

$^{150}\text{Dy}$        $Z = 66$        $N = 84$       [link to full NNDC output](#)

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

BE = 1228.372 ( 0.004) MeV

Qbeta+ = 1.796 ( 0.009) MeV

	Energy T	J+	J-	J-other	T1/2
-----					
S-alpha=	-4.351	( 0.006)	-----		
150DY 1	0.000	0+			1 7.17 M 5
150DY 2	0.804	2+			2
150DY 3				1.395 (3-)	3
150DY 4	1.457	4+			4
150DY 5	1.786	2+			5
150DY 6	1.851	6+			6
150DY 7				1.893 (0+)	7
150DY 8				1.983 (2+)	8
150DY 9				2.051 (4-)	9
150DY 10				2.187 (5-)	10
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150DY 11				2.226 3,2-,(2+)	11
150DY 12				2.254 0+:2,(3-)	12
150DY 13				2.318 2+,(1)	13
150DY 14				2.322 (2+)	14
150DY 15				2.331 4+,3+,(2+,3-)	15
150DY 16				2.337 2+,(1-)	16
150DY 17				2.347 2+,(1-)	17
150DY 18	2.402	8+			18
150DY 19				2.412 4+,(2+,3)	19
150DY 20				2.419 3-,4,5-	20
-----					
150DY 21				2.435 1-,2	21
150DY 22				2.461 2+,(1-)	22
150DY 23				2.510	23
150DY 24				2.521 3,4+	24
150DY 25	2.529	2+			25
150DY 26				2.583 (6,7,8)	26
150DY 27				2.618 3,4+,(2+)	27
150DY 28				2.635 2,3,4	28
150DY 29	2.672	0+			29
150DY 30				2.687 (8)	30
-----					
150DY 31				2.697 2,3,4	31
150DY 32				2.714 2+,(1-)	32
150DY 33				2.715 (8)	33
150DY 34				2.741 3-,(2+)	34
150DY 35				2.801 2+,(1-)	35
150DY 36			2.813	9-	36

150DY 37						2.836				37
150DY 38						2.845	1-, 2, 3-			38
150DY 39						2.856	3, (2+, 4+)			39
150DY 40						2.911	(4, 5, 6)			40
-----										
150DY 41						2.928				41
150DY 42						2.930	4, (3-)			42
150DY 43						2.944	4, (3, 5-)			43
150DY 44						2.947	(3, 4, 5)			44
150DY 45						2.956	3-, 4+			45
150DY 46						2.972	2+, (1-)			46
150DY 47						2.980	2, 3			47
150DY 48						3.006	4+, 3-			48
150DY 49						3.010	0+, 1, 2, (3-)			49
150DY 50		3.026		10+						50 1.1 NS 3
-----										
150DY 51						3.039	2+, (1-)			51
150DY 52						3.068	2, 3, 4, (1-)			52
150DY 53						3.069	1, (2+)			53
150DY 54						3.083	(3, 4, 5)			54
150DY 55						3.102	2, (1-, 3-)			55
150DY 56						3.108	(3, 4, 5)			56
150DY 57						3.113	3, (2+, 4+)			57
150DY 58						3.131	2, 3, (4+, 1-)			58
150DY 59						3.134	(3, 4, 5)			59
150DY 60						3.141	0+, 1, 2, 3, (4+)			60
-----										
150DY 61						3.150	4, (3-, 5-)			61
150DY 62						3.152	3, (2+, 4+)			62
150DY 63						3.156	3, (4+)			63
150DY 64						3.173	(2, 3)			64
150DY 65						3.177	4+, (3-)			65
150DY 66						3.183	2-, 3-			66
150DY 67						3.195	(0+:3)			67
150DY 68						3.198	(2, 3)			68
150DY 69						3.199	(3, 4)			69
150DY 70						3.244	(8, 9, 10)			70
-----										
150DY 71						3.258	(2, 3, 4)			71
150DY 72						3.279	2+, (1-)			72
150DY 73						3.292	(3)			73
150DY 74						3.294	(4)			74
150DY 75						3.305	(3, 4)			75
150DY 76						3.326	(0+:3)			76
150DY 77						3.335	1, 2+			77
150DY 78						3.340	2+, (1-)			78
150DY 79						3.349	(3, 4, 5)			79
150DY 80						3.356	(3)			80
-----										
150DY 81						3.366	(2, 3, 4)			81

