Inorganic Chemistry
including bioinorganic chemistry
Inorg. Chem., 1997, 36(14), 2960-2968, DOI:10.1021/ic970150j

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Table S1. Crystal data and structure refinement for 2 (mm1a).

Empirical formula	C23 H14 Ag F3 N2 O3 S
Formula weight	563.29
Temperature	198(2) K
Wavelength	0.71073 A
Crystal system	Monoclinic
Space group	P2/c
Unit cell dimensions	a = 7.5555(4) A alpha = 90 deg
	b = 17.0053(8) A beta = 101.482(2)
from 3931 reflns with 4<=theta<=28	c = 17.8025(8) A gamma = 90 deg
	V = 2241.6(2) A^3 Z = 4
Density (calculated)	1.669 Mg/m^3
Absorption coefficient	1.045 mm^-1
Crystal size	0.08 x 0.10 x 0.24 mm
Theta range for data collection	1.67 to 28.27 deg
Index ranges	-9<=h<=8, -22<=k<=22, -12<=l<=23
Collection method	\w scans
Reflections collected	14508 [R(int) = 0.0638]
Independent reflections	5370 [3114 obs, I >2sigma(I)]
Absorption correction	Integration
Max. and min. transmission	0.9352 and 0.7546
Refinement (shift/err=0.105)	Full-matrix least-squares on F^2
Data / restraints / parameters	5365 / 0 / 326
Goodness-of-fit on F^2	1.049
Final R indices (obs data)	R1 = 0.0486, wR2 = 0.0801
R indices (all data)	R1 = 0.1146, wR2 = 0.1043

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Page 2 calc w=1/[\s^2^(Fo^2^)+(0.0304P)^2^+1.4385P] where P=(Fo^2^+2Fc^2^)/3

Largest diff. peak and hole 0.426 and -0.624 e.A^-3

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

	x	y	z	U(eq)
Ag(1)	-3457(1)	2574(1)	6932(1)	47(1)
S(1)	587(2)	2371(1)	6131(1)	43(1)
F(1)	380(4)	2445(2)	4653(2)	79(1)
F(2)	3065(4)	2534(2)	5311(2)	79(1)
F(3)	1266(4)	3505(1)	5236(2)	67(1)
O(1)	-1223(5)	2661(2)	6017(2)	70(1)
O(2)	752(5)	1545(2)	6086(2)	74(1)
O(3)	1790(6)	2757(2)	6742(2)	92(1)
N(1)	-4449(5)	3741(2)	6642(2)	41(1)
N(2)	-3281(5)	1315(2)	7029(2)	51(1)
C(1)	-6635(6)	5198(2)	5436(2)	35(1)
C(2)	-7044(6)	5931(2)	5124(3)	39(1)
C(3)	-6237(6)	6594(2)	5488(2)	38(1)
C(4)	-4989(5)	6532(2)	6177(2)	33(1)
C(5)	-4561(6)	5790(2)	6488(2)	31(1)
C(6)	-5380(5)	5131(2)	6121(2)	30(1)
C(7)	-4883(5)	4357(2)	6419(2)	35(1)
C(8)	-4176(6)	7226(2)	6556(2)	37(1)
C(9)	-3568(6)	-2188(2)	6874(2)	38(1)
C(10)	-2875(5)	-1509(2)	7314(2)	34(1)
C(11)	-3241(6)	-747(2)	7032(2)	35(1)
C(12)	-2578(5)	-109(2)	7484(2)	36(1)
C(13)	-1537(6)	-216(2)	8216(3)	45(1)
C(14)	-1189(7)	-967(3)	8486(3)	54(1)
C(15)	-1836(6)	-1609(2)	8048(3)	44(1)
C(16)	-2974(6)	681(2)	7218(2)	41(1)
C(1T)	1358(6)	2729(2)	5291(2)	43(1)
C(21)	0	6181(5)	7500	37(2)
C(22)	379(9)	5765(4)	6884(4)	46(2)
C(23)	369(10)	4945(5)	6889(5)	54(2)
C(24)	0	4548(6)	7500	55(3)
C(25)	255(22)	5366(12)	6755(11)	25(6)
C(26)	128(26)	4661(14)	7132(14)	40(6)
C(27)	95(25)	6080(13)	7107(12)	36(6)
C(31)	5138(32)	776(6)	5220(5)	57(3)
C(32)	6658(21)	359(12)	5112(7)	69(3)
C(33)	3498(25)	415(11)	5114(6)	60(3)
C(34)	4252(47)	636(13)	5229(9)	38(5)
C(35)	6046(48)	687(16)	5231(9)	54(6)
C(36)	3114(33)	-14(25)	5024(12)	66(7)

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Table S3. Anisotropic displacement parameters (A^2 x 10^3) for 2. 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)	68(1)	25(1)	47(1)	8(1)	7(1)	1(1)
S(1)	53(1)	33(1)	41(1)	10(1)	3(1)	7(1)
F(1)	98(2)	99(2)	38(2)	-17(2)	7(2)	-25(2)
F(2)	59(2)	80(2)	103(2)	14(2)	30(2)	11(2)
F(3)	86(2)	35(1)	84(2)	18(1)	25(2)	-4(1)
O(1)	70(2)	77(2)	70(2)	41(2)	35(2)	30(2)
O(2)	91(3)	28(2)	109(3)	20(2)	35(2)	12(2)
O(3)	125(4)	102(3)	37(2)	3(2)	-17(2)	-27(2)
N(1)	47(2)	31(2)	42(2)	3(2)	4(2)	0(2)
N(2)	77(3)	30(2)	45(2)	1(2)	6(2)	-8(2)
C(1)	39(3)	26(2)	40(3)	-6(2)	7(2)	-5(2)
C(2)	38(3)	40(2)	35(3)	2(2)	-1(2)	2(2)
C(3)	43(3)	26(2)	44(3)	7(2)	10(2)	8(2)
C(4)	35(2)	27(2)	37(2)	-1(2)	9(2)	3(2)
C(5)	33(2)	30(2)	28(2)	3(2)	5(2)	2(2)
C(6)	34(2)	23(2)	34(2)	1(2)	9(2)	1(2)
C(7)	39(3)	30(2)	35(2)	-3(2)	10(2)	-4(2)
C(8)	41(3)	24(2)	45(3)	0(2)	10(2)	3(2)
C(9)	42(3)	29(2)	42(3)	2(2)	10(2)	5(2)
C(10)	40(3)	22(2)	43(3)	-5(2)	13(2)	0(2)
C(11)	41(3)	31(2)	33(3)	0(2)	8(2)	2(2)
C(12)	41(3)	26(2)	45(3)	0(2)	15(2)	-2(2)
C(13)	58(3)	28(2)	48(3)	-9(2)	8(2)	-6(2)
C(14)	66(4)	39(3)	50(3)	-3(2)	-8(3)	1(2)
C(15)	58(3)	25(2)	47(3)	-1(2)	4(2)	4(2)
C(16)	57(3)	28(2)	41(3)	-4(2)	13(2)	-7(2)
C(1T)	47(3)	37(2)	44(3)	-2(2)	4(2)	-2(2)

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

	x	y	z	U(eq)
H(21)	0	6740(5)	7500	45
H(22)	647(9)	6039(4)	6455(4)	56
H(23)	623(10)	4663(5)	6462(5)	65
H(24)	0	3989(6)	7500	66
H(25)	456(22)	5357(12)	6245(11)	30
H(26)	218(26)	4177(14)	6876(14)	48
H(27)	112(25)	6560(13)	6835(12)	43
H(31)	5248(32)	1313(6)	5368(5)	68
H(32)	7803(21)	610(12)	5195(7)	83
H(33)	2468(25)	697(11)	5196(6)	73
H(34)	3702(47)	1093(13)	5386(9)	46
H(35)	6712(48)	1152(16)	5394(9)	65
H(36)	1872(33)	-5(25)	5052(12)	80
H(1)	-7153(50)	4760(22)	5181(22)	42(11)
H(2)	-7870(54)	5988(22)	4649(23)	47(12)
H(3)	-6491(46)	7065(21)	5265(19)	29(10)
H(5)	-3751(47)	5693(18)	6952(20)	22(10)
H(11)	-3933(45)	-676(18)	6537(20)	22(10)
H(13)	-1103(56)	240(25)	8498(24)	59(13)
H(14)	-515(58)	-1022(24)	8966(25)	57(14)
H(15)	-1633(49)	-2105(24)	8236(21)	39(11)

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Table S5. Bond lengths [A] and angles [deg] for 2.

