

$^{219}\text{Ac}$        $Z = 89$        $N = 130$       adopted link      ENSDF link

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

BE = 1686.420 ( 0.051) MeV

Qbeta+ = 2.176 ( 0.052) MeV

	Energy T	J+	J-	J-other	T1/2
-----					
S-alpha=	-8.826 ( 0.052)				
219AC 1			0.000 9/2-		1 11.8 US 15
219AC 2				0.169	2
219AC 3				0.341 (11/2)-	3
219AC 4				0.355 (13/2)-	4
219AC 5				0.577 (13/2+)	5
219AC 6				0.631 (13/2+)	6
219AC 7				0.658 (15/2)-	7
219AC 8				0.715 (17/2)-	8
219AC 9				0.867 (17/2+)	9
219AC 10				0.927 (17/2+)	10
-----					
219AC 11				0.965 (19/2)+	11
219AC 12		1.018	19/2-		12
219AC 13				1.116 (21/2)-	13
219AC 14				1.181 (19/2-)	14
219AC 15				1.183 (21/2)+	15
219AC 16				1.293 (21/2)+	16
219AC 17				1.301 (23/2)+	17
219AC 18				1.414 (23/2-)	18
219AC 19				1.462	19
219AC 20				1.547 (25/2)+	20
-----					
219AC 21				1.552 (25/2)-	21
219AC 22				1.552 (23/2-)	22
219AC 23				1.699 (27/2)+	23

S-p = 2.365 ( 0.052)-----

S-n = 7.353 ( 0.077)-----

S-2p = 7.323 ( 0.052)-----

S-2n = 13.276 ( 0.053)-----

S-alpha= -8.826 ( 0.052)-----

S+p = -4.169 ( 0.053)

S+n = -5.897 ( 0.052)

S+2p = -5.772 ( 0.079)

S+2n = -13.181 ( 0.077)

S+alpha = 8.343 ( 0.092)

gap p = -1.804 ( 0.075)  
gap n = 1.456 ( 0.093)  
gap 2p = 1.551 ( 0.094)  
gap 2n = 0.094 ( 0.093)  
gap alpha = -0.483 ( 0.105)