

$^{54}\text{Fe}(\text{p}, ^3\text{He})$ 1975Gu05,1978Ko27

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yang Dong, Huo Junde		NDS 128, 185 (2015)	10-Jul-2015

1975Gu05: E=40.2 MeV, FWHM $\approx$ 35 keV, measured $\sigma(\theta)$, from 6° to 60° with 4° steps in general, the particles detected with a single wire charge-division gas proportional counter placed in the focal plane of an Enge split-pole spectrograph.

1978Ko27: E $\approx$ 42-46 MeV; measured particle spectra, QDDD spectrograph, a detector consisting of a 60 cm resistive-wire proportional counter backed by a plastic scintillator provided position and particle identification in the QDDD.

Others: 1981YaZU, 1982Ha35.

All data are from 1975Gu05, except as noted.

 ^{52}Mn Levels

E(level)	J^π [‡]	$L^\dagger$	$d\sigma/d\Omega$ [#]	Comments
0	6 ⁺	6	3	T=1
374	2 ⁺	2	31	IAS (^{52}Fe 5659-keV level).
541	1 ⁺	0+2	9.5	T=1
728	4 ⁺	4	9	IAS (^{52}Fe 6047-keV level).
820	3 ⁺	2+4	14.5	
867	7 ⁺	6	25	
1252	5 ⁺	4	11.5	
1680		4	1.4	
1953	6 ⁺	6	1.2	
2047	4 ⁺	4	1.3	
2130		4	1.9	
2248		4	2.2	
2337		(2)	1	
2476			29	
2629		0+2	34	
2712		6	5.5	
2787		(4)	20	
2850			33	
2923		0	80	T=2
				IAS (^{52}Cr g.s.) (1975Gu05).
2968		(1)	36	
3022		4	50	
3097		4	3	
3196		6	3.3	
3228		4	1.8	
3330		(3)	22	
3380		(2+4)	8.8	
3420		4	27	
3500		4	11	
3567		0+2	10	
3635			4.7	
3660			6.5	
3711		(3)	3.2	
3742			3.2	

[†] Based on DWBA calculations.

[‡] Identified by 1975Gu05 as having wavefunction dominated by configuration=(1f_{7/2})⁻⁴.

[#] Peak cross section, $\mu\text{b/sr}$. $\Delta\sigma\approx\pm 20\%$.