

^{150}Sm $Z = 62$ $N = 88$ [link to full NNDC output](#)

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

BE = 1239.243 (0.001) MeV

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

S-alpha=	-1.450	(0.002)	-----					
150SM 1	0.000	0+						1 STABLE
150SM 2	0.334	2+						2 48.4 PS 11
150SM 3	0.740	0+						3 19.7 PS 19
150SM 4	0.773	4+						4 6.5 PS 10
150SM 5	1.046	2+						5 0.86 PS +31-21
150SM 6			1.071	3-				6 0.11 PS +13-5
150SM 7			1.166	1-				7 0.06 PS +3-2
150SM 8	1.194	2+						8 1.3 PS 3
150SM 9	1.256	0+						9
150SM 10	1.279	6+						10 2.4 PS 7

150SM 11			1.358	5-				11
150SM 12	1.417	2+						12
150SM 13	1.449	4+						13 1.8 PS 8
150SM 14	1.505	3+						14
150SM 15					1.603			15
150SM 16	1.643	4+						16 0.54 PS 25
150SM 17					1.658	2(-)		17
150SM 18					1.673	(4+)		18
150SM 19			1.684	3-				19
150SM 20					1.714	1		20

150SM 21					1.760	(3-)		21
150SM 22			1.765	7-				22
150SM 23					1.773	2-,5-,(3-,4-)		23
150SM 24					1.786	(LE3)		24
150SM 25	1.794	2+						25
150SM 26	1.820	4+						26
150SM 27					1.822	(4)+		27
150SM 28					1.822	(3)-		28
150SM 29					1.833	(2)+		29
150SM 30	1.837	8+						30 1.3 PS 7

150SM 31					1.883	2+,5+		31
150SM 32					1.927	(2+)		32
150SM 33			1.952	3-				33
150SM 34					1.964	1(-)		34
150SM 35	1.970	4+						35
150SM 36					1.979	3-,4-		36
150SM 37	2.006	2+						37

150SM	38	2.020	5+					38
150SM	39	2.025	4+					39
150SM	40			2.035	5-			40

150SM	41					2.044	(3+,4+)	41
150SM	42					2.055	(2+,5+)	42
150SM	43					2.063	(3)+	43
150SM	44					2.070	2(-)	44
150SM	45					2.095	(5)+	45
150SM	46					2.107	(6)+	46
150SM	47			2.109	2- T05-			47
150SM	48					2.113		48
150SM	49	2.117	4+					49
150SM	50					2.119	(3-)	50

150SM	51	2.153	4+					51
150SM	52			2.160	1-			52
150SM	53					2.174		53
150SM	54	2.191	4+					54
150SM	55					2.194	(4+)	55
150SM	56					2.200	2,3,4	56
150SM	57					2.227	-	57
150SM	58			2.232	9-			58
150SM	59			2.234	2- T0 5-			59
150SM	60					2.250	(3+,4+)	60

150SM	61					2.260	(1-)	61
150SM	62					2.262	4(+)	62
150SM	63					2.264	4(+)	63
150SM	64					2.271		64
150SM	65					2.281	(3-)	65
150SM	66					2.289	3+,4+	66
150SM	67					2.292	3+,4+	67
150SM	68			2.294	3-			68
150SM	69					2.328	3-,4-	69
150SM	70					2.342	2+,3+,4+	70

150SM	71					2.360	3+,4+	71
150SM	72					2.367	(3+)	72
150SM	73					2.396	3+,4+	73
150SM	74	2.433	10+					74
150SM	75					2.444		75
150SM	76	2.455	3+					76
150SM	77					2.465	3+,4+	77
150SM	78					2.472	3+,4+	78
150SM	79					2.480	3+,4+	79
150SM	80			2.482	3-			80

150SM	81					2.496	(3)+	81
150SM	82					2.507	(1-,2+)	82

150SM 83				2.507	3+,4+	83	
150SM 84				2.522	3+,4+	84	
150SM 85				2.529	1,2+	85	
150SM 86				2.551	1(-)	86	11E-3 EV 4
150SM 87				2.556	3+,4+	87	
150SM 88				2.565	3+,4+	88	
150SM 89				2.575	3+,4+	89	
150SM 90				2.587	3+,4+	90	

150SM 91				2.589	(8-)	91	
150SM 92				2.602	(1+,2,3)	92	
150SM 93				2.612		93	
150SM 94		2.627	5-			94	
150SM 95				2.655	(3,5)	95	
150SM 96		2.665	5-			96	
150SM 97				2.669	1(-)	97	26E-3 EV 5
150SM 98				2.680	3	98	
150SM 99				2.701		99	
150SM 100		2.715	3-			100	