Ag(1)-N(1)	2.148(3)
Ag(1)-N(2)	2.150(3)
Ag(1)-O(3)#1	2.464(3)
Ag(1)-O(1)	2.573(3)
Ag(1)-Ag(1)#2	3.3771(7)
S(1)-O(2)	1.414(3)
S(1)-O(1)	1.430(3)
S(1)-O(3)	1.431(4)
S(1)-C(1T)	1.813(5)
F(1)-C(1T)	1.317(5)
F(2)-C(1T)	1.325(5)
F(3)-C(1T)	1.325(4)
O(3)-Ag(1)#1	2.464(3)
N(1)-C(7)	1.145(4)
N(2)-C(16)	1.139(5)
C(1)-C(2)	1.374(5)
C(1)-C(6)	1.392(5)
C(2)-C(3)	1.380(5)
C(3)-C(4)	1.394(5)
C(4)-C(5)	1.391(5)
C(4)-C(8)	1.435(5)
C(5)-C(6)	1.379(5)
C(6)-C(7)	1.441(5)
C(8)-C(9)#3	1.192(5)
C(9)-C(8)#4	1.192(5)
C(9)-C(10)	1.434(5)
C(10)-C(15)	1.395(5)
C(10)-C(11)	1.396(5)
C(11)-C(12)	1.384(5)
C(12)-C(13)	1.393(6)
C(12)-C(16)	1.437(5)
C(13)-C(14)	1.371(6)
C(14)-C(15)	1.375(6)
C(21)-C(22)#1	1.382(9)
C(21)-C(22)	1.382(9)
C(22)-C(23)	1.396(10)
C(23)-C(24)	1.355(10)
C(24)-C(23)#1	1.355(10)
C(25)-C(27)	1.38(3)
C(25)-C(26)	1.39(3)
C(26)-C(26)#1	1.36(5)
C(27)-C(27)#1	1.44(4)
C(31)-C(33)	1.36(2)
C(31)-C(32)	1.39(2)
C(32)-C(33)#5	1.37(2)
C(33)-C(32)#5	1.37(2)
C(34)-C(35)	1.36(3)
C(34)-C(36)	1.40(3)
C(35)-C(36)#5	1.43(3)
C(36)-C(35)#5	1.43(3)

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N(1)-Ag(1)-N(2)	162.29(14)
N(1)-Ag(1)-O(3)#1	101.58(13)
N(2)-Ag(1)-O(3)#1	92.14(13)
N(1)-Ag(1)-O(1)	92.07(11)
N(2)-Ag(1)-O(1)	94.03(12)
O(3)#1-Ag(1)-O(1)	108.94(13)
N(1)-Ag(1)-Ag(1)#2	83.95(9)
N(2)-Ag(1)-Ag(1)#2	89.48(10)
O(3)#1-Ag(1)-Ag(1)#2	73.05(11)
O(1)-Ag(1)-Ag(1)#2	175.87(6)
O(2)-S(1)-O(1)	115.3(2)
O(2)-S(1)-O(3)	116.7(2)
O(1)-S(1)-O(3)	113.2(2)
O(2)-S(1)-C(1T)	103.9(2)
O(1)-S(1)-C(1T)	102.9(2)
O(3)-S(1)-C(1T)	102.4(2)
S(1)-O(1)-Ag(1)	128.3(2)
S(1)-O(3)-Ag(1)#1	142.8(2)
C(7)-N(1)-Ag(1)	172.3(3)
C(16)-N(2)-Ag(1)	166.3(3)
C(2)-C(1)-C(6)	119.2(4)
C(1)-C(2)-C(3)	120.5(4)
C(2)-C(3)-C(4)	120.7(4)
C(5)-C(4)-C(3)	118.8(4)
C(5)-C(4)-C(8)	121.0(4)
C(3)-C(4)-C(8)	120.2(3)
C(6)-C(5)-C(4)	120.1(4)
C(5)-C(6)-C(1)	120.8(3)
C(5)-C(6)-C(7)	120.5(4)
C(1)-C(6)-C(7)	118.7(3)
N(1)-C(7)-C(6)	177.9(4)
C(9)#3-C(8)-C(4)	177.3(4)
C(8)#4-C(9)-C(10)	175.2(4)
C(15)-C(10)-C(11)	119.0(4)
C(15)-C(10)-C(9)	119.3(3)
C(11)-C(10)-C(9)	121.7(4)
C(12)-C(11)-C(10)	119.6(4)
C(11)-C(12)-C(13)	120.9(4)
C(11)-C(12)-C(16)	120.9(4)
C(13)-C(12)-C(16)	118.2(3)
C(14)-C(13)-C(12)	118.9(4)
C(13)-C(14)-C(15)	121.2(5)
C(14)-C(15)-C(10)	120.3(4)
N(2)-C(16)-C(12)	178.0(4)
F(1)-C(1T)-F(3)	106.8(4)
F(1)-C(1T)-F(2)	107.9(4)
F(3)-C(1T)-F(2)	106.7(4)
F(1)-C(1T)-S(1)	111.8(3)
F(3)-C(1T)-S(1)	112.0(3)
F(2)-C(1T)-S(1)	111.4(3)
C(22)#1-C(21)-C(22)	118.5(8)
C(21)-C(22)-C(23)	120.3(6)
C(24)-C(23)-C(22)	120.4(7)
C(23)#1-C(24)-C(23)	120.2(9)

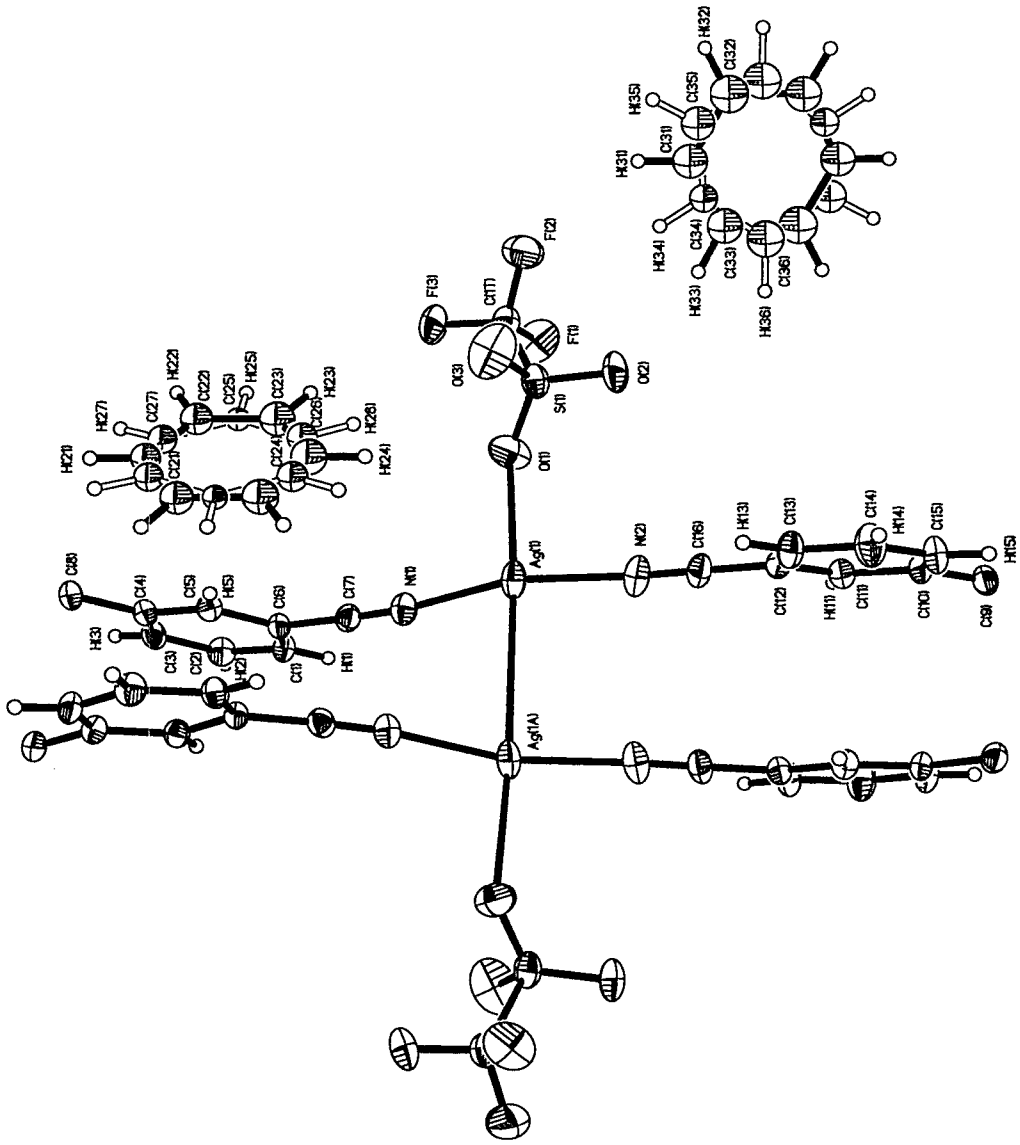
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C(27)-C(25)-C(26)	121(2)
C(26)#1-C(26)-C(25)	120.2(12)
C(25)-C(27)-C(27)#1	118.5(11)
C(33)-C(31)-C(32)	120.2(9)
C(33)#5-C(32)-C(31)	120.1(9)
C(31)-C(33)-C(32)#5	119.6(9)
C(35)-C(34)-C(36)	127.7(14)
C(34)-C(35)-C(36)#5	117.0(14)
C(34)-C(36)-C(35)#5	115(2)

#1 -x,y,-z+3/2 #2 -x-1,y,-z+3/2 #3 x,y+1,z
#4 x,y-1,z #5 -x+1,-y,-z+1

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Figure 1



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Table S6. Crystal data and structure refinement for 3 (mm2e).

