

Adopted Levels

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

$Q(\beta^-) = -16370$ SY; $S(n) = 18000$ SY; $S(p) = -597$ 24; $Q(\alpha) = -5425$ 24 [2017Wa10](#)

$\Delta Q(\beta^-) = 200$, $\Delta S(n) = 200$ (syst, [2017Wa10](#)).

$Q(\beta^+) = 13110$ 14, $Q(\epsilon p) = 7339$ 24 ([2017Wa10](#)).

First identification of ^{39}Sc nuclide by [1988Wo07](#) via $^{40}\text{Ca}(^{14}\text{N}, ^{15}\text{C})$.

Other measurements:

[1989LiZF](#): In $^9\text{Be}(^{40}\text{Ca}, X)$ reaction At 26 MeV/nucleon, the authors searched for ^{39}Sc ; only an upper limit for its yield was established from which $T_{1/2} < 130$ ns was deduced.

Theoretical calculations: [2014So09](#) ($S(2n)$), [1988Co15](#) (mass).

 ^{39}Sc LevelsCross Reference (XREF) Flags

- A** ^{39}Ti ϵ decay (28.5 ms)
B $^{40}\text{Ca}(^7\text{Li}, ^8\text{He})$
C $^{40}\text{Ca}(^{14}\text{N}, ^{15}\text{C})$

E(level)	J^π	$T_{1/2}$	XREF	Comments
0	$(7/2^-)$	<300 ns	ABC	%p=100 J^π : from systematics (1988Wo07 , 1992Mo15 , 2017Au03). $T_{1/2}$: from 1994B110 where ^{39}Sc isotope was not seen In $^9\text{Be}(^{58}\text{Ni}, X)$ At 650 MeV/nucleon with tof=300 ns. Other: <130 ns (1989LiZF).
950? 40	$(3/2^-)$		C	J^π : from systematics in 1988Wo07 in ($^{14}\text{N}, ^{15}\text{C}$).
8960? 60	$(3/2^+)$		A	E(level), J^π : IAS, decays by two-proton decay mode to ^{37}K as suggested by 2001Gi01 in ^{39}Ti ϵ decay.