

### 1 Half-life, Q-value and Decay mode

$T_{1/2}$	:	23.46	(5)	min
$Q_{\beta^-}$	:	1261.5	(16)	keV
$\beta^-$	:	100		%

### 2 $\beta^-$ Transitions

	Energy keV	Probability $\times 100$	Nature	log <i>ft</i>
$\beta_{0,32}^-$	164.5 (16)	0.0060 (5)		
$\beta_{0,31}^-$	212.3 (16)	0.0059 (4)		
$\beta_{0,30}^-$	221.1 (16)	0.0077 (4)		
$\beta_{0,29}^-$	247.9 (16)	0.0074 (4)		
$\beta_{0,28}^-$	269.3 (16)	0.0262 (9)		
$\beta_{0,27}^-$	295.0 (16)	0.0008 (2)		
$\beta_{0,26}^-$	297.3 (16)	0.211 (3)		
$\beta_{0,25}^-$	302.3 (16)	0.0284 (7)	1st forbidden	
$\beta_{0,24}^-$	398.1 (16)	0.0005 (2)		
$\beta_{0,23}^-$	412.0 (16)	0.0264 (4)	1st forbidden	
$\beta_{0,22}^-$	417.4 (16)	0.215 (3)		
$\beta_{0,21}^-$	442.2 (16)	0.228 (3)		
$\beta_{0,18}^-$	566.3 (16)	0.0118 (11)		
$\beta_{0,17}^-$	599.2 (16)	0.261 (6)	1st forbidden	7.35
$\beta_{0,15}^-$	697.6 (16)	0.0247 (7)		
$\beta_{0,14}^-$	731.2 (16)	0.0029 (4)		
$\beta_{0,13}^-$	743.5 (16)	0.063 (2)		
$\beta_{0,12}^-$	787.1 (16)	0.0033 (4)		
$\beta_{0,4}^-$	1143.9 (16)	2.2 (4)	1st forbidden	7.4
$\beta_{0,3}^-$	1186.5 (16)	72.8 (19)	1st forbidden	5.91
$\beta_{0,1}^-$	1230.4 (16)	9.4 (15)	Allowed	6.83
$\beta_{0,0}^-$	1261.5 (16)	14.4 (22)	Allowed	6.7

### 3 Electron Emissions

		Energy keV	Electrons per 100 disint.	Energy keV
eAL	(Np)	6.04 - 13.12	14.7 (7)	
eAK	(Np)		0.0091 (13)	
	KLL	73.501 - 83.134	}	
	KLX	90.358 - 101.054	}	
	KXY	107.19 - 118.66	}	
ec <sub>1,0</sub> L	(Np)	8.704 - 13.520	14.0 (11)	
ec <sub>4,3</sub> L	(Np)	20.7 - 25.5	1.48 (28)	
ec <sub>3,1</sub> L	(Np)	21.106 - 25.920	3.72 (25)	
ec <sub>1,0</sub> M	(Np)	25.392 - 27.467	3.6 (3)	

