

FITDIV

1,2,4,7-anti-Tetramethyl-2-norbornyl (μ_2 -fluoro)-bis(pentafluoro-antimony)
at -80 deg.C

C11 H19 1+,F11 Sb2 1-

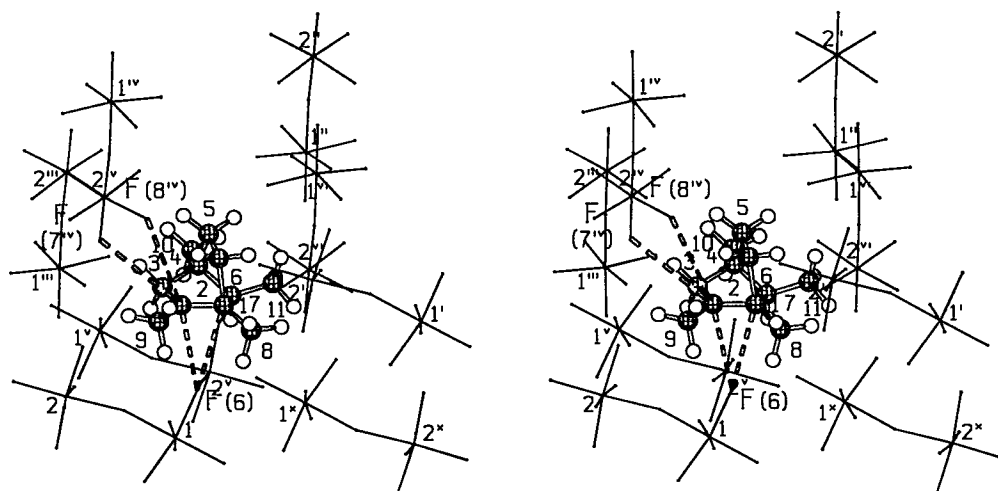
T.Laube

Angew.Chem.,Int.Ed.Engl., 26, 560,1987

Redetermination at 110 K: see refcode FITDIV01

FITDIV P21/c Z= 4 NATOMS= 43 DIFF AS=3 R-FACTOR= 0.080

19 C-H BONDS: S.D.= 0.026; MEAN = 1.081; RANGE: 1.021 - 1.120



F(6)	- C(1)	3.277		diff = 0.107	
F(6)	- C(2)	3.268		diff = 0.098	
C(2)	- F(7 ^{IV})	3.642		diff = 0.472	weak
C(2)	- F(8 ^{IV})	4.332		diff = 1.162	very weak

FIZCAS10

Guanidinium (ethylenediaminetetra-acetato)-antimony(iii) dihydrate

C10 H12 N2 O8 Sb1 1-,C1 H6 N3 1+,2(H2 O1)

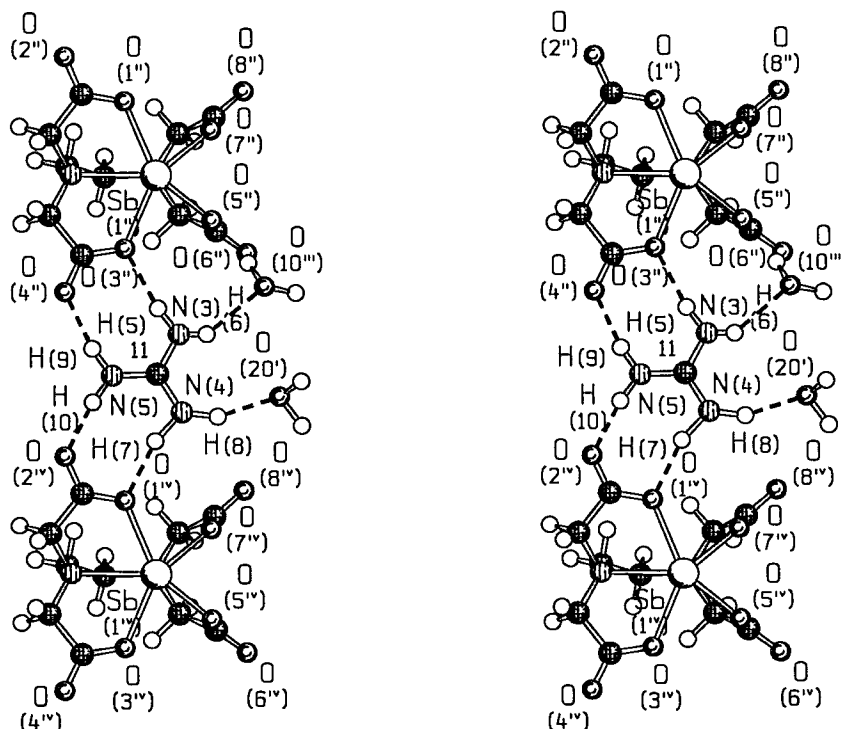
V.E.Mistryukov,A.V.Sergeev,Yu.N.Mikhailov,R.N.Shchelokov

Koord.Khim., 13, 1129,1987

FIZCAS10 P21/n Z= 4 NATOMS= 49 DIFF AS=0 R-FACTOR= 0.065

ERROR z(H12) should be positive

12 C-H BONDS: S.D.= 0.059; MEAN = 1.070; RANGE: 0.985 - 1.223



H(5)	- O(3 ^{II})	2.066		diff = -0.654	(H bond)
H(6)	- O(10 ^{III})	2.263		diff = -0.457	(H bond)
H(7)	- O(1 ^{IV})	1.984		diff = -0.736	(H bond)
O(20 ^I)	- H(8)	1.896		diff = -0.824	(H bond)
H(9)	- O(4 ^{II})	1.874		diff = -0.846	(H bond)
H(10)	- O(2 ^{IV})	1.808		diff = -0.912	(H bond)

FODZAZ

2-Methoxy-1,7,7-trimethylbicyclo(2.2.1)hept-2-ylum tetrafluoroborate
at -155 deg.C

C11 H19 O1 1+, B1 F4 1-

L.K.Montgomery, M.P.Grendze, J.C.Huffman

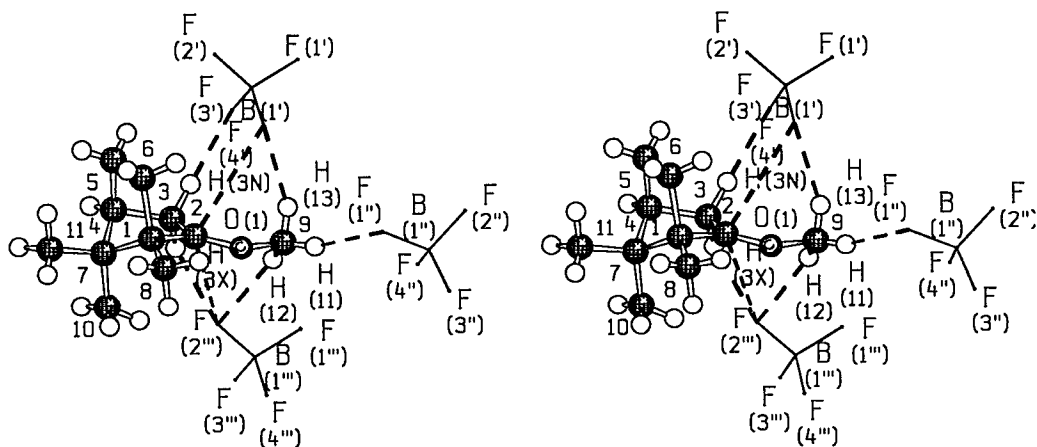
J.Am.Chem.Soc., 109, 4749, 1987

FODZAZ P21 Z= 0 NATOMS= 36 DIFF AS=2 R-FACTOR= 0.061

REMARK Numbering between paper and supp.data is inconsistent; that in latter was used

19 C-H BONDS: S.D.= 0.088; MEAN = 0.925; RANGE: 0.723 - 1.086

The H atoms H(3X) and H(3N) were newly computed in the present paper.



