

^{135}Ce $Z = 58$ $N = 77$ adopted link ENSDF link

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

BE = 1128.868 (0.010) MeV

Qbeta+ = 2.027 (0.014) MeV

	Energy T	J+	J-	J-other	T1/2
135CE 1				0.000 1/2(+)	1 17.7 H 3
135CE 2				0.083 3/2(+)	2 0.53 NS 6
135CE 3				0.296 (5/2+)	3
135CE 4				0.296 1/2(+),3/2(+)	4
S-alpha= 0.362 (0.010)					
135CE 5				0.446 (11/2-)	5 20 S 1
135CE 6				0.621 3/2(+),5/2(+)	6
135CE 7				0.696 (1/2+,3/2+,5/2+)	7
135CE 8				0.780 (1/2+,3/2+,5/2+)	8
135CE 9				0.807 (1/2,3/2,5/2+)	9
135CE 10				1.017 (1/2+,3/2+,5/2+)	10
135CE 11				1.036 (13/2-)	11
135CE 12				1.145 (15/2-)	12
135CE 13				1.367 (1/2,3/2,5/2+)	13
135CE 14				1.670 (15/2-)	14
135CE 15				1.729 (1/2,3/2,5/2)	15
135CE 16				1.835 (1/2,3/2,5/2)	16
135CE 17				1.869 (17/2-)	17
135CE 18				1.951 (1/2,3/2,5/2+)	18
135CE 19				2.021 (1/2,3/2,5/2+)	19
135CE 20				2.052 (19/2-)	20
135CE 21				2.125 (19/2+)	21 8.2 NS 4
135CE 22				2.249 (19/2-)	22
135CE 23				2.551 (23/2+)	23
135CE 24				2.682 (21/2-)	24
135CE 25				2.887 (21/2-)	25
135CE 26				2.946 (19/2+)	26
135CE 27				2.948 (23/2-)	27
135CE 28				3.054 (21/2+)	28
135CE 29				3.076 (21/2+)	29
135CE 30				3.104 (23/2-)	30
135CE 31				3.229 (23/2+)	31
135CE 32				3.431 (25/2+)	32
135CE 33				3.505 (25/2-)	33
135CE 34				3.515 (27/2+)	34
135CE 35				3.699 (27/2+)	35
135CE 36				3.702 (27/2-)	36

135CE 37			3.772	(27/2+)	37	
135CE 38			4.032	(25/2-)	38	
135CE 39			4.065	(25/2-)	39	
135CE 40			4.128	(29/2+)	40	

135CE 41			4.183	(27/2-)	41	
135CE 42			4.260	(31/2+)	42	
135CE 43			4.400	(31/2-)	43	
135CE 44			4.460	(29/2-)	44	
135CE 45			4.486	(31/2+)	45	
135CE 46			4.496	(27/2-)	46	
135CE 47			4.635	(29/2-)	47	
135CE 48			4.813	(31/2-)	48	
135CE 49			4.830	(31/2-)	49	
135CE 50			4.979	(33/2+)	50	

135CE 51			5.062	(33/2-)	51	
135CE 52			5.206	(33/2-)	52	
135CE 53			5.324	(35/2+)	53	
135CE 54			5.342	(35/2-)	54	
135CE 55			5.359	(35/2-)	55	0.64 PS 11
135CE 56			5.428	(35/2+)	56	
135CE 57			5.651	(35/2-)	57	
135CE 58			5.752	(37/2-)	58	0.451 PS 21
135CE 59			5.942	(37/2+)	59	
135CE 60			6.086	(37/2-)	60	

135CE 61			6.256	(39/2-)	61	0.299 PS 25
135CE 62			6.299	(39/2+)	62	
135CE 63			6.444	(39/2+)	63	
135CE 64			6.477	(39/2-)	64	
135CE 65			6.526	(39/2-)	65	

S-p	=	6.687 (0.022)	-----			
135CE 66			6.840	(41/2-)	66	0.163 PS +8-10
135CE 67			6.994	(41/2-)	67	
135CE 68			7.470	(43/2-)	68	
135CE 69			7.493	(43/2-)	69	

S-n	=	7.855 (0.023)	-----			
135CE 70			8.009	(45/2-)	70	

135CE 71			8.035	(45/2-)	71	
135CE 72			0.000	1/2(+)	72	

S-p	=	6.687 (0.022)	-----			
S-n	=	7.855 (0.023)	-----			
S-2p	=	11.641 (0.010)	-----			
S-2n	=	18.341 (0.019)	-----			
S-alpha	=	0.362 (0.010)	-----			

S+p = -4.013 (0.015)
S+n = -9.964 (0.010)
S+2p = -9.545 (0.016)
S+2n = -17.445 (0.010)
S+alpha = 0.175 (0.029)

gap p = 2.674 (0.027)
gap n = -2.109 (0.025)
gap 2p = 2.095 (0.019)
gap 2n = 0.896 (0.022)
gap alpha = 0.537 (0.031)