

^{164}Er $Z = 68$ $N = 96$ adopted link ENSDF link

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

BE = 1336.439 (0.001) MeV

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

S-alpha=	-1.305	(0.001)	-----		
164ER 1	0.000	0+			1 STABLE
164ER 2	0.091	2+			2 1.569 NS 34
164ER 3	0.299	4+			3 86 PS 9
164ER 4	0.614	6+			4
164ER 5	0.860	2+			5 1.9 PS 2
164ER 6	0.946	3+			6
164ER 7	1.025	8+			7 2.59 PS 14
164ER 8	1.058	4+			8
164ER 9	1.197	5+			9
164ER 10	1.246	0+			10

164ER 11	1.315	2+			11
164ER 12	1.359	6+			12
164ER 13			1.387	1-	13
164ER 14	1.417	0+			14
164ER 15			1.434	3-	15
164ER 16	1.470	4+			16
164ER 17	1.484	2+			17
164ER 18				1.495	18
164ER 19				1.508	19
164ER 20	1.518	10+			20 1.01 PS 5

164ER 21	1.545	7+			21
164ER 22				1.555 (5)-	22
164ER 23				1.569 (3-)	23
164ER 24			1.578	1-	24
164ER 25				1.610 (4-,5-)	25
164ER 26				1.632	26
164ER 27				1.640	27
164ER 28			1.664	5-	28 0.08 NS LT
164ER 29				1.683 (5+)	29
164ER 30				1.702	30

164ER 31	1.702	0+			31
164ER 32				1.707 (6)+	32
164ER 33				1.715 (2-)	33
164ER 34				1.726	34
164ER 35				1.742	35
164ER 36			1.745	6-	36 0.22 NS 3
164ER 37	1.745	8+			37

164ER 38						1.764	(7)-		38
164ER 39		1.766	0+						39
164ER 40		1.788	2+						40

164ER 41						1.798	(5)-		41
164ER 42						1.806			42
164ER 43						1.814	(6)-		43
164ER 44		1.833	2+						44
164ER 45						1.842	(0+)		45
164ER 46					1.846	7-			46
164ER 47						1.861	(0,1,2)+		47
164ER 48						1.875	1(+)		48
164ER 49		1.911	2+						49
164ER 50						1.929			50

164ER 51		1.954	2+						51
164ER 52						1.961			52
164ER 53						1.964	(8-)		53
164ER 54						1.970	(2+,3-,4+)		54
164ER 55		1.977	9+						55
164ER 56					1.985	7-			56 23.0 NS 12
164ER 57						2.003	(2+:5-)		57
164ER 58		2.005	8+						58
164ER 59						2.018			59
164ER 60						2.023			60

164ER 61						2.026	(2+)		61
164ER 62						2.032			62
164ER 63						2.035	1		63
164ER 64						2.046			64
164ER 65						2.055	(9)-		65
164ER 66						2.069	(8)+		66
164ER 67						2.069	(1-,2-)		67
164ER 68						2.082			68
164ER 69		2.083	12+						69 0.63 PS 10
164ER 70						2.091	(8-)		70

164ER 71						2.094			71
164ER 72					2.109	9-			72
164ER 73						2.141			73
164ER 74						2.151			74
164ER 75						2.164	(8-)		75
164ER 76						2.168			76
164ER 77		2.173	0+						77
164ER 78		2.184	10+						78
164ER 79						2.240			79
164ER 80						2.254			80

164ER 81						2.261	(10-)		81
164ER 82		2.278	2+						82

164ER 83						2.279			83
164ER 84						2.337	(3-)		84
164ER 85						2.337	(9-)		85
164ER 86						2.340	(8)		86
164ER 87						2.356			87
164ER 88						2.364	(9-)		88
164ER 89						2.371			89
164ER 90						2.404	1		90

164ER 91				2.408	11-				91
164ER 92						2.416	1		92
164ER 93						2.421	(10)-		93
164ER 94						2.445	(2+)		94
164ER 95						2.448			95
164ER 96		2.463	10+						96
164ER 97						2.470	(11-)		97
164ER 98		2.479	11+						98
164ER 99						2.483			99
164ER 100		2.519	12+						100

164ER 101						2.526	(9)		101
164ER 102						2.541	(1+,2+)		102
164ER 103						2.577	1		103
164ER 104						2.584	(10-)		104
164ER 105						2.592			105
164ER 106						2.631	(12-)		106
164ER 107						2.640	1		107
164ER 108		2.703	14+						108 0.27 PS 4
164ER 109						2.730	(10)		109
164ER 110		2.733	12+						110 0.76 PS +67-24

164ER 111						2.747	1		111
164ER 112						2.759	(9-)		112
164ER 113						2.762	1		113
164ER 114						2.800	(12-)		114
164ER 115				2.815	13-				115
164ER 116						2.823	(11-)		116
164ER 117						2.823			117
164ER 118		2.875	14+						118
164ER 119						2.933	1		119
164ER 120						2.950	(11)		120

