

$^{50}\text{Ti}(\pi^-, \pi^{-'}), (\pi^+, \pi^{+'})$ 1988Oa01, 1987Oa01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh		NDS 157, 1 (2019)	15-Apr-2019

1987Oa01, 1988Oa01: E(π)=180 MeV pions from the Los Alamos Clinton P. Anderson Meson Physics Facility (LAMPF). Measured $\sigma(\theta(\text{c.m.})\approx 18^\circ-48^\circ)$; magnetic spectrometer, drift chambers, FWHM ≈ 150 keV. DWIA; collective-model transition densities used in data analysis.

All data are from 1987Oa01, except those for the 3.87-MeV state.

M_p and M_n in the comments are the proton and neutron multipole matrix elements in (W.u.) $^{1/2}$ (W.u.=54.7e 2 fm 4 for 2 $^+$, 1040e 2 fm 6 for 3 $^-$, and 19190e 2 fm 8 for 4 $^+$ states).

 ^{50}Ti Levels

E(level)	J π^\dagger	Comments
0	0 $^+$	
1.56 $\times 10^3$	2 $^+$	B(E2)(W.u.)=6.5 6. $M_p=2.56$ 11; $M_n=2.24$ 10.
2.68 $\times 10^3$	4 $^+$	$M_p=1.67$ 22; $M_n=1.60$ 20.
3.87 $\times 10^3$	0 $^+$	
4.18 $\times 10^3$	(2 $^+$)	$M_p=0.31$ 16; $M_n=1.07$ 10.
4.31 $\times 10^3$	2 $^+$	$M_p=1.10$ 20; $M_n=1.11$ 13.
4.41 $\times 10^3$	3 $^-$	$M_p=2.21$ 10; $M_n=2.04$ 13.

† From DWIA analysis of $\sigma(\theta)$.