

Results: 2 different decay possibilities were found

Dataset #1:

Author: M. J. Martin Citation: Nuclear Data Sheets 108,1583 (2007)

Parent Nucleus	Parent E(level)	Parent J π	Parent T _{1/2}	Decay Mode	GS-GS Q-value (keV)	Daughter Nucleus
$^{212}_{87}\text{Fr}$	0.0	5+	20.0 m 6	α : 43 2 %	6528.8 18	$^{208}_{85}\text{At}$

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

Alphas:

Energy (keV)	Intensity (%)	Dose (MeV/Bq-s)
5738 6	8.6E-4 % 9	4.9E-5 5
5828 6	0.022 % 13	0.0013 8
5983 4	0.031 % 10	0.0018 6
6076 3	0.185 % 23	0.0112 14
6127	0.51 % 6	0.031 3
6173 4	0.47 % 6	0.029 3
6183 3	0.56 % 6	0.035 4
6261.9 22	16.3 % 11	1.02 7
6335 3	4.4 % 5	0.28 3
6342 3	1.32 % 12	0.084 8
6383.3 20	10.3 % 6	0.66 4
6406.2 20	9.4 % 6	0.60 4

Gamma and X-ray radiation:

Energy (keV)	Intensity (%)	Dose (MeV/Bq-s)
23.5 2	0.170 % 9	4.01E-5 22
40.1 2	0.21 % 3	8.3E-5 11
50.3 3	0.024 %	1.2E-5
71.9 2	0.62 % 7	4.5E-4 5
84.1	1.1 % 4	9E-4 3
124.5 1	1.44 % 18	0.00179 23
147.9 1	0.072 % 9	1.06E-4 14
163.5 2	0.013 % 8	2.1E-5 14
169.9 2	0.10 % 4	1.6E-4 6
173.6 1	0.11 % 4	1.9E-4 7
202.3 8	0.0023 % 18	5E-6 4
203.7 1	0.10 % 4	2.0E-4 9
213.7 2	0.09 % 4	1.9E-4 8

219.9	1	0.050 % 20	1.1E-4 4
227.2	1	0.19 % 6	4.3E-4 15
260.1	1	0.10 % 3	2.5E-4 8
271.0	2	0.030 % 9	8.1E-5 24
281.6	2	0.008 % 3	2.3E-5 10
283.2	5	0.0021 % 16	6E-6 4
304.7	2	0.0026 % 20	8E-6 6
311.2	1	0.027 % 7	8.3E-5 21
334.7	1	0.085 % 17	2.8E-4 6
357.7	2	0.0053 % 22	1.9E-5 8
361.3	3	0.006 % 4	2.3E-5 15
405.8	2	0.006 % 3	2.6E-5 11
440.6	7 ?	0.0015 % 12	7E-6 5
524.2	3	0.005 % 3	2.5E-5 17
587.9	3	0.0032 % 20	1.9E-5 12
681.7	5	8.6E-4 % 9	5.9E-6 6

Gamma Coincidence Data:

For each gamma, the list of gammas in coincidence is given. If experimentally known, an estimate of the average time interval (in seconds) between both gammas is given

E(γ) Coincidence

23.5 40.1, 50.3, 84.1, 124.5, 144.6, 163.5, 169.9, 173.6, 184.7, 202.3, 203.7, 213.7, 219.9, 260.1, 271.0, 281.6, 304.7, 311.2, 361.3, 405.8, 440.6, 524.2

40.1 23.5, 50.3, 84.1, 144.6, 163.5, 169.9, 173.6, 202.3, 219.9, 271.0, 281.6, 304.7, 361.3, 440.6, 524.2

