

$^{147}\text{Tm}$        $Z = 69$        $N = 78$       adopted link      ENSDF link

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

BE = 1168.476 ( 0.007) MeV

Qbeta+ = 10.633 ( 0.039) MeV

	Energy T	J+	J-	J-other	T1/2
-----					
S-alpha=	-3.677	( 0.286)	-----		
S-p	= -1.059	( 0.010)	-----		
147TM	1		0.000	11/2-	1    0.58 S 3
147TM	2   0.068	3/2+			2    0.36 MS 4
147TM	3			0.464 (15/2-)	3
147TM	4			0.543 (13/2-)	4
147TM	5			0.655 (5/2+)	5
147TM	6			1.082 (17/2-)	6
147TM	7			1.128 (19/2-)	7
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S-2p	= 1.432	( 0.010)	-----		
147TM	8			1.777 (21/2-)	8
147TM	9			1.935 (23/2-)	9
147TM	10			2.566	10
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147TM	11			3.009	11
147TM	12			3.376	12
147TM	13			3.523	13

S-p = -1.059 ( 0.010)-----  
S-n = 13.032 ( 0.146)-----  
S-2p = 1.432 ( 0.010)-----  
S-2n = 24.571 ( 0.145)-----  
S-alpha= -3.677 ( 0.286)-----

S+p = -1.612 ( 0.444)  
S+n = -10.862 ( 0.012)  
S+2p = 0.000 ( 0.000)  
S+2n = -24.120 ( 0.149)  
S+alpha = 3.268 ( 0.302)

gap p = -2.671 ( 0.444)  
gap n = 2.170 ( 0.147)  
gap 2p = 0.000 ( 0.000)  
gap 2n = 0.451 ( 0.208)  
gap alpha = -0.409 ( 0.416)