^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong and Kang Mengxiao	NDS 133, 221 (2016)	1-Dec-2015

Target $J^\pi=3/2^+$.

Measured neutron binding energy S(n)=6512.26 keV *10*.

E=2,24 keV average resonance neutron capture (ARC). Measured Eγ, Iγ with Si(Li). Level γ-decay scheme of ^{198}Au is based on other experimental information (1975Mi05) and especially on new precise data of 1989Ma11.

^{198}Au Levels

E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡
0.0	2^-	449.30 *3*	3^-	703.55 *4*	1^-	918.15 *4*	$1^-,2^-$
55.21 *3*	1^-	453.57 *4*	2^-	728.37 *5*	0^-	951.97 *5*	3^+
91.01 *3*	0^-	482.03 *9*	4^+	744.88 *4*	$1^-,2^-$	956.46 *5*	$1^-,2^-$
192.87 *3*	1^-	495.26 *3*	1^-	757.91 *10*	4^+	971.35 *4*	3^-
214.90 *4*	4^-	511.25 *4*	3^-	764.08 *5*	4^-	983.60 *6*	2^+
235.89 *3*	3^-	528.91 *4*	3^-	786.11 *4*	2^-	987.02 *4*	3^-
247.42 *3*	1^-	530.20 *4*	1^-	788.74 *4*	1^-	998.58 *5*	$1^-,2^-$
259.16 *3*	1^-	543.74 *5*	4^-	799.63 *5*	2^-	1017.99 *5*	$1^-,2^-$
261.25 *3*	2^-	548.65 *4*	2^-	801.25 *4*	$1^-,2^-$	1031.58 *5*	3^-
311.99 *7*	5^+	570.94 *4*	1^-	809.95 *4*	3^+	1037.74 *3*	$^-$
328.29 *3*	3^-	624.72 *3*	3^-	826.29 *5*	3^+	1046.91 *5*	$1^-,2^-$
339.12 *5*	1^-	632.15 *4*	$1^-,2^-$	834.91 *5*	3^-	1056.16 *4*	2^-
346.77 *3*	2^-	636.79 *9*	4^+	868.31 *4*	3^-	1092.55 *4*	0^-
362.71 *3*	2^-	646.11 *5*	0^+	891.23 *4*	$1^-,2^-$	1095.04 *6*	3^+
368.01 *3*	1^-	672.31 *3*	3^-	893.89 *5*	3^-	1114.64 *4*	3^-#
381.05 *4*	3^+	694.43 *5*	0^+	896.02 *4*	$1^-,2^-$	6512.42 *3*	$1^+,2^+$@
405.80 *3*	2^-	702.07 *4*	2^-	916.00 *4*	$1^-,2^-$		

† From Eγ's by using least-squares fit to data.
‡ From Adopted Levels.
# Other: $0^-,3^-$ (1989Ma11).
@ From s-wave neutron capture.

γ(^{198}Au)

E_i(level)	J_i^π	E_γ	I_γ†	E_f	J_f^π	Mult.‡	δ‡	α#	Comments
55.21	1^-	55.2	100	0.0	2^-	M1+E2	0.27 *2*	12.5 *4*	α(L)=3.E1 3; α(M)=8 *7*; α(N+..)=2.6 *22*
91.01	0^-	35.8	56 *6*	55.21	1^-	M1		27.6	α(L)=21.1; α(M)=4.88
		91.0	44 *6*	0.0	2^-	E2		7.88	α(K)=0.699; α(L)=5.36; α(M)=1.39; α(N+..)=0.434
192.87	1^-	137.7	26 *5*	55.21	1^-				
		192.8	74 *5*	0.0	2^-				
214.90	4^-	214.8	100	0.0	2^-	E2		0.298	α(K)=0.143; α(L)=0.116; α(M)=0.0295; α(N+..)=0.0092
235.89	3^-	180.8	14 *3*	55.21	1^-	E2		0.540	α(K)=0.220; α(L)=0.239; α(M)=0.0614; α(N+..)=0.0191
		235.9	86 *3*	0.0	2^-	M1+E2		0.44 *23*	α(K)=0.33 *22*; α(L)=0.085 *6*; α(M)=0.0205 *5*; α(N+..)=0.0064 *2*
247.42	1^-	156.5	0.94 *22*	91.01	0^-				
		192.3	39 *6*	55.21	1^-				
		247.4	60 *6*	0.0	2^-	M1		0.583	α(K)=0.29 *19*; α(L)=0.072 *8*; α(M)=0.0175 *10*; α(N+..)=0.0055 *4*

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^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11 (continued)

$\gamma(^{198}Au)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[#]	Comments
259.16	1$^-$	66.4	6.7 *18*	192.87	1$^-$			
		168.2	83 *3*	91.01	0$^-$	M1	1.71	α(K)=1.40; α(L)=0.235; α(M)=0.0544; α(N+..)=0.0172
		204.0	9.9 *21*	55.21	1$^-$			
		259.2	0.50 *12*	0.0	2$^-$			
261.25	2$^-$	170.3[@]	7.1[@] *16*	91.01	0$^-$			
		206.1	4.0 *10*	55.21	1$^-$			
		261.3	88.9 *21*	0.0	2$^-$	M1	0.502	α(K)=0.413; α(L)=0.0684; α(M)=0.0158; α(N+..)=0.00495
311.99	5$^+$	97.2	100	214.90	4$^-$	E1	0.451	α(K)=0.361; α(L)=0.0689; α(M)=0.0160; α(N+..)=0.00490
328.29	3$^-$	113.4	4.4 *16*	214.90	4$^-$			
		273.1	1.5 *4*	55.21	1$^-$			
		328.3	94.1 *17*	0.0	2$^-$	M1	0.270	α(K)=0.222; α(L)=0.0366; α(M)=0.0084; α(N+..)=0.00264
339.12	1$^-$	146.3[@]	67[@] *5*	192.87	1$^-$			
		283.9	33 *5*	55.21	1$^-$			
346.77	2$^-$	99.3	5.9 *18*	247.42	1$^-$			
		153.9	2.7 *7*	192.87	1$^-$			
		255.7	1.1 *3*	91.01	0$^-$			
		291.6	65 *5*	55.21	1$^-$	M1	0.372	α(K)=0.306; α(L)=0.0506; α(M)=0.0117; α(N+..)=0.00366
		346.7	25 *4*	0.0	2$^-$			
362.71	2$^-$	101.4	6.7 *23*	261.25	2$^-$			
		103.5	35 *5*	259.16	1$^-$			
		169.9[@]	10.3[@] *21*	192.87	1$^-$			
		271.7	12.6 *22*	91.01	0$^-$			
		307.5	33 *4*	55.21	1$^-$			
		362.7	1.7 *4*	0.0	2$^-$			
368.01	1$^-$	108.8	50 *6*	259.16	1$^-$			
		175.2	8.8 *19*	192.87	1$^-$			
		277.1	26 *4*	91.01	0$^-$	M1	0.428	α(K)=0.352; α(L)=0.0582; α(M)=0.0135; α(N+..)=0.00421
		312.9	4.1 *8*	55.21	1$^-$			
		368.1	11.4 *24*	0.0	2$^-$			
381.05	3$^+$	145.1	9.4 *18*	235.89	3$^-$			
		166.1	8.3 *16*	214.90	4$^-$			
		381.0	82 *3*	0.0	2$^-$	E1	0.0524	α(K)=0.0352; α(L)=0.0130; α(M)=0.00322; α(N+..)=0.00101
405.80	2$^-$	144.5	8.5 *18*	261.25	2$^-$			
		146.6	16 *3*	259.16	1$^-$			
		169.9[@]	9.5[@] *19*	235.89	3$^-$			
		212.9	5.1 *10*	192.87	1$^-$			
		350.6[@]	59[@] *4*	55.21	1$^-$			
		405.8	1.7 *4*	0.0	2$^-$			
449.30	3$^-$	121.0	7.5 *22*	328.29	3$^-$			
		188.1	44 *5*	261.25	2$^-$	M1	1.25	α(K)=1.02; α(L)=0.171; α(M)=0.0396; α(N+..)=0.0125
		201.9	6.8 *12*	247.42	1$^-$			
		234.5	3.0 *6*	214.90	4$^-$			
		449.3	39 *4*	0.0	2$^-$			
453.57	2$^-$	106.8	13 *3*	346.77	2$^-$			
		125.3	6.1 *24*	328.29	3$^-$			
		260.7	73 *5*	192.87	1$^-$			
		398.4	4.3 *9*	55.21	1$^-$			
		453.6	4.2 *9*	0.0	2$^-$			
482.03	4$^+$	170.0	100	311.99	5$^+$	M1	1.66	α(K)=1.36; α(L)=0.228; α(M)=0.0527; α(N+..)=0.0167

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^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11 (continued)

