

^{133}Nd $Z = 60$ $N = 73$ adopted link ENSDF link

Based on ENSDF from Oct 2022, and mass evaluation from 2020

BE = 1098.877 (0.047) MeV

Qbeta+ = 5.605 (0.048) MeV

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

S-alpha=	-1.530	(0.054)	-----		
133ND 1				0.000 (7/2+)	1 70 S 10
133ND 2				0.128 (1/2+)	2 70 S AP
133ND 3				0.173 (3/2+)	3
133ND 4				0.176 (9/2-)	4 301 NS 18
133ND 5				0.245 (9/2+)	5
133ND 6				0.291 (5/2+)	6
133ND 7				0.339 (11/2-)	7
133ND 8				0.345 (3/2+)	8
133ND 9				0.354 (3/2-)	9 46 NS 9
133ND 10				0.387 (1/2-)	10

133ND 11				0.398 (5/2+)	11
133ND 12				0.400 (1/2+,3/2+)	12
133ND 13				0.443 (7/2-,9/2-,11/2)	13-
133ND 14				0.445 (1/2,3/2,5/2+)	14
133ND 15				0.472 (3/2+,5/2+,7/2+)	15)
133ND 16				0.484 (7/2+)	16
133ND 17				0.492 (7/2+)	17
133ND 18				0.492 (7/2-)	18
133ND 19				0.519 (11/2+)	19 6.7 PS 4
133ND 20				0.524 (5/2-)	20

133ND 21				0.555 (1/2+,3/2+,5/2+)	21)
133ND 22				0.585	22
133ND 23				0.587	23
133ND 24				0.628	24
133ND 25				0.647 (13/2-)	25
133ND 26				0.660 (1/2,3/2,5/2+)	26
133ND 27				0.675 (5/2+)	27
133ND 28				0.688 (9/2+)	28
133ND 29				0.739	29
133ND 30				0.759 (9/2-)	30

133ND 31				0.788 (3/2+,5/2,7/2+)	31
133ND 32				0.806	32
133ND 33				0.808 (11/2-)	33 17.5 PS 16
133ND 34				0.826 (9/2+)	34
133ND 35				0.827 (13/2+)	35 2.40 PS 24
133ND 36				0.837 (15/2-)	36 4.3 PS 4

133ND	37				0.837		37		
133ND	38				0.879	(5/2+, 7/2+)	38		
133ND	39				0.913	(11/2+)	39		
133ND	40				0.932		40		

133ND	41				0.937		41		
133ND	42				0.963	(11/2+)	42		
133ND	43				0.980		43		
133ND	44				0.986	(1/2+, 3/2, 5/2+)	44		
133ND	45				0.999		45		
133ND	46				1.007		46		
133ND	47				1.014	(3/2+, 5/2+)	47		
133ND	48				1.117	(13/2-)	48	8.1 PS	8
133ND	49				1.120	(5/2+, 7/2+)	49		
133ND	50				1.131	(13/2+)	50		

133ND	51				1.150	(15/2+)	51	1.07 PS	17
133ND	52				1.155		52		
133ND	53				1.183		53		
133ND	54				1.186	(15/2-)	54		
133ND	55				1.196		55		
133ND	56				1.206		56		
133ND	57				1.209		57		
133ND	58				1.230	(5/2+, 7/2-)	58		
133ND	59				1.272	(17/2-)	59		
133ND	60				1.280		60		

133ND	61				1.281	(15/2-)	61	2.18 PS	25
133ND	62				1.360	(13/2+)	62		
133ND	63				1.366	(15/2+)	63		
133ND	64				1.461	(19/2-)	64		
133ND	65				1.492	(17/2+)	65	0.69 PS	25
133ND	66				1.541	(15/2+)	66		
133ND	67				1.596	(3/2+, 5/2, 7/2+)	67		
133ND	68				1.599	(17/2-)	68	1.9 PS	4
133ND	69				1.624	(17/2+)	69		
133ND	70				1.770		70		

133ND	71				1.799	(19/2+)	71	0.70 PS	15
133ND	72				1.816	(19/2-)	72		
133ND	73				1.834		73		
133ND	74				1.872	(19/2-)	74		
133ND	75				1.887		75		
133ND	76				1.937		76		
133ND	77				1.937	(19/2+)	77		
133ND	78				1.963	(17/2+)	78		
133ND	79				2.005		79		
133ND	80				2.011	(21/2-)	80		

133ND	81				2.027	(17/2+)	81	1.1 PS	3

133ND 82				2.043		82
133ND 83				2.077		83
133ND 84				2.089	(21/2+)	84
133ND 85				2.160	(19/2+)	85
133ND 86				2.186	(21/2-)	86
133ND 87				2.200	(23/2-)	87
133ND 88				2.313	(21/2+)	88
133ND 89				2.313		89
133ND 90				2.372	(21/2+)	90 5.55 PS 21

133ND 91				2.385	(23/2+)	91
133ND 92				2.451		92
133ND 93				2.528	(23/2-)	93
133ND 94				2.539	(23/2-)	94
133ND 95				2.554	(21/2+)	95
133ND 96				2.678		96
133ND 97				2.678	(23/2+)	97
133ND 98				2.694	(25/2+)	98
133ND 99				2.766	(23/2+)	99
133ND 100				2.776	(23/2+)	100