		Energy keV	Electrons per 100 disint.	Energy keV
ec <sub>1,0</sub> N	(Np)	29.630 - 30.728	0.99 (8)	
ec <sub>4,3</sub> M	(Np)	37.4 - 39.4	0.39 (8)	
ec <sub>3,1</sub> M	(Np)	37.794 - 39.869	0.94 (6)	
ec <sub>4,3</sub> N	(Np)	41.6 - 42.7	0.10 (13)	
ec <sub>3,1</sub> N	(Np)	42.032 - 43.130	0.248 (16)	
ec <sub>2,0</sub> L	(Np)	48.78 - 53.60	0.115 (21)	
ec <sub>3,0</sub> L	(Np)	52.237 - 57.050	10.7 (3)	
ec <sub>2,0</sub> M	(Np)	65.47 - 67.55	0.032 (3)	
ec <sub>8,3</sub> K	(Np)	67.48 (4)	0.049 (46)	
ec <sub>10,8</sub> K	(Np)	68.61 (8)	0.010 (9)	
ec <sub>3,0</sub> M	(Np)	68.925 - 71.000	2.64 (8)	
ec <sub>3,0</sub> N	(Np)	73.163 - 74.261	0.704 (21)	
ec <sub>8,3</sub> L	(Np)	163.72 - 168.54	0.0186 (6)	
$\beta_{0,32}^-$	max:	164.5 (16)	0.0060 (5)	avg: 43.7 (5)
$\beta_{0,31}^-$	max:	212.3 (16)	0.0059 (4)	avg: 57.3 (5)
$\beta_{0,30}^-$	max:	221.1 (16)	0.0077 (4)	avg: 59.9 (5)
$\beta_{0,29}^-$	max:	247.9 (16)	0.0074 (4)	avg: 67.6 (5)
$\beta_{0,28}^-$	max:	269.3 (16)	0.0262 (9)	avg: 74.0 (5)
$\beta_{0,27}^-$	max:	295.0 (16)	0.0008 (2)	avg: 81.7 (5)
$\beta_{0,26}^-$	max:	297.3 (16)	0.211 (3)	avg: 82.4 (5)
$\beta_{0,25}^-$	max:	302.3 (16)	0.0284 (7)	avg: 83.9 (5)
$\beta_{0,24}^-$	max:	398.1 (16)	0.0005 (2)	avg: 113.4 (5)
$\beta_{0,23}^-$	max:	412.0 (16)	0.0264 (4)	avg: 117.8 (5)
$\beta_{0,22}^-$	max:	417.4 (16)	0.215 (3)	avg: 119.6 (5)
$\beta_{0,21}^-$	max:	442.2 (16)	0.228 (3)	avg: 127.4 (5)
$\beta_{0,18}^-$	max:	566.3 (16)	0.0118 (11)	avg: 168.0 (5)
$\beta_{0,17}^-$	max:	599.2 (16)	0.261 (6)	avg: 179.0 (5)
$\beta_{0,15}^-$	max:	697.6 (16)	0.0247 (7)	avg: 212.6 (5)
$\beta_{0,14}^-$	max:	731.2 (16)	0.0029 (4)	avg: 224.3 (5)
$\beta_{0,13}^-$	max:	743.5 (16)	0.063 (2)	avg: 228.6 (5)
$\beta_{0,12}^-$	max:	787.1 (16)	0.0033 (4)	avg: 244.0 (5)
$\beta_{0,4}^-$	max:	1143.9 (16)	2.2 (4)	avg: 374.0 (5)
$\beta_{0,3}^-$	max:	1186.5 (16)	72.8 (19)	avg: 390.4 (5)
$\beta_{0,1}^-$	max:	1230.4 (16)	9.4 (15)	avg: 406.8 (5)
$\beta_{0,0}^-$	max:	1261.5 (16)	14.4 (22)	avg: 418.6 (5)

## 4 Photon Emissions

### 4.1 X-Ray Emissions

		Energy keV	Photons per 100 disint.	
XL	(Np)	11.871 — 21.491	16.1 (5)	
XK $\alpha_2$	(Np)	97.069	0.091 (3)	} K $\alpha$
XK $\alpha_1$	(Np)	101.059	0.144 (5)	}

KRI /V.P. Chechev, N.K. Kuzmenko

		Energy keV	Photons per 100 disint.		
XK $\beta_3$	(Np)	113.303	}	0.052 (2)	K $\beta'_1$
XK $\beta_1$	(Np)	114.234	}		
XK $\beta'_5$	(Np)	114.912	}		
XK $\beta_2$	(Np)	117.463	}	0.018 (1)	K $\beta'_2$
XK $\beta_4$	(Np)	117.876	}		
XKO $_{2,3}$	(Np)	118.429	}		

