^{45}Sc(^{12}C,2npγ) E=40 MeV 1984Ha07,1983Ra03,1983Ra07

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yang Dong, Huo Junde	NDS 121, 1 (2014)	20-Jun-2014

1984Ha07: multifoil array induced nuclear polarization, measured I$\gamma(\theta,t)$, deduced isomer quadrupole moment sign, magnitude. NaI.
1983Ra03, 1983Ra07: in-beam time differential method, PAD method, angular distribution, delayed $\gamma\gamma$-coincidence and DSAM, studied paramagnetic effects, Larmor precession, g-factor.
All data are from 1984Ha07, except as noted.

^{54}Fe Levels

E(level)	J$^\pi$[†]	Comments
0	0^+	
1409	2^+	
2539	4^+	
2951	6^+	
6382	8^+	
6527	10^+	g=+0.7281 *10* (1983Ra03); Q=+0.297 *4* (1984Ha07) ^{54m}Fe(10^+) level is a very important nuclear probe for investigations of magnetic structure of solids with the recoil implantation technique.

[†] From stretched E2 cascade.

$\gamma(^{54}Fe)$

E$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.[†]
146	6527	10^+	6382	8^+	E2
411.6	2951	6^+	2539	4^+	E2
1130	2539	4^+	1409	2^+	E2
1409	1409	2^+	0	0^+	E2
3432	6382	8^+	2951	6^+	E2
3578	6527	10^+	2951	6^+	E4

[†] From stretched E2 cascade.

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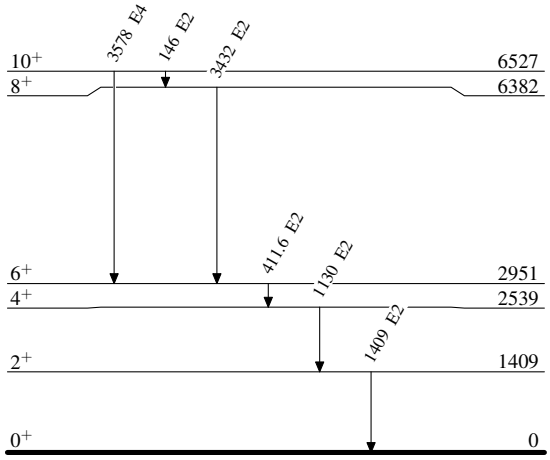
Level Scheme



$^{54}_{26}Fe_{28}$