1 Half-life, Q-value and Decay mode

$T_{1/2}$	:	60.54	(6)	min
Q_{β^-}	:	2252.1	(17)	keV
Q_α	:	6207.26	(3)	keV
$Q_{\alpha*}$	:	8954.12	(11)	keV
β^-	:	64.06	(7)	%
$\beta^- n$	:	0.014	(1)	%
α	:	35.93	(7)	%

2 β^- Transitions

	Energy keV	Probability × 100	Nature	log ft
$\beta^-_{0,6}$	446.1 (17)	0.68 (4)	1st forbidden non-unique	6.67
$\beta^-_{0,5}$	451.2 (17)	0.032 (4)	1st forbidden non-unique	8.03
$\beta^-_{0,4}$	572.7 (17)	0.21 (4)	1st forbidden non-unique	7.55
$\beta^-_{0,3}$	631.4 (17)	1.90 (3)	1st forbidden non-unique	6.74
$\beta^-_{0,2}$	739.4 (17)	1.44 (1)	1st forbidden non-unique	7.094
$\beta^-_{0,1}$	1524.8 (17)	4.50 (6)	1st forbidden non-unique	7.718
$\beta^-_{0,0}$	2252.1 (17)	55.31 (9)	1st forbidden non-unique	7.267

3 α Emissions

	Energy keV	Probability × 100
$\alpha_{0,8}$	5302 (2)	0.000040 (4)
$\alpha_{0,7}$	5344 (2)	0.00036 (3)
$\alpha_{0,6}$	5481.4 (3)	0.0050 (4)
$\alpha_{0,4}$	5606.60 (5)	0.43 (3)
$\alpha_{0,3}$	5625.7 (4)	0.060 (3)
$\alpha_{0,2}$	5768.29 (6)	0.61 (3)
$\alpha_{0,1}$	6051.04 (3)	25.1 (1)
$\alpha_{0,0}$	6090.14 (3)	9.7 (1)
$^*\alpha_{1,0}$	9498.78 (11)	0.0024 (2)
$^*\alpha_{4,0}$	10432.94 (11)	0.0010 (1)
$^*\alpha_{5,0}$	10552.1 (2)	0.0106 (7)

* Long-range α.

4 Electron Emissions

		Energy keV	Electrons per 100 disint.	Energy keV
e_{AL}	(Tl)	5.182 - 10.132	12.2 (4)	
e_{AK}	(Tl)		0.0069 (8)	
	KLL	54.587 - 59.954	}	

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		Energy keV		Electrons per 100 disint.		Energy keV
	KLX	66.37 - 72.86	}			
	KXY	78.12 - 85.50	}			
e_{AL}	(Po)	5.434 - 10.934		0.0833 (25)		
e_{AK}	(Po)			0.0048 (6)		
	KLL	58.978 - 65.205	}			
	KLX	71.902 - 79.289	}			
	KXY	84.8 - 93.1	}			
$ec_{1,0\ L}$	(Tl)	24.511 - 27.200		19.06 (23)		
$ec_{1,0\ M}$	(Tl)	36.154 - 39.469		4.46 (5)		
$\beta^-_{0,6}$	max:	446.1 (17)		0.68 (4)	avg:	130.1 (6)
$\beta^-_{0,5}$	max:	451.2 (17)		0.032 (4)	avg:	131.7 (6)
$\beta^-_{0,4}$	max:	572.7 (17)		0.21 (4)	avg:	172.4 (6)
$\beta^-_{0,3}$	max:	631.4 (17)		1.90 (3)	avg:	192.7 (6)
$\beta^-_{0,2}$	max:	739.4 (17)		1.44 (1)	avg:	230.8 (6)
$\beta^-_{0,1}$	max:	1524.8 (17)		4.50 (6)	avg:	533.1 (7)
$\beta^-_{0,0}$	max:	2252.1 (17)		55.31 (9)	avg:	834.2 (7)