#### 4.2 Gamma Transitions and Emissions

	Energy keV	$P_{\gamma+ce}$ $\times 100$	Multipolarity	$\alpha_T$	$P_\gamma$ $\times 100$
$\gamma_{1,0}$ (Np)	31.1310 (12)	19.0 (14)	M1+E2	263 (13)	0.072 (4)
$\gamma_{4,3}$ (Np)	43.06 (2)	2.0 (4)	M1+E2	154 (18)	0.013 (2)
$\gamma_{3,1}$ (Np)	43.533 (1)	9.3 (6)	E1	1.14 (3)	4.35 (28)
$\gamma_{-1,1}$ (Np)	46.6	0.009 (4)			0.009 (4)
$\gamma_{6,4}$ (Np)	55.37 (5)	0.0076 (25)	M1+E2	90 (30)	0.0000836 (20)
$\gamma_{2,0}$ (Np)	71.210 (2)	0.141 (4)	E2	71.9 (14)	0.00193 (4)
$\gamma_{3,0}$ (Np)	74.664 (1)	65.8 (17)	E1	0.276 (6)	51.6 (13)
$\gamma_{4,1}$ (Np)	86.72 (7)	0.065 (6)	E1	0.186 (4)	0.055 (5)
$\gamma_{15,11}$ (Np)	111.0 (2)	0.0202 (5)			0.0202 (5)
$\gamma_{4,0}$ (Np)	117.727 (20)	0.123 (10)	E1	0.0841 (17)	0.113 (9)
$\gamma_{-1,2}$ (Np)	134.71 (13)	0.0019 (3)			0.0019 (3)
$\gamma_{-1,3}$ (Np)	142.5 (1)	0.0045 (6)			0.0045 (6)
$\gamma_{7,2}$ (Np)	170.15 (5)	0.031 (1)			0.031 (1)
$\gamma_{-1,4}$ (Np)	174.07 (6)	0.0097 (3)			0.0097 (3)
$\gamma_{8,3}$ (Np)	186.15 (4)	0.10 (5)	[M1+E2]	2.6 (16)	0.0288 (7)
$\gamma_{10,8}$ (Np)	187.28 (8)	0.020 (9)	[M1+E2]	2.6 (16)	0.0056 (3)
$\gamma_{9,7}$ (Np)	197.28 (12)	0.0024 (3)			0.0024 (3)
$\gamma_{24,17}$ (Np)	201.18 (6)	0.0005 (2)			0.0005 (2)
$\gamma_{-1,5}$ (Np)	220.52 (4)	0.0282 (7)			0.0282 (7)
$\gamma_{-1,6}$ (Np)	236.28 (14)	0.00092 (18)			0.00092 (18)
$\gamma_{21,16}$ (Np)	239.86 (5)	0.00087 (23)			0.00087 (23)
$\gamma_{21,15}$ (Np)	255.37 (5)	0.0011 (2)			0.0011 (2)
$\gamma_{30,19}$ (Np)	258.44 (6)	0.00073 (18)			0.00073 (18)
$\gamma_{8,0}$ (Np)	260.80 (2)	0.00310 (21)	[E1]	0.0549 (11)	0.0031 (2)
$\gamma_{-1,7}$ (Np)	262.89 (19)	0.0008 (3)			0.0008 (3)
$\gamma_{-1,8}$ (Np)	265.44 (17)	0.0009 (3)			0.0009 (3)
$\gamma_{28,18}$ (Np)	296.93 (13)	0.0024 (8)	[M1+E2]	0.7 (5)	0.0014 (2)
$\gamma_{26,17}$ (Np)	301.95 (3)	0.0018 (7)	[M1+E2]	0.6 (5)	0.0011 (3)
$\gamma_{32,20}$ (Np)	312.05 (3)	0.0006			0.0006
$\gamma_{22,13}$ (Np)	326.21 (7)	0.0044 (2)			0.0044 (2)
$\gamma_{-1,9}$ (Np)	330.14 (14)	0.00069 (13)			0.00069 (13)
$\gamma_{-1,10}$ (Np)	332.06 (14)	0.0012 (2)			0.0012 (2)
$\gamma_{30,18}$ (Np)	345.13 (8)	0.0039 (2)			0.0039 (2)
$\gamma_{-1,11}$ (Np)	348.23 (18)	0.0007 (3)			0.0007 (3)
$\gamma_{-1,12}$ (Np)	351.33 (15)	0.0007 (2)			0.0007 (2)

