^{42}Ca(d,t) 1969Yn01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja, E. A. Mccutchan	NDS 133, 1 (2016)	30-Sep-2015

1969Yn01: E(d)=21.4 MeV from Argonne cyclotron. Scattered particles detected with a (dE/dx)-E telescope of surface barrier detectors with FWHM=70-130 keV. Measured $\sigma(\theta)$. Extracted spectroscopic factors from DWBA analysis code JULIE.

^{41}Ca Levels

E(level)	J^π	L	C^2S	Comments
0	$7/2^-$	3	2	
1940 *40*	$3/2^-$	1	0.3	
2010 *40*	$3/2^+$	2	2.4	
2470 *40*			>0.015	L: 1969Yn01 list L=1 in Table II, but no $\sigma(\theta)$ distribution is shown in Figure 4 of their paper. This level is populated weakly in (d,t).
2670 *40*	$1/2^+$	0	0.46	
2970 *40*	$(1/2^+)$	0,(3)	0.026	J^π,L,C^2S: This level could be fitted with L=3 with $J^\pi=(5/2^-,7/2^-)$ and C^2S= 0.13. $J^\pi=7/2^-$ in (p,t) and (^{3}He,$\alpha\gamma$).
3450 *40*	$1/2^+$	0	0.12	E(level): from Figure 4 and text of 1969Yn01. 3410 in Table II.
3520 *40*	$(5/2^+)$	2	0.30	C^2S: for 1d3/2 orbital.
3740 *40*	$(3/2^+)$		>0.1	L: 1969Yn01 list L=2 in Table II, but no $\sigma(\theta)$ distribution is shown in figure 4 of their paper. The authors state that this state was not excited with sufficient intensity to extract a reliable $\sigma(\theta)$.
3840 *40*	$1/2^+$	0	0.12	
3920 *40*	$(1/2^+)$	0	0.12	
4150 *40*	$(5/2^+)$	2	0.46	C^2S: for 1d5/2 orbital.