^{42}Ar $Z = 18$ $N = 24$ link to full NNDC output

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

BE = 359.336 (0.006) MeV
Qbeta- = 0.599 (0.006) MeV

	Energy T	J+	J-	J-other	T1/2
42AR 1	0.000	0+		1	32.9 Y 11
42AR 2	1.208	2+		2	2.6 PS +7-6
42AR 3			2.414 (4+)	3	
42AR 4	2.486	2+		4	0.28 PS 11
42AR 5			2.513 (0+:4+)	5	2.8 PS +21-8
42AR 6			3.014 (1,2+)	6	83 FS LT
42AR 7	3.096	4+		7	3.5 PS GT
42AR 8	3.558	2+		8	62 FS LT
42AR 9			3.564 (6+)	9	
42AR 10			3.705 (2+)	10	
42AR 11			3.820	11	
42AR 12	4.005	2+		12	0.23 PS 6
42AR 13			4.014	13	
42AR 14			4.046	14	
42AR 15			4.128 (0+,1,2)	15	0.97 PS 21
42AR 16			4.287 (1,2,3)	16	35 FS LT
42AR 17			4.405 3-,4+	17	
42AR 18			4.417	18	
42AR 19			4.634 (3-)	19	35 FS LT
42AR 20			4.887 (3-,4+)	20	
42AR 21			4.896 (3-,4+)	21	
42AR 22			5.000	22	
42AR 23			5.230	23	
42AR 24			5.292	24	
42AR 25	5.553	2+		25	
42AR 26			5.763	26	
42AR 27			5.945	27	
42AR 28			6.090	28	
42AR 29			6.170	29	
42AR 30			6.357	30	
42AR 31			6.490	31	
42AR 32			6.614	32	
42AR 33			6.742	33	
42AR 34			6.880	34	
42AR 35			7.060	35	
42AR 36			7.140	36	
42AR 37			7.275	37	

```
 42AR  38 |                |                |   7.355                    38
 42AR  39 |                |                |   7.540                    39
 42AR  40 |                |                |   7.630                    40
----------                                                      -----------------
 42AR  41 |                |                |   7.793                    41
 42AR  42 |                |                |   7.987                    42
 42AR  43 |                |                |   8.080                    43
 42AR  44 |                |                |   8.230                    44
 42AR  45 |                |                |   8.380                    45
 42AR  46 |                |                |   8.520                    46
 42AR  47 |                |                |   8.690                    47
 42AR  48 |                |                |   8.790                    48
 42AR  49 |                |                |   8.940                    49
 42AR  50 |                |                |   9.020                    50
----------                                                      -----------------
 42AR  51 |                |                |   9.130                    51
 42AR  52 |                |                |   9.210                    52
 42AR  53 |                |                |   9.320                    53
 42AR  54 |                |                |   9.410                    54
S-n    =   9.427 ( 0.006)-------------------------------------------------------------------------
 42AR  55 |                |                |   9.535                    55
 42AR  56 |                |                |   9.640                    56
 42AR  57 |                |                |   9.820                    57
 42AR  58 |                |                |   9.905                    58
S-alpha=   9.986 ( 0.009)-------------------------------------------------------------------------
 42AR  59 |                |                |  10.015                    59
 42AR  60 |                |                |  10.060                    60
----------                                                      -----------------
 42AR  61 |                |                |  10.140                    61
 42AR  62 |                |                |  10.300                    62
 42AR  63 |                |                |  10.540                    63
 42AR  64 |                |                |  10.590                    64
 42AR  65 |                |                |  10.670                    65
 42AR  66 |                |                |  10.850                    66


S-p    =  14.404 ( 0.069)-------------------------------------------------------------------------
S-n    =   9.427 ( 0.006)-------------------------------------------------------------------------
S-2p   =  26.163 ( 0.007)-------------------------------------------------------------------------
S-2n   =  15.525 ( 0.006)-------------------------------------------------------------------------
S-alpha=   9.986 ( 0.009)-------------------------------------------------------------------------

S+p       =  -9.442 ( 0.006)
S+n       =  -5.658 ( 0.008)
S+2p      = -21.624 ( 0.006)
S+2n      = -14.393 ( 0.006)
S+alpha   = -11.142 ( 0.006)

gap p     =   4.963 ( 0.069)
gap n     =   3.768 ( 0.010)
```

```
gap 2p    =   4.539 ( 0.009)
gap 2n    =   1.132 ( 0.008)
gap alpha =  -1.155 ( 0.011)
```