

^{127}La $Z = 57$ $N = 70$ adopted link ENSDF link

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

BE = 1058.360 (0.026) MeV

Qbeta+ = 4.922 (0.028) MeV

	Energy T	J+	J-	J-other	T1/2

S-alpha=	-0.723	(0.029)	-----		
127LA 1				0.000 (11/2-)	1 5.1 M 1
127LA 2				0.014 (3/2+)	2 3.7 M 4
127LA 3				0.073 (5/2+)	3
127LA 4				0.134 (+)	4
127LA 5				0.210 (+)	5 1.9 NS 3
127LA 6				0.226 (-)	6
127LA 7				0.250 (7/2+)	7 97 PS 28
127LA 8				0.252 (15/2-)	8 97 PS 10
127LA 9				0.326 (+)	9
127LA 10				0.352 (+)	10

127LA 11				0.386 (5/2,7/2)+	11
127LA 12				0.423 (-)	12
127LA 13				0.426 (9/2+)	13
127LA 14				0.443 (+)	14
127LA 15				0.470 (+)	15
127LA 16				0.506	16
127LA 17				0.610 (9/2+)	17
127LA 18				0.653 (11/2+)	18 15 PS LT
127LA 19				0.679	19
127LA 20				0.711 (19/2-)	20 5.5 PS +11-21

127LA 21				0.723	21
127LA 22				0.838	22
127LA 23				0.862 (11/2+)	23
127LA 24				0.887	24
127LA 25				0.928	25
127LA 26				0.934	26
127LA 27				0.966 (13/2+)	27
127LA 28				0.999	28
127LA 29				1.139 (13/2+)	29
127LA 30				1.144 (17/2-)	30

127LA 31				1.162 (3/2,5/2)+	31
127LA 32				1.202 (15/2+)	32
127LA 33				1.203 (13/2-)	33
127LA 34				1.213	34
127LA 35				1.309	35
127LA 36				1.342 (23/2-)	36 2.8 PS LT

127LA 37				1.375		37
127LA 38				1.388		38
127LA 39				1.451	(15/2+)	39
127LA 40				1.476		40

127LA 41				1.578		41
127LA 42				1.602		42
127LA 43				1.629	(17/2+)	43
127LA 44				1.630	(17/2-)	44
127LA 45				1.655		45
127LA 46				1.669		46
127LA 47				1.702	(19/2+)	47 6.6 PS LT
127LA 48				1.755	(15/2,17/2)-	48
127LA 49				1.772	(21/2-)	49
127LA 50				1.784	(17/2+)	50

127LA 51				1.803		51
127LA 52				1.882	(19/2+)	52
127LA 53				1.932		53
127LA 54				2.063	(17/2+)	54
127LA 55				2.105	(21/2+)	55
127LA 56				2.121	(27/2-)	56 1.01 PS 12
127LA 57				2.145	(23/2+)	57
127LA 58				2.161	(19/2+)	58
127LA 59				2.191	(21/2-)	59
127LA 60				2.251	(21/2+)	60

127LA 61				2.289	(21/2-)	61
127LA 62				2.290	(21/2+)	62
127LA 63				2.313	(21/2+)	63
127LA 64				2.445	(23/2+)	64
127LA 65				2.465		65
127LA 66				2.494	(23/2+)	66

S-p	=	2.515	(0.029)	-----		
127LA 67				2.532	(23/2+)	67
127LA 68				2.565	(25/2+)	68
127LA 69				2.707	(25/2+)	69
127LA 70				2.722	(27/2+)	70

127LA 71				2.724	(25/2+)	71
127LA 72				2.808	(25/2-)	72
127LA 73				2.917	(25/2-)	73
127LA 74				2.971	(27/2+)	74
127LA 75				3.020	(27/2+)	75
127LA 76				3.029	(31/2-)	76 0.78 PS 11
127LA 77				3.121	(27/2+)	77
127LA 78				3.155	(29/2+)	78
127LA 79				3.292	(29/2+)	79
127LA 80				3.329	(29/2+)	80

127LA 81				3.424	(31/2+)	81
127LA 82				3.460		82
127LA 83				3.461	(29/2-)	83
127LA 84				3.638	(31/2+)	84
127LA 85				3.708	(29/2-)	85
127LA 86				3.893	(33/2+)	86
127LA 87				4.025	(33/2+)	87
127LA 88				4.032	(35/2-)	88
127LA 89				4.237	(35/2+)	89
127LA 90				4.242	(33/2-)	90

127LA 91				4.243		91
127LA 92				4.449	(35/2+)	92
127LA 93				4.587	(32/2-)	93
127LA 94				4.778	(37/2+)	94
127LA 95				4.899	(37/2+)	95
127LA 96				5.030	(39/2-)	96
127LA 97				5.153	(39/2+)	97
127LA 98				5.390	(39/2+)	98
127LA 99				5.531	(37/2-)	99
127LA 100				5.786	(41/2+)	100

127LA 101				5.895	(41/2+)	101
127LA 102				6.044	(43/2-)	102
127LA 103				6.149	(43/2+)	103
127LA 104				6.443	(43/2+)	104
127LA 105				6.511	(41/2-)	105
127LA 106				6.846	(45/2+)	106
127LA 107				7.146	(47/2-)	107
127LA 108				7.168	(47/2+)	108
127LA 109				7.864	(49/2+)	109
127LA 110				8.187	(51/2+)	110

127LA 111				8.335	(51/2-)	111
S-2p	=	8.384	(0.027)	-----		
127LA 112				8.976	(53/2+)	112
127LA 113				9.273	(55/2+)	113
127LA 114				9.606	(55/2-)	114

S-p	=	2.515	(0.029)	-----		
S-n	=	10.994	(0.094)	-----		
S-2p	=	8.384	(0.027)	-----		
S-2n	=	20.279	(0.037)	-----		
S-alpha	=	-0.723	(0.029)	-----		
S+p	=	-4.927	(0.038)			
S+n	=	-8.801	(0.060)			
S+2p	=	-6.455	(0.040)			
S+2n	=	-19.570	(0.034)			

S+alpha = 1.171 (0.054)

gap p = -2.411 (0.048)

gap n = 2.193 (0.112)

gap 2p = 1.929 (0.048)

gap 2n = 0.709 (0.050)

gap alpha = 0.448 (0.061)