

Au-197 (3.4m) CB+A		Au-198 (42.8m) ECB+	Au-199 (3.18h) ECB+	Au-200 (4.94h) ECB+	Au-201 (17.65h) EC	Au-202 (38.02h) ECB+	Au-203 (186.098d) EC	
Pt-186 (2.08h) CA	Pt-187 (2.35h) ECB+	Pt-188 (10.2d) ECA	Pt-189 (11.1h) EC	Pt-190 (6.50E+11y) A	Pt-191 (2.4h) EC	Pt-192 (STABLE)	Pt-193 (50y) EC	Pt-194 (STABLE)
Ir-185 (4.4h) CB+	Ir-186 (16.64h) ECB+	Ir-187 (10.5h) ECB+	Ir-188 (41.5h) ECB+	Ir-189 (11.7h) EC	Ir-190 (15.9h) EC	Ir-191 (STABLE)	Ir-192 (73.827d) B-EC	Ir-193 (STABLE)

PLATINUM-190

SUMMARY DATA

GENERAL

CLASSIFICATION

Isotope: Pt-190
Atomic number (Z): 78
Mass number (A): 190
Neutron number (N): 112

RADIOACTIVE DECAY

Decay modes: α
Half-life: 650000000000.0 [y]
Decay constant: 3.3792e-20 [1/s]
Daughters: Os-186 (100.0%)
Radioactive daughters: Os-186

DOSIMETRIC CONSTANTS

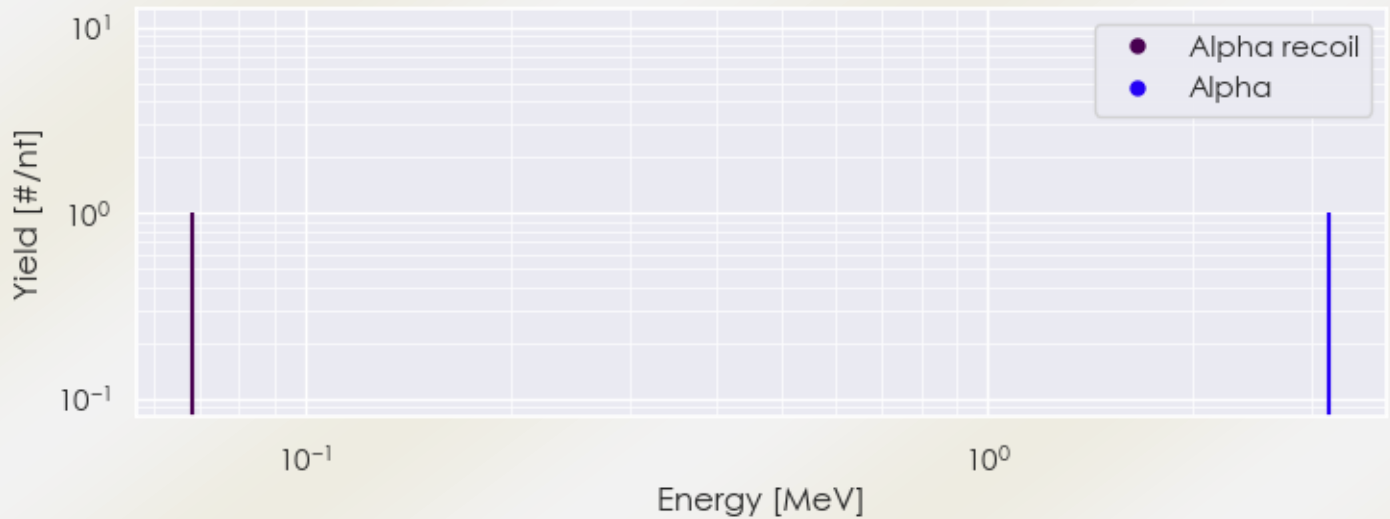
Mean alpha energy: 3.249 [MeV]
Mean electron energy: 0.0 [MeV]
Mean photon energy: 0.0 [MeV]
Air kerma rate constant, Γ_{10} : 0.000e+00 [Gy·m²/Bq·s]
Air kerma coefficient, K_{air} : 0.000e+00 [Gy·m²/Bq·s]
Equilibrium dose constant for weakly-penetrating radiations (α and/or electrons), Δ_{wp} : 5.205e-13 [Gy·kg/Bq·s]
Equilibrium dose constant for alphas, Δ_{α} : 5.205e-13 [Gy·kg/Bq·s]

Equilibrium dose constant for betas/electrons, $\Delta_{\beta-, \beta+, e-}$: 0.000e+00 [Gy·kg/Bq·s]

Equilibrium dose constant for photons, Δ_p : 0.000e+00 [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/Pt-190 Summary Spectrum.csv](http://www.mirdsoft.org/products/MIRDspecs/Pt-190%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/Pt-190 Summary Spectrum.csv](http://www.mirdsoft.org/products/MIRDspecs/Pt-190%20Summary%20Spectrum.csv)

Energy [MeV]	Yield [# / nt] if > 0.01	Radiation type
3.18056e+00	1.000e+00	Alpha
6.84435e-02	1.000e+00	Alpha recoil

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