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J. Am. Chem. Soc., 1997, 119(43), 10401-10412, DOI:10.1021/ja971135g

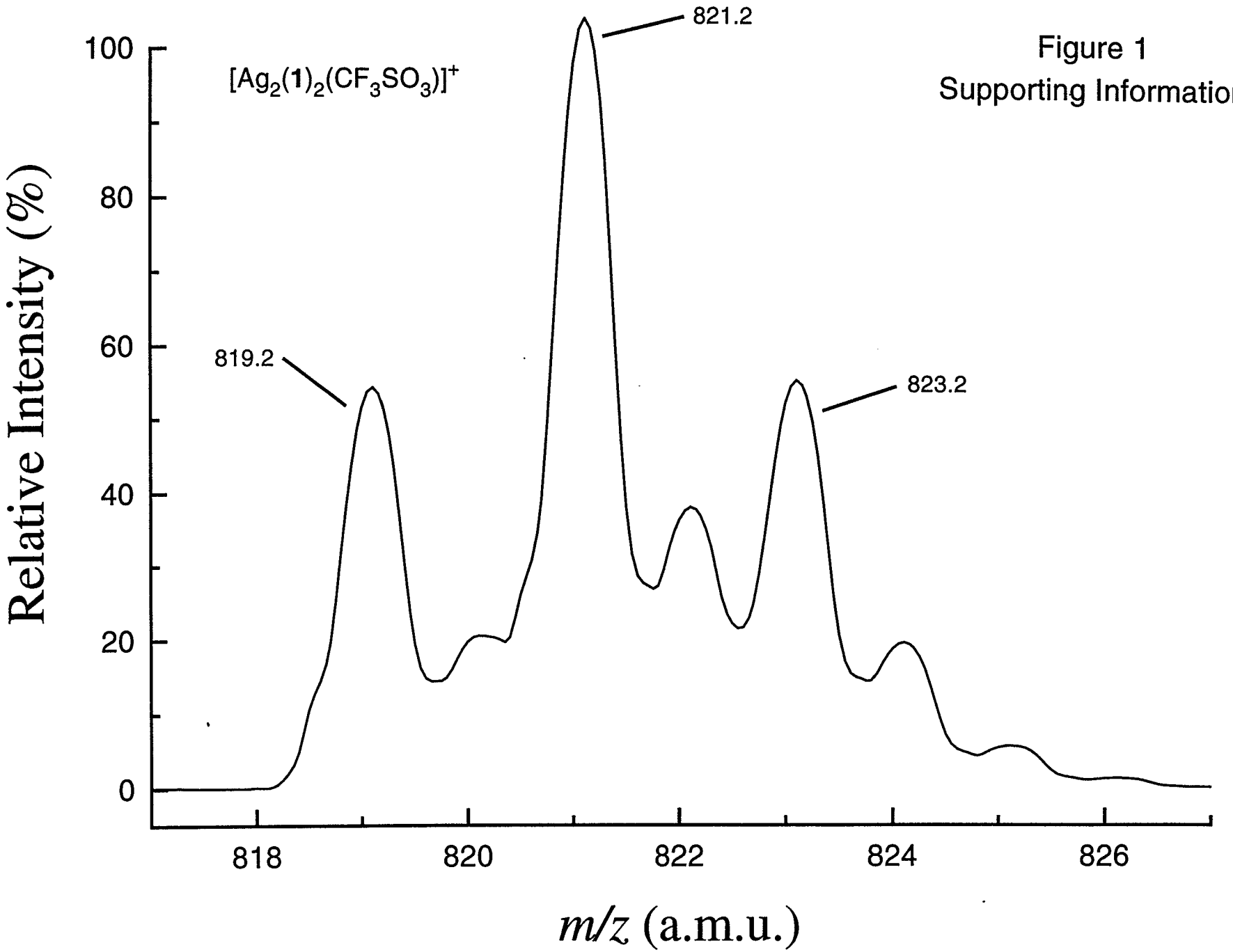

Figure 2
Supporting Information

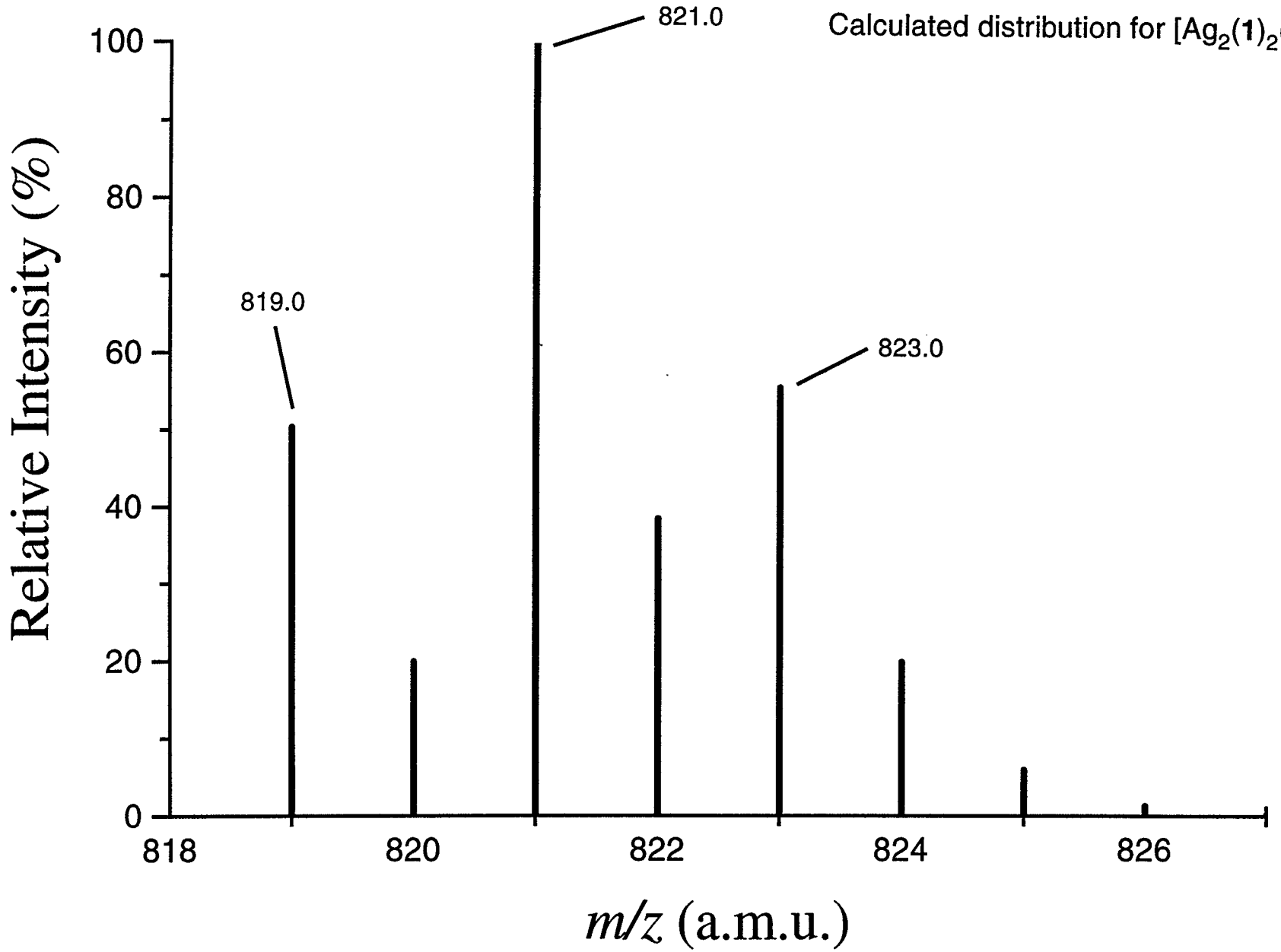

Figure 3
Supporting Information

2,3'-DCPA (1)/$AgClO_4 \cdot H_2O$ in acetone

Concentrations: 1.5 x 10^{-1}M for **1**
1.6 x 10^{3}M for $AgClO \cdot H_2O$

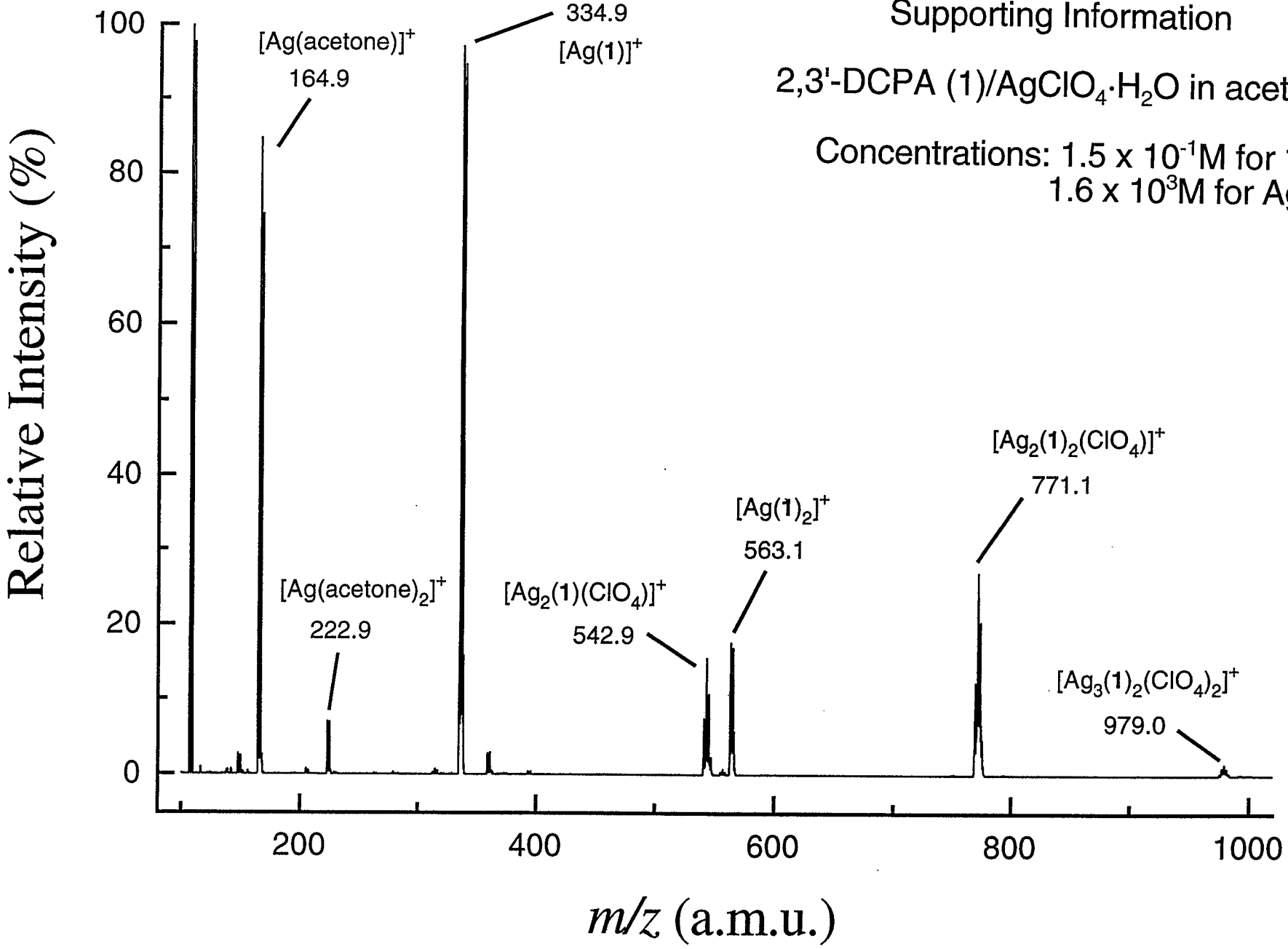

Figure 4

