^{148}Nd(t,α) 1990Zy01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	N. Nica and B. Singh	NDS 181, 1 (2022)	9-Mar-2022

1990Zy01: E=35.32, 37.32 MeV. Measured $\sigma(\theta)$ and deduced relative nuclear structure factors and calculated deformed Woods-Saxon proton single particle levels and configurations.

^{147}Pr Levels

E(level)[†]	J$^{\pi}$[‡]	dσ/dΩ (μb/sr)	L	Comments
28 *20*	7/2$^+$	2156 *129*	4	configuration: 3/2$^+$[404].
88 *23*	5/2$^+$	880 *139*	2	configuration: 1/2$^+$[420] or 3/2$^+$[411].
154 *23*		158 *82*		
253 *13*		89 *20*		
380 *9*	11/2$^-$	1000 *49*	5	configuration: 1/2$^-$[550].
461 *15*		254 *40*		
556 *21*				
653 *20*		131 *40*		
716 *10*	5/2$^+$	404 *109*	2	configuration: 5/2$^+$[413] or 5/2$^+$[402].
795 *11*	7/2$^+$	722 *109*	4	configuration: 5/2$^+$[413].

[†] According to 1993Ma39 the excited level energies of 1990Zy01 do not start with ^{147}Pr g.s. as considered by 1990Zy01 but with the second excited state situated at 28 keV. Consequently shown here are the values given in Table 5 of 1990Zy01 plus 28 keV, which are in relatively good agreement with the values of 1993Ma39 (^{147}Ce β^- decay dataset).

[‡] From 1990Zy01 from the L values deduced from $\sigma(\theta)$ measurements.