C(2)	- F(4 ^I)	3.357		diff = 0.187
C(2)	- F(2 ^{III})	3.412		diff = 0.242
H(11)	- F(1 ^{II})	2.309		diff = -0.361 (H bond)
H(12)	- F(2 ^{III})	2.378		diff = -0.292 (H bond)
H(13)	- F(4 ^I)	2.261		diff = -0.409 (H bond)
F(2 ^{III})	- H(3X)	2.296		diff = -0.374 (H bond)
F(3 ^I)	- H(3N)	2.257		diff = -0.413 (H bond)

FOGBIM

(1-(Dimethylsilyl)methyl)-2-piperidone iodide

at -120 deg.C

C8 H16 N1 O1 Si1 1+, I1 1-

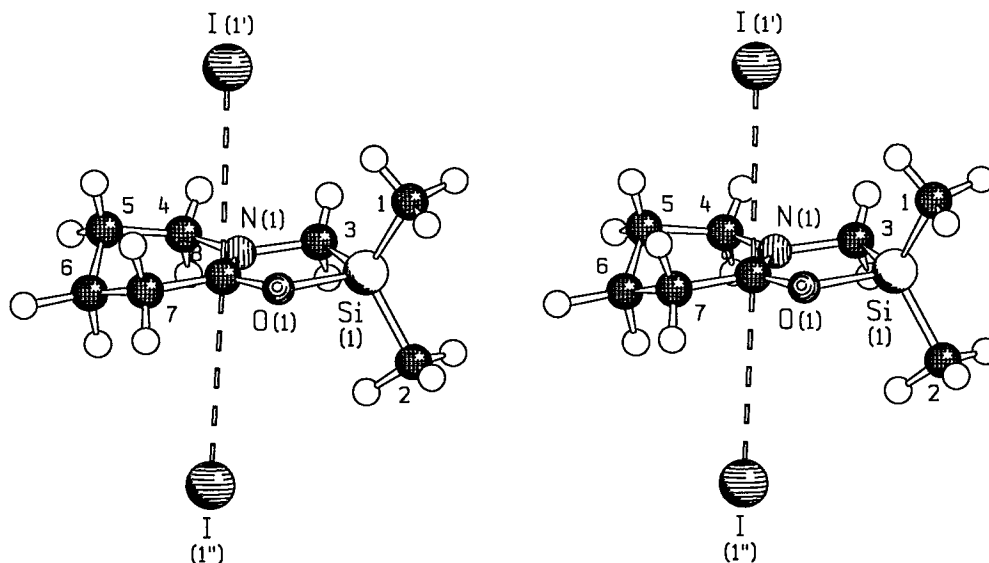
A.A.Macharashvili, V.E.Shklover, Yu.T.Struchkov, Yu.I.Baukov, E.P.Kramarova, G.I.Olen

eva

J.Organomet.Chem., 327, 167, 1987

FOGBIM Pna21 Z= 4 NATOMS= 28 DIFF AS=1 R-FACTOR= 0.018

16 C-H BONDS: S.D.= 0.097; MEAN = 1.052; RANGE: 0.877 - 1.279



C(8)	- I(1 ^I)	3.831		diff = 0.151
C(8)	- I(1 ^{II})	3.863		diff = 0.183

FOSPOS01

Acetamidinium nitrate

at 116 deg.K

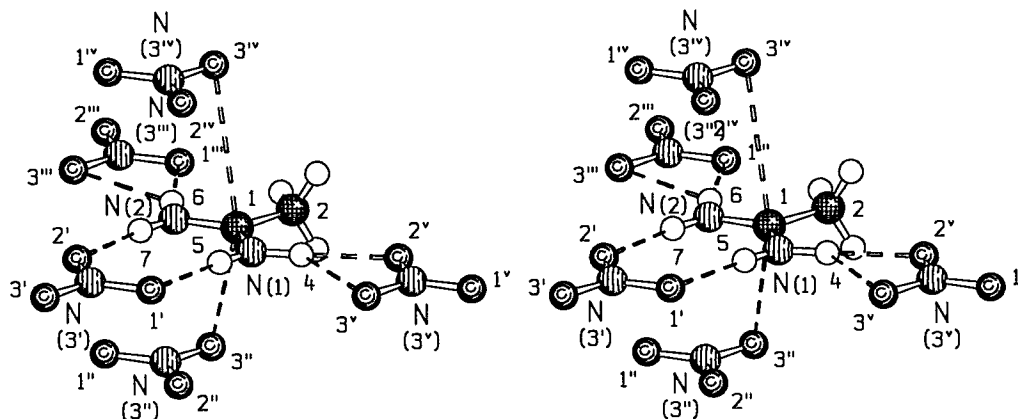
C2 H7 N2 1+, N1 O3 1-

M.Hjorth, R.Norrestam

Acta Cryst., C (Cr.Str.Comm.), 43, 1589, 1987

FOSPOS P21/m Z= 2 NATOMS= 15 DIFF AS=1 R-FACTOR= 0.035

3 C-H BONDS: S.D.= 0.030; MEAN = 0.849; RANGE: 0.828 - 0.892



H(4)	- O(2 ^V)	1.949		diff = -0.771	(H bond)
H(4)	- O(3 ^V)	2.532		diff = -0.188	(H bond)
H(5)	- O(1 ^I)	2.048		diff = -0.672	(H bond)
H(6)	- O(1 ^{III})	2.129		diff = -0.591	(H bond)
H(6)	- O(3 ^{III})	2.565		diff = -0.155	(H bond)
H(7)	- O(2 ^I)	2.007		diff = -0.713	(H bond)
C(1)	- O(3 ^{II})	3.363		diff = 0.143	
C(1)	- O(3 ^{IV})	3.362		diff = 0.142	

FUFRUT

bis(Chloro-bis(dimethylamino)-carbenium) hexachloro-platinum

2(C5 H12 Cl1 N2 1+), Cl6 Pt1 2-

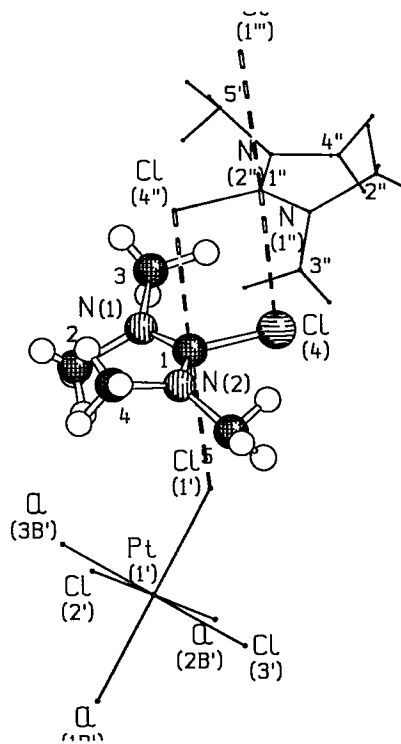
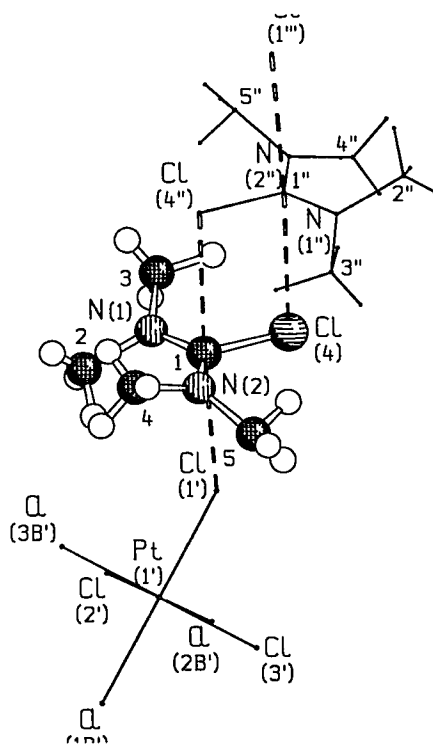
E.B.Chuklanova, A.I.Gusev, A.S.Zhdanov, Z.V.Belyakova, V.M.Shevchenko, V.D.Sheludyako

v

Koord.Khim., 13, 1109, 1987

FUFRUT P21/n Z= 2 NATOMS= 27 DIFF AS=2 R-FACTOR= 0.018

12 C-H BONDS: S.D.= 0.087; MEAN = 0.945; RANGE: 0.762 - 1.103



Cl(1 ^I)	- C(1)	3.147	diff = -0.303	very strong
C(1)	- Cl(4 ^{II})	3.587	diff = 0.137	
Cl(4)	- C(1 ^{II})	3.587	diff = 0.137	
Cl(1 ^{III})	- C(1 ^{II})	3.147	diff = -0.303	very strong

