

1 Half-life, Q-value and Decay mode

$T_{1/2}$:	143	(2)	y
Q_α	:	5637.10	(25)	keV
Q_{IT}	:	48.60	(5)	keV
IT	:	99.54	(1)	%
α	:	0.46	(1)	%
SF	:	<4.8		$\times 10^{-9}$ %

2 α Emissions

	Energy keV	Probability $\times 100$
$\alpha_{0,68}$	4975 (3)	0.000009 (5)
$\alpha_{0,64}$	5027.3 (15)	0.00009 (5)
$\alpha_{0,59}$	5068 (3)	0.0012 (3)
$\alpha_{0,57}$	5082.6 (12)	0.00014 (5)
$\alpha_{0,56}$	5091.9 (7)	0.0009 (3)
$\alpha_{0,48}$	5143.07 (26)	0.0258 (11)
$\alpha_{0,47}$	5153.2 (15)	0.00009 (5)
$\alpha_{0,42}$	5173.45 (26)	0.00009 (5)
$\alpha_{0,41}$	5175.4 (10)	0.00009 (5)
$\alpha_{0,36}$	5207.15 (25)	0.409 (9)
$\alpha_{0,35}$	5215.4 (7)	0.00014 (5)
$\alpha_{0,28}$	5248.15 (25)	0.0018 (5)
$\alpha_{0,27}$	5248.21 (26)	0.0018 (5)
$\alpha_{0,25}$	5249.64 (26)	0.00009 (5)
$\alpha_{0,23}$	5251.80 (25)	0.00009 (5)
$\alpha_{0,20}$	5272.96 (25)	0.0046 (5)
$\alpha_{0,14}$	5314.95 (25)	0.0028 (5)
$\alpha_{0,11}$	5331.97 (25)	0.0007 (5)
$\alpha_{0,9}$	5367.73 (25)	0.0051 (9)
$\alpha_{0,6}$	5410.13 (25)	0.0046 (9)
$\alpha_{0,3}$	5458.68 (25)	0.00064 (18)
$\alpha_{0,1}$	5517.93 (25)	0.000014 (14)

3 Electron Emissions

	Energy keV	Electrons per 100 disint.
e _{AL}	(Am) 6.26 - 23.70	22.1 (11)
e _{AL}	(Np) 6.036 - 13.516	0.35 (4)
e _{AK}	(Np)	0.0019 (7)
	KLL 73.501 - 83.134	}
	KLX 90.358 - 101.054	}
	KXY 107.19 - 118.66	}

		Energy keV	Electrons per 100 disint.
ec _{1,0} L	(Am)	24.8 - 30.10	47.1 (10)
ec _{1,0} M	(Am)	42.47 - 44.78	37.6 (9)
ec _{1,0} N	(Am)	46.98 - 48.15	11.9 (3)
ec _{1,0} O	(Am)	48.23 - 48.49	2.71 (6)

4 Photon Emissions

4.1 X-Ray Emissions

		Energy keV	Photons per 100 disint.	
XL	(Am)	12.377 — 22.836	25.0 (11)	
XL	(Np)	11.871 — 21.491	0.37 (4)	
XK α_2	(Np)	97.069	0.019 (9)	} K α
XK α_1	(Np)	101.059	0.030 (14)	
XK β_3	(Np)	113.303	} 0.011 (5)	K β'_1
XK β_1	(Np)	114.234		
XK β'_5	(Np)	114.912		
XK β_2	(Np)	117.463	} 0.0037 (17)	K β'_2
XK β_4	(Np)	117.876		
XKO _{2,3}	(Np)	118.429		

