

$^{152}\text{Dy}$        $Z = 66$        $N = 86$       [link to full NNDC output](#)

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

BE = 1245.323 ( 0.005) MeV

Qbeta+ = 0.599 ( 0.040) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-3.726	( 0.005)	-----		
152DY 1	0.000	0+			1 2.38 H 2
152DY 2	0.614	2+			2 10 PS 5
152DY 3			1.228	3-	3
152DY 4	1.261	4+			4 10.6 PS 16
152DY 5				1.314 (2+)	5
152DY 6				1.448 (2+)	6
152DY 7				1.453 1+,2+	7
152DY 8			1.698	1-	8
152DY 9	1.751	4+			9
152DY 10			1.782	5-	10
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152DY 11				1.841 1-,2-,3-	11
152DY 12	1.945	6+			12 5.1 PS 21
152DY 13	2.071	6+			13
152DY 14				2.297 (7)+	14
152DY 15			2.343	7-	15
152DY 16	2.437	8+			16 10 PS 3
152DY 17	2.703	8+			17
152DY 18				2.727 (8)-	18
152DY 19			2.906	9-	19
152DY 20				2.930 (7)-	20
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152DY 21			3.150	8-	21
152DY 22				3.161 (10)-	22 3.9 NS 9
152DY 23				3.173 (10-)	23
152DY 24	3.173	10+			24
152DY 25	3.184	10+			25
152DY 26			3.228	8-	26
152DY 27				3.244 (9)+	27
152DY 28	3.395	10+			28
152DY 29				3.487 (11-)	29
152DY 30				3.535 8-,9-	30
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152DY 31	3.820	12+			31
152DY 32				3.969 (12-)	32
152DY 33				3.992 (12-)	33
152DY 34	4.016	8+			34
152DY 35	4.017	12+			35
152DY 36				4.126 (13-)	36

152DY	37					4.135			37
152DY	38	4.430	14+						38
152DY	39					4.495	(12-)		39
152DY	40	4.650	14+						40
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152DY	41					4.659	(14-)		41
152DY	42					4.734	(13+,14-)		42
152DY	43					4.805	13+,14+		43
152DY	44					4.818	(15-)		44
152DY	45	5.035	15+						45
152DY	46	5.088	17+						46
152DY	47					5.178	(14-)		47
152DY	48	5.216	16+						48
152DY	49	5.342	18+						49
152DY	50					5.532	(17-)		50
-----									
152DY	51	5.762	18+						51
S-p	=	5.783 ( 0.006)			-----				
152DY	52				5.867	19-			52
152DY	53						5.884	(16-)	53
152DY	54						6.052	(20+)	54
152DY	55						6.111	(20+)	55
152DY	56				6.129	21-			56
152DY	57						6.172		57
152DY	58						6.225	(20)	58
152DY	59						6.259	(19-)	59
152DY	60	6.370	20+						60
-----									
152DY	61						6.536		61
152DY	62						6.625	(18-)	62
152DY	63						6.737	(22+)	63
152DY	64						7.024	(21-)	64
152DY	65	7.051	22+						65
152DY	66				7.120	23-			66
152DY	67						7.227	(24+)	67
152DY	68						7.413	(20-)	68
152DY	69				7.661	25-			69
152DY	70						7.710	(24+)	70
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152DY	71	7.804	24+						71
152DY	72						7.849	(23-)	72
152DY	73				7.882	27-			73
152DY	74						8.186		74
152DY	75						8.239	(22-)	75
152DY	76						8.338		76
152DY	77	8.629	26+						77
152DY	78						8.736	(25-)	78
152DY	79	8.849	28+						79
S-2p	=	8.932 ( 0.008)			-----				
152DY	80	8.996	29+						80

152DY 81				9.118	(24-)	81		
152DY 82				9.180	(26+:30+)	82		
152DY 83		9.399	30+			83	7 PS	1
S-n = 9.437 ( 0.006)-----								
152DY 84		9.523	28+			84	0.168 PS	14
152DY 85				9.688	(27-)	85		
152DY 86				10.012		86		
152DY 87				10.049	(26-)	87		
152DY 88		10.110	31+			88		
152DY 89				10.257		89		
152DY 90		10.484	30+			90	0.112 PS	7
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152DY 91				10.541	(32+)	91	6.2 PS	6
152DY 92				10.643	(24+)	92		
152DY 93				10.705	(29-)	93		
152DY 94				10.795	(33+)	94	15 PS	5
152DY 95				10.961		95		
152DY 96				11.033	(28-)	96		
152DY 97				11.209		97		
152DY 98				11.245	(26+)	98		
152DY 99				11.395		99		
152DY 100				11.443		100		
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152DY 101		11.512	32+			101	0.063 PS	7
152DY 102				11.575	(34-)	102		
152DY 103				11.602		103		
152DY 104				11.789	(31-)	104		
152DY 105				11.793		105		
152DY 106				11.859		106		
152DY 107				11.893	(28+)	107		
152DY 108				11.963	(35-)	108	1.2 PS	4
152DY 109				12.072	(30-)	109		
152DY 110				12.179		110		
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152DY 111				12.325	(36-)	111		
152DY 112				12.429		112		
152DY 113				12.586	(30+)	113	30 FS	
152DY 114		12.604	34+			114	0.056 PS	7
152DY 115				12.717		115		
152DY 116				12.938	(33-)	116		
152DY 117				12.946		117		
152DY 118				13.049		118		
152DY 119				13.117		119		
152DY 120				13.169	(32-)	120		
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152DY 121				13.253		121		
152DY 122				13.324	(32+)	122	22 FS	
152DY 123				13.397		123		
152DY 124				13.493		124		

