

^{109}Te $Z = 52$ $N = 57$ adopted link ENSDF link

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

BE = 906.807 (0.004) MeV

Qbeta+ = 8.536 (0.007) MeV

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

S-alpha=	-3.198 (0.006)				
109TE 1				0.000 (5/2+)	1 4.4 S 2
109TE 2				0.098 (7/2+)	2
109TE 3				0.265 (5/2+)	3
109TE 4				0.538 (7/2+)	4
109TE 5				0.690 (9/2+)	5 24 PS 5
109TE 6				0.763 (9/2+)	6 3.1 PS 20
109TE 7				0.772 (11/2+)	7
109TE 8				1.089 (11/2-)	8 67.0 PS 21
109TE 9				1.221 (11/2+)	9
109TE 10				1.352 (13/2+)	10

109TE 11				1.532 (15/2+)	11
109TE 12				1.584 (15/2-)	12 9.7 PS 10
109TE 13				1.936 (15/2+)	13
109TE 14				1.950 (13/2-)	14
109TE 15				2.193 (19/2-)	15 3.8 PS 9
109TE 16				2.385 (19/2+)	16
109TE 17				2.497 (17/2-)	17

S-p	= 2.559 (0.007)				
109TE 18				2.888 (23/2-)	18
109TE 19				2.928 (19/2+)	19
109TE 20				3.160 (21/2-)	20

109TE 21				3.427 (23/2+)	21
109TE 22				3.777 (27/2-)	22

S-2p	= 3.781 (0.007)				
109TE 23				3.957 (25/2-)	23
109TE 24				4.462 (27/2+)	24
109TE 25				4.673 (29/2+)	25
109TE 26				4.711 (31/2-)	26
109TE 27				4.844 (29/2-)	27
109TE 28				4.963	28
109TE 29				5.198	29
109TE 30				5.511	30

109TE 31				5.551 (33/2+)	31
109TE 32				5.614 (31/2+)	32
109TE 33				5.727 (35/2-)	33
109TE 34				5.793 (33/2-)	34

109TE 35				5.901		35
109TE 36				6.354		36
109TE 37				6.399	(37/2+)	37
109TE 38				6.756	(39/2-)	38
109TE 39				6.801	(37/2-)	39
109TE 40				7.389	(41/2+)	40

109TE 41				7.990	(43/2-)	41
109TE 42				8.106	(41/2-)	42
109TE 43				8.363	(45/2+)	43
109TE 44				9.217	(47/2-)	44
109TE 45				9.411	(49/2+)	45
109TE 46				9.650	(49/2+)	46

S-p = 2.559 (0.007)-----
S-n = 10.005 (0.007)-----
S-2p = 3.781 (0.007)-----
S-2n = 23.201 (0.107)-----
S-alpha= -3.198 (0.006)-----

S+p = -0.042 (0.062)
S+n = -12.586 (0.008)
S+2p = -1.395 (0.111)
S+2n = -22.015 (0.008)
S+alpha = 3.087 (0.008)

gap p = 2.517 (0.062)
gap n = -2.581 (0.011)
gap 2p = 2.386 (0.111)
gap 2n = 1.186 (0.107)
gap alpha = -0.111 (0.010)