Empirical formula	C18 H8 Ag2 F6 N2 O6 S2
Formula weight	742.12
Temperature	198(2) K
Wavelength	0.71073 A
Crystal system	Monoclinic
Space group	P2/n
Unit cell dimensions from 4355 reflns with 4<=theta<=28	a = 10.4297(6) A alpha = 90 deg b = 4.9331(3) A beta = 96.3870(10) c = 22.3748(13) A gamma = 90 deg V = 1144.05(12) A^3 Z = 2
Density (calculated)	2.154 Mg/m^3
Absorption coefficient	1.982 mm^-1
Crystal size	0.28 x 0.32 x 0.40 mm
Theta range for data collection	1.83 to 28.25 deg
Index ranges	-13<=h<=13, -6<=k<=6, -18<=l<=29
Collection method	\w scans
Reflections collected	7024 [R(int) = 0.0208]
Independent reflections	2738 [2511 obs, I >2sigma(I)]
Absorption correction	Semi-empirical from psi-scans
Max. and min. transmission	0.7254 and 0.6047
Refinement (shift/err=0.002)	Full-matrix least-squares on F^2
Data / restraints / parameters	2738 / 0 / 180
Goodness-of-fit on F^2	1.160
Final R indices (obs data)	R1 = 0.0230, wR2 = 0.0509
R indices (all data)	R1 = 0.0263, wR2 = 0.0524

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Page 11 calc w=1/[\s^2^(Fo^2^)+(0.0116P)^2^+1.0762P] where P=(Fo^2^+2Fc^2^)

Extinction coefficient	0.0024(2)
Largest diff. peak and hole	0.436 and -0.359 e.A^-3

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

	x	y	z	U(eq)
Ag(1)	4036(1)	1256(1)	7378(1)	34(1)
S(1)	1924(1)	6197(1)	6643(1)	22(1)
F(1)	1304(2)	3710(4)	5626(1)	70(1)
F(2)	342(2)	7495(4)	5700(1)	64(1)
F(3)	2340(2)	7439(5)	5556(1)	72(1)
O(1)	2011(2)	9048(3)	6792(1)	38(1)
O(2)	882(2)	4808(3)	6884(1)	31(1)
O(3)	3143(2)	4799(4)	6702(1)	34(1)
N(1)	5642(2)	-1167(4)	7096(1)	32(1)
C(1)	6554(2)	-4957(4)	6467(1)	25(1)
C(2)	5728(2)	-6136(5)	6008(1)	26(1)
C(3)	6188(2)	-8205(4)	5666(1)	25(1)
C(4)	7474(2)	-9059(5)	5791(1)	28(1)
C(5)	8281(2)	-7854(5)	6247(1)	32(1)
C(6)	7834(2)	-5792(5)	6590(1)	30(1)
C(7)	6058(2)	-2827(5)	6822(1)	27(1)
C(8)	5347(2)	-9463(5)	5195(1)	29(1)
C(1T)	1450(3)	6197(6)	5833(1)	39(1)

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Table S8. Anisotropic displacement parameters (A^2 x 10^3) for 3
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)	32(1)	30(1)	40(1)	-4(1)	10(1)	6(1)
S(1)	24(1)	21(1)	22(1)	0(1)	3(1)	-2(1)
F(1)	107(2)	60(1)	39(1)	-23(1)	-7(1)	3(1)
F(2)	59(1)	81(1)	47(1)	11(1)	-16(1)	22(1)
F(3)	80(1)	100(2)	41(1)	24(1)	27(1)	-6(1)
O(1)	49(1)	24(1)	43(1)	-7(1)	8(1)	-6(1)
O(2)	27(1)	34(1)	34(1)	7(1)	6(1)	-2(1)
O(3)	24(1)	35(1)	43(1)	8(1)	2(1)	1(1)
N(1)	29(1)	33(1)	33(1)	-4(1)	9(1)	2(1)
C(1)	25(1)	25(1)	25(1)	0(1)	6(1)	-2(1)
C(2)	22(1)	31(1)	25(1)	1(1)	3(1)	1(1)
C(3)	25(1)	29(1)	22(1)	1(1)	2(1)	-2(1)
C(4)	26(1)	30(1)	29(1)	-5(1)	6(1)	1(1)
C(5)	20(1)	38(1)	37(1)	-7(1)	2(1)	4(1)
C(6)	24(1)	36(1)	31(1)	-7(1)	1(1)	-2(1)
C(7)	25(1)	30(1)	27(1)	1(1)	3(1)	-1(1)
C(8)	28(1)	32(1)	27(1)	-1(1)	2(1)	0(1)
C(1T)	47(1)	43(1)	27(1)	3(1)	2(1)	4(1)

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

	x	y	z	U(eq)
H(2)	4882(25)	-5534(51)	5938(11)	29(6)
H(4)	7771(23)	-10447(52)	5577(11)	24(6)
H(5)	9145(27)	-8586(54)	6320(12)	37(7)
H(6)	8384(27)	-4896(59)	6896(13)	40(7)

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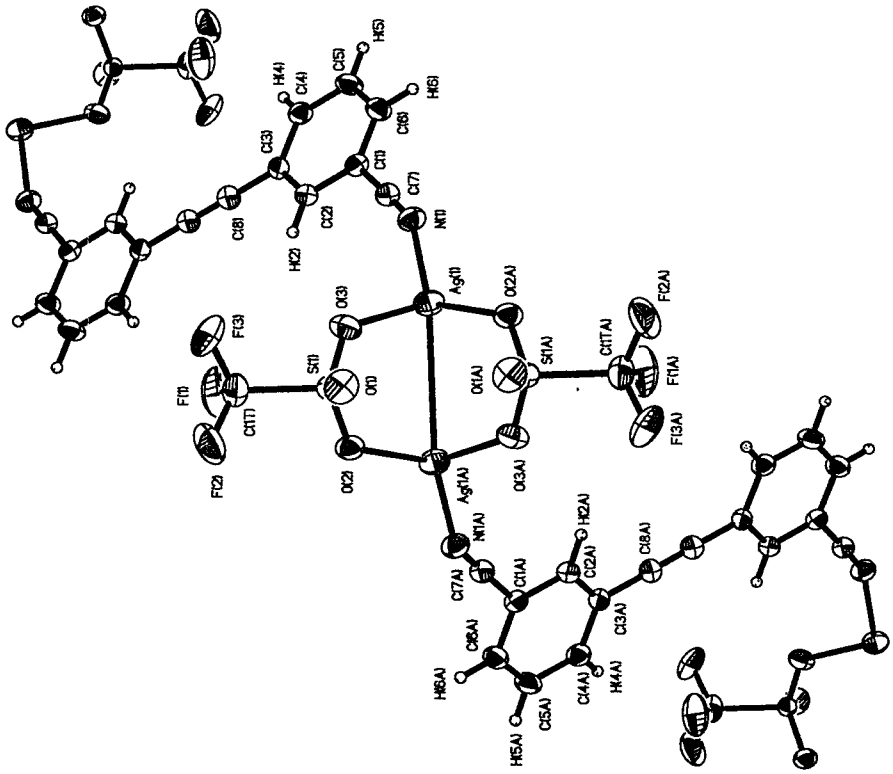
Table S10. Bond lengths [A] and angles [deg] for 3.

Ag(1)-N(1)	2.206(2)
Ag(1)-O(2)#1	2.403(2)
Ag(1)-O(3)	2.428(2)
Ag(1)-O(1)#2	2.507(2)
Ag(1)-O(1)#3	2.598(2)
Ag(1)-Ag(1)#1	3.3101(4)
S(1)-O(3)	1.440(2)
S(1)-O(2)	1.440(2)
S(1)-O(1)	1.446(2)
S(1)-C(1T)	1.825(2)
F(1)-C(1T)	1.314(3)
F(2)-C(1T)	1.325(3)
F(3)-C(1T)	1.322(3)
O(1)-Ag(1)#4	2.507(2)
O(1)-Ag(1)#5	2.598(2)
O(2)-Ag(1)#1	2.403(2)
N(1)-C(7)	1.138(3)
C(1)-C(2)	1.394(3)
C(1)-C(6)	1.395(3)
C(1)-C(7)	1.446(3)
C(2)-C(3)	1.392(3)
C(3)-C(4)	1.404(3)
C(3)-C(8)	1.436(3)
C(4)-C(5)	1.383(3)
C(5)-C(6)	1.387(3)
C(8)-C(8)#6	1.194(4)
N(1)-Ag(1)-O(2)#1	128.41(6)
N(1)-Ag(1)-O(3)	117.58(7)
O(2)#1-Ag(1)-O(3)	83.38(6)
N(1)-Ag(1)-O(1)#2	112.57(6)
O(2)#1-Ag(1)-O(1)#2	78.02(6)
O(3)-Ag(1)-O(1)#2	127.29(6)
N(1)-Ag(1)-O(1)#3	103.25(6)
O(2)#1-Ag(1)-O(1)#3	128.13(5)
O(3)-Ag(1)-O(1)#3	75.74(5)
O(1)#2-Ag(1)-O(1)#3	78.19(7)
N(1)-Ag(1)-Ag(1)#1	145.80(5)
O(2)#1-Ag(1)-Ag(1)#1	81.22(4)
O(3)-Ag(1)-Ag(1)#1	77.98(4)
O(1)#2-Ag(1)-Ag(1)#1	50.78(4)
O(1)#3-Ag(1)-Ag(1)#1	48.40(4)
O(3)-S(1)-O(2)	115.68(10)
O(3)-S(1)-O(1)	114.36(11)
O(2)-S(1)-O(1)	114.03(11)
O(3)-S(1)-C(1T)	103.32(11)
O(2)-S(1)-C(1T)	103.91(11)
O(1)-S(1)-C(1T)	103.42(12)
S(1)-O(1)-Ag(1)#4	124.89(10)
S(1)-O(1)-Ag(1)#5	123.42(10)
Ag(1)#4-O(1)-Ag(1)#5	80.82(5)

S(1)-O(2)-Ag(1)#1	129.37(9)
S(1)-O(3)-Ag(1)	132.52(10)
C(7)-N(1)-Ag(1)	153.0(2)
C(2)-C(1)-C(6)	121.5(2)
C(2)-C(1)-C(7)	118.6(2)
C(6)-C(1)-C(7)	120.0(2)
C(3)-C(2)-C(1)	119.2(2)
C(2)-C(3)-C(4)	119.5(2)
C(2)-C(3)-C(8)	120.0(2)
C(4)-C(3)-C(8)	120.6(2)
C(5)-C(4)-C(3)	120.5(2)
C(4)-C(5)-C(6)	120.7(2)
C(5)-C(6)-C(1)	118.7(2)
N(1)-C(7)-C(1)	178.6(2)
C(8)#6-C(8)-C(3)	179.2(3)
F(1)-C(1T)-F(3)	109.1(2)
F(1)-C(1T)-F(2)	108.0(2)
F(3)-C(1T)-F(2)	108.1(2)
F(1)-C(1T)-S(1)	110.9(2)
F(3)-C(1T)-S(1)	109.8(2)
F(2)-C(1T)-S(1)	110.8(2)

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

Figure 2


H5I
H4I
C5I
C4I
H6I
C6I
C3I
C1I
C7I
C8I
H2I
N1I
Ag1I
O2AI
O3I
S1I
O1I
F3I
F1I
C1T7I
F2I
O2I
O1AI
S1AI
C1T7AI
F2AI
F1AI
F3AI
O3AI
Ag1AI
N1AI
C7AI
C1AI
H2AI
C2AI
C8AI
C3AI
C6AI
H6AI
C4AI
H4AI
C5AI
H5AI

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Table S11. Crystal data and structure refinement for 4 (mm5e).

