

$^{72}\text{As}$        $Z = 33$        $N = 39$       adopted link      ENSDF link

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

BE = 623.547 ( 0.004) MeV

Qbeta+ = 4.356 ( 0.004) MeV

	Energy T	J+	J-	J-other	T1/2
72AS 1			0.000 2-		1 26.0 H 1
72AS 2	0.046	1+			2 10.7 NS 3
72AS 3	0.214	3+			3 85 NS 5
72AS 4				0.288 (2)+	4 2 NS 1
72AS 5			0.310 4-		5 27 NS 5
72AS 6	0.318	4+			6 27 NS 1
72AS 7			0.363 5-		7
72AS 8	0.380	0+			8
72AS 9				0.390 1+,2+	9
72AS 10			0.414 3-		10
72AS 11				0.439 1+,2+	11
72AS 12	0.440	3+			12
72AS 13	0.483	2+			13
72AS 14	0.501	2+			14
72AS 15				0.514 (0)+	15
72AS 16			0.525 3-		16
72AS 17			0.559 4-		17
72AS 18			0.563 7-		18 87.9 NS 17
72AS 19				0.565 1-,2-	19
72AS 20				0.566 1+,2+	20
72AS 21				0.586 1+,2+	21
72AS 22			0.594 4-		22
72AS 23				0.625 1+,2+	23
72AS 24	0.645	2+			24
72AS 25	0.650	3+			25
72AS 26			0.663 6-		26
72AS 27	0.674	2+			27
72AS 28				0.708 (5)-	28
72AS 29	0.715	3+			29
72AS 30			0.730 3-		30
72AS 31				0.733 (0 TO 4)-	31
72AS 32				0.743 4 TO 7	32
72AS 33				0.745 4-,5-,6-	33
72AS 34				0.747 2+,3+	34
72AS 35				0.794 (3,4)	35
72AS 36				0.800 1,2	36
72AS 37				0.802 (4)+	37

72AS 38						0.806	1,3		38	
72AS 39						0.813	4 TO 6		39	
72AS 40						0.817	1,2		40	
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72AS 41		0.828	6+						41	
72AS 42					0.834	6-			42	
72AS 43							0.838	(1,2)	43	
72AS 44							0.840	4-,5-	44	
72AS 45							0.841	(2,3)	45	
72AS 46							0.844	1,2	46	
72AS 47					0.867	4-			47	
72AS 48		0.981	8+						48 402 PS 14	
72AS 49							1.034	(5)+	49	
72AS 50							1.179	(7)+	50	
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72AS 51							1.191	4+,5+	51	
72AS 52							1.346	(7)-	52	
72AS 53		1.402	9+						53	
72AS 54							1.666	(8)-	54	
72AS 55		1.875	10+						55 0.9 PS 3	
72AS 56							2.134	(9)-	56	
72AS 57		2.308	11+						57 0.27 PS 16	
72AS 58							2.326	(10-)	58	
72AS 59							2.517	(10)-	59	
72AS 60							2.925	(11-)	60	
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72AS 61							3.044	(11-)	61	
72AS 62		3.151	12+						62 0.22 PS 7	
72AS 63							3.446	(12)-	63	
72AS 64		3.505	13+						64 0.17 PS 5	
S-alpha=		3.569	( 0.004)	-----						
72AS 65							4.778	(15)+	65 0.22 PS 7	
S-p =		5.612	( 0.004)	-----						
72AS 66							6.088	(17+)	66 0.29 PS 10	
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S-p =		5.612	( 0.004)	-----						
S-n =		8.408	( 0.006)	-----						
S-2p =		13.898	( 0.004)	-----						
S-2n =		20.039	( 0.004)	-----						
S-alpha=		3.569	( 0.004)	-----						
S+p =		-7.287	( 0.008)	-----						
S+n =		-10.794	( 0.006)	-----						
S+2p =		-11.636	( 0.007)	-----						
S+2n =		-18.773	( 0.004)	-----						
S+alpha =		-4.484	( 0.010)	-----						
gap p =		-1.674	( 0.009)	-----						
gap n =		-2.386	( 0.008)	-----						

gap 2p = 2.261 ( 0.008)  
gap 2n = 1.266 ( 0.006)  
gap alpha = -0.916 ( 0.011)