^{182}Ta $Z = 73$ $N = 109$ adopted link ENSDF link

Based on ENSDF from Apr 2024, and mass evaluation from 2020

BE = 1458.299 (0.002) MeV
Qbeta- = 1.816 (0.002) MeV

		Energy	T	J+		J-		J-other		T1/2	
S-alpha= -1.482 (0.003)											
182TA	1				0.000	3-			1	114.74	D 12
182TA	2	0.016		5+					2	283	MS 3
182TA	3				0.098	4-			3		
182TA	4				0.114	4-			4		
182TA	5	0.150		4+					5		
182TA	6	0.163		6+					6	30	PS LT
182TA	7				0.173	5-			7		
182TA	8				0.237	5-			8		
182TA	9						0.245		9		
182TA	10	0.250		(3)+					10		
182TA	11	0.269		(5)+					11		
182TA	12				0.270	2-			12	1.2	NS 2
182TA	13				0.293	5-			13		
182TA	14				0.316	6-			14		
182TA	15						0.331	2+,5+	15		
182TA	16	0.335		7+					16	30	PS LT
182TA	17				0.361	3-			17		
182TA	18	0.364		4+					18		
182TA	19	0.390		(6)+					19		
182TA	20				0.396	(6-)			20		
182TA	21	0.403		2+					21	1.00	NS 5
182TA	22	0.411		(6+)					22		
182TA	23				0.444	1-			23	2.2	NS 2
182TA	24						0.458		24		
182TA	25	0.476		(3)+					25		
182TA	26				0.480	4-			26		
182TA	27				0.488	6-			27		
182TA	28				0.491	2-			28		
182TA	29	0.506		5+					29		
182TA	30				0.520	10-			30	15.84	M 10
182TA	31				0.547	(3)-			31		
182TA	32				0.558	(1)-			32		
182TA	33				0.566	(3)-			33		
182TA	34	0.572		4+					34		
182TA	35	0.579		(7+)					35		
182TA	36				0.581	(7-)			36		

182TA	37			0.583	(0-)			37
182TA	38	0.593	(1)+					38
182TA	39			0.628	5-			39
182TA	40	0.647	(2+)					40
182TA	41			0.648	(2)-			41
182TA	42			0.651	(4)-			42
182TA	43			0.652	(9-)			43
182TA	44			0.660	(4)-			44
182TA	45					0.663		45
182TA	46			0.666	2-			46
182TA	47	0.673	(6+)					47
182TA	48					0.696		48
182TA	49			0.702	3-			49
182TA	50			0.720	(3)-			50
182TA	51	0.724	3+					51
182TA	52			0.740	(2)-			52
182TA	53	0.749	(3)+					53
182TA	54			0.776	(7-)			54
182TA	55			0.781	5-			55
182TA	56			0.783	(5-)			56
182TA	57					0.791		57
182TA	58			0.805	(6-)			58
182TA	59			0.817	(4)-			59
182TA	60					0.831		60
182TA	61			0.835	3-			61
182TA	62					0.843	3-,4-,5-	62
182TA	63			0.856	(4)-			63
182TA	64					0.866	2-,5-	64
182TA	65					0.881	3+,4+,5+	65
182TA	66					0.898	3-,4-	66
182TA	67			0.910	5-			67
182TA	68					0.915	3-,4-	68
182TA	69					0.936	(2:5)+	69
182TA	70			0.940	5-			70
182TA	71			0.960	(4-)			71
182TA	72			0.961	(5-)			72
182TA	73					0.987	3-,4-	73
182TA	74					1.000	3-,4-	74
182TA	75					1.003	2-,5-	75
182TA	76					1.022	3+,4+	76
182TA	77					1.028	3-,4-	77
182TA	78					1.050	3-,4-	78
182TA	79					1.057	3-,4-	79
182TA	80					1.082	3-,4-	80
182TA	81			1.101	5-			81