Empirical formula	C32 H16 Ag F6 N4 P
Formula weight	709.33
Temperature	198(2) K
Wavelength	0.71073 A
Crystal system	Triclinic
Space group	P-1
Unit cell dimensions	a = 8.22400(10) A alpha = 77.691(2)
	b = 11.9317(3) A beta = 86.815(2) (
from 2432 reflns with	c = 15.0073(5) A gamma = 86.944(2) (
4<=theta<=28	V = 1435.24(6) A^3 Z = 2
Density (calculated)	1.641 Mg/m^3
Absorption coefficient	0.827 mm^-1
Crystal size	0.08 x 0.08 x 0.20 mm
Theta range for data collection	1.39 to 28.31 deg
Index ranges	-10<=h<=10, -10<=k<=15, -10<=l<=19
Collection method	\w scans
Reflections collected	9349 [R(int) = 0.0504]
Independent reflections	6469 [3810 obs, I >2sigma(I)]
Absorption correction	Semi-empirical from psi-scans
Max. and min. transmission	0.8543 and 0.8260
Refinement (shift/err=0.020)	Full-matrix least-squares on F^2
Data / restraints / parameters	6467 / 125 / 462
Goodness-of-fit on F^2	1.258
Final R indices (obs data)	R1 = 0.0845, wR2 = 0.1094
R indices (all data)	R1 = 0.1657, wR2 = 0.1483

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Page 19 calc w=1/[\s^2^(Fo^2^)+(0.0000P)^2^+3.8545P] where P=(Fo^2^+2Fc^2^)/3

Largest diff. peak and hole 0.471 and -0.536 e.A^-3

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Table S12. 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)	-39(1)	7027(1)	2631(1)	45(1)
P(1)	3697(6)	2588(5)	2489(3)	40(1)
F(1)	4024(13)	1246(5)	2842(5)	67(3)
F(2)	5204(8)	2842(8)	3025(5)	67(2)
F(3)	2534(10)	2625(8)	3367(5)	65(2)
F(4)	3356(14)	3933(5)	2137(5)	69(3)
F(5)	2173(8)	2349(8)	1949(6)	64(2)
F(6)	4846(10)	2565(8)	1609(5)	70(3)
P(1A)	3612(15)	2558(11)	2476(8)	40(3)
F(1A)	3125(30)	1291(13)	2943(12)	70(4)
F(2A)	4722(25)	2596(18)	3303(12)	67(4)
F(3A)	2105(19)	3065(19)	3000(15)	68(4)
F(4A)	4083(30)	3834(13)	2005(12)	64(5)
F(5A)	2491(24)	2538(19)	1641(12)	63(4)
F(6A)	5113(19)	2075(20)	1943(15)	71(4)
N(1)	-1211(7)	5621(5)	3733(4)	45(2)
N(2)	-9025(7)	-1873(5)	3497(4)	41(2)
N(3)	930(7)	6501(5)	1359(4)	46(2)
N(4)	8034(8)	-1542(6)	1869(4)	51(2)
C(1)	-2912(8)	4488(6)	5115(4)	31(2)
C(2)	-3832(8)	3593(5)	5007(4)	30(2)
C(3)	-4748(8)	3002(6)	5755(4)	30(2)
C(4)	-4738(8)	3359(6)	6588(4)	34(2)
C(5)	-3832(8)	4249(6)	6684(4)	35(2)
C(6)	-2897(8)	4838(6)	5949(5)	36(2)
C(7)	-1985(8)	5113(6)	4337(5)	36(2)
C(8)	-5684(8)	2041(6)	5689(4)	33(2)
C(9)	-6420(8)	1206(6)	5679(4)	36(2)
C(10)	-7332(8)	218(5)	5698(4)	31(2)
C(11)	-7537(8)	-175(6)	4898(4)	34(2)
C(12)	-8500(8)	-1104(5)	4934(4)	32(2)
C(13)	-9244(8)	-1654(6)	5758(4)	37(2)
C(14)	-9018(9)	-1271(6)	6546(4)	41(2)
C(15)	-8054(9)	-354(6)	6514(4)	38(2)
C(16)	-8770(8)	-1515(6)	4122(5)	35(2)
C(17)	1792(8)	5761(5)	-99(4)	29(2)
C(18)	1159(9)	6299(6)	-919(5)	42(2)
C(19)	1595(9)	5884(6)	-1703(4)	42(2)
C(20)	2659(8)	4946(6)	-1650(4)	37(2)
C(21)	3303(8)	4390(5)	-825(4)	28(2)
C(22)	2860(8)	4808(5)	-40(4)	31(2)
C(23)	1319(8)	6176(6)	725(5)	36(2)
C(24)	4365(9)	3386(6)	-762(4)	35(2)
C(25)	5225(8)	2538(6)	-682(4)	34(2)

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C(26)	6218(8)	1490(6)	-600(4)	32(2)
C(27)	6796(8)	1104(6)	-1368(4)	39(2)
C(28)	7679(9)	86(6)	-1311(5)	47(2)
C(29)	6564(8)	832(6)	257(4)	32(2)
C(30)	7441(8)	-199(6)	318(4)	34(2)
C(31)	8001(8)	-583(6)	-469(5)	38(2)
C(32)	7770(9)	-938(6)	1190(5)	39(2)

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 Table S13. 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)	58(1)	45(1)	34(1)	-11(1)	-1(1)	-1(1)
P(1)	50(3)	42(3)	28(3)	-8(2)	-1(2)	-7(2)
F(1)	87(7)	43(3)	67(4)	0(3)	-16(5)	4(4)
F(2)	61(4)	98(6)	46(5)	-21(4)	-5(4)	-31(4)
F(3)	67(5)	83(6)	44(4)	-15(4)	15(4)	-10(4)
F(4)	124(9)	33(3)	53(4)	-15(3)	-7(4)	-4(4)
F(5)	72(4)	59(5)	67(5)	-21(5)	-28(4)	-7(4)
F(6)	88(5)	84(7)	40(4)	-19(4)	16(4)	-4(4)
P(1A)	53(6)	37(6)	32(6)	-10(6)	-1(5)	-8(6)
F(1A)	92(11)	47(6)	62(7)	12(6)	-12(8)	-16(7)
F(2A)	67(8)	100(9)	40(7)	-19(7)	-10(7)	-20(8)
F(3A)	62(7)	82(9)	59(9)	-17(8)	17(7)	-6(7)
F(4A)	102(12)	40(6)	48(7)	-7(6)	6(7)	-21(7)
F(5A)	88(8)	52(8)	51(8)	-8(7)	-30(7)	-10(7)
F(6A)	82(7)	83(10)	49(9)	-26(8)	14(7)	11(7)
N(1)	41(4)	48(4)	46(4)	-6(3)	0(3)	-4(3)
N(2)	45(4)	38(4)	43(4)	-15(3)	-6(3)	7(3)
N(3)	44(4)	47(4)	51(4)	-22(3)	11(3)	-6(3)
N(4)	54(4)	52(4)	48(4)	-16(3)	-13(3)	14(3)
C(1)	26(4)	34(4)	31(4)	-6(3)	-5(3)	7(3)
C(2)	35(4)	28(4)	29(3)	-7(3)	-5(3)	3(3)
C(3)	27(4)	35(4)	30(4)	-7(3)	-6(3)	2(3)
C(4)	38(4)	35(4)	28(4)	-7(3)	1(3)	2(3)
C(5)	41(4)	31(4)	33(4)	-11(3)	-4(3)	5(3)
C(6)	33(4)	30(4)	49(4)	-14(3)	-14(3)	4(3)
C(7)	26(4)	41(5)	42(4)	-11(3)	-13(3)	7(3)
C(8)	35(4)	33(4)	29(4)	-3(3)	4(3)	-1(3)
C(9)	35(4)	31(4)	39(4)	-4(3)	6(3)	3(3)
C(10)	25(4)	26(4)	43(4)	-9(3)	-1(3)	4(3)
C(11)	35(4)	32(4)	33(4)	-8(3)	0(3)	2(3)
C(12)	32(4)	24(4)	38(4)	-8(3)	-1(3)	8(3)
C(13)	44(4)	33(4)	36(4)	-12(3)	1(3)	-1(3)
C(14)	56(5)	35(4)	29(4)	-3(3)	7(3)	0(4)
C(15)	51(5)	38(4)	28(4)	-11(3)	1(3)	-1(4)
C(16)	33(4)	31(4)	42(4)	-10(3)	0(3)	5(3)
C(17)	31(4)	29(4)	29(3)	-11(3)	0(3)	0(3)
C(18)	42(4)	33(4)	53(5)	-12(4)	-10(4)	3(3)
C(19)	56(5)	39(5)	30(4)	-5(3)	-9(3)	9(4)
C(20)	42(4)	38(4)	33(4)	-12(3)	2(3)	0(3)
C(21)	32(4)	26(4)	27(3)	-6(3)	-2(3)	-2(3)
C(22)	33(4)	27(4)	30(4)	-2(3)	-2(3)	-3(3)
C(23)	33(4)	30(4)	46(4)	-10(3)	7(3)	-7(3)
C(24)	44(4)	33(4)	28(4)	-9(3)	-4(3)	-5(4)
C(25)	31(4)	38(4)	35(4)	-10(3)	3(3)	-6(3)