FUFSA

bis(Methoxy-bis(dimethylamino)carbenium) hexachloro-platinum

2(C6 H15 N2 O1 1+), Cl6 Pt1 2-

E.B.Chuklanova, A.I.Gusev, A.S.Zhdanov, Z.V.Belyakova, V.M.Shevchenko, V.D.Sheludyako

v

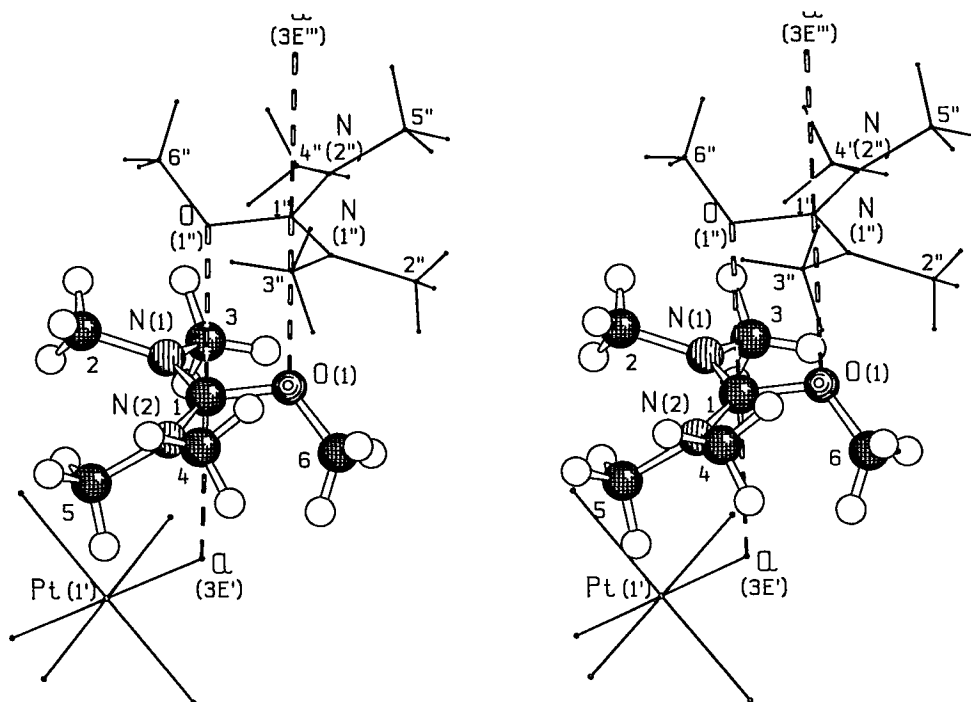
Koord.Khim., 13, 1109, 1987

FUFSA C2/c Z= 4 NATOMS= 31 DIFF AS=2 R-FACTOR= 0.019

ERROR The y coordinate of H9 should be negative

15 C-H BONDS: S.D.= 0.084; MEAN = 1.010; RANGE: 0.750 - 1.123

H atoms at C(5) were newly computed in the present paper.



C(1 ^{II})	- C1(3E ^{III})	3.431	diff = -0.019
C1(3E ^I)	- C(1)	3.431	diff = -0.019
C(1 ^{II})	- O(1)	3.344	diff = 0.124
O(1 ^{II})	- C(1)	3.345	diff = 0.125

FUXCAC

Benzyloxy-N,N'-di-isopropyluronium trifluoromethanesulfonate

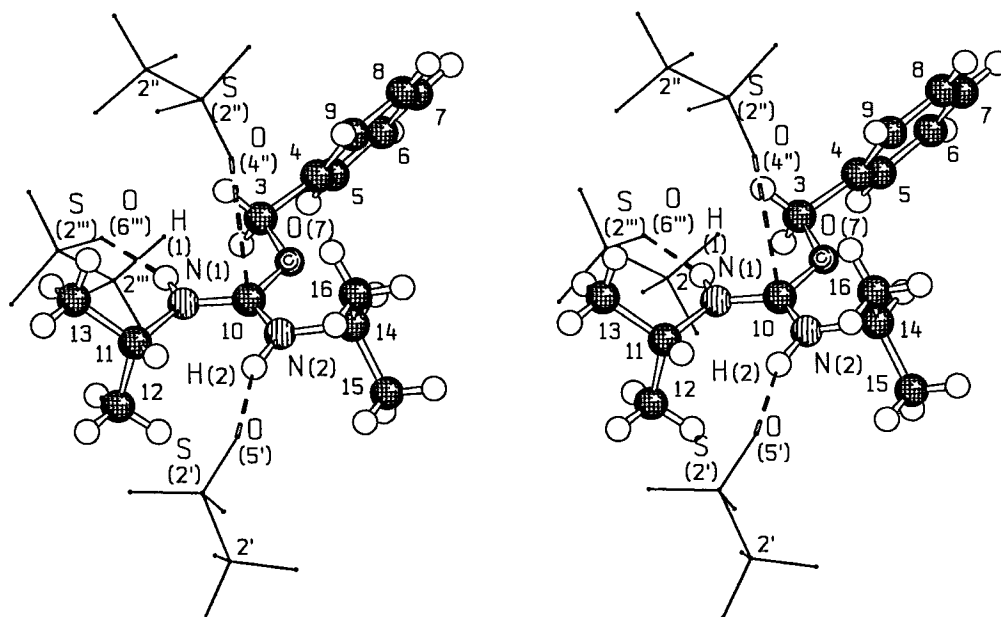
C14 H23 N2 O1 1+, C1 F3 O3 S1 1-

W.Clegg, S.P.Collingwood, S.M.Hodgson, B.T.Golding

Acta Cryst., C (Cr.Str.Comm.), 44, 123, 1988

FUXCAC P21/c Z= 8 NATOMS= 96 DIFF AS=2 R-FACTOR= 0.061

42 C-H BONDS: S.D.= 0.001; MEAN = 0.960; RANGE: 0.958 - 0.961



C(10)	- O(4 ^{II})	3.331		diff = 0.111
O(5 ^I)	- H(2)	1.963		diff = -0.757 (H bond)
H(1)	- O(6 ^{III})	2.022		diff = -0.698 (H bond)

GADMUT

Benzamidinium bromoacetate

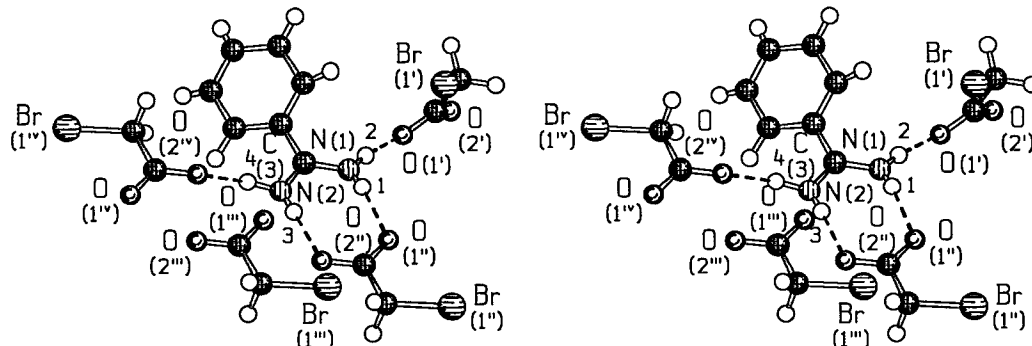
C2 H2 Br1 O2 1-, C7 H9 N2 1+

B.Kratochvil, J.Ondracek, K.Maly, L.Csordas

Collect.Czech.Chem.Comm., 53, 294, 1988

GADMUT P1121/n Z= 4 NATOMS= 25 DIFF AS=2 R-FACTOR= 0.066

7 C-H BONDS: S.D.= 0.125; MEAN = 0.899; RANGE: 0.733 - 1.058



H(1)	- O(1 ^{II})	2.060		diff = -0.660 (H bond)
H(2)	- O(1 ^I)	1.949		diff = -0.771 (H bond)
H(3)	- O(2 ^{II})	2.051		diff = -0.669 (H bond)
H(4)	- O(2 ^{IV})	1.920		diff = -0.800 (H bond)

