

$^{97}\text{Pd}$        $Z = 46$        $N = 51$       adopted link      ENSDF link

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

BE = 824.736 ( 0.005) MeV

Qbeta+ = 4.792 ( 0.036) MeV

	Energy T	J+	J-	J-other	T1/2
97PD 1				0.000 (5/2+)	1 3.10 M 9
97PD 2				0.687 (7/2+)	2
97PD 3				0.775 (1/2+)	3
97PD 4				1.044 (7/2+)	4
97PD 5				1.295 (9/2+)	5
97PD 6				1.470	6
97PD 7				1.538 (7/2+,9/2+)	7
97PD 8				1.631	8
97PD 9				1.712 (5/2+)	9
97PD 10				1.782 (5/2+)	10
97PD 11				1.882 (13/2+)	11
97PD 12				1.925	12
97PD 13				1.936	13
97PD 14				1.943 (11/2+)	14
97PD 15				1.999 (5/2+,7/2+,9/2+)	15
97PD 16				2.117 (7/2+,9/2+)	16
97PD 17				2.132	17
97PD 18				2.135 (7/2+,9/2+)	18
97PD 19				2.137	19
97PD 20				2.141 (13/2+)	20
97PD 21				2.175 (5/2+,7/2+,9/2+)	21
97PD 22				2.176 (9/2+)	22
97PD 23				2.232 (11/2+,13/2+)	23
97PD 24				2.244 (17/2+)	24 2.3 NS 5
97PD 25				2.283 (5/2+)	25
97PD 26				2.345 (7/2+,9/2+)	26
97PD 27				2.372 (15/2+)	27
97PD 28				2.376 (9/2+,11/2+,13/2)	28+
97PD 29				2.377 (5/2+,7/2+,9/2+)	29
97PD 30				2.396 (11/2+)	30
97PD 31				2.417	31
97PD 32				2.447	32
97PD 33				2.469 (19/2+)	33
97PD 34				2.482 (13/2+)	34
97PD 35				2.496 (7/2+,9/2+)	35
97PD 36				2.500 (15/2+)	36
97PD 37				2.506 (9/2+)	37

97PD 38				2.515		38
97PD 39				2.583		39
97PD 40				2.588	(13/2+)	40
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97PD 41				2.605		41
97PD 42				2.623	(11/2+, 13/2+)	42
97PD 43				2.640	(21/2+)	43
97PD 44				2.680	(9/2+, 11/2+)	44
97PD 45				2.690		45
97PD 46				2.764		46
97PD 47				2.784		47
97PD 48				2.799	(5/2+, 7/2+, 9/2+)	48
97PD 49				2.808		49
97PD 50				2.831	(9/2+, 11/2+, 13/2)	50+)
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97PD 51				2.843		51
97PD 52				2.882	(9/2+, 11/2+)	52
97PD 53				2.883		53
97PD 54				2.885		54
97PD 55				2.890	(11/2+)	55
97PD 56				2.893		56
97PD 57				2.924		57
97PD 58				2.962	(9/2+, 11/2+, 13/2)	58+)
97PD 59				3.002	(13/2+)	59
97PD 60				3.006		60
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97PD 61				3.010	(7/2+, 9/2+, 11/2+)	61)
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S-alpha=	3.014	(	0.005)	-----		
97PD 62				3.018		62
97PD 63				3.023		63
97PD 64				3.029	(9/2+)	64
97PD 65				3.066		65
97PD 66				3.068		66
97PD 67				3.086		67
97PD 68				3.097		68
97PD 69				3.102	(7/2+, 9/2+)	69
97PD 70				3.106	(13/2+, 15/2+)	70
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97PD 71				3.118		71
97PD 72				3.148		72
97PD 73				3.157	(9/2+, 11/2+)	73
97PD 74				3.192	(9/2+, 11/2+)	74
97PD 75				3.209	(13/2+)	75
97PD 76				3.227		76
97PD 77				3.252	(23/2)	77
97PD 78				3.280	(5/2+, 7/2+, 9/2+)	78
97PD 79				3.296	(11/2+)	79
97PD 80				3.304		80
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97PD 81				3.330		81

