

$^{135}\text{La}$        $Z = 57$        $N = 78$       adopted link      ENSDF link

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

BE = 1131.678 ( 0.009) MeV

Qbeta+ = 1.207 ( 0.009) MeV

	Energy T	J+	J-	J-other	T1/2
135LA 1	0.000	5/2+			1 19.5 H 2
135LA 2	0.120	7/2+			2 4.0 NS 1
135LA 3	0.207	5/2+			3 0.52 NS 3
135LA 4	0.266	3/2+			4 0.08 NS LT
135LA 5	0.300	1/2+			5 0.08 NS LT
135LA 6	0.583	9/2+			6
135LA 7				0.605 3/2+,5/2+	7
135LA 8	0.666	5/2+			8
135LA 9				0.712 (3/2-,5/2-)	9
135LA 10				0.716 (11/2+)	10
135LA 11	0.784	3/2+			11
135LA 12			0.786 11/2-		12 20 NS LT
135LA 13	0.828	3/2+			13
135LA 14				0.872 (1/2)+	14
135LA 15	0.984	3/2+			15
135LA 16				0.993 1/2+,3/2+,5/2+	16
S-alpha= 1.013 ( 0.009)					
135LA 17				1.039 3/2+,5/2+	17
135LA 18	1.171	3/2+			18
135LA 19				1.378 (15/2-)	19
135LA 20				1.385 (13/2+)	20
135LA 21				1.437 (13/2-)	21
135LA 22	1.439	3/2+			22
135LA 23				1.450 1/2+,3/2+	23
135LA 24				1.480 1/2+,3/2+	24
135LA 25				1.501 (15/2+)	25
135LA 26				1.569	26
135LA 27				1.599 1/2+,3/2+	27
135LA 28				1.757 (15/2-)	28
135LA 29	1.767	3/2+			29
135LA 30				1.797 1/2+,3/2	30
135LA 31				1.851 1/2,3/2	31
135LA 32				1.988	32
135LA 33				2.122 (17/2-)	33
135LA 34				2.132 (19/2-)	34
135LA 35				2.233 (19/2-)	35
135LA 36				2.266 (21/2-)	36 20 NS LT

135LA 37				2.304	(17/2+)	37		
135LA 38				2.401	(19/2+)	38		
135LA 39				2.494	(19/2+)	39		
135LA 40				2.507	(19/2+)	40		
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135LA 41				2.626	(21/2+)	41		
135LA 42				2.736	(23/2-)	42	25.9 NS	15
135LA 43				2.796	(21/2-)	43		
135LA 44				2.811	(23/2+)	44		
135LA 45				2.973	(25/2-)	45		
135LA 46				3.079	(25/2+)	46		
135LA 47				3.106	(23/2-)	47		
135LA 48				3.170		48		
135LA 49				3.181	(23/2-)	49		
135LA 50				3.438	(27/2-)	50		
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135LA 51				3.500	(25/2-)	51		
135LA 52				3.523	(27/2+)	52		
135LA 53				3.639	(27/2-)	53		
135LA 54				3.837	(27/2-)	54		
135LA 55				3.891	(29/2+)	55		
135LA 56				3.959	(29/2-)	56		
135LA 57				4.263	(29/2-)	57		
135LA 58				4.319	(31/2-)	58		
135LA 59				4.553		59		
135LA 60				4.695	(31/2-)	60		
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135LA 61				4.821	(33/2-)	61		
S-p	=	4.983	( 0.009)	-----				
135LA 62				5.001		62		
135LA 63				5.209	(33/2-)	63		
135LA 64				5.379	(35/2-)	64		
135LA 65				5.461	(35/2-)	65		
135LA 66				5.564		66		
135LA 67				5.772	(37/2-)	67		
135LA 68				6.159	(39/2-)	68		
135LA 69				6.631	(41/2-)	69		
135LA 70				7.160	(43/2-)	70		
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S-p = 4.983 ( 0.009)-----  
S-n = 9.496 ( 0.022)-----  
S-2p = 13.151 ( 0.009)-----  
S-2n = 17.292 ( 0.029)-----  
S-alpha= 1.013 ( 0.009)-----

S+p = -7.154 ( 0.009)  
S+n = -7.465 ( 0.054)  
S+2p = -11.136 ( 0.012)

S+2n = -16.640 ( 0.010)  
S+alpha = -0.610 ( 0.010)

gap p = -2.172 ( 0.013)  
gap n = 2.031 ( 0.058)  
gap 2p = 2.014 ( 0.016)  
gap 2n = 0.652 ( 0.031)  
gap alpha = 0.403 ( 0.014)