

Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 140, 1 (2017)	30-Sep-2015

$S(n)=19120$ SY; $S(p)=1.97\times 10^3$ I6; $Q(\alpha)=-4.82\times 10^3$ I6 [2012Wa38](#)

$\Delta(S(n))=260$ (syst,[2012Wa38](#)).

$S(2n)=35660$ 340 (syst), $S(2p)=1370$ I60, $Q(\epsilon p)=11140$ I60 ([2012Wa38](#)).

Mass measurement: [2001Li56](#), [1977St29](#).

^{40}Ti produced in the following studies:

[1990De43](#): $^{58}\text{Ni}(^{58}\text{Ni},X)$ E=65 MeV/nucleon. Magnetic analysis of fragments and time-of-flight method.

[1998Bh12](#) (also [1998Le45](#),[1997Tr11](#)): $\text{Ni}(^{50}\text{Cr},X)$ E=82.6 MeV/nucleon. Fragments were separated by LISE3 spectrometer.

[1998Li46](#) (also [2001Li56](#),[1997Li25](#)): $^9\text{Be}(^{58}\text{Ni},X)$ E=500 MeV/nucleon followed by isotopic separation by projectile fragment recoil separator.

[2007Do17](#): $\text{Ni}(^{58}\text{Ni},X)$ E=74.5 MeV/nucleon. Fragments were separated by the ALPHA-LISE3 separator at the SISSI-LISE3 facility of GANIL.

 ^{40}Ti LevelsCross Reference (XREF) Flags

A $^{40}\text{Ca}(\pi^+, \pi^-)$

E(level)	J^π	$T_{1/2}$	XREF	Comments
0	0^+	52.4 ms 3	A	$\% \epsilon + \% \beta^+ = 100$; $\% \epsilon p = 100$ (1998Bh12,1998Li46) $\% \beta^+$ delayed γ activity in ^{40}Sc <3% from integrated β strength of 99.0% I6 (1998Bh12) and 101% 5 (1998Li46). No β^+ delayed γ activity was seen by 1998Li46. 2007Do07 report a transition with $E_\gamma=2467.3$ 5 and absolute $I_\gamma=8.5$ 54 in ^{39}Ca from its first excited state. $\% \epsilon p$: other: 2007Do17 report 95.8 I3, which gives $I_\gamma=4.2$ I3 for γ transitions in ^{40}Sc presumably ending up feeding the ^{40}Sc ground state. $T_{1/2}$: from 2007Do17. Others: 53.5 ms 25 (2001Gi01,2001Gi02), 52.7 ms I5 (reported in 1998Bh12 as the average of 53.6 ms 6 from an independent analysis of the same data in 1997Tr11, and 51.7 ms 6 in 1997Tr11), 54 ms 2 (1998Li46, 55 ms 2 in 1997Li25), and 56 ms +I8-I2 (1990De43).