

Results: 2 different decay possibilities were found

Dataset #1:

Author: F.G. Kondev Citation: Nuclear Data Sheets 101, 521 (2004)

Parent Nucleus	Parent E(level)	Parent J π	Parent T _{1/2}	Decay Mode	GS-GS Q-value (keV)	Daughter Nucleus
²⁰⁹ ₈₄ Po	0.0	1/2-	102 y 5	α : 99.546 7 %	4979.2 14	²⁰⁵ ₈₂ Pb

[Decay Scheme](#) [ENSDF file](#)

Alphas:

Energy (keV)	Intensity (%)	Dose (MeV/Bq-s)
4110 15 ?	5.6E-4 % 4	2.29E-5 16
4310 15 ?	1.5E-4 % 4	6.4E-6 17
4622 5	0.551 % 6	0.0254 3
4883 2	79 % 8	3.9 4
4885 2	19.7 % 20	0.96 10

Electrons:

	Energy (keV)	Intensity (%)	Dose (MeV/Bq-s)
Auger L	7.97	0.07 % 3	5.5E-6 25
Auger K	56.7	0.0039 % 23	2.2E-6 13
CE K	172.50 10	0.08 % 6	1.4E-4 10
CE K	174.80 10	0.026 % 19	5E-5 3
CE L	244.64 10	0.020 % 3	4.9E-5 8
CE L	246.94 10	0.0065 % 11	1.6E-5 3
CE M	256.65 10	0.0049 % 6	1.26E-5 14
CE M	258.95 10	0.00160 % 20	4.1E-6 5

Gamma and X-ray radiation:

	Energy (keV)	Intensity (%)	Dose (MeV/Bq-s)
XR 1	10.6	0.042 % 19	4.5E-6 20
XR k α 2	72.805	0.029 % 17	2.1E-5 12
XR k α 1	74.969	0.05 % 3	3.6E-5 21
XR k β 3	84.45	0.006 % 3	5E-6 3
XR k β 1	84.938	0.011 % 7	1.0E-5 6
XR k β 2	87.3	0.0041 % 24	3.6E-6 21
	260.5 1	0.254 % 3	6.62E-4 8
	262.8 1	0.0850 % 20	2.23E-4 5

Dataset #2:

Author: J. Chen and F.G. Kondev Citation: Nuclear Data Sheets 126, 373 (2015)

Parent Nucleus	Parent E(level)	Parent J π	Parent T _{1/2}	Decay Mode	GS-GS Q-value (keV)	Daughter Nucleus
²⁰⁹ ₈₄ Po	0.0	1/2-	124 y 3	ϵ : 0.454 7 %	1892.6 16	²⁰⁹ ₈₃ Bi

[Decay Scheme](#) [ENSDF file](#)

Electrons:

	Energy (keV)	Intensity (%)	Dose (MeV/Bq-s)
Auger L	8.15	0.222 % 6	1.81E-5 5
Auger K	58.2	0.0118 % 13	6.9E-6 8
CE K	805.75 7	0.0076 %	6.09E-5
CE L	879.89 7	0.00130 %	1.14E-5
CE M	892.28 7	3.06E-4 %	2.73E-6
CE N	895.34 7	7.8E-5 %	6.97E-7
CE O	896.20 7	1.59E-5 %	1.43E-7
CE P	896.28 7	1.88E-6 %	1.69E-8

Gamma and X-ray radiation:

	Energy (keV)	Intensity (%)	Dose (MeV/Bq-s)
XR 1	10.8	0.143 % 6	1.54E-5 7
XR k α 2	74.815	0.0911 % 24	6.82E-5 18
XR k α 1	77.107	0.152 % 4	1.17E-4 3
XR k β 3	86.83	0.0184 % 5	1.60E-5 4
XR k β 1	87.349	0.0352 % 9	3.07E-5 8
XR k β 2	89.784	0.0129 % 3	1.16E-5 3
	896.28 7	0.445 %	0.00399