1 Half-life, Q-value and Decay mode

$T_{1/2}$	:	45.59	(6)	min
Q_α	:	5983	(6)	keV
Q_{β^-}	:	1423	(5)	keV
β^-	:	97.91	(3)	%
α	:	2.09	(3)	%

2 β^- Transitions

	Energy keV	Probability × 100	Nature	log ft
$\beta^-_{0,9}$	95 (5)	0.00039 (13)		7.68
$\beta^-_{0,8}$	304 (5)	0.0608 (20)		7.07
$\beta^-_{0,7}$	323 (5)	0.595 (17)		6.16
$\beta^-_{0,6}$	377 (5)	0.020 (4)		7.85
$\beta^-_{0,5}$	419 (5)	0.0648 (23)		7.494
$\beta^-_{0,4}$	555 (5)	0.0129 (6)	1st forbidden unique	8.597
$\beta^-_{0,3}$	822 (5)	0.0025 (19)		9.9
$\beta^-_{0,2}$	983 (5)	30.8 (4)	1st forbidden	6.07
$\beta^-_{0,1}$	1130 (5)	0.21 (9)	1st forbidden	8.45
$\beta^-_{0,0}$	1423 (5)	66.2 (4)	1st forbidden	6.316

3 α Emissions

	Energy keV	Probability × 100
$\alpha_{0,1}$	5549 (10)	0.186 (5)
$\alpha_{0,0}$	5869 (10)	1.90 (4)

4 Electron Emissions

		Energy keV	Electrons per 100 disint.	Energy keV
e_{AL}	(Po)	5.43 - 16.86	1.7 (3)	
e_{AK}	(Po)		0.121 (19)	
	KLL	58.978 - 65.205	}	
	KLX	71.902 - 79.289	}	
	KXY	84.8 - 93.1	}	
e_{AL}	(Tl)	5.18 - 10.13	0.0107 (13)	
e_{AK}	(Tl)		0.00076 (9)	
	KLL	54.587 - 59.954	}	
	KLX	66.37 - 72.86	}	
	KXY	78.12 - 85.50	}	

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		Energy keV	Electrons per 100 disint.	Energy keV
$ec_{2,1}$ L	(Po)	130.8 - 133.9	0.0109 (7)	
$ec_{1,0}$ K	(Po)	199.70 (1)	0.09 (7)	
$ec_{1,0}$ L	(Po)	275.9 - 279.0	0.025 (8)	
$ec_{2,0}$ K	(Po)	347.34 (1)	3.81 (7)	
$ec_{2,0}$ L	(Po)	423.51 - 426.63	0.653 (13)	
$ec_{2,0}$ M	(Po)	436.29 - 437.76	0.1550 (27)	
$ec_{2,0}$ N	(Po)	439.45 - 440.26	0.0392 (7)	
$ec_{1,0}$ K	(Tl)	238.17 (2)	0.0212 (22)	
$\beta^-_{0,9}$	max:	95 (5)	0.00039 (13)	avg: 24.6 (14)
$\beta^-_{0,8}$	max:	304 (5)	0.0608 (20)	avg: 84.9 (16)
$\beta^-_{0,7}$	max:	323 (5)	0.595 (17)	avg: 90.8 (16)
$\beta^-_{0,6}$	max:	377 (5)	0.020 (4)	avg: 107.9 (16)
$\beta^-_{0,5}$	max:	419 (5)	0.0648 (23)	avg: 121.4 (17)
$\beta^-_{0,4}$	max:	555 (5)	0.0129 (6)	avg: 166.4 (17)
$\beta^-_{0,3}$	max:	822 (5)	0.0025 (19)	avg: 260.8 (19)
$\beta^-_{0,2}$	max:	983 (5)	30.8 (4)	avg: 320.4 (19)
$\beta^-_{0,1}$	max:	1130 (5)	0.21 (9)	avg: 376.8 (20)
$\beta^-_{0,0}$	max:	1423 (5)	66.2 (4)	avg: 492.2 (20)

5 Photon Emissions

5.1 X-Ray Emissions

		Energy keV		Photons per 100 disint.	
XL	(Po)	9.6576 — 16.2129		1.14 (18)	
$XK\alpha_2$	(Po)	76.864		0.99 (15)	} $K\alpha$
$XK\alpha_1$	(Po)	79.293		1.6 (3)	}
$XK\beta_3$	(Po)	89.256	}		
$XK\beta_1$	(Po)	89.807	}	0.56 (9)	$K\beta'_1$
$XK\beta''_5$	(Po)	90.363	}		
$XK\beta_2$	(Po)	92.263	}		
$XK\beta_4$	(Po)	92.618	}	0.18 (3)	$K\beta'_2$
$XKO_{2,3}$	(Po)	92.983	}		
XL	(Tl)	8.9531 — 14.7362		0.0062 (8)	
$XK\alpha_2$	(Tl)	70.8325		0.0058 (7)	} $K\alpha$
$XK\alpha_1$	(Tl)	72.8725		0.0098 (12)	}
$XK\beta_3$	(Tl)	82.118	}		
$XK\beta_1$	(Tl)	82.577	}	0.0033 (5)	$K\beta'_1$
$XK\beta''_5$	(Tl)	83.115	}		

		Energy keV		Photons per 100 disint.	
$XK\beta_2$	(Tl)	84.838	}		
$XK\beta_4$	(Tl)	85.134	}	0.00098 (14)	$K\beta_2'$
$XKO_{2,3}$	(Tl)	85.444	}		