	Energy keV	$P_{\gamma+ce}$ $\times 100$	Multipolarity	$\alpha_T$	$P_\gamma$ $\times 100$
$\gamma_{-1,13}(\text{Np})$	361.83 (8)	0.0044 (3)			0.0044 (3)
$\gamma_{10,3}(\text{Np})$	373.51 (4)	0.034 (10)	[M1+E2]	0.35 (22)	0.025 (6)
$\gamma_{11,3}(\text{Np})$	378.06 (6)	0.0101 (4)			0.0101 (4)
$\gamma_{11,2}(\text{Np})$	381.27 (16)	0.0006 (2)			0.0006 (2)
$\gamma_{-1,14}(\text{Np})$	393.01 (18)	0.0006 (2)			0.0006 (2)
$\gamma_{25,15}(\text{Np})$	395.19 (11)	0.0021 (2)			0.0021 (2)
$\gamma_{12,3}(\text{Np})$	399.13 (13)	0.0016 (3)			0.0016 (3)
$\gamma_{-1,15}(\text{Np})$	400.55 (15)	0.0009 (2)			0.0009 (2)
$\gamma_{-1,16}(\text{Np})$	404.84 (18)	0.0009 (3)			0.0009 (3)
$\gamma_{32,17}(\text{Np})$	434.71 (4)	0.00122 (20)	(E1)	0.0184 (4)	0.0012 (2)
$\gamma_{-1,17}(\text{Np})$	445.81 (12)	0.0011 (2)			0.0011 (2)
$\gamma_{10,0}(\text{Np})$	448.18 (2)	0.00920 (31)	[E1]	0.0173 (4)	0.0090 (3)
$\gamma_{-1,18}(\text{Np})$	452.17 (12)	0.0016 (2)			0.0016 (2)
$\gamma_{14,3}(\text{Np})$	455.63 (6)	0.0008 (3)			0.0008 (3)
$\gamma_{12,0}(\text{Np})$	474.36 (6)	0.0017 (2)			0.0017 (2)
$\gamma_{-1,19}(\text{Np})$	478.13 (19)	0.00055 (23)			0.00055 (23)
$\gamma_{-1,20}(\text{Np})$	479.55 (14)	0.0010 (2)			0.0010 (2)
$\gamma_{13,1}(\text{Np})$	486.87 (3)	0.0627 (14)	[E1]	0.0147 (4)	0.0618 (14)
$\gamma_{-1,21}(\text{Np})$	490.33 (13)	0.0007 (1)			0.0007 (1)
$\gamma_{15,2}(\text{Np})$	492.76 (7)	0.0050 (2)			0.0050 (2)
$\gamma_{14,1}(\text{Np})$	499.1 (1)	0.0021 (2)			0.0021 (2)
$\gamma_{-1,22}(\text{Np})$	502.12 (17)	0.0006 (2)			0.0006 (2)
$\gamma_{16,3}(\text{Np})$	504.76 (8)	0.00545 (31)	[E2]	0.0488 (10)	0.0052 (3)