Supporting Information

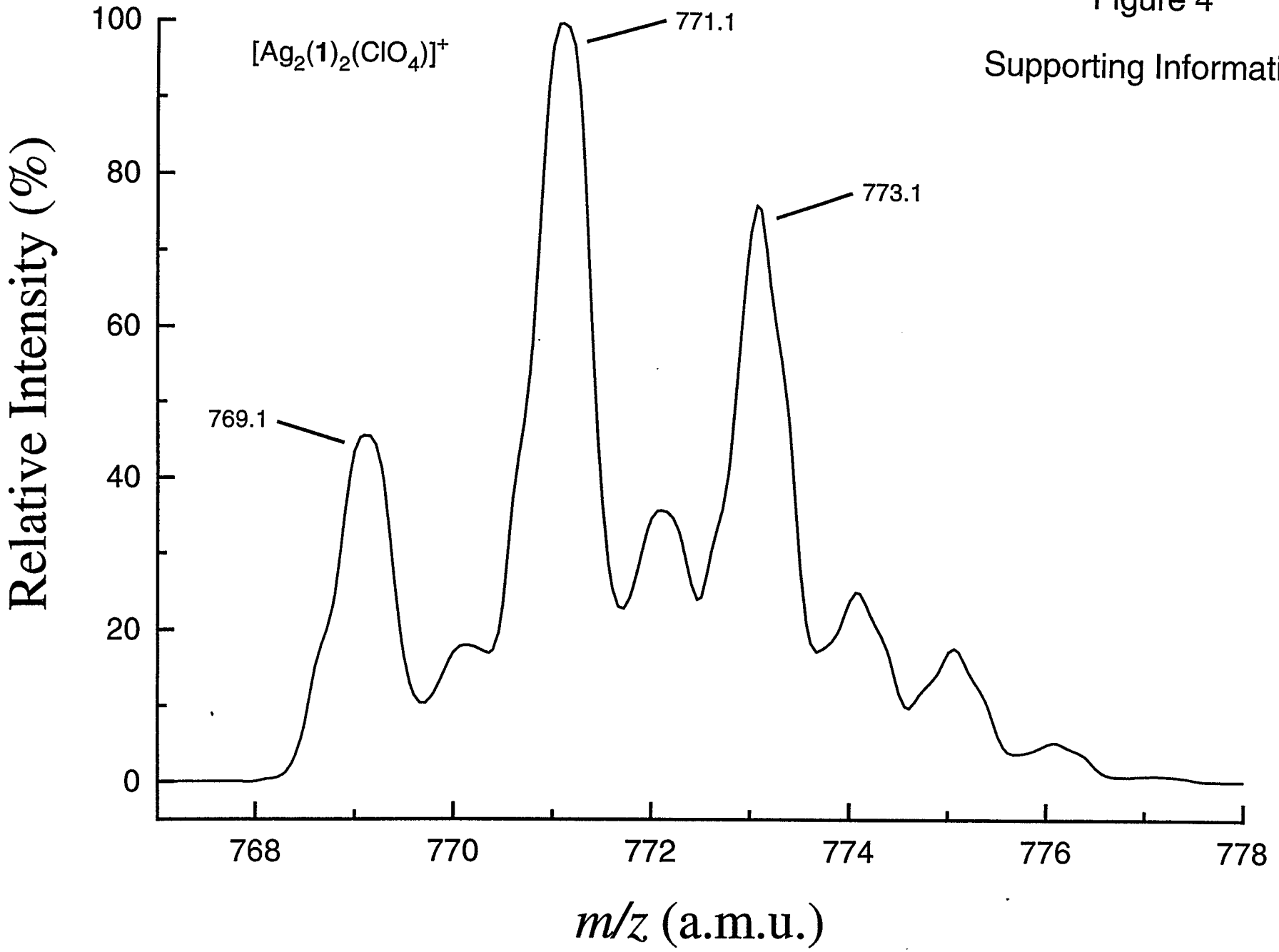

Figure 5

Supporting Information

Calculated distribution for $[Ag_2(\mathbf{1})_2(ClO_4)]^+$

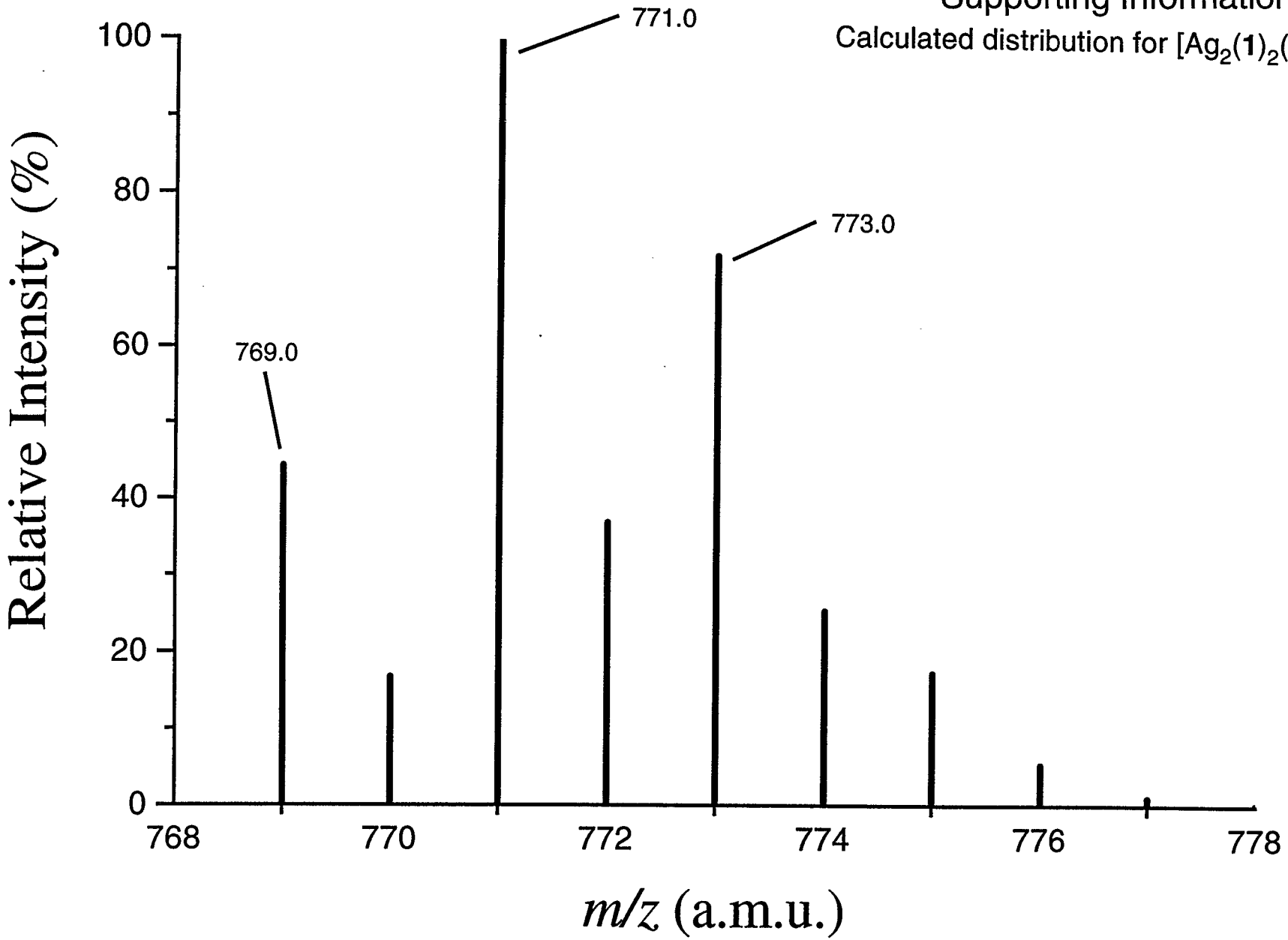

Figure 6

Supporting Information

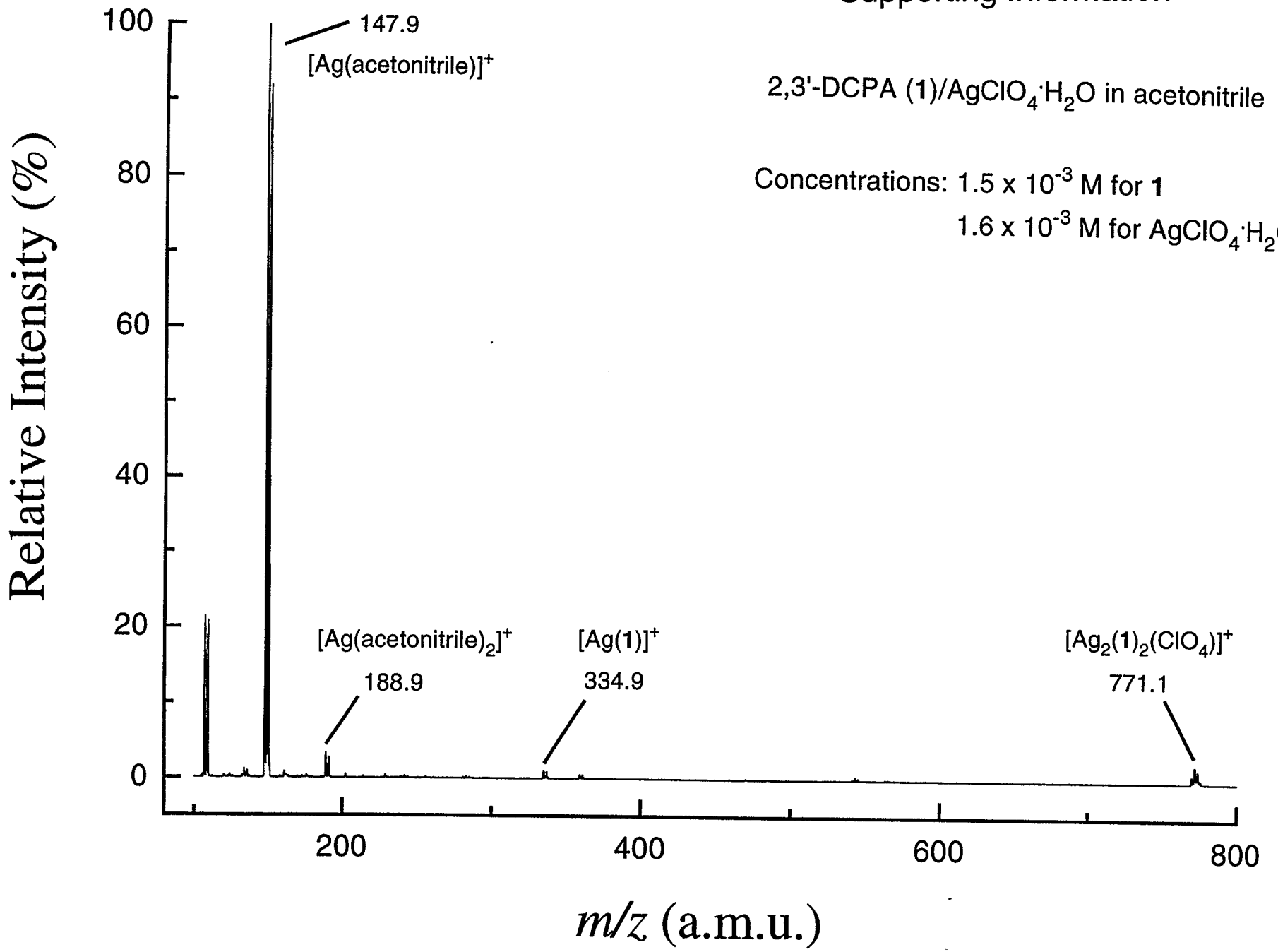

Figure 7
Supporting Information

2,3'-DCPA (**1**)/$AgSbF_6$ in acetone

Concentrations: 1.5 x 10^{-3} M for **1**
1.6 x 10^{3} M for $AgSbF_6$

