^{52}Cr(p,n) 1966Ri09,1988Wa07,2010Ch15

History

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

1966Ri09: E=3.2-9.5 MeV, measured σ(E), BF_3 counters, the "counter ratio" technique.

1988Wa07: E=120 MeV, overall energy resolution: ≈300 keV, measured $\sigma(\theta)$, large volume neutron detectors, tof, 130 m, DWBA analysis.

1967Co13: E=13 MeV, measured $\sigma(\theta)$, ≠ 213 liquid scintillators, tof technique.

2010CH15: E=14 MeV, data were obtained with IGISOL using the ^{52}Cr(p,n)^{52,52m}Mn production reaction. Recoiling ions in the ion guide were efficiently thermalized and extracted using a helium buffer gas and sextupole ion guide. Mass-analyzed ensembles were then cooled and bunched in an Rf quadrupole trap the axis of which was illuminated by 230.5005 nm laser. The magnetic and quadrupole moments of ^{55}Mn, μ=+3.46871790 *9* and Q=+0.32 *1*, were used as a calibration. Laser spectroscopy technique.

Others: 1979Bi08, 1980AnYW, 1982Bi04, 1984Zh02, 1985Bl12, 1967Go17.

^{52}Mn Levels

E(level)†	Comments
0	$\Delta<r^2>(^{55}Mn,^{52}Mn)=-0.259$ fm^2 13 (stat) (2010Ch15). The syst uncertainty is approximately 15 %.
383 *10*	$\Delta<r^2>(^{55}Mn,^{52m}Mn)=-0.195$ fm^2 5 (stat) (2010Ch15). The syst uncertainty is approximately 15 %.
544 *10*	
2912 *20*	T=2 Identified by 1967Co13, 1967Go14 as IAS (^{52}Cr g.s.). E(level): from 1967Co13.
3.6×10^3‡ *1*	
4.4×10^3‡ *1*	
5.0×10^3‡ *1*	

† From 1966Ri09, except as noted.

‡ From 1988Wa07.