$\gamma_{-1,23}(\text{Np})$	506.80 (14)	0.0010 (2)			0.0010 (2)
$\gamma_{13,0}(\text{Np})$	518.00 (2)	0.00456 (30)	[E1]	0.01300 (19)	0.0045 (3)
$\gamma_{18,6}(\text{Np})$	522.12 (10)	0.00274 (33)	[M1+E2]	0.14 (10)	0.0024 (2)
$\gamma_{15,1}(\text{Np})$	532.86 (10)	0.0023 (2)			0.0023 (2)
$\gamma_{-1,24}(\text{Np})$	541.32 (10)	0.0029 (3)			0.0029 (3)
$\gamma_{17,4}(\text{Np})$	544.48 (9)	0.0041 (5)	[M1+E2]	0.13 (9)	0.0036 (3)
$\gamma_{16,1}(\text{Np})$	547.99 (12)	0.00202 (30)	[E1]	0.01170 (24)	0.0020 (3)
$\gamma_{-1,25}(\text{Np})$	558.46 (17)	0.0006 (2)			0.0006 (2)
$\gamma_{29,11}(\text{Np})$	560.63 (7)	0.0058 (3)			0.0058 (3)
$\gamma_{15,0}(\text{Np})$	563.89 (4)	0.0004 (2)			0.0004 (2)
$\gamma_{-1,26}(\text{Np})$	567.88 (18)	0.0004 (1)			0.0004 (1)
$\gamma_{-1,27}(\text{Np})$	575.27 (5)	0.0131 (4)			0.0131 (4)
$\gamma_{-1,28}(\text{Np})$	577.15 (14)	0.0014 (3)			0.0014 (3)
$\gamma_{-1,29}(\text{Np})$	585.49 (14)	0.0012 (2)			0.0012 (2)
$\gamma_{17,3}(\text{Np})$	587.62 (2)	0.0214 (15)	[M1+E2]	0.11 (7)	0.0193 (5)
$\gamma_{23,8}(\text{Np})$	588.70 (8)	0.0055 (3)			0.0055 (3)
$\gamma_{-1,30}(\text{Np})$	591.82 (19)	0.0009 (4)			0.0009 (4)
$\gamma_{-1,31}(\text{Np})$	599.13 (15)	0.0007 (2)			0.0007 (2)
$\gamma_{-1,32}(\text{Np})$	602.79 (8)	0.0048 (3)			0.0048 (3)
$\gamma_{-1,33}(\text{Np})$	604.85 (6)	0.00096 (27)			0.00096 (27)
$\gamma_{23,7}(\text{Np})$	607.96 (15)	0.0013 (3)			0.0013 (3)
$\gamma_{-1,34}(\text{Np})$	614.53 (17)	0.0006 (2)			0.0006 (2)
$\gamma_{-1,35}(\text{Np})$	618.03 (16)	0.0007 (2)			0.0007 (2)
$\gamma_{18,2}(\text{Np})$	624.11 (7)	0.00626 (30)	[E1]	0.0091 (2)	0.0062 (3)
$\gamma_{-1,36}(\text{Np})$	629.00 (11)	0.0027 (3)			0.0027 (3)

