

^{133}Ce $Z = 58$ $N = 75$ adopted link ENSDF link

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

BE = 1110.527 (0.016) MeV

Qbeta+ = 3.076 (0.032) MeV

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

S-alpha=	-0.218 (0.019)-----				
133CE 1	0.000	1/2+			1 97 M 4
133CE 2			0.037 9/2-		2 5.1 H 3
133CE 3	0.134	3/2+			3
133CE 4			0.207 11/2-		4 52.7 PS 21
133CE 5	0.242	5/2+			5
133CE 6	0.316	3/2+			6
133CE 7	0.318	5/2+			7
133CE 8	0.465	1/2+			8
133CE 9				0.497 (1/2,3/2,5/2)+	9
133CE 10	0.570	7/2+			10

133CE 11			0.592 13/2-		11 5.5 PS 3
133CE 12			0.621 3/2-		12
133CE 13				0.657 1/2+,3/2,5/2+	13
133CE 14				0.779 (3/2,5/2)+	14
133CE 15				0.788	15
133CE 16	0.816	9/2+			16
133CE 17			0.827 15/2-		17 2.6 PS 6
133CE 18				0.835 (1/2,3/2,5/2+)	18
133CE 19				0.903	19
133CE 20				1.006 (1/2+,3/2,5/2+)	20

133CE 21				1.116	21
133CE 22			1.200 15/2-		22
133CE 23	1.201	11/2+			23
133CE 24				1.335	24
133CE 25			1.344 17/2-		25 0.7 PS LE
133CE 26	1.445	13/2+			26
133CE 27				1.521	27
133CE 28				1.573	28
133CE 29			1.590 19/2-		29 0.7 PS LE
133CE 30				1.881	30

133CE 31	1.898	15/2+			31
133CE 32	1.932	15/2+			32
133CE 33	2.096	17/2+			33 3.7 PS 4
133CE 34			2.199 21/2-		34
133CE 35	2.297	19/2+			35 3.1 PS 3
133CE 36				2.416 (19/2+)	36

133CE	37		2.457	21/2+				37	3.7 PS	4
133CE	38				2.486	23/2-		38		
133CE	39						2.502	39		
133CE	40						2.621 (21/2+)	40		

133CE	41		2.646	23/2+				41		
133CE	42				2.679	23/2-		42		
133CE	43						2.744 (21/2)	43		
133CE	44						2.845 (23/2)	44		
133CE	45		2.881	25/2+				45		
133CE	46						2.960 (23/2)	46		
133CE	47						3.128 (25/2+)	47		
133CE	48				3.129	25/2-		48		
133CE	49		3.176	27/2+				49		
133CE	50				3.236	23/2-		50		

133CE	51						3.236 (25/2)	51		
133CE	52				3.376	25/2-		52		
133CE	53				3.433	27/2-		53		
133CE	54						3.434 (27/2+)	54		
133CE	55				3.531	27/2-		55		
133CE	56		3.533	29/2+				56		
133CE	57						3.572 (27/2)	57		
133CE	58				3.771	29/2-		58		
133CE	59						3.781 (29/2+)	59		
133CE	60		3.918	31/2+				60		

133CE	61						3.972 (29/2)	61		
133CE	62				4.066	31/2-		62		
133CE	63						4.212 (31/2+)	63		
133CE	64		4.375	33/2+				64		
133CE	65						4.404 (31/2-)	65		
133CE	66				4.408	33/2-		66		
133CE	67				4.799	35/2-		67		
133CE	68		4.831	35/2+				68		
133CE	69				5.215	37/2-		69		
133CE	70						5.366 (37/2+)	70		

133CE	71				5.670	39/2-		71		
133CE	72						5.876 (39/2+)	72		
S-p	=		5.984 (0.040)	-----						
133CE	73						6.149 (41/2-)	73		
133CE	74						6.666 (43/2-)	74		
133CE	75						7.210 (45/2-)	75		

S-p = 5.984 (0.040)-----
 S-n = 8.021 (0.026)-----
 S-2p = 10.317 (0.016)-----
 S-2n = 18.852 (0.037)-----

S-alpha= -0.218 (0.019)-----

S+p = -3.399 (0.026)

S+n = -10.486 (0.026)

S+2p = -8.373 (0.025)

S+2n = -18.341 (0.019)

S+alpha = 0.409 (0.020)

gap p = 2.585 (0.048)

gap n = -2.465 (0.037)

gap 2p = 1.944 (0.030)

gap 2n = 0.511 (0.041)

gap alpha = 0.192 (0.028)