

$^{119}\text{In}$        $Z = 49$        $N = 70$       adopted link      ENSDF link

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

BE = 1009.851 ( 0.007) MeV

Qbeta- = 2.366 ( 0.007) MeV

	Energy T	J+	J-	J-other	T1/2
119IN 1	0.000	9/2+			1 2.4 M 1
119IN 2			0.311 1/2-		2 18.0 M 3
119IN 3			0.604 3/2-		3 1.0 NS LT
119IN 4				0.654 (3/2)+	4 130 NS 15
119IN 5				0.721 (7/2+)	5
119IN 6				0.788 1/2+,3/2+	6 2.00 NS 15
119IN 7	0.941	5/2+			7
119IN 8				1.025 (11/2+)	8
119IN 9			1.044 5/2-		9
119IN 10				1.050 (5/2+)	10
119IN 11				1.143 (11/2+)	11
119IN 12				1.204 (13/2+)	12
119IN 13				1.353 (9/2+)	13
119IN 14			1.388 7/2-		14
119IN 15				1.436 7/2+,9/2+	15
119IN 16				1.474 7/2+,9/2+	16
119IN 17				1.553 1/2-,3/2-	17
119IN 18				1.625 1/2,3/2,5/2	18
119IN 19				1.649 3/2+,5/2+	19
119IN 20				1.729 1/2-,3/2-	20
119IN 21				1.770 1/2+,3/2,5/2	21
119IN 22				1.779 (15/2+)	22
119IN 23				1.807 1/2+,3/2,5/2	23
119IN 24				1.837 1/2-,3/2-	24
119IN 25				1.921 1/2+,3/2+	25
119IN 26				1.979 7/2+,9/2+	26
119IN 27				2.021 (9/2-,11/2-)	27
119IN 28				2.050 1/2-,3/2-	28
119IN 29				2.064 1/2+,3/2,5/2-	29
119IN 30				2.104 (9/2,11/2,13/2+)	30
119IN 31				2.127 (11/2-)	31
119IN 32				2.132 (15/2-)	32
119IN 33				2.223 (17/2+)	33
119IN 34				2.227 (17/2-)	34
119IN 35				2.272 -	35
119IN 36				2.287 (19/2-)	36
119IN 37				2.338 1/2+,3/2+	37

119IN 38				2.343	1/2-, 3/2-	38		
119IN 39				2.360	(9/2, 11/2)	39		
119IN 40				2.368	1/2+, 3/2+	40		
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119IN 41				2.389	(9/2, 11/2)	41		
119IN 42				2.410	5/2-, 7/2, 9/2+	42		
119IN 43				2.423	(9/2-)	43		
119IN 44				2.460	5/2-, 7/2, 9/2+	44		
119IN 45				2.487	(9/2-, 11/2-, 13/2)	45-		
119IN 46				2.494	(21/2-)	46		
119IN 47				2.502	1/2-, 3/2-	47		
119IN 48				2.505	(21/2+)	48		
119IN 49				2.519	(19/2+)	49		
119IN 50				2.520	(9/2, 11/2, 13/2+)	50		
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119IN 51				2.525	1/2+, 3/2+, 5/2+	51		
119IN 52				2.527	(9/2, 11/2, 13/2)	52		
119IN 53				2.554	1/2, 3/2, 5/2	53		
119IN 54				2.565	(11/2-)	54		
119IN 55				2.565	1/2+, 3/2+, 5/2+	55		
119IN 56				2.618	7/2+, 9/2+	56		
119IN 57				2.657	(25/2+)	57	240 NS	25
119IN 58				2.668	1/2+, 3/2+	58		
119IN 59				2.670	-	59		
119IN 60				2.672	(9/2, 11/2)	60		
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119IN 61				2.745	7/2+, 9/2+	61		
119IN 62				2.783	(23/2-)	62		
119IN 63				2.799	1/2+, 3/2+, 5/2+	63		
119IN 64				2.811	1/2-, 3/2-	64		
119IN 65				2.860	1/2+, 3/2+	65		
119IN 66				2.885	-	66		
119IN 67				2.928	(25/2-)	67		
119IN 68				2.993	(27/2+)	68		
119IN 69				3.005	5/2-, 7/2, 9/2+	69		
119IN 70				3.130	7/2+, 9/2+	70		
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119IN 71				3.330	-	71		
119IN 72				3.453	(29/2+)	72		
119IN 73				3.527	(27/2-)	73		
119IN 74				4.026	(29/2-)	74		

S-p = 8.286 ( 0.021)-----  
S-n = 8.542 ( 0.011)-----  
S-2p = 20.095 ( 0.015)-----  
S-2n = 14.898 ( 0.009)-----  
S-alpha= 5.141 ( 0.020)-----

S+p = -10.688 ( 0.007)

S+n = -6.100 ( 0.041)  
S+2p = -16.478 ( 0.008)  
S+2n = -14.279 ( 0.028)  
S+alpha = -3.949 ( 0.007)

gap p = -2.402 ( 0.023)  
gap n = 2.441 ( 0.042)  
gap 2p = 3.616 ( 0.017)  
gap 2n = 0.620 ( 0.030)  
gap alpha = 1.192 ( 0.021)