

^{144}Nd $Z = 60$ $N = 84$ [link to full NNDC output](#)

Based on ENSDF from Dec 2018, and mass evaluation from 2016

BE = 1199.077 (0.001) MeV

	Energy T	J+	J-	J-other	T1/2

S-alpha=	-1.903	(0.002)	-----		
144ND 1	0.000	0+			1 2.29E+15 Y16
144ND 2	0.697	2+			2 2.97 PS 5
144ND 3	1.315	4+			3 7.4 PS 9
144ND 4			1.511	3-	4 0.56 PS +8-6
144ND 5	1.561	2+			5
144ND 6	1.791	6+			6 20.8 PS 21
144ND 7	2.073	2+			7 59 FS +11-8
144ND 8	2.085	0+			8 0.13 PS +8-4
144ND 9			2.093	5-	9 0.80 PS +7-4
144ND 10	2.110	4+			10 0.2 PS GT

144ND 11	2.179	3+			11 0.06 PS +4-2
144ND 12			2.186	1-	12 15 FS 2
144ND 13			2.205	4-	13 0.7 PS +3-1
144ND 14	2.218	6+			14 0.7 PS GT
144ND 15	2.295	4+			15 0.27 PS GT
144ND 16				2.322	16
144ND 17	2.328	0+			17 0.3 PS +6-1
144ND 18				2.347 (2+)	18
144ND 19	2.369	2+			19 39 FS +14-10
144ND 20				2.399	20

144ND 21	2.420	5+			21 0.7 PS GT
144ND 22	2.452	4+			22 39 FS +14-10
144ND 23				2.464 1	23
144ND 24				2.490 (2+)	24
144ND 25				2.508	25
144ND 26	2.528	2+			26 40 FS +8-6
144ND 27				2.565 (3+)	27
144ND 28				2.582 (3+)	28
144ND 29				2.590 (1-)	29
144ND 30	2.593	2+			30 0.19 PS +13-6

144ND 31				2.599 (3-)	31
144ND 32	2.602	4+			32 0.13 PS +12-5
144ND 33				2.603	33
144ND 34			2.606	3-	34 0.106 PS +21-11
144ND 35			2.613	7-	35
144ND 36				2.614	36
144ND 37				2.655 (3+)	37 0.7 PS GT

144ND	38	2.656	1+					38	9.9	FS	8
144ND	39					2.656	(4+)	39			
144ND	40	2.676	0+					40	0.2	PS	+5-1

144ND	41					2.682		41			
144ND	42	2.693	2+					42	0.12	PS	GT
144ND	43	2.710	8+					43			
144ND	44					2.716	(5,6)	44	0.7	PS	GT
144ND	45					2.717	(1-)	45			
144ND	46					2.719	(3-)	46			
144ND	47	2.720	2+					47	0.14	PS	+8-4
144ND	48					2.732	(3-)	48			
144ND	49	2.733	4+					49	0.2	PS	+11-1
144ND	50	2.743	0+					50	0.07	PS	+5-2

144ND	51					2.775	(6,4+)	51			
144ND	52			2.779	3-			52	0.07	PS	+5-2
144ND	53					2.804		53			
144ND	54	2.809	6+					54	44	FS	GT
144ND	55					2.821		55			
144ND	56					2.829	(2+)	56	0.07	PS	+7-3
144ND	57					2.830		57			
144ND	58					2.834	(3-)	58			
144ND	59					2.835	(4+)	59	0.7	PS	GT
144ND	60	2.840	2+					60	0.2	PS	+4-1

144ND	61					2.868	(3,2+)	61	0.14	PS	GT
144ND	62					2.877	(6+,8+)	62			
144ND	63					2.888	(5,4)	63	0.7	PS	GT
144ND	64	2.901	2+					64	0.06	PS	GT
144ND	65			2.903	9-			65			
144ND	66					2.905	1(+)	66	24	FS	+10-7
144ND	67					2.909	(2+)	67			
144ND	68					2.946		68			
144ND	69					2.946	(2-,3-,4-)	69			
144ND	70					2.951	3(+)	70	58	FS	GT

144ND	71					2.962	(2+)	71	0.13	PS	+24-6
144ND	72			2.968	3-			72	24	FS	+51-17
144ND	73	2.972	8+					73			
144ND	74			2.975	1-			74	17	FS	+12-8
144ND	75	2.980	4+					75	33	FS	+30-15
144ND	76					2.986	(4+)	76			
144ND	77					3.000		77			
144ND	78					3.020	(4+,3)	78			
144ND	79					3.027	(4+,5-)	79			
144ND	80					3.029		80			

144ND	81					3.031		81			
144ND	82					3.043	(3+)	82	0.10	PS	+78-6

144ND 83				3.048		83
144ND 84				3.053	(5-)	84
144ND 85				3.056		85
144ND 86				3.065	(5,4)	86
144ND 87				3.071	(3+)	87 26 FS +12-8
144ND 88				3.085		88
144ND 89	3.100	2+				89 0.07 PS +10-3
144ND 90				3.105		90