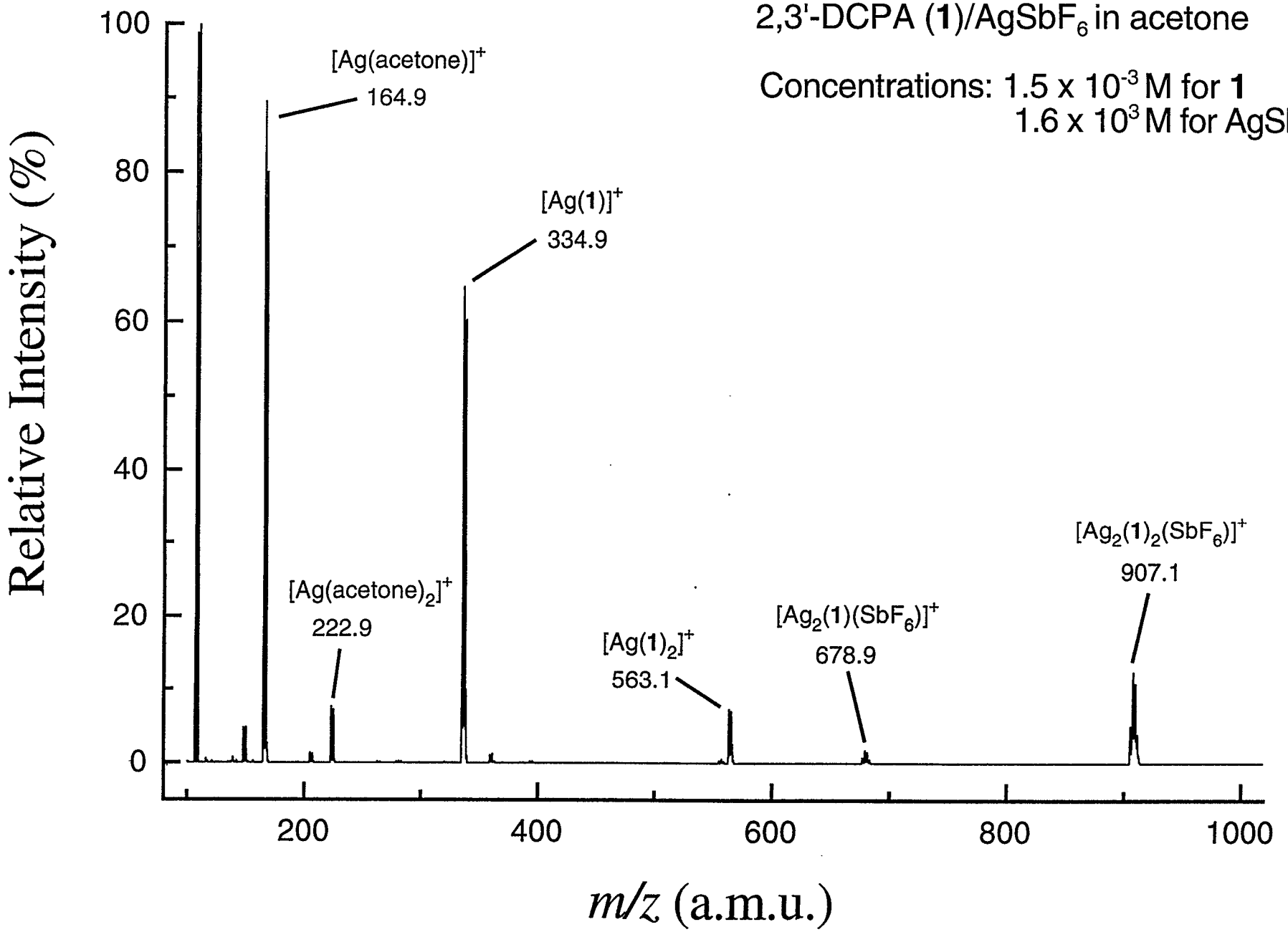

Figure 8

Supporting Information

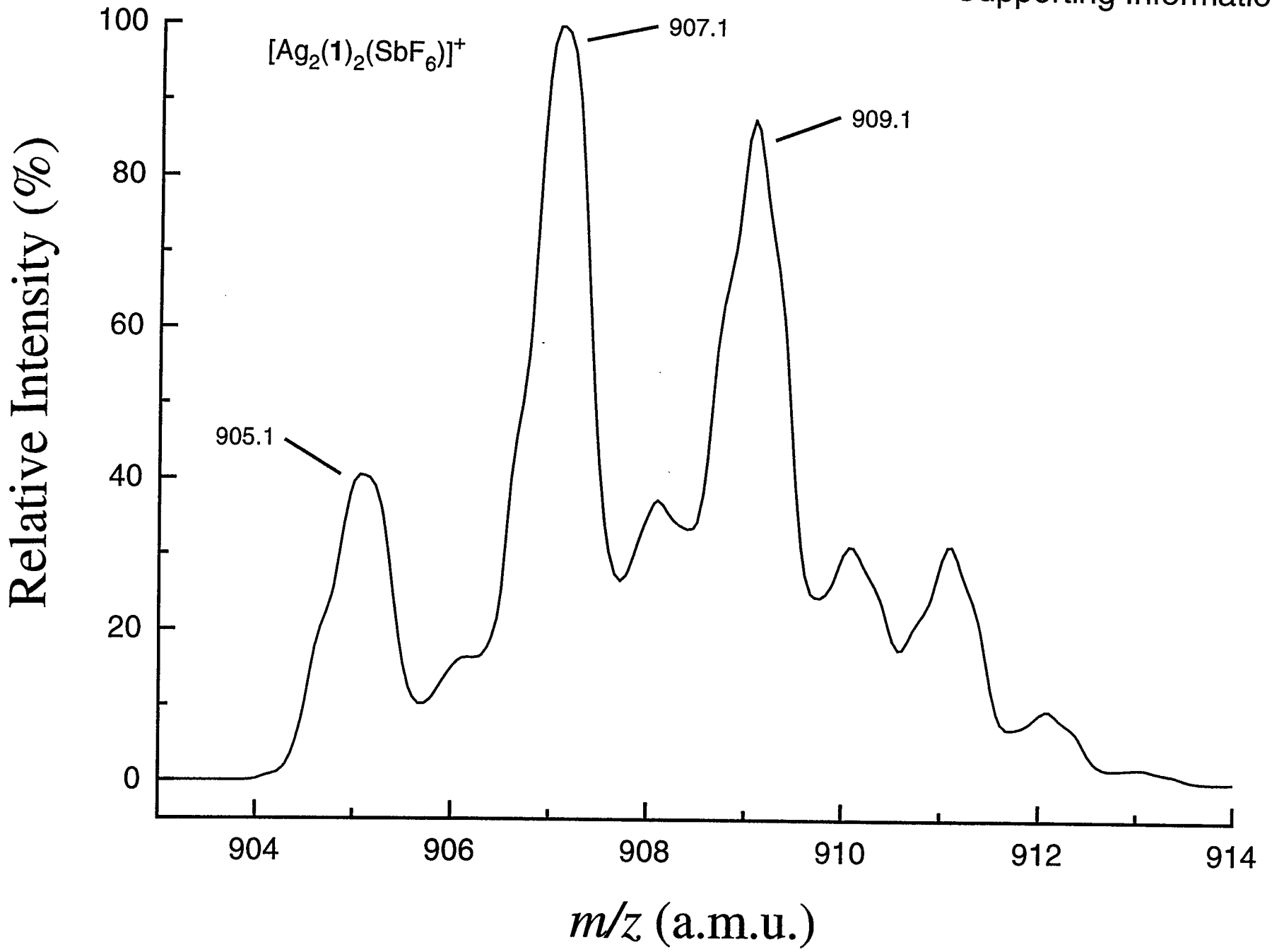

Figure 9

Supporting Information

Calculated distribution for $[Ag_2(\mathbf{1})_2(SbF_6)]^+$

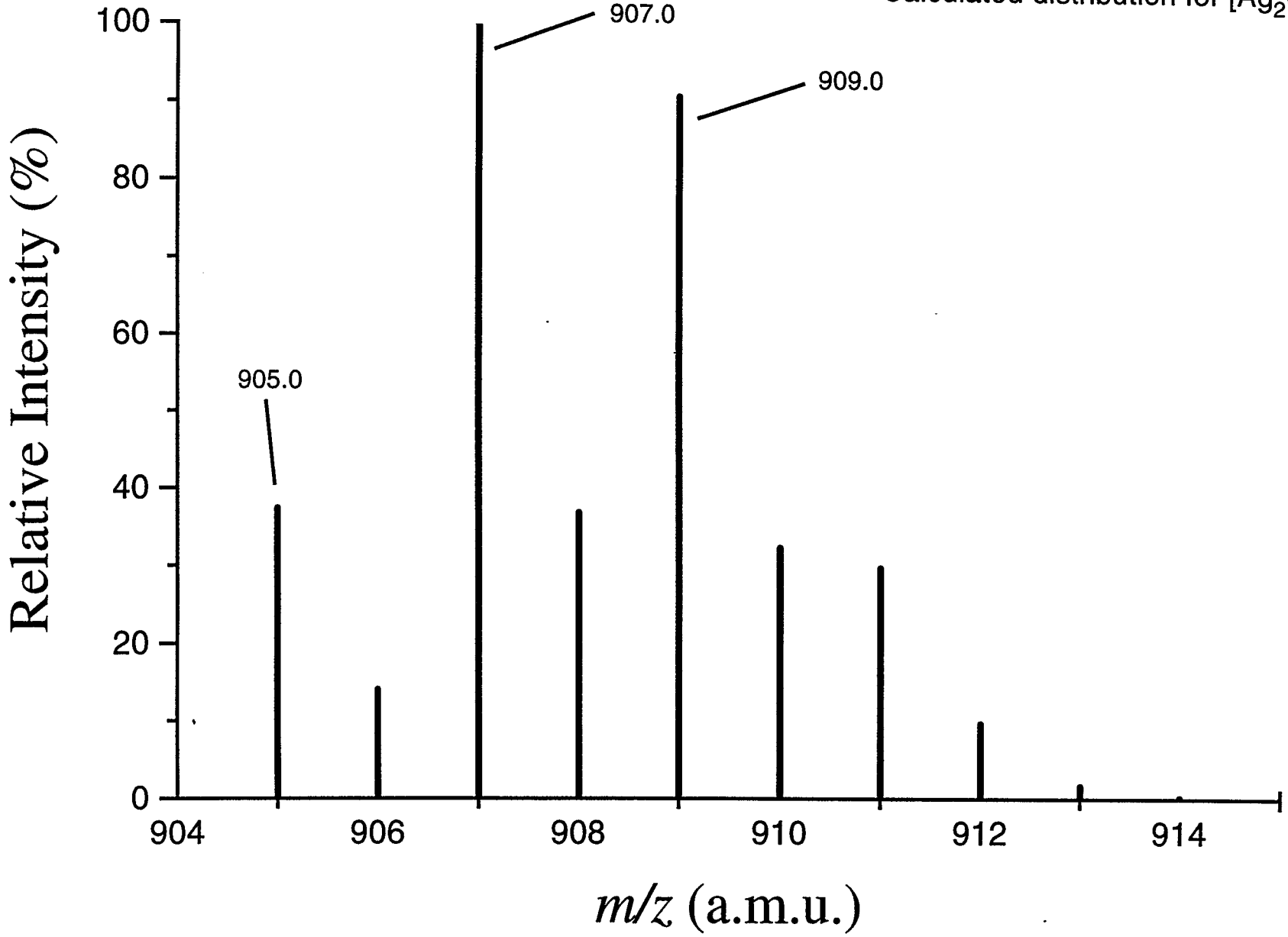

Figure 10

Supporting Information

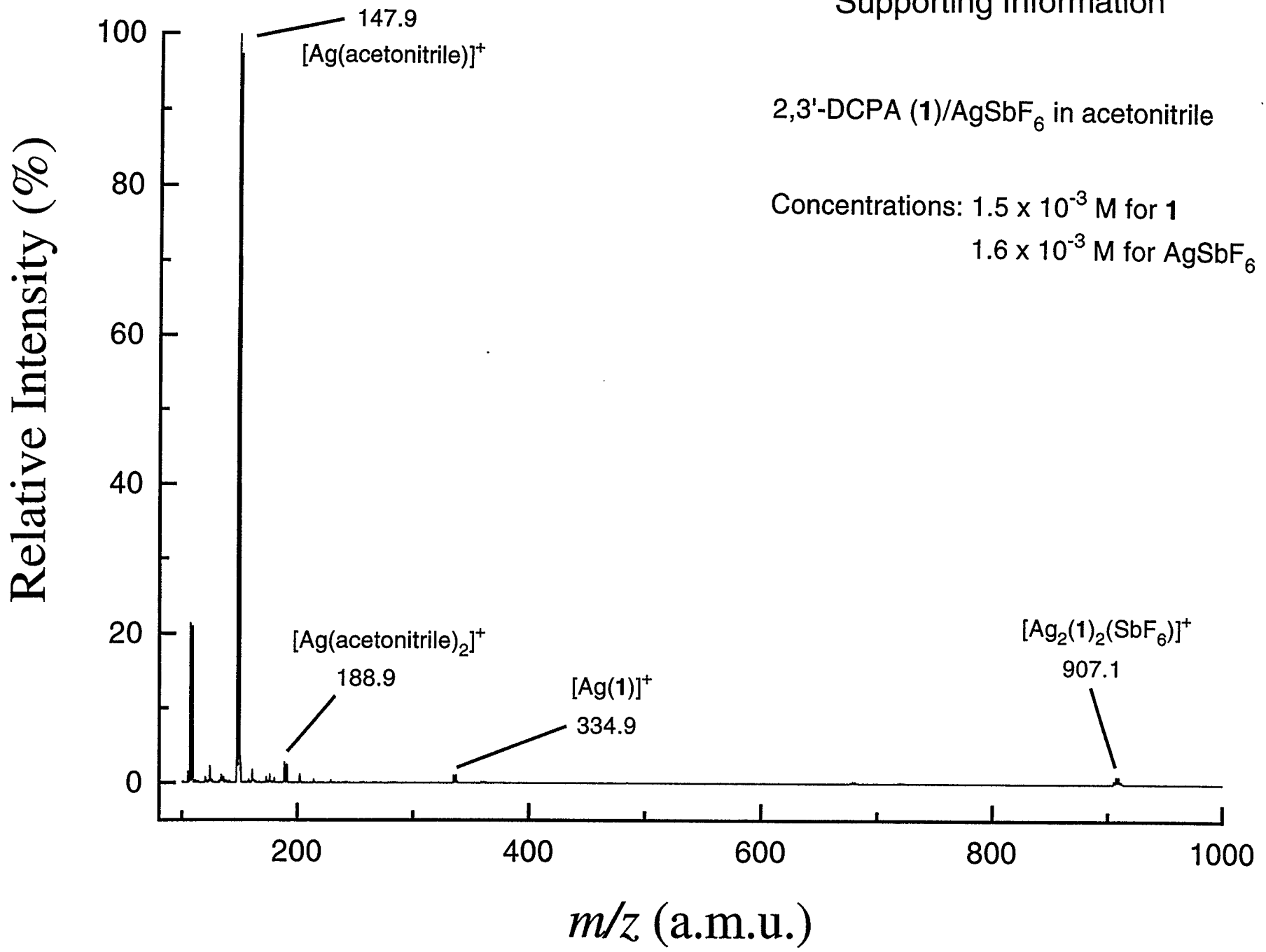

Figure 11

Supporting Information

2,3'-DCPA (**1**)/$AgCF_3SO_3$ in acetonitrile at *ca.* 1.5 x 10^{-2} M for **1** and $AgCF_3SO_3$

