

^{137}La $Z = 57$ $N = 80$ adopted link ENSDF link

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

BE = 1148.318 (0.002) MeV

Qbeta+ = 0.581 (0.002) MeV

	Energy T	J+	J-	J-other	T1/2
137LA 1	0.000	7/2+			1 6E+4 Y 2
137LA 2	0.011	5/2+			2 89 NS 4
137LA 3	0.447	5/2+			3
137LA 4				0.493 (3/2)+	4
137LA 5	0.642	1/2+			5
137LA 6				0.709 (3/2)+	6
137LA 7	0.762	11/2+			7
137LA 8				0.782 (7/2)+	8
137LA 9	0.835	9/2+			9
137LA 10	0.917	9/2+			10
137LA 11	0.926	5/2+			11
137LA 12			1.005 11/2-		12 0.41 NS 7
137LA 13				1.171 (1/2+,3/2-)	13
137LA 14				1.174	14
137LA 15				1.255	15
137LA 16				1.314	16
137LA 17				1.365	17
137LA 18				1.474 (7/2)+	18
S-alpha=	1.495 (0.002)				
137LA 19				1.535	19
137LA 20				1.652 (9/2)-	20
137LA 21	1.723	13/2+			21
137LA 22			1.729 13/2-		22
137LA 23			1.787 15/2-		23
137LA 24	1.792	15/2+			24
137LA 25				1.801	25
137LA 26				1.864 (17/2)+	26
137LA 27			1.870 19/2-		27 342 NS 25
137LA 28			1.882 19/2-		28
137LA 29				1.894	29
137LA 30				1.963	30
137LA 31				1.973	31
137LA 32	2.010	21/2+			32
137LA 33				2.025	33
137LA 34				2.054	34
137LA 35				2.064	35
137LA 36				2.101	36

137LA 37						2.104		37
137LA 38						2.155		38
137LA 39						2.206		39
137LA 40		2.337	21/2+					40

137LA 41				2.340	21/2-			41
137LA 42						2.415		42
137LA 43						2.473		43
137LA 44						2.583		44
137LA 45		2.650	19/2+					45
137LA 46						2.687		46
137LA 47						2.771		47
137LA 48		2.832	21/2+					48
137LA 49						2.869		49
137LA 50		2.883	25/2+					50

137LA 51				2.920	23/2-			51
137LA 52						2.931		52
137LA 53						3.002		53
137LA 54				3.041	23/2-			54
137LA 55		3.099	25/2+					55
137LA 56						3.117		56
137LA 57						3.191		57
137LA 58		3.201	25/2+					58
137LA 59						3.249		59
137LA 60				3.252	27/2-			60

137LA 61						3.300		61
137LA 62				3.430	27/2-			62
137LA 63						3.434		63
137LA 64		3.517	23/2+					64
137LA 65						3.539		65
137LA 66		3.543	29/2+					66
137LA 67				3.547	25/2-			67
137LA 68				3.590	25/2-			68
137LA 69				3.846	31/2-			69
137LA 70		3.934	29/2+					70

137LA 71				3.964	27/2-			71
137LA 72						4.030	(27/2,29/2)	72
137LA 73						4.105	(27/2,29/2)	73
137LA 74				4.108	25/2-			74
137LA 75				4.347	27/2-			75
137LA 76				4.486	29/2-			76
137LA 77				4.548	31/2-			77
137LA 78				4.584	33/2-			78
137LA 79				4.610	29/2-			79
137LA 80				4.897	31/2-			80

137LA 81		4.897	33/2+					81

137LA 82				4.918	33/2-		82
137LA 83						4.940 (31/2-)	83
137LA 84						5.121 (31/2-)	84
137LA 85				5.255	33/2-		85
137LA 86				5.471	35/2-		86
137LA 87						5.541 (31/2,33/2)	87
S-p = 5.543 (0.002)-----							
137LA 88						5.771 (35/2-)	88
137LA 89						5.882 (37/2-)	89
137LA 90						5.985 (39/2-)	90

137LA 91						7.846 (3/2+)	91
137LA 92						8.133 (1/2+)	92
S-n = 9.175 (0.053)-----							
137LA 93						9.609 (7/2-)	93
137LA 94						9.985 (3/2-)	94

S-p = 5.543 (0.002)-----
S-n = 9.175 (0.053)-----
S-2p = 14.137 (0.002)-----
S-2n = 16.640 (0.010)-----
S-alpha= 1.495 (0.002)-----

S+p = -7.714 (0.002)
S+n = -7.444 (0.002)
S+2p = -12.266 (0.004)
S+2n = -16.224 (0.002)
S+alpha = -1.299 (0.002)

gap p = -2.171 (0.002)
gap n = 1.731 (0.053)
gap 2p = 1.871 (0.004)
gap 2n = 0.416 (0.010)
gap alpha = 0.196 (0.003)