

$^{156}\text{Er}$        $Z = 68$        $N = 88$       adopted link      ENSDF link

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

BE = 1270.138 ( 0.025) MeV

Qbeta+ = 1.327 ( 0.046) MeV

	Energy T	J+		J-		J-other		T1/2
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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
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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
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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
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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		
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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
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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
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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		
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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		
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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
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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
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156ER 121		9.864	30+						121
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S-p	=	5.461 ( 0.030)							
S-n	=	10.074 ( 0.025)							

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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 = -6.376 ( 0.026)  
S+2n = -17.235 ( 0.035)  
S+alpha = 3.623 ( 0.025)  
  
gap p = 3.674 ( 0.048)  
gap n = 2.800 ( 0.044)  
gap 2p = 2.020 ( 0.037)  
gap 2n = 0.514 ( 0.043)  
gap alpha = 0.142 ( 0.036)
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