GEGGAATropylum tetraethylammonium (μ_6 -carbido)-henicosacarbonyl-(μ_2 -hydrido)-hepta-rheniumCycloheptatrienylium tetraethylammonium (μ_6 -carbido)-henicosacarbonyl-(μ_2 -hydrido)-hepta-rhenium

isomer b

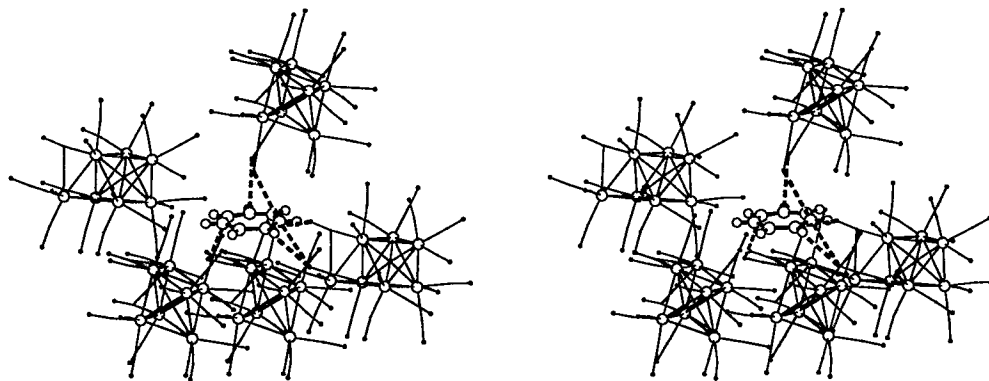
C7 H7 1+, C8 H20 N1 1+, C22 H1 O21 Re7 2-

T.Beringhelli, G.D'Alfonso, G.Ciani, A.Sironi, H.Molinari

J.Chem.Soc., Dalton Trans., , 1281, 1988

GEGGAA P21 Z= 2 NATOMS= 93 DIFF AS=4 R-FACTOR= 0.025

27 C-H BONDS: S.D.= 0.003; MEAN = 0.951; RANGE: 0.945 - 0.955



O(53 ^{II})	- C(1)	3.188		diff = -0.032
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O(43 ^{III})	- C(2)	3.142		diff = -0.078
O(52 ^I)	- C(4)	3.144		diff = -0.076
O(23 ^{III})	- C(4)	3.157		diff = -0.063
O(42 ^I)	- C(5)	3.165		diff = -0.055
O(52 ^I)	- C(5)	3.184		diff = -0.036

GUHOXM01

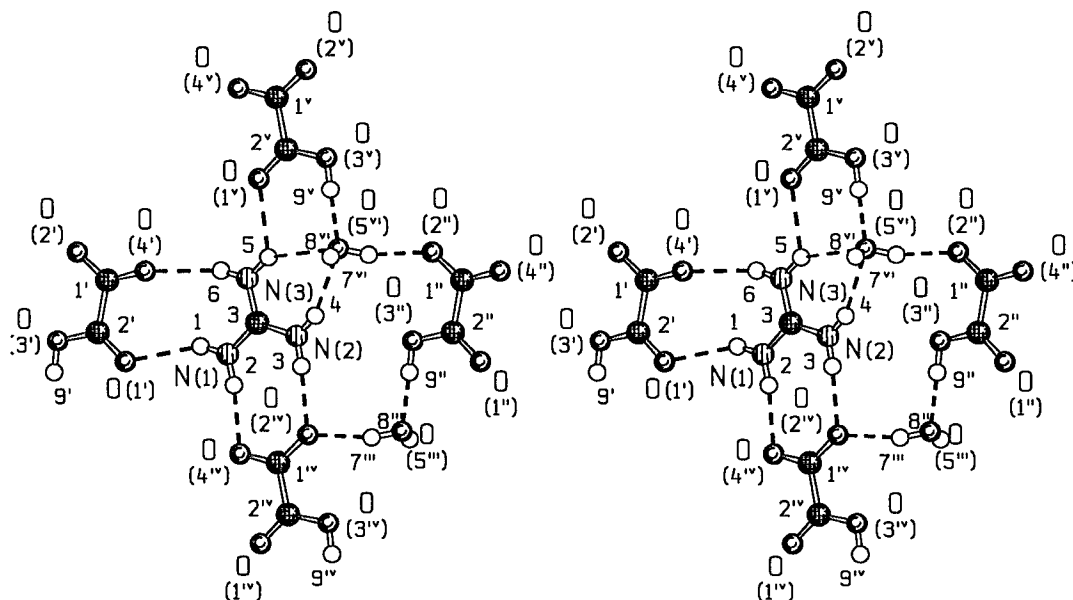
Guanidinium hydrogen oxalate monohydrate

C2 H1 O4 1-, C1 H6 N3 1+, H2 O1

L.C.Andrews, B.R.Deroski, J.S.Ricci

J.Cryst.Mol.Struct., 9, 163, 1979

GUHOXM P21/c Z= 4 NATOMS= 20 DENS AS=2 R-FACTOR= 0.085



H(2)	- O(4 ^{IV})	2.020		diff = -0.700 (H bond)
H(3)	- O(2 ^{IV})	2.000		diff = -0.720 (H bond)
O(4 ^I)	- H(6)	2.166		diff = -0.554 (H bond)
O(1 ^I)	- H(1)	2.222		diff = -0.498 (H bond)
H(5)	- O(1 ^V)	2.289		diff = -0.431 (H bond)
H(5)	- O(5 ^{VI})	2.509		diff = -0.211 (H bond)
O(2 ^{II})	- H(7 ^{VI})	1.861		diff = -0.859 (H bond)
H(4)	- O(5 ^{VI})	2.214		diff = -0.506 (H bond)
H(9 ^V)	- O(5 ^{VI})	1.748		diff = -0.972 (H bond)
H(9 ^{II})	- O(5 ^{III})	1.748		diff = -0.972 (H bond)
H(7 ^{III})	- O(2 ^{IV})	1.861		diff = -0.859 (H bond)

HEBZCA

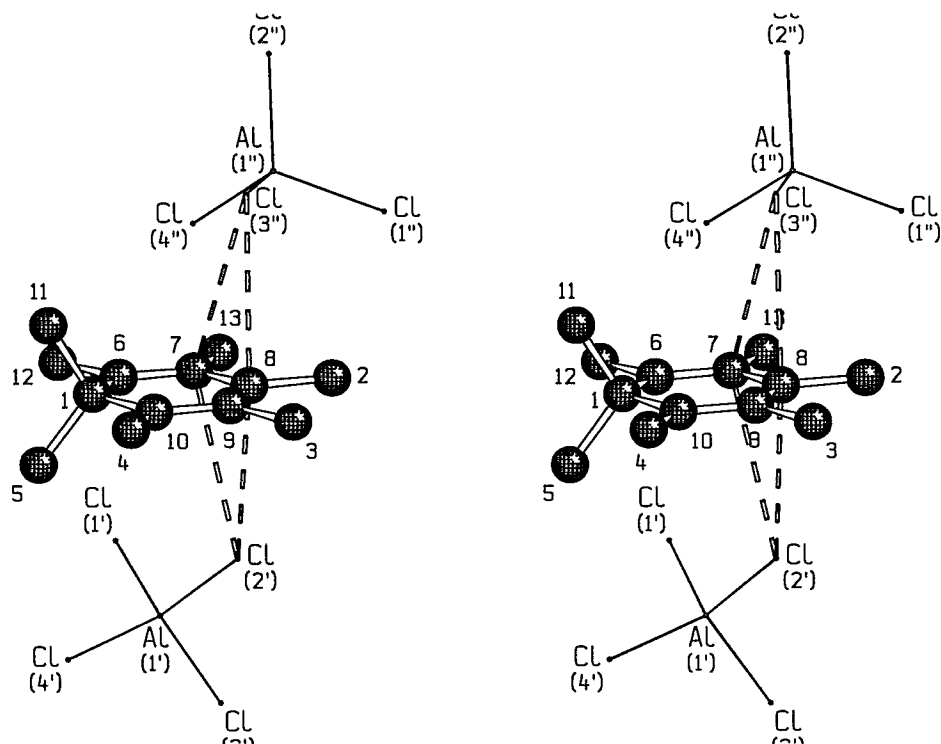
Heptamethylbenzene tetrachloroaluminate

C13 H21 1+, Al1 Cl4 1-

N.C.Baenziger, A.D.Nelson

J.Am.Chem.Soc., 90, 6602, 1968

HEBZCA P21/n Z= 4 NATOMS= 18 PHOT AS=3 R-FACTOR= 0.090



C(7)	- Cl(2 ^I)	3.459		diff = 0.009
C(7)	- Cl(3 ^{II})	3.574		diff = 0.124
C(8)	- Cl(2 ^I)	3.368		diff = -0.082
C(8)	- Cl(3 ^{II})	3.452		diff = 0.002

