

$^{238}\text{U}(\text{t},\alpha)$ 1977Th04

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 107, 3323 (2006)	15-Mar-2006

Target: ^{238}U ; Projectile: t, E=15 MeV; scattered α particles were recorded by a helical coil detector in the focal plane of a quadrupole-dipole-dipole-dipole spectrograph.

 ^{237}Pa Levels

E(level)	$J^{\pi\dagger}$	$d\sigma/d\Omega$ ($\mu\text{b}/\text{sr}$) ^a	Comments
0 [‡]	1/2 ⁺	210	
35 [‡] 2	3/2 ⁺	51	
90 [#] 3	3/2 ⁻	121	
105 [@] 5	9/2 ⁺	47	
147 [#] 6	7/2 ⁻	82	
158 [@] 6	13/2 ⁺	145	
202 6		7	
258 4		30	
319 4		9	
364 ^{&} 4	3/2 ⁺	100	
393 ^{&} 6	5/2 ⁺	22	
491 4		9	
554 8		16	
577 8		23	
624 4	(11/2 ⁻)	82	Probably 9/2[514] band member.
686 8		11	
714 8		20	
741 8		8	
972 8		30	
1025 6	(5/2 ⁻)	66	Probably 1/2[541] band member.
1112 4		32	

[†] Spin, parity and Nilsson-state assignments were made from comparison of experimental cross sections with calculated ones (1977Th04).

[‡] 1/2[400] band.

[#] 1/2[530] band.

[@] 3/2[651] band.

[&] 3/2[402] band.

^a At 60°.