

^{199}Au $Z = 79$ $N = 120$ adopted link ENSDF link

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

BE = 1573.481 (0.001) MeV

Qbeta- = 0.452 (0.001) MeV

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

S-alpha=	-0.174	(0.001)	-----		
199AU 1	0.000	3/2+			1 3.139 D 7
199AU 2	0.077	1/2+			2 1.3 NS 2
199AU 3	0.317	5/2+			3 55 PS LT
199AU 4	0.324	3/2+			4 35 PS 20
199AU 5				0.494 (7/2)+	5 35 PS LT
199AU 6	0.543	5/2+			6 30 PS LT
199AU 7				0.549 (11/2)-	7 0.44 MS 3
199AU 8			0.735 7/2-		8 0.36 NS 4
199AU 9	0.792	3/2+			9 50 PS LT
199AU 10	0.823	1/2+			10

199AU 11	0.907	3/2+			11
199AU 12				0.968 3/2+,5/2+	12 100 PS LT
199AU 13				1.070 3/2+,5/2+	13
199AU 14				1.104 (3/2,5/2,7/2)(+)	14
199AU 15				1.159 (3/2+,5/2+,7/2+)	15
199AU 16				1.185 (1/2:7/2)+	16
199AU 17				1.250 3/2+,5/2+,7/2+	17
199AU 18				1.312	18
199AU 19				1.344	19
199AU 20				1.396 5/2+,7/2+	20

199AU 21				1.432	21
199AU 22				1.454 (5/2:11/2)+	22
199AU 23				1.489 (5/2:11/2)+	23
199AU 24				1.539 (11/2+,13/2+)	24
199AU 25				1.572 (5/2,7/2)+	25
199AU 26				1.583	26
199AU 27				1.602 (5/2:11/2)+	27
199AU 28				1.635	28
199AU 29				1.660	29
199AU 30				1.709 (5/2:11/2)+	30

199AU 31				1.729	31
199AU 32				1.770 (5/2,7/2)+	32
199AU 33	1.801	3/2+			33
199AU 34				1.849 9/2-,11/2-	34
199AU 35				1.909 (11/2+,13/2+)	35
199AU 36				1.926	36

199AU 37				1.948	(1/2:7/2)+	37
199AU 38				1.967		38
199AU 39				1.994		39
199AU 40				2.008		40

199AU 41				2.038		41
199AU 42				2.073		42
199AU 43				2.107	(1/2+)	43
199AU 44				2.139		44
199AU 45				2.174		45
199AU 46				2.205	(1/2+)	46
199AU 47				2.324	(1/2-, 3/2-)	47
199AU 48				2.374	(5/2-, 7/2-)	48
199AU 49				2.412	(1/2+)	49
199AU 50				2.484	(7/2+, 9/2, 11/2-)	50

199AU 51				2.512	(3/2+, 5/2, 7/2-)	51
199AU 52				2.592	(3/2+, 5/2, 7/2-)	52
199AU 53				2.734	(1/2+)	53
199AU 54				2.795	(3/2+, 5/2, 7/2-)	54
199AU 55				2.863	(9/2-, 11/2, 13/2)	55+)
199AU 56				3.013	(3/2+, 5/2, 7/2-)	56
199AU 57				3.044	(5/2-, 7/2-)	57
199AU 58				3.083	(5/2-, 7/2, 9/2+)	58
199AU 59				3.400	(11/2+, 13/2+)	59
199AU 60				3.570	(5/2-, 7/2-)	60

S-p = 6.479 (0.002)-----
S-n = 7.584 (0.001)-----
S-2p = 15.407 (0.020)-----
S-2n = 14.097 (0.001)-----
S-alpha= -0.174 (0.001)-----

S+p = -7.698 (0.001)
S+n = -6.218 (0.027)
S+2p = -12.665 (0.014)
S+2n = -13.450 (0.003)
S+alpha = 0.907 (0.001)

gap p = -1.220 (0.002)
gap n = 1.366 (0.027)
gap 2p = 2.742 (0.025)
gap 2n = 0.647 (0.003)
gap alpha = 0.734 (0.002)