

$^{39}\text{Ar} \beta^-$ decay (268 y) 1965St09,1950Br66

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 149, 1 (2018)	1-Jan-2018

Parent: ^{39}Ar : E=0; $J^\pi=7/2^-$; $T_{1/2}=268$ y 8; $Q(\beta^-)=565$ 5; % β^- decay=100.0

$^{39}\text{Ar}-J^\pi, T_{1/2}$: From Adopted Levels of ^{39}Ar .

$^{39}\text{Ar}-Q(\beta^-)$: From 2017Wa10.

1965St09: measured parent $T_{1/2}$.

1950Br66: measured $E\beta$, end-point energy=565 keV 5.

1952Ze01: measured parent $T_{1/2}$.

2002Go28: measured $E\beta$.

2007Be13: measured specific activity in natural argon.

Additional information 1.

 ^{39}K Levels

E(level)	J^π	Comments
0	$3/2^+$	J^π : from Adopted Levels.

 β^- radiations

E(decay)	E(level)	$I\beta^-$ [†]	Log ft	Comments
565 5	0	100	10.10 ^{1u} 2	av $E\beta=218.8$ 21 E(decay): from end-point energy=565 5 (1950Br66). $I\beta^-$: 1950Br66 measured less than 0.1% branching for $E\gamma>300$ keV, indicating all β decays feeding ground state.

[†] Absolute intensity per 100 decays.