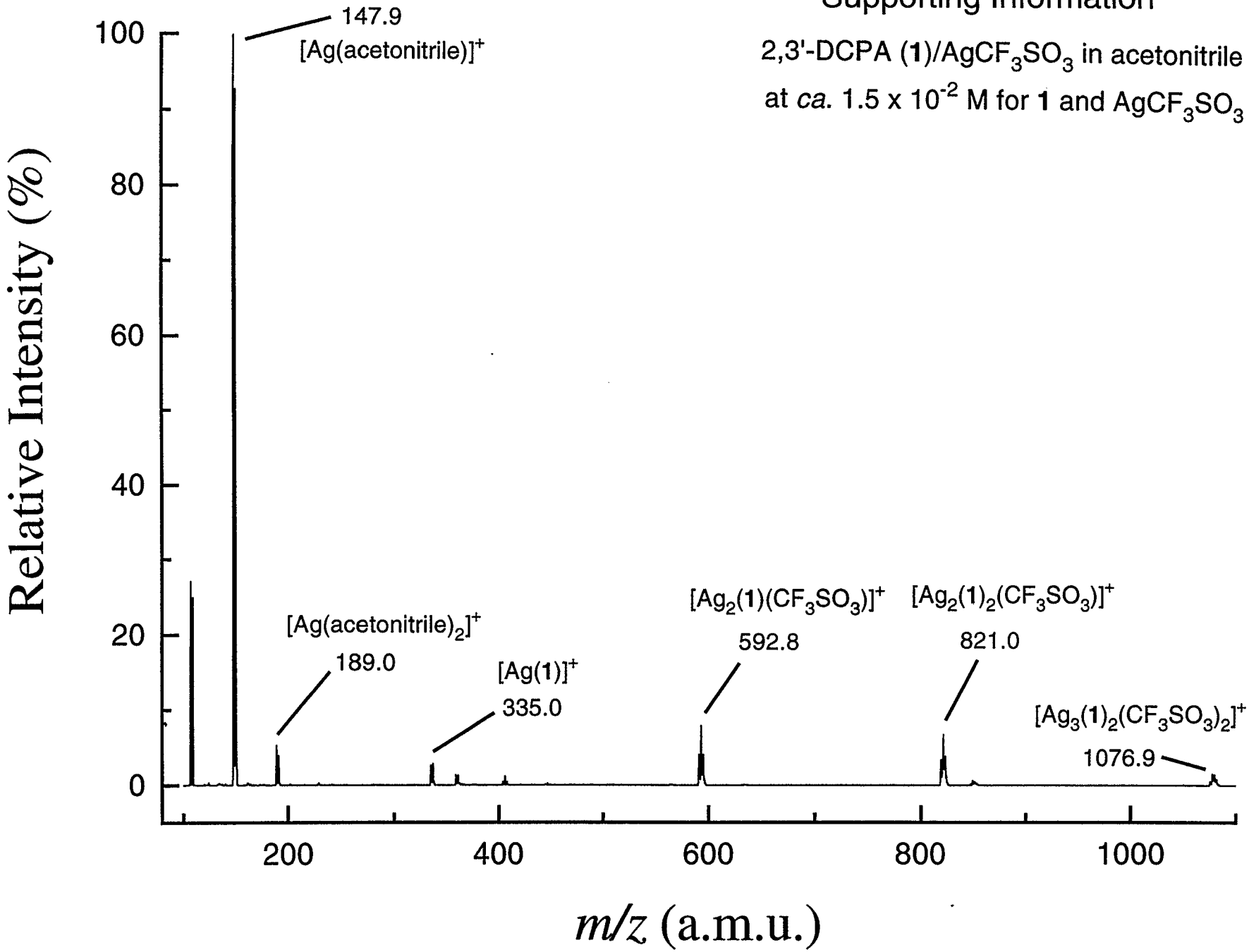

Figure 12

Supporting Information

2,3'-DCPA (**1**)/$AgClO_4 \cdot H_2O$ in acetonitrile at *ca.* 1.5×10^{-2} M for **1** and $AgClO_4 \cdot H_2O$

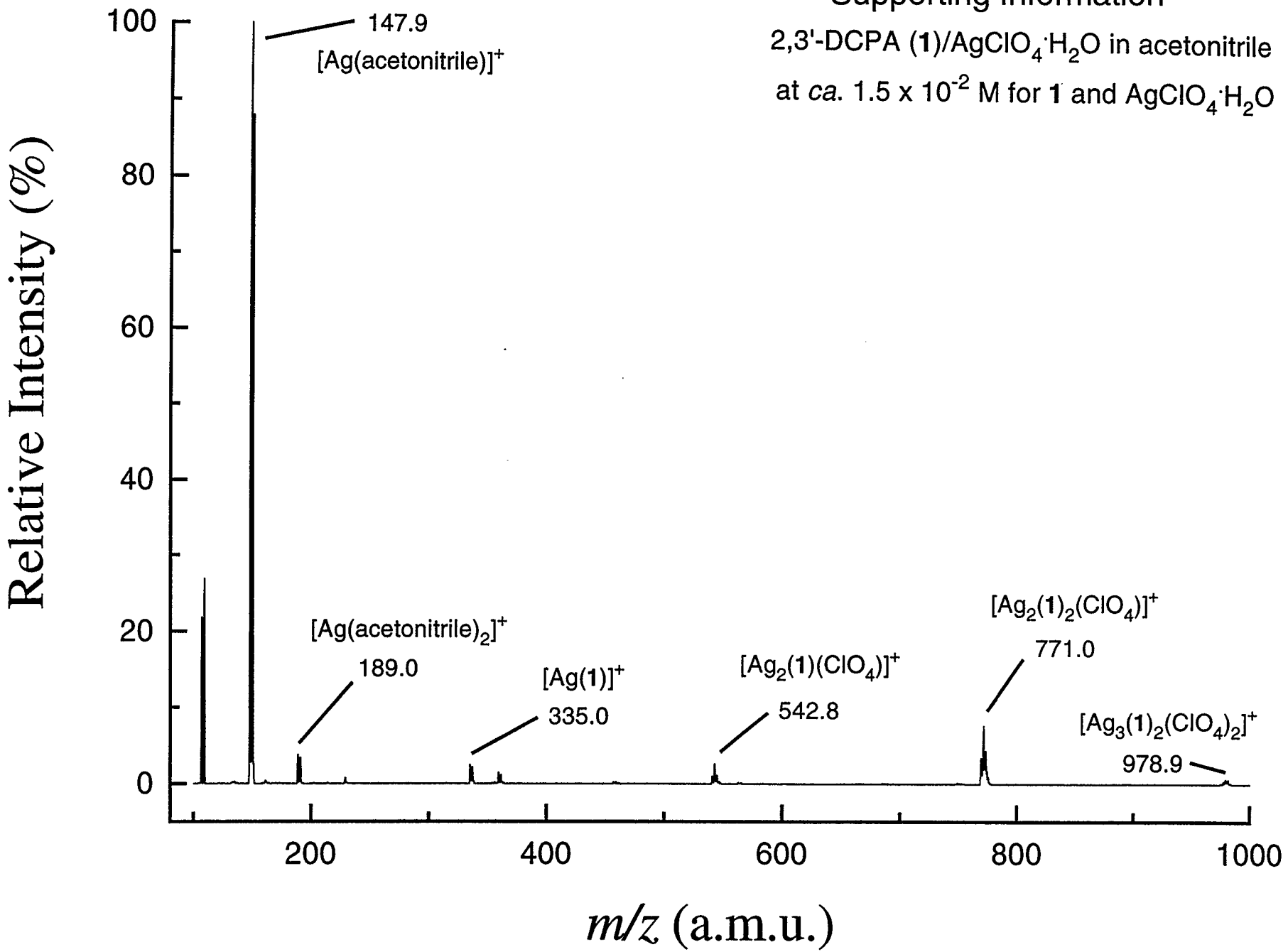

Figure 13

Supporting Information

2,3'-DCPA (**1**)/$AgSbF_6$ in acetonitrile at *ca.* 1.5 x 10^{-2} M for **1** and $AgSbF_6$

