^{57}Fe(p,t) 1972Pe13

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

$J^{\pi}(^{57}Fe)=1/2^{-}$.

1966Ma35: E=40 MeV; enriched target; an array of 32 surface-barrier detectors in the focal plane of a 1-meter double-focusing magnetic spectrometer, resolution: 250 keV.

1972Pe13: E=27 MeV; enriched target (92%); conventional E-ΔE-veto arrangement of solid state counters, resolutions: 70 and 90 keV; measured $\sigma(\theta)$; DWBA analyses.

All data are from 1972Pe13, except as noted.

^{55}Fe Levels

E(level)	J^{π} †	L	Comments
0.0	$3/2^{-}$	2	
410 *20*	$1/2^{-}$	0	
930 *20*	$5/2^{-}$	2	
1310 *20*	$7/2^{-}$	4	
1410 *20*	$7/2^{-}$	4	
1920 *20*	$1/2^{-}$	0	
2050 *20*	$3/2^{-}$	2	
2210 *20*	$9/2^{-}$	4	
2470 *20*	$3/2^{-}$	2	
3070			E(level): reported by 1966Ma35 only.
3600 *20*	$1/2^{-}$	0	
3770 *20*		0	L: from 1966Ma35. 1972Pe13 give L=1+2.
3890 *20*		2	
7510 *30*		(2+4)	
7610 *30*	$(5/2^{-})$	(2+4)	E(level): probable isobaric analog of ^{55}Mn g.s.$(5/2^{-})$.
7730 *30*	$(7/2^{-})$	(2+4)	E(level): probable isobaric analog of 126$(7/2^{-})$ in ^{55}Mn.

† Adopted values.