

$^{147}\text{Tb}$        $Z = 65$        $N = 82$       adopted link      ENSDF link

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

BE = 1206.374 ( 0.008) MeV

Qbeta+ = 4.614 ( 0.008) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-1.074	( 0.014)	-----		
147TB 1				0.000 (1/2+)	1 1.64 H 3
147TB 2				0.051 (11/2-)	2 1.83 M 6
147TB 3				0.253 (3/2+)	3 1.3 NS LT
147TB 4				0.354 (5/2+)	4 2 NS LT
147TB 5				0.719 (7/2+)	5 1.3 NS LT
147TB 6				1.313 (7/2-)	6
147TB 7				1.316 (15/2+)	7 4.56 NS 20
147TB 8				1.329 (7/2+)	8
147TB 9				1.404 (5/2+)	9
147TB 10				1.413 (1/2-,3/2-,5/2-	10)
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147TB 11				1.438 (9/2+,11/2+,15/2	11+)
147TB 12				1.479	12
147TB 13				1.487 (9/2+)	13
147TB 14				1.601 (13/2+)	14
147TB 15				1.619 (3/2-,5/2-)	15
147TB 16				1.660 (9/2-,11/2-,13/2	16-)
147TB 17				1.716	17
147TB 18				1.759 (3/2+)	18
147TB 19				1.761 (9/2-,11/2-,13/2	19-)
147TB 20				1.766	20
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147TB 21				1.776 (-)	21
S-p	=	1.946	( 0.009)	-----	
147TB 22				1.965	22
147TB 23				1.971 (3/2+,5/2+,7/2+)	23
147TB 24				1.988 (15/2-)	24
147TB 25				1.997 (3/2+,5/2,7/2+)	25
147TB 26				1.999	26
147TB 27				2.020	27
147TB 28				2.039	28
147TB 29				2.046 (7/2-,9/2,11/2+)	29
147TB 30				2.068	30
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147TB 31				2.088 (17/2+)	31
147TB 32				2.158	32
147TB 33				2.163	33
147TB 34				2.180 (11/2+)	34
147TB 35				2.219 (5/2+,7/2+,9/2+	35)

147TB 36				2.221	(5/2+,7/2+,9/2+)	36		
147TB 37				2.230	(3/2+,5/2,7/2+)	37		
147TB 38				2.235		38		
147TB 39				2.244		39		
147TB 40				2.320		40		
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147TB 41				2.341		41		
147TB 42				2.349		42		
147TB 43				2.374		43		
147TB 44				2.379		44		
147TB 45				2.401		45		
147TB 46				2.438		46		
147TB 47				2.486		47		
147TB 48				2.507		48		
147TB 49				2.525		49		
147TB 50				2.568	(17/2-)	50		
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147TB 51				2.576	(19/2-)	51		
147TB 52				2.635		52		
147TB 53				2.672		53		
147TB 54				2.704		54		
147TB 55				2.715	(17/2+,19/2+)	55		
147TB 56				2.737		56		
147TB 57				2.758		57		
147TB 58				2.785	(21/2+)	58		
147TB 59				2.815		59		
147TB 60				2.954		60		
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147TB 61				3.042	(23/2+)	61	3.8 NS	6
147TB 62				3.084		62		
147TB 63				3.142		63		
147TB 64				3.190	(25/2+)	64		
147TB 65				3.206	(23/2+)	65		
147TB 66				3.363		66		
147TB 67				3.372		67		
147TB 68				3.381	(25/2+)	68		
147TB 69				3.471	(27/2+)	69		
147TB 70				3.572		70		
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147TB 71				3.622		71		
147TB 72				3.758		72		
147TB 73				3.889	(27/2-)	73		
147TB 74				3.954		74		
147TB 75				3.975		75		
147TB 76				3.993		76		
147TB 77				4.020		77		
147TB 78				4.045		78		
147TB 79				4.085		79		
147TB 80				4.108		80		
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147TB 81				4.167		81
147TB 82				4.385		82
147TB 83				4.508	(29/2-)	83
147TB 84				4.641		84
147TB 85				4.669		85
147TB 86				4.703		86
147TB 87				4.723	(29/2+)	87
147TB 88				4.741		88
147TB 89				4.754		89
147TB 90				4.770		90
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147TB 91				4.816		91
147TB 92				4.819		92
147TB 93				4.828		93
147TB 94				4.842		94
147TB 95				5.004	(31/2-)	95
147TB 96				5.081		96
147TB 97				5.131	(29/2+)	97
147TB 98				5.200		98
147TB 99				5.277		99
147TB 100				5.297	(31/2-)	100
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147TB 101				5.321	(29/2+)	101
147TB 102				5.394		102
147TB 103				5.492		103
147TB 104				5.502		104
147TB 105				5.504		105
147TB 106				5.582		106
147TB 107				5.587		107
147TB 108				5.631	(31/2+)	108
147TB 109				5.650	(31/2+)	109
147TB 110				5.665		110
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147TB 111				5.666		111
147TB 112				5.701		112
147TB 113				5.767	(33/2+)	113
147TB 114				5.880	(33/2+)	114
147TB 115				5.925	(35/2-)	115
147TB 116				5.966	(33/2+)	116
147TB 117				5.981	(35/2-)	117
147TB 118				6.019		118
147TB 119				6.107		119
147TB 120				6.125		120
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147TB 121				6.202	(37/2-)	121
147TB 122				6.250		122
147TB 123				6.389		123
147TB 124				6.423	(39/2-)	124
147TB 125				6.448		125
147TB 126				6.550	(35/2-)	126