150DY 82		3.379	3-			82
150DY 83				3.383	(3)	83
150DY 84				3.395	(3,4,5)	84
150DY 85				3.405	(3,4)	85
150DY 86				3.413	(3,4,5)	86
150DY 87				3.414	(3,4)	87
150DY 88				3.423	(1,2,3)	88
150DY 89				3.441	(1,2,3)	89
150DY 90				3.441	(3,4,5)	90
-----						
150DY 91				3.459	3-,4+	91
150DY 92				3.465	(2,3,4)	92
150DY 93				3.465	(2,3,4)	93
150DY 94				3.467	(3,4,5)	94
150DY 95				3.472	(11-)	95
150DY 96				3.474	(2,3,4)	96
150DY 97				3.480	(2,3)	97
150DY 98				3.496	(0+:3)	98
150DY 99				3.497	(0+,2,3,4)	99
150DY 100				3.501	(2,3)	100
-----						
150DY 101				3.529	3,(4-)	101
150DY 102				3.529	(0+:3)	102
150DY 103				3.530	(1,2,3)	103
150DY 104				3.536	(2,3)-	104
150DY 105				3.542	(0+:3)	105
150DY 106				3.550	(2,3,4)	106
150DY 107				3.565	(2,3,4)	107
150DY 108		3.568	3-			108
150DY 109				3.578	(0+:3)	109
150DY 110				3.586	(3,4,5)	110
-----						
150DY 111				3.589	(1-)&(3-)	111
150DY 112				3.601	(3,4)	112
150DY 113				3.613	(3,4,5)	113
150DY 114				3.639	(3,4)	114
150DY 115				3.655	(2,3)-	115
150DY 116				3.660	(3,4)	116
150DY 117		3.691	3-			117
150DY 118				3.694		118
150DY 119		3.704	3-			119
150DY 120				3.724	(2,3,4)	120
-----						
150DY 121		3.733	3-			121
150DY 122				3.744	(3,4,5)	122
150DY 123				3.750	(1,2,3)	123
150DY 124				3.767	(2,3,4)	124
150DY 125				3.783	(2,3,4)	125
150DY 126				3.789	(0+:3)	126
150DY 127				3.793	2+,1-	127

150DY 128	3.804	2+					128
150DY 129			3.813	3-			129
150DY 130					3.814	(8,9,10)	130
-----							
150DY 131			3.834	1-			131
150DY 132	3.835	12+					132
150DY 133					3.858	1-&3-	133
150DY 134			3.870	3-			134
150DY 135					3.874	(2,3)-	135
150DY 136					3.892	(3,2)-	136
150DY 137			3.896	1-			137
150DY 138			3.901	3-			138
150DY 139					3.904	(3,2)-	139
150DY 140			3.916	3-			140
-----							
150DY 141			3.924	3-			141
150DY 142					3.927	(2,3)-	142
150DY 143					3.930	(2,3)-	143
150DY 144			3.968	3-			144
150DY 145			3.981	3-			145
150DY 146					4.000	(3,2)-	146
150DY 147			4.009	1-			147
150DY 148					4.014	(8,9,10)	148
150DY 149					4.046	(2,3)-	149
150DY 150					4.053	(2,3)-	150
-----							
150DY 151			4.087	1-			151
150DY 152			4.100	1-			152
150DY 153					4.102	1-&(2,3)-	153
150DY 154					4.110		154
150DY 155					4.117	(2,3)-	155
150DY 156					4.119	(3,2)-	156
150DY 157					4.129	(2,3)-	157
150DY 158					4.149	(8,9,10)	158
150DY 159					4.152	(3,2)-	159
150DY 160					4.154	(2,3)-	160
-----							
150DY 161			4.163	3-			161
150DY 162					4.171	3-&1-	162
150DY 163					4.197	(2,3)-	163
150DY 164			4.199	1-			164
150DY 165					4.208	(2,3)-	165
150DY 166					4.216	(3,2)-	166
150DY 167			4.221	3-			167
150DY 168					4.224	(3,2)-	168
150DY 169			4.234	1-			169
150DY 170					4.253	(3,2)-	170
-----							
150DY 171			4.255	1-			171
150DY 172					4.265	(2,3)-	172

