^{47}Fe $\varepsilon+\beta^+$ decay 2001Gi01,2007Do17

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. Ota and E. A. Mccutchan	NDS 203,1 (2025)	1-Apr-2025

Parent: ^{47}Fe: E=0.0; $J^\pi=(7/2^-)$; $T_{1/2}$=21.8 ms *7*; Q($\varepsilon+\beta^+$)=15437 *syst*; %$\varepsilon+\beta^+$ decay=100

^{47}Fe-Q($\varepsilon+\beta^+$): From 2021Wa16.

2001Gi01: Ni(^{58}Ni,X) E=74.5 MeV/nucleon at GANIL. Measured protons, pγ-coincidences, π(t) using three Ge detectors for gammas and silicon and Si(Li) detectors for protons. Deduced $T_{1/2}$ and proton branching ratio of the ^{47}Mn IAS.

^{47}Mn Levels

E(level)	J^π	$T_{1/2}$	Comments
0	$(5/2^-)$	88.0 ms *13*	%$\varepsilon+$%β^+=100; %εp<1.7 J^π,$T_{1/2}$: from the Adopted Levels.
7.04×10^3 *4*	$(7/2^-)$		%p=88.4 *9* E(level): from the observed proton energies, coincident γ-ray energies and the mass excesses of ^{46}Cr and ^{47}Mn ground states (2021Wa16). 2007Do17 report 7029 *161* using and earlier version of AME. Other: 6868 *164* (2001Gi01). %p: from 2007Do17. Other: 87 *7* (2001Gi01). J^π: from assumed IAS of ^{47}Fe ground state.