

^{179}Ta $Z = 73$ $N = 106$ adopted link ENSDF link

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

BE = 1438.012 (0.001) MeV

Qbeta+ = 0.106 (0.002) MeV

	Energy T	J+	J-	J-other	T1/2

S-alpha=	-2.383	(0.002)	-----		
179TA 1	0.000	7/2+			1 1.82 Y 3
179TA 2			0.031	9/2-	2 1.42 US 8
179TA 3				0.134 (9/2+)	3
179TA 4				0.181 (11/2-)	4
179TA 5	0.239	5/2+			5 65 NS 10
179TA 6				0.295 (11/2+)	6
179TA 7				0.344 (7/2+)	7
179TA 8				0.356 (13/2-)	8
179TA 9				0.477 (9/2+)	9
179TA 10				0.481 (13/2+)	10

179TA 11				0.520 (1/2)+	11 0.28 US 8
179TA 12				0.528 (3/2)+	12
179TA 13				0.556 (15/2-)	13
179TA 14			0.628	5/2-	14 80 NS 7
179TA 15				0.637 (11/2+)	15
179TA 16			0.673	9/2-	16
179TA 17				0.673 (5/2+)	17
179TA 18			0.680	1/2-	18
179TA 19	0.692	15/2+			19
179TA 20				0.696 (7/2+)	20

179TA 21				0.741 1/2,3/2	21
179TA 22				0.750 (1/2,3/2)	22
179TA 23				0.757	23
179TA 24				0.778 (17/2-)	24
179TA 25				0.821 (13/2+)	25
179TA 26				0.825 (13/2-)	26
179TA 27			0.855	3/2-	27
179TA 28				0.875	28
179TA 29				0.891 3/2,5/2,7/2	29
179TA 30				0.925 (17/2+)	30

179TA 31				0.938 (9/2+)	31
179TA 32				0.988 (11/2+)	32
179TA 33				0.994 3/2,5/2,7/2	33
179TA 34				1.017	34
179TA 35				1.020 (19/2-)	35
179TA 36				1.029 (15/2+)	36

179TA 37		1.064	1/2+					37
179TA 38						1.089	(17/2-)	38
179TA 39						1.105		39
179TA 40						1.126	3/2,5/2,7/2	40

179TA 41						1.177	3/2,5/2,7/2	41
179TA 42						1.177	(19/2+)	42
179TA 43						1.206		43
179TA 44						1.231		44
179TA 45						1.253	(21/2-)	45 322 NS 16
179TA 46						1.256	(17/2+)	46
179TA 47						1.282	(21/2-)	47
179TA 48		1.298	7/2+					48
179TA 49						1.317	(25/2+)	49 9.0 MS 2
179TA 50						1.328	(23/2-)	50 1.6 US 4

179TA 51						1.335	3/2+,5/2+	51
179TA 52						1.351	(+)	52
179TA 53						1.389	(15/2+)	53
179TA 54						1.396		54
179TA 55					1.420	3/2-		55
179TA 56						1.423	(+)	56
179TA 57						1.447	(21/2+)	57
179TA 58						1.458	(21/2-)	58
179TA 59		1.464	1/2+					59
179TA 60		1.475	7/2+					60

179TA 61					1.496	1/2-		61
179TA 62						1.503	(19/2+)	62
179TA 63					1.524	7/2-		63
179TA 64		1.527	7/2+					64
179TA 65						1.543	(23/2-)	65
179TA 66						1.555	5/2-,7/2-	66
179TA 67						1.558	(23/2-)	67
179TA 68						1.561		68
179TA 69						1.576		69
179TA 70						1.591	(27/2+)	70

179TA 71						1.602	(25/2-)	71
179TA 72						1.610		72
179TA 73						1.629	(19/2+,21/2-)	73 1 NS LE
179TA 74						1.635		74
179TA 75						1.665		75
179TA 76						1.705		76
179TA 77						1.730	(23/2+)	77
179TA 78						1.738	(19/2,21/2)	78
179TA 79		1.739	7/2+					79
179TA 80						1.766	(21/2+)	80

