^{36}Ar(p,p′) 1968Jo14,2001Sc01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Ninel Nica, John Cameron and Balraj Singh	NDS 113, 1 (2012)	31-Dec-2011

Includes P(^{36}Ar,P′) reaction.
1968Jo14: E=24.85 MeV; measured $\sigma(\theta,E(P'))$, DWBA, deformation parameters.
2001Sc01: inverse kinematics E=1188 MeV; same As previous paper plus microscopic coupled channels calculations.

^{36}Ar Levels

All data from 1968Jo14, unless noted otherwise.

E(level)	J^{π} †	L †	Comments
0.0	0^+	0	L,J^{π}: from 2001Sc01.
1930 *20*	2^+	2	β_2=0.36 *4* (2001Sc01) also β_2=0.36 (1968Jo14). E(level): also 1980 *60* (2001Sc01). L,J^{π}: from 2001Sc01.
4160 *20*	3^-	3	β_2=0.56 (1968Jo14)
4410 *20*	$(4^+,3^-)$	(4,3)	β_2=0.29 (1968Jo14) β_2=0.29 for J=4^+; β_2=0.27 for J=3^-.
4970 *20*	(2^+)	(2)	β_2=0.10 (1968Jo14) possible 4970+4990 doublet.
5180 *20*	(4^+)	(4)	β_2=0.24 (1968Jo14)
5870 *20*	(2^+)	(2)	β_2=0.18 (1968Jo14)
6230 *20*	(3^-)	(3)	β_2=0.09 (1968Jo14)
6400 *20*	(1^-)	(1)	β_2=0.06 (1968Jo14)
6850 *20*			
7270 *20*			
7500 *20*			
7740 *20*			
7940 *20*			
8390 *20*			
8560 *20*			
8770 *20*			
9220 *20*			

† Based on $\sigma(\theta)$ and DWBA analysis (J=L $\pi=-1^L$).