150SM 101				2.731		101	
150SM 102		2.744	11-			102	
150SM 103				2.754		103	
150SM 104				2.813	(1-,2)	104	
150SM 105				2.861		105	
150SM 106				2.881	1(-)	106	9E-3 EV 5
150SM 107				2.886	1(+)	107	17E-3 EV 4
150SM 108				2.893	(1-,2)	108	
150SM 109		2.911	3-			109	
150SM 110				2.929	(10)-	110	

150SM 111				2.937		111	
150SM 112				2.976	1(+)	112	12E-3 EV 3
150SM 113				2.996	11(-)	113	
150SM 114				3.012		114	
150SM 115	3.024	2+				115	
150SM 116				3.038	1,2+	116	
150SM 117	3.048	12+				117	
150SM 118				3.050	1(-)	118	
150SM 119				3.081	1(+)	119	
150SM 120				3.089	1,2+	120	

150SM 121				3.113	1(+)	121	
150SM 122				3.138	(1,2)	122	
150SM 123				3.182		123	
150SM 124				3.213	1(-)	124	
150SM 125				3.226		125	
150SM 126				3.239		126	
150SM 127				3.245		127	
150SM 128				3.258	1(-)	128	28E-3 EV 10

150SM 129				3.276		129
150SM 130			3.293	13-		130

150SM 131				3.323	1(+)	131 21E-3 EV 4
150SM 132				3.347		132
150SM 133				3.366		133
150SM 134				3.384	(12-)	134
150SM 135				3.389		135
150SM 136				3.417	1	136 21E-3 EV 8
150SM 137				3.431	1(-)	137
150SM 138				3.448		138
150SM 139				3.492	1(-)	139 97E-3 EV 9
150SM 140				3.523	(12)	140

150SM 141				3.528		141
150SM 142				3.566		142
150SM 143				3.592	1(+)	143 25E-3 EV 6
150SM 144				3.601	1(-)	144 22E-3 EV 12
150SM 145				3.612		145
150SM 146				3.647		146
150SM 147	3.676	14+				147
150SM 148				3.702	1(-)	148 78E-3 EV 16
150SM 149				3.730		149
150SM 150				3.753		150

150SM 151				3.777		151
150SM 152				3.790	1(-)	152 65E-3 EV 12
150SM 153	3.835	14+				153
150SM 154				3.876		154
150SM 155				3.907		155
150SM 156			3.914	15-		156
150SM 157				3.925		157
150SM 158				3.941	(14-)	158
150SM 159				3.943		159
150SM 160				3.970		160

150SM 161				4.000		161
150SM 162				4.025	(14)	162
150SM 163				4.035	(1)	163 19E-3 EV 10
150SM 164	4.306	16+				164
150SM 165	4.386	16+				165
150SM 166				4.576	(16-)	166
150SM 167			4.606	17-		167
150SM 168				4.612	(16)	168
150SM 169	4.929	18+				169
150SM 170				5.046	(18+)	170

150SM 171				5.251		171
150SM 172				5.277	(18-)	172
150SM 173			5.346	19-		173

150SM 174				5.581	(19-)	174
150SM 175		5.593	20+			175
150SM 176				5.739	(20+)	176
150SM 177				5.937	(21-)	177
150SM 178				6.022	(20-)	178
150SM 179				6.065		179
150SM 180				6.106	(21-)	180

150SM 181				6.308	(22+)	181
150SM 182				6.420	(23-)	182
150SM 183				6.421		183
150SM 184				6.449	(22+)	184
150SM 185				7.058	(25-)	185
150SM 186				7.068	(24+)	186
150SM 187				7.838	(26+)	187
150SM 188				7.854	(27-)	188
150SM 189				7.986	3-,4-	189
S-p	=	8.276	(0.003)	-----		
S-n	=	7.987	(0.002)	-----		
150SM 190				8.587	(28+)	190

150SM 191				8.761	(29-)	191
150SM 192				9.737	(31-)	192

S-p	=	8.276	(0.003)	-----		
S-n	=	7.987	(0.002)	-----		
S-2p	=	14.221	(0.002)	-----		
S-2n	=	13.858	(0.002)	-----		
S-alpha	=	-1.450	(0.002)	-----		
S+p	=	-4.891	(0.002)			
S+n	=	-5.596	(0.002)			
S+2p	=	-12.234	(0.002)			
S+2n	=	-13.854	(0.002)			
S+alpha	=	0.920	(0.002)			
gap p	=	3.385	(0.003)			
gap n	=	2.390	(0.003)			
gap 2p	=	1.987	(0.003)			
gap 2n	=	0.003	(0.003)			
gap alpha	=	-0.530	(0.003)			