

^{113}Sn $Z = 50$ $N = 63$ adopted link ENSDF link

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

BE = 961.270 (0.002) MeV

Qbeta+ = 1.039 (0.002) MeV

	Energy T	J+	J-	J-other	T1/2
113SN 1	0.000	1/2+			1 115.09 D 3
113SN 2	0.077	7/2+			2 21.4 M 4
113SN 3	0.410	5/2+			3
113SN 4	0.498	3/2+			4 0.35 PS GT
113SN 5			0.738 11/2-		5 86 NS 2
113SN 6	1.014	3/2+			6 0.2 PS 1
113SN 7	1.018	5/2+			7 1.0 PS 5
113SN 8				1.042 3/2+,5/2+	8
113SN 9				1.140	9
113SN 10				1.249	10
113SN 11	1.284	5/2+			11 0.5 PS 2
113SN 12	1.303	1/2+			12
113SN 13	1.314	3/2+			13
113SN 14	1.356	3/2+			14 0.7 PS 3
113SN 15	1.473	5/2+			15 0.8 PS 5
113SN 16				1.537 (7/2+,9/2+)	16
113SN 17	1.539	5/2+			17 0.6 PS 1
113SN 18				1.540 (11/2-)	18 0.2 PS 1
113SN 19	1.556	3/2+			19
113SN 20				1.646 3/2+,5/2+	20
113SN 21				1.647	21
113SN 22	1.652	5/2+			22
113SN 23				1.732 (3/2+,5/2+)	23
113SN 24				1.745 3/2+,5/2+	24 0.31 PS 8
113SN 25			1.781 9/2-		25 0.19 PS 7
113SN 26	1.821	1/2+			26
113SN 27	1.831	1/2+			27
113SN 28	1.867	5/2+			28 0.33 PS 10
113SN 29			1.907 15/2-		29 0.8 PS 2
113SN 30				1.910 (5/2+,7/2+)	30
113SN 31				1.935 (11/2-)	31 1.9 PS 8
113SN 32				1.945 (9/2-)	32 0.40 PS 20
113SN 33			1.952 13/2-		33 1.0 PS 4
113SN 34				1.957 3/2(+),5/2(+)	34
113SN 35				2.031	35
113SN 36	2.040	7/2+			36 0.2 PS 1
113SN 37				2.045 (3/2+,5/2+)	37

113SN 38						2.050		1/2-,3/2-		38		
113SN 39						2.105		(3/2-)		39		
113SN 40						2.128		3/2+,5/2+		40		

113SN 41						2.135				41		
113SN 42		2.176		7/2+						42	0.3 PS	2
113SN 43		2.201		5/2+						43	0.24 PS	GT

S-alpha= 2.249 (0.002)-----												
113SN 44		2.259		5/2+						44	0.3 PS	1
113SN 45						2.276		1/2-,3/2-		45		
113SN 46						2.337		11/2-		46	0.35 PS	8
113SN 47		2.386		7/2+						47	0.7 PS	6
113SN 48								2.411		48		
113SN 49		2.448		7/2+						49		
113SN 50						2.457				50		

113SN 51						2.468				51		
113SN 52						2.506				52		
113SN 53						2.512		(3/2,5/2)		53		
113SN 54						2.538		3/2+,5/2+		54		
113SN 55						2.540		5/2-,7/2-		55		
113SN 56						2.540		(15/2-)		56	0.07 PS	3
113SN 57						2.552		(3/2,5/2,7/2)		57		
113SN 58						2.579				58		
113SN 59						2.582		(15/2-)		59	0.22 PS	9
113SN 60						2.591		(3/2)		60		

113SN 61						2.617				61		
113SN 62						2.619				62		
113SN 63		2.620		1/2+						63		
113SN 64						2.624				64		
113SN 65						2.649		(9/2-)		65		
113SN 66						2.663		(3/2+,5/2+)		66		
113SN 67						2.671				67		
113SN 68						2.675				68		
113SN 69						2.700				69	0.4 PS	1
113SN 70						2.718		(11/2-)		70		

113SN 71						2.750		17/2-		71	0.21 PS	7
113SN 72						2.764		(7/2-)		72		
113SN 73						2.778				73		
113SN 74						2.780				74		
113SN 75						2.807		19/2-		75	0.31 PS	10
113SN 76						2.852		(17/2-)		76	1.2 PS	6
113SN 77						2.862		(7/2-)		77		
113SN 78						2.889				78		
113SN 79						2.916				79		
113SN 80						2.932				80		

