

^{27}Al $Z = 13$ $N = 14$ adopted link ENSDF link

Based on ensdf_240402 (Apr 2024), and mass evaluation from 2020

BE = 224.952 (0.000) MeV

	Energy T	J+	J-	J-other	T1/2
27AL 1	0.000	5/2+			1 STABLE
27AL 2	0.844	1/2+			2 35 PS 1
27AL 3	1.015	3/2+			3 1.49 PS 7
27AL 4	2.212	(7/2+)			4 26.6 FS 6
27AL 5	2.735	5/2+			5 8.9 FS 12
27AL 6	2.982	3/2+			6 3.90 FS 9
27AL 7	3.004	(9/2+)			7 59 FS 3
27AL 8	3.680	1/2+			8 5.4 FS 12
27AL 9	3.957	3/2+			9 2.5 FS 2
27AL 10			4.055	1/2-	10 7.3 FS 12
27AL 11	4.410	5/2+			11 1.2 FS 1
27AL 12	4.510	(11/2+)			12 222 FS 14
27AL 13	4.580	(7/2+)			13 5.3 FS 6
27AL 14	4.812	5/2+			14 1.5 FS 2
27AL 15			5.156	3/2-	15 2.4 FS 3
27AL 16	5.248	5/2+			16 4 FS LT
27AL 17	5.420	(9/2+)			17 14 FS LT
27AL 18				5.433 7/2	18 7 FS 2
27AL 19			5.438	5/2-	19 6 FS 4
27AL 20	5.500	11/2+			20 7 FS LT
27AL 21				5.551 5/2	21 2.6 FS 5
27AL 22	5.667	9/2+			22 11 FS 3
27AL 23	5.752	1/2+			23 10 FS LT
27AL 24			5.827	3/2-	24 21 FS LT
27AL 25				5.960 (7/2)	25 1.7 FS 12
27AL 26				6.081 3/2	26 3.3 FS 8
27AL 27				6.116 5/2	27
27AL 28			6.158	3/2-	28 14 FS LT
27AL 29	6.285	(7/2+)			29 4.9 FS 21
27AL 30				6.463 5/2	30 0.78 FS 8
27AL 31			6.477	(7/2)-	31 1.8 FS 3
27AL 32				6.512 9/2	32 9.7 FS 21
27AL 33	6.533	7/2+			33 2.1 FS 15
27AL 34			6.605	3/2-	34 10 FS LT
27AL 35			6.651	5/2-	35 0.55 FS 3
27AL 36	6.713	9/2+			36 7 FS LT
27AL 37				6.765 5/2	37 14 FS LT

27AL 38						6.776 (3/2)	38	10 FS	LT
27AL 39		6.814 3/2 1/2+					39	10 FS	LT
27AL 40						6.821 (3/2+,7/2	40		

27AL 41		6.948 11/2+					41	14 FS	LT
27AL 42						6.993 (5/2 T0 9	42		
27AL 43						6.996 (1/2,3/2)	43		
27AL 44		7.071 1/2+					44		
27AL 45		7.174 9/2+					45	7 FS	LT
27AL 46				7.227 9/2-			46	14 FS	LT
27AL 47		7.280 (1/2+ T		5/2+)			47		
27AL 48						7.289 (9/2,11/2	48	14 FS	LT
27AL 49		7.400 11/2+					49	24 FS	10
27AL 50		7.413 7/2+					50	0.50 FS	4

27AL 51						7.443 (9/2+,13/	51	7 FS	LT
27AL 52				7.477 7/2-			52	0.68 FS	9
27AL 53						7.550 (3/2+,5/2	53		
27AL 54		7.578 5/2+					54	0.35 FS	6
27AL 55		7.660 (7/2+ T		11/2+)			55	13 FS	4
27AL 56						7.676 (3/2+,5/2	56		
27AL 57						7.679 (7/2,9/2+	57		
27AL 58						7.721 5/2	58		
27AL 59						7.798 (3/2,5/2,	59		
27AL 60						7.806 (7/2+,9/2	60	18 FS	4

27AL 61		7.858 3/2 3/2+					61		
27AL 62						7.900 (5/2-,7/2	62		
27AL 63						7.935	63		
27AL 64						7.948 (9/2+,11/	64		
27AL 65						7.997 9/2	65		
27AL 66						8.037 7/2	66	0.43 FS	3
27AL 67		8.043 (5/2+ T		9/2+)			67		
27AL 68						8.065 (3/2+,5/2	68	20 AS	6
27AL 69						8.097 5/2	69		
27AL 70		8.130 1/2+					70		

27AL 71						8.136 5/2	71		
27AL 72				8.182 3/2-			72		
S-p =		8.271 (0.000)							

