

$^{72}\text{Zn}$        $Z = 30$        $N = 42$       [link to full NNDC output](#)

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

BE = 625.810 ( 0.002) MeV

Qbeta- = 0.443 ( 0.002) MeV

	Energy T	J+	J-	J-other	T1/2
72ZN 1	0.000	0+			1 46.5 H 1
72ZN 2	0.653	2+			2 14 PS 3
72ZN 3				1.500 (4+)	3
72ZN 4	1.511	0+			4
72ZN 5				1.613	5
72ZN 6	1.657	2+			6
72ZN 7				2.057	7
72ZN 8				2.169	8
72ZN 9				2.193	9
72ZN 10				2.442 (3,4)	10
72ZN 11	2.476	0+			11
72ZN 12				2.646 (3,4)	12
72ZN 13				2.653 (6+)	13
72ZN 14				2.792	14
72ZN 15				2.805	15
72ZN 16				2.909 (3,4)	16
72ZN 17				2.924	17
72ZN 18				2.978	18
72ZN 19				3.027	19
72ZN 20				3.048	20
72ZN 21				3.062	21
72ZN 22				3.094	22
72ZN 23				3.110	23
72ZN 24				3.154	24
72ZN 25				3.193	25
72ZN 26				3.247 (1,2)	26
72ZN 27				3.395	27
72ZN 28				3.570 (8+)	28
72ZN 29				3.575	29
72ZN 30				3.662	30
72ZN 31				3.698	31
72ZN 32				3.707 (2+)	32
72ZN 33				3.752	33
72ZN 34				3.866 (1,2)	34
72ZN 35				4.001	35
72ZN 36				4.130	36
72ZN 37				4.175	37

72ZN	38				4.359		38
72ZN	39				4.427		39
72ZN	40				4.429		40
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72ZN	41				4.594		41
72ZN	42				4.770	(10+)	42

S-p = 12.723 ( 0.003)-----  
 S-n = 8.888 ( 0.003)-----  
 S-2p = 23.510 ( 0.003)-----  
 S-2n = 14.723 ( 0.003)-----  
 S-alpha= 7.107 ( 0.004)-----

S+p = -8.843 ( 0.003)  
 S+n = -5.519 ( 0.003)  
 S+2p = -19.855 ( 0.002)  
 S+2n = -13.754 ( 0.003)  
 S+alpha = -7.492 ( 0.002)

gap p = 3.880 ( 0.004)  
 gap n = 3.369 ( 0.004)  
 gap 2p = 3.655 ( 0.004)  
 gap 2n = 0.969 ( 0.004)  
 gap alpha = -0.386 ( 0.004)