5.2 Gamma Transitions and Emissions

	Energy keV	$P_{\gamma+ce}$ × 100	Multipolarity	α_T	P_γ × 100
$\gamma_{2,1}$(Po)	147.70 (4)	0.0314 (20)	E2	1.453 (21)	0.0128 (8)
$\gamma_{1,0}$(Po)	292.80 (1)	0.55 (8)	M1+E2	0.30 (18)	0.421 (7)
$\gamma_{1,0}$(Tl)	323.70 (2)	0.1866 (37)	M1+E2	0.178 (15)	0.1584 (24)
$\gamma_{5,3}$(Po)	402.8 (3)	0.00010 (4)			0.00010 (4)
$\gamma_{2,0}$(Po)	440.44 (1)	30.77 (36)	M1	0.179 (3)	26.1 (3)
$\gamma_{4,1}$(Po)	574.9 (3)	0.00068 (16)			0.00068 (16)
$\gamma_{3,0}$(Po)	600.9 (2)	0.0026 (19)			0.0026 (19)
$\gamma_{6,2}$(Po)	604.93 (17)	0.0014 (5)			0.0014 (5)
$\gamma_{7,2}$(Po)	659.75 (2)	0.043 (6)			0.043 (6)
$\gamma_{5,1}$(Po)	710.82 (3)	0.0112 (6)			0.0112 (6)
$\gamma_{7,1}$(Po)	807.37 (1)	0.287 (14)			0.287 (14)
$\gamma_{8,1}$(Po)	826.55 (4)	0.0065 (4)			0.0065 (4)
$\gamma_{4,0}$(Po)	867.96 (2)	0.0122 (6)			0.0122 (6)
$\gamma_{9,2}$(Po)	886.66 (14)	0.00102 (19)			0.00102 (19)
$\gamma_{5,0}$(Po)	1003.58 (2)	0.0535 (22)			0.0535 (22)
$\gamma_{6,0}$(Po)	1045.67 (8)	0.019 (4)			0.019 (4)
$\gamma_{7,0}$(Po)	1100.16 (1)	0.265 (6)			0.265 (6)
$\gamma_{8,0}$(Po)	1119.42 (8)	0.0543 (20)			0.0543 (20)
$\gamma_{9,0}$(Po)	1328.2 (3)	0.00039 (13)			0.00039 (13)

6 References

A.C.English, T.E.Cranshaw, P.Demers, J.A.Harvey, E.P.Hincks, J.V.Jelley, A.N.May, Phys. Rev. 72 (1947) 253
(Half-life)

F.Hagemann, L.I.Katzin, M.H.Studier, G.T.Seaborg, A.Ghiorso, Phys. Rev. 79 (1950) 435
(Half-life)

L.B.Magnusson, F.Wagner Jr., D.W.Engelkemeir, M.S.Freedman, Report ANL-5386, Argonne National Laboratory (1955)
(Multipolarity)

G.Graeffe, K.Valli, J.Aaltonen, Ann. Acad. Sci. Fenn., Ser. A, VI 145 (1964)
(Gamma-ray energies and intensities)

R.Arlt, B.S.Dzhelepov, R.B.Ivanov, M.A.Mikhailova, L.N.Moskvin, V.O.Sergeev, L.G.Tsaritsyna, K.Shtrusnyi, B.S.Dzhelepov, Proc. 19th Ann. Conf. Nucl. Spectrosc. Struct. At. Nuclei, Erevan (1969) 152
(Gamma-ray energies and intensities)

B.S.Dzhelepov, A.V.Zolotavin, R.B.Ivanov, M.A.Mikhailova, V.O.Sergeev, M.I.Sovtsov, O.M.Shumilo, Proc. 19th Ann. Conf. Nucl. Spectrosc. Struct. At. Nuclei, Erevan (1969) 153
(Multipolarity)

P.Polak, Radiochim. Acta 19 (1973) 148
(Half-life)

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T.Vylov, N.A.Golovkov, B.S.Dzhelepov, R.B.Ivanov, M.A.Mikhailova, Y.V.Norseev, V.G.Chumin, Bull. Rus. Acad. Sci. Phys. 41 (1977) 85
(Gamma-ray energies and intensities)
J.K.Dickens, J.W.McConnell, Radiochem. Radioanal. Lett. 47 (1981) 331
(Gamma-ray energies and intensities)
R.G.Helmer, C.W.Reich, M.A.Lee, I.Ahmad, Int. J. Appl. Radiat. Isotop. 37 (1986) 139
(Gamma-ray energies,intensities and emission probabilities)
M.C.Kouassi, A.Hachem, C.Ardisson, G.Ardisson, Nucl. Instrum. Methods Phys. Res. A280 (1989) 424
(Gamma-ray energies and intensities)
M.J.Martin, Nucl. Data Sheets 63 (1991) 723
(Decay scheme and levels)
Y.A.Akovali, Nucl. Data Sheets 66 (1992) 237
(Decay scheme and levels)
E.Schönfeld, H.Janssen, Nucl. Instrum. Methods Phys. Res. A369 (1996) 527
(Atomic data)
V.G.Chumin, J.K.Jabber, K.V.Kalyapkin, S.A.Kudrya, V.V.Tsupko-Sitnikov, K.Ya.Gromov, V.I.Fominykh, T.A.Furyaev, Bull. Rus. Acad. Sci. Phys. 61 (1997) 1606
(Gamma-ray energies and intensities)
G.Ardisson, V.Barci, O.El Samad, Phys. Rev. C57 (1998) 612
(Gamma-ray energies and intensities)
K.Ya.Gromov, S.A.Kudrya, Sh.R.Malikov, T.M.Muminov, Zh.K.Samatov, Zh.Sereeter, V.I.Fominykh, V.G.Chumin, Bull. Rus. Acad. Sci. Phys. 64 (2000) 1770
(Gamma-ray energies and intensities)
G.Audi, A.H.Wapstra, C.Thibault, Nucl. Phys. A729 (2003) 129
(Q)