

<sup>164</sup>Dy(d,d') 1968Gr08

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen <sup>#</sup>		NDS 147, 1 (2018)	30-Nov-2017

E=12 MeV.

1968Gr08 (also 1966El07): E=12 MeV. Measured  $\sigma(\theta)$  at 90° and 125°. FWHM=8 keV.

1969Ch09: (d,d) E=12 MeV. Measured  $\sigma(\theta)$ .

<sup>164</sup>Dy Levels

E(level)	J <sup>π</sup> <sup>†</sup>	dσ/dΩ (μb/sr) (125°) <sup>‡</sup>	Comments
0	0 <sup>+</sup>	10650	$\sigma(90^\circ)/\sigma(125^\circ)=4.79$ .
73	2 <sup>+</sup>	2830	$\sigma(90^\circ)/\sigma(125^\circ)=2.12$ .
242	4 <sup>+</sup>	91	$\beta_4 \approx 0.09$ (1966El07). $\sigma(90^\circ)/\sigma(125^\circ)=1.28$ .
499	6 <sup>+</sup>	20	$\sigma(90^\circ)/\sigma(125^\circ)=0.75$ .
761	2 <sup>+</sup>	31	B(E2)↑=0.114 $\sigma(90^\circ)/\sigma(125^\circ)=3.29$ .
914	4 <sup>+</sup>	45	$\sigma(90^\circ)/\sigma(125^\circ)=0.98$ .
1037	3 <sup>-</sup>	57	B(E3)↑=0.065 $\sigma(90^\circ)/\sigma(125^\circ)=1.61$ .
1150	(6 <sup>+</sup> )	2	$\sigma(90^\circ)/\sigma(125^\circ)=0.71$ .
1166		1	$\sigma(90^\circ)/\sigma(125^\circ)=1.67$ .
1222		5	
1397		2	
1668		3	
1753	(3 <sup>-</sup> )	39 <sup>#</sup>	B(E3)↑=0.032
1791		2	$\sigma(90^\circ)/\sigma(125^\circ)=1.81$ .
1886		2	
1906		4	$\sigma(90^\circ)/\sigma(125^\circ)=0.77$ .
2046		5 <sup>#</sup>	
2150	(3 <sup>-</sup> )	8	B(E3)↑=0.009 $\sigma(90^\circ)/\sigma(125^\circ)=1.26$ .
2194		3	$\sigma(90^\circ)/\sigma(125^\circ)=1.73$ .
2206		2	$\sigma(90^\circ)/\sigma(125^\circ)=2.48$ .
2235	(3 <sup>-</sup> )	13	B(E3)↑=0.016 $\sigma(90^\circ)/\sigma(125^\circ)=1.19$ .
2245		3	$\sigma(90^\circ)/\sigma(125^\circ)=2.90$ .
2262		18	$\sigma(90^\circ)/\sigma(125^\circ)=1.05$ .
2278		14	$\sigma(90^\circ)/\sigma(125^\circ)=1.86$ .
2302		4	$\sigma(90^\circ)/\sigma(125^\circ)=1.53$ .

<sup>†</sup> From R= $\sigma(90^\circ)/\sigma(125^\circ)$  ratios (1968Gr08). R≈2.1 for E2,≈1.4 for E3 and <1 for multiple excitations.

<sup>‡</sup> Values are also listed by 1968Gr08 at 90°.

<sup>#</sup> Value at 90°. Line is either obscured or not seen at 125°.