Page 23	C(26)	28(4)	31(4)	39(4)	-16(3)	3(3)	-7(3)
	C(27)	44(4)	37(4)	33(4)	-4(3)	2(3)	-3(3)
	C(28)	57(5)	44(5)	42(4)	-17(4)	10(4)	8(4)
	C(29)	32(4)	33(4)	33(4)	-10(3)	-1(3)	-4(3)
	C(30)	40(4)	30(4)	34(4)	-10(3)	-15(3)	-1(3)
	C(31)	44(5)	26(4)	44(4)	-9(3)	0(3)	10(3)
	C(32)	43(5)	41(5)	39(4)	-20(4)	-8(4)	5(4)

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Table S14. 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 "noref."

	x	y	z	U(eq)
H(2A)	-3841(8)	3383(5)	4431(4)	36
H(4A)	-5376(8)	2972(6)	7097(4)	40
H(5A)	-3840(8)	4468(6)	7257(4)	41
H(6A)	-2266(8)	5459(6)	6009(5)	44
H(11A)	-7021(8)	190(6)	4337(4)	40
H(13A)	-9903(8)	-2289(6)	5776(4)	45
H(14A)	-9527(9)	-1639(6)	7109(4)	49
H(15A)	-7879(9)	-108(6)	7062(4)	46
H(18A)	429(9)	6949(6)	-950(5)	51
H(19A)	1160(9)	6248(6)	-2272(4)	51
H(20A)	2961(8)	4670(6)	-2187(4)	44
H(22A)	3285(8)	4442(5)	530(4)	37
H(27A)	6574(8)	1557(6)	-1953(4)	47
H(28A)	8067(9)	-156(6)	-1850(5)	57
H(29A)	6201(8)	1090(6)	794(4)	39
H(31A)	8596(8)	-1296(6)	-420(5)	46

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Table S15. Bond lengths [A] and angles [deg] for 4.

Ag(1)-N(3)	2.227(6)
Ag(1)-N(2)#1	2.252(6)
Ag(1)-N(1)	2.300(6)
Ag(1)-N(4)#2	2.412(6)
P(1)-F(6)	1.585(5)
P(1)-F(1)	1.588(5)
P(1)-F(2)	1.590(5)
P(1)-F(3)	1.591(5)
P(1)-F(4)	1.594(5)
P(1)-F(5)	1.600(5)
P(1A)-F(6A)	1.583(8)
P(1A)-F(1A)	1.587(8)
P(1A)-F(2A)	1.590(8)
P(1A)-F(3A)	1.593(8)
P(1A)-F(4A)	1.595(8)
P(1A)-F(5A)	1.601(8)
N(1)-C(7)	1.157(8)
N(2)-C(16)	1.144(8)
N(2)-Ag(1)#3	2.252(6)
N(3)-C(23)	1.127(8)
N(4)-C(32)	1.140(8)
N(4)-Ag(1)#4	2.412(6)
C(1)-C(2)	1.382(9)
C(1)-C(6)	1.402(8)
C(1)-C(7)	1.446(9)
C(2)-C(3)	1.396(8)
C(3)-C(4)	1.405(8)
C(3)-C(8)	1.438(9)
C(4)-C(5)	1.366(9)
C(5)-C(6)	1.391(9)
C(8)-C(9)	1.195(9)
C(9)-C(10)	1.425(9)
C(10)-C(15)	1.388(9)
C(10)-C(11)	1.400(8)
C(11)-C(12)	1.386(9)
C(12)-C(13)	1.395(9)
C(12)-C(16)	1.439(9)
C(13)-C(14)	1.381(9)
C(14)-C(15)	1.376(9)
C(17)-C(18)	1.377(9)
C(17)-C(22)	1.390(8)
C(17)-C(23)	1.453(9)
C(18)-C(19)	1.393(9)
C(19)-C(20)	1.376(9)
C(20)-C(21)	1.392(8)
C(21)-C(22)	1.397(8)
C(21)-C(24)	1.434(9)
C(24)-C(25)	1.192(9)
C(25)-C(26)	1.443(9)
C(26)-C(27)	1.382(8)

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C(26)-C(29)	1.391(9)
C(27)-C(28)	1.370(9)
C(28)-C(31)	1.374(9)
C(29)-C(30)	1.381(9)
C(30)-C(31)	1.401(9)
C(30)-C(32)	1.444(9)
N(3)-Ag(1)-N(2)#1	131.9(2)
N(3)-Ag(1)-N(1)	116.4(2)
N(2)#1-Ag(1)-N(1)	101.0(2)
N(3)-Ag(1)-N(4)#2	94.8(2)
N(2)#1-Ag(1)-N(4)#2	96.5(2)
N(1)-Ag(1)-N(4)#2	113.9(2)
F(6)-P(1)-F(1)	90.6(3)
F(6)-P(1)-F(2)	90.6(3)
F(1)-P(1)-F(2)	90.5(3)
F(6)-P(1)-F(3)	179.3(4)
F(1)-P(1)-F(3)	90.1(3)
F(2)-P(1)-F(3)	89.6(3)
F(6)-P(1)-F(4)	89.7(4)
F(1)-P(1)-F(4)	179.6(4)
F(2)-P(1)-F(4)	89.8(3)
F(3)-P(1)-F(4)	89.6(3)
F(6)-P(1)-F(5)	89.6(3)
F(1)-P(1)-F(5)	90.3(3)
F(2)-P(1)-F(5)	179.2(3)
F(3)-P(1)-F(5)	90.2(3)
F(4)-P(1)-F(5)	89.5(3)
F(6A)-P(1A)-F(1A)	90.8(6)
F(6A)-P(1A)-F(2A)	90.8(6)
F(1A)-P(1A)-F(2A)	90.6(5)
F(6A)-P(1A)-F(3A)	179.0(7)
F(1A)-P(1A)-F(3A)	90.2(6)
F(2A)-P(1A)-F(3A)	89.5(5)
F(6A)-P(1A)-F(4A)	89.6(6)
F(1A)-P(1A)-F(4A)	179.4(8)
F(2A)-P(1A)-F(4A)	89.8(5)
F(3A)-P(1A)-F(4A)	89.4(6)
F(6A)-P(1A)-F(5A)	89.6(5)
F(1A)-P(1A)-F(5A)	90.2(5)
F(2A)-P(1A)-F(5A)	179.2(6)
F(3A)-P(1A)-F(5A)	90.1(6)
F(4A)-P(1A)-F(5A)	89.4(5)
C(7)-N(1)-Ag(1)	165.3(6)
C(16)-N(2)-Ag(1)#3	160.5(6)
C(23)-N(3)-Ag(1)	174.4(6)
C(32)-N(4)-Ag(1)#4	143.7(6)
C(2)-C(1)-C(6)	122.0(6)
C(2)-C(1)-C(7)	119.2(6)
C(6)-C(1)-C(7)	118.7(6)
C(1)-C(2)-C(3)	119.2(6)
C(2)-C(3)-C(4)	118.6(6)
C(2)-C(3)-C(8)	121.5(6)
C(4)-C(3)-C(8)	119.8(6)
C(5)-C(4)-C(3)	121.6(6)