	Energy keV	$P_{\gamma+ce}$ $\times 100$	Multipolarity	$\alpha_T$	$P_\gamma$ $\times 100$
$\gamma_{17,1}(\text{Np})$	631.10 (3)	0.0676 (20)	[E1]	0.00892 (17)	0.067 (2)
$\gamma_{32,11}(\text{Np})$	644.253 (30)	0.0019 (4)			0.0019 (4)
$\gamma_{21,6}(\text{Np})$	646.26 (10)	0.0029 (3)			0.0029 (3)
$\gamma_{-1,37}(\text{Np})$	649.79 (19)	0.0009 (4)			0.0009 (4)
$\gamma_{17,0}(\text{Np})$	662.28 (2)	0.171 (5)	[E1]	0.00815 (16)	0.170 (5)
$\gamma_{18,1}(\text{Np})$	664.17 (9)	0.00544 (40)	[E1]	0.00811 (16)	0.0054 (4)
$\gamma_{-1,38}(\text{Np})$	668.76 (18)	0.00055 (18)			0.00055 (18)
$\gamma_{-1,39}(\text{Np})$	670.88 (20)	0.0006 (3)			0.0006 (3)
$\gamma_{-1,40}(\text{Np})$	691.01 (6)	0.0074 (3)			0.0074 (3)
$\gamma_{-1,41}(\text{Np})$	692.61 (13)	0.0016 (3)			0.0016 (3)
$\gamma_{18,0}(\text{Np})$	695.23 (2)	0.00363 (30)	[E1]	0.00745 (15)	0.0036 (3)
$\gamma_{-1,42}(\text{Np})$	701.21 (10)	0.0024 (2)			0.0024 (2)
$\gamma_{26,8}(\text{Np})$	703.63 (10)	0.00235 (20)	[E2]	0.0234 (5)	0.0023 (2)
$\gamma_{19,3}(\text{Np})$	707.38 (9)	0.0022 (2)			0.0022 (2)
$\gamma_{20,3}(\text{Np})$	710.35 (15)	0.003			0.003
$\gamma_{-1,43}(\text{Np})$	714.22 (9)	0.0030 (3)			0.0030 (3)
$\gamma_{26,7}(\text{Np})$	722.85 (4)	0.0276 (7)	[E2]	0.0222 (4)	0.0270 (7)
$\gamma_{23,5}(\text{Np})$	727.52 (10)	0.0026 (3)			0.0026 (3)
$\gamma_{-1,44}(\text{Np})$	730.95 (6)	0.0090 (3)			0.0090 (3)
$\gamma_{-1,45}(\text{Np})$	746.06 (11)	0.0043 (5)			0.0043 (5)
$\gamma_{21,2}(\text{Np})$	748.09 (3)	0.0890 (4)			0.0890 (4)
$\gamma_{29,8}(\text{Np})$	752.84 (8)	0.0013 (3)			0.0013 (3)
$\gamma_{-1,46}(\text{Np})$	764.04 (11)	0.0026 (3)			0.0026 (3)
$\gamma_{-1,47}(\text{Np})$	768.15 (11)	0.0020 (2)			0.0020 (2)
$\gamma_{-1,48}(\text{Np})$	769.52 (17)	0.0004 (1)			0.0004 (1)
$\gamma_{22,2}(\text{Np})$	772.94 (9)	0.0029 (2)			0.0029 (2)
$\gamma_{23,3}(\text{Np})$	774.77 (4)	0.015 (4)			0.015 (4)
$\gamma_{30,8}(\text{Np})$	779.57 (14)	0.0006 (1)			0.0006 (1)
$\gamma_{21,1}(\text{Np})$	788.19 (7)	0.0049 (2)			0.0049 (2)
$\gamma_{26,6}(\text{Np})$	791.13 (5)	0.0075 (2)			0.0075 (2)
$\gamma_{-1,49}(\text{Np})$	795.13 (15)	0.0008 (2)			0.0008 (2)
$\gamma_{22,1}(\text{Np})$	812.89 (3)	0.0685 (3)			0.0685 (3)
$\gamma_{21,0}(\text{Np})$	819.26 (3)	0.129 (3)			0.129 (3)
$\gamma_{-1,50}(\text{Np})$	829.59 (17)	0.00046 (13)			0.00046 (13)
$\gamma_{-1,51}(\text{Np})$	831.89 (9)	0.0021 (2)			0.0021 (2)
$\gamma_{25,4}(\text{Np})$	841.45 (4)	0.0025 (4)			0.0025 (4)
$\gamma_{22,0}(\text{Np})$	844.10 (3)	0.139 (3)			0.139 (3)
$\gamma_{26,4}(\text{Np})$	846.39 (4)	0.0324 (13)	[M1+E2]	0.04 (3)	0.0312 (8)
$\gamma_{23,0}(\text{Np})$	849.44 (9)	0.0020 (2)			0.0020 (2)
$\gamma_{-1,52}(\text{Np})$	862.56 (18)	0.0004 (1)			0.0004 (1)
$\gamma_{30,6}(\text{Np})$	867.11 (11)	0.00076 (8)			0.00076 (8)
$\gamma_{28,5}(\text{Np})$	869.57 (9)	0.0016 (1)			0.0016 (1)
$\gamma_{28,4}(\text{Np})$	874.43 (3)	0.00343 (22)	[M1+E2]	0.038 (23)	0.0033 (2)
$\gamma_{25,3}(\text{Np})$	884.45 (5)	0.0086 (2)			0.0086 (2)
$\gamma_{25,2}(\text{Np})$	887.97 (3)	0.0023 (2)			0.0023 (2)
$\gamma_{26,3}(\text{Np})$	889.49 (4)	0.0217 (7)	[M1+E2]	0.036 (22)	0.0209 (5)
$\gamma_{27,2}(\text{Np})$	895.15 (15)	0.0008 (2)			0.0008 (2)
$\gamma_{-1,53}(\text{Np})$	913.68 (9)	0.0019 (1)			0.0019 (1)

