

^{99}Tc $Z = 43$ $N = 56$ adopted link ENSDF link

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

BE = 852.747 (0.001) MeV

Qbeta- = 0.297 (0.001) MeV

	Energy T	J+	J-	J-other	T1/2
99TC 1	0.000	9/2+			1 2.111E+5 Y12
99TC 2	0.141	7/2+			2 0.19 NS 2
99TC 3			0.143 1/2-		3 6.0072 H 9
99TC 4	0.181	5/2+			4 3.61 NS 7
99TC 5			0.509 3/2-		5
99TC 6				0.534 (3/2+)	6
99TC 7				0.537	7
99TC 8			0.612 5/2-		8
99TC 9				0.626 (9/2+)	9
99TC 10				0.653	10
99TC 11			0.671 3/2-		11
99TC 12	0.719	7/2+			12
99TC 13	0.727	11/2+			13 1.8 PS 2
99TC 14				0.739 (7/2+)	14
99TC 15	0.762	5/2+			15 0.7 PS 4
99TC 16	0.762	13/2+			16 2.4 PS 3
99TC 17				0.884 (5/2-)	17
99TC 18	0.921	1/2+			18 0.1 NS LT
99TC 19				0.986 (7/2-)	19
99TC 20				1.004 3/2(-)	20
99TC 21				1.017 (3/2+,5/2+)	21
99TC 22				1.020 (5/2+)	22
99TC 23				1.072 (7/2+)	23
99TC 24				1.081 (11/2+)	24 0.9 PS 3
99TC 25				1.127	25
99TC 26				1.129 (3/2)-	26
99TC 27				1.135 (5/2-)	27
99TC 28	1.142	3/2+			28
99TC 29				1.149 (9/2+)	29
99TC 30	1.172	3/2+			30
99TC 31			1.176 9/2-		31
99TC 32				1.199 (3/2-)	32
99TC 33				1.203 (9/2+)	33
99TC 34				1.205 (3/2)-	34
99TC 35				1.207 (7/2-)	35
99TC 36				1.244 (7/2+)	36
99TC 37				1.269 (7/2+,9/2,11/2+)	37

99TC 38						1.306	(7/2+)	38
99TC 39						1.309		39
99TC 40				1.321	3/2-			40

99TC 41						1.329	(7/2-)	41
99TC 42						1.405	(1/2-, 3/2-)	42
99TC 43						1.426	(9/2+, 7/2+)	43
99TC 44						1.435	(3/2)	44
99TC 45						1.444	(3/2+, 5/2)	45
99TC 46						1.469		46
99TC 47						1.494		47
99TC 48						1.504	(3/2+, 5/2+)	48
99TC 49						1.507	(13/2+)	49
99TC 50						1.526	(15/2+)	50

99TC 51						1.543		51
99TC 52						1.552	(3/2+)	52
99TC 53						1.552	(7/2+)	53
99TC 54		1.555	1/2+					54
99TC 55						1.563	(5/2+, 7/2+, 9/2+)	55
99TC 56						1.565	(5/2+, 7/2+, 9/2+)	56
99TC 57						1.566	(11/2+)	57
99TC 58						1.581	(11/2+, 13/2+)	58
99TC 59		1.585	17/2+					59
99TC 60						1.604	(11/2-)	60

99TC 61						1.611	(1/2-, 3/2-, 5/2-)	61
99TC 62						1.622		62
99TC 63						1.659	(3/2+, 5/2+, 7/2+)	63
99TC 64						1.678	(5/2)+	64
99TC 65				1.747	13/2-			65
99TC 66						1.753		66
99TC 67						1.760	3/2+, 5/2+	67
99TC 68						1.775	(5/2-, 7/2, 9/2-)	68
99TC 69						1.790		69
99TC 70						1.803	(1/2+)	70