144ND 91				3.127	(4+)	91
144ND 92				3.134	(1-)	92
144ND 93				3.137		93
144ND 94				3.147		94
144ND 95				3.157	(0+)	95
144ND 96				3.161	(2+,5+)	96
144ND 97				3.170	1(+)	97
144ND 98				3.178		98
144ND 99				3.180	(6+)	99
144ND 100				3.186	(1,2)	100

144ND 101				3.202		101
144ND 102	3.214	1+				102
144ND 103				3.222	(2+)	103
144ND 104				3.234	(9+)	104
144ND 105				3.240	(3-)	105
144ND 106			3.246	1-		106
144ND 107				3.252		107
144ND 108				3.255		108
144ND 109				3.273	1	109
144ND 110				3.282		110

144ND 111				3.287	(3-)	111
144ND 112				3.316	1	112
144ND 113				3.342	(3-,4+)	113
144ND 114				3.352		114
144ND 115				3.378		115
144ND 116				3.382	(2+,4+)	116
144ND 117			3.397	9-		117
144ND 118				3.401	(5-)	118
144ND 119				3.404	(2+)	119
144ND 120				3.409		120

144ND 121				3.432	(5-)	121
144ND 122				3.461	(4+)	122
144ND 123				3.486	1	123
144ND 124				3.487	(9+)	124
144ND 125				3.495	(5-)	125
144ND 126				3.522	(2+)	126
144ND 127				3.534	(2+)	127
144ND 128				3.555	(2+)	128

144ND 129				3.561		129
144ND 130				3.577		130

144ND 131				3.589	(3-)	131
144ND 132				3.602		132
144ND 133		3.614	1-			133
144ND 134				3.661	(3-)	134
144ND 135				3.673	(10+)	135
144ND 136				3.678		136
144ND 137				3.702	(2+)	137
144ND 138				3.738	(2+)	138
144ND 139				3.759	(6+)	139
144ND 140				3.762		140

144ND 141				3.782	1	141
144ND 142				3.796		142
144ND 143				3.803	(10)	143
144ND 144				3.813	(2+)	144
144ND 145		3.830	11-			145
144ND 146				3.834	(1-)	146
144ND 147				3.838	1	147
144ND 148				3.849	1	148
144ND 149				3.853	(0+)	149
144ND 150				3.860	1	150

144ND 151				3.871		151
144ND 152				3.875	(9,10)	152
144ND 153				3.902	(1-)	153
144ND 154				3.911	(10+)	154
144ND 155				3.911	(10-)	155
144ND 156				3.933	(6+,7-)	156
144ND 157				3.962		157
144ND 158				3.975	(2+)	158
144ND 159				3.994		159
144ND 160				4.032	(6+)	160

144ND 161				4.046	(11-,11+)	161
144ND 162		4.066	11-			162
144ND 163				4.106	(7-)	163
144ND 164				4.133	(1-)	164
144ND 165				4.184	(3-)	165
144ND 166				4.227	(3-)	166
144ND 167				4.299	(4+)	167
144ND 168				4.317	(2+)	168
144ND 169				4.344	(3-)	169
144ND 170				4.355	(12+)	170

144ND 171				4.415	(5-)	171
144ND 172				4.462	(12-)	172
144ND 173				4.469	(3-)	173

144ND 174				4.543	(3-)	174
144ND 175		4.624	13-			175
144ND 176				4.635	(2+)	176
144ND 177				4.657	(2+)	177
144ND 178				4.685	(7-)	178
144ND 179				4.708		179
144ND 180		4.743	13-			180

144ND 181				4.765		181
144ND 182				4.794		182
144ND 183				4.821		183
144ND 184				4.845	(2+)	184
144ND 185				4.885		185
144ND 186				4.936	(14-)	186
144ND 187				5.023	(5-,6+)	187
144ND 188				5.239	(15-)	188
144ND 189				5.379	(14+)	189
144ND 190				5.473	(15-)	190

144ND 191				5.553	(16-)	191
144ND 192				5.962	(17-)	192
144ND 193				5.967	(17-)	193
144ND 194				6.649	(18-)	194
144ND 195				6.964	(19-)	195
144ND 196				7.003	(19-)	196
144ND 197				7.377	(20-)	197
144ND 198				7.545	(20-)	198
144ND 199				7.814	(21-)	199
S-n	=	7.817	(0.002)	-----		
144ND 200				7.817	(3-)	200

144ND 201				7.965	(22-)	201
S-p	=	7.969	(0.002)	-----		
144ND 202				8.946	(24-)	202

S-p	=	7.969	(0.002)	-----		
S-n	=	7.817	(0.002)	-----		
S-2p	=	13.793	(0.003)	-----		
S-2n	=	13.941	(0.002)	-----		
S-alpha	=	-1.903	(0.002)	-----		
S+p	=	-4.808	(0.003)			
S+n	=	-5.755	(0.002)			
S+2p	=	-11.826	(0.003)			
S+2n	=	-13.321	(0.002)			
S+alpha	=	1.987	(0.002)			
gap p	=	3.160	(0.004)			
gap n	=	2.062	(0.003)			

gap 2p = 1.966 (0.004)
gap 2n = 0.620 (0.003)
gap alpha = 0.084 (0.003)