150DY 173				4.270	(2,3)-	173
150DY 174			4.278	3-		174
150DY 175			4.294	3-		175
150DY 176				4.294	(8,9,10)	176
150DY 177			4.305	1-		177
150DY 178				4.311	(2,3)-	178
150DY 179				4.322	(2,3)-	179
150DY 180	4.337	14+				180
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150DY 181				4.340	(2,3)-	181
150DY 182			4.342	1-		182
150DY 183				4.345	1-&(2,3)-	183
150DY 184			4.355	1-		184
150DY 185				4.357	(2,3)-	185
150DY 186			4.362	1-		186
150DY 187				4.373	(3)-	187
150DY 188			4.377	1-		188
150DY 189				4.390	(2,3)-	189
150DY 190			4.401	3-		190
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150DY 191				4.417	(2,3)-	191
150DY 192			4.422	3-		192
150DY 193				4.427	(3,2)-	193
150DY 194				4.429	(3,2)-	194
150DY 195			4.432	1-		195
150DY 196				4.439	(2,3)-	196
150DY 197				4.443	(2,3)-	197
150DY 198			4.444	1-		198
150DY 199			4.446	3-		199
150DY 200			4.450	1-		200
-----						
150DY 201				4.461	(3)-	201
150DY 202				4.470	(2,3)-	202
150DY 203			4.481	1-		203
150DY 204			4.483	3-		204
150DY 205				4.487	(3)-	205
150DY 206			4.488	1-		206
150DY 207			4.492	3-		207
150DY 208			4.496	3-		208
150DY 209				4.512	1-&(2,3)-	209
150DY 210			4.518	1-		210
-----						
150DY 211				4.519	(3,2)-	211
150DY 212			4.522	3-		212
150DY 213				4.524	(2,3)-	213
150DY 214				4.544	1-&3-	214
150DY 215				4.547	(3,2)-	215
150DY 216				4.549	(2,3)-	216
150DY 217				4.550	(2,3)-	217
150DY 218				4.552	(2,3)-	218

150DY 219				4.553	(3)-	219
150DY 220	4.567	16+				220 1.7 NS 2
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150DY 221			4.574	3-		221
150DY 222					4.576 (3)-	222
150DY 223			4.584	1-		223
150DY 224			4.595	1-		224
150DY 225					4.597 (2,3)-	225
150DY 226			4.602	3-		226
150DY 227			4.606	1-		227
150DY 228					4.608 (3,2)-	228
150DY 229			4.610	3-		229
150DY 230					4.641 (2,3)-	230
-----						
150DY 231					4.649 (2,3)-	231
150DY 232			4.653	1-		232
150DY 233					4.660 (2,3)-	233
150DY 234					4.666 (2,3)-	234
150DY 235					4.668 (2,3)-	235
150DY 236			4.695	3-		236
150DY 237					4.698 1-&3-	237
150DY 238					4.706 (2,3)-	238
150DY 239			4.712	1-		239
150DY 240					4.718 (3,2)-	240
-----						
150DY 241					4.733 (2,3)-	241
150DY 242			4.744	1-		242
150DY 243			4.754	3-		243
150DY 244					4.758 (2,3)-	244
150DY 245			4.759	3-		245
150DY 246					4.767 (2,3)-	246
150DY 247					4.770 (3,2)-	247
150DY 248					4.785 (2,3)-	248
150DY 249			4.789	3-		249
150DY 250			4.794	1-		250
-----						
150DY 251					4.799 (2,3)-	251
150DY 252					4.804 (2,3)-	252
150DY 253			4.808	3-		253
150DY 254			4.809	1-		254
150DY 255					4.835 (2,3)-	255
150DY 256			4.850	3-		256
150DY 257					4.870 (2,3)-	257
150DY 258					4.873 (2,3)-	258
150DY 259			4.882	3-		259
150DY 260			4.883	1-		260
-----						
150DY 261					4.901 (2,3)-	261
150DY 262					4.910 (2,3)-	262
150DY 263					4.938 (2,3)-	263

