1 Half-life, Q-value and Decay mode

$T_{1/2}$	:	11.43	(3)	d
Q_α	:	5978.99	(21)	keV
α	:	100		%

2 α Emissions

	Energy keV	Probability × 100
$\alpha_{0,30}$	5014.3	~0.00044
$\alpha_{0,29}$	5026.1	~0.00063
$\alpha_{0,28}$	5035.9	~0.0004
$\alpha_{0,27}$	5056.5	~0.0002
$\alpha_{0,26}$	5086	~0.0003
$\alpha_{0,25}$	5112.5	~0.0006
$\alpha_{0,24}$	5137.1	~0.0017
$\alpha_{0,23}$	5151.98 (23)	0.021
$\alpha_{0,22}$	5173.10 (23)	0.026
$\alpha_{0,21}$	5211.1 (5)	0.0053
$\alpha_{0,20}$	5237.12 (23)	0.041
$\alpha_{0,19}$	5259.14 (21)	0.042
$\alpha_{0,18}$	5283.65 (21)	0.093
$\alpha_{0,17}$	5288.19 (23)	0.16 (4)
$\alpha_{0,16}$	5339.37 (21)	0.13
$\alpha_{0,14}$	5366.37 (23)	0.13
$\alpha_{0,12}$	5432.83 (21)	0.50 (8)
$\alpha_{0,11}$	5434.60 (21)	1.60 (24)
$\alpha_{0,10}$	5481.7 (5)	0.008
$\alpha_{0,8}$	5502.12 (21)	0.74 (25)
$\alpha_{0,6}$	5539.43 (21)	10.6 (10)
$\alpha_{0,5}$	5606.99 (21)	25.8 (11)
$\alpha_{0,4}$	5715.84 (21)	49.6 (12)
$\alpha_{0,3}$	5747.14 (21)	10.0 (3)
$\alpha_{0,2}$	5857.52 (21)	0.32 (4)
$\alpha_{0,0}$	5871.63 (21)	1.0 (2)

3 Electron Emissions

		Energy keV	Electrons per 100 disint.
e_{AL}	(Rn)	5.66 - 17.95	30.1 (4)
e_{AK}	(Rn)		1.73 (21)
	KLL	62.017 - 68.885	}
	KLX	75.744 - 83.785	}
	KXY	89.45 - 98.39	}
$ec_{17,13\ K}$	(Rn)	4.8 (2)	0.03 (3)