97PD 82			3.351	(11/2+)	82
97PD 83			3.354	(7/2+,9/2+)	83
97PD 84			3.362		84
97PD 85			3.374	(9/2+)	85
97PD 86			3.383	(7/2+,9/2+)	86
97PD 87			3.407		87
97PD 88			3.429		88
97PD 89			3.434		89
97PD 90			3.473	(7/2+,9/2+,11/2+	90)
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97PD 91			3.496	(7/2+,9/2+)	91
97PD 92			3.503	(7/2+,9/2+,11/2+	92)
97PD 93			3.549		93
97PD 94			3.558	(9/2+,11/2+)	94
97PD 95			3.577	(9/2+,11/2+)	95
97PD 96			3.578	(21/2+)	96
97PD 97			3.591	(9/2+,11/2+)	97
97PD 98			3.622		98
97PD 99			3.626	(7/2+,9/2+,11/2+	99)
97PD 100			3.676	(21/2+,23/2+)	100
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97PD 101			3.687		101
97PD 102			3.705		102
97PD 103			3.713		103
97PD 104			3.740	(11/2+)	104
97PD 105			3.759		105
97PD 106			3.763	(7/2+,9/2+)	106
97PD 107			3.776		107
97PD 108			3.782		108
97PD 109			3.790	(7/2+,9/2+,11/2+	109)
97PD 110			3.811	(25/2+)	110
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97PD 111			3.815		111
97PD 112			3.828	(7/2+,9/2+,11/2+	112)
97PD 113			3.842		113
97PD 114			3.856		114
97PD 115			3.859		115
97PD 116			3.865	(9/2+,11/2+)	116
97PD 117			3.926	(9/2+)	117
97PD 118			3.954	(5/2+,7/2+,9/2+)	118
97PD 119			3.967		119
97PD 120			3.983	(9/2+)	120
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97PD 121			4.014	(7/2+,9/2+)	121
97PD 122			4.019	(9/2+,11/2+)	122
97PD 123			4.040	(7/2+,9/2+)	123
97PD 124			4.053	(7/2+,9/2+,11/2+	124)
97PD 125			4.069		125
97PD 126			4.105	(7/2+,9/2+)	126
97PD 127			4.123	(9/2+)	127

97PD 128			4.125	(11/2+)	128
97PD 129			4.143	(9/2+,11/2+)	129
97PD 130			4.177		130
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97PD 131			4.194	(7/2+,9/2+,11/2+131)	
97PD 132			4.219	(7/2+,9/2+)	132
97PD 133			4.256		133
97PD 134			4.264	(11/2+)	134
97PD 135			4.266	(9/2+)	135
97PD 136			4.286	(7/2+,9/2+)	136
97PD 137			4.319	(7/2+,9/2+)	137
97PD 138			4.337		138
97PD 139			4.339		139
97PD 140			4.354	(7/2+,9/2+,11/2+140)	
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97PD 141			4.375	(7/2+,9/2+)	141
97PD 142			4.386		142
97PD 143			4.413	(7/2+,9/2+,11/2+143)	
97PD 144			4.420		144
97PD 145			4.430	(7/2+,9/2+,11/2+145)	
97PD 146			4.436	(7/2+,9/2+,11/2+146)	
97PD 147			4.451	(7/2+,9/2+,11/2+147)	
97PD 148			4.465	(9/2+)	148
97PD 149			4.532		149
97PD 150			4.549		150
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97PD 151			4.618		151
97PD 152			4.637	(29/2+)	152
97PD 153			4.646		153
97PD 154			4.729		154
97PD 155			4.821	(31/2)	155
97PD 156			4.915	(7/2+,9/2+,11/2+156)	
97PD 157			4.916		157
97PD 158			4.993	(7/2+,9/2+,11/2+158)	
97PD 159			5.005	(7/2+,9/2+,11/2+159)	
97PD 160			5.043	(7/2+,9/2+,11/2+160)	
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97PD 161			5.086	(7/2+,9/2+,11/2+161)	
97PD 162			5.151	(7/2+,9/2+,11/2+162)	
97PD 163			5.238		163
97PD 164			5.256	(7/2+,9/2+,11/2+164)	
97PD 165			5.280	(7/2+,9/2+,11/2+165)	
97PD 166			5.326	(7/2+,9/2+,11/2+166)	
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S-p	=	5.407 ( 0.011)			
97PD 167			5.536		167
97PD 168			5.888	(33/2+)	168
97PD 169			6.313		169
97PD 170			6.541		170
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97PD 171			7.523		171

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S-p    =  5.407 ( 0.011)-----
S-n    =  9.694 ( 0.006)-----
S-2p   =  8.926 ( 0.011)-----
S-2n   = 23.983 ( 0.006)-----
S-alpha=  3.014 ( 0.005)-----

S+p    = -2.549 ( 0.033)
S+n    = -11.586 ( 0.007)
S+2p   = -6.703 ( 0.005)
S+2n   = -20.520 ( 0.007)
S+alpha = -0.455 ( 0.005)

gap p   =  2.858 ( 0.035)
gap n   = -1.893 ( 0.009)
gap 2p  =  2.223 ( 0.012)
gap 2n  =  3.463 ( 0.009)
gap alpha =  2.559 ( 0.007)
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