152DY 125				13.517		125
152DY 126				13.687		126
152DY 127				13.722		127
152DY 128		13.763	36+			128 0.035 PS 7
152DY 129				14.108	(34+)	129 16 FS
152DY 130				14.154	(35-)	130
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152DY 131				14.237	(31-)	131
152DY 132				14.325	(34-)	132
152DY 133				14.485		133
152DY 134				14.663		134
152DY 135				14.742		135
152DY 136				14.938	(36+)	136 12 FS
152DY 137		14.984	38+			137 0.077 PS 7
152DY 138				14.999	(33-)	138
152DY 139				15.436	(37-)	139
152DY 140				15.543	(36-)	140
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152DY 141				15.803	(35-)	141
152DY 142				15.814	(38+)	142 9.3 FS
152DY 143		16.267	40+			143 0.063 PS 14
152DY 144				16.397		144
152DY 145				16.653	(37-)	145
152DY 146				16.737	(40+)	146 7.1 FS
152DY 147				16.779	(39-)	147
152DY 148				16.824	(38-)	148
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S-2n = 16.951 ( 0.006)-----						
152DY 149				17.539		149
152DY 150				17.548	(39-)	150
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152DY 151				17.609	(42+)	151 0.021 PS LT
152DY 152				17.708	(42+)	152 5.5 FS
152DY 153				18.172	(40-)	153
152DY 154				18.179	(41-)	154
152DY 155				18.489	(41-)	155
152DY 156				18.725	(44+)	156 4.4 FS
152DY 157				19.008	(44+)	157 0.021 PS LT
152DY 158				19.475	(43-)	158
152DY 159				19.590	(42-)	159
152DY 160				19.790	(46+)	160 3.5 FS
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152DY 161				X		161
152DY 162				825.9+X		162
152DY 163				1681.3+X		163
152DY 164				2576.5+X		164
152DY 165				3508.7+X		165
152DY 166				4478.6+X		166
152DY 167				5487.1+X		167
152DY 168				6536.3+X		168
152DY 169				7628.9+X		169

152DY 170		8766.5+X	170
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152DY 171		9949.9+X	171
152DY 172		11180.5+X	172
152DY 173		12458.2+X	173
152DY 174		13785.7+X	174
152DY 175		15162.8+X	175
152DY 176		16586.4+X	176
152DY 177		18063.5+X	177
152DY 178		Y	178
152DY 179		793.00+Y	179
152DY 180		1632.7+Y	180
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152DY 181		2523.9+Y	181
152DY 182		3468.7+Y	182
152DY 183		4466.9+Y	183
152DY 184		5519.3+Y	184
152DY 185		6624.2+Y	185
152DY 186		7781.1+Y	186
152DY 187		8989.0+Y	187
152DY 188		10249.4+Y	188
152DY 189		11563.2+Y	189
152DY 190		12931.9+Y	190
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152DY 191		14357.7+Y	191
152DY 192		15840.4+Y	192
152DY 193		17384.5+Y	193
152DY 194		18989.2+Y	194
152DY 195		Z	195
152DY 196		669.6+Z	196
152DY 197		1390.6+Z	197
152DY 198		2163.4+Z	198
152DY 199		2988.4+Z	199
152DY 200		3865.2+Z	200
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152DY 201		4794.2+Z	201
152DY 202		5772.9+Z	202
152DY 203		6802.7+Z	203
152DY 204		7883.5+Z	204
152DY 205		9014.1+Z	205
152DY 206		10194.4+Z	206
152DY 207		11422.4+Z	207
152DY 208		12703.4+Z	208
152DY 209		14031.2+Z	209
152DY 210		15407.1+Z	210
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152DY 211		U	211
152DY 212		642.1+U	212
152DY 213		1337.0+U	213
152DY 214		2084.0+U	214

152DY 215			2882.8+U	215
152DY 216			3733.9+U	216
152DY 217			4635.2+U	217
152DY 218			5589.0+U	218
152DY 219			6594.1+U	219
152DY 220			7649.1+U	220
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152DY 221			8754.1+U	221
152DY 222			9909.9+U	222
152DY 223			11115.7+U	223
152DY 224			12369.5+U	224
152DY 225			13673.7+U	225
S-p	=	5.783 ( 0.006)	-----	
S-n	=	9.437 ( 0.006)	-----	
S-2p	=	8.932 ( 0.008)	-----	
S-2n	=	16.951 ( 0.006)	-----	
S-alpha	=	-3.726 ( 0.005)	-----	
S+p	=	-2.183 ( 0.007)		
S+n	=	-7.096 ( 0.006)		
S+2p	=	-7.065 ( 0.007)		
S+2n	=	-16.419 ( 0.009)		
S+alpha	=	3.481 ( 0.025)		
gap p	=	3.600 ( 0.009)		
gap n	=	2.340 ( 0.008)		
gap 2p	=	1.867 ( 0.010)		
gap 2n	=	0.532 ( 0.011)		
gap alpha	=	-0.245 ( 0.026)		