

$^{197}\text{Au}$        $Z = 79$        $N = 118$       adopted link      ENSDF link

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

BE = 1559.384 ( 0.001) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-0.972	( 0.001)	-----		
197AU 1	0.000	3/2+			1 STABLE
197AU 2	0.077	1/2+			2 1.91 NS 1
197AU 3	0.269	3/2+			3 15.4 PS 13
197AU 4	0.279	5/2+			4 18.6 PS 15
197AU 5			0.409	11/2-	5 7.73 S 6
197AU 6	0.502	5/2+			6 1.77 PS +19-12
197AU 7	0.548	7/2+			7 4.61 PS +19-13
197AU 8				0.583	8
197AU 9	0.737	7/2+			9 1.09 PS +13-9
197AU 10	0.855	9/2+			10 2.67 PS +25-15
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197AU 11				0.882	11
197AU 12	0.888	1/2+			12
197AU 13				0.936 (5/2+)	13
197AU 14				0.948	14
197AU 15				1.045 (5/2+)	15
197AU 16				1.120	16
197AU 17				1.151 3/2+,5/2+	17
197AU 18				1.217 (3/2+)	18
197AU 19				1.220	19
197AU 20	1.231	11/2+			20 0.91 PS 1
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197AU 21				1.242 (1/2+)	21
197AU 22				1.263	22
197AU 23				1.370	23
197AU 24				1.380	24
197AU 25				1.412 9/2-,11/2-	25
197AU 26				1.478	26
197AU 27				1.488	27
197AU 28				1.584	28
197AU 29				1.708 3/2+,5/2+	29
197AU 30				1.809	30
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197AU 31				1.820	31
197AU 32				1.905	32
197AU 33				1.997 5/2-,7/2-	33
197AU 34				2.149 5/2-,7/2-	34
197AU 35				2.251 5/2-,7/2-	35
197AU 36				2.371	36
197AU 37				2.405 +	37

197AU	38				2.420	5/2-,7/2-	38
197AU	39				2.523	5/2-,7/2-	39
197AU	40				2.620	+	40
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197AU	41				2.631	(5/2-,7/2-)	41
197AU	42				2.650		42
197AU	43				2.776	11/2+,13/2+	43
197AU	44				2.880	+	44
197AU	45				3.025	+	45
197AU	46				3.175	-	46
197AU	47				3.260	+	47
197AU	48				3.515	+	48

S-p = 5.784 ( 0.001)-----  
 S-n = 8.072 ( 0.003)-----  
 S-2p = 14.025 ( 0.001)-----  
 S-2n = 14.715 ( 0.001)-----  
 S-alpha= -0.972 ( 0.001)-----

S+p = -7.104 ( 0.001)  
 S+n = -6.512 ( 0.001)  
 S+2p = -11.498 ( 0.028)  
 S+2n = -14.097 ( 0.001)  
 S+alpha = 1.534 ( 0.014)

gap p = -1.319 ( 0.001)  
 gap n = 1.560 ( 0.003)  
 gap 2p = 2.528 ( 0.028)  
 gap 2n = 0.619 ( 0.001)  
 gap alpha = 0.562 ( 0.014)