^{70}Zn(p,p′),(pol p,p′) 1987Ja05,1993Mo15

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	G. Gürdal, E. A. Mccutchan	NDS 136, 1 (2016)	1-Jul-2016

1993Mo15: E(pol p)=20.4 MeV. Measured $\sigma(\theta)$ and analyzing power using cooled surface-barrier detectors (FWHM=35 keV); DWBA analysis.

1987Ja05: E(p)=22 MeV. Measured $\sigma(\theta)$ for θ=10° to 50° in 2.5° steps, θ=50° to 80° in 5° steps and θ=80° to 110° in 10 steps using a split-pole magnetic spectrograph and high resolution position sensitive proportional counter (FWHM=24 keV); DWBA and coupled channel analysis.

1968Le23: E(p)=50 MeV. No experimental details provided; DWBA and strong coupling approximation analysis.

1967Ca15,1967Ca19: E(p)=49.08 MeV. Measured $\sigma(\theta)$ using acoustic spark chamber and scintillator telescope; DWBA analysis.

Others: (p,p′) :1992Ke07, 1982Za06, 1980Fa07, 1977Lu01, 1976Kr16, 1973An28; (pol p,p′): 1985MaZO.

^{70}Zn Levels

E(level)[†]	L[‡]	dσ/dΩ (76°)[#]	Comments
0	0		
886 *5*	2	0.339	β_2: 0.20 (1993Mo15), 0.229 (1968Le23), 0.240 *17* (1987Ja05). J$^\pi$: analyzing power consistent with $J^\pi=2^+$ (1993Mo15).
1554[@] *5*	(1)+2	0.015	E(level): other: 1560 *20* (1967Ca15).
1764 *5*		0.083	E(level): other: 1760 *20* (1967Ca15).
1790 *5*			
1960 *5*	2	0.026	E(level): other: 1950 *20* (1967Ca15).
2150 *5*			
2375 *5*	2		
2536 *5*	(0)		
2665 *5*	2		
2694 *5*	4		
2805 *5*			
2863 *5*	3	0.430	β_3: 0.20 (1993Mo15), 0.216 (1968Le23), 0.210 *15* (1987Ja05). J$^\pi$: analyzing power consistent with 3^- (1993Mo15). E(level): other: 2870 *20* (1967Ca15).
2954 *5*	(1)		
2975 *5*	4		
3042 *5*	5		
3235 *5*	4		
3328 *5*	(0)	0.062	E(level): other: 3320 *20* (1967Ca15).
3419 *5*	3		
3464 *5*	4	0.052	E(level): other: 3460 *20* (1967Ca15).
3506 *5*	5		
3635 *5*	2		
3680 *5*			
3712 *5*	2	0.060	E(level): other: 3710 *25* (1967Ca15).
3750 *5*	(1)		
3813[@] *5*	(1)+4		
3844 *5*	(1)		
3888 *5*	4		
3948 *5*	(1)		
4016 *10*	4	0.033	E(level): other: 4010 *30* (1967Ca15).
4066 *10*	4		
4136 *10*	2		
4172 *10*	5		
4284 *10*	2		
4309 *10*			
4367 *10*	4		
4444 *10*	4		

Continued on next page (footnotes at end of table)

^{70}Zn(p,p′),(pol p,p′) 1987Ja05,1993Mo15 (continued)

^{70}Zn Levels (continued)

† From 1987Ja05.
‡ From DWBA analysis in 1987Ja05.
# From 1967Ca15 in units of mb/sr.
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