^{152}Sm(p,α) 1978Sh17

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 185, 2 (2022)	23-Aug-2022

1978Sh17: E(p)=17 MeV from the McMaster University FN Tandem. Measured $\sigma(\theta)$ at three angles. FWHM=16 keV. Reaction mechanism discussed.
Others (dealing with reaction mechanism):
1985Bo52 (E=18 MeV), 1976SnZZ (E=17 MeV), 1974Mi04 (E=18 MeV), 1977Ba79 (theory).

^{149}Pm Levels

E(level)[†]	J$^\pi$	σ(exp)/σ(theory)	Comments
0	7/2$^+$[‡]	0.29	dσ/dΩ(45°)=3.1 μb/sr.
115	5/2$^+$[‡]	1.69	dσ/dΩ(45°)=4.1 μb/sr.
188			
210			
241	11/2$^-$[‡]	5.21	dσ/dΩ(45°)=8.2 μb/sr.
272			
360			
390			
420			
513			
556			
660			
725			
756			
795			
881			
909			
950			

[†] Values given here are from (t,α) and correspond to common peaks seen in (p,α) and (t,α) work as shown in figure 2 by 1978Sh17. The (p,α) spectrum contains many peaks above 1 MeV but it is difficult to compare these with levels known from (t,α) work. The uncertainty is probably 8 keV.
[‡] Single proton hole state. The g.s. is from $g_{7/2}$, 114 from $d_{5/2}$ and 240 from $h_{11/2}$ shells. The assignments are the same in the Adopted Levels.