

^{46}Ti $Z = 22$ $N = 24$ [link to full NNDC output](#)

Based on ENSDF from Dec 2018, and mass evaluation from 2016

BE = 398.197 (0.000) MeV

	Energy T	J+	J-	J-other	T1/2
46Ti 1	0.000	0+			1 STABLE
46Ti 2	0.889	2+			2 5.32 PS 15
46Ti 3	2.010	4+			3 1.62 PS 10
46Ti 4	2.611	0+			4 76 FS 21
46Ti 5	2.962	2+			5 166 FS 7
46Ti 6			3.058 3-		6 7 PS 2
46Ti 7			3.168 1-		7 176 FS 24
46Ti 8				3.213	8
46Ti 9				3.217	9
46Ti 10	3.236	2+			10 29 FS 6
46Ti 11	3.299	6+			11 0.99 PS 9
46Ti 12				3.338	12
46Ti 13			3.441 4-		13 66 PS 4
46Ti 14				3.553	14
46Ti 15			3.569 3-		15 50 FS +19-16
46Ti 16	3.572	0+			16 192 FS +16-13
46Ti 17				3.580	17 70 FS 30
46Ti 18				3.610	18
46Ti 19			3.677 2-		19
46Ti 20	3.696	2+			20
46Ti 21				3.724 (2)+	21 57 FS 4
46Ti 22	3.731	1+			22
46Ti 23				3.738 (1,2+)	23
46Ti 24				3.772 +	24
46Ti 25			3.826 5-		25 3.7 PS 21
46Ti 26	3.845	2+			26 8.9 FS 21
46Ti 27				3.848 (4+)	27
46Ti 28			3.852 5-		28 4.8 PS 8
46Ti 29				3.856	29
46Ti 30	3.872	1+			30
46Ti 31	3.889	2+			31 0.38 PS 7
46Ti 32				3.906 (1,2+)	32 22 FS 4
46Ti 33				3.926 (2+)	33
46Ti 34	3.942	4+			34 0.02 PS LT
46Ti 35				4.003	35
46Ti 36	4.025	2+			36
46Ti 37				4.039	37
46Ti 38	4.130	2+			38

46TI 39				4.179	3-					39
46TI 40				4.192	3-					40

46TI 41		4.316	1+							41 2.7 FS 4
46TI 42							4.323			42
46TI 43					4.372	3-				43
46TI 44							4.398	(5-,6+)		44
46TI 45					4.417	6-				45 0.45 PS 17
46TI 46							4.437			46
46TI 47							4.500			47
46TI 48		4.523	4+							48 0.07 PS 3
46TI 49							4.527	(6+)		49
46TI 50							4.573			50

46TI 51							4.617			51
46TI 52					4.662	6-				52 1.4 PS 4
46TI 53		4.675	0+							53
46TI 54							4.697	(2+)		54
46TI 55							4.726	(5-,6+)		55
46TI 56							4.791	(3-)		56
46TI 57					4.827	3-				57
46TI 58							4.845	+		58
46TI 59		4.897	8+							59 0.49 PS 6
46TI 60		4.950	2+							60

46TI 61							5.000			61
46TI 62					5.024	3-				62
46TI 63							5.079	(4+)		63
46TI 64							5.094	+		64
46TI 65							5.117			65
46TI 66							5.154			66
46TI 67							5.180	+		67
46TI 68					5.198	7-				68 0.83 PS 3
46TI 69					5.206	3-				69
46TI 70		5.230	2+							70

46TI 71		5.280	6+							71
46TI 72		5.321	2+							72
46TI 73							5.361	(5-,6+)		73
46TI 74		5.363	2+							74
46TI 75					5.409	3-				75
46TI 76		5.515	2+							76
46TI 77					5.530	3-				77
46TI 78							5.604	(2+)		78
46TI 79		5.610	0+							79
46TI 80							5.700	(2+)		80

46TI 81		5.794	4+							81
46TI 82							5.811	+		82
46TI 83					5.828	3-				83

46TI 84					5.840	+	84
46TI 85					5.872	(2+)	85
46TI 86					5.903	+	86
46TI 87			5.950	3-			87
46TI 88					5.965	(6+)	88
46TI 89					5.992	(4+)	89
46TI 90					6.021	+	90

46TI 91					6.025		91
46TI 92					6.094	3-,4-	92
46TI 93	6.118	2+					93
46TI 94	6.134	2+					94
46TI 95			6.150	8-			95 0.31 PS 3
46TI 96	6.200	8+					96 0.19 PS LT
46TI 97			6.217	3-			97
46TI 98	6.242	10+					98 0.84 PS 4
46TI 99					6.251		99
46TI 100					6.266		100

46TI 101					6.305		101
46TI 102	6.338	4+					102
46TI 103	6.360	1+					103
46TI 104	6.395	4+					104
46TI 105	6.398	1+					105
46TI 106					6.424	+	106
46TI 107			6.458	3-			107
46TI 108					6.513		108
46TI 109					6.550	+	109
46TI 110					6.574		110

46TI 111					6.616	+	111
46TI 112	6.685	4+					112
46TI 113					6.739	(4)+	113
46TI 114					6.794		114
46TI 115			6.830	9-			115 0.52 PS 6
46TI 116					6.851	+	116
46TI 117	6.890	4+					117
46TI 118					6.958	(3-)	118
46TI 119					6.974	+	119
46TI 120					7.019	(3-,4+)	120