		Energy keV	Electrons per 100 disint.
$ec_{2,1}$ M	(Rn)	5.4 - 7.0	11.8 (16)
$ec_{12,7}$ K	(Rn)	5.64 (4)	0.1 (1)
$ec_{11,6}$ K	(Rn)	8.38 (3)	0.204 (13)
$ec_{2,1}$ N	(Rn)	8.8 - 9.7	3.05 (41)
$ec_{2,0}$ M	(Rn)	9.90 - 11.49	7.6 (6)
$ec_{5,4}$ K	(Rn)	12.46 (1)	0.0211 (15)
$ec_{2,0}$ N	(Rn)	13.28 - 14.15	1.96 (15)
$ec_{4,3}$ L	(Rn)	13.82 - 17.26	0.156 (31)
$ec_{3,1}$ K	(Rn)	23.92 (1)	7.28 (16)
$ec_{4,3}$ M	(Rn)	27.40 - 28.99	0.042 (8)
$ec_{4,3}$ N	(Rn)	30.78 - 31.65	0.0108 (22)
$ec_{4,2}$ K	(Rn)	45.87 (2)	12.40 (36)
$ec_{12,9}$ L	(Rn)	51.5 - 54.9	0.039 (17)
$ec_{4,1}$ K	(Rn)	55.81 (1)	18.0 (5)
$ec_{4,0}$ K	(Rn)	60.24 (1)	1.98 (10)
$ec_{6,4}$ K	(Rn)	81.14 (6)	0.249 (25)
$ec_{17,13}$ L	(Rn)	85.2 - 88.6	0.021 (15)
$ec_{12,7}$ L	(Rn)	85.99 - 89.43	0.064 (32)
$ec_{11,6}$ L	(Rn)	88.73 - 92.17	0.0375 (23)
$ec_{5,4}$ L	(Rn)	92.808 - 96.250	0.214 (15)
$ec_{12,7}$ M	(Rn)	99.57 - 101.16	0.017 (10)
$ec_{3,1}$ L	(Rn)	104.271 - 107.710	1.373 (30)
$ec_{5,4}$ M	(Rn)	106.383 - 107.972	0.0577 (41)
$ec_{5,4}$ N	(Rn)	109.770 - 110.634	0.0150 (11)
$ec_{3,1}$ M	(Rn)	117.846 - 119.435	0.328 (7)
$ec_{3,1}$ N	(Rn)	121.230 - 122.097	0.0854 (19)
$ec_{4,2}$ L	(Rn)	126.22 - 129.66	2.30 (6)
$ec_{4,1}$ L	(Rn)	136.16 - 139.60	3.27 (9)
$ec_{4,2}$ M	(Rn)	139.80 - 141.39	0.547 (15)
$ec_{4,0}$ L	(Rn)	140.587 - 144.020	0.373 (12)
$ec_{4,2}$ N	(Rn)	143.18 - 144.05	0.143 (4)
$ec_{4,1}$ M	(Rn)	149.735 - 151.324	0.777 (21)
$ec_{8,3}$ K	(Rn)	151.09 (3)	0.019 (16)
$ec_{4,1}$ N	(Rn)	153.120 - 153.986	0.203 (5)
$ec_{17,7}$ K	(Rn)	153.2 (3)	0.022 (22)
$ec_{4,0}$ M	(Rn)	154.162 - 155.751	0.0891 (35)
$ec_{4,0}$ N	(Rn)	157.540 - 158.413	0.0232 (9)
$ec_{6,4}$ L	(Rn)	161.49 - 164.93	0.058 (5)
$ec_{5,0}$ K	(Rn)	171.07 (1)	9.06 (27)
$ec_{6,4}$ M	(Rn)	175.07 - 176.66	0.0142 (13)
$ec_{6,2}$ K	(Rn)	225.47 (1)	1.55 (7)
$ec_{6,0}$ K	(Rn)	239.88 (1)	0.992 (25)
$ec_{5,0}$ L	(Rn)	251.415 - 254.850	1.65 (4)
$ec_{5,0}$ M	(Rn)	264.990 - 266.579	0.391 (10)
$ec_{5,0}$ N	(Rn)	268.370 - 269.241	0.1019 (28)
$ec_{8,1}$ K	(Rn)	273.279 (15)	0.135 (4)
$ec_{6,2}$ L	(Rn)	305.823 - 309.260	0.281 (9)
$ec_{6,2}$ M	(Rn)	319.398 - 320.987	0.0666 (21)

		Energy keV	Electrons per 100 disint.
$ec_{6,0}$ L	(Rn)	320.234 - 323.670	0.177 (5)
$ec_{6,2}$ N	(Rn)	322.780 - 323.649	0.0174 (5)
$ec_{6,0}$ M	(Rn)	333.809 - 335.398	0.0420 (11)
$ec_{6,0}$ N	(Rn)	337.19 - 338.06	0.0109 (3)
$ec_{11,0}$ K	(Rn)	346.636 (12)	0.213 (7)
$ec_{8,1}$ L	(Rn)	353.628 - 357.070	0.0240 (6)
$ec_{11,0}$ L	(Rn)	426.985 - 430.420	0.0378 (13)

4 Photon Emissions

4.1 X-Ray Emissions

		Energy keV	Photons per 100 disint.	
XL	(Rn)	10.1372 — 17.2578	22.1 (4)	
XKα_2	(Rn)	81.07	14.86 (23)	} Kα
XKα_1	(Rn)	83.78	24.5 (4)	}
XKβ_3	(Rn)	94.247	}	
XKβ_1	(Rn)	94.868	} 8.50 (18)	Kβ_1'
XKβ_5''	(Rn)	95.449	}	
XKβ_2	(Rn)	97.48	}	
XKβ_4	(Rn)	97.853	} 2.72 (7)	Kβ_2'
$XKO_{2,3}$	(Rn)	98.357	}	