150DY 264		4.949	3-			264
150DY 265		4.956	3-			265
150DY 266				4.973	(2,3)-	266
150DY 267				4.996	(2,3)-	267
150DY 268		5.001	1-			268
150DY 269				5.006	(2,3)-	269
150DY 270				5.011	(2,3)-	270
-----						
150DY 271		5.032	1-			271
150DY 272				5.033	(2,3)-	272
150DY 273				5.035	(2,3)-	273
150DY 274				5.068	(2,3)-	274
150DY 275	5.071	18+				275
150DY 276				5.077	(2,3)-	276
150DY 277		5.089	3-			277
150DY 278				5.098	(2,3)-	278
150DY 279				5.106	(2,3)-	279
S-p =	5.110	( 0.006)				
-----						
150DY 280				5.111	(2,3)-	280
-----						
150DY 281				5.129	(2,3)-	281
150DY 282				5.143	(3,2)-	282
150DY 283		5.166	3-			283
150DY 284				5.176	(2,3)-	284
150DY 285				5.181	(2,3)-	285
150DY 286				5.194	(2,3)-	286
150DY 287				5.208	(2,3)-	287
150DY 288				5.211	(2,3)-	288
150DY 289				5.219	(2,3)-	289
150DY 290				5.225	(3,2)-	290
-----						
150DY 291				5.247	(2,3)-	291
150DY 292		5.250	3-			292
150DY 293				5.252	(3,2)-	293
150DY 294		5.255	3-			294
150DY 295		5.296	3-			295
150DY 296				5.327	(2,3)-	296
150DY 297				5.334	(2,3)-	297
150DY 298		5.353	3-			298
150DY 299		5.360	1-			299
150DY 300				5.415	(2,3)-	300
-----						
150DY 301				5.416	17(+)	301
150DY 302				5.451	(2,3)-	302
150DY 303				5.613	18(-)	303
150DY 304				5.662	(2,3)-	304
150DY 305				5.726	(2,3)-	305
150DY 306		5.813	19-			306
150DY 307				5.880	(2,3)-	307
150DY 308				5.888	(2,3)-	308

150DY 309			6.019	20-		309
150DY 310			6.395	21-		310
-----						
150DY 311					6.816	311
150DY 312					7.000	312
150DY 313					7.047	313
150DY 314	7.102	22+				314
150DY 315					7.289	315
150DY 316					7.372	316
150DY 317			7.474	22-		317
-----						
S-2p	=	7.618	( 0.005)			
150DY 318					7.650	318
150DY 319					7.726	319
150DY 320			7.741	23-		320
-----						
150DY 321					7.755	321
150DY 322					7.955	322
150DY 323			8.008	24-		323
150DY 324					8.123	324
150DY 325					8.303	325
150DY 326					8.405	326
150DY 327					8.425	327
150DY 328					8.445	328
150DY 329					8.481	329
150DY 330					8.545	330
-----						
150DY 331			8.611	25-		331
150DY 332					8.729	332
150DY 333					8.764	333
150DY 334					8.778	334
150DY 335					8.829	335
150DY 336					8.844	336
150DY 337					8.868	337
150DY 338					8.905	338
150DY 339					8.921	339
150DY 340					8.952	340
-----						
150DY 341					9.063	341
150DY 342	9.107	26+				342
150DY 343					9.274	343
150DY 344					9.306	344
150DY 345					9.399	345
-----						
S-n	=	9.685	( 0.010)			
150DY 346					9.896	346
150DY 347					9.975	347
150DY 348					10.239	348
150DY 349					10.327	349
150DY 350					10.889	350
-----						
150DY 351					11.006	351

1.6 NS 6



150DY 352				11.218	(31-)	352
150DY 353				11.305	(31-)	353
150DY 354				11.392		354
150DY 355				11.702	(32-)	355
150DY 356				11.803		356
150DY 357				12.317		357
150DY 358				12.352	(33-)	358
150DY 359				12.498	(33)	359
150DY 360				12.736	(34+)	360
-----						
150DY 361				12.776	(34-)	361
150DY 362				12.927	(35)	362
150DY 363				13.598	(36)	363
150DY 364				13.803	(36+)	364
150DY 365				14.056	(37)	365
150DY 366				14.992	(39)	366
150DY 367				15.947		367
150DY 368				16.291		368

S-p = 5.110 ( 0.006)-----  
S-n = 9.685 ( 0.010)-----  
S-2p = 7.618 ( 0.005)-----  
S-2n = 17.593 ( 0.010)-----  
S-alpha= -4.351 ( 0.006)-----

S+p = -1.602 ( 0.009)  
S+n = -7.514 ( 0.005)  
S+2p = -5.769 ( 0.010)  
S+2n = -16.951 ( 0.006)  
S+alpha = 4.280 ( 0.007)

gap p = 3.508 ( 0.011)  
gap n = 2.171 ( 0.012)  
gap 2p = 1.849 ( 0.011)  
gap 2n = 0.642 ( 0.012)  
gap alpha = -0.072 ( 0.009)