46TI 121					7.041	+	121
46TI 122					7.101	+	122
46TI 123					7.120	(3-)	123
46TI 124					7.147	+	124
46TI 125					7.172		125
46TI 126	7.180	1+					126
46TI 127					7.201	+	127
46TI 128					7.238		128
46TI 129					7.288	+	129

46TI 130			7.312	3-					130

46TI 131						7.350	+		131
46TI 132						7.392	(3-)		132
46TI 133	7.410	1+							133
46TI 134						7.429	+		134
46TI 135						7.472			135
46TI 136						7.534	(3-)		136
46TI 137						7.558	+		137
46TI 138						7.584	+		138
46TI 139						7.608	+		139
46TI 140	7.630	1+							140

46TI 141						7.660			141
46TI 142						7.710	+		142
46TI 143	7.730	1+							143
46TI 144						7.735			144
46TI 145						7.788	+		145
46TI 146						7.849	+		146
46TI 147						7.874			147
46TI 148						7.917	+		148
46TI 149						7.937			149
46TI 150	7.942	11+							150 0.31 PS 8

46TI 151			7.961	10-					151 0.30 PS LT
46TI 152						7.979	+		152

S-alpha=	8.005 (0.000)-----								
46TI 153						8.013			153
46TI 154						8.020	(0+)		154
46TI 155						8.040			155
46TI 156						8.088	+		156
46TI 157						8.134			157
46TI 158						8.182	+		158
46TI 159	8.217	12+							159 0.51 PS 5
46TI 160						8.230	+		160

46TI 161						8.284	10,11,12+		161 0.17 PS LT
46TI 162						8.293	+		162
46TI 163						8.346	+		163
46TI 164						8.384	+		164
46TI 165	8.460	1+							165
46TI 166						8.467	+		166
46TI 167						8.530	+		167
46TI 168						8.574	+		168
46TI 169						8.621	+		169
46TI 170						8.662	+		170

46TI 171						8.701	+		171
46TI 172			8.716	11-					172 0.29 PS LT
46TI 173						8.761	+		173

46TI 174				8.808	+	174
46TI 175				8.860	+	175
46TI 176				8.940	+	176
46TI 177				8.984	+	177
46TI 178		9.000	1+			178
46TI 179				9.070	+	179
46TI 180				9.111	+	180

46TI 181				9.141		181
46TI 182		9.168	4+			182
46TI 183		9.170	1+			183
46TI 184		9.205	6+			184
46TI 185				9.253	+	185
46TI 186				9.304	+	186
46TI 187				9.345	+	187
46TI 188				9.399	+	188
46TI 189		9.420	1+			189
46TI 190				9.426	+	190

46TI 191				9.474	+	191
46TI 192				9.519	-	192
46TI 193		9.550	1+			193
46TI 194				9.572	+	194
46TI 195		9.615	2+			195
46TI 196				9.649	+	196
46TI 197		9.670	1+			197
46TI 198				9.682		198
46TI 199				9.718	-	199
46TI 200				9.761		200

46TI 201		9.770	1+			201
46TI 202				9.790		202
46TI 203				9.852		203
46TI 204				9.864		204
46TI 205		9.870	1+			205
46TI 206				9.973	+	206
46TI 207		10.000	1+			207
46TI 208				10.038		208
46TI 209				10.042	12+, 14+	209 0.6 PS 2
46TI 210		10.180	1+			210

46TI 211				10.212		211
46TI 212				10.256		212
46TI 213				10.321		213

S-p	=	10.345 (0.001)		-----		
46TI 214				10.347		214
46TI 215		10.350	1+			215
46TI 216				10.374		216
46TI 217				10.380		217
46TI 218				10.441		218

46TI 219				10.523	+	219
46TI 220				10.602		220

46TI 221				10.661		221
46TI 222				10.730		222
46TI 223				10.782	+	223
46TI 224				10.866		224
46TI 225				10.938	+	225
46TI 226				10.980		226
46TI 227		11.050			1+	227
46TI 228				11.051		228
46TI 229				11.110		229
46TI 230				11.167		230

46TI 231				11.299		231
46TI 232				11.354	3	232
46TI 233				11.374		233
46TI 234				11.426		234
46TI 235		11.450			1+	235
46TI 236		11.570			1+	236
46TI 237				11.698	(2,3)	237
46TI 238		11.840			1+	238
46TI 239		12.200			1+	239
46TI 240		12.460			0+	240

46TI 241		12.650			1+	241
46TI 242				12.974		242
46TI 243		13.070			1+	243
46TI 244				13.169		244
S-n	=	13.189	(0.001)	-----		
46TI 245		13.310			1+	245
46TI 246		14.153			0+	246
46TI 247				14.300	(0+)	247

S-p	=	10.345	(0.001)	-----		
S-n	=	13.189	(0.001)	-----		
S-2p	=	17.237	(0.000)	-----		
S-2n	=	22.722	(0.001)	-----		
S-alpha	=	8.005	(0.000)	-----		
S+p	=	-5.168	(0.000)			
S+n	=	-8.881	(0.000)			
S+2p	=	-13.272	(0.007)			
S+2n	=	-20.508	(0.000)			
S+alpha	=	-8.559	(0.000)			
gap p	=	5.177	(0.001)			
gap n	=	4.308	(0.001)			
gap 2p	=	3.965	(0.007)			

gap 2n = 2.214 (0.001)
gap alpha = -0.554 (0.001)