

^{150}Nd $Z = 60$ $N = 90$ [link to full NNDC output](#)

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

BE = 1237.437 (0.001) MeV

	Energy T	J+	J-	J-other	T1/2
150ND 1	0.000	0+			1 0.91E19 Y 7
150ND 2	0.130	2+			2 1.48 NS 3
150ND 3	0.381	4+			3 60.5 PS 5
S-alpha= 0.469 (0.016)					
150ND 4	0.676	0+			4 5.7 PS 3
150ND 5	0.720	6+			5 12.5 PS 5
150ND 6	0.851	2+			6 4.5 PS 14
150ND 7			0.853 1-		7 46 FS +7-6
150ND 8			0.935 3-		8 82 FS +12-10
150ND 9	1.062	2+			9 1.46 PS 21
150ND 10			1.129 5-		10 0.07 PS +20-4
150ND 11	1.130	8+			11 4.7 PS 5
150ND 12	1.138	4+			12 3.3 PS 3
150ND 13				1.182 LE 2	13 0.5 NS LT
150ND 14				1.201 3(+)	14
150ND 15				1.250	15
150ND 16				1.265	16
150ND 17				1.284 (1-)	17 0.5 NS LT
150ND 18				1.308 (3,4)	18
150ND 19				1.318 (1-)	19
150ND 20	1.352	4+			20 2.0 PS 6
150ND 21				1.427 (2+)	21
150ND 22				1.433 (7-)	22
150ND 23			1.435 2-		23 0.6 PS +4-2
150ND 24			1.484 3-		24 0.35 PS +11-7
150ND 25				1.488 0:2	25
150ND 26				1.490 1,2	26
150ND 27				1.497 3, (2,4,5)	27
150ND 28				1.517 4,5,6	28
150ND 29			1.518 3-		29
150ND 30				1.541 (6+)	30
150ND 31			1.545 3-		31
150ND 32			1.566 4-		32 0.33 PS +28-11
150ND 33			1.580 3-		33
150ND 34	1.599	10+			34 2.59 PS 13
150ND 35				1.604	35
150ND 36				1.645 5, (4)	36
150ND 37				1.647 3,5, (2,4)	37

150ND 38		1.648	4+							38
150ND 39							1.649	1,(0,2)		39
150ND 40					1.687	3-				40

150ND 41							1.714			41
150ND 42		1.738	0+							42
150ND 43							1.754	(4+)		43
150ND 44							1.765	0:3		44
150ND 45							1.777	1:5		45
150ND 46							1.782	(4+)		46
150ND 47							1.800	(5-)		47
150ND 48							1.830	(5-)		48
150ND 49					1.864	3-				49
150ND 50		1.885	4+							50

150ND 51		1.907	4+							51
150ND 52							1.911	0:4		52
150ND 53		1.921	4+							53
150ND 54							1.967			54
150ND 55							1.976	1:5		55
150ND 56							1.985	1:5		56
150ND 57					1.988	3-				57
150ND 58							1.994			58
150ND 59							2.009	(1-,2,3-)		59
150ND 60		2.033	4+							60

150ND 61							2.050	(0+)		61
150ND 62		2.069	2+							62
150ND 63					2.077	3-				63
150ND 64					2.090	3-				64
150ND 65					2.109	3-				65
150ND 66							2.119	(12+)		66 1.8 PS +2-3
150ND 67		2.129	4+							67
150ND 68		2.174	4+							68
150ND 69		2.194	2+							69
150ND 70		2.206	4+							70

150ND 71		2.223	2+							71
150ND 72		2.242	2+							72
150ND 73							2.269	1		73 0.006 EV 3
150ND 74							2.271	(3-)		74
150ND 75					2.328	3-				75
150ND 76		2.384	2+							76
150ND 77							2.408	1		77 0.0017 EV 8
150ND 78							2.412	(3-)		78
150ND 79					2.414	1-				79 0.026 EV 4
150ND 80		2.441	4+							80

