

$^{119}\text{Sn}$        $Z = 50$        $N = 69$       adopted link      ENSDF link

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

BE = 1011.434 ( 0.001) MeV

	Energy T	J+	J-	J-other	T1/2
119SN 1	0.000	1/2+			1 STABLE
119SN 2	0.024	3/2+			2 18.03 NS 7
119SN 3			0.090 11/2-		3 293.1 D 7
119SN 4	0.787	7/2+			4 0.19 NS 7
119SN 5	0.921	3/2+			5 1.6 PS 5
119SN 6	0.921	5/2+			6 1.2 PS 4
119SN 7				1.060 (+)	7
119SN 8			1.062 7/2-		8
119SN 9	1.089	5/2+			9 0.21 PS 7
119SN 10				1.188 3/2+,5/2+	10
119SN 11				1.210	11
119SN 12	1.250	1/2+			12
119SN 13				1.304 GE7/2	13
119SN 14				1.309	14
119SN 15				1.309 (15/2-)	15
119SN 16	1.355	5/2+			16 0.42 PS 14
119SN 17				1.379 (13/2-)	17
119SN 18				1.390	18
119SN 19				1.510	19
119SN 20				1.554 3/2+,5/2+	20
119SN 21				1.562 3/2+,5/2+	21
119SN 22				1.572 1/2,3/2,5/2+	22
119SN 23				1.590	23
119SN 24				1.617 (1/2+,3/2,5/2)	24
119SN 25				1.633 3/2+,5/2+	25
119SN 26				1.718 3/2+,5/2+	26
119SN 27				1.731 3/2+,5/2+	27
119SN 28				1.775 3/2+,5/2+	28
119SN 29				1.790 1/2,3/2,5/2+	29
119SN 30				1.810	30
119SN 31				1.905 3/2+,5/2+	31
119SN 32				1.930 1/2,3/2,5/2+	32
119SN 33				1.939 1/2+,3/2,5/2+	33
119SN 34				1.950	34
119SN 35				1.983	35
119SN 36				2.003 1/2,3/2,5/2	36
119SN 37				2.041 1/2,3/2,5/2+	37
119SN 38				2.075	38

119SN 39						2.100			39
119SN 40						2.120			40
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119SN 41						2.127	(19/2+)		41 9.6 US 12
119SN 42		2.130		1/2+					42
119SN 43						2.155			43
119SN 44						2.180	(5/2-, 7/2-)		44
119SN 45						2.230	3/2+, 5/2+		45
119SN 46						2.240			46
119SN 47						2.258	3/2+, 5/2+		47
119SN 48						2.280	(5/2-, 7/2-)		48
119SN 49						2.322	3/2+, 5/2+		49
119SN 50						2.350			50
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119SN 51						2.367	3/2+, 5/2+		51
119SN 52						2.390	5/2-, 7/2-		52
119SN 53						2.400	9/2-, 11/2-		53
119SN 54						2.415	(19/2-)		54
119SN 55						2.470			55
119SN 56						2.535			56
119SN 57						2.549	5/2-, 7/2-		57
119SN 58						2.636	(5/2-, 7/2-)		58
119SN 59						2.640	3/2+, 5/2+		59
119SN 60						2.700	1/2-, 3/2-		60
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119SN 61						2.723	1/2-, 3/2-		61
119SN 62						2.760			62
119SN 63						2.813			63
119SN 64						2.823			64
119SN 65						2.840	1/2-, 3/2-		65
119SN 66						2.846	3/2+, 5/2+		66
119SN 67						2.881	3/2+, 5/2+		67
119SN 68						2.905	3/2+, 5/2+		68
119SN 69						2.928	(23/2-)		69
119SN 70						2.939	3/2+, 5/2+		70
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119SN 71						2.940			71
119SN 72						2.965			72
119SN 73						3.012	3/2+, 5/2+		73
119SN 74						3.047	LE 5/2		74
119SN 75						3.071	3/2+, 5/2+		75
119SN 76						3.093	5/2-, 7/2-		76
119SN 77						3.103	(27/2-)		77 34 NS 10
119SN 78						3.120			78
119SN 79						3.158	5/2-, 7/2-		79
119SN 80						3.191			80
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119SN 81						3.279	3/2+, 5/2+		81
119SN 82						3.300			82
119SN 83						3.366			83

