

^{165}Dy $Z = 66$ $N = 99$ adopted link ENSDF link

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

BE = 1343.745 (0.001) MeV

Qbeta- = 1.286 (0.001) MeV

	Energy T	J+		J-		J-other		T1/2
165DY 1	0.000	7/2+						1 2.332 H 4
165DY 2	0.083	9/2+						2 0.035 NS LT
165DY 3				0.108	1/2-			3 1.257 M 6
165DY 4				0.159	3/2-			4 1.8 NS 10
165DY 5				0.181	5/2-			5 2.5 NS 10
165DY 6				0.184	5/2-			6 1.0 NS 1
165DY 7	0.186	11/2+						7
165DY 8				0.262	7/2-			8 0.035 NS LT
165DY 9				0.298	7/2-			9 0.035 NS LT
165DY 10						0.308 (13/2+)		10
165DY 11				0.337	9/2-			11
165DY 12				0.361	9/2-			12
165DY 13						0.405		13
165DY 14						0.480 (11/2-)		14
165DY 15						0.519 (11/2-)		15
165DY 16						0.530 (1/2+,3/2+,5/2)		16
S-alpha=	0.531 (0.002)							
165DY 17				0.533	5/2-			17
165DY 18	0.539	3/2+						18
165DY 19				0.570	1/2-			19
165DY 20				0.574	3/2-			20
165DY 21	0.584	5/2+						21
165DY 22				0.605	3/2-			22
165DY 23						0.608 (5/2,7/2)-		23
165DY 24						0.629 (5/2)-		24
165DY 25	0.649	7/2+						25
165DY 26				0.658	5/2-			26
165DY 27						0.703 (5/2:11/2)-		27
165DY 28						0.706 (7/2)-		28
165DY 29						0.730		29
165DY 30				0.738	7/2-			30
165DY 31						0.771		31
165DY 32						0.785		32
165DY 33						0.803 (9/2-)		33
165DY 34						0.819		34
165DY 35						0.835		35
165DY 36						0.877		36

165DY 37		0.912	5/2+					37
165DY 38						0.921	(11/2-)	38
165DY 39						0.957		39
165DY 40						0.977	(7/2,9/2)+	40

165DY 41						0.988		41
165DY 42						1.016	3/2,1/2	42
165DY 43						1.032		43
165DY 44						1.052		44
165DY 45						1.065		45
165DY 46						1.080	1/2-,3/2-	46
165DY 47					1.088	3/2-		47
165DY 48						1.103	(3/2)-	48
165DY 49						1.108	(3/2)+	49
165DY 50						1.136	(5/2-)	50

165DY 51						1.141	(3/2)+	51
165DY 52						1.158	(1/2-,3/2-)	52
165DY 53						1.167	(3/2+)	53
165DY 54						1.169		54
165DY 55						1.175	(3/2-,5/2-)	55
165DY 56					1.197	5/2-		56
165DY 57						1.218	(5/2+)	57
165DY 58						1.257	1/2,3/2	58
165DY 59						1.283		59
165DY 60						1.309	(3/2-,5/2-)	60

165DY 61						1.317		61
165DY 62						1.321	(1/2-,3/2,5/2-)	62
165DY 63						1.328		63
165DY 64						1.337	(1/2+,3/2+)	64
165DY 65						1.352		65
165DY 66						1.356		66
165DY 67						1.376	1/2+,3/2+	67
165DY 68						1.381	1/2+,3/2+	68
165DY 69						1.384		69
165DY 70						1.400	(3/2+)	70

165DY 71						1.416	(1/2+,3/2+)	71
165DY 72		1.440	5/2+					72
165DY 73						1.445	(3/2-,5/2+)	73
165DY 74						1.454		74
165DY 75						1.456	3/2(-)	75
165DY 76						1.462		76
165DY 77						1.465	3/2(-)	77
165DY 78						1.477		78
165DY 79						1.479	(3/2-,5/2-)	79
165DY 80						1.482	(5/2-)	80

165DY 81						1.501		81

165DY 82				1.510		82
165DY 83				1.535		83
165DY 84				1.555		84
165DY 85				1.560		85
165DY 86				1.588		86
165DY 87				1.592	(1/2-, 3/2-)	87
165DY 88				1.607		88
165DY 89				1.623		89
165DY 90				1.632		90

