

${}^{50}\text{Ti}(\text{d}, {}^3\text{He})$ 1979Do12

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. W. Burrows ^a	NDS 109, 1879 (2008)	14-Jul-2008

E=52 MeV. Measured $\sigma(\theta)$; Si telescope. FWHM=100-115 keV. DWBA. Others: see [1995Bu23](#).

 ${}^{49}\text{Sc}$ Levels

E(level)	J^π [†]	L	C^2S [‡]	E(level)	J^π [†]	L	C^2S [‡]	E(level)	J^π [†]	L	C^2S [‡]
0	$7/2^-$	3	1.91 20	4.50×10^3				7.12×10^3			
2.23×10^3	$1/2^+$	0	1.40 10	4.86×10^3	$5/2^+$ [#]	2	0.43	7.37×10^3	$5/2^+$ [#]	2	0.42
2.36×10^3	$3/2^+$	2	3.62 20	5.28×10^3	$5/2^+$ [#]	2	0.20	7.60×10^3	$5/2^+$ [#]	2	0.29
3.30×10^3				5.60×10^3	$5/2^+$ [#]	2	0.20	8.59×10^3	$5/2^+$ [#]	2	0.19
3.55×10^3	$5/2^+$ [#]	2	0.35	6.32×10^3	$5/2^+$ [#]	2	≤ 0.29	9.20×10^3 [@]	$5/2^+$ [#]	2	0.19
3.77×10^3	$5/2^+$ [#]	2	0.30	6.43×10^3	$5/2^+$ [#]	2	≤ 0.50				
4.01×10^3	$1/2^+$	0	0.22	6.77×10^3							

[†] Assumed for DWBA analysis.

[‡] The C^2S values derived by [1979Do12](#) are in good agreement with the more limited results of [1968Ne03](#). Results from [1967Hi09](#) disagree; see [1978Ha15](#) for comparisons.

[#] The $1d_{3/2}$ strength is nearly exhausted by the 2.36-MeV state. Therefore, most of these states, particularly the strongly excited states, must have $J^\pi=5/2^+$.

[@] The high energy tail of the spectra was carefully studied by [1979Do12](#). The results indicated that additional L=2 strength was located in this energy region but spread over several MeV of excitation energy.