$\gamma(^{198}Au)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[#]	Comments
495.26	1$^-$	148.5[@]	2.3[@] *11*	346.77	2$^-$			
		166.9	1.4 *3*	328.29	3$^-$			
		234.0	4.7 *9*	261.25	2$^-$			
		236.0	18 *3*	259.16	1$^-$			
		247.8	3.7 *7*	247.42	1$^-$			
		259.3	1.8 *4*	235.89	3$^-$			
		302.5	1.0 *3*	192.87	1$^-$			
		404.2	2.0 *4*	91.01	0$^-$			
		440.1	65 *4*	55.21	1$^-$	M1	0.123	α(K)=0.101; α(L)=0.0166; α(M)=0.00383; α(N+..)=0.00120
511.25	3$^-$	148.5[@]	3.0[@] *15*	362.71	2$^-$			
		164.5	4.1 *14*	346.77	2$^-$			
		250.0[@]	3.5[@] *7*	261.25	2$^-$			
		275.3	2.9 *6*	235.89	3$^-$			
		296.4	1.5 *4*	214.90	4$^-$			
		318.4	3.6 *7*	192.87	1$^-$			
		456.1	27 *4*	55.21	1$^-$			
		511.2	55 *5*	0.0	2$^-$			
528.91	3$^-$	123.1	5.1 *15*	405.80	2$^-$			
		182.2	1.1 *4*	346.77	2$^-$			
		267.6	3.1 *6*	261.25	2$^-$			
		293.0	3.9 *8*	235.89	3$^-$			
		314.0	1.05 *23*	214.90	4$^-$			
		473.7	2.4 *5*	55.21	1$^-$			
		528.9	83.3 *23*	0.0	2$^-$	M1	0.0761	α(K)=0.0625; α(L)=0.0102
530.20	1$^-$	191.1	25 *4*	339.12	1$^-$	M1	1.19	α(K)=0.98; α(L)=0.164; α(M)=0.0379; α(N+..)=0.0119
		268.9	20 *3*	261.25	2$^-$			
		271.0[@]	15[@] *3*	259.16	1$^-$			
		337.3	26 *3*	192.87	1$^-$			
		474.9	3.9 *14*	55.21	1$^-$			
		530.1	9.2 *22*	0.0	2$^-$			
543.74	4$^-$	215.4	9.1 *19*	328.29	3$^-$			
		296.3[@]	4.3[@] *11*	247.42	1$^-$			
		328.8	5.2 *13*	214.90	4$^-$			
		543.7	81 *3*	0.0	2$^-$			
548.65	2$^-$	142.8	23 *4*	405.80	2$^-$			
		220.3[@]	2.3[@] *7*	328.29	3$^-$			
		301.2	1.6 *7*	247.42	1$^-$			
		312.7	2.5 *7*	235.89	3$^-$			
		548.6	70 *4*	0.0	2$^-$	M1	0.0691	α(K)=0.0569; α(L)=0.0092
570.94	1$^-$	202.9	17 *3*	368.01	1$^-$			
		208.2	0.20 *16*	362.71	2$^-$			
		224.2	5.4 *10*	346.77	2$^-$			
		242.6	1.4 *4*	328.29	3$^-$			
		311.7	39 *4*	259.16	1$^-$			
		378.1	12.7 *18*	192.87	1$^-$	M1	0.185	α(K)=0.152; α(L)=0.0250; α(M)=0.00576; α(N+..)=0.00180
		480.0	1.9 *5*	91.01	0$^-$			
		515.8	22 *3*	55.21	1$^-$			
624.72	3$^-$	175.8	1.9 *8*	449.30	3$^-$			
		219.3	42 *4*	405.80	2$^-$	M1		
		262.4	3.3 *7*	362.71	2$^-$			
		313.0	1.1 *5*	311.99	5$^+$			
		363.8[@]	9.7[@] *15*	261.25	2$^-$			

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^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11 (continued)

$\gamma(^{198}Au)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ [†]	E_f	J_f^π	Mult. [‡]	α [#]	Comments
624.72	3$^-$	365.9[@]	5.0[@] *9*	259.16	1$^-$			
		377.7	6.0 *10*	247.42	1$^-$			
		389.2[@]	1.9[@] *5*	235.89	3$^-$			
		625.1	29 *3*	0.0	2$^-$			
632.15	1$^-$,2$^-$	226.3	1.9 *4*	405.80	2$^-$			
		264.1	3.0 *5*	368.01	1$^-$			
		269.4[@]	1.7[@] *4*	362.71	2$^-$			
		370.9	23 *3*	261.25	2$^-$	M1	0.194	α(K)=0.160; α(L)=0.0263; α(M)=0.00607; α(N+..)=0.00190
		372.9	23 *3*	259.16	1$^-$			
		439.3	37 *4*	192.87	1$^-$			
		577.0	10.5 *13*	55.21	1$^-$			
636.79	4$^+$	154.7	74 *4*	482.03	4$^+$	M1		
		324.7	26 *4*	311.99	5$^+$			
646.11	0$^+$	75.2	51 *7*	570.94	1$^-$			
		278.0	19 *4*	368.01	1$^-$			
		590.9	30 *6*	55.21	1$^-$			
672.31	3$^-$	218.7	11.5 *19*	453.57	2$^-$			
		223.0[@]	2.8[@] *6*	449.30	3$^-$			
		266.5	24 *3*	405.80	2$^-$			
		304.2[@]	1.7[@] *4*	368.01	1$^-$			
		325.6	9.6 *14*	346.77	2$^-$			
		344.0	1.8 *5*	328.29	3$^-$			
		413.1	5.7 *14*	259.16	1$^-$			
		424.8	3.2 *9*	247.42	1$^-$			
		436.3	3.0 *6*	235.89	3$^-$			
		457.4	3.3 *11*	214.90	4$^-$			
		581.2[@]	2.0[@] *9*	91.01	0$^-$			
		672.3	32 *3*	0.0	2$^-$			
694.43	0$^+$	347.7[@]	67[@] *5*	346.77	2$^-$			
		366.1	13 *4*	328.29	3$^-$			
		433.1[@]	19[@] *4*	261.25	2$^-$			
702.07	2$^-$	252.8	4.1 *10*	449.30	3$^-$			
		296.3[@]	3.3[@] *8*	405.80	2$^-$			
		339.4[@]	3.8[@] *10*	362.71	2$^-$			
		440.8	12.5 *19*	261.25	2$^-$			
		442.8	6.4 *13*	259.16	1$^-$			
		454.7	4.8 *10*	247.42	1$^-$			
		487.2	2.4 *11*	214.90	4$^-$			
		646.8	17 *5*	55.21	1$^-$			
		702.1	46 *4*	0.0	2$^-$			
703.55	1$^-$	297.6	7.8 *15*	405.80	2$^-$			
		335.3[@]	6.6[@] *13*	368.01	1$^-$			
		444.2	79 *3*	259.16	1$^-$	M1	0.120	α(K)=0.099; α(L)=0.0162; α(M)=0.00374; α(N+..)=0.00117
		612.4	7.0 *21*	91.01	0$^-$			
728.37	0$^-$	360.2	7.8 *19*	368.01	1$^-$			
		469.1	34 *4*	259.16	1$^-$			
		673.1	33 *4*	55.21	1$^-$			
		728.5	25 *4*	0.0	2$^-$			
744.88	1$^-$,2$^-$	249.6	2.2 *7*	495.26	1$^-$			
		363.8[@]	15.2[@] *22*	381.05	3$^+$			
		376.8	12 *4*	368.01	1$^-$			

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^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11 (continued)