50.3 23.5, 40.1, 169.9, 304.7

71.9 357.7

84.1 23.5, 40.1, 281.6, 440.6

124.5 23.5, 281.6, 440.6

144.6 23.5, 40.1

147.9 281.6, 440.6

163.5 23.5, 40.1, 202.3, 361.3

169.9 23.5, 40.1, 50.3, 304.7

173.6 23.5, 40.1

184.7 23.5

202.3 23.5, 40.1, 163.5, 203.7, 227.2

203.7 23.5, 202.3, 361.3

213.7 23.5

219.9 23.5, 40.1, 304.7

227.2 202.3, 361.3

260.1 23.5, 304.7

271.0 23.5, 40.1

281.6 23.5, 40.1, 84.1, 124.5, 147.9

283.2 304.7

304.7 23.5, 40.1, 50.3, 169.9, 219.9, 260.1, 283.2

311.2 23.5

357.7 71.9

361.3 23.5, 40.1, 163.5, 203.7, 227.2

405.8 23.5

440.6 23.5, 40.1, 84.1, 124.5, 147.9

524.2 23.5, 40.1

Dataset #2:

Author: E. Browne Citation: Nuclear Data Sheets 104, 427 (2005)

Parent Nucleus	Parent E(level)	Parent J π	Parent T $_{1/2}$	Decay Mode	GS-GS Q-value (keV)	Daughter Nucleus
$^{212}_{87}\text{Fr}$	0.0	5+	20.0 m 6	ϵ : 57 2 %	5122 26	$^{212}_{86}\text{Rn}$

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

Beta+:

Energy (keV)	End-point energy (keV)	Intensity (%)	Dose (MeV/Bq-s)
650 12	1.41E+3 3	0.47 % 5	0.0031 3
818 12	1.80E+3 3	0.171 % 18	0.00140 15
1109 12	2.46E+3 3	2.05 % 22	0.0228 24
1171 12	2.60E+3 3	2.00 % 21	0.0234 25

Mean beta+ energy: 1.08E+3 keV 10, total beta+ intensity: 4.7 % 3, mean beta+ dose: 0.051 MeV/Bq-s 6

Electrons:

	Energy (keV)	Intensity (%)	Dose (MeV/Bq-s)
Auger L	8.71	37.3 % 16	0.00325 14
CE K	39.90 10	2.49 % 15	9.9E-4 6
Auger K	62.7	1.64 % 21	0.00103 13
CE L	120.25 11	10.6 % 6	0.0127 8
CE K	129.32 10	5.386 %	0.006965
CE M	133.82 10	2.84 % 17	0.00380 23
CE L	209.67 11	6.664 %	0.013972
CE M	223.24 10	1.763 %	0.0039352
CE K	1176.4 20	0.190 % 19	0.00224 22
CE L	1256.8 20	0.037 % 4	4.6E-4 5

Gamma and X-ray radiation:

	Energy (keV)	Intensity (%)	Dose (MeV/Bq-s)
XR 1	11.7	27.9 % 14	0.00327 17
XR $k\alpha_2$	81.069	13.9 % 7	0.0112 6
XR $k\alpha_1$	83.787	22.9 % 12	0.0192 10
XR $k\beta_3$	94.247	2.76 % 15	0.00260 14
XR $k\beta_1$	94.868	5.3 % 3	0.0050 3

XR $k\beta_2$	97.53	1.98 % 11	0.00193 10
	138.30 10	7.7 % 5	0.0107 6
	227.72 10	42.6 %	0.097
Annihil.	511.0	9.4 % 6	
	801.9 15	3.6 % 4	0.029 3
	1047.3 20	7.2 % 8	0.076 8
	1185.6 20	14.1 % 18	0.167 21
	1274.8 20	46 % 5	0.59 6

Gamma Coincidence Data:

For each gamma, the list of gammas in coincidence is given. If experimentally known, an estimate of the average time interval (in seconds) between both gammas is given

E(γ) Coincidence

138.30 227.72, 1047.3, 1274.8

227.72 138.30, 801.9, 1047.3, 1185.6, 1274.8

801.9 227.72, 1274.8

1047.3 138.30, 227.72, 1274.8

1185.6 227.72, 1274.8

1274.8 138.30, 227.72, 801.9, 1047.3, 1185.6