

1 Half-life, Q-value and Decay mode

$T_{1/2}$:	25.52	(1)	h
Q_{β^-}	:	391.6	(15)	keV
β^-	:	100		%

2 β^- Transitions

	Energy keV	Probability $\times 100$	Nature	$\log ft$
$\beta_{0,14}^-$	39.8 (15)	0.0032 (2)		7.33
$\beta_{0,13}^-$	71.4 (15)	0.066 (2)	1st forbidden	6.79
$\beta_{0,12}^-$	73.6 (15)	0.00078 (5)		8.76
$\beta_{0,11}^-$	144.3 (15)	2.7 (4)	Allowed	6.11
$\beta_{0,10}^-$	173.4 (15)	0.31 (23)		7.3
$\beta_{0,9}^-$	208.1 (15)	12.2 (15)	Allowed	5.95
$\beta_{0,8}^-$	217.4 (15)	1.36 (24)		6.96
$\beta_{0,6}^-$	289.3 (15)	13 (8)	Allowed	6.4
$\beta_{0,5}^-$	290.2 (15)	41 (16)	Allowed	5.88
$\beta_{0,4}^-$	307.4 (15)	29 (18)	Allowed	6.1
$\beta_{0,3}^-$	313.9 (15)	0.43 (2)	1st forbidden	7.97
$\beta_{0,2}^-$	333.0 (15)	0.17 (17)	1st forbidden	8.2
$\beta_{0,0}^-$	391.6 (15)	0.022 (7)	1st forbidden	9.57

3 Electron Emissions

	Energy keV	Electrons per 100 disint.	Energy keV
eAL	(Pa) 5.9 - 21.0	68 (3)	
eAK	(Pa)	0.038 (5)	
	KLL 70.081 - 78.822	}	
	KLX 85.989 - 95.858	}	
	KXY 101.87 - 112.59	}	
ec _{4,2} L	(Pa) 4.540 - 8.912	45.3 (24)	
ec _{5,4} M	(Pa) 11.8 - 13.8	31 (11)	
ec _{9,2} K	(Pa) 12.320 (19)	0.01333 (41)	
ec _{6,4} M	(Pa) 12.71 - 14.63	8.2 (36)	
ec _{4,2} M	(Pa) 20.284 - 22.203	11.7 (6)	
ec _{5,2} L	(Pa) 21.78 - 26.16	0.0507 (14)	
ec _{10,8} L	(Pa) 22.98 - 27.35	0.16 (16)	
ec _{11,7} K	(Pa) 23.071 (11)	0.49 (11)	
ec _{11,5} K	(Pa) 33.34 (2)	0.110 (33)	
ec _{2,0} L	(Pa) 37.467 - 41.839	54.5 (20)	
ec _{5,2} M	(Pa) 37.53 - 39.45	0.0125 (7)	
ec _{10,8} M	(Pa) 38.72 - 40.64	0.041 (40)	
ec _{11,9} L	(Pa) 42.76 - 47.13	0.59 (26)	
ec _{3,1} L	(Pa) 47.4 - 51.8	0.316 (9)	