$\gamma(^{198}Au)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ †	E_f	J_f^π	Mult. ‡	α #	Comments
744.88	1$^-$,2$^-$	382.1	6.5 *11*	362.71	2$^-$			
		398.1	9.3 *14*	346.77	2$^-$			
		483.4	2.7 *12*	261.25	2$^-$			
		485.6	7.4 *18*	259.16	1$^-$			
		653.7	11.5 *19*	91.01	0$^-$			
		689.7	34 *3*	55.21	1$^-$	M1	0.0382	α(K)=0.0314; α(L)=0.00507
757.91	4$^+$	275.9	78 *4*	482.03	4$^+$			
		445.9	22 *4*	311.99	5$^+$			
764.08	4$^-$	220.3@	3.1@ *10*	543.74	4$^-$			
		235.2	2.2 *11*	528.91	3$^-$			
		314.7@	52@ *5*	449.30	3$^-$			
		383.1@	43@ *5*	381.05	3$^+$			
786.11	2$^-$	215.2	17 *3*	570.94	1$^-$			
		237.5	1.7 *4*	548.65	2$^-$			
		332.5	2.8 *6*	453.57	2$^-$			
		418.1	4.4 *9*	368.01	1$^-$			
		423.4	3.5 *9*	362.71	2$^-$			
		439.4	7.2 *24*	346.77	2$^-$			
		457.8	31 *3*	328.29	3$^-$			
		524.8	29 *3*	261.25	2$^-$			
		526.9	4.0 *10*	259.16	1$^-$			
788.74	1$^-$	217.9	3.3 *7*	570.94	1$^-$			
		335.3@	5.2@ *9*	453.57	2$^-$			
		383.1@	27@ *3*	405.80	2$^-$			
		442.1	4.4 *8*	346.77	2$^-$			
		527.6	8.6 *13*	261.25	2$^-$			
		529.6	38 *3*	259.16	1$^-$			
		552.7	2.3 *11*	235.89	3$^-$			
		697.8	8.5 *24*	91.01	0$^-$			
		733.5@	3.5@ *15*	55.21	1$^-$			
799.63	2$^-$	269.4@	3.3@ *7*	530.20	1$^-$			
		393.8	3.3 *10*	405.80	2$^-$			
		418.6	73 *3*	381.05	3$^+$			
		436.9	2.6 *11*	362.71	2$^-$			
		552.2	7.9 *15*	247.42	1$^-$			
		744.6	9.9 *17*	55.21	1$^-$			
801.25	1$^-$,2$^-$	271.1	15.1 *23*	530.20	1$^-$			
		290.0	1.2 *4*	511.25	3$^-$			
		306.0@	5.1@ *9*	495.26	1$^-$			
		347.7@	8.8@ *13*	453.57	2$^-$			
		395.5	5.5 *9*	405.80	2$^-$			
		433.1@	2.5@ *5*	368.01	1$^-$			
		473.0	1.5 *7*	328.29	3$^-$			
		540.0@	39@ *3*	261.25	2$^-$			
		542.1	10.6 *16*	259.16	1$^-$			
		710.1@	3.9@ *12*	91.01	0$^-$			
		801.4	7.2 *12*	0.0	2$^-$			
809.95	3$^+$	184.9	4.1 *14*	624.72	3$^-$			
		281.1	1.9 *9*	528.91	3$^-$			
		314.7@	51@ *4*	495.26	1$^-$			
		360.7	3.6 *8*	449.30	3$^-$			
		447.3	6.6 *12*	362.71	2$^-$			

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^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11 (continued)

$\gamma(^{198}Au)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[#]	Comments
809.95	3$^+$	481.7	12.3 *18*	328.29	3$^-$			
		574.1	21 *3*	235.89	3$^-$			
826.29	3$^+$	376.9	12 *5*	449.30	3$^-$			
		458.1[@]	42[@] *5*	368.01	1$^-$			
		578.8	6.6 *9*	247.42	1$^-$			
		633.5	22 *3*	192.87	1$^-$			
		826.4	17 *4*	0.0	2$^-$			
834.91	3$^-$	202.8	4.5 *20*	632.15	1$^-$,2$^-$			
		263.9[@]	4.4[@] *9*	570.94	1$^-$			
		472.2	6.5 *13*	362.71	2$^-$			
		573.6	30 *3*	261.25	2$^-$			
		620.1	5.2 *18*	214.90	4$^-$			
		834.9	50 *4*	0.0	2$^-$			
868.31	3$^-$	243.2	1.7 *5*	624.72	3$^-$			
		339.4[@]	2.3[@] *6*	528.91	3$^-$			
		414.6[@]	2.6[@] *8*	453.57	2$^-$			
		419.0	7.2 *14*	449.30	3$^-$			
		540.0[@]	45[@] *3*	328.29	3$^-$			
		609.1	6.5 *10*	259.16	1$^-$			
		675.5	14.2 *17*	192.87	1$^-$			
		868.3	20.5 *23*	0.0	2$^-$			
891.23	1$^-$,2$^-$	146.3[@]	25[@] *4*	744.88	1$^-$,2$^-$			
		218.8	3.7 *8*	672.31	3$^-$			
		395.9	2.3 *5*	495.26	1$^-$			
		437.6	2.6 *9*	453.57	2$^-$			
		485.3	8.8 *15*	405.80	2$^-$			
		510.1[@]	16[@] *5*	381.05	3$^+$			
		643.9	3.0 *9*	247.42	1$^-$			
		655.1	12.1 *18*	235.89	3$^-$			
		835.9	27 *3*	55.21	1$^-$			
893.89	3$^-$	190.5	4.9 *15*	703.55	1$^-$			
		444.5	14.2 *22*	449.30	3$^-$			
		565.5	62 *4*	328.29	3$^-$	M1	0.0638	α(K)=0.034 *19*; α(L)=0.0061 *25*
		678.8[@]	7.3[@] *18*	214.90	4$^-$			
		701.2	12.0 *23*	192.87	1$^-$			
896.02	1$^-$,2$^-$	250.0[@]	8.8[@] *16*	646.11	0$^+$			
		263.9[@]	5.3[@] *11*	632.15	1$^-$,2$^-$			
		271.0[@]	22[@] *4*	624.72	3$^-$			
		325.1[@]	3.0[@] *10*	570.94	1$^-$			
		365.9[@]	11.1[@] *19*	530.20	1$^-$			
		567.6	3.2 *14*	328.29	3$^-$			
		634.8	30 *3*	261.25	2$^-$			
		648.7	8.2 *24*	247.42	1$^-$			
		805.1	7 *4*	91.01	0$^-$			
916.00	1$^-$,2$^-$	345.0	2.4 *10*	570.94	1$^-$			
		387.0	3.7 *8*	528.91	3$^-$			
		510.1[@]	25[@] *7*	405.80	2$^-$			
		548.6	3.8 *17*	368.01	1$^-$			
		654.6	8.0 *20*	261.25	2$^-$			
		680.0	6.7 *14*	235.89	3$^-$			
		722.9	6.8 *15*	192.87	1$^-$			
		825.1[@]	20[@] *3*	91.01	0$^-$			

Continued on next page (footnotes at end of table)

^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11 (continued)

$\gamma(^{198}Au)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ †	E_f	J_f^π	Mult.‡	α#	Comments
916.00	1$^-$,2$^-$	916.0	23 *3*	0.0	2$^-$			
918.15	1$^-$,2$^-$	173.3	2.1 *7*	744.88	1$^-$,2$^-$			
		214.7	12 *3*	703.55	1$^-$			
		389.2@	1.4@ *4*	528.91	3$^-$			
		422.9	1.5 *5*	495.26	1$^-$			
		468.7	2.5 *11*	449.30	3$^-$			
		512.3	9.5 *21*	405.80	2$^-$			
		555.4	7.7 *13*	362.71	2$^-$			
		571.4	29 *4*	346.77	2$^-$	M1	0.0622	α(K)=0.0511; α(L)=0.00829
		658.9	10.2 *17*	259.16	1$^-$			
		682.5	23 *9*	235.89	3$^-$			
951.97	3$^+$	327.0	5 *3*	624.72	3$^-$			
		583.9	36 *5*	368.01	1$^-$			
		690.5	26 *6*	261.25	2$^-$			
		693.4@	13@ *6*	259.16	1$^-$			
		759.0 *1*	21 *6*	192.87	1$^-$			
956.46	1$^-$,2$^-$	170.3@	63@ *5*	786.11	2$^-$			
		507.3@	4.3@ *19*	449.30	3$^-$			
		550.6	6.0 *15*	405.80	2$^-$			
		575.3	3.5 *11*	381.05	3$^+$			
		593.8	4.3 *15*	362.71	2$^-$			
		763.6	19 *3*	192.87	1$^-$			
971.35	3$^-$	299.0	4.5 *12*	672.31	3$^-$			
		325.1@	3.4@ *12*	646.11	0$^+$			
		339.2	10.0 *20*	632.15	1$^-$,2$^-$			
		346.2	8.4 *15*	624.72	3$^-$			
		460.1	8.0 *20*	511.25	3$^-$			
		476.2	4.9 *24*	495.26	1$^-$			
		521.9	19 *3*	449.30	3$^-$			
		643.1	7.6 *22*	328.29	3$^-$			
		710.1@	11@ *3*	261.25	2$^-$			
		971.0	23 *5*	0.0	2$^-$			
983.60	2$^+$	238.9	39 *6*	744.88	1$^-$,2$^-$			
		351.6	11.1 *24*	632.15	1$^-$,2$^-$			
		615.4	17 *7*	368.01	1$^-$			
		724.3@	33@ *6*	259.16	1$^-$			
987.02	3$^-$	200.9	1.5 *5*	786.11	2$^-$			
		223.0@	1.9@ *4*	764.08	4$^-$			
		314.7@	21@ *3*	672.31	3$^-$			
		354.9	1.2 *3*	632.15	1$^-$,2$^-$			
		361.9	3.5 *6*	624.72	3$^-$			
		458.1@	12.5@ *16*	528.91	3$^-$			
		491.8	5.1 *7*	495.26	1$^-$			
		533.5	3.2 *6*	453.57	2$^-$			
		537.8	1.6 *5*	449.30	3$^-$			
		581.2@	1.3@ *6*	405.80	2$^-$			
		640.3	28 *3*	346.77	2$^-$	M1	0.0463	α(K)=0.0381; α(L)=0.00616
		739.5@	16.8@ *18*	247.42	1$^-$			
		793.6	2.9 *10*	192.87	1$^-$			
998.58	1$^-$,2$^-$	304.2@	3.5@ *9*	694.43	0$^+$			
		373.6	6.5 *13*	624.72	3$^-$			
		592.9	20 *3*	405.80	2$^-$			