4.2 Gamma Transitions and Emissions

	Energy keV	P $_{\gamma+ce}$ $\times 100$	Multipolarity	α_T	P $_{\gamma}$ $\times 100$
$\gamma_{3,2}$ (Np)	24.34 (1)	0.021 (3)	M1+E2	322 (5)	0.000064 (9)
$\gamma_{1,0}$ (Np)	26.427 (2)	<0.24	M1+E2	338 (5)	<0.000708
$\gamma_{11,10}$ (Np)	32.64 (1)	0.0026 (4)	M1+E2	136.4 (20)	0.000019 (3)
$\gamma_{9,6}$ (Np)	43.11 (1)	0.0040 (9)	M1+E2	61.3 (9)	0.000064 (14)
$\gamma_{19,11}$ (Np)	43.33 (1)	0.00112 (18)	M1+E2	126.7 (18)	0.0000087 (14)
$\gamma_{10,6}$ (Np)	46.833 (3)	0.00037 (7)	M1+E2	48.8 (7)	0.0000074 (14)
$\gamma_{1,0}$ (Am)	48.60 (5)	99.54 (1)	E4	704000 (8000)	0.0001414 (22)
$\gamma_{6,3}$ (Np)	49.371 (3)	0.244 (8)	E1	0.821 (12)	0.134 (4)
$\gamma_{14,9}$ (Np)	53.67 (1)	0.097 (13)	M1+E2	46.0 (7)	0.0021 (3)
$\gamma_{30,19}$ (Np)	53.85 (2)	0.00011 (6)	M1+E2	37.2 (6)	0.0000028 (14)
$\gamma_{9,5}$ (Np)	57.51 (1)	0.0015 (4)	E1	0.549 (8)	0.00097 (23)
$\gamma_{3,1}$ (Np)	60.247 (3)	0.132 (12)	M1+E2	23.1 (4)	0.0055 (5)
$\gamma_{36,20}$ (Np)	66.92 (1)	0.0205 (6)	E1	0.368 (6)	0.0150 (5)
$\gamma_{28,14}$ (Np)	67.92 (2)	0.100 (8)	M1+E2	24 (3)	0.0040 (3)
$\gamma_{6,2}$ (Np)	73.72 (1)	0.0101 (7)	E1	0.285 (4)	0.0079 (6)
$\gamma_{19,10}$ (Np)	75.98 (1)	0.00052 (8)	E2	52.8 (8)	0.0000097 (14)