182TA 82		1.114	5-			82
182TA 83		1.116	(7-)			83
182TA 84				1.125	(2-,5-)	84
182TA 85				1.137	3-,4-	85
182TA 86				1.150	3-,4-	86
182TA 87				1.170	3-,4-	87
182TA 88				1.196	2-,3-,4-	88
182TA 89				1.203	3+,4+,5+	89
182TA 90		1.216	2-			90
182TA 91				1.230	3-,4-	91
182TA 92				1.240	3-,4-	92
182TA 93				1.260	3-,4-	93
182TA 94				1.270	3-,4-	94
182TA 95				1.280	3-,4-	95
182TA 96				1.284	3-,4-	96
182TA 97				1.289		97
182TA 98				1.299	2,3,4,5	98
182TA 99				1.303	3-,4-	99
182TA 100				1.321	3-,4-	100
182TA 101		1.326	5-			101
182TA 102				1.332		102
182TA 103		1.337	(8-)			103
182TA 104				1.350	3-,4-	104
182TA 105		1.360	5-			105
182TA 106				1.371	3-,4-	106
182TA 107				1.377	3-,4-	107
182TA 108				1.389	3-,4-	108
182TA 109				1.393	3-,4-	109
182TA 110				1.396		110
182TA 111				1.417	3-,4-	111
182TA 112				1.433		112
182TA 113				1.445	3-,4-	113
182TA 114				1.452	3-,4-	114
182TA 115				1.472	3-,4-	115
182TA 116				1.480	3-,4-	116
182TA 117				1.483		117
182TA 118				1.490	3-,4-	118
182TA 119				1.496	3-,4-	119
182TA 120				1.527	3-,4-	120
182TA 121				1.538	3,4,5	121
182TA 122				1.542	3-,4-	122
182TA 123		1.546	2-			123
182TA 124		1.552	5-			124
182TA 125		1.556	5-			125
182TA 126		1.571	2-			126
182TA 127				1.577	3-,4-	127

182TA 128			1.580		128
182TA 129			1.582	3-,4-	129
182TA 130			1.605	3-,4-	130
182TA 131			1.612	3-,4-	131
182TA 132			1.617	3-,4-	132
182TA 133			1.628	3-,4-	133
182TA 134			1.636	3-,4-	134
182TA 135			1.642	3-,4-	135
182TA 136			1.646	(2:5)	136
182TA 137	1.651	5-			137
182TA 138			1.658	2-,3-,4-	138
182TA 139	1.662	5-			139
182TA 140			1.667	(2:5)	140
182TA 141			1.674	3-,4-	141
182TA 142			1.680	3-,4-	142
182TA 143			1.695	3-,4-	143
182TA 144			1.701	3-,4-	144
182TA 145			1.712	3-,4-	145
182TA 146			1.714		146
182TA 147			1.725	3-,4-	147
182TA 148			1.734	3,4	148
182TA 149			1.747	3-,4-	149
182TA 150	1.756	5-			150
182TA 151	1.763	5-			151
182TA 152			1.766	(2:5)	152
182TA 153			1.770	3,4	153
182TA 154			1.778	3-,4-	154
182TA 155			1.803		155
182TA 156			1.827		156
182TA 157			1.843		157
182TA 158			1.890		158
182TA 159			1.905		159
182TA 160			1.924		160
182TA 161			1.945		161
182TA 162			1.960		162
182TA 163			1.984		163
182TA 164			2.009		164
182TA 165			2.017		165
182TA 166			2.030		166
182TA 167			2.043		167
182TA 168			2.055		168
182TA 169			2.081		169
182TA 170			2.146		170
182TA 171			2.161		171
182TA 172			2.180		172

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182TA 173 |                 |                 |   2.274                     173
182TA 174 |                 |                 |   2.369                     174
182TA 175 |                 |                 |   2.394                     175
182TA 176 |                 |                 |   2.420                     176
182TA 177 |                 |                 |   2.478                     177
182TA 178 |                 |                 |   2.659                     178
182TA 179 |                 |                 |   2.674                     179
182TA 180 |                 |                 |   6.063     3+,4+           180
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S-n    =   6.063 ( 0.002)-----------------------------------------------------------------------
182TA 181 |                 |                 |   6.065     3+,4+           181


S-p    =   6.317 ( 0.002)-----------------------------------------------------------------------
S-n    =   6.063 ( 0.002)-----------------------------------------------------------------------
S-2p   =  14.332 ( 0.071)-----------------------------------------------------------------------
S-2n   =  13.640 ( 0.003)-----------------------------------------------------------------------
S-alpha=  -1.482 ( 0.003)-----------------------------------------------------------------------

S+p       =  -7.224 ( 0.002)
S+n       =  -6.934 ( 0.002)
S+2p      = -12.367 ( 0.005)
S+2n      = -12.551 ( 0.026)
S+alpha   =   2.078 ( 0.002)

gap p     =  -0.907 ( 0.003)
gap n     =  -0.871 ( 0.003)
gap 2p    =   1.965 ( 0.071)
gap 2n    =   1.088 ( 0.026)
gap alpha =   0.596 ( 0.003)
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