Continued on next page (footnotes at end of table)

^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11 (continued)

$\gamma(^{198}Au)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ †	E_f	J_f^π	Mult.‡	α#	Comments
998.58	1$^-$,2$^-$	630.5	11 *3*	368.01	1$^-$			
		739.5@	53@ *4*	259.16	1$^-$			
		805.8	6 *3*	192.87	1$^-$			
1017.99	1$^-$,2$^-$	487.7@	6.7@ *23*	530.20	1$^-$			
		522.5	11 *3*	495.26	1$^-$			
		678.8@	11@ *3*	339.12	1$^-$			
		770.4@	31@ *4*	247.42	1$^-$			
		825.1@	40@ *4*	192.87	1$^-$			
1031.58	3$^-$	483.0	8 *3*	548.65	2$^-$			
		487.7@	10@ *3*	543.74	4$^-$			
		663.8	13 *4*	368.01	1$^-$			
		692.3	14 *4*	339.12	1$^-$			
		770.4@	44@ *6*	261.25	2$^-$			
		795.6	12 *7*	235.89	3$^-$			
1037.74	$^-$	227.7	3.4 *12*	809.95	3$^+$			
		365.4	11.4 *18*	672.31	3$^-$			
		507.3@	4.7@ *21*	530.20	1$^-$			
		632.0	24 *3*	405.80	2$^-$			
		698.6	19 *4*	339.12	1$^-$			
		709.3@	17.8@ *24*	328.29	3$^-$			
		777.0	5.7 *24*	261.25	2$^-$			
		822.6	14 *4*	214.90	4$^-$			
1046.91	1$^-$,2$^-$	343.4	57 *4*	703.55	1$^-$			
		414.6@	1.8@ *6*	632.15	1$^-$,2$^-$			
		498.1	23 *3*	548.65	2$^-$			
		665.9	1.9 *6*	381.05	3$^+$			
		678.8@	2.5@ *7*	368.01	1$^-$			
		854.1	2.6 *9*	192.87	1$^-$			
		992.0	12 *3*	55.21	1$^-$			
1056.16	2$^-$	292.0	7.0 *15*	764.08	4$^-$			
		361.7	8.7 *22*	694.43	0$^+$			
		423.9	18 *3*	632.15	1$^-$,2$^-$			
		507.3@	9@ *4*	548.65	2$^-$			
		693.4@	7@ *3*	362.71	2$^-$			
		709.3@	32@ *4*	346.77	2$^-$			
		717.0	7 *3*	339.12	1$^-$			
		797.5	12 *5*	259.16	1$^-$			
1092.55	0$^-$	266.1	8.7 *20*	826.29	3$^+$			
		686.6	29 *5*	405.80	2$^-$			
		724.3@	12@ *3*	368.01	1$^-$			
		729.6	10 *3*	362.71	2$^-$			
		831.4	13 *3*	261.25	2$^-$			
		1036.2	27 *9*	55.21	1$^-$			
1095.04	3$^+$	306.0@	20@ *3*	788.74	1$^-$			
		400.5	8.1 *21*	694.43	0$^+$			
		458.1@	62@ *5*	636.79	4$^+$			
		767.3@	10@ *6*	328.29	3$^-$			
1114.64	3$^-$	315.1	1.6 *4*	799.63	2$^-$			
		328.6	2.8 *7*	786.11	2$^-$			
		350.6@	68@ *4*	764.08	4$^-$	M1	0.226	α(K)=0.186; α(L)=0.0306; α(M)=0.00707; α(N+..)=0.00221

Continued on next page (footnotes at end of table)

^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11 (continued)

$\gamma(^{198}Au)$ (continued)

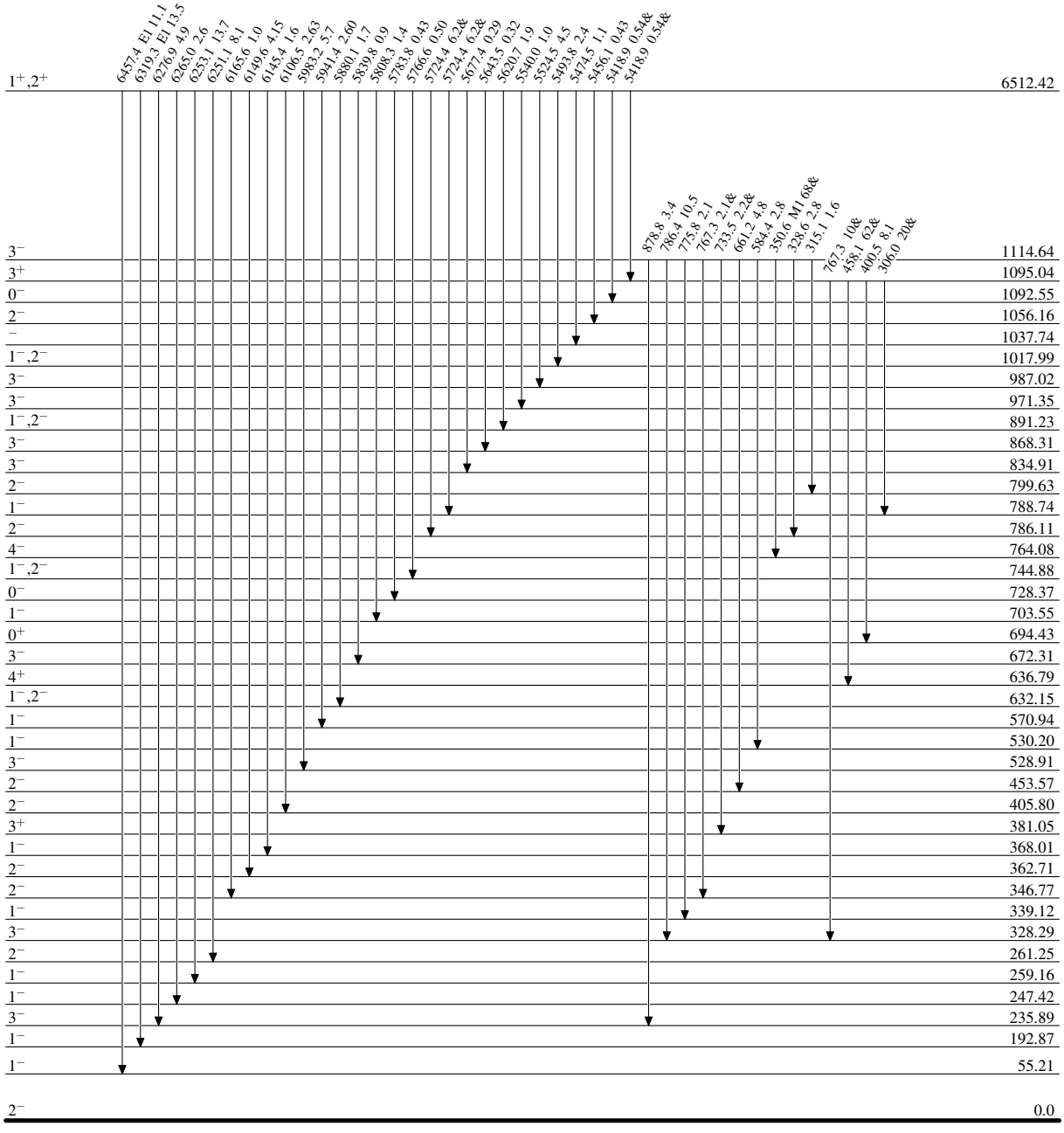
E_i(level)	J_i^π	E_γ	I_γ[†]	E_f	J_f^π	Mult.[‡]
1114.64	3^-	584.4	2.8 *11*	530.20	1^-	
		661.2	4.8 *9*	453.57	2^-	
		733.5[@]	2.2[@] *10*	381.05	3^+	
		767.3[@]	2.1[@] *13*	346.77	2^-	
		775.8	2.1 *9*	339.12	1^-	
		786.4	10.5 *18*	328.29	3^-	
		878.8	3.4 *10*	235.89	3^-	
6512.42	$1^+,2^+$	5418.9[@]	0.54[@] *18*	1095.04	3^+	
		5418.9[@]	0.54[@] *18*	1092.55	0^-	
		5456.1	0.43 *22*	1056.16	2^-	
		5474.5	1.1 *3*	1037.74	$^-$	
		5493.8	2.4 *5*	1017.99	$1^-,2^-$	
		5524.5	4.5 *5*	987.02	3^-	
		5540.0	1.0 *3*	971.35	3^-	
		5620.7	1.9 *4*	891.23	$1^-,2^-$	
		5643.5	0.32 *18*	868.31	3^-	
		5677.4	0.29 *18*	834.91	3^-	
		5724.4[@]	6.2[@] *16*	788.74	1^-	
		5724.4[@]	6.2[@] *16*	786.11	2^-	
		5766.6	0.50 *18*	744.88	$1^-,2^-$	
		5783.8	0.43 *22*	728.37	0^-	
		5808.3	1.4 *4*	703.55	1^-	
		5839.8	0.9 *4*	672.31	3^-	
		5880.1	1.7 *4*	632.15	$1^-,2^-$	
		5941.4	2.60 *16*	570.94	1^-	
		5983.2	5.7 *3*	528.91	3^-	
		6106.5	2.63 *19*	405.80	2^-	
		6145.4	1.6 *9*	368.01	1^-	
		6149.6	4.15 *24*	362.71	2^-	
		6165.6	1.0 *3*	346.77	2^-	
		6251.1	8.1 *12*	261.25	2^-	
		6253.1	13.7 *12*	259.16	1^-	
		6265.0	2.6 *5*	247.42	1^-	
		6276.9	4.9 *7*	235.89	3^-	
		6319.3	13.5 *7*	192.87	1^-	E1
		6457.4	11.1 *6*	55.21	1^-	E1