4.2 Gamma Transitions and Emissions

	Energy keV	$P_{\gamma+ce}$ × 100	Multipolarity	α_T	P_γ × 100
$\gamma_{1,0}$(Rn)	4.47 (1)	54.9 (23)	E2	860000	0.0000064
$\gamma_{2,1}$(Rn)	9.90 (2)	15.7 (21)	M1+E2	990 (40)	0.0158 (20)
$\gamma_{2,0}$(Rn)	14.37 (1)	10.0 (8)	M1+E2	539 (15)	0.0185 (13)
$\gamma_{4,3}$(Rn)	31.87 (2)	0.21 (4)	(E2)	2010 (30)	0.000105 (21)
$\gamma_{12,9}$(Rn)	69.5 (1)	0.059 (25)	M1	7.36 (11)	0.007 (3)
$\gamma_{15,12}$(Rn)	70.9 (2)	0.0036 (11)			0.0036 (11)
$\gamma_{11,7}$(Rn)	102.2 (2)	0.0008 (4)			0.0008 (4)
$\gamma_{17,13}$(Rn)	103.2 (2)	0.064 (35)	M1+E2	9.6 (24)	0.006 (3)
$\gamma_{12,7}$(Rn)	104.04 (4)	0.20 (5)	M1+E2	9.4 (24)	0.0194 (21)
$\gamma_{11,6}$(Rn)	106.78 (3)	0.277 (17)	(M1)	10.89 (16)	0.0233 (14)
$\gamma_{12,6}$(Rn)	108.5 (2)	0.006 (3)			0.006 (3)
$\gamma_{5,4}$(Rn)	110.856 (10)	0.369 (26)	E2	5.36 (8)	0.058 (4)
$\gamma_{13,8}$(Rn)	114.7 (2)	0.010 (4)			0.010 (4)
$\gamma_{3,1}$(Rn)	122.319 (10)	10.32 (21)	M1+E2	7.34 (11)	1.238 (19)
$\gamma_{20,14}$(Rn)	131.6 (2)	0.006 (3)			0.006 (3)

	Energy keV	$P_{\gamma+ce}$ × 100	Multipolarity	α_T	P_γ × 100
$\gamma_{14,8}$(Rn)	138.3 (3)	0.0017 (7)			0.0017 (7)
$\gamma_{4,2}$(Rn)	144.27 (2)	18.8 (5)	M1+E2	4.59 (7)	3.36 (8)
$\gamma_{17,12}$(Rn)	147.2 (3)	0.006 (3)			0.006 (3)
$\gamma_{4,1}$(Rn)	154.208 (10)	28.2 (7)	M1	3.83 (6)	5.84 (13)
$\gamma_{4,0}$(Rn)	158.635 (10)	3.18 (11)	M1+E2	3.46 (12)	0.713 (16)
$\gamma_{16,8}$(Rn)	165.8 (2)	0.0054 (28)			0.0054 (28)
$\gamma_{11,5}$(Rn)	175.65 (15)	0.017 (4)			0.017 (4)
$\gamma_{12,5}$(Rn)	177.3 (1)	0.047 (4)			0.047 (4)
$\gamma_{6,4}$(Rn)	179.54 (6)	0.480 (45)	M1+E2	2.12 (7)	0.154 (14)
$\gamma_{20,12}$(Rn)	199.3 (3)	0.0030 (14)			0.0030 (14)
$\gamma_{18,9}$(Rn)	221.32 (24)	0.038 (6)	E1	0.0675 (10)	0.036 (6)
$\gamma_{19,8}$(Rn)	247.2 (5)	0.0097 (28)			0.0097 (28)
$\gamma_{8,3}$(Rn)	249.49 (3)	0.061 (22)	M1+E2	0.6 (4)	0.038 (10)
$\gamma_{17,7}$(Rn)	251.6 (3)	0.088 (27)	M1+E2	0.6 (4)	0.055 (10)
$\gamma_{5,2}$(Rn)	255.2 (2)	0.048 (7)			0.048 (7)
$\gamma_{17,6}$(Rn)	255.7 (3)	0.0055 (28)			0.0055 (28)
$\gamma_{18,6}$(Rn)	260.4 (3)	0.0067 (28)			0.0067 (28)
$\gamma_{5,0}$(Rn)	269.463 (10)	25.5 (6)	M1+E2	0.789 (14)	14.23 (32)
$\gamma_{10,3}$(Rn)	270.3 (4)	0.0007 (4)			0.0007 (4)
$\gamma_{23,12}$(Rn)	286.0 (4)	0.0011 (6)			0.0011 (6)
$\gamma_{12,4}$(Rn)	288.18 (3)	0.167 (5)	E1	0.0364 (6)	0.161 (5)
$\gamma_{6,2}$(Rn)	323.871 (10)	5.98 (14)	M1+E2	0.473 (17)	4.06 (8)
$\gamma_{7,2}$(Rn)	328.38 (3)	0.209 (10)	(E1)	0.0271 (4)	0.203 (10)
$\gamma_{6,1}$(Rn)	334.01 (6)	0.110 (7)	(E2)	0.1007 (15)	0.100 (6)
$\gamma_{6,0}$(Rn)	338.282 (10)	4.08 (9)	M1	0.430 (6)	2.85 (6)
$\gamma_{7,0}$(Rn)	342.78 (2)	0.232 (13)	E1	0.0246 (4)	0.226 (13)
$\gamma_{23,9}$(Rn)	355.5 (2)	0.0043 (14)			0.0043 (14)
$\gamma_{14,4}$(Rn)	355.7 (2)	0.0028 (14)			0.0028 (14)
$\gamma_{8,2}$(Rn)	361.89 (2)	0.028 (7)			0.028 (7)
$\gamma_{9,2}$(Rn)	362.9 (2)	0.016 (7)			0.016 (7)
$\gamma_{22,7}$(Rn)	368.56 (12)	0.009 (4)			0.009 (4)
$\gamma_{8,1}$(Rn)	371.676 (15)	0.665 (15)	M1	0.333 (5)	0.499 (11)
$\gamma_{9,1}$(Rn)	372.86 (6)	0.052	E1	0.0205 (3)	0.051
$\gamma_{8,0}$(Rn)	376.26 (2)	0.013 (4)			0.013 (4)
$\gamma_{16,4}$(Rn)	383.35 (2)	0.007 (4)			0.007 (4)
$\gamma_{14,3}$(Rn)	387.7 (2)	0.016 (6)			0.016 (6)
$\gamma_{23,7}$(Rn)	390.1 (2)	0.0046 (21)			0.0046 (21)
$\gamma_{11,2}$(Rn)	430.6 (3)	0.020 (6)			0.020 (6)
$\gamma_{12,2}$(Rn)	432.45 (3)	0.0356 (29)			0.0356 (29)
$\gamma_{11,0}$(Rn)	445.033 (12)	1.542 (48)	M1	0.205 (3)	1.28 (4)
$\gamma_{20,4}$(Rn)	487.5 (2)	0.011 (2)			0.011 (2)
$\gamma_{-1,1}$(Rn)	490.8 (3)	0.0017 (7)			0.0017 (7)
$\gamma_{14,2}$(Rn)	500.0 (4)	0.0014 (6)			0.0014 (6)
$\gamma_{14,1}$(Rn)	510.0 (4)	0.0004 (3)			0.0004 (3)
$\gamma_{-1,2}$(Rn)	523.2 (4)	0.0014 (6)			0.0014 (6)
$\gamma_{16,2}$(Rn)	527.611 (13)	0.073 (4)			0.073 (4)
$\gamma_{-1,3}$(Rn)	532.9 (4)	0.0014 (6)			0.0014 (6)
$\gamma_{16,1}$(Rn)	537.6 (1)	0.0021 (7)			0.0021 (7)

