

$^{171}\text{Ta}$        $Z = 73$        $N = 98$       adopted link      ENSDF link

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

BE = 1374.804 ( 0.028) MeV

Qbeta+ = 3.711 ( 0.040) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-3.381	( 0.047)	-----		
171TA 1				0.000 (5/2+)	1 23.3 M 3
171TA 2				0.031 (5/2-)	2 23.3 M 3
171TA 3				0.053 (7/2+)	3
171TA 4				0.113 (7/2+)	4
171TA 5				0.118 (3/2+)	5
171TA 6				0.126 (9/2-)	6
171TA 7				0.182 (9/2+)	7
171TA 8				0.236 (9/2-)	8 46 NS 3
171TA 9				0.247 (5/2+)	9
171TA 10				0.252 (9/2+)	10
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171TA 11				0.292 (7/2+)	11
171TA 12				0.324 (13/2-)	12
171TA 13				0.331 (7/2-)	13
171TA 14				0.336 (11/2+)	14
171TA 15				0.366 (11/2-)	15
171TA 16				0.414 (11/2+)	16
171TA 17				0.492 (9/2+)	17
171TA 18				0.509 (13/2+)	18
171TA 19				0.527 (13/2-)	19
171TA 20				0.530 (7/2-)	20
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171TA 21				0.573 (11/2+)	21
171TA 22				0.578 (11/2-)	22
171TA 23				0.596 (13/2+)	23
171TA 24				0.622 (17/2-)	24 18.3 PS +8-17
171TA 25				0.700 (15/2+)	25
171TA 26				0.709 (15/2-)	26
171TA 27				0.798 (15/2+)	27
171TA 28				0.817 (13/2+)	28
171TA 29				0.905 (17/2+)	29
171TA 30				0.906 (15/2-)	30
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171TA 31				0.917 (17/2-)	31
171TA 32				0.931 (15/2+)	32
171TA 33				1.011 (21/2-)	33 4.5 PS 4
171TA 34				1.012 (17/2+)	34
171TA 35				1.123 (19/2+)	35
171TA 36				1.136 (19/2-)	36

171TA 37				1.202	(17/2+)	37			
171TA 38				1.243	(19/2+)	38			
171TA 39				1.311	(19/2-)	39			
171TA 40				1.341	(19/2+)	40			
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171TA 41				1.353	(21/2+)	41			
171TA 42				1.379	(21/2-)	42			
171TA 43				1.476	(25/2-)	43	1.86 PS	+22-17	
171TA 44				1.480	(21/2+)	44			
171TA 45				1.594	(23/2+)	45			
171TA 46				1.625	(23/2-)	46			
171TA 47				1.631	(21/2+)	47			
171TA 48				1.734	(23/2+)	48			
171TA 49				1.783	(23/2-)	49			
171TA 50				1.794	(23/2+)	50			
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171TA 51				1.845	(25/2+)	51			
171TA 52				1.890	(25/2-)	52			
171TA 53				1.983	(25/2+)	53			
171TA 54				2.001	(29/2-)	54	1.93 PS	LT	
171TA 55				2.079	(25/2+)	55			
171TA 56				2.108	(27/2+)	56			
171TA 57				2.121	(25/2+)	57			
171TA 58				2.155	(27/2-)	58			
171TA 59				2.257	(27/2+)	59			
171TA 60				2.292	(27/2+)	60			
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171TA 61				2.305	(27/2-)	61			
171TA 62				2.380	(29/2+)	62			
171TA 63				2.435	(29/2-)	63			
171TA 64				2.492	(29/2+)	64			
171TA 65				2.546	(29/2+)	65			
171TA 66				2.571	(33/2-)	66	0.69 PS	GT	
171TA 67				2.647	(29/2+)	67			
171TA 68				2.664	(31/2+)	68			
171TA 69				2.712	(31/2-)	69			
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S-p	=	2.755	( 0.040)	-----					
171TA 70				2.806	(31/2+)	70			
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171TA 71				2.836	(31/2+)	71			
171TA 72				2.860	(31/2-)	72			
171TA 73				2.953	(33/2+)	73			
171TA 74				2.988	(33/2+)	74			
171TA 75				2.994	(33/2-)	75			
171TA 76				3.049	(31/2-)	76			
171TA 77				3.082	(33/2+)	77			
171TA 78				3.180	(37/2-)	78	0.59 PS	17	
171TA 79				3.191	(33/2+)	79			
171TA 80				3.260	(35/2+)	80			
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171TA 81				3.268	(35/2-)	81			
171TA 82				3.368	(35/2+)	82			
171TA 83				3.422	(35/2+)	83			
171TA 84				3.432	(35/2-)	84			
171TA 85				3.519	(37/2+)	85			
171TA 86				3.533	(37/2-)	86			
171TA 87				3.568	(37/2+)	87			
171TA 88				3.611	(35/2-)	88			
171TA 89				3.641	(37/2+)	89			
171TA 90				3.769	(37/2+)	90			
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171TA 91				3.806	(39/2-)	91			
171TA 92				3.830	(41/2-)	92	0.40 PS		5
171TA 93				3.887	(39/2+)	93			
171TA 94				3.960	(39/2+)	94			
171TA 95				4.017	(39/2-)	95			
171TA 96				4.055	(39/2+)	96			
171TA 97				4.094	(41/2-)	97			
171TA 98				4.105	(41/2+)	98			
171TA 99				4.198	(41/2+)	99			
171TA 100				4.209	(39/2-)	100			
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171TA 101				4.268	(41/2+)	101			
171TA 102				4.389	(41/2+)	102			
171TA 103				4.401	(43/2-)	103			
171TA 104				4.529	(45/2-)	104	0.28 PS		4
171TA 105				4.543	(43/2+)	105			
171TA 106				4.623	(43/2+)	106			
171TA 107				4.641	(43/2-)	107			
171TA 108				4.729	(43/2+)	108			
171TA 109				4.732	(45/2-)	109			
171TA 110				4.741	(45/2+)	110			
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171TA 111				4.846	(43/2-)	111			
171TA 112				4.867	(45/2+)	112			
171TA 113				4.962	(45/2+)	113			
171TA 114				5.064	(45/2+)	114			
171TA 115				5.074	(47/2-)	115			
171TA 116				5.245	(47/2+)	116			
171TA 117				5.282	(49/2-)	117	0.23 PS		5
171TA 118				5.323	(47/2-)	118			
171TA 119				5.358	(47/2+)	119			
171TA 120				5.419	(47/2+)	120			
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171TA 121				5.428	(49/2+)	121			
171TA 122				5.451	(49/2-)	122			
171TA 123				5.536	(47/2-)	123			
171TA 124				5.585	(49/2+)	124			
171TA 125				5.631	(49/2+)	125			
171TA 126				5.732	(49/2+)	126			