5 Photon Emissions

5.1 X-Ray Emissions

		Energy keV		Photons per 100 disint.	
XL	(Tl)	8.953 — 14.738		7.1 (3)	
$XK\alpha_2$	(Tl)	70.8325		0.0525 (23)	} $K\alpha$
$XK\alpha_1$	(Tl)	72.8725		0.089 (4)	}
$XK\beta_3$	(Tl)	82.118	}		
$XK\beta_1$	(Tl)	82.577	}	0.0301 (14)	$K\beta'_1$
$XK\beta''_5$	(Tl)	83.115	}		
$XK\beta_2$	(Tl)	84.838	}		
$XK\beta_4$	(Tl)	85.134	}	0.0089 (5)	$K\beta'_2$
$XKO_{2,3}$	(Tl)	85.444	}		
XL	(Po)	9.658 — 16.213		0.0563 (24)	
$XK\alpha_2$	(Po)	76.864		0.0388 (8)	} $K\alpha$
$XK\alpha_1$	(Po)	79.293		0.0647 (13)	}
$XK\beta_3$	(Po)	89.256	}		
$XK\beta_1$	(Po)	89.807	}	0.0223 (6)	$K\beta'_1$
$XK\beta''_5$	(Po)	90.363	}		
$XK\beta_2$	(Po)	92.263	}		
$XK\beta_4$	(Po)	92.618	}	0.00693 (20)	$K\beta'_2$
$XKO_{2,3}$	(Po)	92.983	}		

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5.2 Gamma Transitions and Emissions

	Energy keV	$P_{\gamma+ce}$ × 100	Multipolarity	α_T	P_γ × 100
$\gamma_{1,0}$(Tl)	39.858 (4)	26.0 (3)	[M1]	23.3 (4)	1.07 (1)
$\gamma_{4,2}$(Tl)	164.80 (6)	0.010 (1)	(E2)	0.816 (12)	0.0055 (6)
$\gamma_{5,3}$(Po)	180.2 (2)	0.0095 (40)	M1	2.08 (3)	0.0031 (12)
$\gamma_{2,1}$(Tl)	288.18 (5)	0.46 (3)	M1+0.64%E2	0.436 (7)	0.32 (2)
$\gamma_{2,0}$(Tl)	328.04 (5)	0.158 (4)	[M1]	0.308 (5)	0.121 (3)
$\gamma_{3,1}$(Tl)	433.5 (4)	0.013 (1)	[M1]	0.1453 (21)	0.011 (1)
$\gamma_{4,1}$(Tl)	452.98 (4)	0.38 (3)	(M1)	0.1293 (18)	0.34 (3)
$\gamma_{3,0}$(Tl)	473.4 (4)	0.047 (3)	[M1+E2]	0.074 (10)	0.044 (3)
$\gamma_{4,0}$(Tl)	492.84 (4)	0.04 (1)	E2	0.0291 (4)	0.039 (10)
$\gamma_{6,1}$(Tl)	580.5 (3)	0.0011 (2)	E2	0.0198 (3)	0.0011 (2)
$\gamma_{6,0}$(Tl)	620.4 (3)	0.0039 (4)	[M1+E2]	0.037 (5)	0.0038 (4)
$\gamma_{1,0}$(Po)	727.330 (9)	6.74 (4)	E2	0.01393 (20)	6.65 (4)
$\gamma_{2,1}$(Po)	785.37 (9)	1.15 (1)	M1+0.8%E2	0.0387 (6)	1.11 (1)
$\gamma_{3,1}$(Po)	893.408 (14)	0.39 (1)	M1+0.2%E2	0.0278 (4)	0.38 (1)
$\gamma_{4,1}$(Po)	952.12 (2)	0.14 (4)	M1+30%E2	0.0190 (3)	0.14 (4)
$\gamma_{5,1}$(Po)	1073.6 (2)	0.0155 (6)	E2	0.00642 (9)	0.0154 (6)
$\gamma_{6,1}$(Po)	1078.63 (10)	0.559 (20)	M1+1.8%E2	0.01692 (24)	0.55 (2)
$\gamma_{2,0}$(Po)	1512.70 (8)	0.291 (10)	E2	0.00344 (5)	0.29 (1)
$\gamma_{3,0}$(Po)	1620.738 (10)	1.52 (3)	[M1]	0.00620 (9)	1.51 (3)
$\gamma_{4,0}$(Po)	1679.450 (14)	0.07 (1)	E2	0.00291 (4)	0.07 (1)
$\gamma_{6,0}$(Po)	1805.96 (10)	0.12 (3)	E2	0.00261 (4)	0.12 (3)

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