

1 Half-life, Q-value and Decay mode

$T_{1/2}$:	5.75	(4)	y
Q_{β^-}	:	45.8	(7)	keV
β^-	:	100		%

2 β^- Transitions

	Energy keV	Probability $\times 100$	Nature	$\log ft$
$\beta_{0,4}^-$	12.7 (7)	30 (10)	Allowed	5.11
$\beta_{0,3}^-$	25.6 (7)	8.7 (9)	1st forbidden	6.2
$\beta_{0,2}^-$	39.1 (7)	49 (10)	Allowed	6.45
$\beta_{0,1}^-$	39.5 (7)	12 (10)	1st forbidden	7.07

3 Electron Emissions

		Energy keV	Electrons per 100 disint.	Energy keV
eAL	(Ac)	5.87 - 19.67	12 (5)	
ec _{1,0} M	(Ac)	1.28 - 3.06	9 (7)	
ec _{1,0} N	(Ac)	5.01 - 5.97	2.5 (21)	
ec _{2,0} M	(Ac)	1.67 - 3.45	67 (11)	
ec _{2,0} N	(Ac)	5.40 - 6.36	17.8 (28)	
ec _{3,2} M	(Ac)	8.52 - 10.30	7.17 (46)	
ec _{3,2} N	(Ac)	12.25 - 13.21	1.82 (12)	
ec _{4,2} L	(Ac)	6.6 - 10.5	21 (8)	
ec _{4,2} M	(Ac)	21.4 - 23.2	5.2 (19)	
ec _{4,2} N	(Ac)	25.1 - 26.1	1.38 (49)	
ec _{4,3} M	(Ac)	7.88 - 9.66	1.53 (31)	
ec _{4,3} N	(Ac)	11.61 - 12.57	0.39 (8)	
$\beta_{0,4}^-$	max:	12.7 (7)	30 (10)	avg: 3.2 (2)
$\beta_{0,3}^-$	max:	25.6 (7)	8.7 (9)	avg: 6.5 (2)
$\beta_{0,2}^-$	max:	39.1 (7)	49 (10)	avg: 9.9 (2)
$\beta_{0,1}^-$	max:	39.5 (7)	12 (10)	avg: 10.0 (2)

4 Photon Emissions

4.1 X-Ray Emissions

		Energy keV	Photons per 100 disint.
XL	(Ac)	10.8701 — 18.9228	9.6 (19)

4.2 Gamma Transitions and Emissions

	Energy keV	$P_{\gamma+ce}$ $\times 100$	Multipolarity	α_T	P_γ $\times 100$
$\gamma_{1,0}(Ac)$	6.28 (3)	12 (10)	M2	6680000 (190000)	0.0000018 (15)
$\gamma_{2,0}(Ac)$	6.67 (2)	89 (14)	E2	1560000 (40000)	0.000057 (9)
$\gamma_{4,3}(Ac)$	12.88 (11)	2.30 (46)	E1	6.67 (18)	0.30 (6)
$\gamma_{3,2}(Ac)$	13.520 (36)	11.0 (7)	E1	5.86 (10)	1.6 (1)
$\gamma_{4,2}(Ac)$	26.40 (11)	28 (10)	M1+E2	201 (4)	0.14 (5)

5 References

- M.CURIE, A.DEBIERNE, A.S.EVE, H.GEIGER, O.HAHN, S.C.LIND, ST.MEYER, E.RUTHERFORD, E.SCHWEIDLER, Rev. Mod. Phys. 3 (1931) 427
(Half-life)
- R.A.DUDLEY, Report NYO-9504, Massachusetts Institute of Technology (1960) 85
(Half-life)
- J.TOUSSET, A.MOUSSA, J. Phys. Radium 22 (1961) 683
(Beta emission energies, Beta emission probabilities, Gamma ray energies)
- C.W.MAYS, D.R.ATHERTON, R.D.LLOYD, H.F.LUCAS, B.J.STOVER, F.W.BRUENGER, Report COO-225, Utah Univ. (1962) 92
(Half-life)
- M.HERMENT, A.GIZON, Annual Report ISN Grenoble (1972) 115
(Beta emission energies)
- P.C.SOOD, A.GIZON, D.G.BURKE, B.SINGH, C.F.LIANG, R.K.SHELIN, M.J.MARTIN, R.W.HOFF, Phys. Rev. C52 (1995) 88
(Beta emission energies, Beta emission probabilities, Gamma ray energies, Gamma-ray emission probabilities, Multipolarities, Spin and Parity)
- A.ARTNA-COHEN, Nucl. Data Sheets 80 (1997) 723
(Spin and Parity, Multipolarities, Mixing ratio, Beta emission energies, Beta emission probabilities, Gamma ray energies, Half-life)
- G.AUDI, A.H.WAPSTRA, C.THIBAUT, Nucl. Phys. A729 (2003) 337
(Q)