165DY 91				1.635		91
165DY 92				1.644		92
165DY 93				1.648		93
165DY 94		1.652	5/2-			94
165DY 95				1.671		95
165DY 96				1.694		96
165DY 97				1.731		97
165DY 98				1.755		98
165DY 99				1.771		99
165DY 100				1.773	(1/2+, 3/2+)	100

165DY 101				1.796		101
165DY 102				1.814	(3/2+)	102
165DY 103				1.815		103
165DY 104				1.831	(1/2+, 3/2+)	104
165DY 105				1.835		105
165DY 106				1.873		106
165DY 107				1.876	(1/2+, 3/2+)	107
165DY 108				1.886		108
165DY 109				1.891		109
165DY 110				1.896	(1/2+, 3/2+)	110

165DY 111				1.916		111
165DY 112				1.944		112
165DY 113				1.963	(1/2+, 3/2+)	113
165DY 114				1.969	(1/2+, 3/2+)	114
165DY 115				1.988		115
165DY 116				2.008	(1/2+, 3/2+)	116
165DY 117				2.027		117
165DY 118				2.042		118
165DY 119				2.064		119
165DY 120				2.066		120

165DY 121				2.088		121
165DY 122				2.107	(1/2+, 3/2+)	122
165DY 123				2.113		123
165DY 124				2.160	(1/2+, 3/2+)	124
165DY 125				2.179		125
165DY 126				2.187		126
165DY 127				2.191		127

165DY 128			2.208		128
165DY 129			2.230		129
165DY 130			2.247		130

165DY 131			2.271	(1/2,3/2)	131
165DY 132			2.294		132
165DY 133			2.320		133
165DY 134			2.371		134
165DY 135			2.432		135
165DY 136			2.445		136
165DY 137			2.459		137
165DY 138			2.476	(1/2,3/2)	138
165DY 139			2.495		139
165DY 140			2.548	(1/2,3/2)	140

165DY 141			2.576		141
165DY 142			2.596		142
165DY 143			2.610	(1/2,3/2)	143
165DY 144			2.657		144
165DY 145			2.706	(1/2,3/2)	145
165DY 146			2.741		146
165DY 147			2.765	(1/2,3/2)	147
165DY 148			2.784	(1/2,3/2)	148
165DY 149			2.793	(1/2,3/2)	149
165DY 150			2.815		150

165DY 151			2.834		151
165DY 152			2.853	(1/2,3/2)	152
165DY 153			2.875	(1/2,3/2)	153
165DY 154			2.899		154
165DY 155			2.920		155
165DY 156			2.944	(1/2,3/2)	156
165DY 157			2.983	(1/2,3/2)	157
165DY 158			3.006		158
165DY 159			3.014	(1/2,3/2)	159
165DY 160			3.052	(1/2,3/2)	160

165DY 161			3.124	(1/2,3/2)	161
165DY 162			3.194	(1/2,3/2)	162
165DY 163			3.258	(1/2,3/2)	163
165DY 164			3.379	(1/2,3/2)	164
165DY 165			3.422	(1/2,3/2)	165
165DY 166			3.444	(1/2,3/2)	166
165DY 167			3.455	(1/2,3/2)	167
165DY 168			3.474	(1/2,3/2)	168
165DY 169			3.539	(1/2,3/2)	169
165DY 170			3.587	(1/2,3/2)	170

165DY 171			3.650	(1/2,3/2)	171
165DY 172			3.849	(1/2,3/2)	172

165DY 173 | | | 3.979 (1/2,3/2) 173

S-p = 8.796 (0.002)-----
S-n = 5.716 (0.001)-----
S-2p = 16.802 (0.001)-----
S-2n = 13.374 (0.001)-----
S-alpha= 0.531 (0.002)-----

S+p = -6.747 (0.001)
S+n = -7.043 (0.001)
S+2p = -14.255 (0.001)
S+2n = -12.442 (0.004)
S+alpha = 0.266 (0.001)

gap p = 2.049 (0.002)
gap n = -1.328 (0.001)
gap 2p = 2.547 (0.001)
gap 2n = 0.932 (0.004)
gap alpha = 0.797 (0.002)