147TB 127			6.618	(35/2+)	127
147TB 128			6.665	(35/2+)	128
147TB 129			6.738	(37/2+)	129
147TB 130			6.756	(41/2)	130
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147TB 131			6.798		131
147TB 132			6.821	(35/2)	132
147TB 133			6.904	(39/2+)	133
147TB 134			6.905	(37/2+)	134
147TB 135			6.961	(37/2)	135
147TB 136			7.022	(37/2-)	136
147TB 137			7.262	(41/2+)	137
147TB 138			7.272	(37/2+)	138
147TB 139			7.275		139
147TB 140			7.307		140
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147TB 141			7.311		141
S-2p	=	7.329 ( 0.009)	-----		
147TB 142			7.336	(39/2-)	142
147TB 143			7.506	(39/2+)	143
147TB 144			7.540	(39/2-)	144
147TB 145			7.650		145
147TB 146			7.715	(41/2-)	146
147TB 147			7.762	(43/2-)	147
147TB 148			7.777	(45/2-)	148
147TB 149			7.807		149
147TB 150			7.844		150
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147TB 151			8.119		151
147TB 152			8.222		152
147TB 153			8.237		153
147TB 154			8.241		154
147TB 155			8.277		155
147TB 156			8.434		156
147TB 157			8.450	(45/2-)	157
147TB 158			8.507		158
147TB 159			8.538		159
147TB 160			8.616		160
-----					
147TB 161			8.751	(47/2-)	161
147TB 162			8.773	(47/2+)	162
147TB 163			8.857	(47/2-)	163
147TB 164			8.968		164
147TB 165			9.037	(49/2+)	165
147TB 166			9.508		166
147TB 167			9.731	(49/2+)	167
147TB 168			9.921	(51/2+)	168
147TB 169			9.955	(53/2+)	169
147TB 170			9.974		170
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1.8 NS

S-p	=	1.946	(	0.009	)-----
S-n	=	11.050	(	0.046	)-----
S-2p	=	7.329	(	0.009	)-----
S-2n	=	20.486	(	0.111	)-----
S-alpha	=	-1.074	(	0.014	)-----
S+p	=	-4.406	(	0.012	)
S+n	=	-7.865	(	0.015	)
S+2p	=	-5.481	(	0.014	)
S+2n	=	-16.889	(	0.009	)
S+alpha	=	4.695	(	0.012	)
gap p	=	-2.460	(	0.015	)
gap n	=	3.185	(	0.048	)
gap 2p	=	1.848	(	0.017	)
gap 2n	=	3.597	(	0.112	)
gap alpha	=	3.621	(	0.018	)