

1 Half-life, Q-value and Decay mode

$T_{1/2}$  : 2.161 (7) min  
 $Q_{\beta^-}$  : 3976 (8) keV  
 $\beta^-$  : 100 %

2  $\beta^-$  Transitions

	Energy keV	Probability $\times 100$	Nature	log $ft$
$\beta_{0,10}^-$	587 (8)	0.420 (22)		
$\beta_{0,9}^-$	615 (8)	0.10 (3)		
$\beta_{0,8}^-$	906 (8)	0.645 (16)	1st forbidden	6.3
$\beta_{0,7}^-$	1071 (8)	0.70 (9)	1st forbidden	6.5
$\beta_{0,6}^-$	1451 (8)	0.070 (15)	Allowed	8
$\beta_{0,5}^-$	1515 (8)	0.031 (16)	1st forbidden unique	9.2
$\beta_{0,4}^-$	1660 (8)	0.32 (11)	1st forbidden	7.5
$\beta_{0,3}^-$	1827 (8)	97.70 (15)	1st forbidden	5.2
$\beta_{0,2}^-$	1944 (8)	<0.1	Allowed	>8.3

3 Electron Emissions

		Energy keV	Electrons per 100 disint.	Energy keV
eAL	(Pb)	5.34 - 15.82	13.23 (15)	
eAK	(Pb)		0.77 (9)	
	KLL	56.028 - 61.669	}	
	KLX	68.181 - 74.969	}	
	KXY	80.3 - 88.0	}	
ec <sub>3,2</sub> K	(Pb)	29.22 (8)	17.51 (48)	
ec <sub>3,2</sub> L	(Pb)	101.36 - 104.18	3.39 (9)	
ec <sub>3,2</sub> M	(Pb)	113.37 - 114.74	0.799 (20)	
ec <sub>3,2</sub> N	(Pb)	116.33 - 117.08	0.200 (5)	
ec <sub>4,2</sub> K	(Pb)	195.61 (14)	0.057 (28)	
ec <sub>2,1</sub> K	(Pb)	377.13 (8)	2.34 (7)	
ec <sub>2,1</sub> L	(Pb)	449.27 - 452.09	0.786 (23)	
ec <sub>2,1</sub> M	(Pb)	461.28 - 462.65	0.197 (6)	
ec <sub>2,1</sub> N	(Pb)	464.24 - 464.99	0.0497 (15)	
ec <sub>3,1</sub> K	(Pb)	494.35 (8)	0.0491 (40)	
ec <sub>3,1</sub> L	(Pb)	566.49 - 569.31	0.0100 (8)	
ec <sub>8,3</sub> K	(Pb)	832.43 (14)	0.01142 (33)	
ec <sub>1,0</sub> K	(Pb)	1478.94 (5)	0.2340 (42)	
ec <sub>1,0</sub> L	(Pb)	1551.08 - 1553.90	0.0396 (6)	
$\beta_{0,10}^-$	max:	587 (8)	0.420 (22)	avg: 177.8 (28)
$\beta_{0,9}^-$	max:	615 (8)	0.10 (3)	avg: 187.4 (28)
$\beta_{0,8}^-$	max:	906 (8)	0.645 (16)	avg: 292.9 (30)

		Energy keV		Electrons per 100 disint.	Energy keV
$\beta_{0,7}^-$	max:	1071	(8)	0.70 (9)	avg: 355.5 (31)
$\beta_{0,6}^-$	max:	1451	(8)	0.070 (15)	avg: 505.9 (33)
$\beta_{0,5}^-$	max:	1515	(8)	0.031 (16)	avg: 518.1 (31)
$\beta_{0,4}^-$	max:	1660	(8)	0.32 (11)	avg: 591.2 (33)
$\beta_{0,3}^-$	max:	1827	(8)	97.70 (15)	avg: 660.0 (34)
$\beta_{0,2}^-$	max:	1944	(8)	<0.1	avg: 709.0 (34)

