

^{156}Er $Z = 68$ $N = 88$ [link to full NNDC output](#)

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

BE = 1270.138 (0.025) MeV

Qbeta+ = 1.267 (0.065) MeV

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

S-alpha=	-3.481	(0.025)	-----					
156ER 1	0.000	0+						1 19.5 M 10
156ER 2	0.345	2+						2 34.0 PS 9
156ER 3	0.797	4+						3 5.0 PS 3
156ER 4	0.930	0+						4
156ER 5	0.930	2+						5
156ER 6	1.221	2+						6
156ER 7						1.243		7
156ER 8			1.304	3-				8
156ER 9						1.305		9
156ER 10	1.341	6+						10 1.9 PS 3

156ER 11	1.351	3+						11
156ER 12						1.382		12
156ER 13	1.406	4+						13
156ER 14						1.476		14
156ER 15						1.518	(1-)	15
156ER 16	1.547	4+						16
156ER 17	1.571	2+						17
156ER 18			1.612	5-				18
156ER 19			1.631	2-				19
156ER 20						1.663		20

156ER 21						1.711		21
156ER 22			1.814	4-				22
156ER 23	1.835	5+						23
156ER 24						1.861	(3+)	24
156ER 25	1.886	6+						25
156ER 26						1.910	2+,3,4+	26
156ER 27	1.959	8+						27 2.5 PS 6
156ER 28	1.970	6+						28
156ER 29						2.015		29
156ER 30			2.029	7-				30

156ER 31						2.170		31
156ER 32			2.204	6-				32
156ER 33						2.250		33
156ER 34						2.369	(7+)	34
156ER 35	2.377	8+						35
156ER 36	2.481	8+						36

156ER	37			2.490	9-			37	8 PS	5
156ER	38			2.601	8-			38		
156ER	39	2.633	10+					39	1.4 PS	3
156ER	40					2.761	(8+)	40		

156ER	41			2.903	10-			41		
156ER	42			2.924	11-			42	8.2 PS	7
156ER	43	2.943	10+					43		
156ER	44					2.961	(9+)	44		
156ER	45	2.998	10+					45		
156ER	46	3.042	10+					46		
156ER	47			3.082	11-			47		
156ER	48	3.315	12+					48	1.5 PS	7
156ER	49			3.384	12-			49		
156ER	50			3.432	13-			50	3.3 PS	6

156ER	51	3.440	12+					51		
156ER	52	3.494	12+					52		
156ER	53	3.589	12+					53		
156ER	54					3.599	(11+)	54		
156ER	55	3.628	12+					55		
156ER	56	3.651	12+					56		
156ER	57			3.674	13-			57		
156ER	58	3.837	14+					58	1.6 PS	4
156ER	59			3.954	14-			59		
156ER	60			4.035	15-			60	2.0 PS	12

156ER	61	4.088	14+					61		
156ER	62	4.185	14+					62		
156ER	63	4.247	14+					63		
156ER	64					4.270	(13+)	64		
156ER	65	4.281	14+					65		
156ER	66			4.310	15-			66		
156ER	67	4.380	16+					67		
156ER	68			4.593	16-			68		
156ER	69			4.712	17-			69	1.6 PS	6
156ER	70	4.764	16+					70		

156ER	71	4.782	16+					71		
156ER	72	4.813	16+					72		
156ER	73					4.967	(15+)	73		
156ER	74			5.001	17-			74		
156ER	75	5.007	18+					75	1.2 PS	6
156ER	76			5.297	18-			76		
156ER	77	5.338	18+					77		
156ER	78	5.370	18+					78		

S-p	=	5.461 (0.030)								
156ER	79			5.496	19-			79	2.2 PS	8
156ER	80	5.537	18+					80		

156ER 81				5.674	19-					81	
156ER 82		5.717	20+							82 0.8 PS 6	
156ER 83					5.788	19-				83	
156ER 84		5.931	20+							84	
156ER 85		6.057	20+							85	
156ER 86					6.058	20-				86	
156ER 87					6.261	21-				87	
156ER 88							6.295	(20+)		88	
156ER 89					6.356	21-				89	
156ER 90							6.411	(20+)		90	

156ER 91					6.437	21-				91	
156ER 92		6.489	22+							92	
156ER 93		6.663	22+							93	
156ER 94					6.741	22-				94	
156ER 95							6.823	(22+)		95	
156ER 96					6.867	23-				96	
156ER 97					7.054	23-				97	
156ER 98					7.110	23-				98	
156ER 99		7.316	24+							99	
156ER 100					7.415	24-				100	

156ER 101		7.444	24+							101	
156ER 102							7.492	(24+)		102	
156ER 103					7.601	25-				103	
156ER 104					7.649	25-				104	
156ER 105							7.980			105	
156ER 106		8.082	26+							106	
156ER 107					8.101	26-				107	
156ER 108		8.211	26+							108	
156ER 109					8.289	27-				109	
156ER 110							8.325			110	

156ER 111					8.394	27-				111	

S-2p	=	8.396	(0.026)								
156ER 112		8.849	28+							112	
156ER 113					8.867	28-				113	
156ER 114							8.903			114	
156ER 115		8.965	28+							115	
156ER 116		9.068	28+							116	
156ER 117					9.198	29-				117	
156ER 118					9.288	29-				118	
156ER 119		9.648	30+							119	
156ER 120					9.693	30-				120	

156ER 121		9.864	30+							121	

S-n	=	10.074	(0.025)								
156ER 122					10.106	31-				122	
156ER 123					10.182	31-				123	
156ER 124		10.415	32+							124	

156ER 125				10.532	32-				125
156ER 126				10.927	33-				126
156ER 127		11.097	34+						127
156ER 128				11.187	33-				128
156ER 129							11.333	(34+)	129
156ER 130				11.453	34-				130

156ER 131				11.578	34-				131
156ER 132		11.817	35+						132
156ER 133							11.975	(35-)	133
156ER 134							11.976	(36+)	134
156ER 135		12.035	36+						135
156ER 136							12.140	(35-)	136
156ER 137				12.423	36-				137
156ER 138							12.668	(38+)	138
156ER 139				13.058	38-				139
156ER 140		13.203	38+						140

156ER 141		13.402	38+						141
156ER 142		13.867	40+						142
156ER 143							14.034	(40+)	143
156ER 144		14.422	42+						144
156ER 145							15.479	(43-)	145
156ER 146							15.764	(44)+	146
156ER 147							15.814	(44)+	147
156ER 148							15.986		148
156ER 149							16.043	(44)+	149
156ER 150							16.375		150

156ER 151							16.583	(44)+	151

S-p = 5.461 (0.030)-----
S-n = 10.074 (0.025)-----
S-2p = 8.396 (0.026)-----
S-2n = 17.749 (0.025)-----
S-alpha= -3.481 (0.025)-----

S+p = -1.787 (0.037)
S+n = -7.273 (0.036)
S+2p = -6.377 (0.026)
S+2n = -17.235 (0.035)
S+alpha = 3.624 (0.026)

gap p = 3.674 (0.048)
gap n = 2.801 (0.044)
gap 2p = 2.019 (0.037)
gap 2n = 0.515 (0.043)
gap alpha = 0.143 (0.036)