

$^{163}\text{Dy}(t,p)$ 2005Bu07

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen		NDS 194,460 (2024)	31-Oct-2022

Target $J^\pi=5/2^-$.

2005Bu07: E=17 MeV triton beam was produced from the McMaster Tandem Van de Graaff accelerator. Target was 96.85% enriched ^{163}Dy with a thickness of about $170 \mu\text{g}/\text{cm}^2$. Reaction products were momentum-analyzed with an Enge split-pole magnetic spectrograph (FWHM \approx 15 keV) and detected with photographic plates. Measured $\sigma(E,\theta)$, $\theta=6^\circ-67.5^\circ$. Deduced levels, J, π , L-transfers from DWBA analysis. Comparisons with available data.

 ^{165}Dy Levels

<u>E(level)[†]</u>	<u>L[#]</u>	<u>dσ/dΩ ($\mu\text{b}/\text{sr}$)[@]</u>	<u>E(level)[†]</u>	<u>L[#]</u>	<u>dσ/dΩ ($\mu\text{b}/\text{sr}$)[@]</u>	<u>E(level)[†]</u>	<u>L[#]</u>	<u>dσ/dΩ ($\mu\text{b}/\text{sr}$)[@]</u>
108 2		1.1 4	608 1	(2)	11 1	1257 2		4.9& 8
183‡ 2	(0)	5.3 7	657 2		2.5 5	1307 2		5.7& 8
294 2		1.7 5	701 1	(2)	5.6 8	1381 3		2.5 5
360 2		0.8 4	737 2		4 1	1654 3	0	17 2
533.5	0	136 4	1195 2	0	5.2& 7			

[†] Relative to 533.5 keV energy taken from the literature (1990Ka21).

[‡] Composite of two $5/2^-$ levels at 180.9+184.2 (see Adopted Levels).

[#] From DWBA analysis of measured $\sigma(\theta)$ (2005Bu07).

[@] At 30° , unless otherwise stated. Uncertainty is statistical, $\approx 15\%$ uncertainty in absolute normalization is not included.

[&] At 22.5° . The peak at 30° is obscured by an impurity.