IBUSBC20

Isopropyl-oxocarbenium hexachloroantimonate

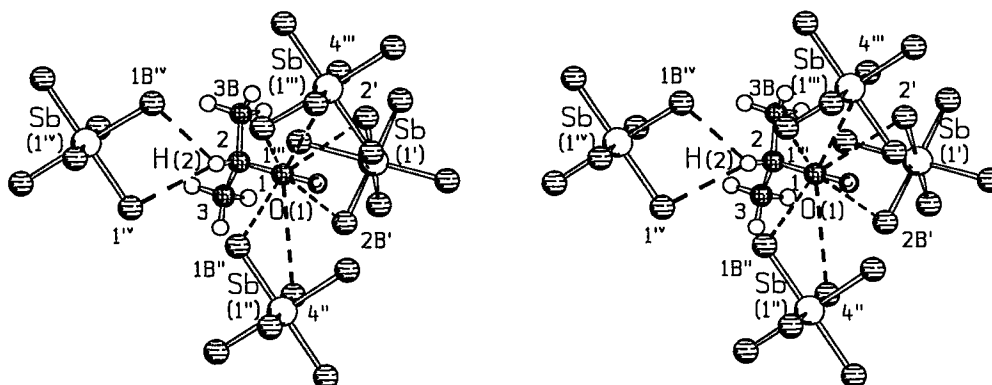
C4 H7 O1 1+, Cl6 Sb1 1-

J.-M. Le Carpentier, R. Weiss

Acta Crystallogr., Sect. B, 28, 1430, 1972

IBUSBC20 Pnma Z= 4 NATOMS= 12 DIFF AS=0 R-FACTOR= 0.036

All H atoms were added in the present paper.



C(1)	- Cl(1B ^{II})	3.270		diff = -0.180	strong
C(1)	- Cl(1 ^{III})	3.271		diff = -0.179	strong
C(1)	- Cl(2 ^I)	3.683		diff = 0.233	
C(1)	- Cl(2B ^I)	3.683		diff = 0.233	
C(1)	- Cl(4 ^{II})	3.722		diff = 0.272	
C(1)	- Cl(4 ^{III})	3.722		diff = 0.272	

Cl(1 ^{IV})	- H(2)	2.918	diff = -0.032 (H bond)
Cl(1B ^{IV})	- H(2)	2.918	diff = -0.032 (H bond)

JAJRIV

Isopropylideniminium tetrachloro-oxo-molybdenum(v)

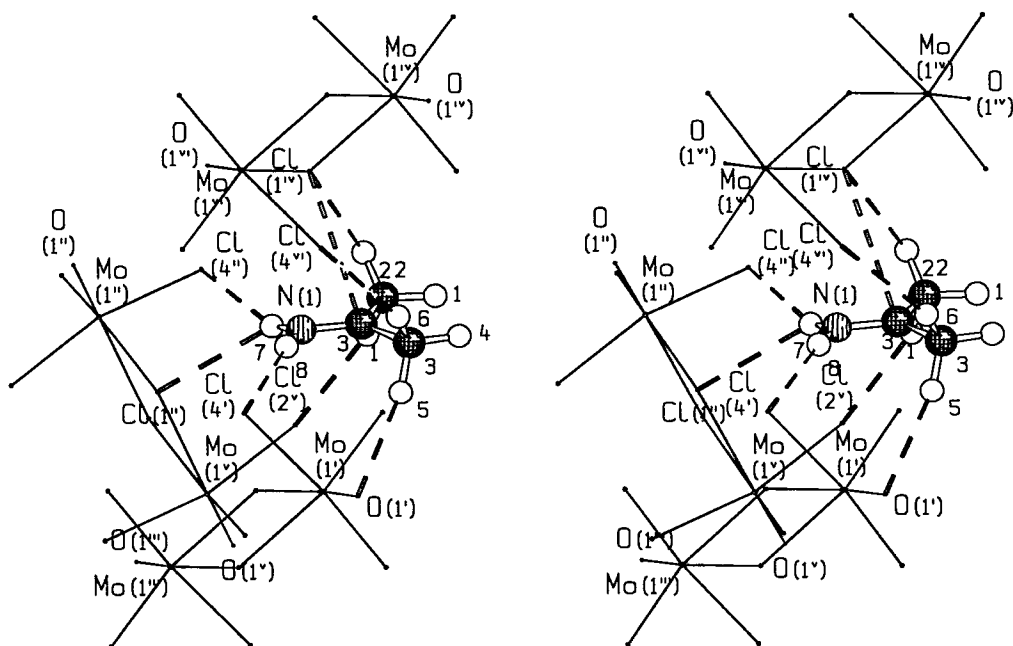
C3 H8 N1 1+, Cl4 Mo1 O1 1-

P.Klinzing, A.El-Kholi, U.Müller, K.Dehnicke, K.Findeisen

Z.Anorg.Allg.Chem., 569, 83, 1989

JAJRIV P21/c Z= 4 NATOMS= 18 DIFF AS=2 R-FACTOR= 0.044

6 C-H BONDS: S.D.= 0.000; MEAN = 1.080; RANGE: 1.079 - 1.080



C(1)	- Cl(1 ^{IV})	3.402	diff = -0.048
H(2)	- Cl(1 ^{IV})	2.824	diff = -0.126 (H bond)
H(3)	- Cl(2 ^V)	2.476	diff = -0.474 (H bond)
H(6)	- Cl(4 ^{VI})	2.703	diff = -0.247 (H bond)
H(7)	- Cl(1 ^{II})	2.735	diff = -0.215 (H bond)
H(7)	- Cl(4 ^{II})	2.608	diff = -0.342 (H bond)
H(8)	- Cl(4 ^I)	2.662	diff = -0.288 (H bond)
H(5)	- O(1 ^I)	2.557	diff = -0.163 (H bond)

