

^{118}Sn $Z = 50$ $N = 68$ adopted link ENSDF link

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

BE = 1004.951 (0.000) MeV

	Energy T	J+	J-	J-other	T1/2
118SN 1	0.000	0+			1 STABLE
118SN 2	1.230	2+			2 0.485 PS 19
118SN 3	1.758	0+			3 21 PS 3
118SN 4	2.043	2+			4 2.9 PS 4
118SN 5	2.057	0+			5 200 PS LT
118SN 6				2.120 (2+)	6
118SN 7	2.280	4+			7 0.76 PS 13
118SN 8			2.321 5-		8 21.7 NS 2
118SN 9			2.325 3-		9 0.19 PS +4-3
118SN 10	2.328	2+			10 0.2 PS GT
118SN 11	2.403	2+			11 0.18 PS +8-4
118SN 12	2.408	4+			12
118SN 13	2.489	4+			13 0.55 PS GT
118SN 14	2.497	0+			14
118SN 15				2.530	15
118SN 16			2.575 7-		16 230 NS 10
118SN 17	2.577	2+			17
118SN 18	2.677	2+			18 0.28 PS GT
118SN 19				2.725 1+,2+,3+	19
118SN 20	2.734	4+			20 0.5 PS +6-2
118SN 21	2.738	1+			21 0.19 PS +16-6
118SN 22			2.774 4-		22
118SN 23				2.817 (4-,5-,6-)	23
118SN 24				2.817 (3-)	24
118SN 25				2.879 4,5,6+	25
118SN 26				2.889 (8+)	26
118SN 27	2.904	2+			27 0.077 PS +20-13
118SN 28				2.930 0+,1+	28
118SN 29				2.934 (2+)	29
118SN 30	2.963	4+			30
118SN 31	2.972	4+			31
118SN 32				2.991	32
118SN 33	2.999	6+			33
118SN 34				3.015 1,2,3	34
118SN 35	3.020	0+			35
118SN 36				3.048 4	36
118SN 37				3.052 7+,8+	37
118SN 38	3.057	2+			38 0.11 PS +5-3

118SN 39						3.089	+		39
118SN 40						3.108	9+,10+		40 2.52 US 6

118SN 41		3.137	0+						41
118SN 42		3.159	4+						42
118SN 43						3.190			43
118SN 44						3.228	2+,3+		44
118SN 45		3.228	2+						45 0.15 PS +14-10
118SN 46						3.231	(8+)		46
118SN 47						3.237			47
118SN 48						3.252	(3+)		48 0.08 PS +6-3
118SN 49		3.263	3+						49
118SN 50						3.271	1		50 0.005 PS 3

118SN 51						3.274			51
118SN 52						3.286			52
118SN 53		3.309	2+						53
118SN 54						3.317	0-,1-,2-		54
118SN 55						3.344	(3-)		55
118SN 56		3.356	2+						56
118SN 57						3.363	0+,1+		57
118SN 58		3.375	4+						58
118SN 59		3.386	3+						59
118SN 60						3.389			60

118SN 61						3.409			61
118SN 62		3.427	3+						62
118SN 63						3.441			63
118SN 64		3.460	4+						64
118SN 65						3.463	(2-,3-)		65
118SN 66						3.475			66
118SN 67						3.541	1+,2+,3+		67 0.11 PS +23-5
118SN 68						3.541	(6+,7-)		68
118SN 69						3.559	7-,8-,9-		69
118SN 70						3.576	2-,3-,4-		70

118SN 71		3.593	4+						71
118SN 72		3.597	2+						72
118SN 73						3.635			73
118SN 74						3.643			74
118SN 75		3.674	4+						75
118SN 76		3.692	8+						76
118SN 77						3.697	1+,2+		77 0.11 PS +38-6
118SN 78		3.705	4+						78
118SN 79						3.705	(6+)		79
118SN 80						3.710	1+,2+		80

118SN 81						3.721	0-,1-,2-		81
118SN 82						3.750	(0- TO 3+)		82
118SN 83						3.754	4,5,6		83

118SN 84				3.762	1,2,3	84
118SN 85		3.773	4+			85
118SN 86				3.784	(0+,1+)	86
118SN 87				3.817	1+,2+,3+	87
118SN 88				3.839	4	88
118SN 89				3.857	1,2+	89
118SN 90				3.889	(0-,1-,2-)	90

118SN 91				3.899		91
118SN 92				3.916	1+,2+,3+	92
118SN 93				3.944	1+,2+	93
118SN 94				3.977		94
118SN 95				3.995	0-,1-,2-	95
118SN 96				4.045	(1+,2+,3+)	96
S-alpha=		4.063	(0.001)	-----		
118SN 97				4.109	0-,1-,2-	97
118SN 98				4.127	1+,2+	98
118SN 99				4.203	1+,2+,3+	99
118SN 100				4.233	(2-,3-,4-)	100

118SN 101				4.252		101
118SN 102				4.288		102
118SN 103				4.313		103
118SN 104				4.326		104
118SN 105				4.352		105
118SN 106				4.365		106
118SN 107				4.391		107
118SN 108				4.408		108
118SN 109				4.422	(0+,1+)	109
118SN 110				4.448	(1+,2+,3+)	110

118SN 111				4.472	(0-,1-,2-)	111
118SN 112				4.484		112
118SN 113				4.495	(10+)	113
118SN 114				4.507		114
118SN 115				4.523		115
118SN 116				4.540	(0- TO 3+)	116
118SN 117				4.573	(0-,1-,2-)	117
118SN 118				4.604		118
118SN 119				4.617		119
118SN 120				4.637	1+,2+,3+	120

118SN 121				4.696		121
118SN 122				4.706		122
118SN 123		4.798	3-			123
118SN 124				4.832	0+,1+	124
118SN 125				4.862	0+,1+	125
118SN 126				4.879	0+,1+	126
118SN 127				4.940	(2-,3-,4-)	127
118SN 128				5.006		128

118SN 129				5.014	2-,3-,4-	129		
118SN 130				5.025		130		

118SN 131				5.043		131		
118SN 132				5.068	(2-,3-,4-)	132		
118SN 133				5.098		133		
118SN 134				5.116	(0- T0 3+)	134		
118SN 135				5.142		135		
118SN 136				5.150		136		
118SN 137				5.163		137		
118SN 138				5.181		138		
118SN 139				5.193		139		
118SN 140				5.208		140		

118SN 141				5.379	(12+)	141		
118SN 142		5.400	3-			142		
118SN 143				6.325	1	143	5.7 FS	24
118SN 144		6.900	3-			144		
118SN 145		6.988	1-			145	2.9 FS	6
118SN 146				7.010	1	146		

S-p = 9.999 (0.005)-----
S-n = 9.326 (0.001)-----
S-2p = 17.518 (0.001)-----
S-2n = 16.270 (0.001)-----
S-alpha= 4.063 (0.001)-----

S+p = -5.112 (0.007)
S+n = -6.483 (0.001)
S+2p = -12.287 (0.002)
S+2n = -15.588 (0.001)
S+alpha = -1.085 (0.001)

gap p = 4.887 (0.009)
gap n = 2.843 (0.001)
gap 2p = 5.231 (0.002)
gap 2n = 0.682 (0.001)
gap alpha = 2.977 (0.002)