150ND 81							2.458	1		81 0.0056 EV 11
150ND 82							2.460	(4+)		82

150ND 83		2.475	4+									83
150ND 84							2.496	(1-)				84 0.018 EV 4
150ND 85		2.528	4+									85
150ND 86							2.539					86
150ND 87		2.563	4+									87
150ND 88							2.571	(1)				88 0.008 EV 3
150ND 89							2.588	1,2+				89 0.0015 EV 8
150ND 90					2.596	5-						90

150ND 91							2.620					91
150ND 92		2.638	4+									92
150ND 93		2.652	4+									93
150ND 94		2.681	4+									94
150ND 95		2.681	1+									95 0.012 EV 3
150ND 96							2.682	(14+)				96
150ND 97		2.707	4+									97
150ND 98		2.737	4+									98
150ND 99		2.755	4+									99
150ND 100		2.789	4+									100

150ND 101					2.818	3-						101
150ND 102					2.836	3-						102
150ND 103							2.837					103
150ND 104					2.880	3-						104
150ND 105		2.895	4+									105
150ND 106		2.895	1+									106 0.017 EV 3
150ND 107							2.920	2+,1				107 0.0024 EV 9
150ND 108		2.925	4+									108
150ND 109		2.961	2+									109
150ND 110							2.993	(1)				110 0.100 EV 11

150ND 111		3.039	4+									111
150ND 112		3.058	1+									112 0.054 EV 6
150ND 113					3.069	3-						113
150ND 114		3.085	4+									114
150ND 115		3.096	1+									115 0.027 EV 6
150ND 116		3.103	1+									116 0.023 EV 4
150ND 117		3.112	2+									117
150ND 118							3.157	(2+)				118
150ND 119							3.160	1,2+				119 0.0023 EV 19
150ND 120							3.180	(2+)				120

150ND 121							3.186	1,2+				121 0.0032 EV 14
150ND 122							3.221	(2+)				122 0.0075 EV 18
150ND 123							3.244	2+,1				123 0.0021 EV 9
150ND 124		3.252	4+									124
150ND 125							3.280	(16+)				125
150ND 126		3.301	4+									126
150ND 127					3.315	3-						127
150ND 128							3.327	1				128 0.0101 EV 22

150ND 129				3.340	(4+)	129	
150ND 130				3.342	1	130	0.015 EV 3

150ND 131				3.375	1,2+	131	0.0021 EV 17
150ND 132				3.418	1	132	0.028 EV 6
150ND 133				3.423	1,2+	133	0.008 EV 4
150ND 134				3.553	(2+)	134	0.0083 EV 22
150ND 135				3.582	2+,1	135	0.0045 EV 18
150ND 136				3.590	1,2+	136	0.004 EV 23
150ND 137				3.606	1	137	0.008 EV 3
150ND 138				3.642	1	138	0.017 EV 6
150ND 139				3.653	1	139	0.059 EV 12
150ND 140				3.672	1	140	0.019 EV 5

150ND 141				3.698	2+,1	141	0.0030 EV 13
150ND 142				3.706	1	142	0.043 EV 15
150ND 143				3.711	1	143	0.033 EV 8
150ND 144				3.720	1	144	0.025 EV 10
150ND 145				3.737	2+,1	145	0.0023 EV 14
150ND 146				3.751	1	146	0.042 EV 9
150ND 147				3.768	1	147	0.009 EV 3
150ND 148				3.860	1	148	0.007 EV 3
150ND 149				3.888	1,2+	149	0.0056 EV 23

S-p = 9.930 (0.010)-----
S-n = 7.376 (0.002)-----
S-2p = 17.859 (0.011)-----
S-2n = 12.415 (0.002)-----
S-alpha= 0.469 (0.016)-----

S+p = -6.995 (0.005)
S+n = -5.334 (0.002)
S+2p = -15.661 (0.002)
S+2n = -12.612 (0.025)
S+alpha = -1.200 (0.002)

gap p = 2.934 (0.011)
gap n = 2.041 (0.003)
gap 2p = 2.199 (0.011)
gap 2n = -0.198 (0.025)
gap alpha = -0.731 (0.017)