

^{181}Ta $Z = 73$ $N = 108$ adopted link ENSDF link

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

BE = 1452.236 (0.002) MeV

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

S-alpha=	-1.520	(0.002)	-----		
181TA 1	0.000	7/2+			1 STABLE
181TA 2			0.006	9/2-	2 6.05 US 12
181TA 3	0.136	9/2+			3 39.5 PS 16
181TA 4			0.159	11/2-	4
181TA 5	0.302	11/2+			5 16 PS 3
181TA 6			0.338	13/2-	6
181TA 7	0.482	5/2+			7 10.8 NS 1
181TA 8	0.495	13/2+			8 6.3 PS 8
181TA 9			0.543	15/2-	9
181TA 10	0.590	7/2+			10

181TA 11	0.615	1/2+			11 18 US 1
181TA 12	0.619	3/2+			12 0.87 NS 2
181TA 13	0.717	15/2+			13 3.0 PS 4
181TA 14	0.727	9/2+			14
181TA 15			0.773	17/2-	15
181TA 16	0.893	11/2+			16
181TA 17	0.965	17/2+			17 1.93 PS 24
181TA 18				0.994	18
181TA 19				0.994 (5/2-)	19
181TA 20				1.023 (9/2-)	20

181TA 21			1.028	19/2-	21
181TA 22	1.086	13/2+			22
181TA 23				1.157	23
181TA 24				1.164 (13/2-)	24
181TA 25				1.206 (3/2+)	25
181TA 26				1.233	26
181TA 27	1.239	19/2+			27 1.12 PS 14
181TA 28				1.278 (5/2+)	28
181TA 29	1.305	15/2+			29
181TA 30			1.307	21/2-	30

181TA 31				1.340	31
181TA 32				1.380 (7/2+)	32
181TA 33				1.381 (11/2+)	33
181TA 34				1.390	34
181TA 35			1.403	15/2-	35
181TA 36				1.403 (17/2)	36
181TA 37				1.404 (15/2)	37

181TA 38						1.420	(17/2-)	38
181TA 39						1.473		39
181TA 40				1.483	21/2-			40 25 US 2

181TA 41						1.508	(9/2+)	41
181TA 42		1.539	21/2+					42 0.76 PS 10
181TA 43		1.548	17/2+					43
181TA 44						1.563	(13/2+)	44
181TA 45						1.584	(17/2)	45
181TA 46						1.592	(19/2)	46
181TA 47				1.609	23/2-			47
181TA 48						1.661		48
181TA 49						1.665	(11/2+)	49
181TA 50						1.685	(19/2)	50

181TA 51						1.772	(15/2+)	51
181TA 52				1.776	23/2-			52
181TA 53						1.787	(21/2-)	53
181TA 54						1.788	(19/2)	54
181TA 55						1.804	(21/2)	55
181TA 56						1.819	(19/2+)	56
181TA 57		1.863	23/2+					57
181TA 58						1.866		58
181TA 59				1.933	25/2-			59
181TA 60						1.935		60

181TA 61						2.001	(17/2+)	61
181TA 62						2.015	(21/2)	62
181TA 63						2.020		63
181TA 64						2.097		64
181TA 65				2.098	25/2-			65
181TA 66						2.105		66
181TA 67						2.122	(21/2+)	67
181TA 68		2.210	25/2+					68
181TA 69						2.228		69 210 US 20
181TA 70						2.240		70

181TA 71						2.253		71
181TA 72						2.261	(25/2-)	72
181TA 73						2.263	(23/2)	73
181TA 74						2.272		74
181TA 75				2.276	27/2-			75
181TA 76						2.289		76
181TA 77						2.297		77
181TA 78						2.361		78
181TA 79						2.400		79
181TA 80						2.418		80

181TA 81						2.448		81
181TA 82						2.519		82

181TA 83				2.526		83
181TA 84				2.534	(25/2)	84
181TA 85				2.570		85
181TA 86		2.580	27/2+			86
181TA 87				2.643	29/2-	87
181TA 88					2.761	88
181TA 89					2.800	89
181TA 90					2.807	90

181TA 91					2.812	91
181TA 92					2.835	92
181TA 93					2.845	93
181TA 94					2.890	94
181TA 95					2.892	95
181TA 96					2.898	96
181TA 97					2.929	97
181TA 98					2.967	98
181TA 99		2.968	29/2+			99
181TA 100					3.010	100 0.78 PS

181TA 101					3.016	101
181TA 102				3.021	31/2-	102
181TA 103					3.023	103
181TA 104					3.029	104
181TA 105					3.035	105
181TA 106					3.054	106
181TA 107					3.065	107
181TA 108					3.074	108
181TA 109					3.081	109
181TA 110					3.086	110

181TA 111					3.092	111
181TA 112					3.108	112
181TA 113					3.320	113
181TA 114					3.329	114
181TA 115					3.407	115
S-p	=	5.948	(0.002)	-----		
181TA 116					6.418	116 1.7 PS
181TA 117					6.759	117 25 PS

S-p	=	5.948	(0.002)	-----		
S-n	=	7.577	(0.003)	-----		
S-2p	=	13.958	(0.005)	-----		
S-2n	=	14.224	(0.002)	-----		
S-alpha	=	-1.520	(0.002)	-----		

S+p	=	-7.096	(0.002)			
S+n	=	-6.063	(0.002)			
S+2p	=	-11.949	(0.008)			

S+2n = -12.997 (0.002)
S+alpha = 2.195 (0.002)

gap p = -1.148 (0.003)
gap n = 1.514 (0.003)
gap 2p = 2.009 (0.010)
gap 2n = 1.227 (0.003)
gap alpha = 0.675 (0.003)