

^{130}Ce $Z = 58$ $N = 72$ [link to full NNDC output](#)

Based on ENSDF from Dec 2018, and mass evaluation from 2016

BE = 1083.318 (0.028) MeV

Qbeta+ = 2.205 (0.038) MeV

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

S-alpha=	-0.822	(0.031)	-----		
130CE 1	0.000	0+			1 22.9 M 5
130CE 2	0.254	2+			2 143 PS 6
130CE 3	0.710	4+			3 4.3 PS +5-3
130CE 4				0.835 (2+)	4
130CE 5	1.026	0+			5
130CE 6				1.177 (2+,3,4+)	6
130CE 7				1.323 (4+)	7
130CE 8	1.324	6+			8 0.87 PS 7
130CE 9				1.672 (2+,3,4+)	9
130CE 10				1.755	10

130CE 11				1.898 (6+)	11
130CE 12				1.955 (5-)	12
130CE 13	2.053	8+			13 0.24 PS 7
130CE 14				2.116 (2+,3,4+)	14
130CE 15				2.313 (7-)	15 23 PS 3
130CE 16				2.333	16
130CE 17				2.381 (6-)	17
130CE 18				2.454 (7-)	18 100 NS 8
130CE 19				2.561 (8+)	19
130CE 20				2.624	20

130CE 21				2.642 (8-)	21
130CE 22				2.645 (8-)	22
130CE 23				2.761 (9-)	23 2.8 PS 14
130CE 24	2.809	10+			24 0.42 PS 10
130CE 25				2.959 (9-)	25
130CE 26				3.072 (10-)	26 5.2 PS 10
130CE 27				3.296 (10+)	27
130CE 28	3.312	12+			28 2.84 PS 17
130CE 29				3.317 (10-)	29
130CE 30				3.320 (11-)	30 1.4 PS LT

130CE 31				3.681 (12-)	31 1.0 PS LT
130CE 32				3.700 (11-)	32
130CE 33	3.861	14+			33 1.24 PS 7
130CE 34				3.985 (12+)	34
130CE 35				4.027 (13-)	35
130CE 36				4.120 (12-)	36

130CE	37					4.449	(14-)	37			
130CE	38					4.536	(13-)	38			
130CE	39		4.553	16+				39	0.28	PS	7
130CE	40					4.755	(14+)	40			

130CE	41					4.862	(15-)	41			
130CE	42					4.973	(14-)	42			
130CE	43					5.305	(15-)	43			
130CE	44					5.344	(16-)	44			
130CE	45		5.384	18+				45	0.21	PS	5
S-p	=		5.387	(0.035)	-----						
130CE	46					5.586	(16-)	46			
130CE	47					5.608	(16+)	47			
130CE	48					5.758	(17-)	48			
130CE	49					5.881	(17-)	49			
130CE	50					5.885		50			

130CE	51					6.212	(18-)	51			
130CE	52					6.320	(18-)	52			
130CE	53		6.342	20+				53	173	FS	35
130CE	54					6.396	(20+)	54			
130CE	55					6.533	(18+)	55			
130CE	56					6.576	(19-)	56			
130CE	57					6.642	(19-)	57			
130CE	58					6.978	(20-)	58			
130CE	59					7.388	(20-)	59			
130CE	60		7.409	22+				60	75	FS	14

130CE	61					7.412	(21-)	61			
130CE	62					7.513	(20+)	62			
130CE	63					7.583	(21-)	63			
130CE	64					7.885	(22-)	64			
130CE	65					8.380	(23-)	65			
130CE	66					8.511	(22-)	66			
130CE	67					8.554	(22+)	67			
130CE	68		8.570	24+				68	52	FS	10
130CE	69					8.605	(23-)	69			
130CE	70					8.606	(24+)	70			

S-2p	=		8.622	(0.028)	-----						
130CE	71					8.912	(24-)	71			
130CE	72					9.465	(25-)	72			
130CE	73					9.664	(24+)	73			
130CE	74					9.703	(26+)	74			
130CE	75					9.703	(25-)	75			
130CE	76					9.748	(26+)	76			
130CE	77					9.816	(26+)	77	31	FS	9
130CE	78					10.050	(26-)	78			
130CE	79					10.650	(27-)	79			
130CE	80					10.849	(26+)	80			

130CE 81			10.876	(27-)	81
130CE 82			10.997	(28+)	82
130CE 83			11.132	(28+)	83
130CE 84			11.138	(28+)	84
S-n = 11.207 (0.040)					
130CE 85			11.283	(28-)	85
130CE 86			11.923	(29-)	86
130CE 87			12.097	(29-)	87
130CE 88			12.486	(30+)	88
130CE 89			12.607	(30-)	89
130CE 90			13.817	(32+)	90
130CE 91			15.178	(34+)	91
130CE 92			X		92
130CE 93			865+X		93
130CE 94			1764+X		94
130CE 95			2720+X		95
130CE 96			3752+X		96
130CE 97			4859+X		97
130CE 98			6007+X		98
130CE 99			7124+X		99
130CE 100			8339+X		100
130CE 101			9627+X		101
130CE 102			10994+X		102
130CE 103			12442+X		103
130CE 104			13974+X		104
130CE 105			15595+X		105
130CE 106			17304+X		106
130CE 107			19109+X		107
130CE 108			21009+X		108
130CE 109			23001+X		109
130CE 110			25065+X		110
130CE 111			Y		111
130CE 112			841+Y		112
130CE 113			1755+Y		113
130CE 114			2738+Y		114
130CE 115			3790+Y		115
130CE 116			4914+Y		116
130CE 117			6110+Y		117
130CE 118			7376+Y		118
130CE 119			8714+Y		119
130CE 120			10126+Y		120
130CE 121			11615+Y		121
130CE 122			13181+Y		122
130CE 123			14827+Y		123
130CE 124			16553+Y		124

130CE 125			18359+Y	125
130CE 126			20259+Y	126
130CE 127			22255+Y	127
130CE 128			Z	128
130CE 129			904+Z	129
130CE 130			1880+Z	130

130CE 131			2928+Z	131
130CE 132			4050+Z	132
130CE 133			5246+Z	133
130CE 134			6517+Z	134
130CE 135			7863+Z	135
130CE 136			9288+Z	136
130CE 137			10800+Z	137
130CE 138			12394+Z	138
130CE 139			14098+Z	139
130CE 140			15903+Z	140

130CE 141			17807+Z	141
130CE 142			19806+Z	142
130CE 143			U	143
130CE 144			1261+U	144
130CE 145			2592+U	145
130CE 146			3995+U	146
130CE 147			5473+U	147
130CE 148			7028+U	148
130CE 149			8662+U	149
130CE 150			10379+U	150

130CE 151			12169+U	151
130CE 152			14031+U	152

S-p = 5.387 (0.035)-----
S-n = 11.207 (0.040)-----
S-2p = 8.622 (0.028)-----
S-2n = 20.032 (0.039)-----
S-alpha= -0.822 (0.031)-----

S+p = -2.167 (0.055)
S+n = -8.357 (0.043)
S+2p = -6.581 (0.037)
S+2n = -19.191 (0.035)
S+alpha = 1.352 (0.030)

gap p = 3.221 (0.065)
gap n = 2.850 (0.058)
gap 2p = 2.041 (0.047)
gap 2n = 0.841 (0.053)
gap alpha = 0.529 (0.043)