

$^{122}\text{Sn}$        $Z = 50$        $N = 72$       adopted link      ENSDF link

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

BE = 1035.523 ( 0.002) MeV

	Energy T	J+	J-	J-other	T1/2
122SN 1	0.000	0+			1 STABLE
122SN 2	1.141	2+			2 0.776 PS 16
122SN 3	2.088	0+			3 0.277 PS GT
122SN 4	2.142	4+			4 1.56 PS 21
122SN 5	2.154	2+			5 0.69 PS +55-21
122SN 6			2.246	5-	6 7.9 NS 9
122SN 7	2.331	4+			7 0.83 PS +69-28
122SN 8			2.409	7-	8 7.5 US 9
122SN 9	2.416	2+			9 0.33 PS +10-7
122SN 10			2.493	3-	10 0.079 PS +5-3
122SN 11				2.530 (0)+	11
122SN 12	2.555	6+			12
122SN 13				2.651 4-,5-,6-	13
122SN 14			2.653	6-	14
122SN 15				2.657	15
122SN 16	2.676	0+			16 0.2 PS GT
122SN 17				2.690 (8+)	17
122SN 18	2.734	2+			18 0.49 PS +69-21
122SN 19			2.751	5-	19
122SN 20				2.766 (10+)	20 62 US 3
122SN 21	2.776	2+			21 0.62 PS +83-28
122SN 22			2.838	6-	22
122SN 23			2.855	4-	23
122SN 24				2.868	24 0.13 PS +20-6
122SN 25				2.880 1+,2+	25 0.111 PS +55-28
122SN 26	2.945	3+			26
122SN 27	2.959	4+			27
122SN 28				2.971	28
122SN 29	2.973	4+			29
122SN 30			3.036	3-	30
122SN 31	3.082	4+			31 0.19 PS +15-6
122SN 32	3.129	2+			32 0.043 PS +10-7
122SN 33				3.131	33
122SN 34				3.206 (0)+	34
122SN 35	3.234	4+			35
122SN 36				3.281	36 0.10 PS +10-4
122SN 37	3.306	4+			37
122SN 38				3.330	38

122SN	39			3.359	1-			39	0.006 PS	+4-3
122SN	40			3.363	3-			40		
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122SN	41					3.371	(2+)	41		
122SN	42					3.417	(7-,8-,9-)	42		
122SN	43					3.455	(3-)	43		
122SN	44					3.479	(7-)	44		
122SN	45					3.531	(7-,8-)	45		
122SN	46	3.549	2+					46	0.06 PS	+9-3
122SN	47					3.568		47		
122SN	48	3.582	2+					48	0.028 PS	+16-10
122SN	49	3.627	4+					49		
122SN	50	3.670	4+					50		
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122SN	51					3.703	(7-,8-,9-)	51		
122SN	52					3.705	(2+)	52		
122SN	53					3.710	(7-,8-)	53		
122SN	54					3.730		54		
122SN	55	3.751	2+					55	0.055 PS	+69-41
122SN	56					3.759	1,2+	56	0.028 PS	+41-20
122SN	57					3.777		57		
122SN	58					3.783	(4+)	58		
122SN	59					3.810	+	59		
122SN	60					3.818	(6+)	60		
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122SN	61	3.820	2+					61	0.049 PS	+68-21
122SN	62					3.841	(4+)	62		
122SN	63					3.871	1,2+	63		
122SN	64					3.876	5-,6+	64		
122SN	65	3.882	4+					65		
122SN	66					3.900	0+,1+,2+	66		
122SN	67					3.900		67		
122SN	68					3.930	1,2+	68		
122SN	69					3.948	5-,6+	69		
122SN	70					3.974		70		
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122SN	71					4.004	(2+)	71		
122SN	72					4.040	-	72		
122SN	73					4.104	(5-)	73		
122SN	74					4.107	1,2+	74		
122SN	75					4.116	0+,1+,2+	75		
122SN	76					4.120	-	76		
122SN	77					4.180	0,1,2	77		
122SN	78					4.220	-	78		
122SN	79					4.284	(2+)	79		
122SN	80					4.360	-	80		
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122SN	81					4.470	+	81		
122SN	82					4.510	+	82		
122SN	83					4.560	+	83		

122SN	84				4.680	+	84
122SN	85				4.750	+	85
122SN	86				4.800	(-)	86
122SN	87				4.930	+	87
122SN	88				5.000		88
122SN	89				5.300	(-)	89

S-p = 11.394 ( 0.028)-----  
 S-n = 8.815 ( 0.003)-----  
 S-2p = 20.560 ( 0.004)-----  
 S-2n = 14.985 ( 0.003)-----  
 S-alpha= 5.663 ( 0.020)-----

S+p = -6.572 ( 0.003)  
 S+n = -5.946 ( 0.003)  
 S+2p = -15.162 ( 0.003)  
 S+2n = -14.434 ( 0.003)  
 S+alpha = -2.549 ( 0.003)

gap p = 4.822 ( 0.028)  
 gap n = 2.868 ( 0.004)  
 gap 2p = 5.398 ( 0.005)  
 gap 2n = 0.550 ( 0.004)  
 gap alpha = 3.114 ( 0.020)