

$^{117}\text{In}$        $Z = 49$        $N = 68$       adopted link      ENSDF link

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

BE = 994.952 ( 0.005) MeV

Qbeta- = 1.455 ( 0.005) MeV

	Energy T	J+	J-	J-other	T1/2
117IN 1	0.000	9/2+			1 43.2 M 3
117IN 2			0.315 1/2-		2 116.2 M 3
117IN 3			0.589 3/2-		3 0.192 NS 16
117IN 4	0.660	3/2+			4 53.6 NS 7
117IN 5	0.748	7/2+			5
117IN 6	0.749	1/2+			6 4.73 NS 12
117IN 7	0.881	5/2+			7
117IN 8				1.028 (5/2-)	8
117IN 9				1.030 (3/2+,5/2+)	9
117IN 10	1.052	5/2+			10
117IN 11				1.066 (11/2+)	11
117IN 12				1.209 (11/2+)	12
117IN 13				1.235 (13/2+)	13
117IN 14				1.360 3/2+,5/2+	14
117IN 15				1.366 7/2+,9/2+	15
117IN 16				1.376 (3/2)+	16
117IN 17	1.433	9/2+			17
117IN 18				1.439	18
117IN 19				1.469 5/2+,7/2,9/2+	19
117IN 20				1.554 (1/2-,3/2-)	20
117IN 21				1.609 (3/2+,5/2,7/2+)	21
117IN 22				1.612 (1/2,3/2,5/2)	22
117IN 23				1.653 3/2+,5/2+	23
117IN 24	1.713	3/2+			24
117IN 25	1.785	3/2+			25
117IN 26				1.856 (5/2-,7/2,9/2-)	26
117IN 27	1.892	1/2+			27 0.42 NS 6
117IN 28				1.898 (15/2+)	28
117IN 29				1.957 (9/2-)	29
117IN 30				1.997 (11/2)-	30
117IN 31	1.997	3/2+			31
117IN 32	2.022	3/2+			32
117IN 33	2.064	3/2+			33
117IN 34				2.095 (11/2,13/2)-	34
117IN 35				2.096 (9/2,11/2)-	35
117IN 36				2.110 (3/2+)	36
117IN 37				2.113 1/2+,3/2,5/2+	37

117IN 38						2.124	(15/2-)	38
117IN 39		2.172	3/2+					39
117IN 40						2.223	3/2+,5/2+	40
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117IN 41						2.255	3/2+,5/2+	41
117IN 42						2.261	(17/2-)	42
117IN 43						2.263	(17/2+)	43
117IN 44						2.308	7/2+,9/2+	44
117IN 45						2.312	1/2+,3/2+	45
117IN 46						2.323	(9/2,11/2)-	46
117IN 47						2.328	(1/2)+	47
117IN 48		2.345	3/2+					48
117IN 49						2.372		49
117IN 50						2.400	(9/2)-	50
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117IN 51						2.405	(11/2,13/2)-	51
117IN 52						2.414		52
117IN 53						2.417	(9/2)-	53
117IN 54						2.430	(19/2-)	54
117IN 55						2.440	(9/2,11/2,13/2)	55
117IN 56						2.446	(17/2+)	56
117IN 57		2.456	1/2+					57
117IN 58						2.463	11/2,13/2+	58
117IN 59						2.476		59
117IN 60		2.525	1/2+					60
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117IN 61						2.541	(11/2,13/2)	61
117IN 62						2.560	3/2+,5/2+	62
117IN 63						2.622	(21/2-)	63
117IN 64						2.642		64
117IN 65						2.670	(21/2+)	65
117IN 66						2.727	(19/2+)	66
117IN 67						2.731	(23/2+)	67
117IN 68						2.755	3/2+,5/2+	68
117IN 69						2.837	(25/2+)	69
117IN 70						2.857	(23/2-)	70
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117IN 71						3.031	(25/2-)	71
117IN 72						3.192	(27/2+)	72
117IN 73						3.559	(27/2-)	73
117IN 74						3.727	(29/2+)	74
117IN 75						4.188	(29/2-)	75

S-p = 7.520 ( 0.005)-----  
S-n = 8.765 ( 0.005)-----  
S-2p = 18.538 ( 0.019)-----  
S-2n = 15.549 ( 0.005)-----  
S-alpha= 4.341 ( 0.017)-----

S+p = -9.999 ( 0.005)  
S+n = -6.356 ( 0.009)  
S+2p = -15.110 ( 0.009)  
S+2n = -14.898 ( 0.009)  
S+alpha = -3.081 ( 0.005)

gap p = -2.479 ( 0.007)  
gap n = 2.408 ( 0.010)  
gap 2p = 3.428 ( 0.021)  
gap 2n = 0.651 ( 0.010)  
gap alpha = 1.260 ( 0.018)