

^{158}Er $Z = 68$ $N = 90$ adopted link ENSDF link

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

BE = 1287.372 (0.025) MeV

Qbeta+ = 0.884 (0.037) MeV

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

S-alpha=	-2.665	(0.026)	-----		
158ER 1	0.000	0+			1 2.29 H 6
158ER 2	0.192	2+			2 257 PS 18
158ER 3	0.527	4+			3 13.5 PS 4
158ER 4	0.806	0+			4
158ER 5	0.820	2+			5
158ER 6	0.970	6+			6 2.59 PS 8
158ER 7	0.989	2+			7
158ER 8	1.043	3+			8
158ER 9	1.184	4+			9
158ER 10				1.211 +	10

158ER 11	1.257	4+			11
158ER 12				1.305 2+,3,4+	12
158ER 13			1.342 3-		13
158ER 14	1.387	0+			14
158ER 15	1.418	2+			15
158ER 16				1.418 (1-)	16
158ER 17				1.427 2+,3,4+	17
158ER 18	1.438	5+			18
158ER 19				1.489 2+,3+	19
158ER 20	1.493	8+			20 0.94 PS 3

158ER 21				1.526 (2,3)-	21
158ER 22				1.570 (2+)	22
158ER 23				1.589 (6+)	23
158ER 24	1.589	6+			24
158ER 25				1.614 (2-)	25
158ER 26				1.630 (1,2+)	26
158ER 27				1.641 (2+)	27
158ER 28				1.674 (2+,3)	28
158ER 29				1.687 (1,2+)	29
158ER 30				1.698 (1-,2,3)	30

158ER 31				1.700	31
158ER 32				1.743 (2,3,4)	32
158ER 33				1.770	33
158ER 34				1.809 (2+,3,4+)	34
158ER 35				1.835	35
158ER 36				1.853 (7-,8+)	36

158ER 37						1.913	(7+)		37
158ER 38						1.977	(1,2+)		38
158ER 39						2.019	(8+)		39
158ER 40		2.019	8+						40

158ER 41						2.029			41
158ER 42						2.060	(1,2+)		42
158ER 43		2.073	10+					0.68 PS	9
158ER 44						2.144	(1,2+)		44
158ER 45						2.229	(2+,3+)		45
158ER 46				2.273	9-				46
158ER 47						2.305	(2+,3,4+)		47
158ER 48				2.333	8-				48
158ER 49						2.368	(1,2+)		49
158ER 50						2.390	(1,2+)		50

158ER 51				2.432	9-				51
158ER 52						2.487	(10+)		52
158ER 53		2.488	10+						53
158ER 54				2.570	10-			56 PS	5
158ER 55						2.674	(1,2+)		55
158ER 56		2.681	12+					0.51 PS	6
158ER 57				2.731	11-			12.4 PS	+9-11
158ER 58				2.761	11-				58
158ER 59		2.881	12+						59
158ER 60				2.955	12-			7.7 PS	+1-5

158ER 61						3.018	(1,2+)		61
158ER 62		3.109	12+						62
158ER 63				3.155	13-			4.7 PS	3
158ER 64		3.191	14+					2.9 PS	3
158ER 65						3.305	(13-)		65
158ER 66		3.374	14+						66
158ER 67				3.475	14-				67
158ER 68		3.663	16+					2.32 PS	14
158ER 69		3.668	14+						69
158ER 70				3.695	15-			1.1 PS	+2-3

158ER 71						3.907	(15-)		71
158ER 72						4.026	(16+)		72
158ER 73						4.104	(16-)	0.83 PS	+21-28
158ER 74		4.230	18+					0.95 PS	6
158ER 75		4.272	16+						75
158ER 76						4.330	(17-)	0.97 PS	+14-21
158ER 77						4.680	(18+)		77
158ER 78						4.813	(18-)	0.89 PS	+12-17
158ER 79		4.888	20+					0.55 PS	8
158ER 80		4.949	18+						80

158ER 81						5.022	(19-)		81

158ER 82						5.327	(20+)	82
158ER 83						5.538	(20-)	83
158ER 84		5.629	22+					84 0.24 PS +21-12
158ER 85						5.739	(21-)	85
S-p	=	5.760 (0.034)		-----				
158ER 86						6.027	(22+)	86
158ER 87						6.220	(22-)	87
158ER 88		6.435	24+					88
158ER 89						6.476	(23-)	89
158ER 90						7.000	(24-)	90

158ER 91						7.249	(25-)	91
158ER 92		7.280	26+					92
158ER 93						7.800	(26-)	93
158ER 94						8.070	(27-)	94
158ER 95		8.139	28+					95
158ER 96						8.602	(28-)	96
158ER 97						8.934	(29-)	97
158ER 98		9.014	30+					98
S-2p	=	9.352 (0.025)		-----				
158ER 99						9.456	(30-)	99
158ER 100						9.474	(30+)	100

158ER 101						9.820	(31-)	101
158ER 102		9.920	32+					102

S-p = 5.760 (0.034)-----
S-n = 9.961 (0.037)-----
S-2p = 9.352 (0.025)-----
S-2n = 17.235 (0.035)-----
S-alpha= -2.665 (0.026)-----

S+p = -2.556 (0.038)
S+n = -7.329 (0.025)
S+2p = -7.438 (0.026)
S+2n = -16.903 (0.035)
S+alpha = 3.058 (0.029)

gap p = 3.204 (0.051)
gap n = 2.632 (0.045)
gap 2p = 1.915 (0.036)
gap 2n = 0.332 (0.050)
gap alpha = 0.392 (0.039)