27AL 73						8.287 (5/2,9/2)	73		
27AL 74						8.324 (3/2,5/2)	74		
27AL 75						8.361	75		
27AL 76						8.376 (3/2,5/2)	76		
27AL 77						8.396 (11/2)	77		
27AL 78						8.408	78		
27AL 79						8.421 (3/2,5/2)	79		
27AL 80						8.442 (7/2)	80	0.50 FS	10

27AL 81		8.490 5/2+					81		

27AL 82						8.521 (1/2,3/2, 82+)			
27AL 83						8.537 (5/2)	83		
27AL 84						8.553 (3/2)	84		
27AL 85						8.586 (7/2)	85		
27AL 86						8.598 (1/2,3/2)	86	0.56 EV	4
27AL 87						8.675 (7/2,9/2+)	87		
27AL 88						8.693 (9/2,11/2)	88		
27AL 89						8.709	89	7.6 EV	6
27AL 90		8.717		1/2+			90		

27AL 91						8.732 (5/2,7/2)	91	0.19 EV	3
27AL 92						8.754 (5/2)	92	1.05 EV	13
27AL 93		8.774		(5/2+)			93	3.7 EV	3
27AL 94						8.804	94		
27AL 95						8.825	95		
27AL 96						8.861	96		
27AL 97		8.897		(5/2+)			97	0.86 EV	17
27AL 98						8.905	98		
27AL 99						8.909 (1/2,3/2)	99		
27AL 100						8.952 (5/2,9/2+)	100		

27AL 101				8.963		(3/2-)	101		
27AL 102						9.001	102		
27AL 103				9.051		(7/2-)	103		
27AL 104		9.052		(5/2+)			104		
27AL 105						9.058	105		
27AL 106		9.080		1/2+			106	240 EV	25
27AL 107						9.190 (3/2)	107		
27AL 108				9.216		(3/2-)	108		
27AL 109		9.236		(1/2+)			109	13 EV	11
27AL 110						9.240 (5/2)	110		

27AL 111						9.272 (1/2+,3/2)	111		
27AL 112						9.274 (5/2-,7/2)	112		
27AL 113				9.277		(3/2-)	113	100 EV	30
27AL 114						9.299	114		
27AL 115		9.308		(5/2+)			115		
27AL 116						9.322	116		
27AL 117						9.359	117		
27AL 118						9.371	118		
27AL 119		9.390		(3/2+)			119		
27AL 120		9.401		(1/2+)			120	110 EV	50

27AL 121						9.427	121		
27AL 122						9.474 (7/2)	122		
27AL 123						9.488	123		
27AL 124						9.502	124		
27AL 125						9.512 (5/2)	125		
27AL 126						9.530	126		
27AL 127						9.552	127		

27AL 128						9.599		128	2.5 KEV	2
27AL 129				9.601	(3/2-)			129	12 EV	2
27AL 130						9.619		130		

27AL 131				9.628	(1/2-)			131	2.76 KEV	14
27AL 132		9.634	(5/2+)					132	18 EV	5
27AL 133						9.658		133		
27AL 134		9.665	(5/2+)					134	24 EV	8
27AL 135				9.665	(1/2-)			135	5.82 KEV	10
27AL 136						9.692		136		
27AL 137		9.716	(3/2+)					137		
27AL 138						9.742		138		
27AL 139		9.763	(5/2+)					139	18 EV	
27AL 140		9.796	(7/2+)					140	4 EV	3

27AL 141		9.822	(3/2+)					141	18 EV	
27AL 142				9.834	(1/2-)			142	3.0 KEV	
27AL 143						9.840 (5/2)		143	1.0 EV	2
27AL 144		9.847	(1/2+)					144	210 EV	
27AL 145						9.867		145		
27AL 146						9.883		146		
27AL 147						9.893		147		
27AL 148				9.922	(3/2-)			148	1.8 KEV	
27AL 149				9.930	(1/2-)			149	1.35 KEV	
27AL 150						9.941 (7/2)		150		

27AL 151						9.953		151		
27AL 152						9.955 (3/2)		152		
27AL 153				9.960	(5/2-)			153	8 EV	
27AL 154		9.963	(5/2+)					154	12 EV	
27AL 155						9.977 (5/2,7/2)		155		
27AL 156				9.991	(7/2-)			156	10 EV	
27AL 157						10.000 (5/2)		157		
27AL 158						10.008		158		
27AL 159		10.024	(5/2+)					159	35 EV	
27AL 160						10.075		160		

27AL 161				10.090	(3/2-)			161	2.7 KEV	

S-alpha=	10.092	(0.000)								
27AL 162						10.093 (3/2+,5/2)	162	0.47 KEV		
27AL 163						10.112 (5/2-,7/2)	163	15 EV		
27AL 164				10.113	(1/2-)			164	40 EV	
27AL 165		10.121	(7/2+)					165		
27AL 166						10.135 (3/2-,5/2)	166			
27AL 167						10.148		167		
27AL 168		10.165	(5/2+)					168	14 EV	
27AL 169						10.209		169		
27AL 170				10.218	3/2 (3/2-)			170	40.9 KEV	

