

$^{205}\text{Tl}$        $Z = 81$        $N = 124$       adopted link      ENSDF link

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

BE = 1615.071 ( 0.001) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-0.155	( 0.003)	-----		
205TL 1	0.000	1/2+			1 STABLE
205TL 2	0.204	3/2+			2 1.46 NS 5
205TL 3	0.619	5/2+			3 0.90 PS 14
205TL 4	0.924	7/2+			4
205TL 5	1.141	3/2+			5
205TL 6				1.180 (5/2+)	6
205TL 7	1.219	1/2+			7
205TL 8	1.340	3/2+			8
205TL 9	1.430	9/2+			9
205TL 10				1.434 (1/2+)	10
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205TL 11				1.438 (1/2+)	11
205TL 12			1.484 11/2-		12 4.5 NS 5
205TL 13				1.553 (7/2+)	13
205TL 14				1.555 (3/2+)	14
205TL 15				1.574 (5/2+)	15
205TL 16				1.644 (3/2+,5/2+)	16
205TL 17				1.668	17
205TL 18	1.694	3/2+			18
205TL 19				1.711 (1/2,3/2,5/2+)	19
205TL 20				1.765 (3/2+,5/2+)	20
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205TL 21	1.829	1/2+			21
205TL 22				1.848 3/2+,5/2+	22
205TL 23	1.866	5/2+			23
205TL 24	1.916	11/2+			24
205TL 25	1.946	5/2+			25
205TL 26				1.966 1/2+,3/2	26
205TL 27				2.002 (3/2+,5/2+)	27
205TL 28				2.036 3/2+,5/2+	28
205TL 29			2.054 15/2-		29
205TL 30				2.089 (1/2+,3/2)	30
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205TL 31				2.098 3/2+,5/2+	31
205TL 32				2.112 11/2-,5/2	32+
205TL 33			2.126 7/2-		33
205TL 34				2.163 (1/2+,3/2)	34
205TL 35				2.185 (11/2+,13/2-)	35
205TL 36				2.209 (1/2,3/2,5/2,7/2)	36+
205TL 37				2.220 (3/2+)	37

205TL 38						2.286	(11/2-)	38
205TL 39						2.304	(3/2+)	39
205TL 40						2.316	(1/2+,3/2+)	40
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205TL 41						2.339	(7/2+)	41
205TL 42				2.394	17/2-			42
205TL 43						2.410	3/2+,5/2+	43
205TL 44						2.445	(11/2+,13/2-)	44
205TL 45						2.479	(11/2)-	45
205TL 46		2.486	9/2+					46
205TL 47						2.488	(5/2)-	47
205TL 48						2.537		48
205TL 49				2.551	19/2-			49
205TL 50						2.554	(1/2+,3/2)	50
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205TL 51						2.560	(1/2+,3/2)	51
205TL 52						2.584	(11/2-)	52
205TL 53						2.623	(5/2)-	53
205TL 54				2.711	7/2-			54
205TL 55						2.721	(1/2+,3/2)	55
205TL 56						2.740	(3/2,5/2)+	56
205TL 57		2.750	3/2+					57
205TL 58						2.838	(5/2+)	58
205TL 59						2.845		59
205TL 60						2.869	(3/2+,5/2+)	60
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205TL 61						2.885	(5/2+,7/2+)	61
205TL 62						2.893	(1/2+,3/2)	62
205TL 63		2.923	13/2+					63
205TL 64						2.942	(3/2+,5/2+)	64
205TL 65						2.970	(5/2-,7/2-)	65
205TL 66						2.998	(3/2+,5/2+)	66
205TL 67						3.018	(3/2+)	67
205TL 68						3.072		68
205TL 69						3.117	(3/2+,5/2+)	69
205TL 70						3.133		70
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205TL 71						3.159		71
205TL 72						3.177	(1/2+,3/2)	72
205TL 73						3.182	(5/2-,7/2-)	73
205TL 74						3.213	5/2-,7/2-	74
205TL 75				3.259	5/2-			75
205TL 76						3.279	(3/2+,5/2+)	76
205TL 77						3.287	(1/2+,3/2)	77
205TL 78		3.291	25/2+					78 2.6 US 2
205TL 79						3.370	(3/2+,5/2+)	79
205TL 80						3.427	(9/2-,11/2-)	80
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205TL 81						3.473		81
205TL 82						3.511		82

