

$^{237}\text{Np}(^{209}\text{Bi}, ^{210}\text{Pb}\gamma)$  2004Ab16,2002AbZV

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Shaofei Zhu	NDS 182, 2 (2022).	1-Apr-2022

One proton transfer and two-neutron pickup channel.

2002AbZV,2004Ab16: High-spin states in  $^{236}\text{Pu}$  were populated by  $^{237}\text{Np}(^{209}\text{Bi}, ^{210}\text{Pb}\gamma)$  reaction with a  $^{209}\text{Bi}$  beam at E=1450 MeV at ATLAS. Measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$  using Gammasphere with 101 Compton-suppressed Ge detectors.

 $^{236}\text{Pu}$  Levels

E(level) <sup>†</sup>	J <sup>π</sup> #	E(level) <sup>†</sup>	J <sup>π</sup> #	E(level) <sup>†</sup>	J <sup>π</sup> #
0.0 <sup>‡</sup>	0 <sup>+</sup>	516.4 <sup>‡</sup> 7	8 <sup>+</sup>	1783.9 <sup>‡</sup> 12	16 <sup>+</sup>
44.63 <sup>‡</sup> 10	2 <sup>+</sup>	773.7 <sup>‡</sup> 9	10 <sup>+</sup>	2185.9 <sup>‡</sup> 13	18 <sup>+</sup>
147.45 <sup>‡</sup> 10	4 <sup>+</sup>	1073.7 <sup>‡</sup> 10	12 <sup>+</sup>	2613.6 <sup>‡</sup> 14	20 <sup>+</sup>
306.3 <sup>‡</sup> 5	6 <sup>+</sup>	1411.7 <sup>‡</sup> 11	14 <sup>+</sup>	3061.6 <sup>‡</sup> 15	22 <sup>+</sup>
				3527.5 <sup>‡</sup> 16	24 <sup>+</sup>

<sup>†</sup> From  $E\gamma$ .

<sup>‡</sup> Band(A): g.s. band.

# From g.s. band assignment (2002AbZV,2004Ab16).

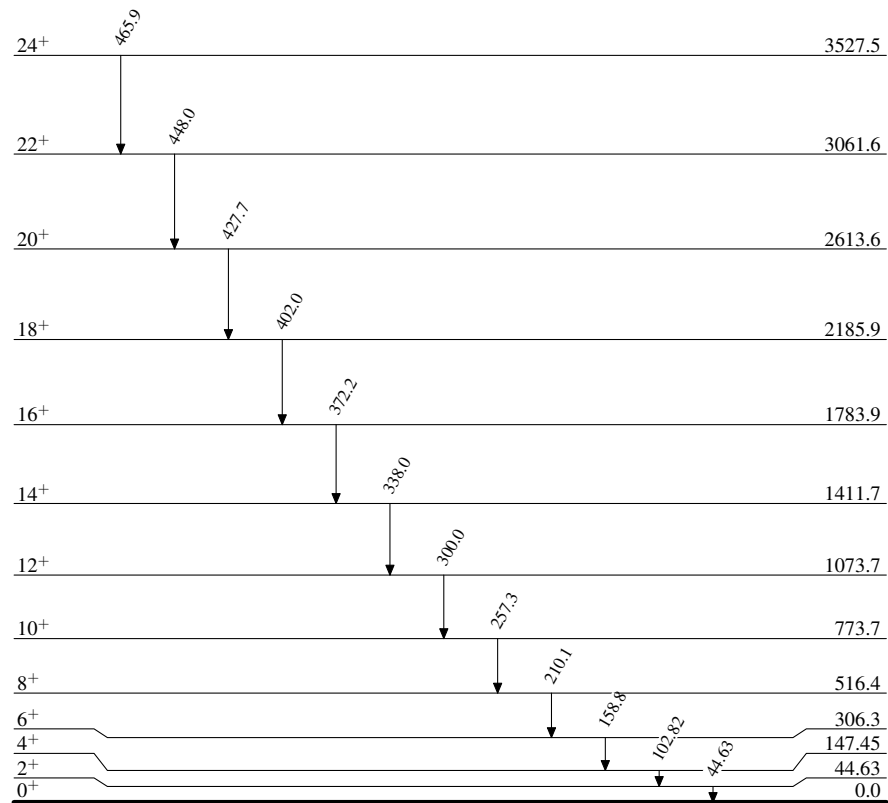
 $\gamma(^{236}\text{Pu})$ 

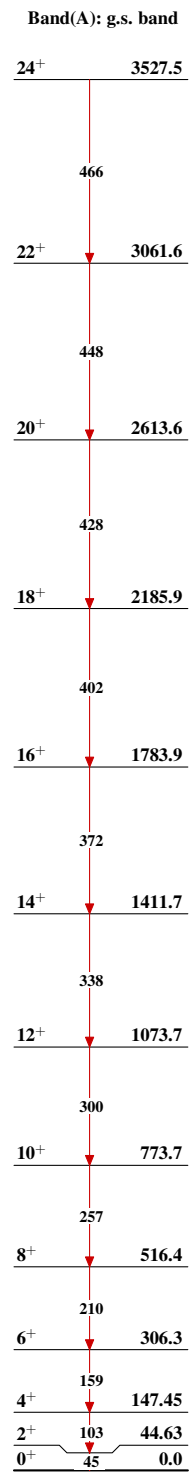
$E\gamma$ <sup>†</sup>	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	Comments
44.63 10	44.63	2 <sup>+</sup>	0.0	0 <sup>+</sup>	$E\gamma$ : from the Adopted Gammas.
102.82 2	147.45	4 <sup>+</sup>	44.63	2 <sup>+</sup>	$E\gamma$ : from the Adopted Gammas.
158.8 5	306.3	6 <sup>+</sup>	147.45	4 <sup>+</sup>	
210.1 5	516.4	8 <sup>+</sup>	306.3	6 <sup>+</sup>	
257.3 5	773.7	10 <sup>+</sup>	516.4	8 <sup>+</sup>	
300.0 5	1073.7	12 <sup>+</sup>	773.7	10 <sup>+</sup>	
338.0 5	1411.7	14 <sup>+</sup>	1073.7	12 <sup>+</sup>	
372.2 5	1783.9	16 <sup>+</sup>	1411.7	14 <sup>+</sup>	
402.0 5	2185.9	18 <sup>+</sup>	1783.9	16 <sup>+</sup>	
427.7 5	2613.6	20 <sup>+</sup>	2185.9	18 <sup>+</sup>	
448.0 5	3061.6	22 <sup>+</sup>	2613.6	20 <sup>+</sup>	
465.9 5	3527.5	24 <sup>+</sup>	3061.6	22 <sup>+</sup>	

<sup>†</sup> From 2004Ab16 applying their general statement that uncertainties are within 0.5 keV.

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## Level Scheme

 $^{236}_{94}\text{Pu}_{142}$

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