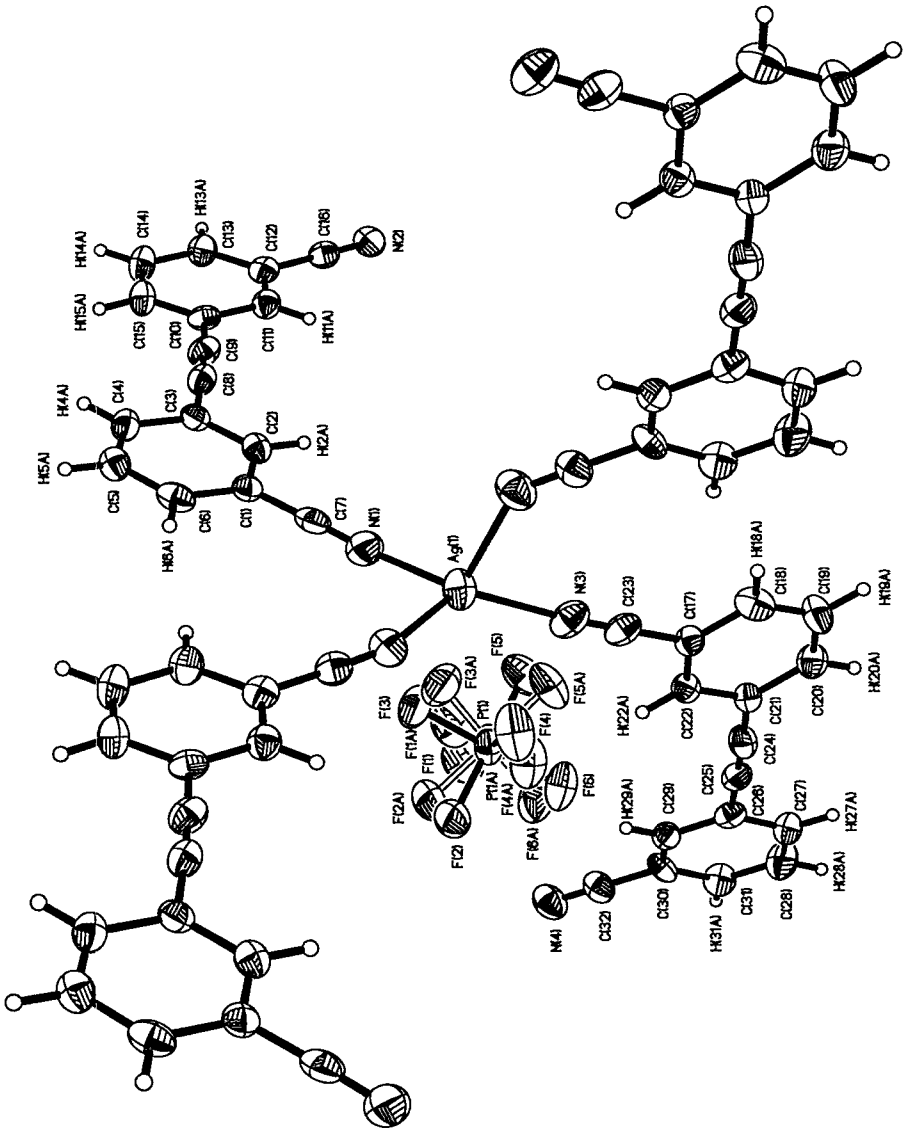
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C(4)-C(5)-C(6)	120.4(6)
C(5)-C(6)-C(1)	118.1(6)
N(1)-C(7)-C(1)	178.0(7)
C(9)-C(8)-C(3)	176.1(7)
C(8)-C(9)-C(10)	177.9(7)
C(15)-C(10)-C(11)	119.2(6)
C(15)-C(10)-C(9)	119.8(6)
C(11)-C(10)-C(9)	120.9(6)
C(12)-C(11)-C(10)	119.2(6)
C(11)-C(12)-C(13)	120.7(6)
C(11)-C(12)-C(16)	120.8(6)
C(13)-C(12)-C(16)	118.5(6)
C(14)-C(13)-C(12)	119.7(7)
C(15)-C(14)-C(13)	119.8(6)
C(14)-C(15)-C(10)	121.3(6)
N(2)-C(16)-C(12)	177.3(8)
C(18)-C(17)-C(22)	121.0(6)
C(18)-C(17)-C(23)	120.0(6)
C(22)-C(17)-C(23)	119.0(6)
C(17)-C(18)-C(19)	119.7(7)
C(20)-C(19)-C(18)	119.5(6)
C(19)-C(20)-C(21)	121.5(6)
C(20)-C(21)-C(22)	118.8(6)
C(20)-C(21)-C(24)	121.5(6)
C(22)-C(21)-C(24)	119.7(6)
C(17)-C(22)-C(21)	119.5(6)
N(3)-C(23)-C(17)	179.0(8)
C(25)-C(24)-C(21)	177.9(7)
C(24)-C(25)-C(26)	177.8(7)
C(27)-C(26)-C(29)	118.9(6)
C(27)-C(26)-C(25)	120.6(6)
C(29)-C(26)-C(25)	120.4(6)
C(28)-C(27)-C(26)	122.0(6)
C(27)-C(28)-C(31)	119.7(6)
C(30)-C(29)-C(26)	119.3(6)
C(29)-C(30)-C(31)	121.0(6)
C(29)-C(30)-C(32)	121.5(6)
C(31)-C(30)-C(32)	117.5(6)
C(28)-C(31)-C(30)	119.1(6)
N(4)-C(32)-C(30)	178.4(8)

#1 x+1,y+1,z #2 x-1,y+1,z #3 x-1,y-1,z
#4 x+1,y-1,z

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Figure 3



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Table S16. Crystal data and structure refinement for 5 (mm4e).

Empirical formula	C32 H16 Ag As F6 N4
Formula weight	753.28
Temperature	198(2) K
Wavelength	0.71073 A
Crystal system	Triclinic
Space group	P-1
Unit cell dimensions	a = 8.2621(4) A alpha = 77.24 deg
	b = 11.9297(6) A beta = 85.945(2) c
from 3440 reflns with	c = 15.0912(8) A gamma = 86.5590(10)
4<=theta<=28	V = 1445.57(13) A^3 Z = 2
Density (calculated)	1.731 Mg/m^3
Absorption coefficient	1.902 mm^-1
Crystal size	0.20 x 0.26 x 0.40 mm
Theta range for data collection	1.75 to 28.28 deg
Index ranges	-10<=h<=11, -15<=k<=15, -19<=l<=14
Collection method	\w scans
Reflections collected	9440 [R(int) = 0.0259]
Independent reflections	6575 [5490 obs, I >2sigma(I)]
Absorption correction	Semi-empirical from psi-scans
Max. and min. transmission	0.4533 and 0.3057
Refinement (shift/err=0.000)	Full-matrix least-squares on F^2
Data / restraints / parameters	6575 / 0 / 397
Goodness-of-fit on F^2	1.064
Final R indices (obs data)	R1 = 0.0359, wR2 = 0.0838
R indices (all data)	R1 = 0.0472, wR2 = 0.0937

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Page 30 calc w=1/[\s^2^(Fo^2^)+(0.0347P)^2^+1.9442P] where P=(Fo^2^+2Fc^2^)/3

Largest diff. peak and hole 0.853 and -0.752 e.A^-3

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Table S17. 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)	-2(1)	7064(1)	2634(1)	41(1)
As(1)	3763(1)	2602(1)	2474(1)	33(1)
F(1)	4032(4)	1157(2)	2851(2)	83(1)
F(2)	5313(3)	2848(3)	3086(2)	78(1)
F(3)	2464(4)	2670(3)	3394(2)	86(1)
F(4)	3502(4)	4050(2)	2087(2)	83(1)
F(5)	2202(3)	2393(2)	1853(2)	73(1)
F(6)	5060(4)	2557(3)	1558(2)	85(1)
N(1)	-1208(4)	5630(3)	3734(2)	43(1)
N(2)	-9001(3)	-1867(2)	3512(2)	39(1)
N(3)	986(4)	6532(3)	1365(2)	43(1)
N(4)	8072(4)	-1511(3)	1858(2)	48(1)
C(1)	-2906(3)	4484(2)	5102(2)	28(1)
C(2)	-3826(3)	3588(2)	4986(2)	28(1)
C(3)	-4755(3)	2998(2)	5732(2)	28(1)
C(4)	-4777(4)	3324(3)	6569(2)	32(1)
C(5)	-3859(4)	4214(3)	6670(2)	34(1)
C(6)	-2915(4)	4800(3)	5942(2)	33(1)
C(7)	-1952(4)	5115(3)	4337(2)	33(1)
C(8)	-5681(4)	2040(3)	5660(2)	32(1)
C(9)	-6424(4)	1217(3)	5649(2)	33(1)
C(10)	-7331(4)	225(2)	5676(2)	30(1)
C(11)	-7535(3)	-162(2)	4883(2)	29(1)
C(12)	-8483(3)	-1103(2)	4938(2)	29(1)
C(13)	-9228(4)	-1664(3)	5759(2)	36(1)
C(14)	-9008(4)	-1284(3)	6541(2)	40(1)
C(15)	-8064(4)	-354(3)	6504(2)	36(1)
C(16)	-8756(4)	-1508(2)	4133(2)	32(1)
C(17)	1793(4)	5779(3)	-93(2)	31(1)
C(18)	1093(4)	6301(3)	-907(2)	37(1)
C(19)	1492(4)	5866(3)	-1673(2)	41(1)
C(20)	2564(4)	4924(3)	-1635(2)	34(1)
C(21)	3259(3)	4394(2)	-823(2)	28(1)
C(22)	2872(3)	4828(2)	-44(2)	29(1)
C(23)	1352(4)	6203(3)	720(2)	35(1)
C(24)	4331(4)	3390(2)	-770(2)	30(1)
C(25)	5186(4)	2539(3)	-702(2)	31(1)
C(26)	6189(4)	1496(2)	-618(2)	30(1)
C(27)	6768(4)	1104(3)	-1395(2)	38(1)
C(28)	7680(5)	82(3)	-1324(2)	44(1)
C(29)	6546(4)	843(2)	242(2)	31(1)
C(30)	7458(4)	-192(3)	298(2)	32(1)
C(31)	8021(4)	-578(3)	-477(2)	39(1)
C(32)	7792(4)	-908(3)	1173(2)	37(1)