[†] %Iγ relative intensities from each level.
[‡] From Adopted Gamma radiations.
[#] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
[@] Multiply placed with undivided intensity.

^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11

Level Scheme

Intensities: % photon branching from each level
& Multiply placed: undivided intensity given

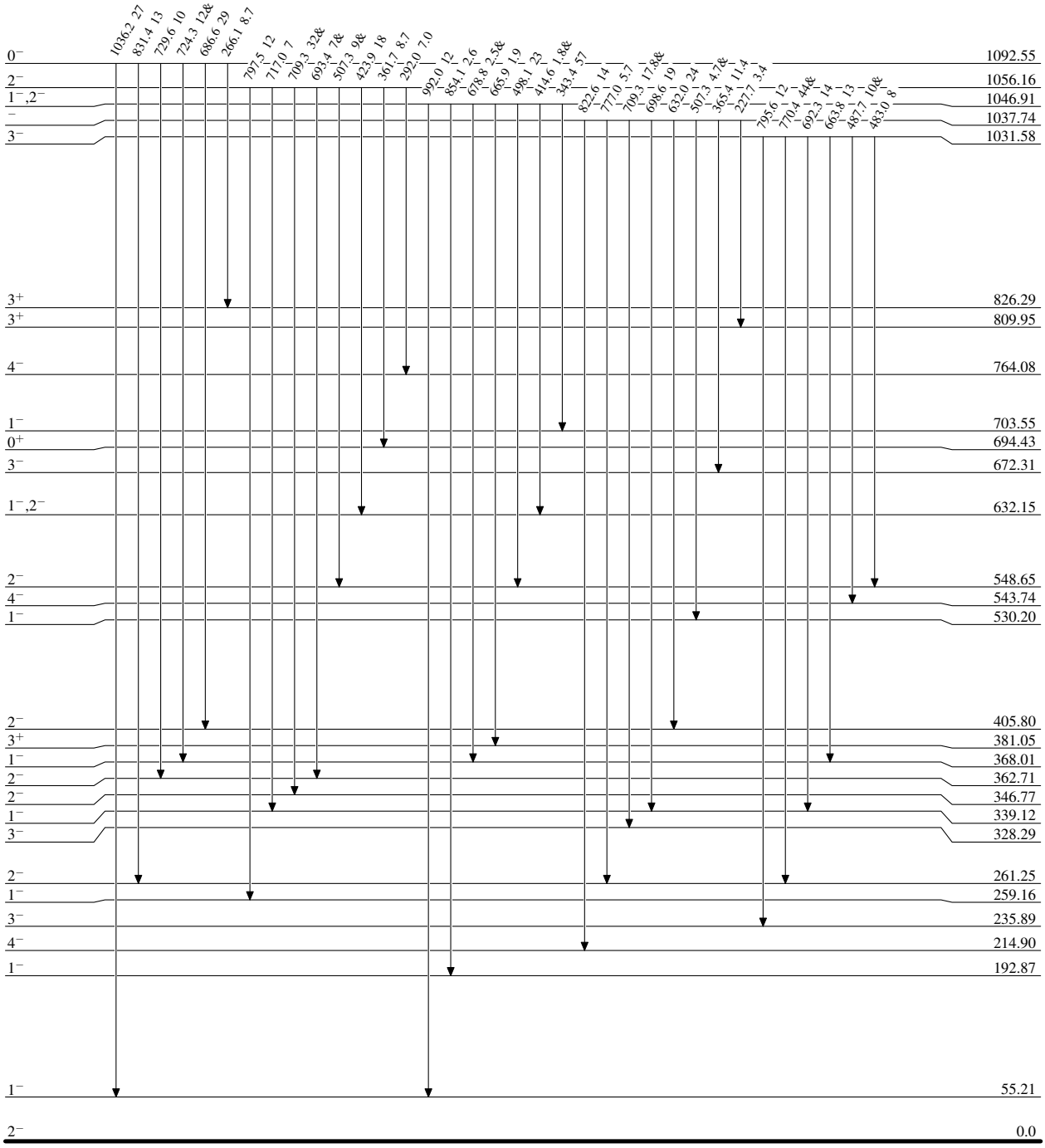


$^{198}_{79}Au_{119}$

^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11

Level Scheme (continued)

Intensities: % photon branching from each level
& Multiply placed: undivided intensity given

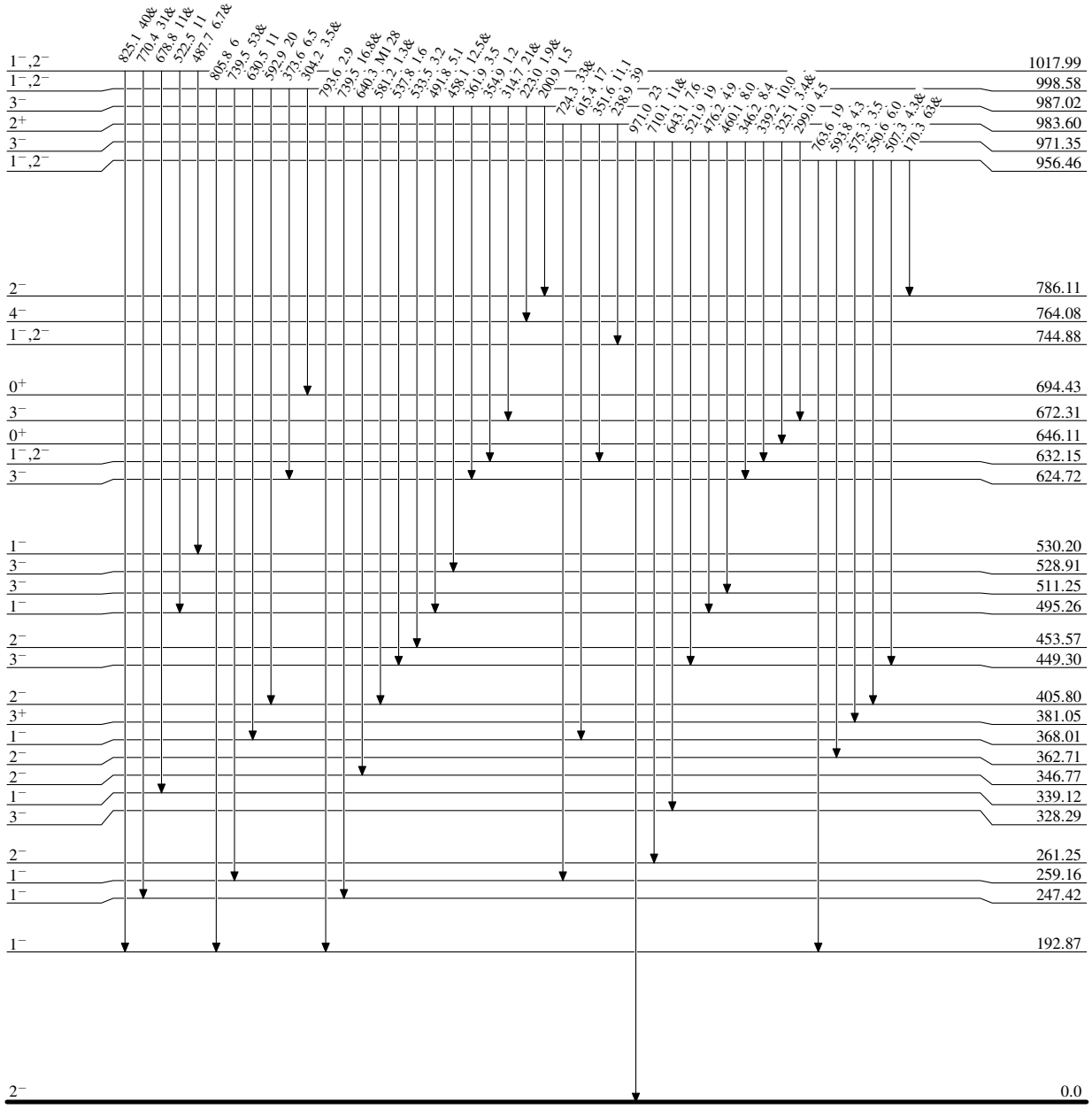


$^{198}_{79}Au_{119}$

^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11

Level Scheme (continued)

