



HOLMIUM-168M

SUMMARY DATA

GENERAL

CLASSIFICATION

Isotope: Ho-168m
Atomic number (Z): 67
Mass number (A): 168
Neutron number (N): 101

RADIOACTIVE DECAY

Decay modes: Internal transition
Half-life: 132.0 [s]
Decay constant: 5.2511e-03 [1/s]
Daughters: Ho-168 (100.0%)
Radioactive daughters: Ho-168

DOSIMETRIC CONSTANTS

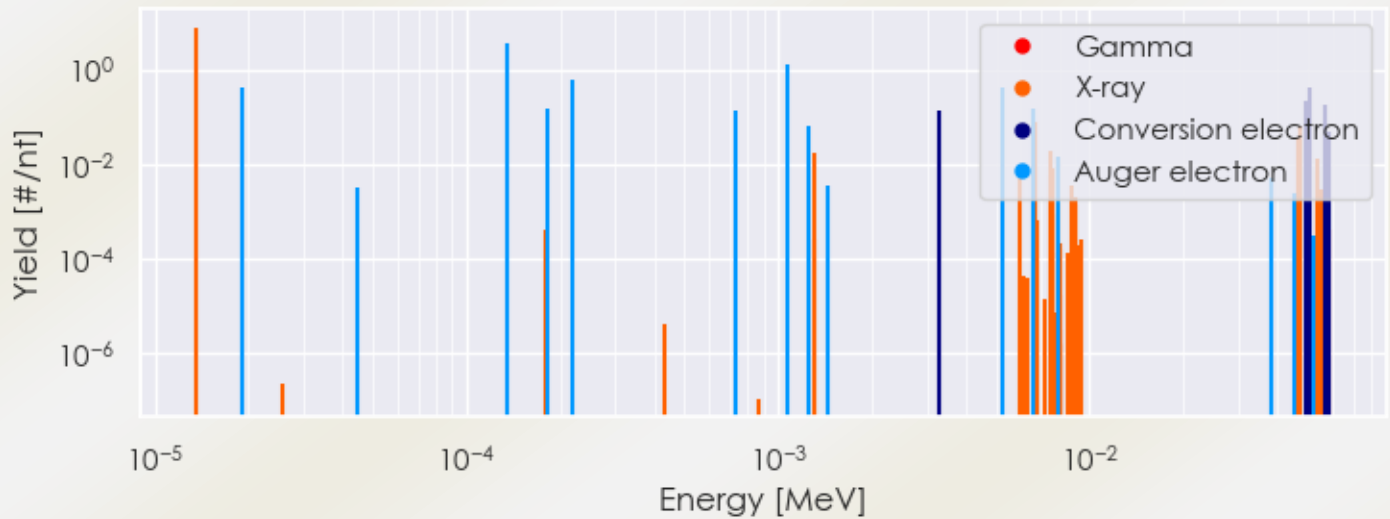
Mean alpha energy: 0.0 [MeV]
Mean electron energy: 0.05176 [MeV]
Mean photon energy: 0.00727 [MeV]
Air kerma rate constant, Γ_{10} : 3.362e-19 [Gy·m²/Bq·s]
Air kerma coefficient, K_{air} : 3.362e-19 [Gy·m²/Bq·s]
Equilibrium dose constant for weakly-penetrating radiations (α and/or electrons), Δ_{wp} : 8.293e-15 [Gy·kg/Bq·s]
Equilibrium dose constant for alphas, Δ_{α} : 0.000e+00 [Gy·kg/Bq·s]

Equilibrium dose constant for betas/electrons, $\Delta_{\beta,\beta^+,e^-}$: 8.293e-15 [Gy·kg/Bq·s]

Equilibrium dose constant for photons, Δ_p : 1.165e-15 [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/Ho-168m Summary Spectrum.csv](http://www.mirdsoft.org/products/MIRDspecs/Ho-168m%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/Ho-168m Summary Spectrum.csv](http://www.mirdsoft.org/products/MIRDspecs/Ho-168m%20Summary%20Spectrum.csv)

Energy [MeV]	Yield [# / nt] if > 0.01	Radiation type
1.36191e-05	7.936e+00	X-ray
1.30022e-03	1.661e-02	X-ray
6.70640e-03	7.732e-02	X-ray
7.53349e-03	1.950e-02	X-ray
7.89547e-03	1.312e-02	X-ray
4.67702e-02	3.574e-02	X-ray

4.76373e-02	6.366e-02	X-ray
5.39705e-02	1.274e-02	X-ray
1.89749e-05	4.187e-01	Auger electron
1.34822e-04	3.620e+00	Auger electron
1.80812e-04	1.451e-01	Auger electron
2.17968e-04	6.159e-01	Auger electron
7.29152e-04	1.370e-01	Auger electron
1.07457e-03	1.265e+00	Auger electron
1.25293e-03	6.644e-02	Auger electron
3.30101e-03	1.320e-01	Conversion electron
5.22717e-03	4.360e-01	Auger electron
6.54510e-03	1.540e-01	Auger electron
7.89563e-03	1.372e-02	Auger electron
4.96398e-02	2.091e-01	Conversion electron
5.00713e-02	2.828e-02	Conversion electron
5.09383e-02	4.042e-01	Conversion electron
5.72715e-02	1.770e-01	Conversion electron
5.90000e-02	4.895e-02	Conversion 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/SNMMI-MAIN/iCore/Store/StoreLayouts/Item_Detail.aspx?iProductCode=0-932004-80-6