JAKBAY

Hexamethyl guanidinium (dimethylaminocarbonyl-C)-tetracarbonyl-iron

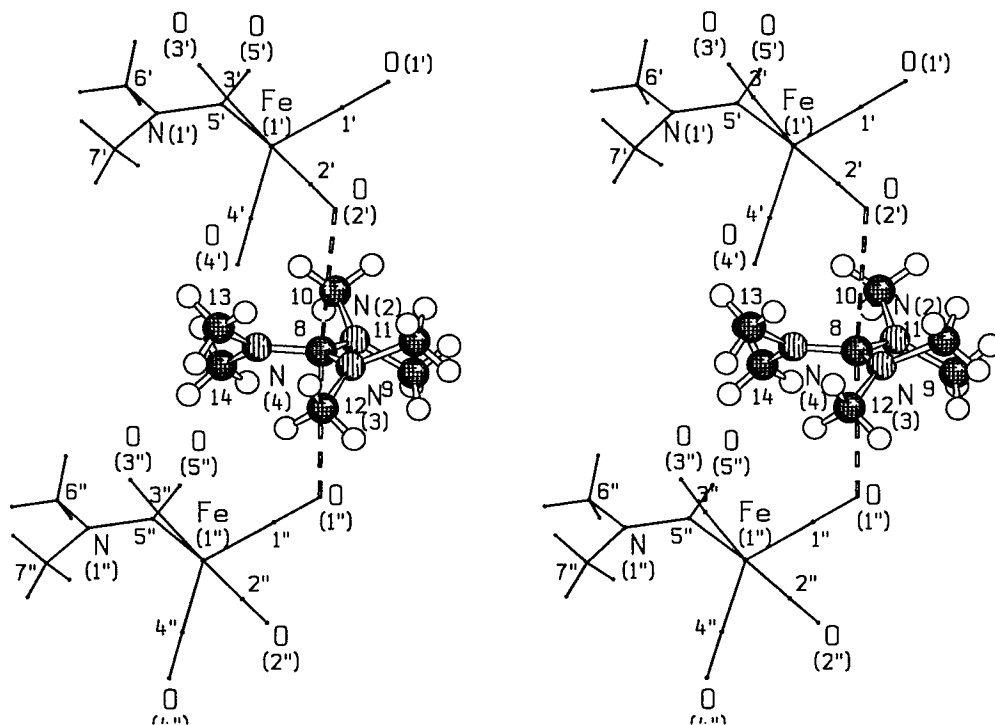
C7 H6 Fe1 N1 O5 1-, C7 H18 N3 1+

R.Boese, D.Blaser, W.Petz

Z.Naturforsch., Teil B, 43, 945, 1988

JAKBAY P-1 Z= 2 NATOMS= 48 DIFF AS=2 R-FACTOR= 0.045

24 C-H BONDS: S.D.= 0.000; MEAN = 0.960; RANGE: 0.959 - 0.960



O(1 ^{II})	- C(8)	3.151	diff = -0.069
O(2 ^I)	- C(8)	3.220	diff = 0.000

JALSOE

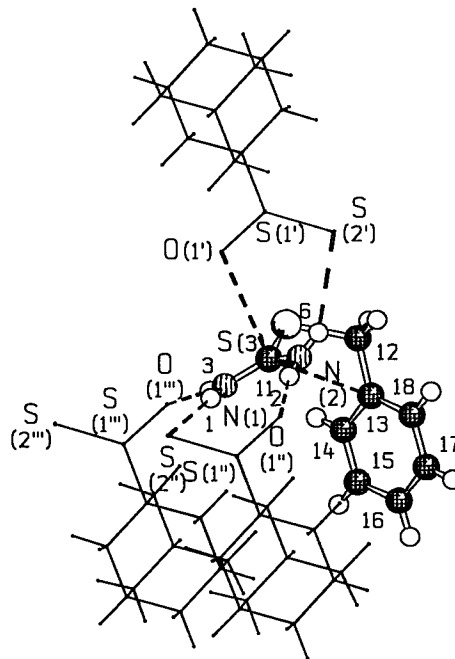
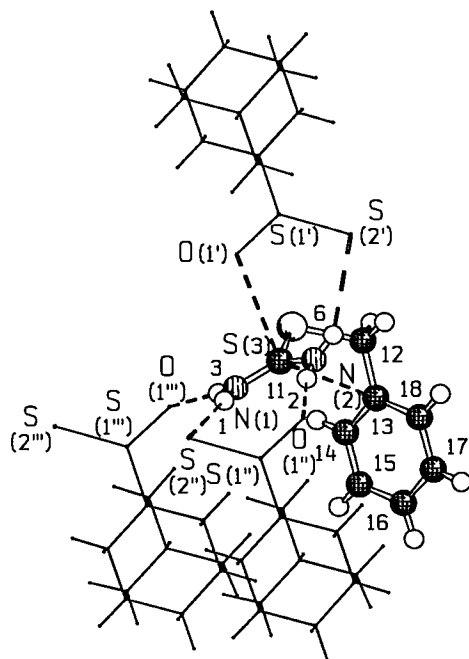
S-Benzylthiuronium adamantanethiosulfinate

C10 H15 O1 S2 1-, C8 H11 N2 S1 1+

M. Mikolajczyk, P. Lyzwa, J. Drabowicz, M. Wieczorek, G. Buyacz

Angew. Chem., Int. Ed. Engl., 28, 97, 1989

JALSOE P-1 Z= 2 NATOMS= 50 DIFF AS=1 R-FACTOR= 0.033
 22 C-H BONDS: S.D.= 0.028; MEAN = 0.984; RANGE: 0.944 - 1.031



O(1 ^I)	- C(11)	3.191		diff = -0.029
H(2)	- O(1 ^{II})	1.805		diff = -0.915 (H bond)
H(3)	- O(1 ^{III})	1.992		diff = -0.728 (H bond)
S(2 ^I)	- H(6)	2.667		diff = -0.333 (H bond)
H(1)	- S(2 ^{II})	2.494		diff = -0.506 (H bond)
C(11)	- C(13)	3.136		diff = -0.264 strong

JECDEA2,3-Dimethyl-7-phenyl-2-norbornen-7-ylum hexafluoroantimonate(v)
at -80 deg.C

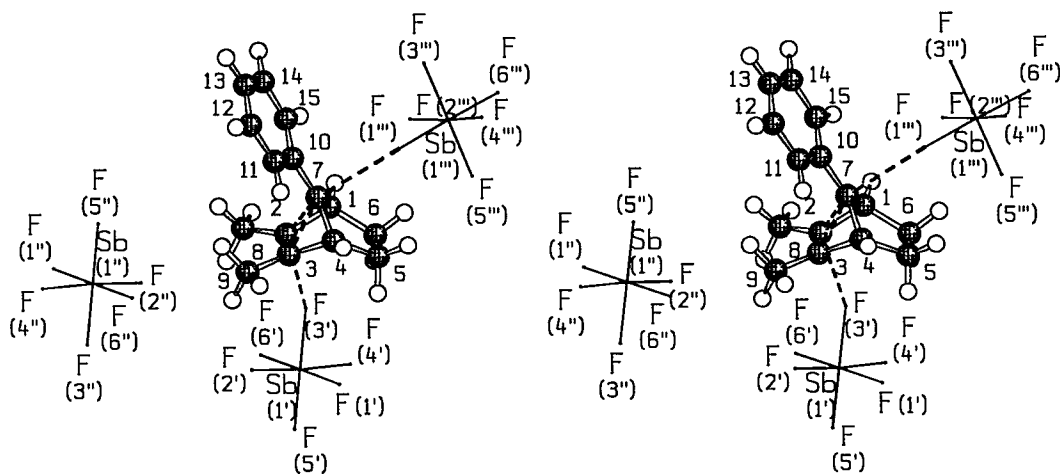
C15 H17 1+, F6 Sb1 1-

T. Laube

J. Am. Chem. Soc., 111, 9224, 1989

(Improved refinement: T. Laube, C. Lohse, J. Am. Chem. Soc. 116, 9001, 1994)

JECDEA P21/n Z= 4 NATOMS= 39 DIFF AS=3 R-FACTOR= 0.084
 17 C-H BONDS: S.D.= 0.012; MEAN = 1.080; RANGE: 1.055 - 1.100



C(2)	- C(7)	1.855		diff = -1.545	<u>extremely strong</u>
C(3)	- C(7)	1.857		diff = -1.543	<u>extremely strong</u>
C(2)	- F(3 ^I)	3.034		diff = -0.136	strong
C(7)	- F(1 ^{III})	3.013		diff = -0.157	strong

JICPOA

1-Cyclopropyl-1-hydroxyethylium hexafluoroantimonate

at -65 deg.C

C5 H9 O1 1+, F6 Sb1 1-

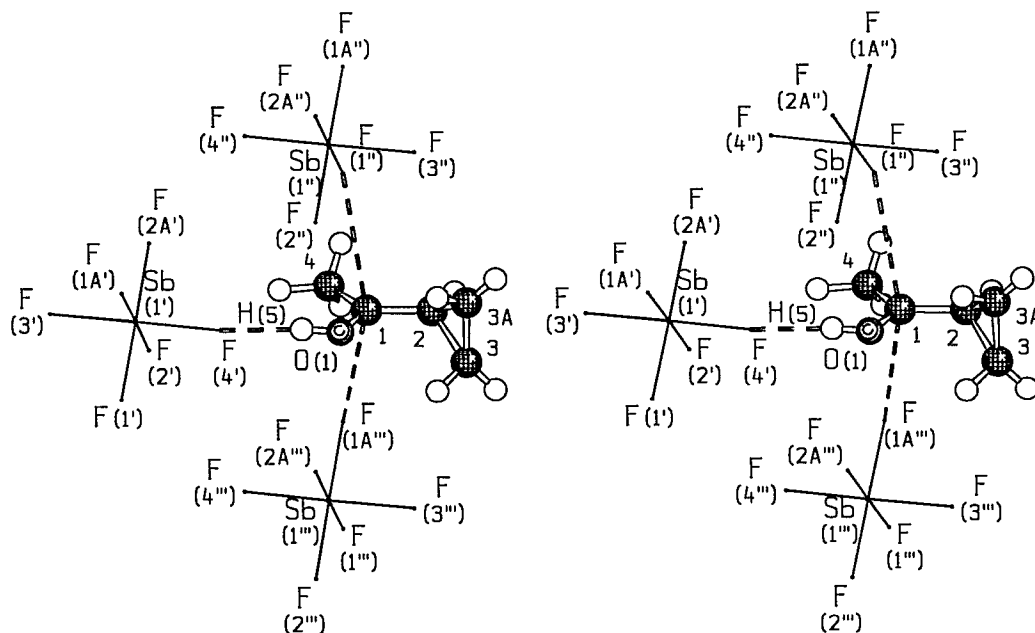
R.F.Childs, M.D.Kostyk, C.J.L.Lock, M.Mahendran

J.Am.Chem.Soc., 112, 8912, 1990

JICPOA Pmnb Z= 8 NATOMS= 21 DIFF AS=2 R-FACTOR= 0.037

7 C-H BONDS: S.D.= 0.048; MEAN = 0.952; RANGE: 0.876 - 0.989

H atom at C(2) and H atom in the molecular mirror plane at C(4) were newly computed in the present paper.