Intensities: % photon branching from each level
& Multiply placed: undivided intensity given

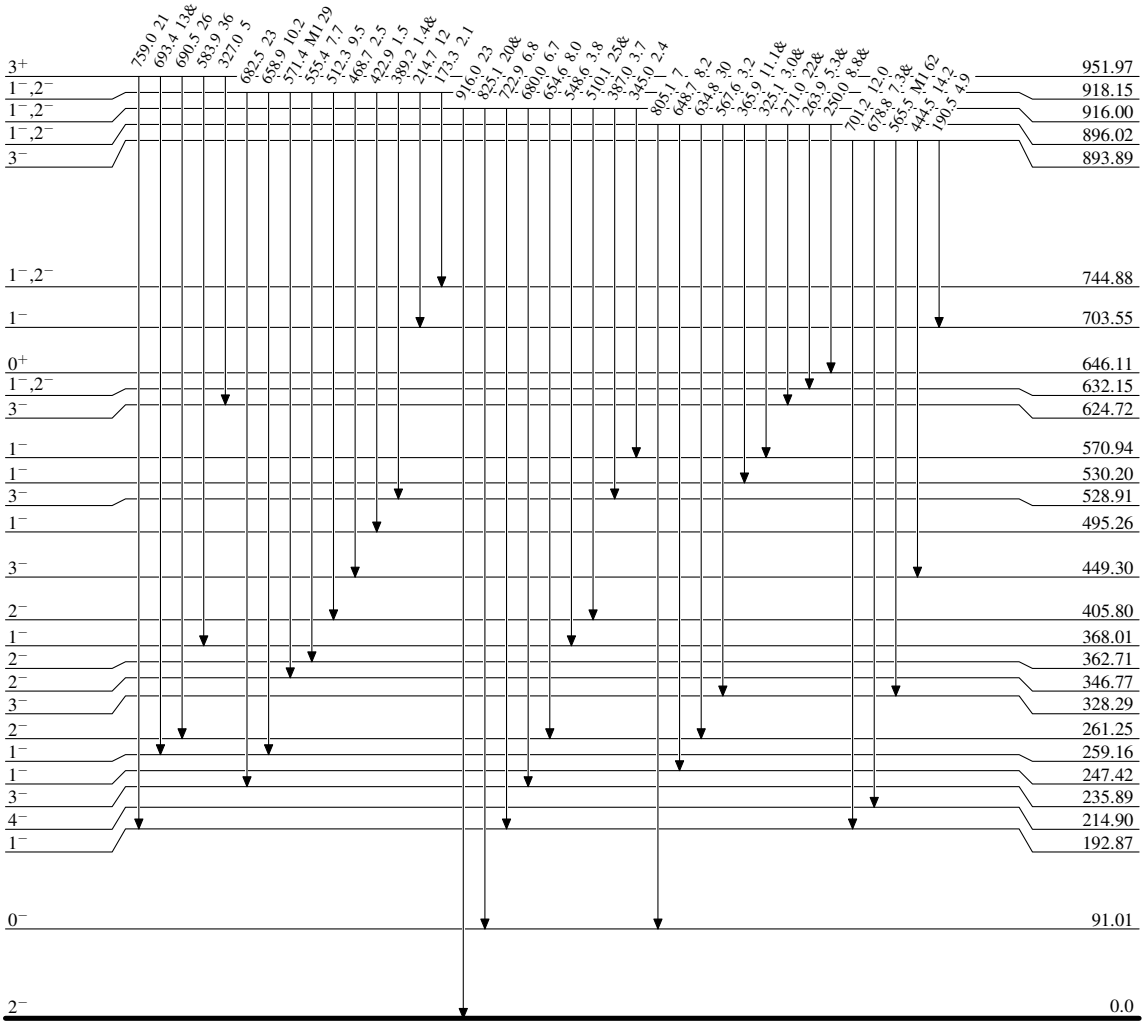


$^{198}_{79}Au_{119}$

^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11

Level Scheme (continued)

Intensities: % photon branching from each level
& Multiply placed: undivided intensity given

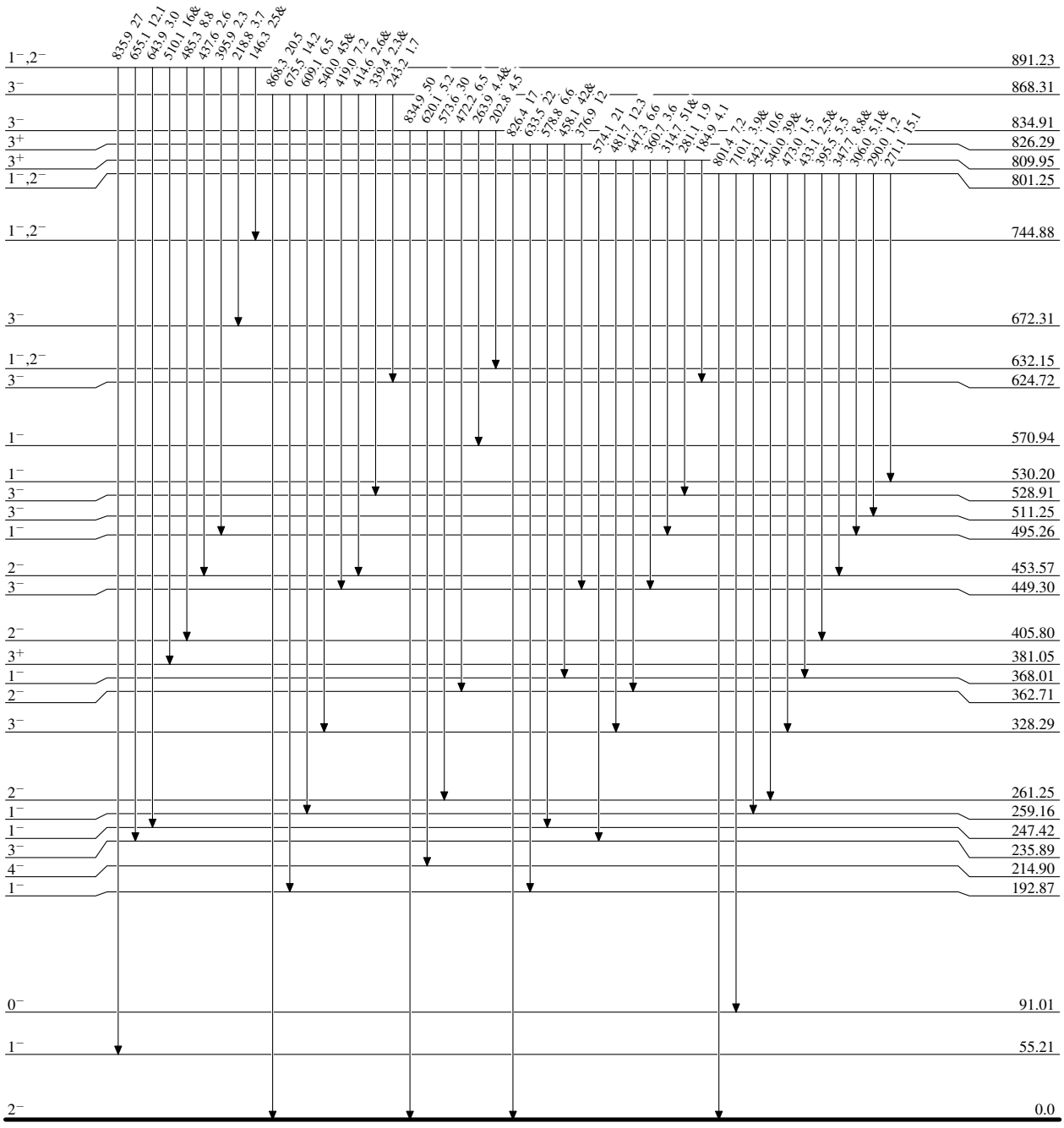


$^{198}_{79}Au_{119}$

^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11

Level Scheme (continued)

