

^{165}Er $Z = 68$ $N = 97$ adopted link ENSDF link

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

BE = 1343.089 (0.001) MeV

Qbeta+ = 0.377 (0.001) MeV

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

S-alpha=	-1.109 (0.001)-----								
165ER	1			0.000	5/2-			1	10.36 H 4
165ER	2		0.047	5/2+				2	4.0 NS 1
165ER	3		0.063	7/2+				3	
165ER	4			0.077	7/2-			4	0.96 NS 8
165ER	5		0.098	9/2+				5	
165ER	6					0.167	(11/2+)	6	
165ER	7			0.176	9/2-			7	
165ER	8					0.238	(13/2+)	8	
165ER	9			0.243	3/2-			9	0.31 NS 4
165ER	10					0.296	(11/2-)	10	

165ER	11			0.296	5/2-			11	0.24 NS LE
165ER	12			0.297	1/2-			12	0.70 NS 8
165ER	13			0.357	3/2-			13	0.35 NS 6
165ER	14					0.372	(15/2+)	14	
165ER	15			0.373	7/2-			15	
165ER	16			0.384	5/2-			16	
165ER	17		0.431	1/2+				17	
165ER	18					0.463	(17/2+)	18	
165ER	19		0.465	7/2+				19	
165ER	20					0.467	(9/2-)	20	

165ER	21			0.478	5/2-			21	
165ER	22		0.507	1/2+				22	0.70 NS 12
165ER	23			0.514	7/2-			23	
165ER	24		0.519	5/2+				24	
165ER	25		0.535	3/2+				25	
165ER	26			0.551	11/2-			26	0.25 US 3
165ER	27			0.573	7/2-			27	
165ER	28		0.590	3/2+				28	
165ER	29			0.590	1/2-			29	0.6 NS LE
165ER	30					0.599	(3/2+,5/2+)	30	

165ER	31					0.606		31	
165ER	32			0.608	3/2-			32	
165ER	33					0.648		33	
165ER	34					0.674	5/2+,3/2+	34	
165ER	35					0.678	(19/2+)	35	
165ER	36			0.684	9/2-			36	

165ER 37						0.700				37
165ER 38						0.707	(13/2-)			38
165ER 39						0.721				39
165ER 40						0.730				40

165ER 41		0.746	1/2+							41 1.00 NS 15
165ER 42						0.760	(7/2-,5/2-)			42
165ER 43						0.769	(21/2+)			43
165ER 44					0.820	11/2-				44
165ER 45						0.840	(1/2-,3/2-)			45
165ER 46		0.854	3/2+							46
165ER 47						0.863	3/2+,5/2+			47
165ER 48						0.873				48
165ER 49						0.883	(15/2-)			49
165ER 50						0.896				50

165ER 51					0.921	1/2-				51
165ER 52						0.955	(9/2+,7/2+)			52
165ER 53					0.962	3/2-				53
165ER 54						0.971	(3/2+,5/2+)			54
165ER 55		1.000	3/2+							55
165ER 56						1.024	(5/2-)			56
165ER 57					1.039	3/2-				57
165ER 58						1.045				58
165ER 59					1.064	5/2-				59
165ER 60						1.073				60

165ER 61						1.079	(17/2-)			61
165ER 62						1.080	(23/2+)			62
165ER 63		1.104	3/2+							63
165ER 64						1.106	(7/2-)			64
165ER 65						1.139	3/2+,5/2+			65
165ER 66						1.153	(25/2+)			66
165ER 67						1.165				67
165ER 68					1.172	7/2-				68
165ER 69						1.198				69
165ER 70						1.233				70

165ER 71						1.250				71
165ER 72						1.274	(5/2-,7/2-)			72
165ER 73					1.289	3/2-				73
165ER 74						1.332				74
165ER 75					1.340	5/2-				75
165ER 76						1.379	(5/2-,7/2-)			76
165ER 77		1.412	3/2+							77
165ER 78					1.417	3/2-				78
165ER 79		1.427	3/2+							79
165ER 80						1.474	(3/2-)			80

165ER 81		1.489	1/2+							81

165ER 82				1.528	(3/2+)	82
165ER 83				1.539	(5/2-)	83
165ER 84				1.564		84
165ER 85				1.612		85
165ER 86				1.622	(29/2+)	86
165ER 87				1.631	(7/2-)	87
165ER 88				1.656		88
165ER 89				1.728		89
165ER 90				1.761		90

165ER 91				1.780		91
165ER 92				1.805		92
165ER 93				1.819		93
165ER 94				1.851		94
165ER 95				1.889		95
165ER 96				1.901		96
165ER 97				1.940		97
165ER 98				1.951		98
165ER 99				1.968		99
165ER 100				2.004		100

165ER 101				2.018		101
165ER 102				2.033		102
165ER 103				2.047		103
165ER 104				2.057		104

S-p = 6.830 (0.002)-----
S-n = 6.650 (0.001)-----
S-2p = 12.718 (0.001)-----
S-2n = 15.497 (0.005)-----
S-alpha= -1.109 (0.001)-----

S+p = -4.654 (0.012)
S+n = -8.474 (0.001)
S+2p = -10.646 (0.004)
S+2n = -14.911 (0.001)
S+alpha = 1.721 (0.001)

gap p = 2.176 (0.012)
gap n = -1.824 (0.002)
gap 2p = 2.072 (0.004)
gap 2n = 0.586 (0.005)
gap alpha = 0.612 (0.001)