

1 Half-life, Q-value and Decay mode

$T_{1/2}$:	7367	(23)	y
Q_α	:	5438.8	(10)	keV
α	:	100		%
SF	:	3.8	(7)	$\times 10^{-9}$ %

2 α Emissions

	Energy keV	Probability $\times 100$
$\alpha_{0,16}$	4695 (3)	0.0017 (5)
$\alpha_{0,15}$	4919 (3)	0.000085
$\alpha_{0,14}$	4930 (3)	0.00018
$\alpha_{0,13}$	4946 (3)	0.00034
$\alpha_{0,12}$	4997 (3)	0.0009 (4)
$\alpha_{0,11}$	5008 (3)	0.0009 (4)
$\alpha_{0,10}$	5029 (3)	0.0020 (6)
$\alpha_{0,9}$	5035 (3)	0.0020 (6)
$\alpha_{0,8}$	5088 (5)	0.0055 (6)
$\alpha_{0,7}$	5113 (1)	0.010 (1)
$\alpha_{0,6}$	5181 (1)	1.383 (7)
$\alpha_{0,4}$	5233.3 (10)	11.46 (5)
$\alpha_{0,3}$	5275.3 (10)	86.74 (5)
$\alpha_{0,1}$	5321 (1)	0.192 (3)
$\alpha_{0,0}$	5349.4 (23)	0.240 (3)

3 Electron Emissions

	Energy keV	Electrons per 100 disint.
eAL	(Np) 6.04 - 13.52	18.4 (11)
eAK	(Np)	0.00058 (9)
	KLL 73.501 - 83.134	}
	KLX 90.358 - 101.054	}
	KXY 107.19 - 118.66	}
ec _{1,0} L	(Np) 8.70 - 13.52	9.4 (22)
ec _{4,3} L	(Np) 20.8 - 25.6	7.4 (8)
ec _{3,1} L	(Np) 21.10 - 25.92	5.04 (11)
ec _{1,0} M	(Np) 25.39 - 27.47	2.4 (6)
ec _{1,0} N	(Np) 29.63 - 30.73	0.65 (15)
ec _{6,4} L	(Np) 32.753 - 37.570	1.10 (33)
ec _{4,3} M	(Np) 37.5 - 39.5	1.95 (26)
ec _{3,1} M	(Np) 37.79 - 39.87	1.266 (28)
ec _{4,3} N	(Np) 41.7 - 42.8	0.53 (6)
ec _{3,1} N	(Np) 42.03 - 43.13	0.336 (7)
ec _{6,4} M	(Np) 49.441 - 51.516	0.30 (9)

		Energy keV	Electrons per 100 disint.
ec _{3,0} L	(Np)	52.23 - 57.05	13.91 (32)
ec _{6,4} N	(Np)	53.679 - 54.777	0.08 (2)
ec _{4,1} L	(Np)	64.28 - 69.10	0.0485 (14)
ec _{3,0} M	(Np)	68.92 - 71.00	3.44 (8)
ec _{3,0} N	(Np)	73.16 - 74.26	0.917 (21)
ec _{6,3} L	(Np)	76.073 - 80.890	0.17 (2)
ec _{4,1} M	(Np)	80.97 - 83.05	0.01194 (36)
ec _{6,3} M	(Np)	92.761 - 94.836	0.05 (1)
ec _{4,0} L	(Np)	95.41 - 100.23	0.0361 (32)
ec _{6,3} N	(Np)	96.999 - 98.097	0.010 (2)

4 Photon Emissions

4.1 X-Ray Emissions

		Energy keV	Photons per 100 disint.	
XL	(Np)	11.871 — 21.491	18.9 (7)	
XK α_2	(Np)	97.069	0.0058 (4)	} K α
XK α_1	(Np)	101.059	0.0092 (7)	
XK β_3	(Np)	113.303	} 0.00335 (25)	} K β'_1
XK β_1	(Np)	114.234		
XK β'_5	(Np)	114.912		
XK β_2	(Np)	117.463	} 0.00115 (9)	} K β'_2
XK β_4	(Np)	117.876		
XK $\alpha_{2,3}$	(Np)	118.429		

4.2 Gamma Transitions and Emissions

	Energy keV	P $_{\gamma+ce}$ $\times 100$	Multipolarity	α_T	P $_{\gamma}$ $\times 100$
$\gamma_{1,0}$ (Np)	31.14 (3)	12.7 (30)	M1+3.08%E2	263 (13)	0.048 (11)
$\gamma_{4,3}$ (Np)	43.1	10.1	M1+12.6%E2	154 (18)	0.065
$\gamma_{3,1}$ (Np)	43.53 (2)	12.62 (23)	E1	1.143 (16)	5.89 (10)
$\gamma_{6,5}$ (Np)	50.6 (10)	0.011 (2)	(E1)	0.77 (5)	0.0062 (10)
$\gamma_{6,4}$ (Np)	55.18 (5)	1.81 (26)	M1+26.4%E2	107 (14)	0.0168 (11)
$\gamma_{3,0}$ (Np)	74.66 (2)	85.7 (16)	E1	0.276 (4)	67.2 (12)
$\gamma_{4,1}$ (Np)	86.71 (2)	0.41 (1)	E1	0.186 (3)	0.346 (9)
$\gamma_{6,3}$ (Np)	98.5 (2)	0.25 (4)	(E2)	15.6 (3)	0.0151 (21)
$\gamma_{4,0}$ (Np)	117.60 (15)	0.62 (5)	E1	0.0842 (13)	0.57 (5)
$\gamma_{6,1}$ (Np)	141.90 (6)	0.141 (10)	E1	0.224 (4)	0.115 (8)
$\gamma_{7,2}$ (Np)	169	0.0014	(E1)	0.149 (3)	0.0012
$\gamma_{9,5}$ (Np)	195.0 (18)	0.001	(E1)	0.107 (3)	0.00085

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