

## 1 Half-life, Q-value and Decay mode

$T_{1/2}$	:	3.631	(2)	d
$Q_\alpha$	:	5788.85	(15)	keV
$\alpha$	:	100		%
$^{14}\text{C}$	:	5	(1)	$\times 10^{-9}$ %

## 2 $\alpha$ Emissions

	Energy keV	Probability $\times 100$
$\alpha_{0,4}$	5034.29 (18)	0.0030 (5)
$\alpha_{0,3}$	5051.56 (17)	0.0076 (10)
$\alpha_{0,2}$	5161.32 (18)	0.0072 (8)
$\alpha_{0,1}$	5448.80 (15)	5.25 (5)
$\alpha_{0,0}$	5685.48 (15)	94.73 (5)

## 3 Electron Emissions

		Energy keV	Electrons per 100 disint.
e <sub>AL</sub>	(Rn)	5.58 - 11.48	0.498 (16)
e <sub>AK</sub>	(Rn)		0.0151 (19)
	KLL	62.017 - 68.885	}
	KLX	75.744 - 83.785	}
	KXY	89.45 - 98.39	}
ec <sub>1,0</sub> K	(Rn)	142.590 (6)	0.46 (2)
ec <sub>1,0</sub> L	(Rn)	222.938 - 226.376	0.50 (3)
ec <sub>1,0</sub> M	(Rn)	236.513 - 238.102	0.134 (3)
ec <sub>1,0</sub> N	(Rn)	239.900 - 240.764	0.0347 (6)

## 4 Photon Emissions

### 4.1 X-Ray Emissions

		Energy keV	Photons per 100 disint.	
XL	(Rn)	10.137 — 17.28	0.373 (16)	
XK $\alpha_2$	(Rn)	81.07	0.130 (3)	} K $\alpha$
XK $\alpha_1$	(Rn)	83.78	0.214 (4)	
XK $\beta_3$	(Rn)	94.247	}	} K $\beta'_1$
XK $\beta_1$	(Rn)	94.868	}	
XK $\beta'_5$	(Rn)	95.449	}	
XK $\beta_2$	(Rn)	97.48	}	} K $\beta'_2$
XK $\beta_4$	(Rn)	97.853	}	
XKO <sub>2,3</sub>	(Rn)	98.357	}	

## 4.2 Gamma Transitions and Emissions

	Energy keV	$P_{\gamma+ce}$ $\times 100$	Multipolarity	$\alpha_T$	$P_\gamma$ $\times 100$
$\gamma_{1,0}(\text{Rn})$	240.986 (6)	5.26 (5)	E2	0.276 (4)	4.12 (4)
$\gamma_{2,1}(\text{Rn})$	292.7 (1)	0.0072 (8)	E2	0.1487 (21)	0.0063 (7)
$\gamma_{3,1}(\text{Rn})$	404.45 (9)	0.0022 (5)	E1	0.01717 (24)	0.0022 (5)
$\gamma_{4,1}(\text{Rn})$	422.04 (10)	0.0030 (5)	[E1]	0.01567 (22)	0.0030 (5)
$\gamma_{3,0}(\text{Rn})$	645.44 (9)	0.0054 (9)	E1	0.00663 (10)	0.0054 (9)

