



T-120 (31.6m) CB+	T-121 (2.12h) ECB+	T-122 (3.63m) ECB+	T-123 (13.27h) EC	T-124 (4.1760d) EC	T-125 (59.400d) EC	T-126 (12.93d) ECB+B-	T-127 (STABLE)	T-128 (24.99m) B-ECB+
Te-119 (16.05h) CB+	Te-120 (STABLE)	Te-121 (19.16d) EC	Te-123 (6.00E+14y) EC	Te-124 (STABLE)	Te-125 (STABLE)	Te-126 (STABLE)	Te-127 (9.35h) B-	Te-128 (STABLE)
Sb-118 (4.6m) CB+	Sb-119 (38.19h) EC	Sb-120 (15.89m) ECB+	Sb-121 (STABLE)	Sb-122 (STABLE)	Sb-123 (60.20d) B-	Sb-124 (60.20d) B-	Sb-125 (2.75856y) B-	Sb-126 (12.35d) B-

TELLURIUM-123

SUMMARY DATA

GENERAL

CLASSIFICATION

Isotope: Te-123
Atomic number (Z): 52
Mass number (A): 123
Neutron number (N): 71

RADIOACTIVE DECAY

Decay modes: Electron capture
Half-life: 600000000000000.0 [y]
Decay constant: 3.6608e-23 [1/s]
Daughters: Sb-123 (100.0%)
Radioactive daughters: None

DOSIMETRIC CONSTANTS

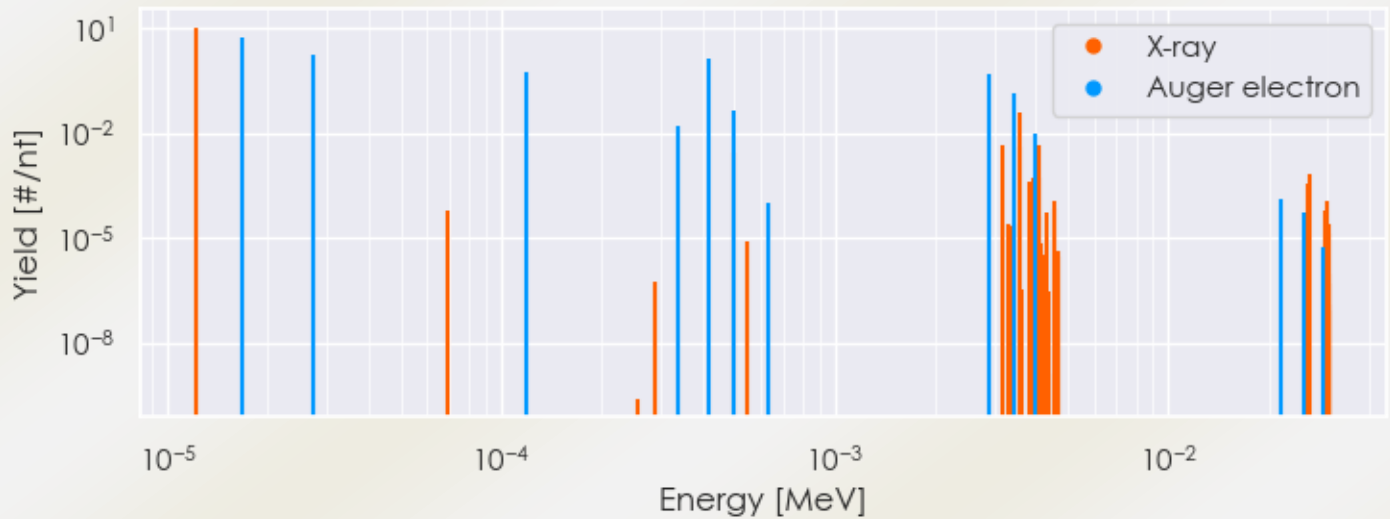
Mean alpha energy: 0.0 [MeV]
Mean electron energy: 0.00275 [MeV]
Mean photon energy: 0.00035 [MeV]
Air kerma rate constant, Γ_{10} : 9.319e-21 [Gy·m²/Bq·s]
Air kerma coefficient, K_{air} : 9.319e-21 [Gy·m²/Bq·s]
Equilibrium dose constant for weakly-penetrating radiations (α and/or electrons), Δ_{wp} : 4.406e-16 [Gy·kg/Bq·s]
Equilibrium dose constant for alphas, Δ_{α} : 0.000e+00 [Gy·kg/Bq·s]

Equilibrium dose constant for betas/electrons, $\Delta_{\beta-, \beta+, e-}$: 4.406e-16 [Gy·kg/Bq·s]

Equilibrium dose constant for photons, Δ_p : 5.608e-17 [Gy·kg/Bq·s]

SUMMARY SPECTRA (PLOT)

Spectra source: **ICRP Publication 107: Nuclear Decay Data for Dosimetric Calculations. Ann. ICRP 2008, 38 (3).**



Download tabulated summary spectra file here: [www.mirdsoft.org/products/MIRDspecs/Te-123 Summary Spectrum.csv](http://www.mirdsoft.org/products/MIRDspecs/Te-123%20Summary%20Spectrum.csv)

TABULATED DATA

SUMMARY SPECTRA (TABLE)

Spectra source: **ICRP Publication 107: Nuclear Decay Data for Dosimetric Calculations. Ann. ICRP 2008, 38 (3).**

Note: Radiations with yield < 0.01 are excluded from the table, but are available in the linked *.csv data.

Download tabulated summary spectra file here: [www.mirdsoft.org/products/MIRDspecs/Te-123 Summary Spectrum.csv](http://www.mirdsoft.org/products/MIRDspecs/Te-123%20Summary%20Spectrum.csv)

Energy [MeV]	Yield [# / nt] if > 0.01	Radiation type
1.22397e-05	1.073e+01	X-ray
3.59265e-03	3.679e-02	X-ray
1.68313e-05	5.287e+00	Auger electron
2.71926e-05	1.763e+00	Auger electron
1.19192e-04	5.886e-01	Auger electron
3.36858e-04	1.585e-02	Auger electron

4.20940e-04	1.390e+00	Auger electron
5.00519e-04	4.181e-02	Auger electron
2.88166e-03	4.981e-01	Auger electron
3.42930e-03	1.334e-01	Auger electron

USEFUL LINKS

Isotope decay characteristics are periodically updated as better measurements can be made - changes that may not be reflected on this page. Please see useful links:

National Nuclear Data Center (NNDC): <https://www.nndc.bnl.gov/nudat3/mird/>

International Atomic Energy Agency (IAEA) Livechart: <https://www-nds.iaea.org/relnsd/vcharthtml/VChartHTML.html>

REFERENCE LINKS

ICRP Report 107: <https://www.icrp.org/publication.asp?id=ICRP%20Publication%20107>

Graves et al. Dose Point Kernels: <https://doi.org/10.1002/mp.13789>

MIRD Decay Schemes 2nd Edition: https://sites.snmmi.org/SNMML-MAIN/iCore/Store/StoreLayouts/Item_Detail.aspx?iProductCode=0-932004-80-6