

$^{161}\text{Dy}(\text{p},\alpha)$  1989Bu03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 141, 1 (2017)	1-Feb-2017

$J^\pi(^{161}\text{Dy})=5/2^+$ .

(p, $\alpha$ ) reaction with E(p)=17 MeV, measured  $\alpha(\theta)$  in magnetic spectrograph with FWHM  $\approx 16$  keV (1989Bu03). Other: 1984Bu30.

 $^{158}\text{Tb}$  Levels

E(level) <sup>†</sup>	$J^\pi$ <sup>‡</sup>	$d\sigma/d\omega(\mu\text{b/sr})$ <sup>#</sup>	E(level) <sup>†</sup>	$J^\pi$ <sup>‡</sup>	$d\sigma/d\omega(\mu\text{b/sr})$ <sup>#</sup>
55	4 <sup>+</sup>	3.8	665	7 <sup>-</sup>	2.2
127	5 <sup>+</sup>	3.2	693		0.6
180	1 <sup>+</sup>	1.2	737	(4 <sup>-</sup> )	2.0
208	2 <sup>+</sup> & 6 <sup>+</sup>	2.8	759	8 <sup>-</sup>	0.9
240	3 <sup>+</sup>	2.2	780	(3 <sup>-</sup> )	0.4
298	4 <sup>+</sup>	1.5	805		0.9
322	7 <sup>+</sup>	0.3	837		0.3
362	5 <sup>+</sup>	0.6	859		0.5
445	8 <sup>+</sup> & 6 <sup>+</sup>	0.4	879	(6 <sup>-</sup> )	0.6
484		0.5	891	(5 <sup>-</sup> )	1.0
501	5 <sup>-</sup>	1.1	916		0.7
536		0.2	943		0.5
556		0.1	963		0.3
587	6 <sup>-</sup>	2.0	998		0.9
613		0.9	1138		1.1
$\approx 650$		0.4			

<sup>†</sup> Energies are reported relative to the 55-keV level.

<sup>‡</sup>  $J^\pi$  and band assignments are from authors (1989Bu03) and are based on the characteristic pattern of cross sections among rotational-band members ("fingerprint") based on Nilsson configurations, and on angular distributions and comparison of measured calculated cross sections for (d,t), ( $^3\text{He},\alpha$ ), and (p, $\alpha$ ) reactions. See  $^{158}\text{Tb}$  Adopted Levels for band assignments and configurations.

<sup>#</sup> Cross section for (p, $\alpha$ ) reaction at 15°.