99TC 71						1.808	(3/2+, 5/2+)	71
99TC 72						1.824	(3/2+, 5/2+)	72
99TC 73						1.853		73
99TC 74						1.875		74
99TC 75		1.911	1/2+					75
99TC 76						1.947		76
99TC 77						1.982	(3/2+, 5/2+)	77
99TC 78						2.000	(3/2+, 5/2+)	78
99TC 79						2.064		79
99TC 80						2.073		80

99TC 81						2.111	3/2+, 5/2+	81
99TC 82						2.155	(17/2+)	82

99TC 83				2.160	(3/2+,5/2+)	83
99TC 84				2.176	(1/2+)	84
99TC 85				2.203	3/2+,5/2+	85
99TC 86				2.223	(15/2-)	86
99TC 87				2.242	(17/2+)	87
99TC 88	2.281	1/2+				88
99TC 89			2.330	17/2-		89
99TC 90				2.363		90

99TC 91				2.396	(3/2+,5/2+)	91
99TC 92				2.414	(3/2+,5/2+)	92
99TC 93				2.424	(17/2+)	93
99TC 94				2.459		94
99TC 95				2.466	(1/2+)	95
99TC 96				2.486	(1/2+)	96
99TC 97	2.487	19/2+				97
99TC 98			2.502	17/2-		98
99TC 99				2.506		99
99TC 100				2.522	3/2+,5/2+	100

99TC 101				2.553	(21/2+)	101
99TC 102				2.581	3/2+,5/2+	102
99TC 103				2.589		103
99TC 104				2.611		104
99TC 105			2.647	19/2-		105
99TC 106				2.653	(1/2+)	106
99TC 107				2.675	(1/2+)	107
99TC 108	2.704	21/2+				108
99TC 109				2.714	3/2+,5/2+	109
99TC 110				2.759	(19/2+)	110

99TC 111			2.761	19/2-		111
99TC 112				2.765	3/2+,5/2+	112
99TC 113			2.785	21/2-		113
99TC 114				2.846	3/2+,5/2+	114
99TC 115	2.856	23/2+				115
99TC 116				2.916		116

S-alpha=	2.967	(0.001)	-----	-----	-----	-----
99TC 117				2.997	3/2+,5/2+	117
99TC 118				3.066	3/2+,5/2+	118
99TC 119			3.108	21/2-		119
99TC 120	3.115	1/2+				120

99TC 121				3.130	(23/2-)	121
99TC 122				3.186	(3/2+,5/2+)	122
99TC 123				3.204		123
99TC 124				3.245	(1/2+)	124
99TC 125			3.296	23/2-		125
99TC 126				3.377	(25/2-)	126
99TC 127	3.559	23/2+				127

99TC 128						3.623	(23/2,25/2)	128
99TC 129						3.649	(25/2+)	129
99TC 130						3.814		130

99TC 131				3.884		27/2-		131
99TC 132		3.911		25/2+				132
99TC 133				4.027		27/2-		133
99TC 134						4.067	(25/2+)	134
99TC 135						4.178		135
99TC 136				4.204		29/2-		136
99TC 137		4.303		27/2+				137
99TC 138		4.725		29/2+				138
99TC 139						4.786	(31/2-)	139
99TC 140		4.916		29/2+				140

99TC 141		5.076		31/2+				141
99TC 142				5.341		33/2-		142
99TC 143						5.596	(33/2+)	143
99TC 144						6.001	(35/2+)	144

S-p = 6.501 (0.001)-----
 S-n = 8.967 (0.004)-----
 S-2p = 16.303 (0.004)-----
 S-2n = 16.246 (0.004)-----
 S-alpha = 2.967 (0.001)-----

S+p = -9.188 (0.001)
 S+n = -6.764 (0.002)
 S+2p = -14.662 (0.006)
 S+2n = -15.159 (0.024)
 S+alpha = -3.129 (0.002)

gap p = -2.688 (0.001)
 gap n = 2.203 (0.004)
 gap 2p = 1.641 (0.007)
 gap 2n = 1.087 (0.024)
 gap alpha = -0.162 (0.003)