

	Bi-200 (36.4m) ECB+	Bi-201 (108m) ECB+	Bi-202 (1.72h) ECB+	Bi-203 (11.76h) ECB+	Bi-204 (11.22h) ECB+	Bi-205 (15.31d) ECB+	Bi-206 (6.243d) ECB+	
Pb-197 (3m) CB+	Pb-198 (2.4h) EC	Pb-199 (90m) ECB+	Pb-200 (2.4h) EC	Pb-201m (61s) IT	Pb-202 (5.1h) EC	Pb-203 (51.873h) EC	Pb-204 (STABLE)	Pb-205 (1.53E+7y) EC
Tl-196 (1.84h) CB+	Tl-197 (2.84h) ECB+	Tl-198 (5.3h) ECB+	Tl-199 (7.42h) ECB+	Tl-200 (72.9h) EC	Tl-201 (3.04y) EC	Tl-202 (12.23d) EC	Tl-203 (STABLE)	Tl-204 (3.78y) B-EC

LEAD-201M

SUMMARY DATA

GENERAL

CLASSIFICATION

Isotope: Pb-201m

Atomic number (Z): 82

Mass number (A): 201

Neutron number (N): 119

RADIOACTIVE DECAY

Decay modes: Internal transition

Half-life: 61.0 [s]

Decay constant: 1.1363e-02 [1/s]

Daughters: Pb-201 (100.0%)

Radioactive daughters: Pb-201

DOSIMETRIC CONSTANTS

Mean alpha energy: 0.0 [MeV]

Mean electron energy: 0.26329 [MeV]

Mean photon energy: 0.36582 [MeV]

Air kerma rate constant, Γ_{10} : 1.958e-17 [Gy·m²/Bq·s]

Air kerma coefficient, K_{air} : 1.958e-17 [Gy·m²/Bq·s]

Equilibrium dose constant for weakly-penetrating radiations (α and/or electrons), Δ_{wp} : 4.218e-14 [Gy·kg/Bq·s]

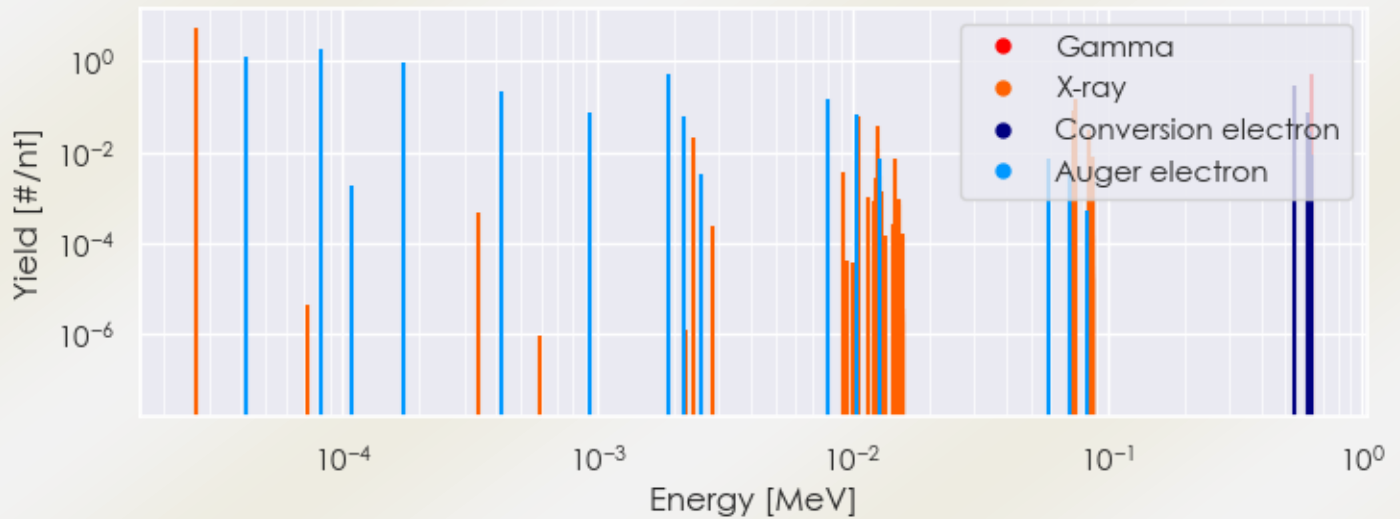
Equilibrium dose constant for alphas, Δ_{α} : 0.000e+00 [Gy·kg/Bq·s]

Equilibrium dose constant for betas/electrons, $\Delta_{\beta-\beta^+,e^-}$: 4.218e-14 [Gy·kg/Bq·s]

Equilibrium dose constant for photons, Δ_p : 5.861e-14 [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/Pb-201m Summary Spectrum.csv](http://www.mirdsoft.org/products/MIRDspecs/Pb-201m%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/Pb-201m Summary Spectrum.csv](http://www.mirdsoft.org/products/MIRDspecs/Pb-201m%20Summary%20Spectrum.csv)

Energy [MeV]	Yield [# / nt] if > 0.01	Radiation type
2.66201e-05	5.686e+00	X-ray
2.37972e-03	2.139e-02	X-ray
1.05510e-02	5.928e-02	X-ray
1.26275e-02	1.141e-02	X-ray
1.26563e-02	3.665e-02	X-ray
7.30390e-02	8.739e-02	X-ray

7.52501e-02	1.468e-01	X-ray
8.47407e-02	1.635e-02	X-ray
8.52354e-02	3.167e-02	X-ray
6.29100e-01	5.422e-01	Gamma
4.21721e-05	1.279e+00	Auger electron
8.23519e-05	1.840e+00	Auger electron
1.73840e-04	9.701e-01	Auger electron
4.23115e-04	2.180e-01	Auger electron
9.31292e-04	7.587e-02	Auger electron
1.91038e-03	5.166e-01	Auger electron
2.17090e-03	6.438e-02	Auger electron
8.04380e-03	1.502e-01	Auger electron
1.04199e-02	6.642e-02	Auger electron
5.40810e-01	3.097e-01	Conversion electron
6.13253e-01	7.470e-02	Conversion electron
6.13849e-01	1.778e-02	Conversion electron
6.16060e-01	1.770e-02	Conversion electron
6.26045e-01	2.863e-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