^{124}Sn(d,^{3}He) 1971We01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 174, 1 (2021)	15-Apr-2021

1971We01: E=28.9 MeV deuteron beam was produced from the University of Michigan 83-inch isochronous cyclotron. Targets were 94.7% enriched ^{124}Sn. Reaction products were momentum-analyzed with one of three available magnets in the high-resolution magnetic-analysis system (FWHM=40 keV). Measured $\sigma(\theta)$ from θ(c.m.)=0° to 60°. Deduced levels, J, π, L-transfers, spectroscopic factors from DWBA analysis. Uncertainty in absolute cross section is 15%.

Others:

2004Su04: E=503 MeV. Measured $\sigma(\theta)$. Deduced energies and widths for deeply-bound pionic states in ^{123}Sn.

1969Co03: E=22 MeV. Only Q-value is reported.

^{123}In Levels

Spectroscopic factor C^2S is obtained from $d\sigma/d\Omega(exp)=2.95\times C^2S\times d\sigma/d\Omega(DWBA)$ in 1971We01.

E(level)	J^π †	L ‡	C^2S ‡
0.0	$9/2^+$	4	7.2
320 *6*	$1/2^-$	1	1.4
660 *13*	$3/2^-$	1	1.7
1010 *20*			
1100 *20*			
1500 *30*	$9/2^+$	4	2.5
1550 *30*			

† Assumed spin-parities from L+1/2 or L-1/2 transfers for deduction of C^2S values (1971We01).

‡ From DWBA analysis (1971We01). Quoted values of C^2S are deduced for assumed spin-parities from L+1/2 or L-1/2 transfers (1971We01).