

$^{151}\text{Sm}$        $Z = 62$        $N = 89$       adopted link      ENSDF link

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

BE = 1244.840 ( 0.001) MeV

Qbeta- = 0.077 ( 0.002) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-1.145	( 0.002)	-----		
151SM 1			0.000	5/2-	1 90 Y 8
151SM 2			0.005	3/2-	2 35 NS 1
151SM 3			0.066	7/2-	3 0.40 NS 6
151SM 4			0.070	5/2-	4 0.5 NS LT
151SM 5				0.092 (9/2)+	5 78 NS 1
151SM 6			0.105	3/2-	6 0.48 NS 3
151SM 7	0.148	13/2+			7
151SM 8	0.168	5/2+			8 0.38 NS 4
151SM 9				0.168 (5/2)-	9 39 PS +66-36
151SM 10			0.175	9/2-	10
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151SM 11			0.209	7/2-	11 47 PS AP
151SM 12				0.220 3/2+,5/2+	12
151SM 13				0.261 (11/2)-	13 1.4 US 1
151SM 14				0.285 1/2-,3/2-	14
151SM 15			0.295	9/2-	15 26 PS 7
151SM 16			0.303	7/2-	16
151SM 17	0.307	3/2+			17
151SM 18				0.314 (1/2-,3/2-)	18
151SM 19				0.315 (3/2-)	19
151SM 20	0.324	7/2+			20
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151SM 21	0.345	3/2+			21 9.3 PS 2
151SM 22	0.356	1/2+			22
151SM 23				0.358	23
151SM 24				0.383 (17/2+)	24
151SM 25	0.396	5/2+			25
151SM 26				0.405 (1/2,3/2,5/2+)	26
151SM 27				0.416 (5/2-,7/2-)	27
151SM 28				0.419 (11/2+)	28
151SM 29				0.423 (11/2)-	29
151SM 30				0.438 (5/2+)	30
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151SM 31				0.445 (13/2-)	31
151SM 32	0.446	5/2+			32 20 PS 3
151SM 33				0.449 (3/2)-	33
151SM 34				0.470 (5/2,7/2+)	34
151SM 35				0.478	35
151SM 36				0.490 (7/2)-	36

151SM	37				0.502	(11/2-)	37
151SM	38	0.502	1/2+				38
151SM	39				0.505	(5/2+)	39
151SM	40	0.521	3/2+				40
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151SM	41				0.530	(9/2+)	41
151SM	42			0.532	13/2-		42
151SM	43				0.621	(3/2-, 5/2, 7/2+)	43
151SM	44				0.632	(5/2)+	44
151SM	45				0.648	(15/2-)	45
151SM	46				0.663	3/2(+)	46
151SM	47				0.664	(5/2-, 7/2, 9/2-)	47
151SM	48				0.672	(15/2+)	48
151SM	49				0.673	(1/2-, 3/2-)	49
151SM	50				0.696	(13/2-)	50
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151SM	51				0.703	3/2(-)	51
151SM	52				0.706	(13/2)+	52
151SM	53			0.715	7/2-		53
151SM	54				0.722	(1/2-, 3/2-)	54
151SM	55				0.741	3/2(+)	55
151SM	56				0.742	(1/2-, 3/2-)	56
151SM	57				0.750	11/2-, 9/2-	57
151SM	58				0.754	(11/2+)	58
151SM	59				0.755	(5/2-, 7/2-)	59
151SM	60				0.758	(21/2+)	60
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151SM	61				0.771	(1/2-, 3/2-)	61
151SM	62				0.774	5/2(+)	62
151SM	63				0.777	(LE 7/2)	63
151SM	64				0.792	(5/2+)	64
151SM	65				0.797	(11/2+)	65
151SM	66				0.805	(3/2-, 5/2)	66
151SM	67				0.813	(15/2-)	67
151SM	68				0.822	(3/2-)	68
151SM	69				0.823	(3/2+, 5/2+)	69
151SM	70				0.836	(5/2+)	70
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151SM	71				0.845	(1/2-, 3/2-)	71
151SM	72				0.851	(13/2+)	72
151SM	73				0.852		73
151SM	74				0.869	(17/2-)	74
151SM	75				0.870	(5/2+)	75
151SM	76				0.878	5/2(+)	76
151SM	77				0.887	(5/2-, 7/2)	77
151SM	78				0.889	(1/2, 3/2, 5/2+)	78
151SM	79				0.895	(15/2-)	79
151SM	80				0.898		80
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151SM	81				0.921	(LE 5/2)	81