## 4 Photon Emissions

### 4.1 X-Ray Emissions

		Energy keV		Photons per 100 disint.	
XL	(Pb)	9.186 — 15.2169		8.04 (14)	
XK $\alpha_2$	(Pb)	72.8049		5.85 (10)	} K $\alpha$
XK $\alpha_1$	(Pb)	74.97		9.84 (16)	}
XK $\beta_3$	(Pb)	84.451	}		
XK $\beta_1$	(Pb)	84.937	}	3.36 (8)	K $\beta'_1$
XK $\beta'_5$	(Pb)	85.47	}		
XK $\beta_2$	(Pb)	87.238	}		
XK $\beta_4$	(Pb)	87.58	}	1.016 (28)	K $\beta'_2$
XKO $_{2,3}$	(Pb)	87.911	}		

### 4.2 Gamma Transitions and Emissions

	Energy keV	P $_{\gamma+ce}$ × 100	Multipolarity	$\alpha_T$	P $_{\gamma}$ × 100
$\gamma_{3,2}$ (Pb)	117.224 (7)	100	E1	0.295 (5)	77.22 (27)
$\gamma_{4,2}$ (Pb)	284.04 (23)	0.21 (10)	[M1]	0.495 (7)	0.14 (7)
$\gamma_{5,3}$ (Pb)	311.5 (3)	0.031 (15)	[E2]	0.1034 (15)	0.028 (14)
$\gamma_{6,3}$ (Pb)	375.5 (2)	0.070 (15)			0.070 (15)
$\gamma_{2,1}$ (Pb)	465.128 (24)	100	E2	0.0350 (5)	96.62 (5)
$\gamma_{-1,1}$ (Pb)	469.7 (3)	0.12 (3)			0.12 (3)
$\gamma_{3,1}$ (Pb)	582.4 (2)	0.374 (29)	[M2]	0.200 (3)	0.312 (24)
$\gamma_{4,1}$ (Pb)	748.3 (2)	0.080 (21)	[E1]	0.00428 (6)	0.080 (21)
$\gamma_{7,3}$ (Pb)	755.6 (3)	0.114 (21)	[M1]	0.0366 (6)	0.11 (2)
$\gamma_{-1,2}$ (Pb)	860.5 (3)	0.26 (4)			0.26 (4)
$\gamma_{7,2}$ (Pb)	873.5 (4)	0.59 (8)	[E1]	0.00320 (5)	0.59 (8)
$\gamma_{-1,3}$ (Pb)	890.0 (4)	0.12 (3)			0.12 (3)
$\gamma_{-1,4}$ (Pb)	902.8 (4)	0.10 (2)			0.10 (2)
$\gamma_{8,3}$ (Pb)	920.43 (11)	0.645 (15)	[M1]	0.0220 (3)	0.631 (15)
$\gamma_{-1,5}$ (Pb)	970.3	0.054 (15)			0.054 (15)

	Energy keV	$P_{\gamma+ce}$ $\times 100$	Multipolarity	$\alpha_T$	$P_\gamma$ $\times 100$
$\gamma_{10,3}(\text{Pb})$	1239.66 (11)	0.420 (22)			0.420 (22)
$\gamma_{9,2}(\text{Pb})$	1329.29 (16)	0.10 (3)			0.10 (3)
$\gamma_{1,0}(\text{Pb})$	1566.93 (5)	100	E2	0.00294 (5)	99.707 (5)
$\gamma_{-1,6}(\text{Pb})$	1661.1 (5)	0.10 (2)			0.10 (2)
$\gamma_{-1,7}(\text{Pb})$	1673.2 (4)	0.48 (4)			0.48 (4)
$\gamma_{-1,8}(\text{Pb})$	1781.7 (5)	0.04 (2)			0.04 (2)
$\gamma_{-1,9}(\text{Pb})$	2005.3 (2)	0.020 (5)			0.020 (5)
$\gamma_{-1,10}(\text{Pb})$	2032.1 (5)	0.001			0.001
$\gamma_{3,0}(\text{Pb})$	2149 (1)	0.015 (5)	[M4]	0.01529 (22)	0.015 (5)
$\gamma_{4,0}(\text{Pb})$	2315.80 (21)	0.0289 (21)	[E3]	0.00292 (4)	0.0288 (21)
$\gamma_{-1,11}(\text{Pb})$	2548.2	0.015 (6)			0.015 (6)

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