^{164}Er $Z = 68$ $N = 96$ link to full NNDC output

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

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
164ER 208 |                 |                |  10.001     (33-)        208
164ER 209 | 10.410     34+  |                |                          209
164ER 210 |                 |                |  10.515     (34-)        210
----------                                                              -----------------
164ER 211 |                 |                |  11.049     (35-)        211
164ER 212 | 11.549     36+  |                |                          212


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      = -10.231 ( 0.007)
S+2n      = -15.126 ( 0.001)
S+alpha   =   1.936 ( 0.001)

gap p     =   2.578 ( 0.002)
gap n     =   2.196 ( 0.005)
gap 2p    =   2.108 ( 0.007)
gap 2n    =   0.625 ( 0.002)
gap alpha =   0.631 ( 0.002)
```