

$^{50}\text{Cr}(\text{d},\text{n})$ 2010Ch15,1968Ok05

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Wang Jimin and Huang Xiaolong		NDS 144, 1 (2017)	1-Mar-2016

2010Ch15: Measurements were performed at JYFL and data were obtained with IGISOL using the $^{50}\text{Cr}(\text{d},\text{n})^{51}\text{Mn}$ 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 , $\mu=+3.46871790$ μN and $Q=+0.32$ I , were used as a calibration. Laser spectroscopy technique.

1968Ok05: $E=11.7$ MeV; measured neutron time-of-flight spectrum and $\sigma(E(\text{n}),\theta)$; analyzed with DWBA.

See also [1970Ni01](#).

 ^{51}Mn Levels

<u>E(level)[‡]</u>	<u>J^π[†]</u>	<u>T_{1/2}[†]</u>	<u>L</u>	<u>C²S'</u>	<u>Comments</u>
0.0	5/2 ⁻	46.2 min <i>I</i>	3	7.46	$\% \epsilon + \% \beta^+ = 100$ $\Delta \langle r^2 \rangle(^{55}\text{Mn}, ^{51}\text{Mn}) = -0.023 \text{ fm}^2$ 45 (stat) (2010Ch15). The syst uncertainty is approximately 15 %.
1790			1	1.20	
1950			1	0.76	
2450			1	0.22	
2650			1	0.52	
3090			1	0.31	
3540			1	0.14	

[†] From Adopted Levels.

[‡] from [1968Ok05](#).