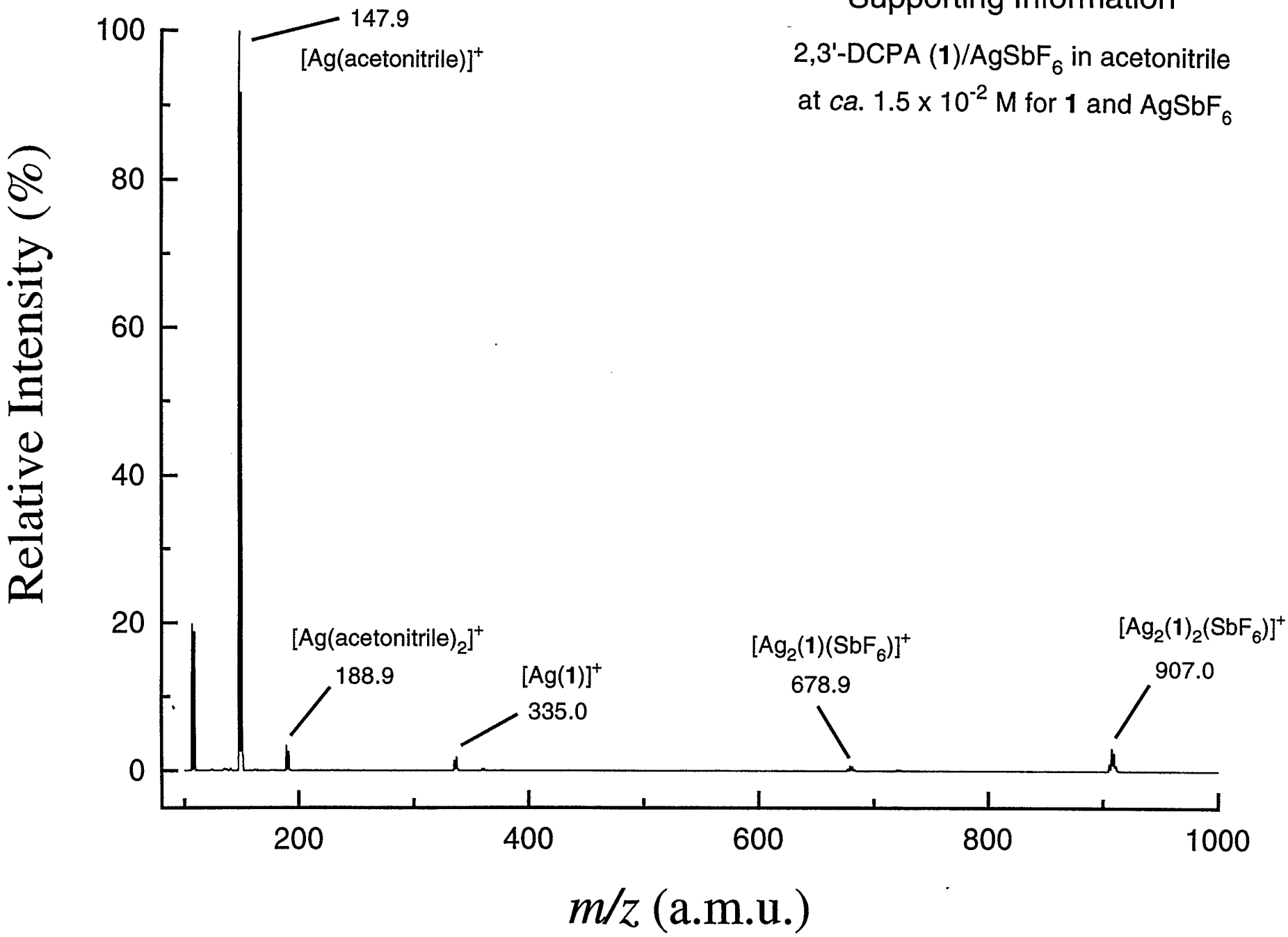

Figure 14

Supporting Information

2,4'-DCPA (**3**)/$AgCF_3SO_3$ in acetonitrile

Concentrations: 1.5 x 10^{-3} M for **3**
1.6 x 10^{-3} M for $AgCF_3SO_3$

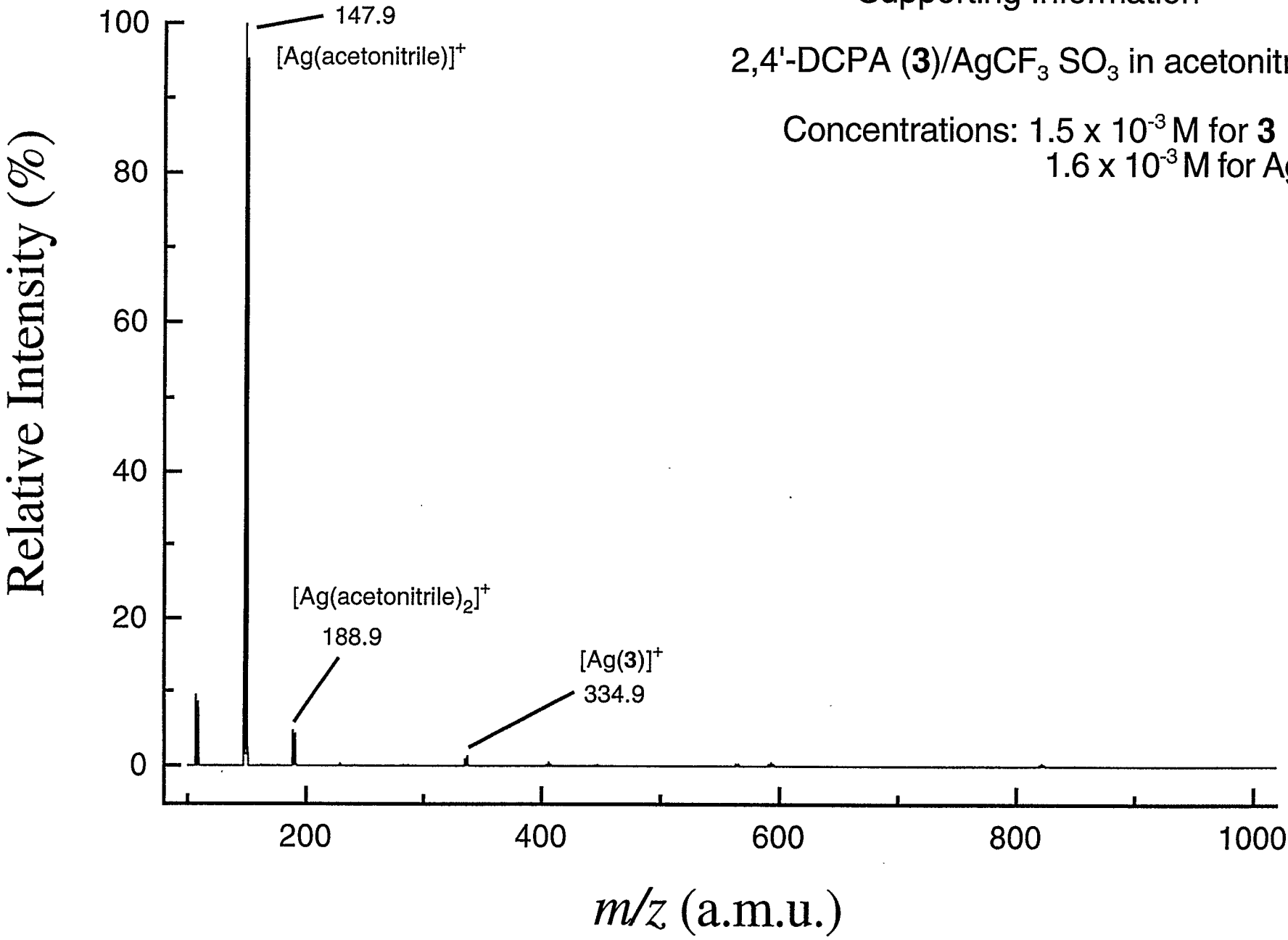

Figure 15

Supporting Information

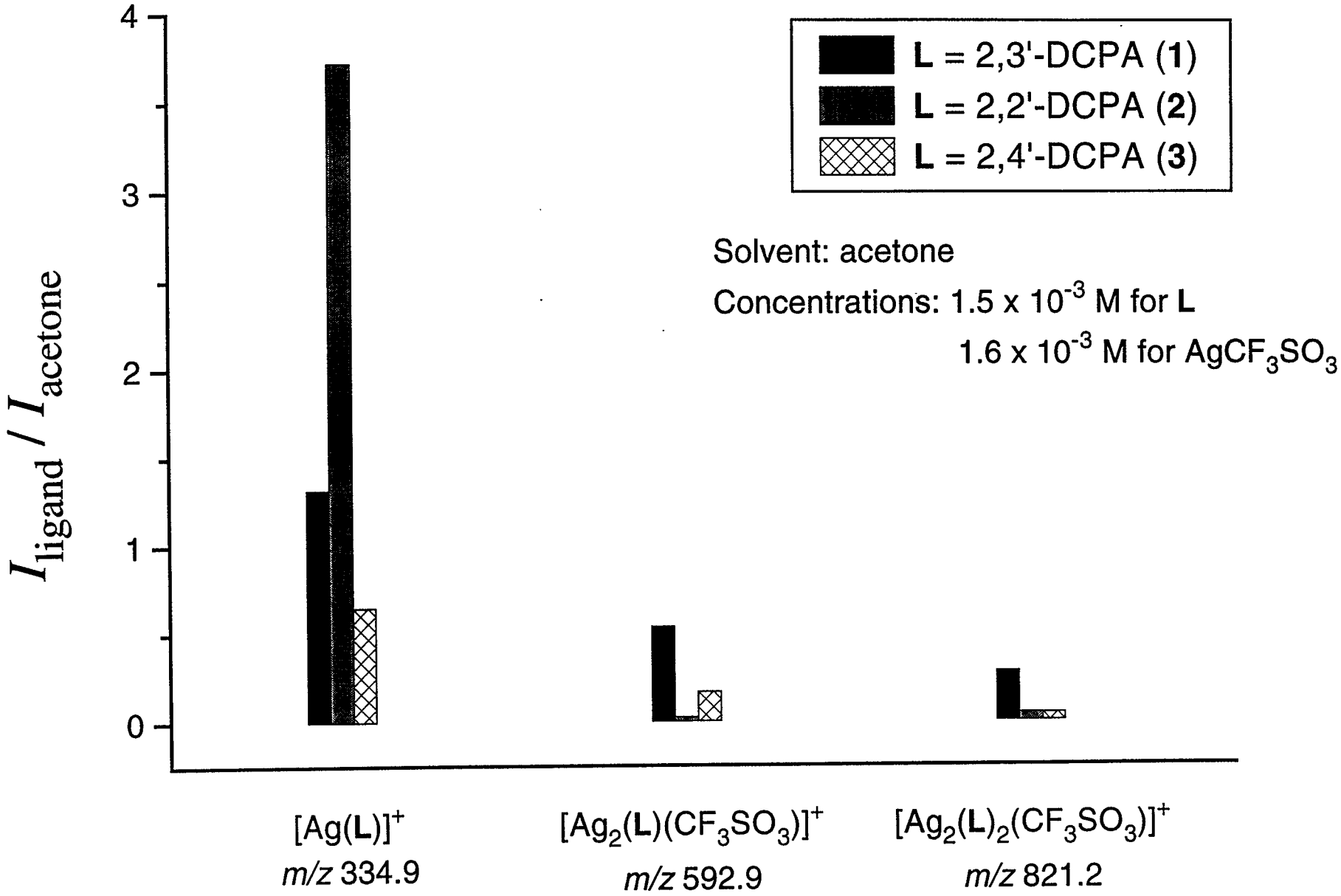

Table S1. Crystal data and structure refinement for 4 (117a).

Empirical formula	C17 H8 Ag F3 N2 O3 S
Formula weight	485.18
Temperature	198(2) K
Wavelength	0.71073 A
Crystal system	Triclinic
Space group	P-1
Unit cell dimensions	a = 9.1222(2) A alpha = 63.6960(10) deg
	b = 10.1711(2) A beta = 84.25 deg
from 3205 reflns with 4<=theta<=28	c = 10.53690(10) A gamma = 89.6980(10) deg
	V = 871.17(3) A^3 Z = 2
Density (calculated)	1.850 Mg/m^3
Absorption coefficient	1.328 mm^-1
Crystal size	0.12 x 0.14 x 0.36 mm
Theta range for data collection	2.17 to 28.27 deg
Index ranges	-11<=h<=12, -13<=k<=8, -14<=l<=12
Collection method	\w scans
Reflections collected	5652 [R(int) = 0.0242]
Independent reflections	3907 [3462 obs, I >2sigma(I)]
Absorption correction	Integration
Max. and min. transmission	0.8691 and 0.6946
Refinement (shift/err=-0.001)	Full-matrix least-squares on F^2
Data / restraints / parameters	3907 / 0 / 276
Goodness-of-fit on F^2	1.143
Final R indices (obs data)	R1 = 0.0334, wR2 = 0.0666
R indices (all data)	R1 = 0.0424, wR2 = 0.0739

calc w=1/[\s^2^(Fo^2^)+(0.0000P)^2^+1.2660P] where P=(Fo^2^+2Fc^2^)/3

Largest diff. peak and hole	0.381 and -0.388 e.A^-3

Table S2. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters (A^2 x 10^3) for 4. U(eq) is defined as one third of the trace of the orthogonalized Uij tensor

	x	y	z	U(eq)
Ag(1)	8318(1)	8139(1)	-4(1)	41(1)
S(1)	12065(1)	8774(1)	-740(1)	31(1)
F(1)	14934(2)	18692(2)	-847(2)	50(1)
F(2)	16205(2)	13362(2)	-546(2)	56(1)
F(3)	13851(3)	18378(3)	-8822(2)	65(1)
O(1)	7765(3)	9656(2)	1236(2)	43(1)
O(2)	10927(2)	8050(3)	437(2)	45(1)
O(3)	7877(3)	11677(3)	-8148(2)	46(1)
N(1)	7190(3)	6059(3)	1443(3)	47(1)
N(2)	8649(3)	9753(3)	-2251(3)	39(1)
C(1)	14340(3)	16227(3)	-3297(3)	29(1)
C(2)	15290(3)	16962(3)	-2850(3)	34(1)
C(3)	16103(4)	18187(4)	-3849(4)	37(1)
C(4)	15978(3)	18671(3)	-5283(3)	36(1)
C(5)	15051(4)	17932(3)	-5736(3)	34(1)
C(6)	14204(3)	16699(3)	-4752(3)	29(1)
C(7)	13492(3)	14947(3)	-2262(3)	36(1)
C(8)	13235(3)	15887(3)	-5161(3)	33(1)
C(9)	12400(3)	15131(3)	-5383(3)	33(1)
C(10)	11395(3)	14161(3)	-5561(3)	30(1)
C(11)	11000(4)	14415(3)	-6898(3)	35(1)
C(12)	10058(4)	13438(4)	-7035(3)	36(1)
C(13)	9461(3)	12203(3)	-5850(3)	31(1)
C(14)	9828(3)	11959(3)	-4509(3)	28(1)
C(15)	10796(3)	12924(3)	-4357(3)	31(1)
C(16)	9166(3)	10723(3)	-3255(3)	31(1)
C(1T)	3748(3)	8088(4)	80(3)	37(1)

Table S3. Anisotropic displacement parameters (A^2 x 10^3) for 4. The anisotropic displacement factor exponent takes the form: -2 pi^2 [h^2 a*^2 U11 + ... + 2 h k a* b* U12]

	U11	U22	U33	U23	U13	U12
Ag(1)	36(1)	36(1)	37(1)	-7(1)	1(1)	-8(1)
S(1)	27(1)	34(1)	27(1)	-9(1)	-4(1)	-2(1)
F(1)	27(1)	60(1)	56(1)	-19(1)	1(1)	-8(1)
F(2)	43(1)	41(1)	64(1)	-6(1)	-8(1)	8(1)
F(3)	57(1)	103(2)	48(1)	-42(1)	-24(1)	8(1)
O(1)	51(1)	32(1)	39(1)	-11(1)	-2(1)	3(1)
O(2)	29(1)	51(1)	38(1)	-6(1)	1(1)	-3(1)
O(3)	51(1)	56(2)	38(1)	-26(1)	-13(1)	-3(1)
N(1)	41(2)	41(2)	45(2)	-6(1)	-5(1)	-8(1)
N(2)	42(2)	37(1)	32(1)	-12(1)	-4(1)	-7(1)
C(1)	25(1)	24(1)	33(1)	-9(1)	-1(1)	1(1)
C(2)	36(2)	35(2)	31(2)	-14(1)	-5(1)	2(1)
C(3)	35(2)	35(2)	43(2)	-19(1)	-6(1)	-4(1)
C(4)	33(2)	29(2)	38(2)	-8(1)	1(1)	-9(1)
C(5)	38(2)	30(2)	29(2)	-9(1)	-2(1)	-2(1)
C(6)	24(1)	26(1)	38(2)	-14(1)	-6(1)	3(1)
C(7)	33(2)	34(2)	35(2)	-9(1)	-5(1)	-1(1)
C(8)	34(2)	28(1)	36(2)	-13(1)	-6(1)	2(1)
C(9)	31(2)	30(2)	37(2)	-14(1)	-5(1)	4(1)
C(10)	27(1)	27(1)	36(2)	-15(1)	-5(1)	2(1)
C(11)	38(2)	29(2)	31(2)	-10(1)	-2(1)	-1(1)
C(12)	39(2)	40(2)	29(2)	-14(1)	-7(1)	1(1)
C(13)	33(2)	30(2)	33(2)	-15(1)	-7(1)	-1(1)
C(14)	27(1)	28(1)	30(1)	-13(1)	-3(1)	2(1)
C(15)	32(2)	32(2)	31(2)	-15(1)	-7(1)	4(1)
C(16)	30(2)	33(2)	33(2)	-16(1)	-8(1)	2(1)
C(1T)	31(2)	44(2)	33(2)	-13(1)	-6(1)	0(1)

Table S4. Hydrogen coordinates (x 10^4) and isotropic displacement parameters (A^2 x 10^3) for 4. Treatment of hydrogen atoms not specifically described in the refinement summary was "refall."

	x	y	z	U(eq)
H(2)	15297(37)	16634(37)	-1886(37)	39(9)
H(3)	16716(40)	18675(39)	-3527(37)	44(10)
H(4)	16554(36)	19478(37)	-5940(34)	35(9)
H(5)	15012(41)	18287(41)	-6681(40)	48(10)
H(11)	11383(38)	15288(39)	-7726(37)	42(9)
H(12)	9835(38)	13553(38)	-7925(38)	42(10)
H(13)	8839(35)	11537(34)	-5913(32)	28(8)
H(15)	11065(35)	12714(35)	-3453(35)	32(8)

Table S5. Bond lengths [A] and angles [deg] for 4.

