

$^{48}\text{Ti}(\pi^+, \pi^{+'}), (\pi^-, \pi^{-'})$  1988Oa01, 1987Oa01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 179, 1 (2022)	30-Nov-2021

1988Oa01, 1987Oa01: E=180 MeV pions were produced from the Los Alamos Clinton P. Anderson Meson Physics Facility (LAMPF). Targets were 58.0 mg/cm<sup>2</sup> enriched  $^{48}\text{Ti}$ . Scattered pions were detected with the Energetic Pion Channel and Spectrometer (EPICS) system (FWHM=150 keV). Measured  $\sigma(\theta=18^\circ \text{ to } 55^\circ)$ . Collective-model DWPI. Extracted neutron and proton multipole matrix elements. Deduced levels, L-transfers, transition strengths.

 $^{48}\text{Ti}$  Levels

E(level)	$J^\pi$	L	Comments
0.0	0 <sup>+</sup>		
$9.8 \times 10^2$		2	B(E2) $\uparrow$ =0.0694 52 (1987Oa01)
$2.40 \times 10^3$		4	
$2.42 \times 10^3$		2	B(E2) $\uparrow$ =0.0058 11 (1987Oa01)
$3.24 \times 10^3$		4	
$3.36 \times 10^3$ †		2+3	
$3.63 \times 10^3$ †		2+3	
$3.87 \times 10^3$		3	
$4.05 \times 10^3$ †		2	
$4.17 \times 10^3$ †		2+4	
$4.39 \times 10^3$ †		2+4	
$4.58 \times 10^3$		3	
$4.79 \times 10^3$		2	
$4.91 \times 10^3$ †		2+5	
$5.15 \times 10^3$		4	
$5.36 \times 10^3$		3	
$5.54 \times 10^3$		3	
$5.62 \times 10^3$		2	
$5.87 \times 10^3$ †		2+3	
$6.09 \times 10^3$ †		2+3	
$6.36 \times 10^3$		3	
$6.50 \times 10^3$ †		2+3	
$6.70 \times 10^3$		4	
$6.83 \times 10^3$		3	
$6.96 \times 10^3$		3	

† Unresolved multiplet.