

$^{167}\text{Ta}$        $Z = 73$        $N = 94$       adopted link      ENSDF link

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

BE = 1339.150 ( 0.028) MeV

Qbeta+ = 5.117 ( 0.040) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-4.015 ( 0.040)				
167TA 1				0.000 (3/2+)	1 80 S 4
167TA 2				0.095 (5/2+)	2
167TA 3				0.176 (5/2+)	3
167TA 4				0.205 (7/2+)	4
167TA 5				0.206 (9/2-)	5
167TA 6				0.215	6
167TA 7				0.233 (7/2+)	7
167TA 8				0.255 (7/2+)	8
167TA 9				0.289 (5/2+,7/2+,9/2+)	9
167TA 10				0.305 (11/2-)	10
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167TA 11				0.375 (9/2+)	11
167TA 12				0.392 (LE7/2)	12
167TA 13				0.432 (9/2+)	13
167TA 14				0.496 (13/2-)	14
167TA 15				0.497 (5/2-)	15
167TA 16				0.503 (9/2+)	16
167TA 17				0.528	17
167TA 18				0.567	18
167TA 19				0.575 (11/2+)	19
167TA 20				0.610 (11/2+)	20
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167TA 21				0.611 (9/2-)	21
167TA 22				0.657 (11/2+)	22
167TA 23				0.663	23
167TA 24				0.679 (15/2-)	24
167TA 25				0.791 (13/2+)	25
167TA 26				0.853 (13/2-)	26
167TA 27				0.874 (13/2+)	27
167TA 28				0.940 (13/2+)	28
167TA 29				0.947 (17/2-)	29
167TA 30				1.036 (15/2+)	30
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167TA 31				1.091 (15/2+)	31
167TA 32				1.133 (13/2-)	32
167TA 33				1.156 (15/2+)	33
167TA 34				1.166 (19/2-)	34
167TA 35				1.217 (17/2-)	35
167TA 36				1.285 (17/2+)	36

167TA 37				1.394	(17/2+)	37
167TA 38				1.457	(17/2+)	38
167TA 39				1.493	(21/2-)	39
167TA 40				1.557	(19/2+)	40
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167TA 41				1.639	(19/2+)	41
167TA 42				1.641	(17/2-)	42
167TA 43				1.679	(21/2-)	43
167TA 44				1.723	(19/2+)	44
167TA 45				1.732	(23/2-)	45
S-p	=	1.781	( 0.040)	-----		
167TA 46				1.820	(21/2+)	46
167TA 47				1.950	(21/2+)	47
167TA 48				2.019	(21/2+)	48
167TA 49				2.057	(21/2+)	49
167TA 50				2.089	(23/2+)	50
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167TA 51				2.096	(25/2-)	51
167TA 52				2.199	(21/2-)	52
167TA 53				2.214	(25/2-)	53
167TA 54				2.222	(23/2+)	54
167TA 55				2.234		55
167TA 56				2.328	(25/2+)	56
167TA 57				2.349	(27/2-)	57
167TA 58				2.463	(25/2+)	58
167TA 59				2.477	(25/2+)	59
167TA 60				2.566	(27/2+)	60
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167TA 61				2.580	(25/2-)	61
167TA 62				2.635	(27/2+)	62
167TA 63				2.652	(27/2-)	63
167TA 64				2.718	(29/2-)	64
167TA 65				2.753	(29/2-)	65
167TA 66				2.781	(29/2+)	66
167TA 67				2.810	(29/2-)	67
167TA 68				2.815	(29/2+)	68
167TA 69				2.821	(27/2+)	69
167TA 70				2.874	(31/2-)	70
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167TA 71				2.963	(29/2+)	71
167TA 72				2.968	(31/2+)	72
167TA 73				2.980	(31/2-)	73
167TA 74				3.007	(31/2+)	74
167TA 75				3.042	(33/2-)	75
167TA 76				3.212	(33/2+)	76
167TA 77				3.235	(35/2-)	77
167TA 78				3.253	(33/2+)	78
167TA 79				3.326	(33/2-)	79
167TA 80				3.346	(31/2+)	80
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167TA 81				3.392	(33/2-)	81
167TA 82				3.427	(35/2+)	82
167TA 83				3.469	(37/2-)	83
167TA 84				3.474	(35/2+)	84
167TA 85				3.480	(33/2+)	85
167TA 86				3.594	(35/2-)	86
167TA 87				3.721	(37/2+)	87
167TA 88				3.734	(39/2-)	88
167TA 89				3.772	(37/2+)	89
167TA 90				3.881	(35/2+)	90
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167TA 91				3.913	(37/2-)	91
167TA 92				3.974	(37/2-)	92
167TA 93				3.991	(39/2+)	93
167TA 94				4.023	(41/2-)	94
167TA 95				4.026	(39/2+)	95
167TA 96				4.045	(37/2+)	96
167TA 97				4.133	(35/2+)	97
167TA 98				4.190	(39/2-)	98
167TA 99				4.305	(41/2+)	99
167TA 100				4.348	(43/2-)	100
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167TA 101				4.360	(41/2+)	101
167TA 102				4.489	(39/2+)	102
167TA 103				4.501	(41/2-)	103
167TA 104				4.557	(41/2-)	104
167TA 105				4.608	(43/2+)	105
167TA 106				4.658	(43/2+)	106
167TA 107				4.661	(41/2+)	107
167TA 108				4.684	(45/2-)	108
167TA 109				4.688	(39/2+)	109
167TA 110				4.800	(43/2-)	110
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167TA 111				4.920	(45/2+)	111
167TA 112				5.009	(45/2+)	112
167TA 113				5.054	(47/2-)	113
167TA 114				5.127	(45/2-)	114
167TA 115				5.187	(45/2-)	115
167TA 116				5.207	(45/2-)	116
167TA 117				5.236	(47/2+)	117
167TA 118				5.293	(43/2+)	118
167TA 119				5.326	(45/2+)	119
167TA 120				5.345	(47/2+)	120
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167TA 121				5.426	(49/2-)	121
167TA 122				5.465	(47/2-)	122
167TA 123				5.515	(47/2-)	123
167TA 124				5.550	(49/2+)	124
167TA 125				5.697	(49/2+)	125
167TA 126				5.802	(49/2-)	126