		Energy keV		Electrons per 100 disint.		Energy keV
ec _{11,4} K	(Pa)	50.509	(4)	0.61	(7)	
ec _{8,5} L	(Pa)	51.647 - 56.019		0.0549	(37)	
ec _{2,0} M	(Pa)	53.211 - 55.130		15.0	(5)	
ec _{11,9} M	(Pa)	58.50 - 60.42		0.16	(7)	
ec _{9,6} L	(Pa)	60.123 - 64.495		5.5	(9)	
ec _{9,5} L	(Pa)	60.982 - 65.354		2.47	(38)	
ec _{8,0} K	(Pa)	61.56	(2)	0.032	(29)	
ec _{3,1} M	(Pa)	63.1 - 65.1		0.0873	(28)	
ec _{4,0} L	(Pa)	63.110 - 67.482		11.86	(18)	
ec _{8,5} M	(Pa)	67.391 - 69.310		0.0134	(9)	
ec _{8,4} L	(Pa)	68.84 - 73.22		0.1222	(42)	
ec _{9,6} M	(Pa)	75.867 - 77.786		1.36	(27)	
ec _{9,5} M	(Pa)	76.726 - 78.645		0.63	(13)	
ec _{9,4} L	(Pa)	78.176 - 82.548		0.607	(42)	
ec _{4,0} M	(Pa)	78.854 - 80.773		3.8	(7)	
ec _{6,0} L	(Pa)	81.16 - 85.54		0.0379	(10)	
ec _{8,4} M	(Pa)	84.59 - 86.51		0.0297	(10)	
ec _{9,4} M	(Pa)	93.920 - 95.839		0.155	(12)	
ec _{11,7} L	(Pa)	114.562 - 118.934		0.112	(15)	
ec _{11,5} L	(Pa)	124.836 - 129.208		0.0411	(36)	
ec _{11,7} M	(Pa)	130.306 - 132.225		0.0279	(48)	
ec _{11,5} M	(Pa)	140.580 - 142.499		0.0107	(14)	
ec _{11,4} L	(Pa)	142.000 - 146.372		0.122	(5)	
ec _{8,0} L	(Pa)	153.06 - 157.43		0.0122	(10)	
ec _{11,4} M	(Pa)	157.744 - 159.663		0.0296	(17)	
$\beta_{0,14}^-$	max:	39.8	(15)	0.0032	(2)	avg: 10.1 (5)
$\beta_{0,13}^-$	max:	71.4	(15)	0.066	(2)	avg: 18.3 (4)
$\beta_{0,12}^-$	max:	73.6	(15)	0.00078	(5)	avg: 18.9 (4)
$\beta_{0,11}^-$	max:	144.3	(15)	2.7	(4)	avg: 38.1 (5)
$\beta_{0,10}^-$	max:	173.4	(15)	0.31	(23)	avg: 46.2 (5)
$\beta_{0,9}^-$	max:	208.1	(15)	12.2	(15)	avg: 56.2 (5)
$\beta_{0,8}^-$	max:	217.4	(15)	1.36	(24)	avg: 58.9 (5)
$\beta_{0,6}^-$	max:	289.3	(15)	13	(8)	avg: 80.1 (5)
$\beta_{0,5}^-$	max:	290.2	(15)	41	(16)	avg: 80.4 (5)
$\beta_{0,4}^-$	max:	307.4	(15)	29	(18)	avg: 85.6 (5)
$\beta_{0,3}^-$	max:	313.9	(15)	0.43	(2)	avg: 87.6 (5)
$\beta_{0,2}^-$	max:	333.0	(15)	0.17	(17)	avg: 93.4 (5)
$\beta_{0,0}^-$	max:	391.6	(15)	0.022	(7)	avg: 111.6 (5)

4 Photon Emissions

4.1 X-Ray Emissions

		Energy keV		Photons per 100 disint.	
XL	(Pa)	11.3676 — 20.1126		65 (3)	
XK α_2	(Pa)	92.288		0.37 (4)	} K α
XK α_1	(Pa)	95.869		0.59 (7)	}
XK β_3	(Pa)	107.595	}		
XK β_1	(Pa)	108.422	}	0.21 (2)	K β'_1
XK β'_5	(Pa)	109.072	}		
XK β_2	(Pa)	111.405	}		
XK β_4	(Pa)	111.87	}	0.071 (8)	K β'_2
XK $O_{2,3}$	(Pa)	112.38	}		

4.2 Gamma Transitions and Emissions

	Energy keV	P $_{\gamma+ce}$ $\times 100$	Multipolarity	α_T	P $_{\gamma}$ $\times 100$
$\gamma_{4,2}$ (Pa)	25.64 (2)	74.6 (39)	E1	4.37 (7)	13.9 (7)
$\gamma_{5,2}$ (Pa)	42.86 (7)	0.1275 (34)	[E1]	1.14 (2)	0.0596 (15)
$\gamma_{10,8}$ (Pa)	44.08 (17)	0.22 (23)	[M1+E2]	300 (300)	0.00074 (21)
$\gamma_{2,0}$ (Pa)	58.5700 (24)	75.1 (27)	E2	155.5 (22)	0.480 (16)
$\gamma_{11,9}$ (Pa)	63.86 (3)	0.82 (36)	M1+E2	34 (15)	0.0235 (21)
$\gamma_{3,1}$ (Pa)	68.5 (1)	0.438 (13)	E2	73.3 (12)	0.00590 (15)
$\gamma_{8,5}$ (Pa)	72.7510 (25)	0.333 (22)	[E1]	0.280 (4)	0.260 (17)
$\gamma_{3,0}$ (Pa)	77.69	0.0042 (7)			0.0042 (7)
$\gamma_{9,6}$ (Pa)	81.2280 (14)	8.2 (13)	M1(+E2)	8.1 (14)	0.905 (23)
$\gamma_{9,5}$ (Pa)	82.0870 (13)	3.7 (6)	M1(+E2)	7.9 (13)	0.418 (13)
$\gamma_{4,0}$ (Pa)	84.2140 (13)	23.4 (17)	E1	2.50 (25)	6.70 (7)
$\gamma_{8,4}$ (Pa)	89.95 (2)	1.171 (35)	E1	0.1598 (22)	1.01 (3)
$\gamma_{6,1}$ (Pa)	93.02 (4)	0.0459 (34)	[E1]	0.1463 (21)	0.040 (3)
$\gamma_{9,4}$ (Pa)	99.278 (3)	0.96 (7)	M1+E2	6.0 (4)	0.137 (6)
$\gamma_{6,0}$ (Pa)	102.2700 (13)	0.491 (12)	E1	0.1141 (16)	0.441 (11)
$\gamma_{9,3}$ (Pa)	105.81 (3)	0.0087 (6)	[E1]	0.1043 (15)	0.0079 (5)
$\gamma_{10,7}$ (Pa)	106.61 (3)	0.0197 (8)	[E1]	0.1023 (14)	0.0179 (7)
$\gamma_{8,2}$ (Pa)	115.63 (3)	0.0121 (47)	[M1+E2]	10 (4)	0.00110 (16)
$\gamma_{10,5}$ (Pa)	116.82 (2)	0.0302 (12)	E1	0.342 (5)	0.0225 (9)
$\gamma_{9,2}$ (Pa)	124.914 (17)	0.0763 (20)	E1	0.294 (4)	0.0590 (15)
$\gamma_{10,4}$ (Pa)	134.03 (2)	0.0318 (10)	E1	0.249 (4)	0.0255 (8)
$\gamma_{11,7}$ (Pa)	135.664 (11)	0.72 (9)	M1(+E2)	8.0 (11)	0.0797 (22)
$\gamma_{13,9}$ (Pa)	136.75 (7)	0.00547 (19)	[E1]	0.237 (3)	0.00442 (15)
$\gamma_{10,3}$ (Pa)	140.54 (4)	0.0047 (19)	[M1+E2]	5.3 (25)	0.00074 (7)
$\gamma_{11,6}$ (Pa)	145.06 (4)	0.0201 (11)	[E2]	2.46 (3)	0.0058 (3)
$\gamma_{11,5}$ (Pa)	145.94 (2)	0.198 (27)	M1+E2	5.1 (8)	0.0324 (12)
$\gamma_{11,4}$ (Pa)	163.101 (4)	0.92 (7)	M1(+E2)	4.9 (4)	0.156 (5)

