

$^{198}\text{Pt}(\text{HI},\text{pxng})$  2002Lu04

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	C. J. Chiara and F. G. Kondev		NDS 111,141 (2010)	1-Oct-2009

**2002Lu04:**  $^{198}\text{Pt}(^{10}\text{B},\text{p}3\text{n}\gamma),(^{11}\text{B},\text{p}4\text{n}\gamma)$  reactions; 1-mg/cm<sup>2</sup>  $^{198}\text{Pt}$  target enriched to 98%; beam energies E=55 to 90 MeV;  $\gamma$ 's with  $E_{\gamma}<4$  MeV detected with GASP spectrometer comprising 38 Compton-suppressed HPGe detectors and 80-element BGO inner ball; higher-E  $\gamma$ 's detected with two large-volume cylindrical BGO detectors,  $\gamma$ 's and N's discriminated by time of flight; charged particles detected with  $4\pi$  ISIS array of 40  $\Delta E$ -E Si telescopes, 130 and 1000  $\mu\text{m}$  thicknesses, respectively, Si at  $\approx 34^{\circ}$  backed with 5-mm CsI(Tl); proton detection efficiency  $\approx 70\%$ ; part- $\gamma\gamma$  and  $\gamma\gamma\gamma$  coin, both also requiring 3 inner-ball  $\gamma$ 's.

 $^{204}\text{Pb}$  Levels

E(level) <sup>†</sup>	J $\pi$	Comments
0	0 <sup>+</sup>	
2187.7 10		
3191.68 17		<a href="#">Additional information 1.</a> E(level): Fixed from Adopted Levels.
3515.7 10		
4132.7 15		
4299.7 18		
5346.4 18		
5662.3 18		
6094.3 21		

<sup>†</sup> From a least-squares fit to  $E_{\gamma}$ . The energies deviate with increasing E from those in the Adopted Levels—see  $E_{\gamma}$  footnote below.

 $\gamma(^{204}\text{Pb})$ 

The most intense  $\gamma$ 's coincident with E>7-MeV protons in the reactions with 60-MeV  $^{10}\text{B}$  or 75-MeV  $^{11}\text{B}$  beams on  $^{198}\text{Pt}$  are these, from  $^{204}\text{Pb}$ . **2002Lu04** identified five  $\gamma$ 's, including the 432 $\gamma$ , but did not place the  $\gamma$ 's in a level scheme; evaluators have arranged the  $\gamma$ 's according to the adopted decay scheme. The  $\gamma$ 's and levels connecting the 432 $\gamma$  to the remaining four  $\gamma$ 's identified in **2002Lu04** have been added by the evaluators.

$E_{\gamma}$ <sup>†</sup>	$E_i(\text{level})$	$E_f$	Comments
167 1	4299.7	4132.7	
(315.9 2)	5662.3	5346.4	$E_{\gamma}$ : Not labelled as such in <b>2002Lu04</b> , but is presumably the prominent peak to the left of the 324 $\gamma$ in Fig.2 of <b>2002Lu04</b> . $E_{\gamma}$ taken from adopted $\gamma$ 's.
324 1	3515.7	3191.68	
432 1	6094.3	5662.3	
617 1	4132.7	3515.7	
1004 1	3191.68	2187.7	
(1046.7 2)	5346.4	4299.7	$E_{\gamma}$ : Not labelled as such in <b>2002Lu04</b> , but is presumably the prominent peak to the right of the 1004 $\gamma$ in Fig.2 of <b>2002Lu04</b> . $E_{\gamma}$ taken from adopted gammas.

<sup>†</sup> From **2002Lu04**, except as noted.  $\Delta E$  was not given in **2002Lu04** and is estimated by evaluator. Only a statistical uncertainty is given; the  $E_{\gamma}$ 's are systematically 1-2 keV lower than the adopted  $E_{\gamma}$ 's, resulting in a cumulative several-keV discrepancy for the highest level energies.

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Legend

Level Scheme-----▶  $\gamma$  Decay (Uncertain)