Ag(1)-N(1)	2.170(3)
Ag(1)-N(2)	2.193(3)
Ag(1)-O(1)	2.447(2)
Ag(1)-O(2)	2.464(2)
S(1)-O(3)#1	1.432(2)
S(1)-O(1)#2	1.447(2)
S(1)-O(2)	1.448(2)
S(1)-C(1T)#3	1.820(3)
F(1)-C(1T)#4	1.329(4)
F(2)-C(1T)#2	1.334(4)
F(3)-C(1T)#5	1.327(4)
O(1)-S(1)#2	1.447(2)
O(3)-S(1)#1	1.432(2)
N(1)-C(7)#2	1.138(4)
N(2)-C(16)	1.138(4)
C(1)-C(2)	1.391(4)
C(1)-C(6)	1.408(4)
C(1)-C(7)	1.437(4)
C(2)-C(3)	1.379(4)
C(3)-C(4)	1.384(5)
C(4)-C(5)	1.383(4)
C(5)-C(6)	1.394(4)
C(6)-C(8)	1.431(4)
C(7)-N(1)#2	1.138(4)
C(8)-C(9)	1.195(4)
C(9)-C(10)	1.434(4)
C(10)-C(15)	1.394(4)
C(10)-C(11)	1.399(4)
C(11)-C(12)	1.382(4)
C(12)-C(13)	1.384(4)
C(13)-C(14)	1.398(4)
C(14)-C(15)	1.395(4)
C(14)-C(16)	1.438(4)
C(1T)-F(3)#6	1.327(4)
C(1T)-F(1)#7	1.329(3)
C(1T)-F(2)#2	1.334(4)
C(1T)-S(1)#8	1.820(3)
N(1)-Ag(1)-N(2)	142.76(11)
N(1)-Ag(1)-O(1)	102.49(10)
N(2)-Ag(1)-O(1)	103.17(9)
N(1)-Ag(1)-O(2)	109.16(9)
N(2)-Ag(1)-O(2)	96.67(9)
O(1)-Ag(1)-O(2)	91.51(8)
O(3)#1-S(1)-O(1)#2	114.37(14)
O(3)#1-S(1)-O(2)	116.0(2)
O(1)#2-S(1)-O(2)	114.6(2)
O(3)#1-S(1)-C(1T)#3	103.4(2)
O(1)#2-S(1)-C(1T)#3	103.4(2)
O(2)-S(1)-C(1T)#3	102.64(14)
S(1)#2-O(1)-Ag(1)	130.80(13)
S(1)-O(2)-Ag(1)	120.12(13)
C(7)#2-N(1)-Ag(1)	172.5(3)
C(16)-N(2)-Ag(1)	158.6(2)
C(2)-C(1)-C(6)	121.3(3)

C(2)-C(1)-C(7)	119.7(3)
C(6)-C(1)-C(7)	118.9(3)
C(3)-C(2)-C(1)	119.4(3)
C(2)-C(3)-C(4)	120.1(3)
C(5)-C(4)-C(3)	120.7(3)
C(4)-C(5)-C(6)	120.6(3)
C(5)-C(6)-C(1)	117.9(3)
C(5)-C(6)-C(8)	122.9(3)
C(1)-C(6)-C(8)	119.2(3)
N(1)#2-C(7)-C(1)	179.4(4)
C(9)-C(8)-C(6)	174.5(3)
C(8)-C(9)-C(10)	176.6(3)
C(15)-C(10)-C(11)	119.2(3)
C(15)-C(10)-C(9)	118.6(3)
C(11)-C(10)-C(9)	122.2(3)
C(12)-C(11)-C(10)	120.7(3)
C(11)-C(12)-C(13)	120.7(3)
C(12)-C(13)-C(14)	118.8(3)
C(15)-C(14)-C(13)	121.1(3)
C(15)-C(14)-C(16)	119.0(3)
C(13)-C(14)-C(16)	119.9(3)
C(10)-C(15)-C(14)	119.4(3)
N(2)-C(16)-C(14)	179.0(3)
F(3)#6-C(1T)-F(1)#7	107.9(3)
F(3)#6-C(1T)-F(2)#2	107.9(3)
F(1)#7-C(1T)-F(2)#2	107.3(3)
F(3)#6-C(1T)-S(1)#8	111.4(2)
F(1)#7-C(1T)-S(1)#8	111.1(2)
F(2)#2-C(1T)-S(1)#8	111.0(2)

#1 -x+2,-y+2,-z-1 #2 -x+2,-y+2,-z #3 x+1,y,z
#4 x+1,y+1,z #5 x+1,y+1,z-1 #6 x-1,y-1,z+1
#7 x-1,y-1,z #8 x-1,y,z

Figure 16
Supporting Information

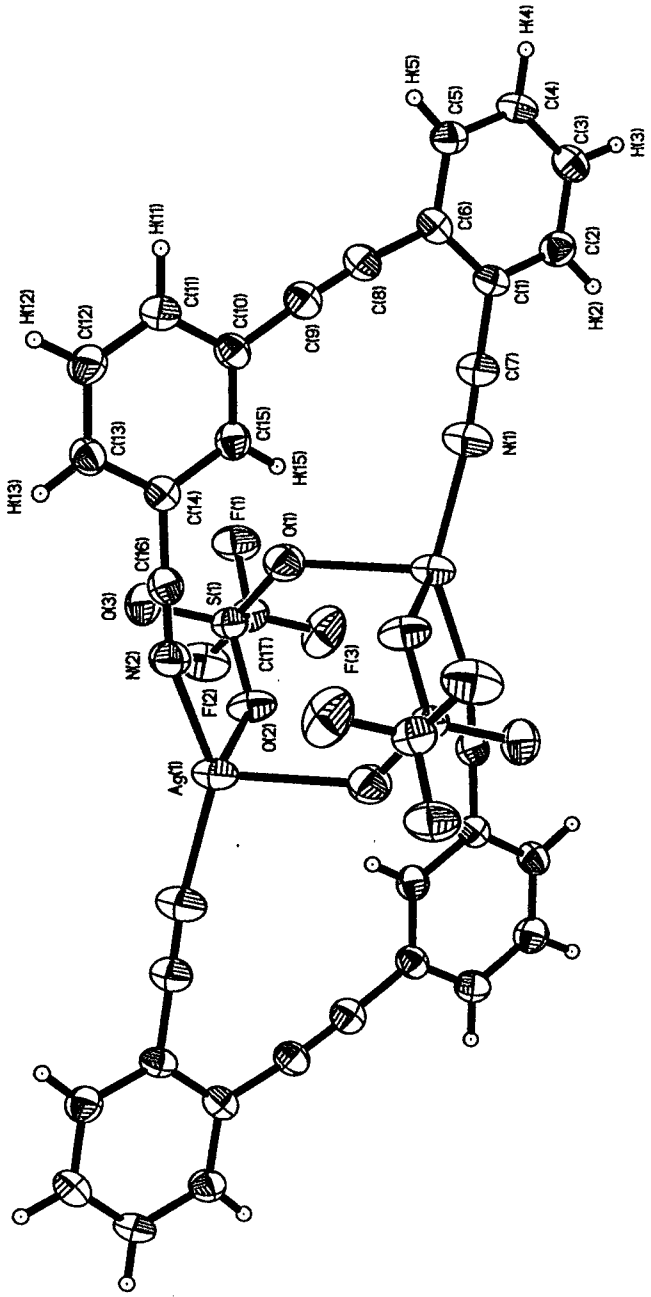

Table S6. Crystal data and structure refinement for 5 (mo3ce).

Empirical formula	C16 H8 Ag Cl N2 O4
Formula weight	435.56
Temperature	198(2) K
Wavelength	0.71073 A
Crystal system	Triclinic
Space group	P-1
Unit cell dimensions	a = 7.5089(4) A alpha = 69.9950(10) deg
	b = 9.8145(5) A beta = 80.16 deg
from 3171 reflns with 4<=theta<=28	c = 11.2200(6) A gamma = 83.517(2) deg
	V = 764.22(7) A^3 Z = 2
Density (calculated)	1.893 Mg/m^3
Absorption coefficient	1.517 mm^-1
Crystal size	0.08 x 0.08 x 0.54 mm
Theta range for data collection	1.95 to 28.29 deg
Index ranges	-10<=h<=9, -9<=k<=13, -14<=l<=14
Collection method	\w scans
Reflections collected	5051 [R(int) = 0.0243]
Independent reflections	3474 [2921 obs, I >2sigma(I)]
Absorption correction	Semi-empirical from psi-scans
Max. and min. transmission	0.8355 and 0.7182
Refinement (shift/err=0.002)	Full-matrix least-squares on F^2
Data / restraints / parameters	3472 / 0 / 295
Goodness-of-fit on F^2	1.239
Final R indices (obs data)	R1 = 0.0429, wR2 = 0.0842
R indices (all data)	R1 = 0.0576, wR2 = 0.0957
calc w=1/[\s^2^(Fo^2^)+(0.0109P)^2^+1.5118P] where P=(Fo^2^+2Fc^2^)/3	
Largest diff. peak and hole	0.522 and -0.480 e.A^-3

Table S7. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters (A^2 x 10^3) for 5. U(eq) is defined as one third of the trace of the orthogonalized Uij tensor

	x	y	z	U(eq)
Ag(1)	2325(1)	6724(1)	3501(1)	53(1)
Cl(1A)	2465(8)	3639(6)	6214(4)	31(1)
O(1A)	2453(25)	4165(20)	4855(15)	100(6)
O(2A)	859(8)	4127(9)	6843(6)	63(3)
O(3A)	3971(9)	4148(11)	6450(8)	79(3)
O(4A)	2596(17)	2103(7)	6574(9)	86(4)
Cl(1B)	2498(11)	3549(10)	6211(8)	48(3)
O(1B)	2169(26)	4172(17)	4862(17)	42(4)
O(2B)	2224(31)	4751(12)	6681(13)	119(10)
O(3B)	4205(15)	2961(19)	6420(21)	154(9)
O(4B)	1281(23)	2533(19)	6924(14)	109(8)
N(1)	1450(5)	7845(4)	4922(3)	42(1)
N(2)	3000(5)	7281(4)	1423(3)	49(1)
C(1)	93(5)	8029(4)	7133(3)	28(1)
C(2)	264(5)	9261(4)	7450(4)	32(1)
C(3)	-433(5)	9273(4)	8671(4)	35(1)
C(4)	-1286(5)	8086(4)	9565(4)	33(1)
C(5)	-1490(5)	6865(4)	9238(3)	28(1)
C(6)	-780(5)	6839(4)	8009(3)	28(1)
C(7)	851(5)	7949(4)	5886(3)	33(1)
C(8)	-2404(5)	5635(4)	10119(3)	30(1)
C(9)	-3170(5)	4581(4)	10789(3)	28(1)
C(10)	-3995(5)	3253(4)	11544(3)	28(1)
C(12)	-5419(5)	1651(5)	13543(4)	40(1)
C(11)	-4701(5)	2978(5)	12829(3)	33(1)
C(13)	-5422(6)	582(5)	13008(4)	41(1)
C(14)	-4751(6)	836(5)	11729(4)	39(1)
C(15)	-4061(5)	2171(4)	10995(3)	30(1)
C(16)	-3444(5)	2473(4)	9653(4)	36(1)

Table S8. Anisotropic displacement parameters (A^2 x 10^3) for 5.
The anisotropic displacement factor exponent takes the form:
-2 pi^2 [h^2 a*^2 U11 + ... + 2 h k a* b* U12]

	U11	U22	U33	U23	U13	U12
Ag(1)	66(1)	61(1)	34(1)	-21(1)	0(1)	-7(1)
Cl(1A)	42(3)	22(2)	26(2)	-3(1)	-7(2)	-4(1)
O(1A)	141(12)	94(10)	42(8)	-18(7)	24(7)	15(8)
O(2A)	42(4)	92(6)	58(4)	-39(4)	9(3)	3(3)
O(3A)	49(4)	100(8)	115(6)	-67(5)	-13(4)	-22(4)
O(4A)	133(10)	29(3)	95(6)	-17(3)	-18(6)	-9(4)
Cl(1B)	27(4)	47(4)	85(6)	-45(3)	11(3)	-12(2)
O(1B)	63(7)	33(6)	38(9)	-11(6)	-29(6)	-8(5)
O(2B)	229(30)	44(6)	109(10)	-49(7)	-56(12)	17(9)
O(3B)	42(7)	98(13)	289(23)	-11(13)	-58(10)	16(7)
O(4B)	104(12)	99(14)	96(10)	31(8)	-24(9)	-82(11)
N(1)	50(2)	45(2)	31(2)	-11(2)	-2(2)	-11(2)
N(2)	56(2)	55(2)	34(2)	-18(2)	-5(2)	7(2)
C(1)	26(2)	29(2)	27(2)	-6(1)	-6(1)	0(1)
C(2)	30(2)	30(2)	34(2)	-6(2)	-6(2)	-3(2)
C(3)	37(2)	34(2)	40(2)	-17(2)	-8(2)	-3(2)
C(4)	33(2)	37(2)	31(2)	-14(2)	-4(2)	0(2)
C(5)	24(2)	28(2)	28(2)	-6(1)	-5(1)	2(1)
C(6)	27(2)	26(2)	31(2)	-10(2)	-4(1)	0(1)
C(7)	33(2)	35(2)	30(2)	-7(2)	-5(2)	-5(2)
C(8)	27(2)	33(2)	28(2)	-9(2)	-5(1)	3(1)
C(9)	28(2)	30(2)	24(2)	-8(1)	-5(1)	5(1)
C(10)	25(2)	31(2)	24(2)	-3(1)	-6(1)	-1(1)
C(12)	34(2)	51(2)	28(2)	-3(2)	-3(2)	-7(2)
C(11)	28(2)	43(2)	27(2)	-11(2)	-5(1)	1(2)
C(13)	37(2)	34(2)	40(2)	8(2)	-9(2)	-9(2)
C(14)	40(2)	32(2)	45(2)	-10(2)	-10(2)	-3(2)
C(15)	26(2)	35(2)	27(2)	-8(2)	-8(1)	3(1)
C(16)	35(2)	38(2)	35(2)	-13(2)	-8(2)	8(2)

Table S9. Hydrogen coordinates (x 10^4) and isotropic displacement parameters (A^2 x 10^3) for 5. Treatment of hydrogen atoms not specifically described in the refinement summary was "refall."

	x	y	z	U(eq)
H(2)	825(52)	10019(44)	6871(37)	30(10)
H(3)	-323(60)	10101(51)	8866(43)	48(13)
H(4)	-1758(65)	8127(54)	10375(48)	59(14)
H(6)	-894(53)	6054(45)	7776(38)	34(11)
H(11)	-4618(59)	3671(49)	13201(42)	45(12)
H(12)	-5953(56)	1542(46)	14435(42)	42(12)
H(13)	-5778(57)	-309(49)	13467(41)	41(12)
H(14)	-4739(55)	187(47)	11368(39)	36(11)

Table S10. Bond lengths [A] and angles [deg] for 5.