151SM 82				0.926	(5/2,7/2)	82
151SM 83				0.937		83
151SM 84				0.951	(3/2-)	84
151SM 85				0.953	3/2(+)	85
151SM 86				0.956		86
151SM 87				0.960	(LE 7/2)	87
151SM 88				0.964	5/2(+)	88
151SM 89				0.975	(17/2+)	89
151SM 90				0.988	(7/2+,9/2+)	90
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151SM 91				0.993	(13/2-)	91
151SM 92				0.994	(17/2-)	92
151SM 93				1.016	(3/2-,5/2,7/2-)	93
151SM 94				1.017	1/2,3/2,5/2+	94
151SM 95				1.022		95
151SM 96				1.041	(15/2+)	96
151SM 97				1.054	(19/2+)	97
151SM 98				1.060	(9/2-,11/2-)	98
151SM 99				1.078		99
151SM 100				1.081	(3/2+,5/2+)	100
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151SM 101				1.088		101
151SM 102				1.092	(15/2+)	102
151SM 103				1.096		103
151SM 104				1.108	(19/2-)	104
151SM 105				1.116		105
151SM 106				1.140		106
151SM 107				1.142	(19/2-)	107
151SM 108				1.145		108
151SM 109				1.161	(17/2-)	109
151SM 110				1.170		110
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151SM 111				1.188	1/2,3/2,5/2+	111
151SM 112				1.191	(17/2+)	112
151SM 113				1.194		113
151SM 114				1.206		114
151SM 115				1.211	1/2,3/2,5/2+	115
151SM 116				1.220		116
151SM 117				1.224	(17/2-)	117
151SM 118				1.226		118
151SM 119				1.236		119
151SM 120				1.237	(25/2+)	120
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151SM 121				1.277	1/2,3/2,5/2+	121
151SM 122				1.304	1/2,3/2,5/2+	122
151SM 123				1.322	(21/2+)	123
151SM 124				1.322		124
151SM 125				1.345	(3/2+,5/2+)	125
151SM 126		1.354	7/2-			126
151SM 127				1.361	(21/2-)	127

151SM 128			1.379	(19/2-)	128
151SM 129			1.380	(11/2-, 9/2-)	129
151SM 130			1.386	(5/2+, 3/2+)	130
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151SM 131			1.387	(19/2+)	131
151SM 132			1.409	1/2, 3/2, 5/2+	132
151SM 133			1.439	1/2, 3/2, 5/2+	133
151SM 134			1.479	(21/2-)	134
151SM 135			1.479	5/2+, 3/2+	135
151SM 136			1.490	(19/2+)	136
151SM 137			1.490	(13/2+, 11/2+)	137
151SM 138			1.503	(23/2-)	138
151SM 139			1.524		139
151SM 140			1.531	(21/2-)	140
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151SM 141			1.533	(23/2+)	141
151SM 142			1.546		142
151SM 143			1.625		143
151SM 144			1.626	(21/2+)	144
151SM 145			1.628	(17/2)	145
151SM 146			1.630	(23/2-)	146
151SM 147			1.705	(3/2+, 5/2+)	147
151SM 148			1.706	(21/2-)	148
151SM 149			1.721	(19/2)	149
151SM 150			1.740	(25/2+)	150
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151SM 151			1.746	(3/2+, 5/2+)	151
151SM 152			1.771		152
151SM 153			1.798	(29/2+)	153
151SM 154			1.815		154
151SM 155			1.830	(23/2+)	155
151SM 156			1.835	(19/2)	156
151SM 157			1.845		157
151SM 158			1.871		158
151SM 159			1.883	(21/2)	159
151SM 160			1.904		160
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151SM 161			1.907	(25/2-)	161
151SM 162			1.912	(25/2-)	162
151SM 163			1.917	(21/2)	163
151SM 164			1.927	(27/2-)	164
151SM 165			1.937	(23/2-)	165
151SM 166			1.953		166
151SM 167			1.955	(23/2+)	167
151SM 168			1.991		168
151SM 169			2.019	(25/2-)	169
151SM 170			2.040	(3/2+, 5/2+)	170
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151SM 171			2.041	(21/2)	171
151SM 172			2.045		172