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Page 32 Table S18. 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)	53(1)	40(1)	31(1)	-10(1)	-3(1)	-2(1)
As(1)	43(1)	34(1)	25(1)	-8(1)	-3(1)	-5(1)
F(1)	144(3)	39(1)	63(2)	0(1)	-29(2)	4(2)
F(2)	77(2)	105(2)	67(2)	-39(2)	-30(1)	-10(2)
F(3)	78(2)	113(2)	77(2)	-47(2)	38(2)	-31(2)
F(4)	167(3)	34(1)	52(1)	-12(1)	-34(2)	-12(2)
F(5)	73(2)	60(2)	99(2)	-35(1)	-49(2)	5(1)
F(6)	93(2)	112(2)	62(2)	-51(2)	32(2)	-29(2)
N(1)	41(2)	44(2)	40(2)	-3(1)	-3(1)	-4(1)
N(2)	41(2)	37(1)	41(2)	-14(1)	-10(1)	5(1)
N(3)	43(2)	44(2)	44(2)	-19(1)	8(1)	-3(1)
N(4)	57(2)	45(2)	44(2)	-12(1)	-15(1)	11(1)
C(1)	28(1)	26(1)	31(1)	-4(1)	-6(1)	5(1)
C(2)	28(1)	28(1)	27(1)	-7(1)	-7(1)	6(1)
C(3)	27(1)	24(1)	33(1)	-7(1)	-7(1)	3(1)
C(4)	33(2)	33(2)	29(1)	-5(1)	-4(1)	4(1)
C(5)	38(2)	36(2)	30(2)	-13(1)	-7(1)	4(1)
C(6)	32(2)	30(2)	39(2)	-12(1)	-9(1)	2(1)
C(7)	28(1)	31(2)	38(2)	-7(1)	-7(1)	3(1)
C(8)	31(2)	32(2)	35(2)	-9(1)	-5(1)	2(1)
C(9)	33(2)	32(2)	37(2)	-11(1)	-6(1)	2(1)
C(10)	29(1)	26(1)	36(2)	-9(1)	-5(1)	2(1)
C(11)	29(1)	26(1)	32(2)	-4(1)	-1(1)	2(1)
C(12)	28(1)	26(1)	36(2)	-11(1)	-4(1)	5(1)
C(13)	39(2)	24(1)	43(2)	-7(1)	-1(1)	-2(1)
C(14)	52(2)	32(2)	33(2)	-3(1)	3(1)	-2(1)
C(15)	48(2)	31(2)	30(2)	-10(1)	-4(1)	1(1)
C(16)	31(2)	28(1)	37(2)	-8(1)	-5(1)	4(1)
C(17)	28(1)	31(2)	34(2)	-10(1)	1(1)	-5(1)
C(18)	37(2)	29(2)	44(2)	-7(1)	-4(1)	6(1)
C(19)	50(2)	38(2)	33(2)	-2(1)	-12(1)	8(1)
C(20)	40(2)	33(2)	29(2)	-8(1)	-4(1)	0(1)
C(21)	28(1)	25(1)	30(1)	-4(1)	-1(1)	-3(1)
C(22)	30(1)	30(1)	28(1)	-6(1)	-3(1)	-2(1)
C(23)	32(2)	33(2)	42(2)	-11(1)	2(1)	-3(1)
C(24)	33(2)	29(1)	29(1)	-9(1)	-2(1)	-3(1)
C(25)	34(2)	29(2)	31(2)	-8(1)	-2(1)	-3(1)
C(26)	30(2)	26(1)	35(2)	-9(1)	-2(1)	-2(1)
C(27)	48(2)	33(2)	31(2)	-7(1)	1(1)	1(1)
C(28)	59(2)	36(2)	36(2)	-12(1)	6(2)	4(2)
C(29)	33(2)	30(2)	31(2)	-11(1)	-2(1)	-1(1)
C(30)	33(2)	29(1)	34(2)	-9(1)	-7(1)	1(1)
C(31)	45(2)	29(2)	44(2)	-12(1)	-1(1)	8(1)
C(32)	38(2)	35(2)	40(2)	-13(1)	-9(1)	5(1)

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 Table S19. 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 "noref."

	x	y	z	U(eq)
H(2A)	-3818(3)	3384(2)	4412(2)	33
H(4A)	-5429(4)	2930(3)	7072(2)	38
H(5A)	-3878(4)	4424(3)	7243(2)	41
H(6A)	-2281(4)	5410(3)	6010(2)	39
H(11A)	-7035(3)	211(2)	4317(2)	35
H(13A)	-9880(4)	-2301(3)	5782(2)	43
H(14A)	-9505(4)	-1663(3)	7106(2)	48
H(15A)	-7911(4)	-103(3)	7046(2)	43
H(18A)	352(4)	6946(3)	-933(2)	44
H(19A)	1027(4)	6216(3)	-2231(2)	49
H(20A)	2831(4)	4635(3)	-2168(2)	41
H(22A)	3340(3)	4478(2)	513(2)	35
H(27A)	6530(4)	1547(3)	-1980(2)	45
H(28A)	8075(5)	-168(3)	-1858(2)	52
H(29A)	6174(4)	1099(2)	777(2)	37
H(31A)	8632(4)	-1288(3)	-426(2)	47

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Table S20. Bond lengths [A] and angles [deg] for 5.

Ag(1)-N(3)	2.234(3)
Ag(1)-N(2)#1	2.256(3)
Ag(1)-N(1)	2.323(3)
Ag(1)-N(4)#2	2.419(3)
As(1)-F(1)	1.698(2)
As(1)-F(6)	1.697(2)
As(1)-F(4)	1.703(2)
As(1)-F(2)	1.706(2)
As(1)-F(3)	1.707(2)
As(1)-F(5)	1.708(2)
N(1)-C(7)	1.141(4)
N(2)-C(16)	1.148(4)
N(2)-Ag(1)#3	2.256(3)
N(3)-C(23)	1.143(4)
N(4)-C(32)	1.152(4)
N(4)-Ag(1)#4	2.419(3)
C(1)-C(2)	1.396(4)
C(1)-C(6)	1.399(4)
C(1)-C(7)	1.442(4)
C(2)-C(3)	1.394(4)
C(3)-C(4)	1.400(4)
C(3)-C(8)	1.441(4)
C(4)-C(5)	1.382(4)
C(5)-C(6)	1.382(4)
C(8)-C(9)	1.192(4)
C(9)-C(10)	1.430(4)
C(10)-C(11)	1.398(4)
C(10)-C(15)	1.402(4)
C(11)-C(12)	1.391(4)
C(12)-C(13)	1.393(4)
C(12)-C(16)	1.439(4)
C(13)-C(14)	1.381(5)
C(14)-C(15)	1.383(5)
C(17)-C(22)	1.392(4)
C(17)-C(18)	1.397(4)
C(17)-C(23)	1.443(4)
C(18)-C(19)	1.380(5)
C(19)-C(20)	1.381(4)
C(20)-C(21)	1.394(4)
C(21)-C(22)	1.396(4)
C(21)-C(24)	1.438(4)
C(24)-C(25)	1.190(4)
C(25)-C(26)	1.440(4)
C(26)-C(29)	1.398(4)
C(26)-C(27)	1.401(4)
C(27)-C(28)	1.382(5)
C(28)-C(31)	1.383(5)
C(29)-C(30)	1.397(4)
C(30)-C(31)	1.391(4)
C(30)-C(32)	1.440(4)

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N(3)-Ag(1)-N(2)#1	132.43(11)
N(3)-Ag(1)-N(1)	115.45(11)
N(2)#1-Ag(1)-N(1)	100.98(11)
N(3)-Ag(1)-N(4)#2	94.24(11)
N(2)#1-Ag(1)-N(4)#2	98.31(10)
N(1)-Ag(1)-N(4)#2	113.51(11)
F(1)-As(1)-F(6)	90.6(2)
F(1)-As(1)-F(4)	179.5(2)
F(6)-As(1)-F(4)	88.9(2)
F(1)-As(1)-F(2)	91.4(2)
F(6)-As(1)-F(2)	91.2(2)
F(4)-As(1)-F(2)	88.7(2)
F(1)-As(1)-F(3)	90.3(2)
F(6)-As(1)-F(3)	179.06(14)
F(4)-As(1)-F(3)	90.2(2)
F(2)-As(1)-F(3)	88.4(2)
F(1)-As(1)-F(5)	90.04(14)
F(6)-As(1)-F(5)	88.9(2)
F(4)-As(1)-F(5)	89.86(13)
F(2)-As(1)-F(5)	178.52(13)
F(3)-As(1)-F(5)	91.5(2)
C(7)-N(1)-Ag(1)	165.8(3)
C(16)-N(2)-Ag(1)#3	161.4(3)
C(23)-N(3)-Ag(1)	173.2(3)
C(32)-N(4)-Ag(1)#4	144.6(3)
C(2)-C(1)-C(6)	121.4(3)
C(2)-C(1)-C(7)	119.5(3)
C(6)-C(1)-C(7)	119.1(3)
C(3)-C(2)-C(1)	118.5(3)
C(2)-C(3)-C(4)	120.0(3)
C(2)-C(3)-C(8)	120.9(3)
C(4)-C(3)-C(8)	119.2(3)
C(5)-C(4)-C(3)	120.6(3)
C(6)-C(5)-C(4)	120.3(3)
C(5)-C(6)-C(1)	119.2(3)
N(1)-C(7)-C(1)	178.9(3)
C(9)-C(8)-C(3)	176.2(3)
C(8)-C(9)-C(10)	177.6(3)
C(11)-C(10)-C(15)	119.3(3)
C(11)-C(10)-C(9)	120.9(3)
C(15)-C(10)-C(9)	119.8(3)
C(12)-C(11)-C(10)	118.9(3)
C(11)-C(12)-C(13)	121.6(3)
C(11)-C(12)-C(16)	120.5(3)
C(13)-C(12)-C(16)	117.9(3)
C(14)-C(13)-C(12)	119.2(3)
C(13)-C(14)-C(15)	120.2(3)
C(14)-C(15)-C(10)	120.9(3)
N(2)-C(16)-C(12)	177.3(3)
C(22)-C(17)-C(18)	121.0(3)
C(22)-C(17)-C(23)	119.2(3)
C(18)-C(17)-C(23)	119.7(3)
C(19)-C(18)-C(17)	119.1(3)
C(18)-C(19)-C(20)	120.5(3)

