.36	$(31/2^{-})$
		1135.3 <i>3</i>	7.1 24	4841.6		7393.5	$(37/2^{-})$	475.9 2	100 10	6917.5	$(35/2^{-})$
5984.0		684.30 <i>23</i>	100 8	5299.58	$(31/2^+)$			1196.9 <i>3</i>	54 10	6196.81	$(33/2^{-})$
		1182.90 23	32 5	4801.13		7411.0		1427.0 <i>3</i>	100	5984.0	
6196.81	$(33/2^{-})$	518.3 <i>1</i>	100 6	5678.36	$(31/2^{-})$	7810.0		1328.1 <i>3</i>	100	6481.9	
		1063.2 2	21 3	5134.19	$(29/2^{-})$	8346.1		952.9 <i>3</i>	100 10	7393.5	$(37/2^{-})$
6307.7		1008.0 <i>3</i>	100	5299.58	$(31/2^+)$			1428.79 25	35 10	6917.5	$(35/2^{-})$
6481.9		505.03 25	100	5976.9		8547.3	$(41/2^{-})$	200.9 3	19.0 24	8346.1	
6599.3		402.84 18	55 9	6196.81	$(33/2^{-})$			1153.8 2	100	7393.5	$(37/2^{-})$
		1465.21 <i>19</i>	100 9	5134.19	$(29/2^{-})$	9629.4		1082.4 <i>3</i>	100	8547.3	$(41/2^{-})$
6917.5	$(35/2^{-})$	317.95 19	3.4 8	6599.3		9635.3		1088.3 <i>3</i>	100	8547.3	$(41/2^{-})$
		435.33 25	4.2 8	6481.9		10706.3		1071.0 <i>3</i>	100	9635.3	
		720.78 12	100 4	6196.81	$(33/2^{-})$						

<sup>†</sup> Weighted average of all available data.
<sup>‡</sup> From α(K) exp in <sup>101</sup>Cd ε decay and IT decay and in-beam studies.
<sup>#</sup> 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.

#### Level Scheme



 $^{101}_{47}\mathrm{Ag}_{54}$ 

#### Level Scheme (continued)

Intensities: Relative photon branching from each level



 $^{101}_{47}\mathrm{Ag}_{54}$ 

Level Scheme (continued)



 $^{101}_{47}\mathrm{Ag}_{54}$ 

Level Scheme (continued)



 $^{101}_{47}\mathrm{Ag}_{54}$ 

Level Scheme (continued)

Intensities: Relative photon branching from each level



 $^{101}_{\ 47} Ag_{54}$ 

Level Scheme (continued)



 $^{101}_{\ 47} Ag_{54}$ 



 $^{101}_{47}\mathrm{Ag}_{54}$