^{68}Mn β^- decay 2011Da08

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 113, 1735 (2012)	1-Mar-2012

Parent: ^{68}Mn: E=0.0; J^π>3; $T_{1/2}$=28 ms *3*; Q(β^-)=1.517×10^4 *SY*; %β^- decay=100.0

^{68}Mn-J^π: >3 suggested by non observation of β feeding to the (2$^+$) state in ^{68}Fe (2011Da08).

Parent ^{68}Mn nuclei produced through the Ta(^{86}Kr,X) reaction with E(^{86}Kr)=57.8 MeV/nucleon. Fragments separated by the LISE2000 spectrometer and identified by ΔE and time of flight. Measured $T_{1/2}$, Eγ, Eβ, β(t) with three element Si detector telescope surrounded by four Clover type EXOGAM detectors. See also 2006DaZX.

^{68}Fe Levels

E(level)†	J^π†	$T_{1/2}$†
0.0	0$^+$	188 ms *4*
522.0 *10*	(2$^+$)	
1389.0 *14*	(4$^+$)	

† From the Adopted Levels.

γ(^{68}Fe)

E$_\gamma$	E$_i$(level)	J^π_i	E$_f$	J^π_f
522 *1*	522.0	(2$^+$)	0.0	0$^+$
867 *1*	1389.0	(4$^+$)	522.0	(2$^+$)

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Decay Scheme