Ag(1)-N(2)	2.186(3)
Ag(1)-N(1)	2.206(4)
Ag(1)-O(1B)	2.45(2)
Ag(1)-O(1A)	2.45(2)
Cl(1A)-O(3A)	1.385(8)
Cl(1A)-O(2A)	1.411(8)
Cl(1A)-O(4A)	1.418(8)
Cl(1A)-O(1A)	1.43(2)
Cl(1B)-O(3B)	1.368(13)
Cl(1B)-O(4B)	1.371(13)
Cl(1B)-O(2B)	1.431(14)
Cl(1B)-O(1B)	1.48(2)
N(1)-C(7)	1.132(5)
N(2)-C(16)#1	1.144(5)
C(1)-C(6)	1.389(5)
C(1)-C(2)	1.396(5)
C(1)-C(7)	1.442(5)
C(2)-C(3)	1.384(5)
C(3)-C(4)	1.386(5)
C(4)-C(5)	1.399(5)
C(5)-C(6)	1.398(5)
C(5)-C(8)	1.430(5)
C(8)-C(9)	1.191(5)
C(9)-C(10)	1.432(5)
C(10)-C(11)	1.392(5)
C(10)-C(15)	1.406(5)
C(12)-C(13)	1.376(6)
C(12)-C(11)	1.388(6)
C(13)-C(14)	1.383(6)
C(14)-C(15)	1.390(5)
C(15)-C(16)	1.434(5)
C(16)-N(2)#1	1.144(5)
N(2)-Ag(1)-N(1)	138.42(14)
N(2)-Ag(1)-O(1B)	120.0(4)
N(1)-Ag(1)-O(1B)	101.4(4)
N(2)-Ag(1)-O(1A)	119.3(4)
N(1)-Ag(1)-O(1A)	102.3(4)
O(3A)-Cl(1A)-O(2A)	110.9(6)
O(3A)-Cl(1A)-O(4A)	111.1(7)
O(2A)-Cl(1A)-O(4A)	110.9(6)
O(3A)-Cl(1A)-O(1A)	107.6(9)
O(2A)-Cl(1A)-O(1A)	110.3(9)
O(4A)-Cl(1A)-O(1A)	105.9(9)
Cl(1A)-O(1A)-Ag(1)	125.8(10)
O(3B)-Cl(1B)-O(4B)	108.4(12)
O(3B)-Cl(1B)-O(2B)	106.0(13)
O(4B)-Cl(1B)-O(2B)	108.8(13)
O(3B)-Cl(1B)-O(1B)	116.8(14)
O(4B)-Cl(1B)-O(1B)	111.6(10)
O(2B)-Cl(1B)-O(1B)	104.9(10)
Cl(1B)-O(1B)-Ag(1)	126.8(8)
C(7)-N(1)-Ag(1)	156.4(3)
C(16)#1-N(2)-Ag(1)	176.1(3)
C(6)-C(1)-C(2)	121.3(3)

C(6)-C(1)-C(7)	118.0(3)
C(2)-C(1)-C(7)	120.7(3)
C(3)-C(2)-C(1)	118.8(4)
C(2)-C(3)-C(4)	120.8(4)
C(3)-C(4)-C(5)	120.4(3)
C(6)-C(5)-C(4)	119.2(3)
C(6)-C(5)-C(8)	118.6(3)
C(4)-C(5)-C(8)	122.2(3)
C(1)-C(6)-C(5)	119.5(3)
N(1)-C(7)-C(1)	178.1(4)
C(9)-C(8)-C(5)	175.8(4)
C(8)-C(9)-C(10)	175.6(4)
C(11)-C(10)-C(15)	118.5(3)
C(11)-C(10)-C(9)	121.7(3)
C(15)-C(10)-C(9)	119.7(3)
C(13)-C(12)-C(11)	121.1(4)
C(12)-C(11)-C(10)	119.9(4)
C(12)-C(13)-C(14)	120.0(4)
C(13)-C(14)-C(15)	119.5(4)
C(14)-C(15)-C(10)	120.9(3)
C(14)-C(15)-C(16)	120.0(4)
C(10)-C(15)-C(16)	119.1(3)
N(2)#1-C(16)-C(15)	178.2(4)

#1 -x,-y+1,-z+1

Figure 17
Supporting Information

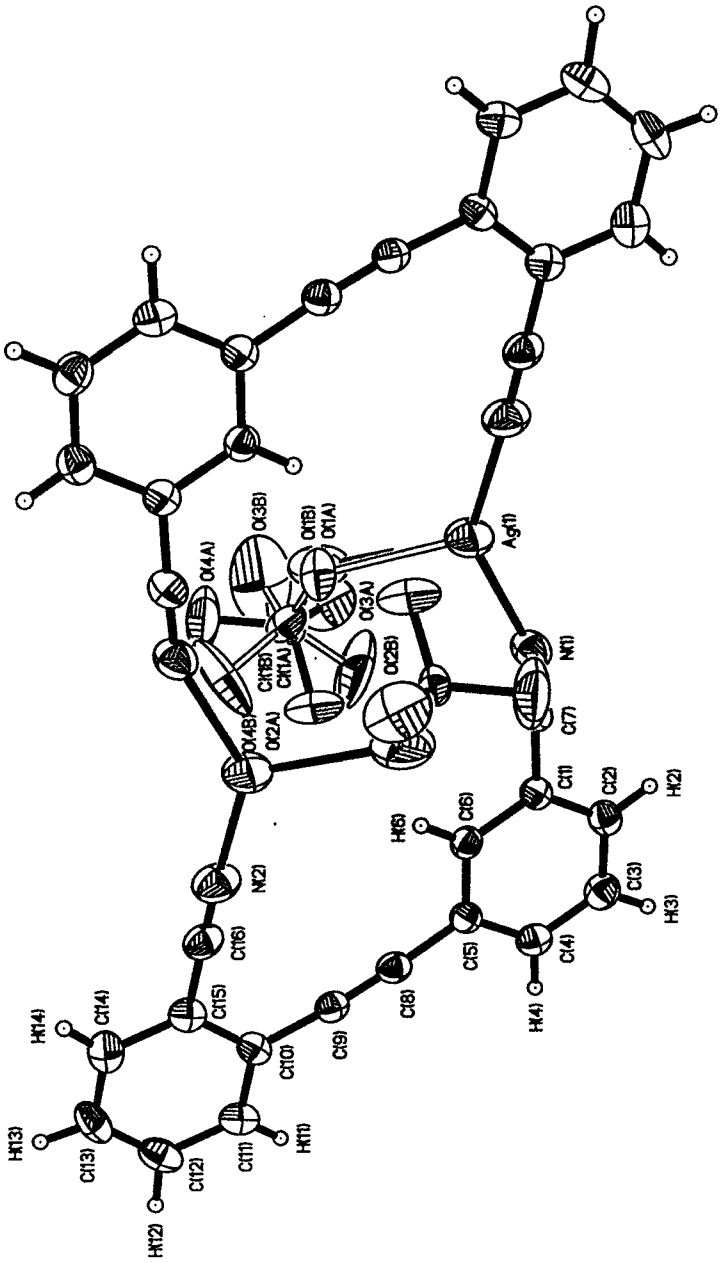

Table S11. Crystal data and structure refinement for 6 (w64ta).

Empirical formula	C16 H8 Ag F6 N2 Sb
Formula weight	571.86
Temperature	198(2) K
Wavelength	0.71073 A
Crystal system	Triclinic
Space group	P-1
Unit cell dimensions	a = 8.6200(5) A alpha = 62.106(2) deg
	b = 10.5473(5) A beta = 88.499(3) deg
from 1405 reflns with 4<=theta<=28	c = 10.8146(4) A gamma = 86.486(2) deg
	V = 867.36(7) A^3 Z = 2
Density (calculated)	2.190 Mg/m^3
Absorption coefficient	2.748 mm^-1
Crystal size	0.02 x 0.10 x 0.20 mm
Theta range for data collection	2.13 to 23.00 deg
Index ranges	-11<=h<=7, -13<=k<=14, -14<=l<=11
Collection method	\w scans
Reflections collected	3905 [R(int) = 0.0785]
Independent reflections	2391 [1716 obs, I >2sigma(I)]
Absorption correction	Integration
Max. and min. transmission	0.8968 and 0.7520
Refinement (shift/err=-0.002)	Full-matrix least-squares on F^2
Data / restraints / parameters	2337 / 0 / 235
Goodness-of-fit on F^2	1.160
Final R indices (obs data)	R1 = 0.0682, wR2 = 0.1196
R indices (all data)	R1 = 0.1116, wR2 = 0.1508
calc w=1/[\s^2^(Fo^2^)+(0.0000P)^2^+13.6704P] where P=(Fo^2^+2Fc^2^)/3	
Largest diff. peak and hole	0.828 and -0.951 e.A^-3

Table S12. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters (A^2 x 10^3) for 6. U(eq) is defined as one third of the trace of the orthogonalized Uij tensor

	x	y	z	U(eq)
Sb(1)	2237(1)	341(1)	1607(1)	32(1)
Ag(1)	2745(2)	-361(1)	-1898(1)	40(1)
F(1)	4230(10)	-526(10)	2141(10)	59(3)
F(3)	246(10)	1223(10)	1072(9)	50(2)
F(2)	1753(11)	-203(10)	3473(8)	54(3)
F(4)	2743(11)	913(10)	-266(9)	57(3)
F(5)	1523(13)	-1363(10)	1790(11)	72(3)
F(6)	2921(10)	2069(8)	1398(9)	47(2)
N(1)	3654(15)	-2283(15)	-210(13)	41(3)
N(2)	1861(16)	1244(16)	-3857(14)	52(4)
C(1)	4862(17)	-4472(14)	1963(12)	24(3)
C(2)	4498(15)	-5816(15)	2197(13)	26(3)
C(3)	5089(17)	-6980(17)	3406(15)	37(4)
C(4)	6033(16)	-6791(16)	4298(14)	29(4)
C(5)	6424(17)	-5398(15)	4022(13)	29(4)
C(6)	5772(16)	-4207(15)	2828(13)	27(3)
C(7)	4173(18)	-3243(17)	747(15)	34(4)
C(8)	7362(18)	-5172(16)	4974(14)	31(4)
C(9)	1818(17)	4978(16)	-5735(14)	29(4)
C(10)	885(16)	4604(16)	-6556(13)	27(3)
C(11)	197(16)	5651(16)	-7790(14)	30(4)
C(12)	-717(16)	5217(15)	-8577(14)	28(3)
C(13)	-980(18)	3801(16)	-8138(14)	36(4)
C(14)	-315(16)	2731(16)	-6897(14)	32(4)
C(15)	602(17)	3126(15)	-6116(14)	30(4)
C(16)	1315(20)	2084(18)	-4871(16)	43(4)

Table S13. Anisotropic displacement parameters (A^2 x 10^3) for 6.
The anisotropic displacement factor exponent takes the form:
-2 pi^2 [h^2 a*^2 U11 + ... + 2 h k a* b* U12]

