

$^{240}\text{Pu}(n,\gamma)$  E=res 1975ThZN

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja	NDS 130, 183 (2015)	30-Sep-2015

1975ThZN:  $^{240}\text{Pu}$  was bombarded with neutron at the Harwell 45 MeV Linac. Spectra of  $\gamma$  rays in the energy range 2.5 MeV to 5 MeV were taken for 17 resonances below 300 eV, and for several averaged regions up to 2 keV using a 40 cm<sup>2</sup> GeLi detector. Intensities are given for transitions seen in the energy intervals E(n)=735-845 eV, 1300-1480 eV, and 1840-2170 eV. The authors state that these intensities are somewhat uncertain and they are not given here.

 $^{241}\text{Pu}$  Levels

E(level) <sup>†</sup>	J <sup><math>\pi</math></sup> <sup>a</sup>	E(level) <sup>†</sup>	J <sup><math>\pi</math></sup> <sup>a</sup>	E(level) <sup>†</sup>	J <sup><math>\pi</math></sup> <sup>a</sup>	E(level) <sup>†</sup>	J <sup><math>\pi</math></sup> <sup>a</sup>
161	1/2 <sup>+</sup>	770	1/2 <sup>-</sup>	999	3/2 <sup>-</sup>	1196 <sup>&amp;</sup>	(1/2,3/2)
337 <sup>‡</sup> <sup>&amp;</sup>	1/2,3/2	779 <sup>&amp;</sup>	3/2 <sup>-</sup>	1016 <sup>&amp;</sup>	(1/2,3/2)	2199 <sup>‡</sup> <sup>#</sup> <sup>&amp;</sup>	(1/2,3/2)
376 <sup>#</sup> <sup>@</sup> <sup>&amp;</sup>	1/2,3/2	797 <sup>‡</sup> <sup>&amp;</sup>	3/2 <sup>+</sup>	1049 <sup>#</sup> <sup>&amp;</sup>	(1/2,3/2)	(5241 4)	
473 <sup>&amp;</sup>	(1/2,3/2)	852 <sup>#</sup> <sup>@</sup>	3/2 <sup>-</sup>	1073 <sup>&amp;</sup>	(1/2,3/2)		
681 <sup>@</sup> <sup>&amp;</sup>	(1/2,3/2)	941 <sup>#</sup>	3/2 <sup>+</sup>	1091	3/2 <sup>-</sup>		
755 <sup>‡</sup>	1/2 <sup>+</sup>	967	1/2 <sup>-</sup>	1173 <sup>&amp;</sup>	(1/2,3/2)		

<sup>†</sup> Except where noted otherwise, the levels are those populated directly in decay of the resonances below 300 keV. They are deduced by the authors by assuming that the highest-energy transition, E $\gamma$ =5080, populates the 161 level.

<sup>‡</sup> Populated by primary from E(n)=735-845 eV resonance region.

<sup>#</sup> Populated by primary from E(n)=1300-1480 eV resonance region.

<sup>@</sup> Populated by primary from E(n)=1840-2170 eV resonance region.

<sup>&</sup> Not populated by primary from E(n)<300 eV resonance region.

<sup>a</sup> From Adopted Levels.