## 5 References

- F.ASARO, F.STEPHENS JR., I.PERLMAN, Phys. Rev. 92 (1953) 1495  
(Alpha-particle emission probabilities)
- R.J.WALEN, Compt. Rend. Acad. Sci. (Paris) 255 (1962) 1604  
(Alpha emission energies)
- R.D.LLOYD, C.W.MAYS, D.R.ATHERTON, D.O.CLARK, Report COO-225, Utah Univ. (1962) 88  
(Half-life)
- G.BASTIN-SCOFFIER, Compt. Rend. Acad. Sci. (Paris) 254 (1962) 3854  
(Alpha emission energies)
- A.PEGHAIRE, Nucl. Instrum. Methods 75 (1969) 66  
(Gamma-ray emission probabilities)
- B.GRENNBERG, A.RYTZ, Metrologia 7 (1971) 65  
(Alpha emission energy)
- J.C.SOARES, J.P.RIBEIRO, A.GONCALVES, F.B.GIL, J.G.FERREIRA, Compt. Rend. Acad. Sci. (Paris) Ser. B 273 (1971) 985  
(Alpha-particle emission probabilities)
- K.C.JORDAN, G.W.OTTO, R.P.RATAY, J. Inorg. Nucl. Chem. 33 (1971) 1215  
(Half-life)
- J.DALMASSO, Thesis, Report FRNC-TH-441, Univ. Nice (1972)  
(Gamma-ray emission probabilities)
- J.DALMASSO, H.MARIA, C.YTHIER, Compt. Rend. Acad. Sci. (Paris) Ser. B 277 (1973) 467  
(Gamma-ray emission probabilities)
- F.P.LARKINS, At. Data Nucl. Data Tables 20 (1977) 311  
(Auger electron energies)
- W.KURCEWICZ, N.KAFFRELL, N.TRAUTMANN, A.PLOCHOCKI, J.ZYLICZ, M.MATUL, K.STRYCZNIEWICZ, Nucl. Phys. A289 (1977) 1  
(Gamma-ray energies, Gamma-ray emission probabilities)
- S.SADASIVAN, V.M.RAGHUNATH, Nucl. Instrum. Methods 196 (1982) 561  
(Gamma-ray emission probabilities)
- R.VANINBROUKX, H.H.HANSEN, Int. J. Appl. Radiat. Isotop. 34 (1983) 1395  
(Gamma-ray emission probabilities)
- U.SCHÖTZIG, K.DEBERTIN, Int. J. Appl. Radiat. Isotop. 34 (1983) 533  
(Gamma-ray emission probabilities)
- R.J.GEHRKE, V.J.NOVIK, J.D.BAKER, Int. J. Appl. Radiat. Isotop. 35 (1984) 581  
(Gamma-ray emission probabilities)
- G.BORTELS, D.REHER, R.VANINBROUKX, Int. J. Appl. Radiat. Isotop. 35 (1984) 305  
(Gamma-ray emission probabilities)
- P.B.PRICE, J.D.STEVENSON, S.W.BARWICK, H.L.RAVN, Phys. Rev. Lett. 54 (1985) 297  
(Cluster decay)
- A.RYTZ, At. Data Nucl. Data Tables 47 (1991) 205  
(Alpha emission energies)
- E.HOURANI, L.ROSIER, G.BERRIER-RONSIN, A.ELAYI, A.C.MUELLER, G.RAPPENECKER, G.ROTBARD, G.RENOU, A.LIEBE, L.STAB, H.L.RAVN, Phys. Rev. C44 (1991) 1424  
(Cluster decay)

- W.-J.LIN, G.HARBOTTLE, J. Radioanal. Nucl. Chem. 157 (1992) 367  
(Gamma-ray emission probabilities)
- T.BABELIOWSKY, G.BORTELS, Appl. Radiat. Isot. 44 (1993) 1349  
(Alpha-particle emission probabilities)
- G.ARDISSON, M.HUSSONNOIS, Radiochim. Acta 70/71 (1995) 123  
(Cluster decay)
- E.SCHÖNFELD, H.JANSSEN, Nucl. Instrum. Methods Phys. Res. A369 (1996) 527  
(K-x ray, L-x ray, Auger electrons)
- A.ARTNA-COHEN, Nucl. Data Sheets 80 (1997) 157  
(Nuclear structure, energies)
- S.P.TRETYAKOVA, V.L.MIKHEEV, Nuovo Cim. 110 (1997) 1043  
(Cluster decay)
- E.SCHÖNFELD, G.RODLOFF, Report PTB-6.11-98-1, Braunschweig (1998)  
(Auger electrons)
- E.SCHÖNFELD, G.RODLOFF, Report PTB-6.11-1999-1, Braunschweig (1999)  
(KX-ray)
- I.M.BAND, M.B.TRZHASKOVSKAYA, C.W.NESTOR JR., P.O.TIKKANEN, S.RAMAN, At. Data Nucl. Data Tables 81 (2002) 1  
(Theoretical ICC)
- S.RAMAN, C.W.NESTOR JR., A.ICHIHARA, M.B.TRZHASKOVSKAYA, Phys. Rev. C66 (2002) 044312  
(Theoretical ICC)
- G.AUDI, A.H.WAPSTRA, C.THIBAUT, Nucl. Phys. A729 (2003) 337  
(Q)
- H.SCHRADER, Appl. Radiat. Isot. 60 (2004) 317  
(Half-life)
- N.J.STONE, J.R.STONE, M.LINDROOS, P.RICHARDS, M.VESKOVIC, D.A.WILLIAMS, Nucl. Phys. A793 (2007) 1  
(Half-life)
- T.KIBÉDI, T.W.BURROWS, M.B.TRZHASKOVSKAYA, P.M.DAVIDSON, C.W.NESTOR JR., Nucl. Instrum. Methods Phys. Res. A589 (2008) 202  
(Theoretical ICC)