133ND 101				2.813	(25/2+)	101 1.94 PS 7
133ND 102				2.813	(25/2-)	102
133ND 103				2.849	(25/2-)	103
133ND 104				2.947		104
133ND 105				2.992	(25/2+)	105
133ND 106				3.020	(23/2-)	106
133ND 107				3.021	(27/2+)	107
133ND 108				3.027	(27/2-)	108
133ND 109				3.031	(25/2-)	109
133ND 110				3.091	(25/2+)	110

133ND 111				3.129	(25/2+)	111
133ND 112				3.169	(27/2-)	112
133ND 113				3.207	(27/2-)	113
133ND 114				3.271	(27/2+)	114
133ND 115				3.327	(29/2+)	115 1.3 PS LT
133ND 116				3.366	(29/2+)	116
133ND 117				3.402	(29/2-)	117
133ND 118				3.420	(27/2+)	118
133ND 119				3.420	(27/2+)	119
133ND 120				3.552	(29/2-)	120

133ND 121				3.569	(29/2-)	121
133ND 122				3.596	(29/2+)	122
133ND 123				3.659	(31/2-)	123
133ND 124				3.715	(31/2+)	124
133ND 125				3.765	(29/2+)	125
133ND 126				3.772	(31/2-)	126
133ND 127				3.909	(31/2-)	127

133ND 128				3.909	(31/2-)	128
133ND 129				3.932	(33/2+)	129
133ND 130				3.941	(31/2+)	130

133ND 131				4.000	(33/2-)	131
133ND 132				4.078	(33/2+)	132
133ND 133				4.103		133
133ND 134				4.122		134
133ND 135				4.125	(31/2+)	135
133ND 136				4.150		136
133ND 137				4.282	(33/2-)	137
133ND 138				4.309	(33/2-)	138
133ND 139				4.347	(33/2+)	139
133ND 140				4.367	(35/2-)	140

S-p	=	4.394	(0.055)	-----		
133ND 141				4.406		141
133ND 142				4.409	(35/2-)	142
133ND 143				4.459	(35/2+)	143
133ND 144				4.469	(33/2+)	144
133ND 145				4.512		145
133ND 146				4.615	(37/2+)	146
133ND 147				4.650	(35/2-)	147
133ND 148				4.685	(35/2-)	148
133ND 149				4.715		149
133ND 150				4.727	(35/2+)	150

133ND 151				4.787	(37/2-)	151
133ND 152				4.861	(37/2+)	152
133ND 153				4.878	(35/2+)	153
133ND 154				4.928		154
133ND 155				5.057	(37/2-)	155
133ND 156				5.104	(37/2-)	156
133ND 157				5.157	(37/2+)	157
133ND 158				5.170	(39/2-)	158
133ND 159				5.211	(37/2+)	159
133ND 160				5.238	(39/2-)	160

133ND 161				5.280	(39/2+)	161
133ND 162				5.368		162
133ND 163				5.377	(41/2+)	163
133ND 164				5.428	(39/2-)	164
133ND 165				5.561	(39/2+)	165
133ND 166				5.669	(39/2+)	166
133ND 167				5.713	(41/2+)	167
133ND 168				5.721	(41/2-)	168
133ND 169				5.842		169
133ND 170				5.899	(41/2-)	170

133ND 171				5.969	(41/2+)	171

133ND 172			6.055	(43/2-)	172
133ND 173			6.159	(43/2+)	173
133ND 174			6.213	(45/2+)	174
133ND 175			6.259		175
133ND 176			6.620	(45/2+)	176
133ND 177			6.744	(45/2-)	177
133ND 178			6.819	(45/2-)	178
133ND 179			7.042	(47/2-)	179
133ND 180			7.096	(47/2+)	180

133ND 181			7.116	(49/2+)	181
S-2p	=	7.202 (0.057)	-----		
133ND 182			7.587	(49/2+)	182
133ND 183			7.826	(49/2-)	183
133ND 184			8.083	(53/2+)	184
133ND 185			8.098	(51/2+)	185
133ND 186			8.118	(51/2-)	186
133ND 187			8.623	(53/2+)	187
133ND 188			8.913	(53/2-)	188
S-n	=	8.978 (0.052)	-----		
133ND 189			9.112	(57/2+)	189
133ND 190			9.170	(55/2+)	190

133ND 191			9.278	(55/2-)	191
133ND 192			9.730	(57/2+)	192

S-p	=	4.394 (0.055)	-----		
S-n	=	8.978 (0.052)	-----		
S-2p	=	7.202 (0.057)	-----		
S-2n	=	20.707 (0.054)	-----		
S-alpha	=	-1.530 (0.054)	-----		
S+p	=	-1.721 (0.063)			
S+n	=	-11.385 (0.048)			
S+2p	=	-5.103 (0.161)			
S+2n	=	-20.024 (0.050)			
S+alpha	=	1.916 (0.055)			
gap p	=	2.673 (0.083)			
gap n	=	-2.408 (0.071)			
gap 2p	=	2.099 (0.171)			
gap 2n	=	0.683 (0.074)			
gap alpha	=	0.385 (0.077)			