^{164}Dy(p,p′),(pol p,p′) 1966Sh05,1987Ic04

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen[#]	NDS 147, 1 (2018)	30-Nov-2017

Includes (p,p′γ) from 1959Bi10 and 1967Ku07.
1989Fr03: (p,p′) E=200 MeV. Measured $\sigma(\theta)$. Deduced B(M1) for 1^+ states near 2.6 MeV and 3.14 MeV. FWHM=90 keV.
1987Ic04 (also 1988Ic02,1986Ic02,1983Oh02): (pol p,p′) E=65 MeV. Measured $\sigma(\theta)$ and Ay(θ) for 2^+ and 4^+ states of γ-vibrational band.
1985Dj02: (p,p′) E=201 MeV. Measured $\sigma(\theta)$. Deduced B(M1) for 1^+ states. FWHM=60 keV.
1964Sh06 (also 1966Sh05): (p,p′) E=12.5 MeV. Measured $\sigma(\theta)$ at 90° and 133°.
1960El07: (p,p′) E=4.5 MeV.
1967Ku07, 1959Bi10: (p,p′γ), measured lifetime of first 2^+ state with delayed coin technique.

^{164}Dy Levels

B(M1) given here refers to only the spin part (not the orbital part) of the isovector magnetic dipole transition strength.
B(M1)(summed over all states up to 3140)=1.22 *10* (1989Fr03).

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$	Comments
0	0^+		
72 *2*	2^+	2.39 ns *4*	B(E2)↑=6.19 *23* (1987Ic04) β_2=0.282 *5* (1987Ic04). $T_{1/2}$: from pγ(t) (1967Ku07). Other: 2.43 ns *24* (1959Bi10).
240 *2*	4^+		B(E4)↑=0.100 *21* (1987Ic04) β_4=0.016 *8* (1987Ic04).
503 *3*	6^+		B(E6)↑<0.0002 (1987Ic04) β_6=−0.009 (1987Ic04).
761 *2*	2^+		B(E2)↑=0.1120 *67* (1987Ic04)
919 *3*	4^+		B(E4)↑=0.0293 *27* (1987Ic04)
976 *4*			
1040 *4*			
1229			
2530	1^+		B(M1)↑=0.38 *5* (1989Fr03)
2666	1^+		B(M1)↑=0.34 *5* (1989Fr03)
3140	1^+		B(M1)↑=0.50 *7* (1989Fr03) Other B(M1): <0.31 (1985Dj02) for the unresolved group of three states of $J^\pi=1^+$ at 3111, 3160 and 3170. [B(M1)(orbital)/B(M1)(spin)]$^{1/2}$=1.8 to 2.3 or 3.4 to 4.3 (1985Dj02).
4600	1^+		B(M1)↑=0.27 *4* (1989Fr03)

[†] From 1966Sh05.
[‡] From Adopted Levels.