C(1)	- F(1 ^{II})	3.109		diff = -0.061	
C(1)	- F(1A ^{III})	3.109		diff = -0.061	
F(4 ^I)	- H(5)	1.743		diff = -0.927	(H bond)

JICPUG

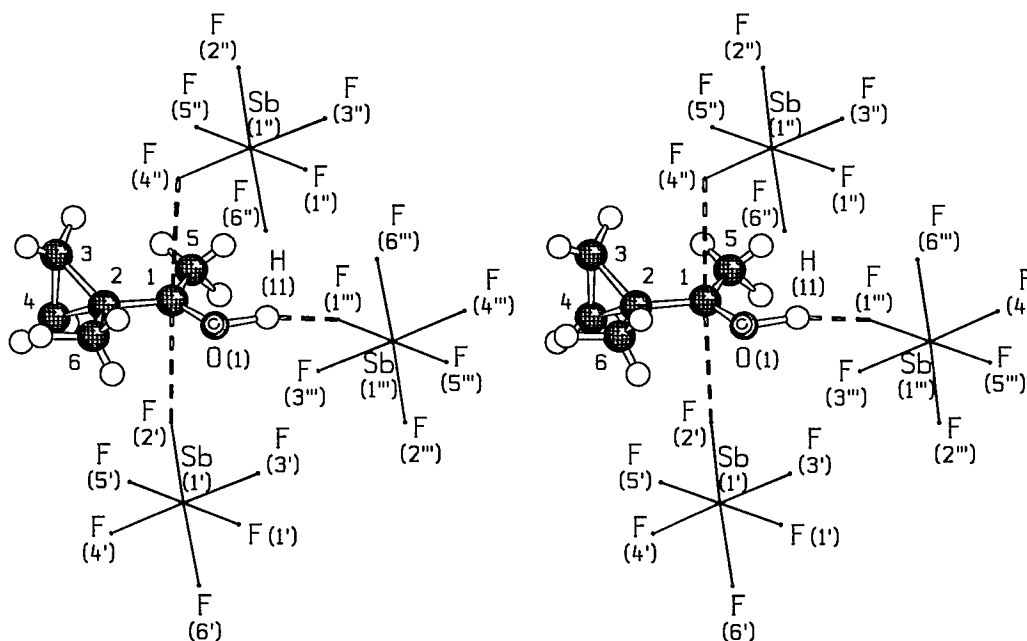
1-(1'-Methylcyclopropyl)-1-hydroxyethylum hexafluoroantimonate
at -65 deg.C

C6 H11 O1 1+, F6 Sb1 1-

R.F.Children, M.D.Kostyk, C.J.L.Lock, M.Mahendran

J.Am.Chem.Soc., 112, 8912, 1990

JICPUG P21/n Z= 4 NATOMS= 25 DIFF AS=2 R-FACTOR= 0.062
10 C-H BONDS: S.D.= 0.088; MEAN = 0.938; RANGE: 0.827 - 1.090



H(11)	- F(1 ^{III})	1.477		diff = -1.193	(H bond)
C(1)	- F(2 ^I)	3.012		diff = -0.158	strong
C(1)	- F(4 ^{II})	2.916		diff = -0.254	strong

JICRAO

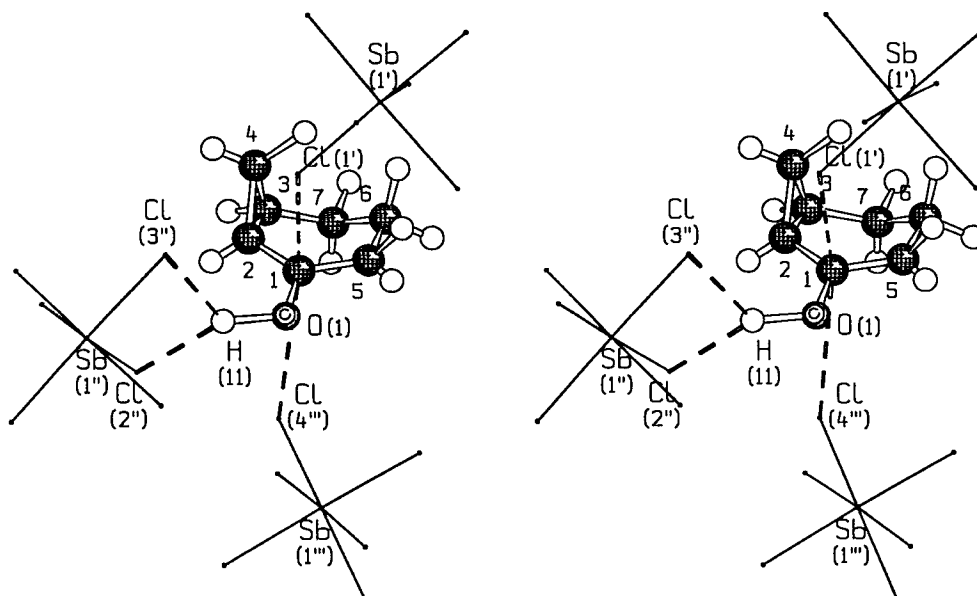
2-Hydroxybicyclo(4.1.0)heptan-2-ylum hexachloroantimonate
at -65 deg.C

C7 H11 O1 1+, Cl6 Sb1 1-

R.F.Children, M.D.Kostyk, C.J.L.Lock, M.Mahendran

J.Am.Chem.Soc., 112, 8912, 1990

JICRAO Pc21b Z= 4 NATOMS= 26 DIFF AS=0 R-FACTOR= 0.030
10 C-H BONDS: S.D.= 0.201; MEAN = 1.052; RANGE: 0.679 - 1.368



H(11)	- Cl(2 ^{II})	2.142	diff = -0.808 (H bond)
H(11)	- Cl(3 ^{II})	2.401	diff = -0.549 (H bond)
C(1)	- Cl(1 ^I)	3.465	diff = 0.015
C(1)	- Cl(4 ^{III})	3.586	diff = 0.136

JOJXUB

N-(t-Butyloxycarbonyl)-4-(dimethylamino)-pyridinium tetrafluoroborate
at -30 deg.C

C12 H19 N2 O2 1+, B1 F4 1-

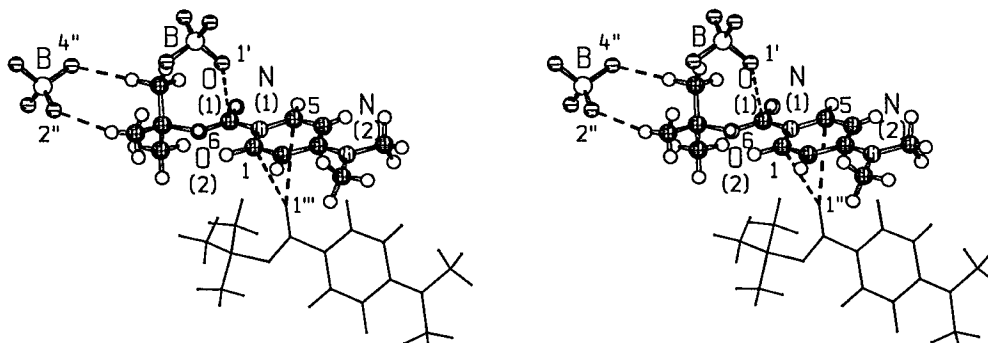
C.Lohse, S.Hollenstein, T.Laube

Angew.Chem., Int.Ed.Engl., 30, 1656, 1991

JOJXUB P21/c Z= 4 NATOMS= 40 DIFF AS=2 R-FACTOR= 0.043

19 C-H BONDS: S.D.= 0.093; MEAN = 1.031; RANGE: 0.812 - 1.141

Several N hydrogens were newly computed.

