

^{127}Ce $Z = 58$ $N = 69$ adopted link ENSDF link

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

BE = 1051.661 (0.029) MeV

Qbeta+ = 5.917 (0.039) MeV

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

S-alpha=	-1.251	(0.031)	-----		
127CE 1				0.000 (1/2+)	1 34 S 2
127CE 2				0.007 (5/2+)	2 28.6 S 7
127CE 3				0.029 (3/2+)	3
127CE 4				0.037 (7/2-)	4 10 US GT
127CE 5				0.163 (9/2-)	5
127CE 6				0.167 (7/2+)	6
127CE 7				0.206 (5/2+)	7
127CE 8				0.272 (7/2+)	8
127CE 9				0.325 (11/2-)	9
127CE 10				0.366 (9/2+)	10

127CE 11				0.553 (13/2-)	11
127CE 12				0.571 (9/2+)	12
127CE 13				0.601 (11/2+)	13
127CE 14				0.675 (11/2+)	14
127CE 15				0.704 (5/2+)	15
127CE 16				0.710 (7/2+,5/2+)	16
127CE 17				0.742	17
127CE 18				0.774 (15/2-)	18
127CE 19				0.777	19
127CE 20				0.821	20

127CE 21				0.866 (13/2+)	21
127CE 22				0.997	22
127CE 23				1.058	23
127CE 24				1.074 (13/2+)	24
127CE 25				1.095 (17/2-)	25
127CE 26				1.161 (15/2+)	26
127CE 27				1.215 (15/2+)	27
127CE 28				1.352 (19/2-)	28
127CE 29				1.478 (17/2+)	29
127CE 30				1.683 (17/2+)	30

127CE 31				1.753 (21/2-)	31
127CE 32				1.811 (19/2+)	32
127CE 33				1.865 (19/2+)	33
127CE 34				2.028 (23/2-)	34
127CE 35				2.146 (21/2+)	35
127CE 36				2.330 (21/2+)	36

127CE	37				2.459	(25/2-)	37
127CE	38				2.492	(23/2+)	38
127CE	39				2.540	(23/2+)	39
127CE	40				2.715	(27/2-)	40

127CE	41				2.747		41
127CE	42				2.827	(25/2+)	42
127CE	43				2.865	(25/2+)	43
127CE	44				3.045	(29/2-)	44
127CE	45				3.058	(27/2+)	45
127CE	46				3.102	(27/2+)	46
127CE	47				3.301	(31/2-)	47
127CE	48				3.402	(29/2+)	48
127CE	49				3.427	(29/2+)	49
127CE	50				3.631	(31/2+)	50

127CE	51				3.633	(33/2-)	51
127CE	52				3.714	(31/2+)	52
127CE	53				3.954	(35/2-)	53
127CE	54				4.050	(33/2+)	54
127CE	55				4.110	(33/2+)	55
S-p	=	4.295	(0.095)	-----		
127CE	56				4.332	(35/2+)	56
127CE	57				4.341	(37/2-)	57
127CE	58				4.430	(35/2+)	58
127CE	59				4.733	(39/2-)	59
127CE	60				4.833	(37/2+)	60

127CE	61				4.924	(37/2+)	61
127CE	62				5.167	(39/2+)	62
127CE	63				5.184	(41/2-)	63
127CE	64				5.251	(39/2+)	64
127CE	65				5.641	(43/2-)	65
127CE	66				5.702	(41/2+)	66
127CE	67				5.882	(41/2+)	67
127CE	68				6.131	(43/2+)	68
127CE	69				6.148	(43/2+)	69
127CE	70				6.158	(45/2-)	70

127CE	71				6.625	(45/2+)	71
127CE	72				6.671	(47/2-)	72
S-2p	=	6.888	(0.031)	-----		
127CE	73				7.099	(47/2+)	73
127CE	74				7.259	(49/2-)	74
127CE	75				7.623	(49/2+)	75
127CE	76				7.811	(51/2-)	76
127CE	77				8.143	(51/2+)	77
127CE	78				8.482	(53/2-)	78
127CE	79				8.712	(53/2+)	79
127CE	80				9.053	(55/2-)	80

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S-n    =  9.230 ( 0.040)-----
127CE 81 |          |          |  9.819   (57/2-)   81

S-p    =  4.295 ( 0.095)-----
S-n    =  9.230 ( 0.040)-----
S-2p   =  6.888 ( 0.031)-----
S-2n   = 21.411 ( 0.252)-----
S-alpha= -1.251 ( 0.031)-----

S+p    = -1.640 ( 0.042)
S+n    = -11.626 ( 0.040)
S+2p   = -4.978 ( 0.260)
S+2n   = -20.451 ( 0.040)
S+alpha =  1.786 ( 0.040)

gap p   =  2.655 ( 0.104)
gap n   = -2.396 ( 0.057)
gap 2p  =  1.910 ( 0.261)
gap 2n  =  0.960 ( 0.255)
gap alpha =  0.536 ( 0.051)

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