179TA 81						1.778	(+)	81

179TA 82				1.813		82
179TA 83				1.833	(21/2+, 23/2-)	83
179TA 84				1.848	(25/2-)	84
179TA 85				1.849	(25/2-)	85
179TA 86				1.857	(+)	86
179TA 87				1.874		87
179TA 88				1.878	(+)	88
179TA 89				1.880	(19/2+)	89
179TA 90				1.885	(29/2+)	90

179TA 91				1.900	(27/2-)	91
179TA 92				1.905	(+)	92
179TA 93				1.925	(25/2-)	93
179TA 94				1.938		94
179TA 95	1.958	7/2+				95
179TA 96				1.995		96
179TA 97				2.026	(25/2+)	97
179TA 98				2.044	(23/2+)	98
179TA 99				2.059	(23/2+, 25/2-)	99
179TA 100				2.093	(+)	100

179TA 101				2.123		101
179TA 102				2.132		102
179TA 103				2.145	(27/2-)	103
179TA 104				2.162	(27/2-)	104
179TA 105				2.198	(31/2+)	105
179TA 106				2.212	(+)	106
179TA 107				2.219	(29/2-)	107
179TA 108				2.272		108
179TA 109				2.305	(25/2+, 27/2-)	109
179TA 110				2.330	(27/2+)	110

179TA 111				2.332	(25/2+)	111
179TA 112				2.450	(29/2-)	112
179TA 113				2.478	(29/2-)	113
179TA 114				2.513	(29/2-)	114
179TA 115				2.531	(33/2+)	115
179TA 116				2.561	(31/2-)	116
179TA 117				2.632	(27/2+)	117
179TA 118				2.639	(37/2+)	118 54.1 MS 17
179TA 119				2.641	(29/2+)	119
179TA 120				2.654	(31/2)	120

179TA 121				2.757	(31/2-)	121
179TA 122				2.793	(33/2-)	122 17 NS 3
179TA 123				2.864	(31/2)-	123
179TA 124				2.882	(35/2+)	124
179TA 125				2.921	(33/2-)	125
179TA 126				2.929	(35/2-)	126
179TA 127				2.936	(29/2+)	127

179TA 128				2.955	(31/2+)	128		
179TA 129				3.050	(39/2+)	129		
179TA 130				3.072	(33/2-)	130		

179TA 131				3.101	(33/2-)	131		
179TA 132				3.163	(37/2-)	132		
179TA 133				3.185	(35/2)	133		
179TA 134				3.227	(33/2-)	134		
179TA 135				3.251	(37/2+)	135		
179TA 136				3.252	(31/2+)	136		
179TA 137				3.267	(33/2+)	137		
179TA 138				3.395	(35/2-)	138		
179TA 139				3.444	(39/2-)	139		
179TA 140				3.481	(41/2+)	140		

179TA 141				3.638	(39/2+)	141		
179TA 142				3.738	(37/2-)	142		
179TA 143				3.758	(41/2-)	143		
179TA 144				3.780	(37/2-)	144		
179TA 145				3.932	(43/2+)	145		
179TA 146				4.041	(41/2+)	146		
179TA 147				4.102	(43/2-)	147		
179TA 148				4.403	(45/2+)	148		
179TA 149				4.472	(45/2-)	149		
179TA 150				4.509	(41/2-)	150		

179TA 151				4.865	(47/2-)	151		
179TA 152				4.892	(47/2+)	152		
S-p	=	5.211	(0.002)	-----				
179TA 153				5.269	(45/2-)	153		
179TA 154				5.392	(49/2+)	154	53 NS	+3-7
179TA 155				5.398	(49/2+)	155		
179TA 156				5.745	(51/2-)	156		
179TA 157				5.919	(51/2+)	157		
179TA 158				5.954	(53/2+)	158		

S-p	=	5.211	(0.002)	-----				
S-n	=	7.782	(0.001)	-----				
S-2p	=	12.551	(0.002)	-----				
S-2n	=	14.785	(0.004)	-----				
S-alpha	=	-2.383	(0.002)	-----				
S+p	=	-6.568	(0.002)					
S+n	=	-6.648	(0.003)					
S+2p	=	-10.738	(0.013)					
S+2n	=	-14.224	(0.002)					
S+alpha	=	2.123	(0.008)					
gap p	=	-1.357	(0.003)					

gap n = 1.134 (0.003)
gap 2p = 1.813 (0.013)
gap 2n = 0.561 (0.004)
gap alpha = -0.261 (0.008)