	U11	U22	U33	U23	U13	U12
Sb(1)	33(1)	23(1)	34(1)	-9(1)	-2(1)	-2(1)
Ag(1)	42(1)	33(1)	31(1)	-4(1)	-10(1)	-1(1)
F(1)	34(6)	54(6)	66(6)	-10(5)	0(5)	6(5)
F(3)	31(5)	55(6)	49(5)	-13(5)	-5(4)	4(5)
F(2)	62(7)	56(6)	36(5)	-15(5)	-1(5)	12(5)
F(4)	74(7)	62(7)	36(5)	-25(5)	14(5)	-3(6)
F(5)	78(8)	39(6)	97(8)	-30(6)	16(6)	-26(6)
F(6)	49(6)	27(5)	62(6)	-17(4)	-2(5)	-16(4)
N(1)	32(8)	51(9)	35(8)	-16(7)	3(6)	-1(7)
N(2)	50(10)	58(10)	36(8)	-12(8)	-13(7)	-5(8)
C(1)	39(9)	21(8)	9(7)	-6(6)	4(6)	4(7)
C(2)	15(8)	34(9)	23(8)	-9(7)	-5(6)	1(7)
C(3)	29(9)	42(11)	45(10)	-25(9)	0(8)	-2(8)
C(4)	18(8)	37(10)	30(8)	-13(7)	-2(7)	-8(7)
C(5)	44(10)	26(9)	14(7)	-6(6)	11(7)	-9(7)
C(6)	27(9)	24(8)	26(8)	-9(7)	-4(7)	0(7)
C(7)	37(10)	43(11)	27(9)	-21(8)	-3(7)	-6(8)
C(8)	32(9)	37(9)	12(7)	-2(7)	11(7)	-1(7)
C(9)	22(9)	38(9)	21(8)	-10(7)	2(7)	-2(7)
C(10)	23(8)	49(10)	12(7)	-15(7)	4(6)	-8(7)
C(11)	26(9)	29(9)	32(8)	-11(7)	-3(7)	-11(7)
C(12)	21(8)	35(10)	25(8)	-13(7)	-6(6)	8(7)
C(13)	49(11)	36(10)	27(8)	-16(8)	-2(7)	-18(8)
C(14)	26(9)	28(9)	36(9)	-10(7)	0(7)	-9(7)
C(15)	26(9)	18(8)	32(8)	0(7)	4(7)	-2(7)
C(16)	51(11)	41(11)	31(9)	-13(9)	-2(8)	-2(9)

Table S14. Hydrogen coordinates (x 10^4) and isotropic displacement parameters (A^2 x 10^3) for 6. Treatment of hydrogen atoms not specifically described in the refinement summary was "noref."

	x	y	z	U(eq)
H(2)	3870(15)	-5944(15)	1560(13)	31
H(3)	4833(17)	-7923(17)	3616(15)	44
H(4)	6429(16)	-7604(16)	5114(14)	35
H(6)	5958(16)	-3252(15)	2631(13)	32
H(11)	339(16)	6640(16)	-8098(14)	36
H(12)	-1162(16)	5928(15)	-9435(14)	34
H(13)	-1618(18)	3547(16)	-8682(14)	43
H(14)	-490(16)	1749(16)	-6593(14)	38

Table S15. Bond lengths [A] and angles [deg] for 6.

Sb(1)-F(5)	1.857(9)
Sb(1)-F(6)	1.860(8)
Sb(1)-F(2)	1.865(8)
Sb(1)-F(1)	1.867(9)
Sb(1)-F(4)	1.870(8)
Sb(1)-F(3)	1.870(8)
Ag(1)-N(1)	2.115(14)
Ag(1)-N(2)	2.122(14)
N(1)-C(7)	1.13(2)
N(2)-C(16)	1.13(2)
C(1)-C(6)	1.37(2)
C(1)-C(2)	1.37(2)
C(1)-C(7)	1.45(2)
C(2)-C(3)	1.39(2)
C(3)-C(4)	1.37(2)
C(4)-C(5)	1.42(2)
C(5)-C(6)	1.41(2)
C(5)-C(8)	1.44(2)
C(8)-C(9)#1	1.19(2)
C(9)-C(8)#1	1.19(2)
C(9)-C(10)	1.41(2)
C(10)-C(11)	1.39(2)
C(10)-C(15)	1.44(2)
C(11)-C(12)	1.41(2)
C(12)-C(13)	1.37(2)
C(13)-C(14)	1.40(2)
C(14)-C(15)	1.38(2)
C(15)-C(16)	1.41(2)
F(5)-Sb(1)-F(6)	178.8(4)
F(5)-Sb(1)-F(2)	90.5(5)
F(6)-Sb(1)-F(2)	90.0(4)
F(5)-Sb(1)-F(1)	90.4(5)
F(6)-Sb(1)-F(1)	90.6(4)
F(2)-Sb(1)-F(1)	89.9(4)
F(5)-Sb(1)-F(4)	90.5(5)
F(6)-Sb(1)-F(4)	89.0(4)
F(2)-Sb(1)-F(4)	179.0(5)
F(1)-Sb(1)-F(4)	89.8(4)
F(5)-Sb(1)-F(3)	90.0(5)
F(6)-Sb(1)-F(3)	88.9(4)
F(2)-Sb(1)-F(3)	90.0(4)
F(1)-Sb(1)-F(3)	179.5(4)
F(4)-Sb(1)-F(3)	90.2(4)
N(1)-Ag(1)-N(2)	165.4(5)
C(7)-N(1)-Ag(1)	174.1(13)
C(16)-N(2)-Ag(1)	176.4(14)
C(6)-C(1)-C(2)	124.6(12)
C(6)-C(1)-C(7)	117.8(12)
C(2)-C(1)-C(7)	117.6(12)
C(1)-C(2)-C(3)	117.2(13)
C(4)-C(3)-C(2)	121(2)
C(3)-C(4)-C(5)	120.9(14)
C(6)-C(5)-C(4)	118.2(13)
C(6)-C(5)-C(8)	119.9(13)

C(4)-C(5)-C(8)	121.7(12)
C(1)-C(6)-C(5)	117.9(13)
N(1)-C(7)-C(1)	179(2)
C(9)#1-C(8)-C(5)	178(2)
C(8)#1-C(9)-C(10)	174(2)
C(11)-C(10)-C(9)	121.1(14)
C(11)-C(10)-C(15)	118.4(13)
C(9)-C(10)-C(15)	120.5(12)
C(10)-C(11)-C(12)	118.8(13)
C(13)-C(12)-C(11)	121.9(13)
C(12)-C(13)-C(14)	120.3(13)
C(15)-C(14)-C(13)	118.9(14)
C(14)-C(15)-C(16)	120.8(14)
C(14)-C(15)-C(10)	121.6(13)
C(16)-C(15)-C(10)	117.6(14)
N(2)-C(16)-C(15)	179(2)

#1 -x+1,-y,-z

Figure 18
Supporting Information

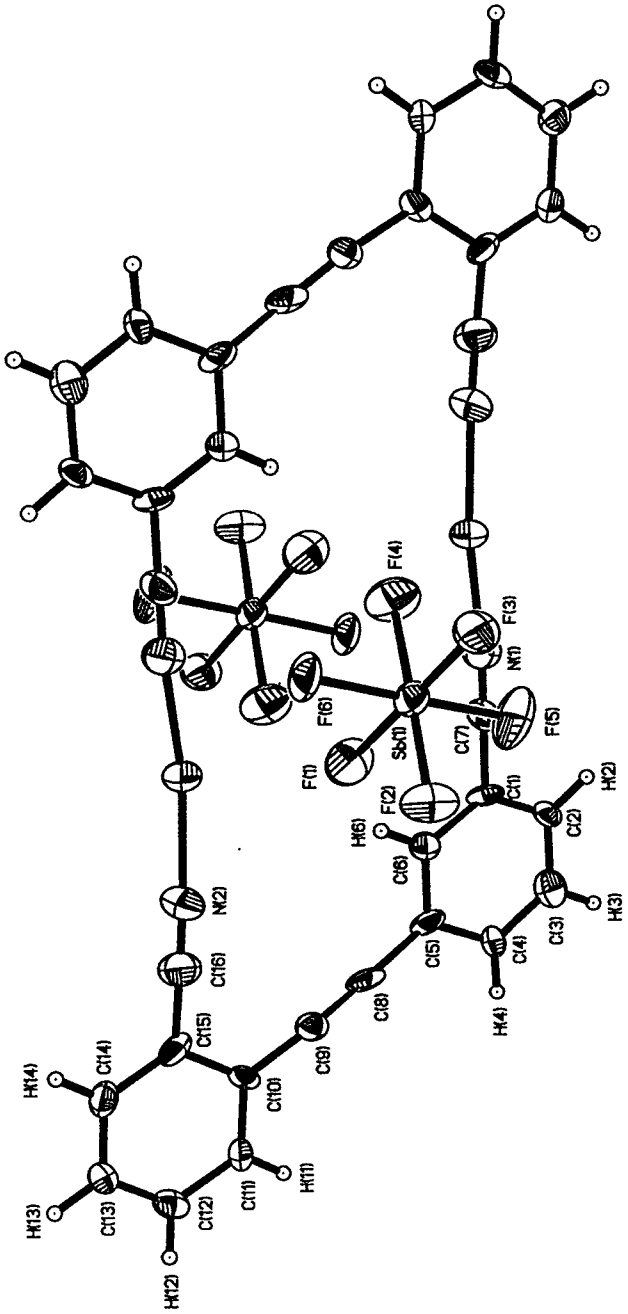

Table S16. Crystal data and structure refinement for 7 (w80se).

Empirical formula	C17 H8 Ag F3 N2 O3 S
Formula weight	485.18
Temperature	198(2) K
Wavelength	0.71073 A
Crystal system	Orthorhombic
Space group	Pnma
Unit cell dimensions	a = 12.913(2) A alpha = 90 deg
	b = 19.849(2) A beta = 90 deg
from 1559 reflns with	
4<=theta<=28	c = 6.8919(8) A gamma = 90 deg
	V = 1766.5(4) A^3 Z = 4
Density (calculated)	1.824 Mg/m^3
Absorption coefficient	1.310 mm^-1
Crystal size	0.01 x 0.09 x 0.42 mm
Theta range for data collection	2.05 to 25.11 deg
Index ranges	-15<=h<=9, -22<=k<=23, -8<=l<=7
Collection method	\w scans
Reflections collected	8827 [R(int) = 0.1252]
Independent reflections	1625 [987 obs, I >2sigma(I)]
Absorption correction	Semi-empirical from psi-scans
Max. and min. transmission	0.6614 and 0.5894
Refinement (shift/err=0.003)	Full-matrix least-squares on F^2
Data / restraints / parameters	1624 / 0 / 160
Goodness-of-fit on F^2	1.117
Final R indices (obs data)	R1 = 0.0506, wR2 = 0.0824
R indices (all data)	R1 = 0.1140, wR2 = 0.1044
calc w=1/[\s^2^(Fo^2^)+(0.0372P)^2^+0.0000P] where P=(Fo^2^+2Fc^2^)/3	
Largest diff. peak and hole	0.498 and -0.704 e.A^-3

Table S17. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters (A^2 x 10^3) for 7. U(eq) is defined as one third of the trace of the orthogonalized Uij tensor

	x	y	z	U(eq)
Ag(1)	6573(1)	2500	-614(1)	48(1)
N(1)	6753(4)	3552(3)	157(7)	48(2)
C(1)	7278(4)	4800(3)	209(8)	34(2)
C(2)	8320(5)	4984(3)	268(8)	45(2)
C(3)	8576(5)	5659(3)	305(9)	50(2)
C(4)	7823(5)	6141(3)	267(9)	50(2)
C(5)	6784(5)	5967(3)	211(8)	42(2)
C(6)	6503(4)	5293(3)	174(7)	31(1)
C(7)	6988(4)	4103(3)	186(8)	36(2)
C(8)	5430(4)	5091(3)	62(8)	36(2)
S(1)	4397(3)	2643(3)	-3723(5)	58(2)
O(1)	3443(6)	2451(17)	-2921(11)	68(4)
O(2)	5289(7)	2289(7)	-3015(16)	122(7)
O(3)	4474(8)	3356(5)	-3874(19)	103(4)
F(1)	3560(7)	2588(11)	-7167(11)	111(6)
F(2)	5201(7)	2596(27)	-7118(13)	148(11)
F(3)	4333(7)	1696(5)	-6324(16)	100(3)
C(9)	4376(11)	2351(7)	-6249(22)	54(6)

Table S18. Anisotropic displacement parameters (A^2 x 10^3) for 7. The anisotropic displacement factor exponent takes the form: -2 pi^2 [h^2 a*^2 U11 + ... + 2 h k a* b* U12]

	U11	U22	U33	U23	U13	U12
Ag(1)	45(1)	34(1)	64(1)	0	2(1)	0
N(1)	45(4)	38(3)	61(4)	-2(3)	3(2)	11(3)
C(1)	37(4)	32(3)	34(4)	0(3)	1(3)	-1(3)
C(2)	31(4)	56(4)	47(4)	-1(3)	-2(3)	4(3)
C(3)	36(4)	62(5)	53(5)	2(3)	-1(3)	-16(3)
C(4)	61(5)	39(4)	50(5)	0(3)	-1(4)	-12(3)
C(5)	42(4)	43(4)	41(5)	-2(3)	0(3)	4(3)
C(6)	38(4)	26(3)	30(4)	-4(2)	1(3)	-3(3)
C(7)	28(4)	42(4)	38(5)	2(3)	2(2)	12(3)
C(8)	43(4)	22(3)	43(4)	-2(2)	6(4)	9(3)
S(1)	35(2)	51(7)	88(3)	-22(3)	-1(2)	1(2)
O(1)	52(5)	88(11)	64(5)	30(13)	-12(4)	-47(13)
O(2)	59(6)	140(20)	166(10)	-91(11)	-62(7)	45(8)
O(3)	103(9)	36(6)	171(13)	-45(7)	62(8)	-30(6)
F(1)	111(6)	158(14)	63(5)	53(10)	16(5)	96(12)
F(2)	123(7)	162(30)	160(9)	-44(19)	102(7)	-62(22)
F(3)	105(8)	65(7)	131(10)	-42(6)	-32(6)	27(5)
C(9)	45(9)	21(19)	95(12)	-18(7)	24(8)	-6(6)