

${}^{42}\text{Ar}$ β^- decay (32.9 y) 1965St09

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen [#] and Balraj Singh		NDS 135, 1 (2016)	31-May-2016

Parent: ${}^{42}\text{Ar}$: E=0; $J^\pi=0^+$; $T_{1/2}=32.9$ y 11; $Q(\beta^-)=599$ 6; $\% \beta^-$ decay=100.0

${}^{42}\text{Ar}$ - $T_{1/2}$: From Adopted Levels of ${}^{42}\text{Ar}$.

${}^{42}\text{Ar}$ - $Q(\beta^-)$: From 2012Wa38.

1965St09: measured $T_{1/2}$ of ${}^{42}\text{Ar}$.

Others:

1964Ho31: measured cross section for production and $T_{1/2}$.

1961Ja07: production of ${}^{42}\text{Ar}$ isotope.

1952Ka44: identification of ${}^{42}\text{Ar}$ and $T_{1/2}$.

1990Mi05: measured $\beta\gamma$ coin for ${}^{42}\text{K}$ decay. ${}^{42}\text{K}$ isotope obtained from ${}^{42}\text{Ar}$ decay.

 ${}^{42}\text{K}$ Levels

E(level)	J^π [†]
0	2^-

[†] From Adopted Levels.

 β^- radiations

E(decay)	E(level)	$I\beta^-$ [†]	Log ft	Comments
(599 6)	0	100	9.32^{1u} 17	av E β^- = 233 16

[†] Absolute intensity per 100 decays.