171TA 127			5.739	(49/2+)	127	
171TA 128			5.823	(51/2-)	128	
171TA 129			5.960	(51/2+)	129	
171TA 130			6.034	(51/2+)	130	
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171TA 131			6.073	(51/2-)	131	
171TA 132			6.091	(53/2-)	132	0.17 PS 6
171TA 133			6.115	(51/2+)	133	
171TA 134			6.153	(51/2+)	134	
171TA 135			6.167	(53/2+)	135	
171TA 136			6.246	(53/2-)	136	
171TA 137			6.293	(51/2-)	137	
171TA 138			6.310	(53/2+)	138	
171TA 139			6.413	(53/2+)	139	
171TA 140			6.433	(53/2+)	140	
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171TA 141			6.542	(53/2+)	141	
171TA 142			6.638	(55/2-)	142	
171TA 143			6.690	(55/2+)	143	
171TA 144			6.848	(55/2+)	144	
171TA 145			6.862	(55/2+)	145	
171TA 146			6.889	(55/2-)	146	
171TA 147			6.954	(57/2-)	147	
171TA 148			6.957	(57/2+)	148	
171TA 149			6.986	(55/2+)	149	
171TA 150			7.071	(57/2+)	150	
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171TA 151			7.108	(57/2-)	151	
171TA 152			7.264	(57/2+)	152	
171TA 153			7.370	(57/2+)	153	
171TA 154			7.484	(59/2+)	154	
171TA 155			7.513	(59/2-)	155	
171TA 156			7.636	(59/2+)	156	
171TA 157			7.747	(59/2+)	157	
171TA 158			7.775	(59/2-)	158	
171TA 159			7.798	(61/2+)	159	
171TA 160			7.860	(59/2+)	160	
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171TA 161			7.869	(61/2-)	161	
171TA 162			7.897	(61/2+)	162	
171TA 163			8.027	(61/2-)	163	
171TA 164			8.153	(61/2+)	164	
171TA 165			8.214	(61/2+)	165	
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S-2p	=	8.216 ( 0.028)	-----			
171TA 166			8.351	(63/2+)	166	
171TA 167			8.439	(63/2-)	167	
171TA 168			8.474	(63/2+)	168	
171TA 169			8.682	(63/2+)	169	
171TA 170			8.691	(65/2+)	170	
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171TA 171			8.760	(63/2+)	171
171TA 172			8.787	(65/2+)	172
171TA 173			8.836	(65/2-)	173
171TA 174			8.998	(65/2-)	174
171TA 175			9.290	(67/2+)	175
171TA 176			9.412	(67/2-)	176
171TA 177			9.633	(67/2+)	177
171TA 178			9.634	(69/2+)	178
S-n	=	9.654 ( 0.040)	-----		
171TA 179			9.736	(69/2+)	179
171TA 180			9.852	(69/2-)	180
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S-p = 2.755 ( 0.040)-----  
 S-n = 9.654 ( 0.040)-----  
 S-2p = 8.216 ( 0.028)-----  
 S-2n = 17.572 ( 0.040)-----  
 S-alpha= -3.381 ( 0.047)-----

S+p = -4.666 ( 0.040)  
 S+n = -7.681 ( 0.040)  
 S+2p = -6.411 ( 0.040)  
 S+2n = -16.819 ( 0.040)  
 S+alpha = 4.007 ( 0.040)

gap p = -1.910 ( 0.056)  
 gap n = 1.973 ( 0.056)  
 gap 2p = 1.804 ( 0.048)  
 gap 2n = 0.753 ( 0.056)  
 gap alpha = 0.626 ( 0.061)