

$^{36}\text{Ar}$        $Z = 18$        $N = 18$       adopted link      ENSDF link

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

BE = 306.717 ( 0.000) MeV

	Energy T	J+	J-	J-other	T1/2
36AR 1	0.000	0+			1 STABLE
36AR 2	1.970	2+			2 328 FS 20
36AR 3			4.178 3-		3 2.3 PS 3
36AR 4				4.329 (0,1,2)+	4 485 FS GT
36AR 5	4.414	4+			5 76 FS 10
36AR 6	4.440	2+			6 76 FS 14
36AR 7	4.951	2+			7 35 FS LT
36AR 8			4.974 2-		8 10 PS 3
36AR 9			5.171 5-		9 88 PS 3
36AR 10				5.194 (0+,1+,2+,3-)	10 69 FS 21
36AR 11			5.836 1-		11 6.2 FS 21
36AR 12			5.857 3-		12 0.31 PS 10
36AR 13				5.878 (2+)	13
36AR 14			5.896 4-		14 0.35 PS 14
36AR 15	6.136	4+			15
36AR 16			6.217 5-		16 201 FS 35
36AR 17	6.356	4+			17 0.31 PS 10
36AR 18	6.611 1	2+			18 15 FS 6
S-alpha=	6.641 ( 0.000)				
36AR 19				6.646 (2+,3+,4+)	19
36AR 20				6.724 NOT (2)+	20
36AR 21				6.731 1+,2+	21
36AR 22			6.835 4-		22 0.56 PS 17
36AR 23			6.837 3-		23 166 FS 42
36AR 24				6.867 (1+,2+)	24
36AR 25				7.136 (1-,2+)	25 9 FS 3
36AR 26	7.140	3+			26 69 FS 35
36AR 27				7.179 (1,2)+	27
36AR 28				7.247 (1,2,3)-	28 21 FS LT
36AR 29			7.259 3-		29 14 FS LT
36AR 30	7.337 1	3+			30 10 FS 5
36AR 31			7.354 6-		31 125 FS 28
36AR 32	7.432	1+			32 1.5 FS 3
36AR 33				7.488 (2-)	33
36AR 34			7.573 4-		34 159 FS 49
36AR 35				7.672 (3)-	35
36AR 36				7.706 -	36
36AR 37	7.710 1	1+			37

36AR 38				7.750	2-			38	
36AR 39		7.767	6+					39 76 FS 11	
36AR 40						7.879	(1,2)-	40	
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36AR 41						7.971	1+,2+	41	
36AR 42						8.016	(3,4)-	42	
36AR 43		8.132	1 1+					43 1.6 FS 4	
36AR 44						8.231		44	
36AR 45						8.288		45	
36AR 46				8.303	2-			46	
36AR 47						8.333	(3)-	47	
36AR 48						8.353	(1-,2+,3-)	48	
36AR 49				8.365	2-			49	
36AR 50						8.398		50	
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36AR 51						8.449	(-)	51	
36AR 52						8.472	(3-,4-,5-)	52 30 FS 7	
36AR 53		8.504	1+					53 30 FS 7	
S-p	=	8.507	( 0.000)	-----					
36AR 54		8.556	1 2+					54	
36AR 55						8.593		55	
36AR 56						8.672	(-)	56	
36AR 57						8.739		57	
36AR 58						8.806	(0-,1,2,3-)	58	
36AR 59						8.850		59	
36AR 60						8.887	(LE 5-)	60	
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36AR 61		8.909	2+					61	
36AR 62						8.922		62	
36AR 63						8.939	(2+,3,4-)	63	
36AR 64						9.015	(3-,4,5-)	64	
36AR 65						9.025	2	65	
36AR 66				9.066	3-			66	
36AR 67				9.117	1-			67	
36AR 68				9.132	3-			68	
36AR 69						9.145	(2+,3-)	69	
36AR 70						9.186	(6+)	70	
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36AR 71						9.192	(3-,4+)	71	
36AR 72		9.220	1 1+					72	
36AR 73				9.241	2-			73	
36AR 74						9.248	(1-,2-,3-)	74	
36AR 75				9.258	3-			75	
36AR 76						9.270	(1+)	76	
36AR 77				9.300	1 4-			77	
36AR 78				9.342	1 3-			78	
36AR 79		9.356	2+					79	
36AR 80				9.366	1-			80	
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36AR 81						9.374	(1-,2-,3-)	81	

36AR 82				9.380	(2+,3+,4+)	82
36AR 83				9.393	(2+,3+,4+)	83
36AR 84				9.414		84
36AR 85				9.439	(2+,3+,4+)	85
36AR 86				9.448	1-,2+,3-	86
36AR 87				9.466	1-,2+	87
36AR 88				9.474	(1,2)	88
36AR 89				9.494		89
36AR 90				9.503	(2,3)	90
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36AR 91				9.510	(2+,3+,4+)	91
36AR 92				9.542	(1,2,3)-	92
36AR 93				9.550	(0+:4+)	93
36AR 94			9.574 4-			94
36AR 95	9.595 2+					95
36AR 96				9.607	(0,1,2)-	96
36AR 97			9.667 3-			97
36AR 98				9.682	4+,6+	98
36AR 99	9.700 1 0+					99
36AR 100				9.703	(1-,2+)	100
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36AR 101				9.734	1-,3-,4+	101
36AR 102			9.738 3-			102
36AR 103				9.764	(3-,4-,5-)	103
36AR 104				9.812	(1,2,3-)	104
36AR 105	9.863 3+					105
36AR 106				9.879	2+,3+	106
36AR 107				9.889		107
36AR 108	9.902 4+					108
36AR 109	9.927 8+					109 27.4 FS 43
36AR 110			9.927 5-			110
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36AR 111				9.943	(2,3-)	111
36AR 112				9.957	(1,2+)	112
36AR 113				9.983	(1,3)-	113
36AR 114				9.983	1+,(2+)	114
36AR 115				9.992	1-,2+	115
36AR 116				9.993		116

S-p = 8.507 ( 0.000)-----  
S-n = 15.256 ( 0.001)-----  
S-2p = 14.878 ( 0.000)-----  
S-2n = 27.996 ( 0.000)-----  
S-alpha= 6.641 ( 0.000)-----

S+p = -1.858 ( 0.000)  
S+n = -8.787 ( 0.000)  
S+2p = -6.405 ( 0.000)  
S+2n = -20.626 ( 0.000)

S+alpha = -7.040 ( 0.000)

gap p = 6.649 ( 0.000)

gap n = 6.468 ( 0.001)

gap 2p = 8.473 ( 0.000)

gap 2n = 7.370 ( 0.000)

gap alpha = -0.399 ( 0.000)