

$^{109}\text{Tc}$        $Z = 43$        $N = 66$       adopted link      ENSDF link

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

BE = 920.416 ( 0.010) MeV

Qbeta- = 6.456 ( 0.013) MeV

	Energy T	J+	J-	J-other	T1/2
109TC 1				0.000 (5/2+)	1 0.91 S 3
109TC 2				0.007 (5/2-)	2
109TC 3				0.018 (3/2-)	3
109TC 4				0.051 (3/2+)	4
109TC 5				0.069 (7/2+)	5
109TC 6				0.172 (7/2-)	6
109TC 7				0.206 (9/2+)	7
109TC 8				0.333 (3/2+)	8
109TC 9				0.359 (7/2+)	9
109TC 10				0.388 (9/2-)	10
109TC 11				0.424 (5/2+)	11
109TC 12				0.489 (3/2,5/2)	12
109TC 13				0.495 (9/2+)	13
109TC 14				0.504 (11/2+)	14
109TC 15				0.606 (11/2-)	15
109TC 16				0.632 (11/2+)	16
109TC 17				0.644 (13/2+)	17
109TC 18				0.703 (3/2,5/2,7/2+)	18
109TC 19				0.745 (7/2+)	19
109TC 20				0.915 (13/2-)	20
109TC 21				0.965 (13/2+)	21
109TC 22				1.084 (15/2+)	22
109TC 23				1.172 (15/2-)	23
109TC 24				1.231 (17/2+)	24
109TC 25				1.262 (15/2+)	25
109TC 26				1.383 (15/2+)	26
109TC 27				1.441 (13/2+)	27
109TC 28				1.575 (17/2-)	28
109TC 29				1.636 (17/2+)	29
109TC 30				1.680 (17/2+)	30
109TC 31				1.750 (15/2-)	31
109TC 32				1.756 (3/2,5/2,7/2)	32
109TC 33				1.796 (19/2+)	33
109TC 34				1.861 (19/2-)	34
109TC 35				1.931 (17/2-)	35
109TC 36				1.951 (21/2+)	36
109TC 37				2.023 (3/2+,5/2,7/2+)	37

109TC	38				2.068	(3/2,5/2,7/2)	38
109TC	39				2.078	(19/2+)	39
109TC	40				2.137	(19/2-)	40
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109TC	41				2.286	(3/2,5/2,7/2+)	41
109TC	42				2.346	(21/2-)	42
109TC	43				2.376	(21/2-)	43
109TC	44				2.552	(23/2+)	44
109TC	45				2.643	(23/2-)	45
109TC	46				2.660	(23/2-)	46
109TC	47				2.753	(25/2+)	47
109TC	48				2.940	(25/2-)	48
109TC	49				3.217	(27/2+)	49
109TC	50				3.439	(29/2+)	50
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109TC	51				4.072	(33/2+)	51
109TC	52				4.833	(37/2+)	52

S-p = 10.823 ( 0.013)-----  
 S-n = 6.431 ( 0.013)-----  
 S-2p = 25.137 ( 0.013)-----  
 S-2n = 11.676 ( 0.013)-----  
 S-alpha= 6.792 ( 0.010)-----

S+p = -13.079 ( 0.013)  
 S+n = -4.823 ( 0.014)  
 S+2p = -22.599 ( 0.012)  
 S+2n = -10.884 ( 0.014)  
 S+alpha = -6.909 ( 0.012)

gap p = -2.256 ( 0.019)  
 gap n = 1.608 ( 0.019)  
 gap 2p = 2.538 ( 0.017)  
 gap 2n = 0.791 ( 0.019)  
 gap alpha = -0.117 ( 0.016)