Intensities: % photon branching from each level
& Multiply placed: undivided intensity given

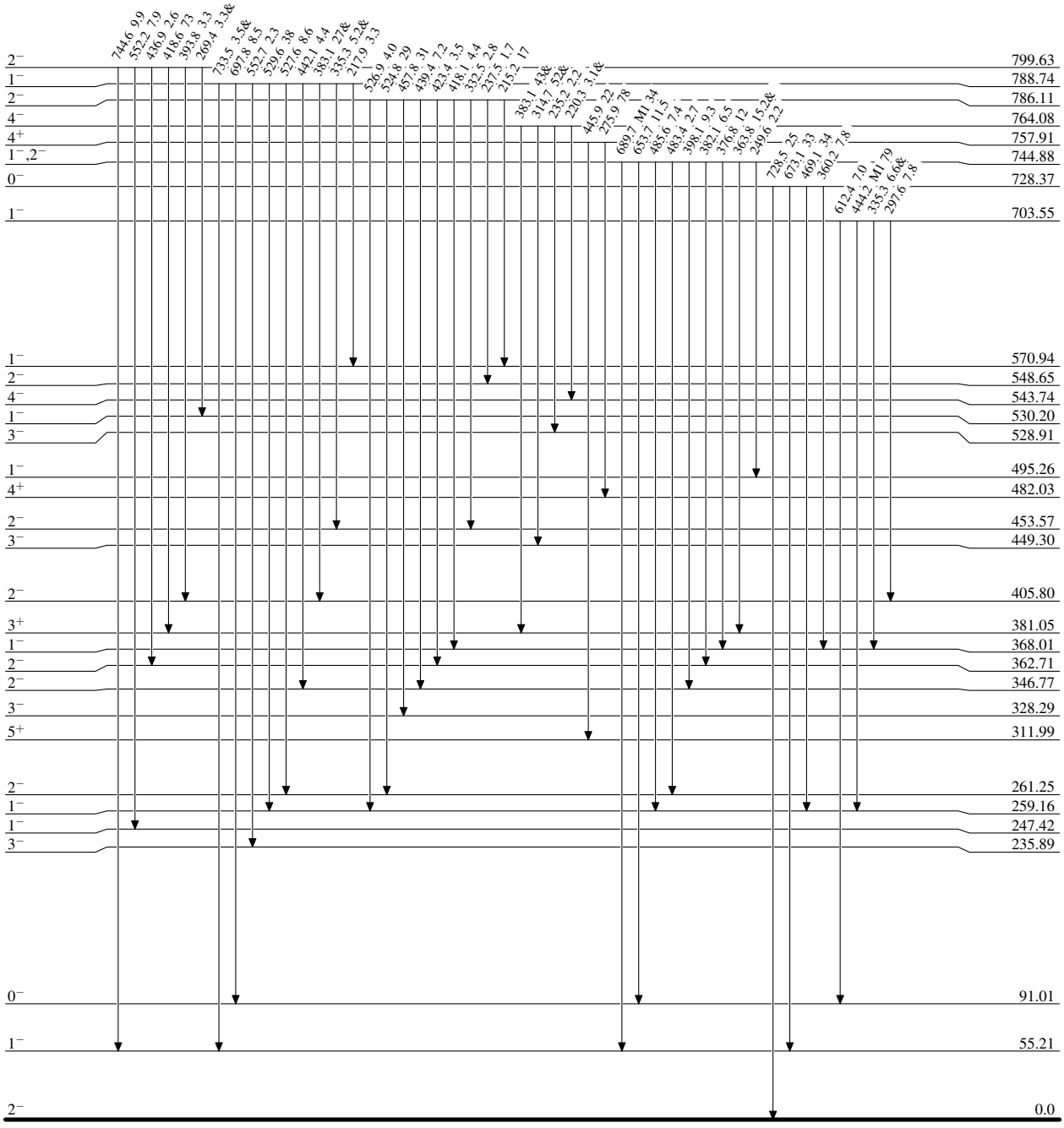


$^{198}_{79}Au_{119}$

^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11

Level Scheme (continued)

Intensities: % photon branching from each level
& Multiply placed: undivided intensity given

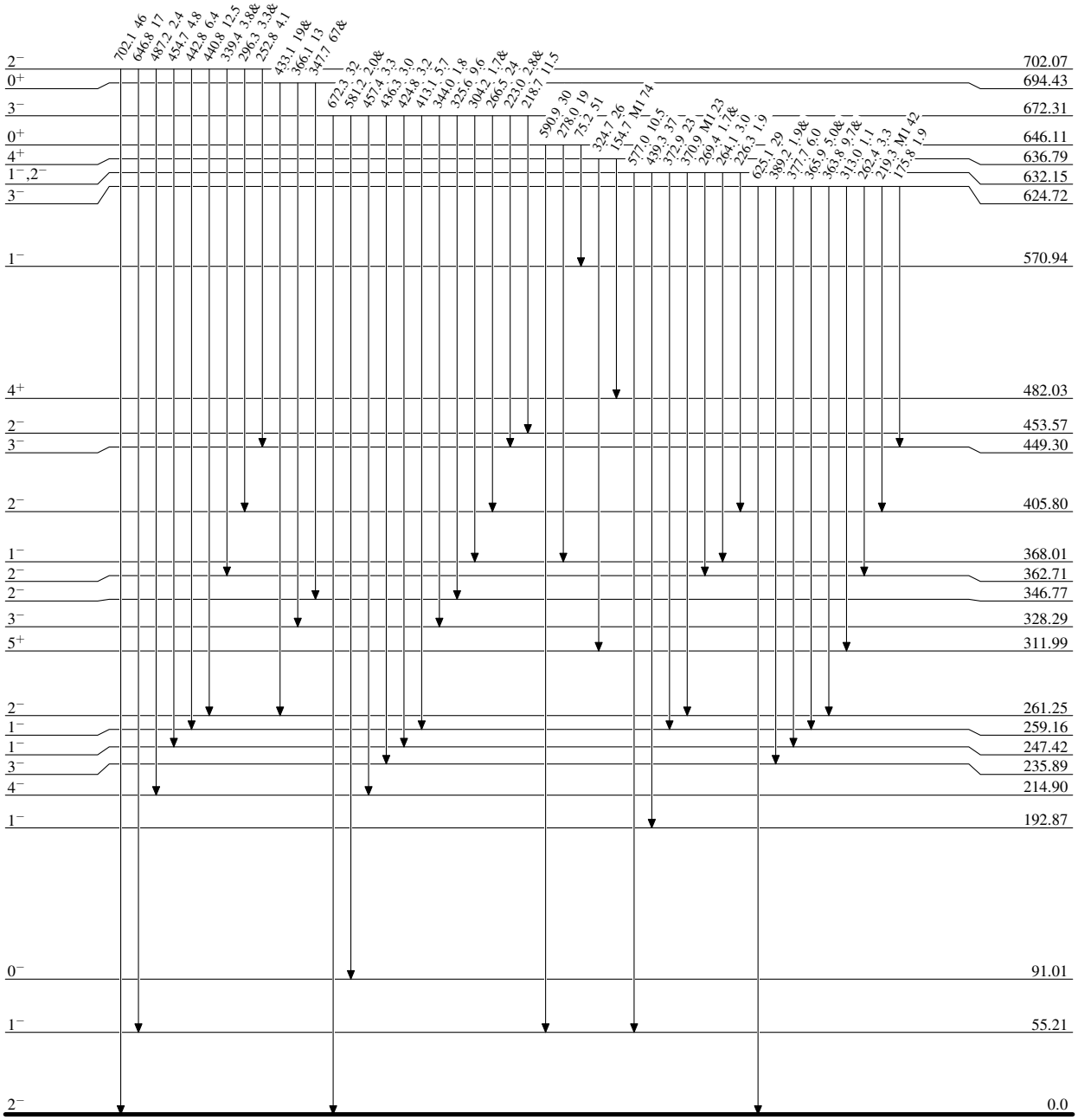


$^{198}_{79}Au_{119}$

^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11

Level Scheme (continued)

Intensities: % photon branching from each level
& Multiply placed: undivided intensity given

