^{55}Mn(p,p′) 1957Ma22,1967Ka11,1969Pe02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Huo Junde	NDS 109, 787 (2008)	30-Apr-2007

1957Ma22: E=6.51-7.45 MeV; measured inelastically scattered protons with a high-resolution magnetic spectrograph.
1967Ka11: E=7.98-9.97 MeV, 6-8 keV (FWHM); nuclear emulsion plates; broad-range single-gap magnetic spectrograph; measured σ(E).
1969Pe02: E=17.5 MeV, 30 keV (FWHM); surface-barrier silicon detectors; measured $\sigma(\theta)$; DWBA analysis.
For DWBA and Hauser-Feshbach analysis of data at 6 MeV, see 1975An12.
See also 1962Va14.

^{55}Mn Levels

E(level)[†]	J$^{\pi}$[‡]	L[#]	β (deformation parameter)[#]	Comments
0.0	5/2$^-$			
124 *2*	7/2$^-$	2	0.148	
982 *2*	9/2$^-$	2	0.106	
1290 *2*	11/2$^-$			E(level): spectrum indicates possible doublet.
1526 *2*	(3/2$^-$)			
1883 *2*		2	0.084	
2197 *2*		(1)	0.027	
2251 *2*	(3/2$^-$)	2	0.059	L: evaluator assumes that the assignment applies to stronger member of 2251+2266 doublet.
2266 *2*				
2281 *10*	1/2			J$^{\pi}$: value from 2285-keV level of 1975An12 based on the Hauser-Feshbach analysis.
2311 *2*				
2365 *2*		2	0.059	
2398 *2*		2	0.036	
2425 *2*				
2564 *2*	(1/2$^-$,3/2$^-$)	2	0.038	
2582 *5*				
2726 *2*	3/2$^+$	(3)	0.038	
2751 *2*				
2823 *2*		2	0.059	
2874 *5*				
2954 *2*				
2975 *2*				
2990 *2*	($^+$)			
3004 *2*		(1)	0.037	L: evaluator assumes that the assignment applies to stronger member of 2990+3004 doublet.
3037 *5*				
3045 *5*				
3050 *5*		(4)	0.078	L: evaluator assumes that the assignment applies to strongest member of 3037+3045+3050 triplet.
3081 *2*				
3129 *2*				
3160 *2*				
3195 *2*				
3261 *5*				
3270 *5*		2	0.047	L: assignment applies to 3261+3270 levels.
3342 *2*				
3351 *2*				
3374 *5*				
3379 *8*				
3385 *8*				
3424 *5*				

Continued on next page (footnotes at end of table)

^{55}Mn(p,p′) 1957Ma22,1967Ka11,1969Pe02 (continued)

^{55}Mn Levels (continued)

E(level)[†]	Jπ[‡]	L[#]	β (deformation parameter)[#]	Comments
3432 *5*		(2)	0.036	L: assignment applies to 3424+3432 levels.
3480? *10*				
3505? *10*				
3523 *5*				
3528 *5*				
3580 *2*				
3597 *5*				
3604 *5*	(3/2$^+$)			
3611 *5*		2	0.047	L: evaluator assumes that the assignment applies to 3580+3597+3604+3611 levels.
3631 *10*				
3642 *10*				
3661 *5*				
3673 *10*		2	0.042	L: assignment may apply to 3661+3673 levels.
3682? *10*				
3702 *2*				
3752 *2*				
3772 *2*		2	0.053	L: assignment may apply to 3752+3772+3791 levels.
3791 *2*				
3800 *5*				
3832 *5*				
3842 *5*				
3860 *5*		(2)	0.034	L: assignment may apply to 3842+3860+3883 levels.
3883 *5*				
3915 *5*				
3932 *10*		2	0.040	
4110 *20*	5/2$^+$	3	0.070	
4230 *20*	11/2$^+$	3	0.12	
4290 *20*	7/2$^+$	3	0.087	
4410 *20*	9/2$^+$	3	0.10	
4480 *20*		(4)	0.055	
4660 *20*				
4750 *20*				

[†] Adopted E(level) below 4 MeV are from 1967Ka11, except for 3932 level from 1957Ma22; levels above 4 MeV are from 1969Pe02.

[‡] From 1969Pe02. Jπ assignments based on σ(E(p),θ) measurements, DWBA analyses, and extractions of S.

[#] From 1969Pe02.