	Energy keV	$P_{\gamma+ce}$ $\times 100$	Multipolarity	$\alpha_T$	$P_\gamma$ $\times 100$
$\gamma_{28,3}(\text{Np})$	917.40 (8)	0.00279 (12)	[M1+E2]	0.034 (22)	0.0027 (1)
$\gamma_{28,2}(\text{Np})$	920.95 (8)	0.00261 (10)	[E1]	0.00450 (9)	0.0026 (1)
$\gamma_{30,4}(\text{Np})$	922.83 (13)	0.0006 (1)			0.0006 (1)
$\gamma_{25,1}(\text{Np})$	928.05 (3)	0.0051 (2)			0.0051 (2)
$\gamma_{31,4}(\text{Np})$	931.51 (5)	0.00547 (33)	[M1+E2]	0.032 (19)	0.0053 (3)
$\gamma_{26,1}(\text{Np})$	933.09 (3)	0.0263 (6)	[E1]	0.00439 (9)	0.0262 (6)
$\gamma_{29,3}(\text{Np})$	938.98 (8)	0.00031 (8)			0.00031 (8)
$\gamma_{-1,54}(\text{Np})$	948.88 (19)	0.00024 (10)			0.00024 (10)
$\gamma_{25,0}(\text{Np})$	959.18 (3)	0.0078 (3)			0.0078 (3)
$\gamma_{28,1}(\text{Np})$	960.99 (5)	0.01054 (30)	[E1]	0.00417 (9)	0.0105 (3)
$\gamma_{26,0}(\text{Np})$	964.23 (2)	0.0909 (20)	[E1]	0.00415 (8)	0.0905 (20)
$\gamma_{-1,55}(\text{Np})$	970.07 (14)	0.0009 (2)			0.0009 (2)
$\gamma_{31,3}(\text{Np})$	974.58 (4)	0.00040 (8)	[E2]	0.0123 (5)	0.00040 (8)
$\gamma_{-1,56}(\text{Np})$	988.51 (14)	0.00044 (9)			0.00044 (9)
$\gamma_{28,0}(\text{Np})$	992.16 (2)	0.00281 (10)	[E1]	0.00395 (8)	0.0028 (1)
$\gamma_{-1,57}(\text{Np})$	1002.40 (13)	0.00049 (9)			0.00049 (9)
$\gamma_{-1,58}(\text{Np})$	1005.27 (13)	0.0006 (1)			0.0006 (1)
$\gamma_{-1,59}(\text{Np})$	1009.38 (18)	0.0003 (1)			0.0003 (1)
$\gamma_{30,0}(\text{Np})$	1040.37 (4)	0.0011 (1)			0.0011 (1)
$\gamma_{32,1}(\text{Np})$	1065.76 (12)	0.00060 (8)	[M1+E2]	0.023 (13)	0.00059 (8)
$\gamma_{32,0}(\text{Np})$	1096.99 (3)	0.00164 (10)	[M1+E2]	0.022 (13)	0.0016 (1)
$\gamma_{-1,60}(\text{Np})$	1101.99 (16)	0.00031 (1)			0.00031 (1)