164ER 121						2.966	1		121
164ER 122						2.981	(10-)		122
164ER 123						3.018	1		123
164ER 124		3.027	13+						124
164ER 125						3.029			125
164ER 126						3.067	(14-)		126
164ER 127						3.079	(12-)		127
164ER 128						3.133	1		128

164ER 129				3.179	1	129
164ER 130				3.220	1	130

164ER 131				3.221	(11-)	131
164ER 132				3.244	(14-)	132
164ER 133		3.263	16+			133 0.30 PS GT
164ER 134		3.267	14+			134 0.69 PS +61-22
164ER 135				3.281	15-	135
164ER 136					3.303 (6-,7-)	136
164ER 137					3.352 (13-)	137
164ER 138					3.378 (12+)	138 68 NS 2
164ER 139					3.408	139
164ER 140		3.411	16+			140 0.21 PS 4

164ER 141					3.458 1	141
164ER 142					3.519 (15+)	142
164ER 143					3.535 (2+)	143
164ER 144					3.541 1,2	144
164ER 145					3.546 (13+)	145
164ER 146					3.551 1	146
164ER 147					3.560 (16-)	147
164ER 148					3.602 1	148
164ER 149		3.630	2+			149
164ER 150					3.734 (14+)	150

164ER 151					3.752 1	151
164ER 152					3.760 (16-)	152
164ER 153					3.768 (1+,2+)	153
164ER 154		3.769	18+			154
164ER 155					3.801 (16+)	155
164ER 156				3.805	17-	156
164ER 157					3.943 (15+)	157
164ER 158					3.944 1	158
164ER 159					4.018 (17+)	159
164ER 160					4.106 (18-)	160

164ER 161		4.121	18+			161
164ER 162					4.169 (16+)	162
164ER 163					4.345 (18-)	163
164ER 164		4.346	20+			164
164ER 165					4.364 (18+)	165
164ER 166					4.385 (19-)	166
164ER 167					4.413 (17+)	167
164ER 168					4.590 (19+)	168
164ER 169					4.673 (18+)	169
164ER 170					4.702 (20-)	170

164ER 171		4.868	20+			171
164ER 172					4.948 (19+)	172
164ER 173					4.987 (20-)	173

164ER 174		5.000	22+					174
164ER 175						5.018	(21-)	175
164ER 176						5.231	(21+)	176
164ER 177						5.238	(20+)	177
164ER 178						5.350	(22-)	178
164ER 179						5.541	(21+)	179
164ER 180		5.652	22+					180

164ER 181						5.678	(22-)	181
164ER 182						5.704	(23-)	182
164ER 183		5.729	24+					183
164ER 184						5.858	(22+)	184
164ER 185						6.053	(24-)	185
164ER 186						6.187	(23+)	186
164ER 187						6.442	(25-)	187
164ER 188						6.527	(24+)	188
164ER 189		6.529	26+					189
164ER 190						6.815	(26-)	190

S-p	=	6.854	(0.001)	-----	-----	-----	-----	-----
164ER 191						6.878	(25+)	191
164ER 192						7.238	(27-)	192
164ER 193						7.241	(26+)	193
164ER 194		7.399	28+					194
164ER 195						7.615	(27+)	195
164ER 196						7.641	(28-)	196
164ER 197						7.999	(28+)	197
164ER 198						8.095	(29-)	198
164ER 199		8.338	30+					199
164ER 200						8.397	(29+)	200

164ER 201						8.534	(30-)	201
164ER 202						8.804	(30+)	202
S-n	=	8.846	(0.005)	-----	-----	-----	-----	-----
164ER 203						9.016	(31-)	203
164ER 204						9.226	(31+)	204
164ER 205		9.342	32+					205
164ER 206						9.492	(32-)	206
164ER 207						9.659	(32+)	207

S-p	=	6.854	(0.001)	-----	-----	-----	-----	-----
S-n	=	8.846	(0.005)	-----	-----	-----	-----	-----
S-2p	=	12.339	(0.001)	-----	-----	-----	-----	-----
S-2n	=	15.751	(0.001)	-----	-----	-----	-----	-----
S-alpha	=	-1.305	(0.001)	-----	-----	-----	-----	-----

S+p	=	-4.276	(0.002)					
S+n	=	-6.650	(0.001)					
S+2p	=	-10.229	(0.007)					

S+2n = -15.124 (0.001)
S+alpha = 1.938 (0.001)

gap p = 2.577 (0.002)
gap n = 2.196 (0.005)
gap 2p = 2.110 (0.007)
gap 2n = 0.627 (0.001)
gap alpha = 0.633 (0.001)