

**Adopted Levels, Gammas**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Huo Junde	NDS 110,2689 (2009)	31-Mar-2007

Q( $\beta^-$ )=5.02×10<sup>3</sup> 10; S(n)=5.43×10<sup>3</sup> 10; S(p)=1.395×10<sup>4</sup> 18; Q( $\alpha$ )=-7.96×10<sup>3</sup> 10 [2012Wa38](#)

Note: Current evaluation has used the following Q record 5.02E+3 105440 1010.376e+422-7.96e+310 [2003Au03](#).

<sup>53</sup>Ti Levels

Cross Reference (XREF) Flags

A <sup>208</sup>Pb(<sup>48</sup>Ca,X $\gamma$ )

E(level) <sup>†</sup>	J $\pi$ <sup>‡</sup>	T <sub>1/2</sub>	XREF	Comments
0.0	(3/2) <sup>-</sup>	32.7 s 9	A	% $\beta^-$ =100 T <sub>1/2</sub> : from <a href="#">1977Pa01</a> . J $\pi$ : syst for N=31 nuclei, shell model, log ft<5.5 to (3/2) <sup>-</sup> and (5/2) <sup>-</sup> .
1237.06 17	(5/2) <sup>-</sup>		A	
1576.28 17	7/2 <sup>-</sup>		A	
2205.84 24	9/2 <sup>-</sup>		A	
2498.1 3	11/2 <sup>-</sup>		A	
2755.9 4	13/2 <sup>-</sup>		A	
3143.1 4	15/2 <sup>-</sup>		A	
4802.3 6	(17/2) <sup>-</sup>		A	
5729.4 6	(17/2) <sup>-</sup>		A	
6056.7 7	(21/2) <sup>-</sup>		A	
6631.0 7			A	
8131.7 9			A	

<sup>†</sup> From least-squares fit to E $\gamma$ 's.

<sup>‡</sup> Based on gg-correlation analysis and on comparisons with shell-model calculations.

$\gamma$ (<sup>53</sup>Ti)

E <sub>i</sub> (level)	J $\pi$ <sub>i</sub>	E $\gamma$	I $\gamma$	E <sub>f</sub>	J $\pi$ <sub>f</sub>
1237.06	(5/2) <sup>-</sup>	1237.1 2	100 11	0.0	(3/2) <sup>-</sup>
1576.28	7/2 <sup>-</sup>	339.4 3	33 5	1237.06	(5/2) <sup>-</sup>
		1576.2 2	100	0.0	(3/2) <sup>-</sup>
2205.84	9/2 <sup>-</sup>	629.6 2	100 6	1576.28	7/2 <sup>-</sup>
		968.6 5	10.5 23	1237.06	(5/2) <sup>-</sup>
2498.1	11/2 <sup>-</sup>	292.3 2	100 6	2205.84	9/2 <sup>-</sup>
		921.8 4	17 3	1576.28	7/2 <sup>-</sup>
2755.9	13/2 <sup>-</sup>	257.8 2	100	2498.1	11/2 <sup>-</sup>
3143.1	15/2 <sup>-</sup>	387.2 2	100	2755.9	13/2 <sup>-</sup>
4802.3	(17/2) <sup>-</sup>	1659.2 4	100	3143.1	15/2 <sup>-</sup>
5729.4	(17/2) <sup>-</sup>	2586.1 5	100	3143.1	15/2 <sup>-</sup>
6056.7	(21/2) <sup>-</sup>	1254.4 4	100 12	4802.3	(17/2) <sup>-</sup>
6631.0		574.4 6	20 5	6056.7	(21/2) <sup>-</sup>
		901.6 4	100 20	5729.4	(17/2) <sup>-</sup>
		1828 <sup>†</sup>		4802.3	(17/2) <sup>-</sup>
8131.7		1500.7 6	100	6631.0	

