

$^{55}\text{Mn}(t,n\gamma), ^{56}\text{Fe}(t,d\gamma):?$ 1969Se01

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

Target $J^\pi(^{55}\text{Mn})=5/2^-$. $^{55}\text{Mn}(t,n\gamma)$ E=1.5, 2.5, and 3 MeV: measured γ 's; Ge(Li), NaI. No $J>5/2$ states were identified below ≈ 1200 keV ($E_\gamma < 1$ MeV). $^{56}\text{Fe}(t,d\gamma)$: identified as belonging to ^{57}Fe on the basis of energy agreement and large production cross section for $^{55}\text{Mn}(t,d)$. See $^{55}\text{Mn}(t,p)$, above. Level scheme added by evaluators from Adopted Levels, gammas.

 ^{57}Fe Levels

E(level) [†]	J^π [†]
0.0	$1/2^-$
14.413	$3/2^-$
136.474	$5/2^-$
366.761	$3/2^-$
706.428	$5/2^-$

[†] From Adopted Levels.

 $\gamma(^{57}\text{Fe})$

Gammas observed and identified for 3-MeV tritons on ^{55}Mn .

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Comments
122	136.474	$5/2^-$	14.413	$3/2^-$	
136 [†]	136.474	$5/2^-$	0.0	$1/2^-$	Additional information 1.
352 [†]	366.761	$3/2^-$	14.413	$3/2^-$	
692	706.428	$5/2^-$	14.413	$3/2^-$	Additional information 2.

[†] Also observed in $^{56}\text{Fe}(t,d\gamma)?$

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Level Scheme