205TL 83			3.525	(3/2+,5/2+)	83
205TL 84			3.540	(9/2-,11/2-)	84
205TL 85			3.619	(29/2+)	85
205TL 86			3.636		86
205TL 87			3.692		87
205TL 88			3.813		88
205TL 89			3.960		89
205TL 90			4.001		90
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205TL 91			4.160		91
205TL 92			4.262		92
205TL 93			4.342		93
205TL 94			4.348		94
205TL 95			4.732		95
205TL 96			4.741		96
205TL 97			4.828		97
205TL 98			4.836	(35/2-)	98 235 NS 10
205TL 99			4.878		99
205TL 100			4.927		100
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205TL 101			4.938		101
205TL 102			4.947		102
205TL 103			4.961		103
205TL 104			4.968		104
205TL 105			4.975		105
205TL 106			4.994		106
205TL 107			5.008		107
205TL 108			5.037		108
205TL 109			5.071		109
205TL 110			5.124		110
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205TL 111			5.165		111
205TL 112			5.212		112
205TL 113			5.240		113
205TL 114			5.309		114
205TL 115			5.344		115
205TL 116			5.357		116
205TL 117			5.391		117
205TL 118			5.407		118
205TL 119			5.433		119
205TL 120			5.451		120
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205TL 121			5.480		121
205TL 122			5.553		122
205TL 123			5.577		123
205TL 124			5.590		124
205TL 125			5.598		125
205TL 126			5.610		126
205TL 127			5.620		127
205TL 128			5.652		128

205TL 129			5.665		129
205TL 130			5.686		130
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205TL 131			5.693		131
205TL 132			5.738		132
205TL 133			5.756		133
205TL 134			5.781		134
205TL 135			5.798		135
205TL 136			5.803		136
205TL 137			5.812		137
205TL 138			5.820		138
205TL 139			5.865		139
205TL 140			5.878		140
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205TL 141			5.911		141
205TL 142			5.963		142
205TL 143			6.061		143
205TL 144			6.089		144
205TL 145			6.109		145
205TL 146			6.147		146
205TL 147			6.177		147
205TL 148			6.189		148
205TL 149			6.213		149
205TL 150			6.315		150
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205TL 151			6.365		151
S-p	=	6.420 ( 0.001)	-----		
205TL 152			7.092	(41/2+)	152
205TL 153			7.252	(3/2+)	153
205TL 154			7.332		154
S-n	=	7.546 ( 0.002)	-----		
205TL 155		7.646	1/2-		155
205TL 156			7.899		156
205TL 157			8.034		157
205TL 158			8.409		158
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S-p	=	6.420 ( 0.001)	-----		
S-n	=	7.546 ( 0.002)	-----		
S-2p	=	15.255 ( 0.003)	-----		
S-2n	=	14.202 ( 0.002)	-----		
S-alpha	=	-0.155 ( 0.003)	-----		
S+p	=	-7.254 ( 0.002)			
S+n	=	-6.504 ( 0.002)			
S+2p	=	-10.812 ( 0.003)			
S+2n	=	-13.356 ( 0.006)			
S+alpha	=	3.137 ( 0.002)			
gap p	=	-0.834 ( 0.002)			

gap n = 1.042 ( 0.002)  
gap 2p = 4.444 ( 0.004)  
gap 2n = 0.846 ( 0.006)  
gap alpha = 2.982 ( 0.004)