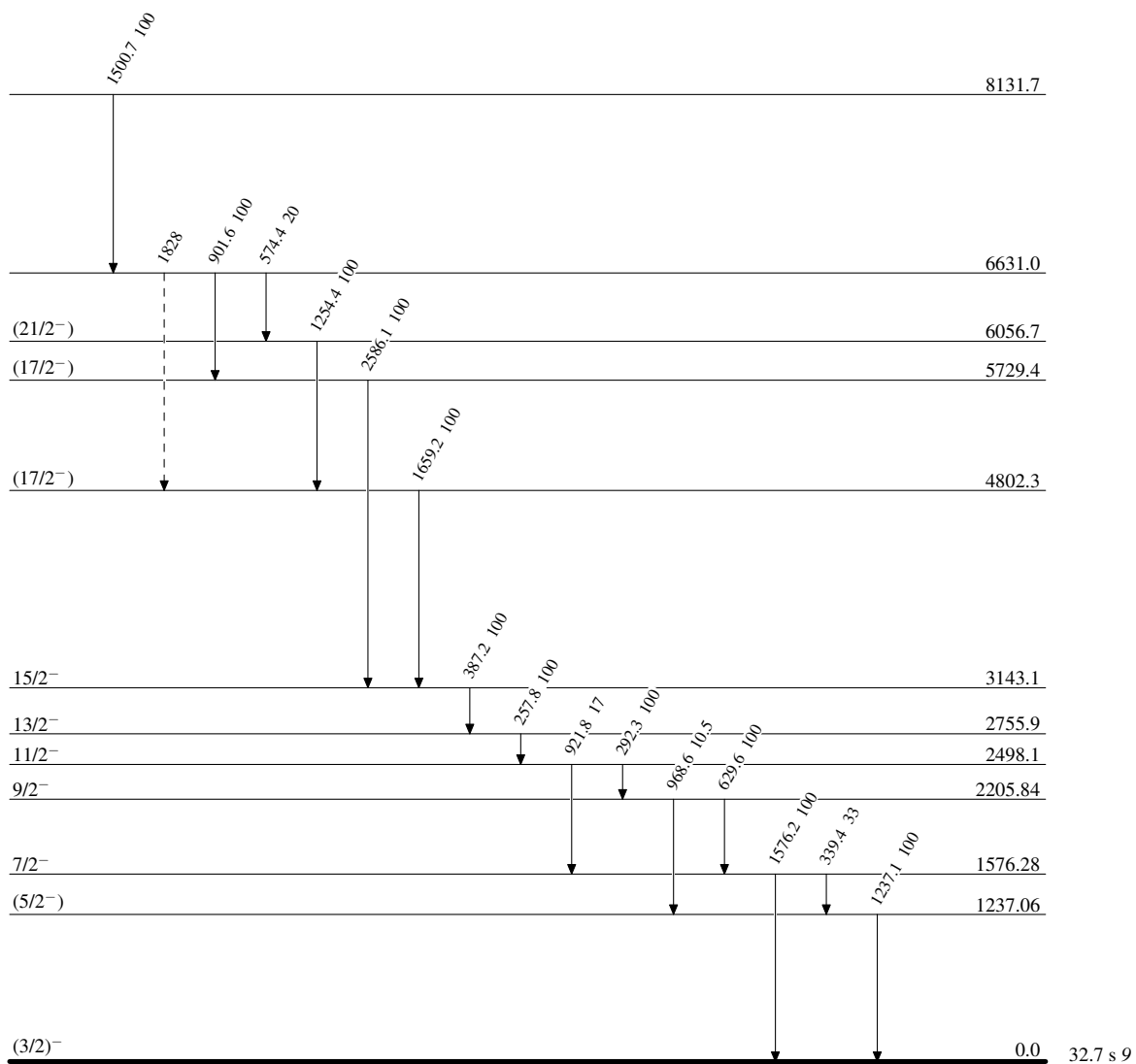
<sup>†</sup> Placement of transition in the level scheme is uncertain.

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Legend

Level Scheme

Intensities: Relative photon branching from each level

-----▶  $\gamma$  Decay (Uncertain) $^{53}_{22}\text{Ti}_{31}$ 

32.7 s 9