^{36}Ar $Z = 18$ $N = 18$ link to full NNDC output

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

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
----------                                                              -----------------
 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
----------                                                              -----------------
 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
----------                                                              -----------------
 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
----------                                                              -----------------
 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
----------                                                              -----------------
 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	
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	
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	
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	
36AR	117					10.002	(1-,2,3)	117	
36AR	118			10.044	1-			118	
36AR	119	10.050	1+					119	
36AR	120	10.051	2+					120	
36AR	121					10.077	(1-,2,3)	121	
36AR	122					10.092		122	
36AR	123	10.095	2+					123	
36AR	124			10.099	1-			124	
36AR	125					10.139	(2+,3-)	125	
36AR	126					10.143	(1-,2)	126	
36AR	127					10.150	(3-,4)	127	

36AR 128			10.167	3-			128
36AR 129					10.173	(1-,2+)	129
36AR 130			10.186	1-			130
36AR 131					10.194	(3-,4,5,6+)	131
36AR 132					10.201		132
36AR 133	10.217	2+					133
36AR 134					10.220	4(-)	134
36AR 135					10.256	(3-,4)	135
36AR 136					10.257	(3-,4+)	136
36AR 137					10.260		137
36AR 138			10.267	1-			138
36AR 139					10.272	(3-,4-,5-)	139
36AR 140			10.281	3-			140
36AR 141	10.302	4+					141
36AR 142					10.309	(2,3)-	142
36AR 143	10.319	2+					143
36AR 144	10.328	2+					144
36AR 145					10.329	(3-,4-,5-)	145
36AR 146					10.377		146
36AR 147			10.421	3-			147
36AR 148					10.435	(1,2,3-)	148
36AR 149	10.439	2+					149
36AR 150					10.449		150
36AR 151			10.462	2-			151
36AR 152					10.475		152
36AR 153			10.488	3-			153
36AR 154					10.500	(1,2,3)-	154
36AR 155					10.524		155
36AR 156			10.540	3-			156
36AR 157	10.559	2+					157
36AR 158			10.562	3-			158
36AR 159					10.568		159
36AR 160			10.583	5-			160
36AR 161	10.593	2+					161
36AR 162			10.596	3-			162
36AR 163					10.614	1+,2+,3+	163
36AR 164			10.616	4-			164
36AR 165			10.618	3-			165
36AR 166			10.636	1-			166
36AR 167					10.647		167
36AR 168			10.651	1-			168
36AR 169					10.664	(0+,1-,2+)	169
36AR 170					10.674	(3-,4+)	170
36AR 171					10.676	5	171
36AR 172			10.684	1-			172

36AR 173	10.700	2+					173		
36AR 174					10.702	(0+,1-,2+)	174		
36AR 175					10.739		175		
36AR 176					10.752		176		
36AR 177	10.759	4+					177		
36AR 178					10.761	(2,3)-	178		
36AR 179	10.764	4+					179		
36AR 180	10.780	4+					180		
36AR 181	10.790	2+					181		
36AR 182					10.809	(1-,2,3-)	182		
36AR 183					10.816		183		
36AR 184					10.823		184		
36AR 185					10.832	(1-,3-,4+)	185		
36AR 186					10.846		186		
36AR 187	10.852	2+					187		
36AR 188	10.854	0+					188	4 FS	LT
36AR 189			10.854	3-			189		
36AR 190					10.865	(1-,3-,4+)	190		
36AR 191					10.899		191		
36AR 192			10.902	1-			192		
36AR 193					10.906	(2+:5-)	193		
36AR 194					10.917		194		
36AR 195					10.934		195		
36AR 196					10.939		196		
36AR 197					10.956	(2+:5-)	197		
36AR 198	10.960	2+					198		
36AR 199					10.968	1,2	199		
36AR 200	10.976	4+					200		
36AR 201					10.986		201		
36AR 202					10.993	0+,1-,2+	202		
36AR 203			11.000	5-			203		
36AR 204					11.014		204		
36AR 205					11.028	(1-:5-)	205		
36AR 206	11.040	2+					206		
36AR 207	11.043	4+					207		
36AR 208					11.050	0+,1-,2+	208		
36AR 209					11.056	1+,2+,3+	209		
36AR 210					11.060	1-,3-	210		
36AR 211					11.086		211		
36AR 212					11.091	4+,(5-)	212		
36AR 213					11.110	0+,1-,2+,3-	213		
36AR 214					11.119		214		
36AR 215			11.123	3-			215		
36AR 216					11.131	1-,3-	216		
36AR 217					11.149	(1,2,3-)	217		
36AR 218	11.156	2+					218		

```
 36AR 219 |                |                |  11.168                  219
 36AR 220 |                |                |  11.182     (3+:6-)      220
----------                                                             ----------
 36AR 221 |                |                |  11.207                  221
 36AR 222 |                |                |  11.210                  222
 36AR 223 |                |                |  11.216                  223
 36AR 224 |                |                |  11.224     1-,2-        224
 36AR 225 |                |                |  11.238     1+,2+,3+     225
 36AR 226 |                |                |  11.243     (1-)         226
 36AR 227 |                |                |  11.248     (1+)         227
 36AR 228 |                |                |  11.270                  228
 36AR 229 |                |  11.278     3- |                          229
 36AR 230 |                |                |  11.303                  230
----------                                                             ----------
 36AR 231 |                |                |  11.312     4+,5-        231
 36AR 232 |                |                |  11.322                  232
 36AR 233 | 11.336     2+  |                |                          233
 36AR 234 |                |  11.344     1- |                          234
 36AR 235 |                |                |  11.359                  235
 36AR 236 |                |                |  11.419                  236
 36AR 237 |                |                |  11.515                  237
 36AR 238 |                |                |  11.580     (2-)         238
 36AR 239 |                |                |  11.594                  239
 36AR 240 |                |                |  11.640     1+,2+,3+     240
----------                                                             ----------
 36AR 241 |                |                |  11.745                  241
 36AR 242 | 11.902     10+ |                |                          242   0.43 PS  7
 36AR 243 |                |                |  11.946                  243
 36AR 244 |                |                |  12.066                  244
 36AR 245 |                |                |  12.090     (1+)         245
 36AR 246 | 12.748     10+ |                |                          246   10.1 FS  23
 36AR 247 |                |                |  12.801                  247
 36AR 248 |                |                |  13.201                  248
 36AR 249 |                |                |  13.481                  249
 36AR 250 |                |                |  13.740                  250
----------                                                             ----------
 36AR 251 |                |                |  13.800                  251
S-n    =  15.256 ( 0.001)-------------------------------------------------------------------------
S-2p   =  14.878 ( 0.000)-------------------------------------------------------------------------
 36AR 252 | 15.351     12+ |                |                          252   14.1 FS  28
 36AR 253 | 15.400     6+  |                |                          253
 36AR 254 |                |  16.800     7- |                          254
 36AR 255 | 18.299     14+ |                |                          255   11.0 FS  25
 36AR 256 | 19.500     8+  |                |                          256
 36AR 257 |                |                X                           257
 36AR 258 |                |                2200+X                      258   0.83 MEV 16
 36AR 259 |                |                4900+X                      259
 36AR 260 |                |                5600+X                      260
----------                                                             ----------
 36AR 261 |                |                7200+X                      261
```

```
 36AR 262 |                |                8300+X                          262   0.41 MEV 7
 36AR 263 |                |                11500+X                         263   2.5 MEV  3


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)
```