

$^{55}\text{Mn}(\text{t,p}) E=17 \text{ MeV}$  1981Ma12,1977Ma12

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. R. Bhat	NDS 85, 415 (1998)	24-Sep-1998

Target  $J^\pi=5/2^-$ . Q3D spectrometer; resolution (FWHM) $\approx 15 \text{ keV}$ .  $\theta(\text{c.m.})=10^\circ-70^\circ$  in  $5^\circ$  steps. DWBA. Other: 1969Se01.  
 Additional information 1.

 $^{57}\text{Mn}$  Levels

$\Delta E$ : Additional information 3.

E(level)	$J^\pi^\dagger$	L <sup>#</sup>	$\epsilon^\@$	Comments
0	$5/2^-$	0,(2,4)	1.00	L: predominantly L=0 from shape of $\sigma(\theta)$ . Additional information 2.
84 3	$7/2^-$	2,4	2.83	
851 3	$3/2^-$	2,4	0.29	
1057 3	$1/2^-$	2	0.41	L: pure L=2 from shape of $\sigma(\theta)$ .
1071 3	$9/2^-$	2,4	0.56	
1229 3	$11/2^-$	4	2.20	
1375 3	$9/2^-$	2,4	0.13	
1477 3	$7/2^-,9/2^-$	2,4&	0.50,1.26	$J^\pi$ : 1977Ma12 used J=5/2 or 7/2.
1493 3	$5/2^-,7/2^-^a$	2,4&	0.98,0.91	
1536 3	$5/2^-,7/2^-^a$	2,4&	0.24,0.23	
1726 3	$3/2^-$	2,4	3.31	
1837 3	$5/2^-$	0,2,4	0.46	
1916 3	$11/2^-$	4	0.60	
1928 3	$3/2^-$	2,4	0.20	
1962 3	$7/2^-$	2,4	0.06	$J^\pi, L$ : note that adopted $J^\pi=3/2^+,5/2^+$ . See discussion in Adopted Levels.
2008 3	$9/2^-$	2,4	0.37	
2146 3				
2185 3				
2232 3				
2340 3				
2417 3				
2487 3				
2503 3				
2520 3				
2559 3				
2607 3				
2640 3				

<sup>†</sup> Additional information 3.

<sup>‡</sup> Assumed by 1981Ma12 (E<1928) and by 1977Ma12 (E=1375, 1493, 1536, and E $\geq$ 1928) for DWBA calculations, except as noted.

<sup>#</sup> From comparison to DWBA, except as noted.

<sup>@</sup> Enhancement factor, relative to  $\epsilon(\text{g.s.})=1.0$ . From 1981Ma12 (E<1928) and 1977Ma12 (E=1375, 1493, 1536, and E $\geq$ 1928).  
 $\epsilon(\text{g.s.})=0.72$  (1981Ma12), 0.87 (1977Ma12).

<sup>&</sup> An L=0 component could not be associated with any one of these states in particular.

<sup>a</sup> J=5/2 if L=0 component; J=7/2 if no L=0 component.