113SN 81						2.957				81		

113SN 82				2.975	(19/2-)	82	0.28 PS	14
113SN 83				3.004	1/2-, 3/2-	83		
113SN 84				3.080	(7/2)-	84		
113SN 85			3.091	19/2-		85	0.45 PS	18
113SN 86			3.129	21/2-		86		
113SN 87				3.130		87		
113SN 88				3.139		88		
113SN 89				3.204	1/2-, 3/2-	89		
113SN 90				3.223	(19/2)-	90	1.4 PS	GT

113SN 91				3.307	(7/2)-	91		
113SN 92				3.409	17/2	92		
113SN 93				3.412		93		
113SN 94				3.418	(7/2)-	94		
113SN 95				3.420	(21/2-)	95		
113SN 96				3.457		96		
113SN 97				3.458	(23/2-)	97		
113SN 98				3.494	(7/2)-	98		
113SN 99				3.499		99		
113SN 100				3.539	(7/2)-	100		

113SN 101				3.584	(7/2)-	101		
113SN 102				3.680	(23/2-)	102		
113SN 103				3.696	(7/2)-	103		
113SN 104				3.743	(7/2)-	104		
113SN 105				3.796	(7/2)-	105		
113SN 106				3.808	(7/2)-	106		
113SN 107				3.822	(7/2)-	107		
113SN 108				3.838	(23/2-)	108		
113SN 109				3.846		109		
113SN 110				3.873	(7/2)-	110		

113SN 111				3.902	(23/2-)	111	0.6 PS	2
113SN 112				3.906	(7/2)-	112		
113SN 113				3.914	(21/2-)	113		
113SN 114				3.960		114		
113SN 115				3.972	(23/2-)	115	0.5 PS	2
113SN 116				4.022	(3/2)	116		
113SN 117				4.044	(7/2)-	117		
113SN 118				4.052	21/2	118		
113SN 119	4.058	25/2+				119	0.69 NS	28
113SN 120				4.233	(7/2)-	120		

113SN 121				4.265	(7/2)-	121		
113SN 122				4.315	(7/2)-	122		
113SN 123				4.335		123		
113SN 124				4.343	(7/2)-	124		
113SN 125				4.364		125		
113SN 126				4.397	(7/2)-	126		
113SN 127				4.430	(7/2)-	127		

113SN 128				4.438		128
113SN 129				4.475	(27/2+)	129 1.1 PS GT
113SN 130				4.504		130

113SN 131				4.589	(7/2)-	131
113SN 132				4.609	(7/2)-	132
113SN 133				4.649		133
113SN 134				4.714	(27/2-)	134 0.31 PS 10
113SN 135				4.752	25/2	135
113SN 136				4.992	(7/2)-	136
113SN 137				5.012	(7/2)-	137
113SN 138				5.067	(7/2)-	138
113SN 139				5.239	(7/2)-	139
113SN 140				5.291	(7/2)-	140

113SN 141				5.318		141
113SN 142				5.450	(7/2)-	142
113SN 143				5.534	29/2	143
113SN 144	5.606	31/2+				144
113SN 145			5.646	31/2-		145
113SN 146				5.647	(7/2)-	146
113SN 147				6.385	33/2	147
113SN 148			6.682	35/2-		148
113SN 149				7.322	37/2	149

S-p	=	7.627	(0.005)	-----		
S-n	=	7.744	(0.002)	-----		

113SN 150	7.746	1/2+				150

113SN 151			7.784	39/2-		151
113SN 152			7.883	39/2-		152
113SN 153					8.348 41/2	153
113SN 154			8.812	43/2-		154
113SN 155			9.014	43/2-		155
113SN 156					9.467 45/2	156
113SN 157			9.936	47/2-		157

S-p	=	7.627	(0.005)	-----		
S-n	=	7.744	(0.002)	-----		
S-2p	=	13.654	(0.002)	-----		
S-2n	=	18.532	(0.006)	-----		
S-alpha	=	2.249	(0.002)	-----		

S+p	=	-3.458	(0.020)			
S+n	=	-10.303	(0.002)			
S+2p	=	-8.313	(0.028)			
S+2n	=	-17.848	(0.002)			
S+alpha	=	0.808	(0.014)			

gap p	=	4.169	(0.020)			

gap n = -2.559 (0.002)
gap 2p = 5.341 (0.028)
gap 2n = 0.684 (0.006)
gap alpha = 3.056 (0.014)