

^{117}Te $Z = 52$ $N = 65$ adopted link ENSDF link

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

BE = 988.758 (0.013) MeV

Qbeta+ = 3.544 (0.016) MeV

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

S-alpha=	-0.808	(0.014)	-----		
117TE 1	0.000	1/2+			1 62 M 2
117TE 2	0.274	5/2+			2 19.9 NS 4
117TE 3				0.296 (7/2+)	3
117TE 4				0.296 (11/2-)	4 103 MS 3
117TE 5				0.326 (3/2+)	5
117TE 6				0.578 (3/2,5/2,7/2)+	6
117TE 7				0.637 (9/2-)	7
117TE 8				0.682 (7/2+)	8
117TE 9				0.821 (9/2+)	9
117TE 10	0.930	9/2+			10

117TE 11				0.936	11
117TE 12				0.958	12
117TE 13				0.964	13
117TE 14				0.967 (15/2-)	14
117TE 15	1.043	11/2+			15
117TE 16				1.094 (13/2-)	16
117TE 17				1.177 (13/2-)	17
117TE 18				1.187 (11/2+)	18
117TE 19				1.244	19
117TE 20				1.416 (13/2+)	20

117TE 21				1.481 (13/2+)	21
117TE 22				1.577	22
117TE 23				1.680 (19/2-)	23
117TE 24				1.697 (15/2+)	24
117TE 25				1.726 (17/2-)	25
117TE 26				1.787 (15/2+)	26
117TE 27				2.021 (17/2+)	27
117TE 28				2.128 (17/2+)	28
117TE 29				2.303 (23/2-)	29
117TE 30				2.344 (21/2-)	30

117TE 31				2.366 (19/2+)	31
117TE 32				2.609 (23/2-)	32
117TE 33				2.737 (21/2+)	33
117TE 34				2.903 (21/2+)	34
117TE 35				3.111 (23/2+)	35
117TE 36				3.127 (23/2+)	36

117TE 37				3.296	(25/2-)	37
117TE 38				3.315	(25/2+)	38
117TE 39				3.348	(27/2-)	39
117TE 40				3.429		40

117TE 41				3.524	(25/2+)	41
117TE 42				3.598	(27/2+)	42
117TE 43				3.618	(27/2-)	43
117TE 44				3.719	(27/2+)	44
117TE 45				3.745	(21/2+)	45
117TE 46				3.764	(29/2+)	46
117TE 47				3.934	(27/2+)	47
117TE 48				4.173	(29/2+)	48
117TE 49				4.300	(31/2-)	49
117TE 50				4.366	(29/2+)	50

117TE 51				4.502	(31/2+)	51
117TE 52				4.533	(31/2-)	52
117TE 53				4.692	(31/2)	53
117TE 54				4.703	(33/2+)	54
117TE 55				5.015	(35/2+)	55
117TE 56				5.145	(33/2+)	56
117TE 57				5.214	(37/2+)	57
117TE 58				5.284	(35/2-)	58
117TE 59				5.291	(33/2+)	59
117TE 60				5.378	(35/2-)	60

S-p	=	5.562	(0.014)	-----		
117TE 61				5.878	(39/2-)	61
117TE 62				5.924	(39/2)	62
117TE 63				6.117	(39/2-)	63
117TE 64				6.335	(37/2)	64
117TE 65				6.532	(43/2-)	65
117TE 66				6.845	(43/2-)	66
117TE 67				7.362	(45/2+)	67
117TE 68				7.444	(45/2)	68
117TE 69				7.459	(39/2)	69
117TE 70				7.595	(45/2)	70

117TE 71				7.821	(47/2-)	71
S-n	=	7.903	(0.028)	-----		
117TE 72				8.310	(49/2+)	72
117TE 73				8.885	(51/2)	73
117TE 74				9.215	(53/2+)	74
117TE 75				9.575	(55/2)	75

S-p	=	5.562	(0.014)	-----		
S-n	=	7.903	(0.028)	-----		
S-2p	=	9.640	(0.013)	-----		

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S-2n = 19.175 ( 0.031)-----  
S-alpha= -0.808 ( 0.014)-----  
  
S+p = -3.165 ( 0.024)  
S+n = -10.667 ( 0.023)  
S+2p = -8.277 ( 0.017)  
S+2n = -18.230 ( 0.015)  
S+alpha = 0.189 ( 0.017)  
  
gap p = 2.398 ( 0.028)  
gap n = -2.764 ( 0.036)  
gap 2p = 1.363 ( 0.022)  
gap 2n = 0.946 ( 0.035)  
gap alpha = -0.618 ( 0.022)
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