	Energy keV	$P_{\gamma+ce}$ $\times 100$	Multipolarity	α_T	P_γ $\times 100$
$\gamma_{11,6}(\text{Np})$	79.48 (1)	0.0033 (8)	M1+E2	26 (4)	0.000124 (23)
$\gamma_{27,11}(\text{Np})$	85.16 (7)	0.020 (7)	M1+E2	19 (3)	0.0010 (3)
$\gamma_{3,0}(\text{Np})$	86.674 (2)	0.205 (7)	M1+E2	7.95 (12)	0.0229 (7)
$\gamma_{-1,1}(\text{Np})$	89.60 (5)	0.0013 (3)			0.0013 (3)
$\gamma_{9,3}(\text{Np})$	92.48 (1)	0.00324 (35)	E1	0.1574 (22)	0.0028 (3)
$\gamma_{11,5}(\text{Np})$	93.88 (1)	0.0042 (5)	E1	0.1513 (22)	0.0036 (4)
$\gamma_{14,6}(\text{Np})$	96.78 (1)	0.0059 (10)	E2	16.90 (24)	0.00033 (6)
$\gamma_{30,11}(\text{Np})$	97.18 (2)	0.00013 (7)	E2	16.58 (24)	0.000007 (4)
$\gamma_{36,14}(\text{Np})$	109.61 (1)	≤ 0.14	M1+E2	6.7 (7)	≤ 0.0184
$\gamma_{6,1}(\text{Np})$	109.618 (3)	≤ 0.02	E1	0.1010 (15)	≤ 0.0184
$\gamma_{14,5}(\text{Np})$	111.18 (1)	0.0027 (5)	E1	0.0974 (14)	0.0025 (4)
$\gamma_{19,6}(\text{Np})$	122.81 (1)	0.00039 (18)	M1+E2	9.6 (9)	0.00004 (2)
$\gamma_{36,11}(\text{Np})$	126.92 (1)	0.0008 (4)	E2	5.03 (7)	0.00013 (7)
$\gamma_{23,8}(\text{Np})$	131.50 (5)	0.00034 (8)	E1	0.268 (4)	0.00027 (6)
$\gamma_{28,8}(\text{Np})$	135.21 (2)	0.0085 (5)	E1	0.251 (4)	0.0068 (4)
$\gamma_{6,0}(\text{Np})$	136.045 (2)	0.0118 (3)	E1	0.247 (4)	0.0094 (3)
$\gamma_{28,7}(\text{Np})$	139.05 (3)	≤ 0.00014	E1	0.235 (4)	≤ 0.00011
$\gamma_{8,1}(\text{Np})$	139.11 (2)	≤ 0.00049	E2	3.40 (5)	≤ 0.00011
$\gamma_{30,7}(\text{Np})$	151.01 (3)	0.000099 (22)	E1	0.194 (3)	0.000083 (18)
$\gamma_{19,4}(\text{Np})$	152.70 (2)	≤ 0.00082	E1	0.189 (3)	≤ 0.00069
$\gamma_{9,1}(\text{Np})$	152.73 (1)	≤ 0.00082	E1	0.189 (3)	≤ 0.00069
$\gamma_{11,2}(\text{Np})$	153.19 (1)	0.00037 (4)	E1	0.187 (3)	0.00031 (4)
$\gamma_{20,5}(\text{Np})$	153.87 (1)	0.0266 (8)	M1+E2	7.02 (10)	0.00332 (10)
$\gamma_{10,1}(\text{Np})$	156.451 (3)	0.00032 (5)	E1	0.1784 (25)	0.00027 (5)
$\gamma_{-1,2}(\text{Np})$	160.61 (2)	0.0004 (2)			0.00041 (18)
$\gamma_{34,8}(\text{Np})$	163.1 (5)	≤ 0.079	M1+E2	3.9 (5)	≤ 0.0161
$\gamma_{36,9}(\text{Np})$	163.29 (1)	≤ 0.079	M1+E2	3.9 (5)	≤ 0.0161
$\gamma_{-1,3}(\text{Np})$	165.97 (15)	0.000046 (23)			0.000046 (23)
$\gamma_{45,13}(\text{Np})$	170.7 (8)	0.00280 (22)	M1+E2	3.4 (5)	0.00063 (5)
$\gamma_{48,14}(\text{Np})$	174.76 (6)	0.00720 (16)	M1+E2	3.1 (4)	0.00017 (4)
$\gamma_{30,6}(\text{Np})$	176.66 (2)	0.00006 (3)	E2	1.285 (18)	0.000028 (14)
$\gamma_{10,0}(\text{Np})$	182.878 (2)	0.00103 (4)	E1	0.1238 (18)	0.00092 (3)
$\gamma_{11,1}(\text{Np})$	189.10 (1)	0.00030 (5)	E1	0.1146 (16)	0.00027 (5)
$\gamma_{23,4}(\text{Np})$	190.88 (5)	0.00012 (3)	E1	0.1121 (16)	0.000106 (24)
$\gamma_{28,4}(\text{Np})$	194.59 (2)	0.00157 (5)	E1	0.1072 (15)	0.00142 (5)
$\gamma_{19,2}(\text{Np})$	196.52 (1)	0.00011 (5)	E1	0.1048 (15)	0.00010 (5)
$\gamma_{36,6}(\text{Np})$	206.39 (1)	0.0027 (3)	E2	0.711 (10)	0.00156 (18)
$\gamma_{20,2}(\text{Np})$	213.19 (1)	0.00015 (5)	M1+E2	1.73 (25)	0.000055 (18)
$\gamma_{11,0}(\text{Np})$	215.522 (4)	0.00064 (10)	E1	0.0847 (12)	0.00059 (10)
$\gamma_{19,1}(\text{Np})$	232.43 (1)	0.00060 (3)	E1	0.0712 (10)	0.00056 (3)
$\gamma_{-1,4}(\text{Np})$	233.69 (10)	0.00013 (3)			0.00013 (3)
$\gamma_{25,2}(\text{Np})$	236.90 (6)	0.00010 (5)	M1+E2	1.27 (19)	0.000046 (23)
$\gamma_{27,2}(\text{Np})$	238.35 (7)	0.000017 (9)	E1	0.0673 (10)	0.000016 (8)
$\gamma_{17,0}(\text{Np})$	250.33 (3)	≤ 0.0012	(M1+E2)	1.08 (16)	≤ 0.00056
$\gamma_{30,2}(\text{Np})$	250.37 (2)	≤ 0.0006	E1	0.0602 (9)	≤ 0.00056
$\gamma_{42,4}(\text{Np})$	270.55 (7)	0.000030 (9)	E1	0.0506 (7)	0.000029 (8)
$\gamma_{25,1}(\text{Np})$	272.80 (6)	0.000069 (15)	M1+E2	0.85 (13)	0.000037 (8)
$\gamma_{36,2}(\text{Np})$	280.11 (1)	0.000063 (7)	E1	0.0468 (7)	0.000060 (6)

	Energy keV	$P_{\gamma+ce}$ $\times 100$	Multipolarity	α_T	P_γ $\times 100$
$\gamma_{25,0}(\text{Np})$	299.23 (6)	0.000046 (23)	M1+E2	0.65 (10)	0.000028 (14)

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