

Cd-101 (1.36m) ECB+	Cd-102 (5.5m) ECB+	Cd-103 (7.3m) ECB+	Cd-104 (57.7m) EC	Cd-105 (55.5m) ECB+	
Ag-100 (2.24m) ECB+	Ag-101 (1.1m) ECB+	Ag-102 (12.9m) ECB+	Ag-103 (65.7m) ECB+	Ag-104 (69.2m) ECB+	
Pd-96 (122s) ECB+	Pd-97 (3.10m) ECB+	Pd-98 (17.7m) ECB+	Pd-99 (3.63m) EC	Pd-100 (5.6d) ECB+	
			Pd-101 (8.47h) ECB+	Pd-102 (STABLE)	Pd-103 (16.991d) EC

SILVER-100M

SUMMARY DATA

GENERAL

CLASSIFICATION

Isotope: Ag-100m
Atomic number (Z): 47
Mass number (A): 100
Neutron number (N): 53

RADIOACTIVE DECAY

Decay modes: β^+ , Electron capture
Half-life: 2.24 [m]
Decay constant: 5.1573e-03 [1/s]
Daughters: Pd-100 (100.0%)
Radioactive daughters: Pd-100

DOSIMETRIC CONSTANTS

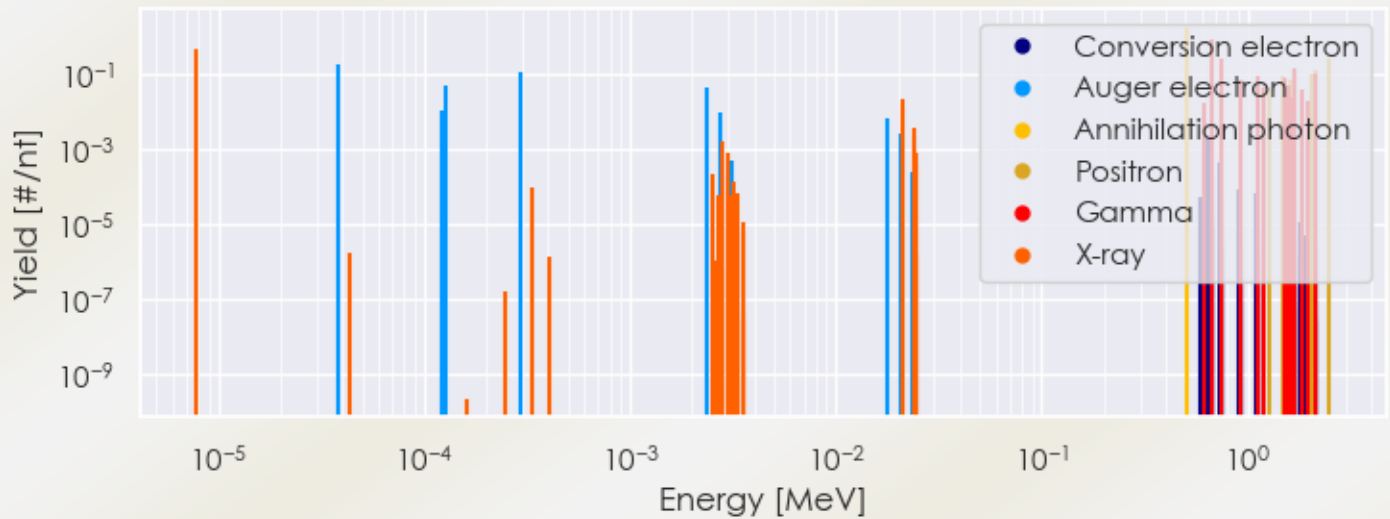
Mean alpha energy: 0.0 [MeV]
Mean electron energy: 1.90681 [MeV]
Mean photon energy: 2.82482 [MeV]
Air kerma rate constant, Γ_{10} : 6.421e-17 [Gy·m²/Bq·s]
Air kerma coefficient, K_{air} : 1.007e-16 [Gy·m²/Bq·s]
Equilibrium dose constant for weakly-penetrating radiations (α and/or electrons), Δ_{wp} : 3.055e-13 [Gy·kg/Bq·s]
Equilibrium dose constant for alphas, Δ_{α} : 0.000e+00 [Gy·kg/Bq·s]

Equilibrium dose constant for betas/electrons, $\Delta_{\beta,\beta^+,e^-}$: 3.055×10^{-13} [Gy·kg/Bq·s]

Equilibrium dose constant for photons, Δ_p : 4.526×10^{-13} [Gy·kg/Bq·s]

SUMMARY SPECTRA (PLOT)