119SN 84			3.375	(3/2+,5/2,7/2-)	84
119SN 85			3.389		85
119SN 86			3.405		86
119SN 87			3.442	1/2-,3/2-	87
119SN 88			3.481	1/2-,3/2-	88
119SN 89			3.527	1/2-,3/2-	89
119SN 90			3.566	1/2-,3/2-	90
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119SN 91			3.595	(1/2-,3/2-,5/2-)	91
119SN 92			3.618	1/2-,3/2-	92
119SN 93			3.656	1/2-,3/2-	93
119SN 94			3.675		94
119SN 95			3.690		95
119SN 96			3.730		96
119SN 97			3.770		97
119SN 98			3.807	1/2-,3/2-	98
119SN 99			3.843	1/2-,3/2-	99
119SN 100			3.880	7/2+,9/2+	100
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119SN 101			3.891	(1/2-,3/2-)	101
119SN 102			3.905		102
119SN 103			3.921	5/2-,7/2-	103
119SN 104			3.955	(1/2-,3/2-)	104
119SN 105			3.980	7/2+,9/2+	105
119SN 106			3.987		106
119SN 107			4.031		107
119SN 108			4.050	7/2+,9/2+	108
119SN 109			4.062	1/2-,3/2-	109
119SN 110			4.115		110
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119SN 111			4.138		111
119SN 112			4.191		112
119SN 113			4.210	7/2+,9/2+	113
119SN 114			4.235	5/2-,7/2-	114
119SN 115			4.261	5/2-,7/2-	115
119SN 116			4.301	(1/2-,3/2-)	116
119SN 117			4.350		117
119SN 118			4.380	1/2-,3/2-	118
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S-alpha=	4.405	( 0.001)	-----		
119SN 119			4.418		119
119SN 120			4.435		120
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119SN 121			4.451		121
119SN 122			4.470	7/2+,9/2+	122
119SN 123			4.521		123
119SN 124			4.552	(5/2-,7/2-)	124
119SN 125			4.610	(1/2-,3/2-)	125
119SN 126			4.663		126
119SN 127			4.688		127
119SN 128			4.758		128

119SN 129			4.800		129
119SN 130			4.900		130
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119SN 131			4.950		131
119SN 132			5.050	7/2+,9/2+	132
119SN 133			5.120	7/2+,9/2+	133
119SN 134			5.200	7/2+,9/2+	134
119SN 135			5.330	7/2+,9/2+	135
119SN 136			5.480	7/2+,9/2+	136
119SN 137			5.600		137
119SN 138			5.710		138
119SN 139			5.820	7/2+,9/2+	139
119SN 140			5.960		140
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119SN 141			6.020		141
119SN 142			6.120		142
119SN 143			6.300		143
119SN 144			6.360		144
119SN 145			6.460		145
S-n	=	6.483	( 0.001)	-----	
119SN 146			7.500		146
119SN 147			9.500		147
S-p	=	10.126	( 0.008)	-----	
S-n	=	6.483	( 0.001)	-----	
S-2p	=	18.224	( 0.001)	-----	
S-2n	=	15.810	( 0.001)	-----	
S-alpha	=	4.405	( 0.001)	-----	
S+p	=	-5.641	( 0.007)		
S+n	=	-9.104	( 0.001)		
S+2p	=	-13.056	( 0.026)		
S+2n	=	-15.274	( 0.001)		
S+alpha	=	-1.531	( 0.002)		
gap p	=	4.485	( 0.011)		
gap n	=	-2.621	( 0.001)		
gap 2p	=	5.168	( 0.026)		
gap 2n	=	0.536	( 0.001)		
gap alpha	=	2.874	( 0.002)		