## 5 References

- A.C.G.MITCHELL, L.SLOTIN, J.MARSHALL, V.A.NEDZEL, L.J.BROWN, J.R.PRUETT, Report CP-597 (1943)  
(Half-life)
- N.FEATHER, R.S.KRISHNAN, Proc. Cambridge Phil. Soc. 43 (1947) 267  
(Half-life)
- J.M.HOLLANDER, Priv. Comm. (1960), cited in F.Asaro et al., Phys. Rev. 117 (1960) 492 (1960)  
(Gamma transition multipolarities)
- K.J.BLINOWSKA, P.G.HANSEN, H.L.NIELSEN, O.SCHULT, K.WIEN, Nucl. Phys. 55 (1964) 331  
(Gamma transition multipolarities, energies and absolute emission probabilities)
- L.N.YUROVA, A.V.BUSHUEV, V.G.BORTSOV, Sov. J. At. Energy 18 (1965) 75  
(Gamma-ray absolute emission probabilities)
- D.R.MACKENZIE, R.D.CONNOR, Nucl. Phys. A108 (1968) 81  
(Gamma-ray absolute emission probabilities)
- J.B.HUNT, J.C.ROBERTSON, T.B.RYVES, J. Nucl. Energy 23 (1969) 705  
(Half-life)
- J.E.CLIN, D.A.TRIPP, Priv. Comm. (1969)  
(Gamma-ray energies and absolute emission probabilities)
- D.ENGLKEMEIR, Phys. Rev. 181 (1969) 1675  
(Gamma transition multipolarities)
- A.ARTNA-COHEN, Nucl. Data Sheets B6 (1971) 577  
(Gamma-ray energies)
- J.C.PATE, K.R.BAKER, R.W.FINK, D.A.MCCLURE, N.S.KENDRICK JR., Z. Phys. A272 (1975) 169  
(Gamma-ray energies)
- H.G.BORNER, G.BARREAU, W.F.DAVIDSON, P.JEUCH, T.VON EGIDY, J.ALMEIDA, D.H.WHITE., Nucl. Instrum.  
Methods 166 (1979) 251  
(Gamma-ray energies)
- I.AHMAD, Nucl. Instrum. Methods 193 (1982) 9  
(Gamma-ray energies)

- S.P.HOLLOWAY, J.B.OLOMO, T.D.McMAHON, B.W.HOOTON, Priv. Comm. (1984), cited in Decay Data of the Transactinium Nuclides, Technical Reports Series No. 261, IAEA, Vienna (1984)  
(Gamma-ray absolute emission probabilities)
- A.ABZOUZI, M.S.ANTONY, V.B.NDOCKO, J. Radioanal. Nucl. Chem. 135 (1989) 1  
(Half-life)
- D.SARDARI, T.D.McMAHON, S.P.HOLLOWAY, Nucl. Instrum. Methods Phys. Res. A369 (1996) 486  
(Gamma-ray absolute emission probabilities)
- R.HELMER, V.CHISTÉ, J. Nucl. Sci. Technol. (Tokyo) suppl.2 (2002) 481  
(SAISINUC software)
- G.AUDI, A.H.WAPSTRA, C.THIBAUT, Nucl. Phys. A729 (2003) 337  
(Q)
- E.BROWNE, Nucl. Data Sheets 98 (2003) 665  
(Decay data evaluations, multipolarities, scheme)
- E.L.WONG, H.C.GRIFFIN, Nucl. Instrum. Methods Phys. Res. A558 (2006) 441  
(Gamma-ray emission probabilities and energies)
- H.C.GRIFFIN, Proc. 4th Int. Conf. on the Fission and Properties of Neutron-Rich Nuclei, Sanibel Island, Florida (2008) 264  
(X-ray and low energy gamma-ray absolute emission probabilities)
- D.J.DEVRIES, H.C.GRIFFIN, Appl. Radiat. Isot. 66 (2008) 1999  
(Uncertainty of X-ray and absolute emission probability)
- T.KIBÉDI, T.W.BURROWS, M.B.TRZHASKOVSKAYA, P.M.DAVIDSON, C.W.NESTOR JR., Nucl. Instrum. Methods Phys. Res. A589 (2008) 202  
(Theoretical ICC)