

^{131}Nd $Z = 60$ $N = 71$ adopted link ENSDF link

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

BE = 1078.170 (0.028) MeV

Qbeta+ = 6.532 (0.054) MeV

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

S-alpha=	-1.786	(0.040)	-----			
131ND 1				0.000 (5/2+)	1	25.4 S 9
131ND 2				0.114 (1/2+)	2	
131ND 3				0.141 (3/2+)	3	
131ND 4				0.146 (7/2+)	4	
131ND 5				0.191 (1/2-)	5	
131ND 6				0.211 (7/2-)	6	50 NS AP
131ND 7				0.226 (3/2-)	7	
131ND 8				0.300 (5/2-)	8	
131ND 9				0.303 (9/2-)	9	
131ND 10				0.321 (5/2+)	10	

131ND 11				0.331 (9/2+)	11	
131ND 12				0.381 (7/2+)	12	
131ND 13				0.388 (7/2+)	13	
131ND 14				0.394 (7/2-)	14	
131ND 15				0.453 (11/2-)	15	
131ND 16				0.515 (9/2-)	16	
131ND 17				0.551 (11/2+)	17	
131ND 18				0.666 (9/2+)	18	
131ND 19				0.677 (13/2-)	19	
131ND 20				0.693 (11/2-)	20	

131ND 21				0.761 (11/2+)	21	
131ND 22				0.802 (13/2+)	22	
131ND 23				0.843 (13/2-)	23	
131ND 24				0.896 (15/2-)	24	
131ND 25				1.036 (11/2-)	25	
131ND 26				1.079 (15/2+)	26	
131ND 27				1.092 (13/2+)	27	
131ND 28				1.116 (15/2-)	28	
131ND 29				1.199 (15/2+)	29	
131ND 30				1.201 (17/2-)	30	

131ND 31				1.283 (17/2-)	31	
131ND 32				1.342 (15/2-)	32	
131ND 33				1.378 (17/2+)	33	
131ND 34				1.459 (19/2-)	34	
131ND 35				1.570 (17/2+)	35	
131ND 36				1.645 (19/2-)	36	

131ND 37				1.684	(19/2+)	37
131ND 38				1.696	(19/2+)	38
131ND 39				1.808	(21/2-)	39
131ND 40				1.814	(19/2-)	40

131ND 41				1.826	(21/2-)	41
131ND 42				2.021	(21/2+)	42
131ND 43				2.086	(17/2+)	43
131ND 44				2.098	(23/2-)	44
131ND 45				2.106	(21/2+)	45
131ND 46				2.239	(23/2+)	46
131ND 47				2.255	(23/2-)	47
131ND 48				2.358	(23/2+)	48
131ND 49				2.411	(23/2-)	49
131ND 50				2.434	(21/2+)	50

131ND 51				2.447	(25/2-)	51
131ND 52				2.459	(25/2-)	52
131ND 53				2.685	(25/2+)	53
131ND 54				2.717	(25/2+)	54
131ND 55				2.771	(27/2-)	55
131ND 56				2.871	(27/2+)	56
131ND 57				2.902	(25/2+)	57
131ND 58				2.912	(27/2-)	58
131ND 59				3.026	(27/2+)	59
131ND 60				3.105	(27/2-)	60

131ND 61				3.126	(29/2-)	61
131ND 62				3.155	(29/2-)	62
131ND 63				3.333	(29/2+)	63
131ND 64				3.376	(29/2+)	64
131ND 65				3.470	(29/2+)	65
131ND 66				3.474	(31/2-)	66
131ND 67				3.578	(31/2+)	67
131ND 68				3.590	(31/2-)	68
131ND 69				3.661	(31/2+)	69
131ND 70				3.846	(33/2-)	70

131ND 71				3.861	(31/2-)	71
S-p	=	3.882	(0.070)	-----		
131ND 72				3.905	(33/2-)	72
131ND 73				3.992	(33/2+)	73
131ND 74				4.057	(33/2+)	74
131ND 75				4.163	(33/2+)	75
131ND 76				4.200	(35/2-)	76
131ND 77				4.285	(35/2-)	77
131ND 78				4.349	(35/2+)	78
131ND 79				4.349	(35/2-)	79
131ND 80				4.371	(35/2+)	80

131ND 81				4.603	(37/2-)	81
131ND 82				4.700	(37/2-)	82
131ND 83				4.745	(37/2+)	83
131ND 84				4.789	(37/2+)	84
131ND 85				4.946	(37/2+)	85
131ND 86				4.985	(39/2-)	86
131ND 87				5.059	(39/2-)	87
131ND 88				5.169	(39/2+)	88
131ND 89				5.186	(39/2-)	89
131ND 90				5.204	(39/2+)	90

131ND 91				5.454	(41/2-)	91
131ND 92				5.559	(41/2-)	92
131ND 93				5.586	(41/2+)	93
131ND 94				5.613	(41/2+)	94
131ND 95				5.773	(41/2+)	95
131ND 96				5.857	(43/2-)	96
131ND 97				5.939	(43/2-)	97
S-2p =	6.058	(0.039)	-----		
131ND 98				6.078	(43/2+)	98
131ND 99				6.104	(43/2-)	99
131ND 100				6.107	(43/2+)	100

131ND 101				6.405	(45/2-)	101
131ND 102				6.469	(45/2+)	102
131ND 103				6.490	(45/2-)	103
131ND 104				6.559	(45/2+)	104
131ND 105				6.817	(47/2-)	105
131ND 106				6.915	(47/2-)	106
131ND 107				7.054	(47/2+)	107
131ND 108				7.072	(47/2+)	108
131ND 109				7.096	(47/2-)	109
131ND 110				7.420	(49/2+)	110

131ND 111				7.431	(49/2-)	111
131ND 112				7.498	(49/2-)	112
131ND 113				7.575	(49/2+)	113
131ND 114				7.867	(51/2-)	114
131ND 115				7.964	(51/2-)	115
131ND 116				8.090	(51/2+)	116
131ND 117				8.103	(51/2+)	117
131ND 118				8.165	(51/2-)	118
131ND 119				8.438	(53/2+)	119
131ND 120				8.510	(53/2-)	120

131ND 121				8.588	(53/2-)	121
131ND 122				8.669	(53/2+)	122
131ND 123				9.005	(55/2-)	123
131ND 124				9.076	(55/2-)	124
131ND 125				9.191	(55/2+)	125

131ND 126			9.224	(55/2+)	126
S-n	=	9.243 (0.039)	-----		
131ND 127			9.318	(55/2-)	127
131ND 128			9.526	(57/2+)	128
131ND 129			9.642	(57/2-)	129
131ND 130			9.763	(57/2-)	130

131ND 131			9.833	(57/2+)	131

S-p = 3.882 (0.070)-----
S-n = 9.243 (0.039)-----
S-2p = 6.058 (0.039)-----
S-2n = 21.531 (0.259)-----
S-alpha= -1.786 (0.040)-----

S+p = -1.194 (0.135)
S+n = -11.729 (0.037)
S+2p = -4.051 (0.267)
S+2n = -20.707 (0.054)
S+alpha = 2.486 (0.157)

gap p = 2.688 (0.152)
gap n = -2.486 (0.054)
gap 2p = 2.007 (0.270)
gap 2n = 0.824 (0.265)
gap alpha = 0.700 (0.162)