	Energy keV	$P_{\gamma+ce}$ $\times 100$	Multipolarity	α_T	P_{γ} $\times 100$
$\gamma_{8,1}(\text{Pa})$	165.00 (5)	0.00857 (35)	[E2]	1.464 (2)	0.00348 (14)
$\gamma_{11,3}(\text{Pa})$	169.66 (3)	0.00161 (8)	[E1]	0.1421 (20)	0.00141 (7)
$\gamma_{8,0}(\text{Pa})$	174.15 (2)	0.067 (27)	[M1+E2]	2.7 (15)	0.0180 (6)
$\gamma_{9,0}(\text{Pa})$	183.480 (25)	0.0375 (9)	E1	0.1181 (17)	0.0335 (8)
$\gamma_{11,2}(\text{Pa})$	188.76 (2)	0.00378 (33)	[E1]	0.1105 (15)	0.0034 (3)
$\gamma_{13,6}(\text{Pa})$	217.94 (3)	0.0434 (9)	E1	0.0789 (11)	0.0402 (8)
$\gamma_{13,4}(\text{Pa})$	236.01 (3)	0.01002 (32)	[E1]	0.0657 (9)	0.0094 (3)
$\gamma_{12,3}(\text{Pa})$	240.27 (5)	0.000308 (43)	[E1]	0.0630 (9)	0.00029 (4)
$\gamma_{13,3}(\text{Pa})$	242.50 (4)	0.0016 (6)	[M1+E2]	1.0 (7)	0.00082 (5)
$\gamma_{14,6}(\text{Pa})$	249.60 (7)	0.00085 (7)	[E1]	0.0578 (8)	0.00080 (7)
$\gamma_{14,5}(\text{Pa})$	250.45 (7)	0.00071 (7)	[E1]	0.0573 (8)	0.00067 (7)
$\gamma_{14,4}(\text{Pa})$	267.62 (8)	0.00148 (15)	[E1]	0.0493 (7)	0.00141 (14)
$\gamma_{14,3}(\text{Pa})$	274.1 (1)	0.000058 (27)	[M1+E2]	0.7 (5)	0.000034 (12)
$\gamma_{12,1}(\text{Pa})$	308.78 (7)	0.0003748 (19)	[E1]	0.0358 (5)	0.0003618 (18)
$\gamma_{13,1}(\text{Pa})$	311.00 (5)	0.005 (1)	M1+E2	0.6 (3)	0.00315 (14)
$\gamma_{12,0}(\text{Pa})$	317.87 (8)	0.0001039 (5)	[E1]	0.0336 (5)	0.0001005 (5)
$\gamma_{13,0}(\text{Pa})$	320.15 (8)	0.00022 (7)	[M1+E2]	0.5 (4)	0.00015 (3)
$\gamma_{14,0}(\text{Pa})$	351.8 (1)	0.000090 (24)	[M1+E2]	0.35 (25)	0.000067 (13)

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