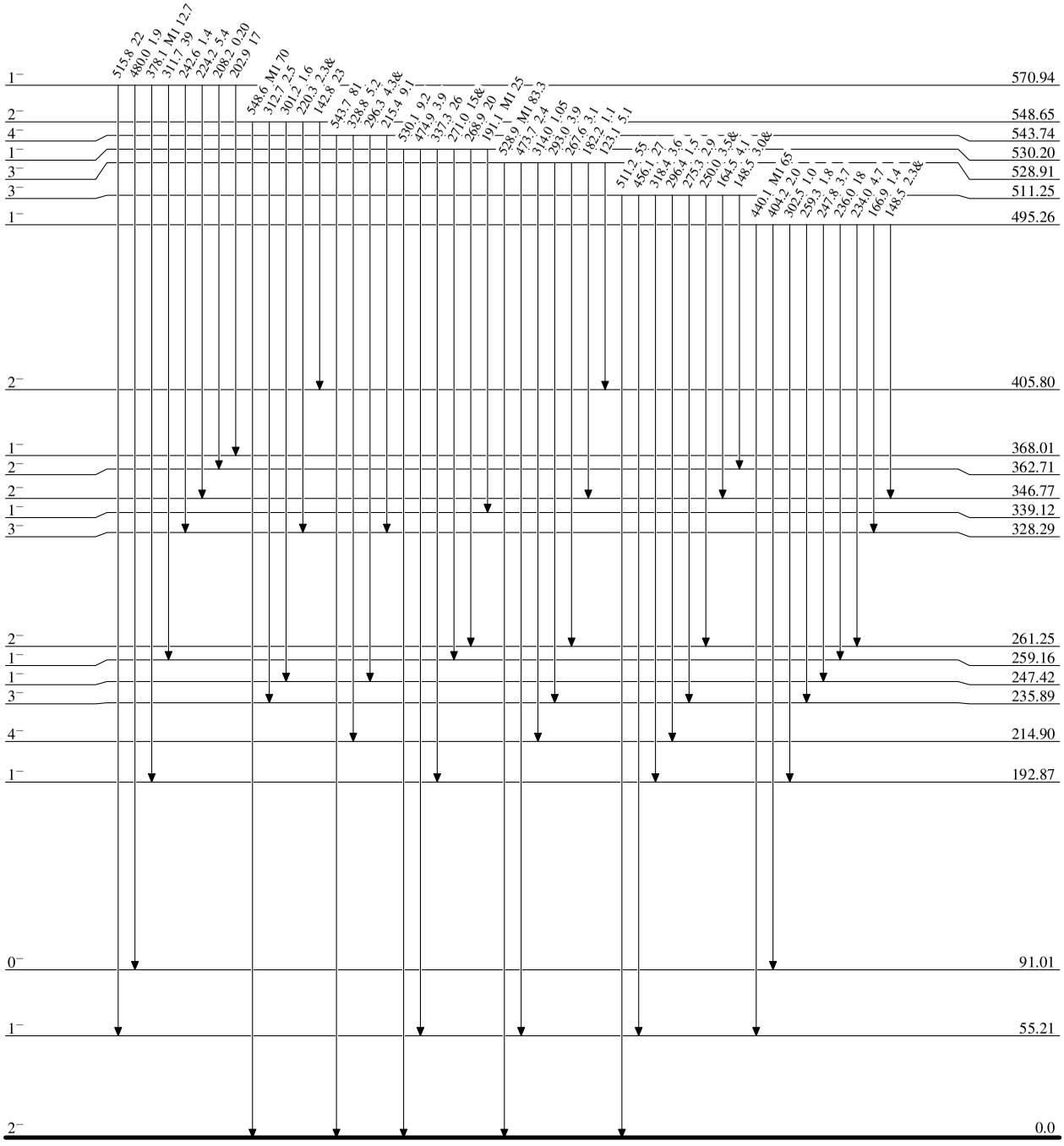


$^{198}_{79}Au_{119}$

^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11

Level Scheme (continued)

Intensities: % photon branching from each level
& Multiply placed: undivided intensity given

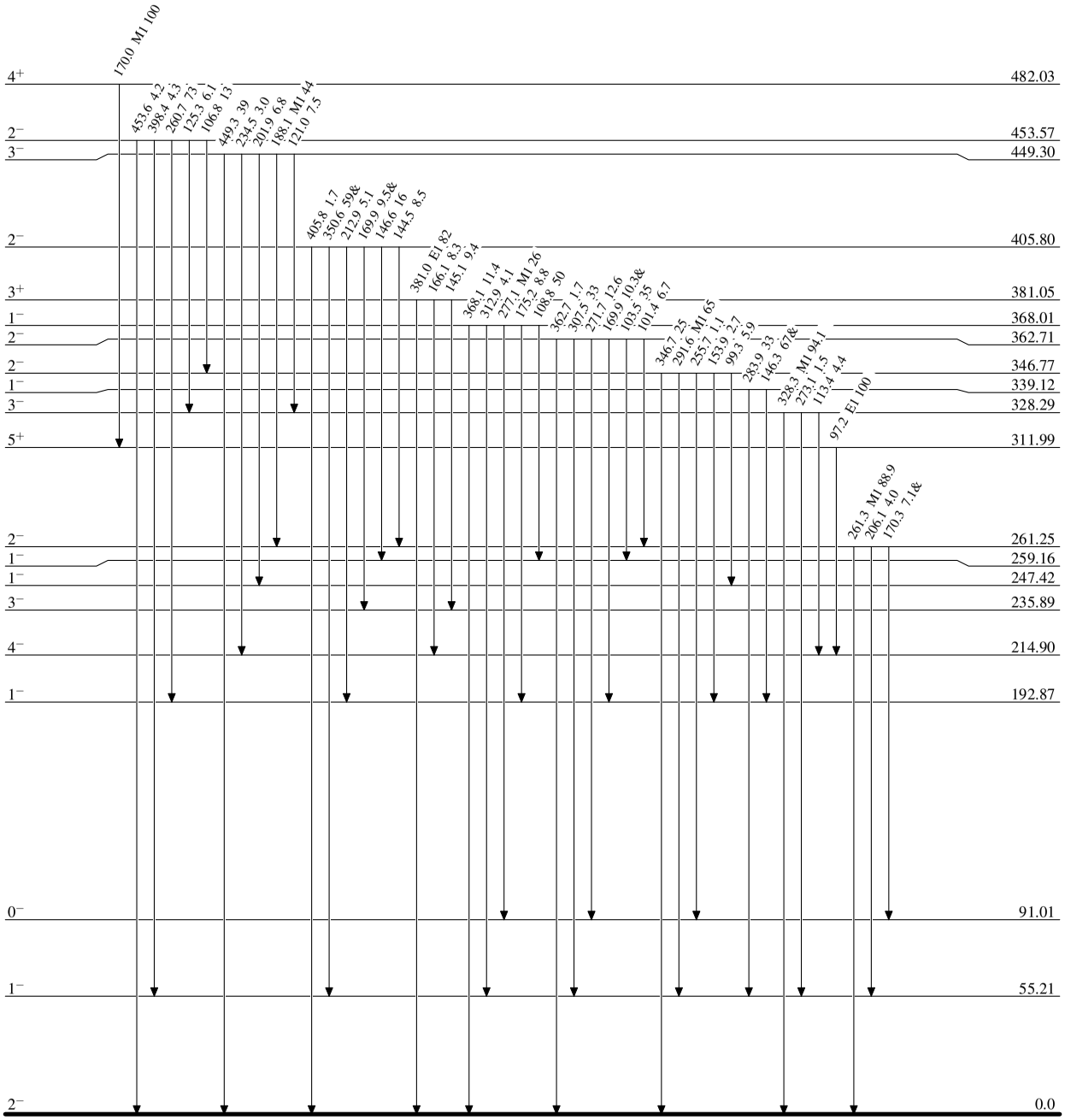


$^{198}_{79}Au_{119}$

^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11

Level Scheme (continued)

Intensities: % photon branching from each level
& Multiply placed: undivided intensity given

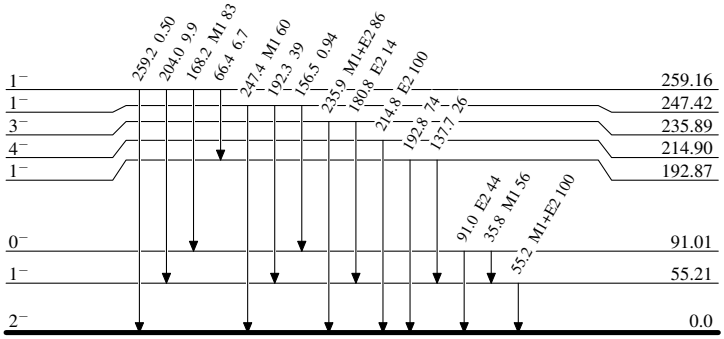


$^{198}_{79}Au_{119}$

^{197}Au(n,γ) E=2,24 keV: sec 1989Ma11

Level Scheme (continued)

Intensities: % photon branching from each level
& Multiply placed: undivided intensity given



$^{198}_{79}Au_{119}$