151SM 173			2.080		173
151SM 174			2.089	(27/2+)	174
151SM 175			2.098	(25/2+)	175
151SM 176			2.102		176
151SM 177			2.107	(23/2)	177
151SM 178			2.119		178
151SM 179			2.133	(23/2)	179
151SM 180			2.134		180
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151SM 181			2.165		181
151SM 182			2.205		182
151SM 183			2.205	(27/2-)	183
151SM 184			2.229	(29/2+)	184
151SM 185			2.233		185
151SM 186			2.242	(25/2-)	186
151SM 187			2.248	(23/2)	187
151SM 188			2.259		188
151SM 189			2.299		189
151SM 190			2.351	(25/2)	190
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151SM 191			2.351	(27/2+)	191
151SM 192			2.364	(25/2)	192
151SM 193			2.376	(29/2-)	193
151SM 194			2.423	(31/2-)	194
151SM 195			2.427	(33/2+)	195
151SM 196			2.444	(25/2)	196
151SM 197			2.472	(27/2+)	197
151SM 198			2.510	(29/2-)	198
151SM 199			2.560	(29/2-)	199
151SM 200			2.601	(29/2+)	200
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151SM 201			2.611	(27/2)	201
151SM 202			2.613	(27/2)	202
151SM 203			2.651	(27/2)	203
151SM 204			2.712	(31/2+)	204
151SM 205			2.762	(29/2-)	205
151SM 206			2.788	(33/2+)	206
151SM 207			2.821	(31/2-)	207
151SM 208			2.861	(29/2)	208
151SM 209			2.892	(29/2)	209
151SM 210			2.898	(33/2-)	210
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151SM 211			2.900		211
151SM 212			2.936	(31/2+)	212
151SM 213			2.991	(35/2-)	213
151SM 214			3.035	(31/2+)	214
151SM 215			3.107	(31/2)	215
151SM 216			3.108	(37/2+)	216
151SM 217			3.133	(33/2-)	217
151SM 218			3.140	(33/2-)	218

151SM 219				3.183	(33/2+)	219
151SM 220				3.186	(31/2)	220
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151SM 221				3.358	(33/2-)	221
151SM 222				3.389	(35/2+)	222
151SM 223				3.409	(37/2+)	223
151SM 224				3.440	(35/2-)	224
151SM 225				3.478	(37/2-)	225
151SM 226				3.494	(33/2)	226
151SM 227				3.627	(39/2-)	227
151SM 228				3.765	(37/2-)	228
151SM 229				3.812	(35/2)	229
151SM 230				3.829	(41/2+)	230
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151SM 231				4.080	(41/2+)	231
151SM 232				4.106	(39/2+)	232
151SM 233				4.122	(41/2-)	233
151SM 234				4.324	(43/2-)	234
151SM 235				4.574	(45/2+)	235
S-n	=	5.596	( 0.002)	-----		
151SM 236				5.900		236
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S-p	=	8.268	( 0.020)	-----		
S-n	=	5.596	( 0.002)	-----		
S-2p	=	14.779	( 0.002)	-----		
S-2n	=	13.583	( 0.002)	-----		
S-alpha	=	-1.145	( 0.002)	-----		
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S+p	=	-5.601	( 0.002)			
S+n	=	-8.258	( 0.002)			
S+2p	=	-12.884	( 0.002)			
S+2n	=	-14.126	( 0.002)			
S+alpha	=	0.081	( 0.001)			
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gap p	=	2.667	( 0.020)			
gap n	=	-2.661	( 0.002)			
gap 2p	=	1.895	( 0.003)			
gap 2n	=	-0.543	( 0.002)			
gap alpha	=	-1.064	( 0.002)			