

$^{144}\text{Sm}(\alpha,t)$  1985Ga01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 110, 507 (2009)	1-Oct-2008

E=80 MeV.

Measured:  $\sigma(E,\theta)$ , DWBA analysis; FWHM=60 keV.

For levels>5440 see [1982Ga12](#), [1984Ga16](#).

 $^{145}\text{Eu}$  Levels

E(level)	$J^\pi^\dagger$	L	$C^2S$	Comments
0.0	$5/2^+$	2	0.37	
327 7	$7/2^+$	4	0.24	
711 7	$11/2^-$	5	0.98	
1043 7	$3/2^+$	2	0.74	
1610 7				
1752 7				
1856 7				L, $C^2S$ : for levels 1610+1752+1856, L=4 and 2; $C^2S$ =0.13 and 0.15.
2113 15				
2215 15				
2309 15				
2415 15				
2493 15				
2689 15				
2777 15				L, $C^2S$ : for 2689+2777 L=3, $C^2S$ =0.14.
3237 15				
3370 15				
3589 15				L, $C^2S$ : for 3237+3370+3589, L=3, $C^2S$ =0.18.
4364 25	$(9/2^-)$	(5)	0.17	
4821 25				
4930 25				
5149 25				
5330 25				
5431 25				
$5.9 \times 10^3$ 1	$(9/2^-)$	5	0.97	E(level): $\Gamma=1.23$ MeV 15. L: $\leq 20\%$ of L=3 states cannot be excluded.
$7.6 \times 10^3$ 4	$(13/2^+)$	6	0.94	E(level): $\Gamma=4.00$ MeV 45. L: L=5 (and $C^2S=2.36$ ) cannot be excluded.

$^\dagger$  From L and shell model.