

^{37}Ar $Z = 18$ $N = 19$ adopted link ENSDF link

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

BE = 315.504 (0.000) MeV

Qbeta+ = 0.814 (0.000) MeV

	Energy T	J+	J-	J-other	T1/2
37AR 1	0.000	3/2+			1 35.011 D 19
37AR 2	1.410	1/2+			2 0.59 PS 10
37AR 3			1.611 7/2-		3 4.38 NS 10
37AR 4	2.217	7/2+			4 283 FS 22
37AR 5			2.490 3/2-		5 462 FS 111
37AR 6	2.796	5/2+			6 14 FS 4
37AR 7	3.170	5/2+			7 56 FS 5
37AR 8			3.185 9/2-		8 195 FS 7
37AR 9			3.274 5/2-		9 25 FS 2
37AR 10			3.518 3/2-		10 41 FS 24
37AR 11			3.527 7/2-		11 409 FS 53
37AR 12	3.602	3/2+			12 23 FS 5
37AR 13			3.706 11/2-		13 256 FS 14
37AR 14				3.751	14
37AR 15				3.900	15
37AR 16	3.937	3/2+			16 17 FS 10
37AR 17				3.981 1/2,3/2,5/2	17 28 FS 28
37AR 18			4.022 9/2-		18 28 FS 10
37AR 19				4.193	19
37AR 20	4.284	7/2+			20 28 FS 14
37AR 21				4.320	21
37AR 22				4.397 (5/2)-	22 6.9 FS LT
37AR 23			4.444 1/2-		23 14 FS LT
37AR 24				4.573 5/2	24 14 FS LT
37AR 25	4.624	7/2+			25 6.9 FS LT
37AR 26			4.635 3/2-		26 21 FS 14
37AR 27				4.729	27
37AR 28	4.743	7/2+			28 6.9 FS LT
37AR 29			4.755 3/2-		29
37AR 30				4.799 5/2	30 6.9 FS LT
37AR 31				4.830	31
37AR 32				4.886	32
37AR 33				4.981 7/2-,11/2-	33 35 FS 10
37AR 34				4.995 3/2+,5/2+	34
37AR 35				5.048 5/2	35 21 FS LT
37AR 36				5.090 3/2	36 10 FS LT
37AR 37			5.102 1/2-		37 6.9 FS LT

37AR 38						5.130	5/2		38	17 FS	7
37AR 39		5.213	11/2+						39	2.54 PS	25
37AR 40						5.229	(3/2)-		40		

37AR 41						5.267			41		
37AR 42				5.349	3/2-				42		
37AR 43						5.408			43	3.5 FS	35
37AR 44						5.436	5/2+,9/2+		44	87 FS	17
37AR 45				5.437	3/2-				45		
37AR 46						5.461			46		
37AR 47						5.533			47		
37AR 48				5.573	3/2-				48		
37AR 49						5.669	3/2+,5/2+		49		
37AR 50						5.761			50		

37AR 51				5.793	13/2-				51	35 FS	10
37AR 52						5.845			52		
37AR 53						5.873	(1/2-)		53		
37AR 54						5.961	(7/2-)		54		
37AR 55						6.066			55		
37AR 56						6.102	3/2+,5/2+		56		
37AR 57		6.150	13/2+						57	3.1 PS	3
37AR 58				6.158	1/2-				58		
37AR 59				6.227	1/2-				59		
37AR 60						6.290	3/2+,5/2+		60		

37AR 61				6.315	5/2-				61		
37AR 62						6.416	7/2:17/2+		62		
37AR 63						6.461	7/2:13/2+		63		
37AR 64		6.473	15/2+						64	4.9 PS	7
37AR 65						6.540			65		
37AR 66						6.580			66		
37AR 67						6.604			67		
37AR 68						6.673	1/2+,3/2+		68		
37AR 69						6.752			69		
S-alpha=		6.787	(0.000)	-----							
37AR 70						6.790	7/2:13/2+		70		

37AR 71						6.821			71		
37AR 72						6.852			72		
37AR 73						6.875			73		
37AR 74						6.946	(1/2,3/2)-		74		
37AR 75						7.018			75		
37AR 76						7.071	13/2+,17/2+		76	375 FS	80
37AR 77						7.107			77		
37AR 78						7.151	(7/2-)		78		
37AR 79						7.252	(1/2-)		79		
37AR 80						7.263			80		

37AR 81						7.285	(7/2-)		81		

37AR 82				7.290	7/2:13/2+	82
37AR 83				7.329		83
37AR 84				7.440		84
37AR 85				7.478		85
37AR 86		7.571	1/2-			86
37AR 87				7.612		87
37AR 88				7.650	1/2+,3/2+,5/2+	88
37AR 89				7.710	3/2:13/2+	89
37AR 90				7.770	3/2:13/2+	90

37AR 91				7.804		91
37AR 92				7.888	3/2:13/2+	92
37AR 93		7.902	1/2-			93
37AR 94				7.976		94
37AR 95				8.045		95
37AR 96				8.101	(7/2-)	96
37AR 97				8.130	7/2:13/2+	97
37AR 98				8.247		98
37AR 99				8.300	7/2:13/2+	99
37AR 100		8.310	7/2-			100

37AR 101				8.421	(7/2-)	101
37AR 102				8.598		102
S-p	=	8.715	(0.000)	-----		
37AR 103				8.721		103
37AR 104				8.776	(1/2)-	104
S-n	=	8.787	(0.000)	-----		
37AR 105		8.791	1/2+			105
37AR 106				8.865		106
37AR 107				8.897	(1/2-)	107
37AR 108				9.024	(1/2-)	108
37AR 109				9.650	1/2+,3/2+,5/2+	109

S-p	=	8.715	(0.000)	-----		
S-n	=	8.787	(0.000)	-----		
S-2p	=	16.679	(0.000)	-----		
S-2n	=	24.043	(0.001)	-----		
S-alpha	=	6.787	(0.000)	-----		

S+p	=	-5.142	(0.000)			
S+n	=	-11.838	(0.000)			
S+2p	=	-10.913	(0.001)			
S+2n	=	-18.437	(0.005)			
S+alpha	=	-6.615	(0.000)			

gap p	=	3.573	(0.000)			
gap n	=	-3.051	(0.000)			
gap 2p	=	5.766	(0.001)			
gap 2n	=	5.606	(0.005)			

gap alpha = 0.172 (0.000)