27AL 171		10.244	(3/2+)					171	0.13 KEV	

27AL 172	10.244	(1/2+)			172	70.4 KEV
27AL 173			10.245 3/2 (7/2-)		173	75 EV
27AL 174				10.259 (5/2)	174	
27AL 175				10.281	175	
27AL 176				10.287 (3/2)	176	
27AL 177				10.307 (7/2)	177	
27AL 178	10.318	(1/2+)			178	
27AL 179	10.333	(3/2+)			179	1.1 KEV
27AL 180			10.334 (1/2-)		180	5.6 KEV

27AL 181	10.338	(1/2+)			181	1.3 KEV
27AL 182				10.340	182	
27AL 183				10.348 (3/2)	183	
27AL 184				10.360	184	
27AL 185	10.365	(9/2+)			185	
27AL 186	10.370	(5/2+)			186	45 EV
27AL 187	10.372	(3/2+)			187	450 EV
27AL 188	10.409	(5/2+)			188	37 EV
27AL 189				10.422	189	
27AL 190				10.448	190	

27AL 191			10.459 (1/2-)		191	0.070 KEV
27AL 192				10.478	192	
27AL 193			10.480 1/2 (7/2-)		193	0.65 KEV
27AL 194			10.509 1/2 (7/2-)		194	0.12 KEV
27AL 195				10.519	195	
27AL 196			10.528 (3/2-)		196	0.3 KEV
27AL 197				10.555 (5/2)	197	
27AL 198			10.558 (1/2-)		198	30 KEV
27AL 199	10.566 1/2 (3/2+)				199	0.14 KEV
27AL 200	10.588 1/ (3/2+)				200	1.4 KEV

27AL 201				10.593 (5/2-, 7/2201)	201	10 EV
27AL 202	10.599 1/ (3/2+)				202	0.49 KEV
27AL 203			10.612 (1/2-)		203	10.2 KEV
27AL 204			10.626 (7/2-)		204	65 EV
27AL 205				10.630	205	
27AL 206	10.634	(1/2+)			206	0.90 KEV
27AL 207	10.648	(3/2+)			207	135 EV
27AL 208	10.675	(5/2+)			208	0.11 KEV
27AL 209				10.676	209	
27AL 210				10.692 (5/2-, 7/2210)	210	15 EV

27AL 211	10.716	(3/2+)			211	0.18 KEV
27AL 212				10.723	212	0.070 KEV
27AL 213			10.737 (3/2-)		213	2.1 KEV
27AL 214				10.751 (9/2)	214	
27AL 215				10.768	215	
27AL 216				10.778	216	
27AL 217				10.781	217	

27AL 218				10.783		218	
27AL 219				10.791		219	
27AL 220		10.804	(1/2+)			220	0.8 KEV

27AL 221				10.833	(3/2+,5/2221)	0.34 KEV	
27AL 222				10.835	(3/2+,5/2222)	0.8 KEV	
27AL 223				10.836	(5/2-,7/2223)	0.6 KEV	
27AL 224			10.838	(3/2-)		224	8.0 KEV
27AL 225				10.864	(5/2-,7/2225)	40 EV	
27AL 226				10.871		226	
27AL 227				10.900		227	
27AL 228			10.911	(1/2-)		228	2.9 KEV
27AL 229				10.922	(3/2+,5/2229)	0.016 KEV	
27AL 230				10.922		230	2.8 KEV 10

27AL 231		10.931	(5/2+)			231	1.2 KEV 8
27AL 232				10.939		232	
27AL 233				10.970		233	
27AL 234		10.973	(5/2+)			234	0.33 KEV
27AL 235				10.994		235	
27AL 236				11.003	(5/2-,7/2236)	0.008 KEV	
27AL 237				11.012		237	0.035 KEV
27AL 238				11.072	(3/2+,5/2238)	0.26 KEV	
27AL 239				11.075		239	
27AL 240				11.077		240	

27AL 241			11.096	(5/2-)		241	1.4 KEV
27AL 242			11.101	(3/2-)		242	5.5 KEV
27AL 243				11.126	(3/2+,5/2243)	0.015 KEV	
27AL 244				11.138		244	
27AL 245				11.188		245	
27AL 246				11.702		246	

S-p = 8.271 (0.000) -----
S-n = 13.058 (0.000) -----
S-2p = 22.417 (0.001) -----
S-2n = 24.424 (0.000) -----
S-alpha= 10.092 (0.000) -----

S+p = -11.585 (0.000)
S+n = -7.725 (0.000)
S+2p = -14.334 (0.000)
S+2n = -17.154 (0.000)
S+alpha = -9.669 (0.000)

gap p = -3.314 (0.000)
gap n = 5.333 (0.000)
gap 2p = 8.083 (0.001)
gap 2n = 7.270 (0.000)

gap alpha = 0.423 (0.000)