167TA 127			5.825	(51/2-)	127
167TA 128			5.850	(49/2-)	128
167TA 129			5.888	(51/2+)	129
167TA 130			5.890	(49/2-)	130
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167TA 131			5.949	(47/2+)	131
167TA 132			6.036	(49/2+)	132
167TA 133			6.055	(51/2+)	133
167TA 134			6.182	(51/2-)	134
167TA 135			6.206	(51/2-)	135
167TA 136			6.222	(53/2+)	136
167TA 137			6.226	(53/2-)	137
167TA 138			6.422	(53/2+)	138
S-2p	=	6.487 ( 0.039)	-----		
167TA 139			6.518	(53/2-)	139
167TA 140			6.593	(53/2-)	140
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167TA 141			6.599	(55/2+)	141
167TA 142			6.638	(55/2-)	142
167TA 143			6.643	(53/2-)	143
167TA 144			6.654	(51/2+)	144
167TA 145			6.674	(53/2-)	145
167TA 146			6.780	(53/2+)	146
167TA 147			6.800	(53/2+)	147
167TA 148			6.816	(55/2+)	148
167TA 149			6.920	(55/2-)	149
167TA 150			6.964	(57/2+)	150
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167TA 151			6.988	(55/2-)	151
167TA 152			7.064	(57/2-)	152
167TA 153			7.214	(57/2+)	153
167TA 154			7.293	(57/2-)	154
167TA 155			7.389	(59/2+)	155
167TA 156			7.405	(57/2-)	156
167TA 157			7.406	(55/2+)	157
167TA 158			7.439	(57/2-)	158
167TA 159			7.472	(57/2-)	159
167TA 160			7.480	(59/2-)	160
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167TA 161			7.566	(57/2+)	161
167TA 162			7.596	(57/2+)	162
167TA 163			7.654	(59/2+)	163
167TA 164			7.716	(59/2-)	164
167TA 165			7.786	(61/2+)	165
167TA 166			7.830	(59/2-)	166
167TA 167			7.933	(61/2-)	167
167TA 168			8.085	(61/2+)	168
167TA 169			8.128	(61/2-)	169
167TA 170			8.206	(59/2+)	170
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167TA 171			8.264	(63/2+)	171
167TA 172			8.278	(61/2-)	172
167TA 173			8.294	(61/2-)	173
167TA 174			8.324	(61/2-)	174
167TA 175			8.354	(63/2-)	175
167TA 176			8.399	(61/2+)	176
167TA 177			8.437	(61/2+)	177
167TA 178			8.564	(63/2-)	178
167TA 179			8.564	(63/2+)	179
167TA 180			8.685	(65/2+)	180
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167TA 181			8.745	(63/2-)	181
167TA 182			8.844	(65/2-)	182
167TA 183			9.021	(65/2-)	183
167TA 184			9.030	(65/2+)	184
167TA 185			9.054	(63/2+)	185
167TA 186			9.205	(65/2-)	186
167TA 187			9.207	(65/2-)	187
167TA 188			9.220	(67/2+)	188
167TA 189			9.223	(65/2-)	189
167TA 190			9.267	(67/2-)	190
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167TA 191			9.280	(65/2+)	191
167TA 192			9.332	(65/2+)	192
167TA 193			9.466	(67/2-)	193
167TA 194			9.654	(69/2+)	194
167TA 195			9.805	(69/2-)	195
167TA 196			9.954	(67/2+)	196
167TA 197			9.973	(69/2-)	197

S-p = 1.781 ( 0.040)-----  
S-n = 10.325 ( 0.040)-----  
S-2p = 6.487 ( 0.039)-----  
S-2n = 18.646 ( 0.031)-----  
S-alpha= -4.015 ( 0.040)-----

S+p = -3.831 ( 0.031)  
S+n = -8.114 ( 0.040)  
S+2p = -4.636 ( 0.030)  
S+2n = -18.082 ( 0.040)  
S+alpha = 4.676 ( 0.040)

gap p = -2.050 ( 0.050)  
gap n = 2.211 ( 0.056)  
gap 2p = 1.851 ( 0.049)  
gap 2n = 0.564 ( 0.050)  
gap alpha = 0.661 ( 0.056)