

${}^{50}\text{Ar}$   $\beta^-$  decay (106 ms) [2003We09,2012We08](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh		NDS 157, 1 (2019)	15-Apr-2019

Parent:  ${}^{50}\text{Ar}$ :  $E=0.0$ ;  $J^\pi=0^+$ ;  $T_{1/2}=106$  ms 6;  $Q(\beta^-)=12400$  SY;  $\% \beta^-$  decay=100.0

${}^{50}\text{Ar}$ - $T_{1/2}$ : From  ${}^{50}\text{Ar}$  Adopted Levels.

${}^{50}\text{Ar}$ - $Q(\beta^-)$ : 12400 500 (syst, [2017Wa10](#)).

${}^{50}\text{Ar}$ - $\% \beta^-$  decay:  $\% \beta^- = 100$ ,  $\% \beta^- n = 37.7$  ([2012We08](#)); earlier value of  $\% \beta^- n$  from the same group was 35.10 ([2003We09](#)).

[2003We09,2012We08](#):  ${}^{50}\text{Ar}$  produced in U(p,X) at  $E=1.4$  GeV. Ionized neutron-rich noble-gas isotopes were extracted and mass separated at ISOLDE, CERN. Measured  $\beta^-$  and neutron spectra, and  $\beta^-$ -coin. Deduced half-life,  $\% \beta^- n$ .

Other:

[1988GuZV](#):  ${}^{181}\text{Ta}({}^{48}\text{Ca},X)$   $E=2.64$  GeV. Observed projectile-like fragments ( $29 \leq A \leq 51$ ) at  $0^\circ$ ; magnetic spectrometer, Si(Li)  $\Delta E$ -E telescope, TOF. Z identified by telescope, A by total energy, TOF and magnetic rigidity.

 ${}^{50}\text{K}$  Levels

E(level)	$J^\pi$
0	$0^{(-)}$