	Energy keV	$P_{\gamma+ce}$ × 100	Multipolarity	α_T	P_γ × 100
$\gamma_{16,0}$(Rn)	541.99 (2)	0.0014 (6)			0.0014 (6)
$\gamma_{21,3}$(Rn)	545.8 (5)	0.0011 (6)			0.0011 (6)
$\gamma_{23,4}$(Rn)	574.1 (7)	0.0011 (6)			0.0011 (6)
$\gamma_{17,2}$(Rn)	579.6 (3)	0.0014 (6)			0.0014 (6)
$\gamma_{18,2}$(Rn)	584.3 (3)	0.0014 (6)			0.0014 (6)
$\gamma_{17,0}$(Rn)	594.0 (3)	0.0014 (6)			0.0014 (6)
$\gamma_{18,0}$(Rn)	598.721 (24)	0.092 (4)			0.092 (4)
$\gamma_{19,2}$(Rn)	609.31 (4)	0.057 (3)			0.057 (3)
$\gamma_{19,1}$(Rn)	619.1 (4)	0.0036 (11)			0.0036 (11)
$\gamma_{19,0}$(Rn)	623.68 (4)	0.009 (4)			0.009 (4)
$\gamma_{20,2}$(Rn)	631.7 (7)	0.0004 (3)			0.0004 (3)
$\gamma_{20,1}$(Rn)	641.7 (4)	0.0017 (7)			0.0017 (7)
$\gamma_{20,0}$(Rn)	646.1 (5)	0.0004 (4)			0.0004 (4)
$\gamma_{22,2}$(Rn)	696.9 (7)	0.0007 (3)			0.0007 (3)
$\gamma_{22,0}$(Rn)	711.3 (2)	0.0037 (10)			0.0037 (10)
$\gamma_{23,2}$(Rn)	718.4 (4)	0.0014 (6)			0.0014 (6)
$\gamma_{23,1}$(Rn)	728.4 (8)	0.00028 (14)			0.00028 (14)
$\gamma_{23,0}$(Rn)	732.8 (6)	0.0006 (3)			0.0006 (3)
$\gamma_{-1,25}$(Rn)	737.2 (8)	0.00028 (14)			0.00028 (14)

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