^{28}Al $Z = 13$ $N = 15$ link to full NNDC output

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

BE = 232.677 (0.000) MeV
Qbeta- = 4.642 (0.000) MeV

	Energy T	J+	J-	J-other	T1/2
28AL 1	0.000	3+			2.245 M 2
28AL 2	0.031	2+			2.07 NS 5
28AL 3	0.972	0+			33 PS 2
28AL 4	1.014	3+			103 FS 14
28AL 5	1.373	1+			223 FS 35
28AL 6	1.620	1+			92 FS 22
28AL 7	1.623	2+			63 FS 10
28AL 8	2.139	2+			8 FS 1
28AL 9	2.201	1+			32 FS 2
28AL 10	2.272	4+			22 FS 3
28AL 11	2.486	2+			66 FS 7
28AL 12	2.582	5+			313 FS 25
28AL 13	2.656	4+			22 FS 3
28AL 14				2.988 (3,1)+	62 FS 55
28AL 15	3.011	0+			
28AL 16	3.105	1+			15 FS 3
28AL 17				3.296 (3+)	8 FS 3
28AL 18	3.347	2+			6 FS 2
28AL 19			3.465 4-		44 FS 2
28AL 20				3.542 (1)+	
28AL 21				3.591 (3-)	29 FS 4
28AL 22				3.601	
28AL 23	3.671	3+			132 FS 42
28AL 24				3.709 (2,3)+	187 FS 21
28AL 25	3.760	0+			
28AL 26			3.876 2-		19 FS 2
28AL 27				3.901 (1,3)+	187 FS 28
28AL 28	3.936	2+			21 FS 7
28AL 29			4.033 5-		108 FS 43
28AL 30	4.115	1+			
28AL 31	4.244	2+			42 FS 21
28AL 32				4.313 (1,3,5)+	
28AL 33				4.385	
28AL 34				4.462 (2,4)+	
28AL 35	4.517	3+			
28AL 36	4.597	3+			159 FS 83
28AL 37			4.691 3-		4.9 FS 6

28AL	38					4.739	(0 TO 5)+	38			
28AL	39			4.765	2-			39	3.5	FS	14
28AL	40	4.849	1+					40			
28AL	41			4.904	2-			41	5.7	FS	8
28AL	42					4.928		42			
28AL	43			4.997	2-			43			
28AL	44	4.999	2+					44			
28AL	45	5.016	3+					45			
28AL	46			5.135	3-			46	5.6	FS	7
28AL	47					5.165	6-,(4-,5-)	47	49	FS	LT
28AL	48					5.177	(1+ TO 3+)	48	7	FS	3
28AL	49					5.190		49			
28AL	50					5.287		50			
28AL	51					5.333		51			
28AL	52					5.345		52			
28AL	53					5.378		53	4	FS	2
28AL	54					5.406	(0 TO 2)-	54			
28AL	55			5.442	2-			55	3.3	FS	10
28AL	56					5.530		56			
28AL	57					5.741	(1 TO 4+)	57	4	FS	1
28AL	58					5.761		58			
28AL	59			5.798	2-			59	4	FS	LT
28AL	60					5.809		60			
28AL	61					5.861	(2,3+)	61	7	FS	LT
28AL	62					5.904	(1,2,3)+	62			
28AL	63					5.925		63			
28AL	64					5.957		64			
28AL	65					5.981		65			
28AL	66	5.993 2	0+					66			
28AL	67					6.005		67	35	NS	LT
28AL	68			6.020	2-			68			
28AL	69					6.064		69			
28AL	70					6.071	(0,1)+	70			
28AL	71					6.160		71			
28AL	72					6.199	(2+ TO 4+)	72	4	FS	LT
28AL	73					6.238	(0,1,2)-	73			
28AL	74	6.317	2+					74	4	FS	LT
28AL	75					6.329		75			
28AL	76					6.420	(1+,2+)	76			
28AL	77					6.441	(3+,4)	77			
28AL	78					6.454		78			
28AL	79					6.462		79			
28AL	80					6.481		80			
28AL	81					6.493		81			
28AL	82					6.512		82			

28AL 83			6.564		83
28AL 84			6.569		84
28AL 85			6.572		85
28AL 86			6.584		86
28AL 87			6.623	(1+ TO 4+)	87
28AL 88			6.651	(1 TO 2)-	88
28AL 89			6.671		89
28AL 90			6.720		90
28AL 91			6.757	(2+,3)	91
28AL 92			6.773		92
28AL 93			6.788		93
28AL 94			6.809		94
28AL 95			6.826		95
28AL 96			6.835		96
28AL 97			6.853		97
28AL 98			6.894	(2+,3)	98
28AL 99			6.911		99
28AL 100			6.931		100
28AL 101			6.967		101
28AL 102			7.022		102
28AL 103			7.087		103
28AL 104			7.118	(1,2,3)+	104
28AL 105			7.146		105
28AL 106			7.176	(1+,2+,3+)	106
28AL 107			7.194		107
28AL 108			7.243		108
28AL 109			7.258		109
28AL 110			7.269	(2+,3+,4+)	110
28AL 111			7.318		111
28AL 112			7.341		112
28AL 113			7.409	(1+ TO 4+)	113
28AL 114			7.444		114
28AL 115			7.457		115
28AL 116			7.502		116
28AL 117			7.592		117
28AL 118			7.654		118
28AL 119			7.669		119
28AL 120			7.700		120

S-p = 9.553 (0.000)
S-n = 7.725 (0.000)
S-2p = 24.568 (0.004)
S-2n = 20.783 (0.000)
S-alpha= 10.858 (0.000)

```
S+p       = -12.333 ( 0.000)
S+n       =  -9.428 ( 0.000)
S+2p      = -17.928 ( 0.000)
S+2n      = -15.157 ( 0.003)
S+alpha   =  -9.879 ( 0.000)

gap p     =  -2.780 ( 0.000)
gap n     =  -1.703 ( 0.000)
gap 2p    =   6.640 ( 0.004)
gap 2n    =   5.626 ( 0.003)
gap alpha =   0.979 ( 0.000)
```