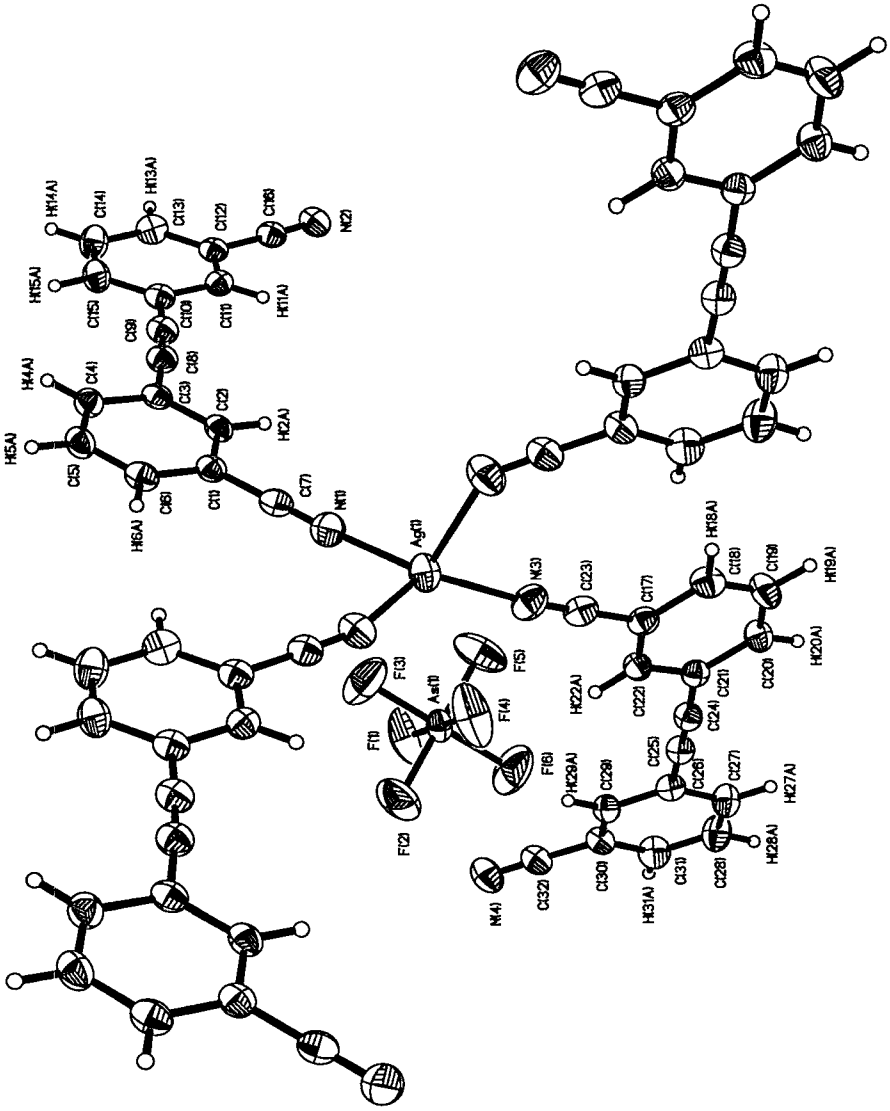
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C(19)-C(20)-C(21)	120.7(3)
C(20)-C(21)-C(22)	119.4(3)
C(20)-C(21)-C(24)	121.1(3)
C(22)-C(21)-C(24)	119.5(3)
C(17)-C(22)-C(21)	119.3(3)
N(3)-C(23)-C(17)	179.2(4)
C(25)-C(24)-C(21)	177.8(3)
C(24)-C(25)-C(26)	178.7(3)
C(29)-C(26)-C(27)	119.4(3)
C(29)-C(26)-C(25)	120.4(3)
C(27)-C(26)-C(25)	120.2(3)
C(28)-C(27)-C(26)	120.9(3)
C(27)-C(28)-C(31)	120.2(3)
C(30)-C(29)-C(26)	118.8(3)
C(31)-C(30)-C(29)	121.5(3)
C(31)-C(30)-C(32)	118.3(3)
C(29)-C(30)-C(32)	120.2(3)
C(28)-C(31)-C(30)	119.3(3)
N(4)-C(32)-C(30)	177.7(3)

#1 x+1,y+1,z #2 x-1,y+1,z #3 x-1,y-1,z
#4 x+1,y-1,z

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Figure 4



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 E &l0o7.27c6.6e60f1X &a7L (0U (s0p12h6v0s3b4102T

Table S21. Crystal data and structure refinement for 6 (mm3s3).

Empirical formula	C32 H16 Ag F6 N4 Sb
Formula weight	800.11
Temperature	198(2) K
Wavelength	0.71073 A
Crystal system	Triclinic
Space group	P-1
Unit cell dimensions	a = 8.3382(10) A alpha = 77.030(2) (
	b = 11.8923(14) A beta = 85.051(2)
from 2387 reflns with	c = 15.223(2) A gamma = 86.352(2) d
4<=theta<=28	V = 1464.0(3) A^3 Z = 2
Density (calculated)	1.815 Mg/m^3
Absorption coefficient	1.659 mm^-1
Crystal size	0.08 x 0.10 x 0.30 mm
Theta range for data collection	1.38 to 28.28 deg
Index ranges	-11<=h<=11, -15<=k<=15, -20<=l<=20
Collection method	\w scans
Reflections collected	10189 [R(int) = 0.0000]
Independent reflections	10189 [6335 obs, I >2sigma(I)]
Absorption correction	None
Refinement (shift/err=0.001)	Full-matrix least-squares on F^2
Data / restraints / parameters	10189 / 0 / 398
Goodness-of-fit on F^2	1.081
Final R indices (obs data)	R1 = 0.0529, wR2 = 0.0942
R indices (all data)	R1 = 0.1103, wR2 = 0.1242

calc w=1/[\s^2^(Fo^2^)+(0.0292P)^2^+3.8777P] where P=(Fo^2^+2Fc^2^)/3

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Page 39 Largest diff. peak and hole 1.472 and -0.987 e.A^-3

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Table S22. 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)
Ag(1)	14(1)	7100(1)	2626(1)	43(1)
Sb(1)	3843(1)	2620(1)	2466(1)	33(1)
F(1)	4118(5)	1027(3)	2873(3)	69(1)
F(2)	5547(5)	2876(4)	3105(3)	69(1)
F(3)	2447(5)	2710(4)	3476(3)	76(1)
F(4)	3545(6)	4210(3)	2039(2)	69(1)
F(5)	2115(5)	2394(3)	1834(3)	65(1)
F(6)	5234(5)	2560(4)	1462(2)	73(1)
N(1)	-1222(7)	5648(5)	3713(4)	43(2)
N(2)	-9015(7)	-1876(5)	3528(4)	41(2)
N(3)	1003(7)	6550(5)	1368(4)	44(2)
N(4)	8151(7)	-1478(5)	1816(4)	49(2)
C(1)	-2901(7)	4469(5)	5080(4)	28(2)
C(2)	-3829(7)	3585(5)	4969(4)	27(2)
C(3)	-4759(7)	2984(5)	5706(4)	28(2)
C(4)	-4783(7)	3295(5)	6544(4)	31(2)
C(5)	-3848(8)	4168(5)	6644(4)	32(2)
C(6)	-2912(7)	4764(5)	5917(4)	33(2)
C(7)	-1948(8)	5122(6)	4317(5)	34(2)
C(8)	-5697(8)	2036(6)	5635(4)	32(2)
C(9)	-6427(8)	1217(6)	5625(4)	33(2)
C(10)	-7350(7)	221(5)	5654(4)	27(2)
C(11)	-7552(7)	-171(5)	4881(4)	29(2)
C(12)	-8495(7)	-1108(5)	4938(4)	27(2)
C(13)	-9221(8)	-1665(5)	5757(4)	36(2)
C(14)	-9007(8)	-1271(5)	6523(4)	36(2)
C(15)	-8084(8)	-359(5)	6483(4)	36(2)
C(16)	-8766(7)	-1513(5)	4131(5)	31(2)
C(17)	1799(8)	5785(5)	-85(4)	28(2)
C(18)	1064(8)	6281(6)	-871(4)	39(2)
C(19)	1433(8)	5839(6)	-1630(4)	38(2)
C(20)	2509(8)	4902(6)	-1615(4)	35(2)
C(21)	3238(7)	4378(5)	-812(4)	28(2)
C(22)	2879(8)	4840(5)	-47(4)	28(2)
C(23)	1401(8)	6213(5)	723(5)	33(2)
C(24)	4314(8)	3368(6)	-782(4)	29(2)
C(25)	5161(8)	2530(6)	-719(4)	31(2)
C(26)	6168(8)	1484(5)	-630(4)	32(2)
C(27)	6767(8)	1087(6)	-1402(4)	36(2)
C(28)	7691(9)	77(6)	-1331(5)	47(2)
C(29)	6543(7)	842(6)	213(4)	31(2)
C(30)	7473(8)	-175(6)	276(4)	31(2)
C(31)	8052(8)	-564(6)	-497(5)	42(2)
C(32)	7839(8)	-889(6)	1142(5)	36(2)