^{128}Ce $Z = 58$ $N = 70$ adopted link ENSDF link

Based on ensdf_240402 (Apr 2024), and mass evaluation from 2020

BE = 1063.286 (0.028) MeV
Qbeta+ = 3.092 (0.061) MeV

	Energy	T	J+		J-		J-other		T1/2	
S-alpha= -1.131 (0.031)										
128CE 1	0.000		0+					1	3.93 M	2
128CE 2	0.207		2+					2	0.30 NS	3
128CE 3	0.607		4+					3	8.0 PS	+18-14
128CE 4	0.869		2+					4		
128CE 5	1.052		0+					5		
128CE 6	1.138		3+					6		
128CE 7	1.157		6+					7	1.49 PS	35
128CE 8	1.306		2+					8		
128CE 9	1.312		4+					9		
128CE 10	1.663		5+					10		
128CE 11							1.701	11		
128CE 12	1.819		8+					12	0.46 PS	7
128CE 13	1.847		6+					13		
128CE 14					1.889	5-		14		
128CE 15					1.980	4(-)		15		
128CE 16	2.177		6+					16		
128CE 17					2.240	(5-)		17		
128CE 18					2.245	7-		18		
128CE 19					2.286	5-		19		
128CE 20	2.298		7+					20		
128CE 21					2.332	6(-)		21		
128CE 22							2.370	22		
128CE 23					2.385	6-		23		
128CE 24	2.466		8+					24		
128CE 25					2.520	7-		25		
128CE 26	2.530		10+					26	0.31 PS	7
128CE 27					2.586	7-		27		
128CE 28	2.659		8+					28		
128CE 29					2.700	8-		29		
128CE 30					2.735	9-		30		
128CE 31					2.812	8-		31		
128CE 32					2.860	9-		32		
128CE 33	2.870		10+					33		
128CE 34							2.975	34		
128CE 35	3.001		9+					35		

128CE	36			3.086	9-			36		
128CE	37	3.106	12+					37	1.7 PS	5
128CE	38			3.130	10-			38		
128CE	39	3.132	(10+)					39		
128CE	40	3.144	10+					40		
128CE	41	3.269	10+					41		
128CE	42			3.324	11-			42		
128CE	43			3.383	(11-)			43		
128CE	44			3.398	10-			44		
128CE	45	3.478	12+					45		
128CE	46	3.585	(12+)					46		
128CE	47	3.666	14+					47	1.5 PS	4
128CE	48			3.723	11-			48		
128CE	49			3.727	12-			49		
128CE	50	3.809	(12+)					50		
128CE	51			3.966	(13-)			51		
128CE	52	3.996	12+					52		
128CE	53			4.086	12-			53		
128CE	54			4.102	(13-)			54		
128CE	55					4.121		55		
128CE	56	4.282	14+					56	0.90 PS	14
128CE	57	4.357	16+					57		
128CE	58			4.405	13-			58		
128CE	59			4.477	14-			59		
128CE	60	4.544	(14+)					60		
128CE	61	4.595	14+					61		
128CE	62			4.688	15-			62		
128CE	63			4.792	(14-)			63		
128CE	64					4.847		64		
S-p	=	4.927 (0.038)								
128CE	65			4.936	(15-)			65		
128CE	66					5.069		66		
128CE	67			5.073	(15-)			67		
128CE	68	5.127	16+					68		
128CE	69	5.185	18+					69	0.21 PS	3
128CE	70	5.192	16+					70		
128CE	71			5.302	(16-)			71		
128CE	72	5.352	(16+)					72		
128CE	73			5.479	17-			73		
128CE	74	5.854	18+					74		
128CE	75	6.006	18+					75		
128CE	76	6.143	20+					76	0.12 PS	3
128CE	77			6.199	(18-)			77		
128CE	78	6.225	(18+)					78		
128CE	79			6.317	19-			79		
128CE	80			6.376	19-			80		

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128CE  81 |                    |   6.501     (19-)  |                     81
128CE  82 |  6.605     20+     |                    |                     82
128CE  83 |  6.930     20+     |                    |                     83
128CE  84 |                    |   7.175     21-    |                     84
128CE  85 |  7.219     22+     |                    |                     85   0.28 PS   LT
128CE  86 |                    |   7.296     21-    |                     86
128CE  87 |                    |   7.380     (21-)  |                     87
S-2p   =   7.442 ( 0.031) ------------------------------------------------------------------
128CE  88 |  7.462     22+     |                    |                     88
128CE  89 |  7.912     22+     |                    |                     89
128CE  90 |                    |   8.139     23-    |                     90
-----------                                                                 -----------------
128CE  91 |                    |   8.361     (23-)  |                     91
128CE  92 |  8.405     24+     |                    |                     92
128CE  93 |  8.432     24+     |                    |                     93
128CE  94 |  8.957     24+     |                    |                     94
128CE  95 |                    |   9.219     (25-)  |                     95
128CE  96 |                    |   9.472     (25-)  |                     96
128CE  97 |  9.514     26+     |                    |                     97
128CE  98 |  9.695     (26+)   |                    |                     98
128CE  99 | 10.077     26+     |                    |                     99
128CE 100 |                    |  10.403     (27-)  |                    100
-----------                                                                 -----------------
128CE 101 | 10.698     (28+)   |                    |                    101
128CE 102 | 11.078     (28+)   |                    |                    102
128CE 103 | 11.271     28+     |                    |                    103
S-n    =  11.626 ( 0.040) ------------------------------------------------------------------
128CE 104 | 11.975     (30+)   |                    |                    104
128CE 105 | 12.541     (30+)   |                    |                    105
128CE 106 | 12.547     (30+)   |                    |                    106
128CE 107 | 13.333     (32+)   |                    |                    107
128CE 108 | 13.875     (32+)   |                    |                    108
128CE 109 | 14.762     (34+)   |                    |                    109
128CE 110 | 16.265     (36+)   |                    |                    110
-----------                                                                 -----------------
128CE 111 | 17.839     (38+)   |                    |                    111


S-p    =   4.927 ( 0.038) ------------------------------------------------------------------
S-n    =  11.626 ( 0.040) ------------------------------------------------------------------
S-2p   =   7.442 ( 0.031) ------------------------------------------------------------------
S-2n   =  20.856 ( 0.040) ------------------------------------------------------------------
S-alpha=  -1.131 ( 0.031) ------------------------------------------------------------------

S+p       =  -1.529 ( 0.041)
S+n       =  -8.825 ( 0.040)
S+2p      =  -5.640 ( 0.040)
S+2n      = -20.032 ( 0.040)
S+alpha   =   1.683 ( 0.037)
```

```
gap p     =   3.398 ( 0.056)
gap n     =   2.801 ( 0.056)
gap 2p    =   1.802 ( 0.050)
gap 2n    =   0.824 ( 0.056)
gap alpha =   0.552 ( 0.048)
```