

- Atomic Mass: 99.9076576 $\pm$ 0.0000023 amu
- Excess Mass: -86016.384 $\pm$ 2.162 keV
- Binding Energy: 859507.469 $\pm$ 2.166 keV
- Beta Decay Energy: B- 3202.411 $\pm$ 1.739 keV

"The 1995 update to the atomic mass evaluation" by G.Audi and A.H.Wapsta, Nuclear Physics A595 vol. 4 p.409-480, December 25, 1995.

- Spin: 1+
- Half life: 15.8 S *seconds*
- Mode of decay: Beta to Ru-100 *— nearly 100%*
 - Decay energy: 3.202 MeV
- Mode of decay: Electron capture to Mo-100
 - Branch ratio: 0.0018 % *↗*
 - Decay energy: 0.168 MeV

R.R.Kinsey, et al., *The NUDAT/PCNUDAT Program for Nuclear Data*, paper submitted to the 9 th International Symposium of Capture-Gamma-ray Spectroscopy and Related Topics, Budapest, Hungary, October 1996. Data extracted from NUDAT database (Dec.18, 1997).

Fission Yields

Fissile with Neutron Energy	Yields (sum = 2)	
	Direct	Accumulated
U-235 with 0.0253 eV	3.02932E-07	3.02932E-07
U-235 with 1.0 MeV	1.17947E-07	1.17947E-07
U-238 with 1.0 MeV	3.29386E-09	3.29386E-09
Pu-239 with 0.0253 eV	2.07067E-06	2.07067E-06
Pu-239 with 1.0 MeV	1.33040E-06	1.33040E-06

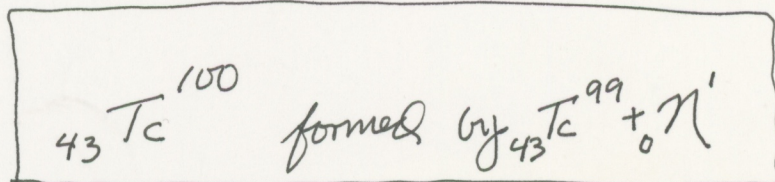
CSWEG, ENDF/B-VI Summary Documentation, Report BNL-NCS-17541 (ENDF-201) (1991)



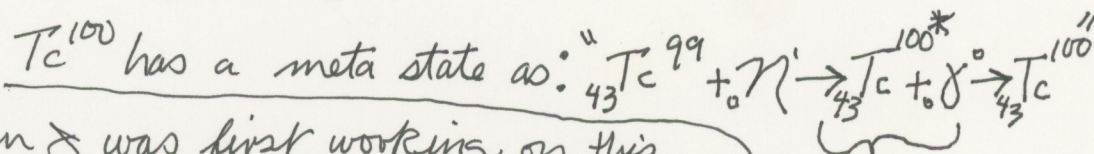
Element Tc



Back to the Table of the Nuclides main chart



and Janet, I'm just sure the Tc^{99} to



When I was first working on this I had Dr. Linstrom look at it and he showed me there had to be a gamma (γ) discharge between Tc^{99} & Tc^{100} for it to balance.

However, Los Alamos National Lab doesn't agree!

10^{-22} s

- Atomic Mass: 98.906251 ± 0.000025 amu
- Excise Mass: 98.906251 ± 0.000025 amu
- Binding Energy: 888507.469 ± 2.186 keV
- Beta Decay Energy: B-3505.411 ± 1.739 keV

"The 1993 update to the atomic mass evaluation" by G.A. Audi and A.H. Wapstra, Nuclear Physics A592 vol. 2, p. 1-160, December 22, 1992.

- Spin: 1+
- Half-life: 15.8 s
- Mode of decay: Beta to Ru-100
- Decay energy: 3.505 MeV
- Mode of decay: Electron capture to Mo-100
- Branch ratio: 0.0018 ±
- Decay energy: 0.168 MeV

R. Kniep, et al. The NUBAT/CHUBAT Program for Nuclear Data, paper submitted to the 3rd International Symposium of Capture-Gamma Spectroscopy and Related Topics, Budapest, Hungary, October 1998. Data extracted from NUBAT database (Dec. 18, 1997).

Fission Yields

Fission with Neutron Energy	Yields (sum = 2)	
	Direct	Accumulated
U-235 with 0.0253 eV	3.05932E-07	3.05932E-07
U-235 with 1.0 MeV	1.17947E-07	1.17947E-07
U-238 with 1.0 MeV	3.59386E-09	3.59386E-09
Pu-239 with 0.0253 eV	3.07007E-08	3.07007E-08
Pu-239 with 1.0 MeV	1.33040E-08	1.33040E-08

CSWEG, EMBL-B N Summary Documentation, Report BNL-NCS-17541 (ENDF-201) (1997)

Element Tc

Back to the Table of the Nuclear main chart

43 Tc 100 formed via $Tc^{99} + \alpha \rightarrow V$

and Zener! Give first name the Tc^{99} to

Tc^{100} has a meta state as: $^{43}Tc^{99} + \alpha \rightarrow V$

1.30 2.8

Identification

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