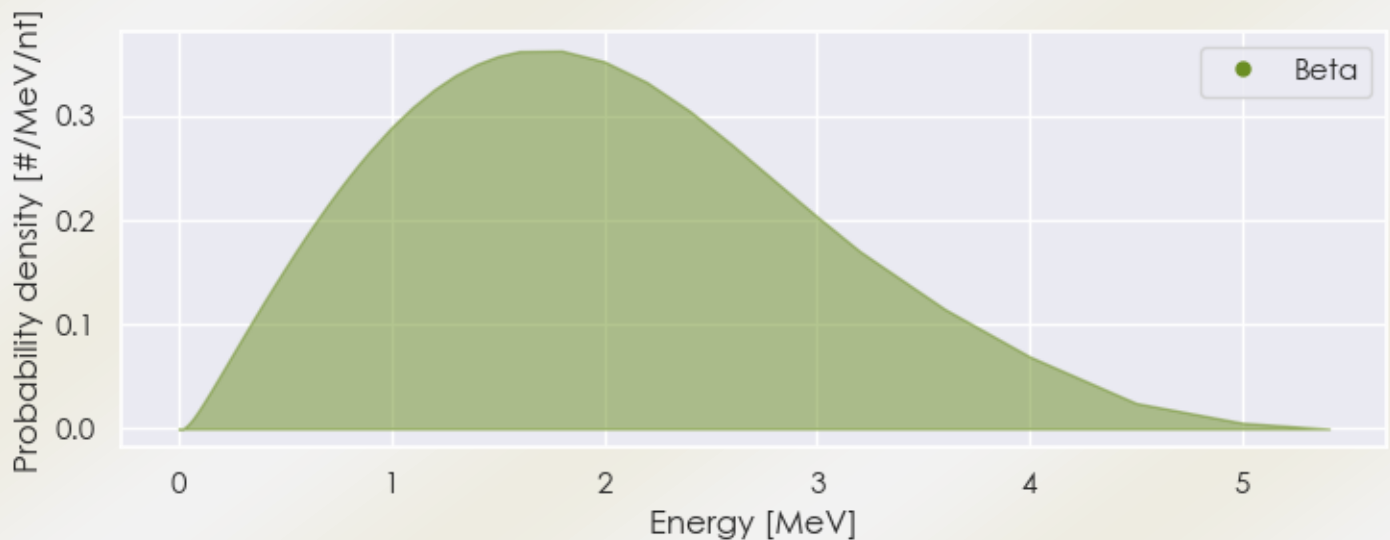
Spectra source: **ICRP Publication 107: Nuclear Decay Data for Dosimetric Calculations. Ann. ICRP 2008, 38 (3).**



Download tabulated summary spectra file here: [www.mirdsoft.org/products/MIRDspecs/Ag-100m Summary Spectrum.csv](http://www.mirdsoft.org/products/MIRDspecs/Ag-100m%20Summary%20Spectrum.csv)

BETA SPECTRA (PLOT)

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



Download tabulated beta spectra file here: [www.mirdsoft.org/products/MIRDspecs/Ag-100m Beta Spectrum.csv](http://www.mirdsoft.org/products/MIRDspecs/Ag-100m%20Beta%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/Ag-100m Summary Spectrum.csv](http://www.mirdsoft.org/products/MIRDspecs/Ag-100m%20Summary%20Spectrum.csv)

Energy [MeV]	Yield [# / nt] if > 0.01	Radiation type
7.85943e-06	4.933e-01	X-ray
2.09884e-02	1.260e-02	X-ray
2.11504e-02	2.381e-02	X-ray
5.11000e-01	1.883e+00	Annihilation photon
6.14100e-01	1.806e-02	Gamma
6.65700e-01	8.600e-01	Gamma
7.50800e-01	2.580e-01	Gamma
9.22300e-01	7.224e-02	Gamma
1.11580e+00	9.460e-02	Gamma
1.20550e+00	4.730e-02	Gamma
1.52360e+00	8.600e-02	Gamma
1.58790e+00	5.332e-02	Gamma
1.63990e+00	2.408e-02	Gamma
1.69390e+00	1.471e-01	Gamma
1.81970e+00	4.128e-02	Gamma
1.95600e+00	1.978e-02	Gamma
2.11810e+00	1.118e-01	Gamma
1.28163e+00	4.653e-02	Positron
1.49399e+00	9.306e-02	Positron
1.61281e+00	7.445e-02	Positron
1.69465e+00	1.266e-01	Positron
2.06261e+00	1.117e-01	Positron
2.09346e+00	7.631e-02	Positron
2.13898e+00	1.396e-01	Positron
2.50635e+00	2.699e-01	Positron
3.81986e-05	1.859e-01	Auger electron
1.21683e-04	1.121e-02	Auger electron

1.26016e-04	4.885e-02	Auger electron
2.92893e-04	1.206e-01	Auger electron
2.38223e-03	4.594e-02	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