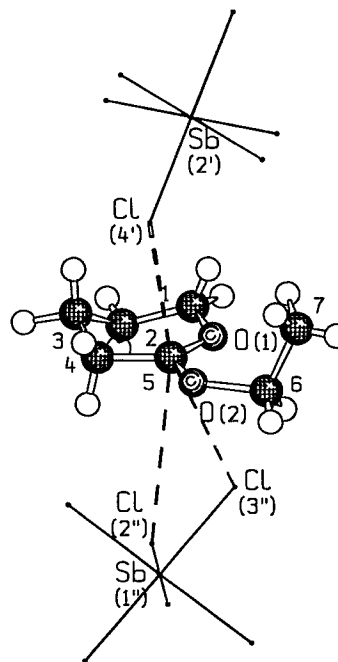
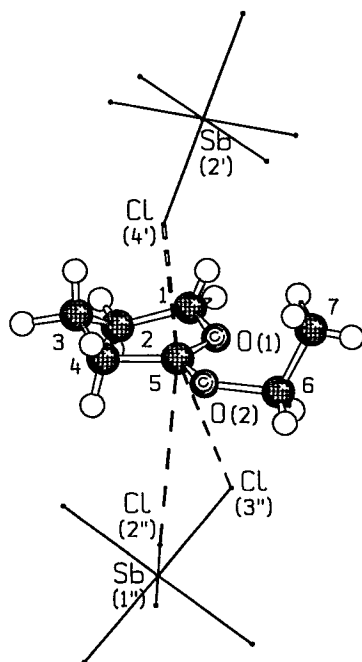


C(6)	- F(1 ^I)	3.063	diff = -0.107 strong
C(1)	- O(1 ^{III})	3.204	diff = -0.016
C(5)	- O(1 ^{III})	3.269	diff = 0.049
F(4 ^{II})	- H(7)	2.588	diff = -0.082 (H bond)
F(2 ^{II})	- H(10)	2.673	diff = 0.003 (H bond)

JOPSEM

6-Ethoxy-2,3,4,5-tetrahydropyrylium hexachloroantimonate
 at -65 deg.C
 C7 H13 O2 1+, Cl6 Sb1 1-
 R.F.Childs, M.D.Kostyk, C.J.L.Lock, M.Mahendran
 Can.J.Chem., 69, 2024, 1991

JOPSEM P1 Z= 2 NATOMS= 30 DIFF AS=2 R-FACTOR= 0.037
 13 C-H BONDS: S.D.= 0.160; MEAN = 0.939; RANGE: 0.679 - 1.265

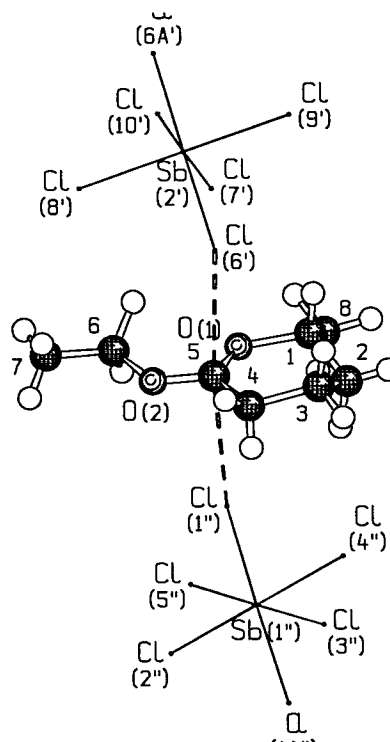
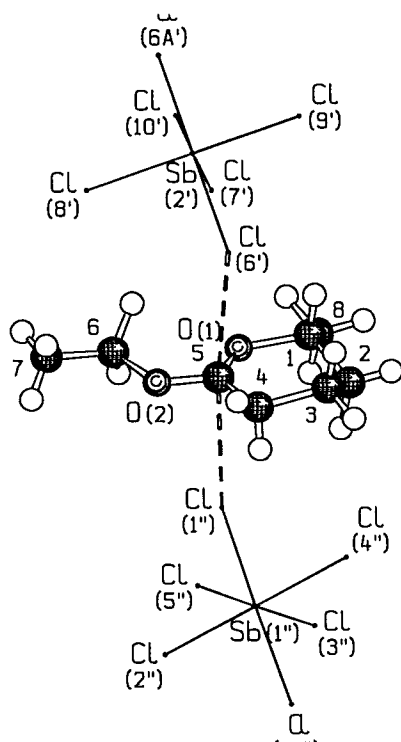


C(5)	- Cl(4 ^I)	3.200	diff = -0.250	strong
C(5)	- Cl(2 ^{II})	3.865	diff = 0.415	weak
C(5)	- Cl(3 ^{II})	3.710	diff = 0.260	

JOPSOW

6-Ethoxy-2-methyl-2,3,4,5-tetrahydropyrylium hexachloroantimonate
 at -65 deg.C
 C8 H15 O2 1+, Cl6 Sb1 1-
 R.F.Childs, M.D.Kostyk, C.J.L.Lock, M.Mahendran
 Can.J.Chem., 69, 2024, 1991

JOPSOW Pmnb Z= 8 NATOMS= 39 DIFF AS=2 R-FACTOR= 0.031
 15 C-H BONDS: S.D.= 0.090; MEAN = 0.956; RANGE: 0.818 - 1.114



C(5)	- Cl(6 ^I)	3.336	diff = -0.114	strong
C(5)	- Cl(1 ^{II})	3.533	diff = 0.083	

JOPSUC

2-Ethoxy-3,4,4a,5,6,7,8,8a-octahydro-1-benzopyrylium hexachloroantimonate

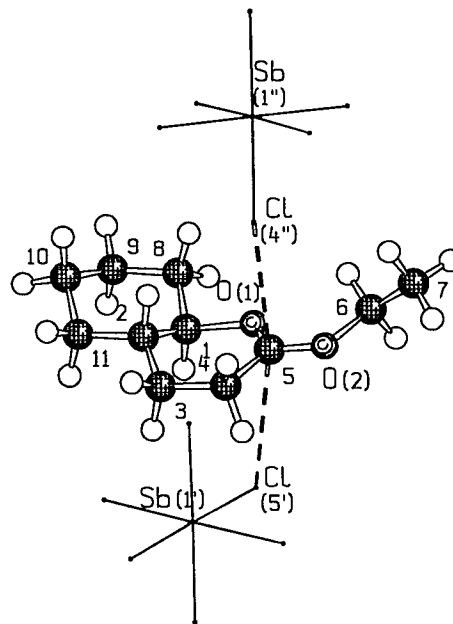
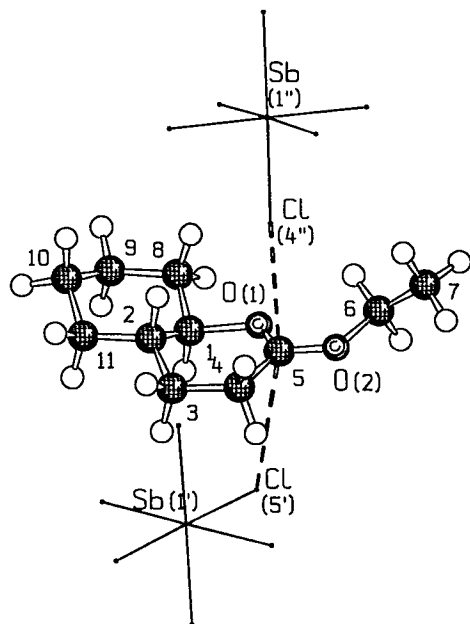
C11 H19 O2 1+, Cl6 Sb1 1-

R.F.Childs, M.D.Kostyk, C.J.L.Lock, M.Mahendran

Can.J.Chem., 69, 2024, 1991

JOPSUC Pca21 Z= 4 NATOMS= 39 DIFF AS=0 R-FACTOR= 0.035

19 C-H BONDS: S.D.= 0.123; MEAN = 1.047; RANGE: 0.794 - 1.300



C(5)	- Cl(4 ^{II})	3.287		diff = -0.163	strong
C(5)	- Cl(5 ^I)	3.766		diff = 0.316	weak

JUKWAN

bis(3,4-Dihydro-2(1H)-isoquinolinecarboxamidinium) sulfate
antihypertensive drug activity

2(C10 H14 N3 1+), O4 S1 2-

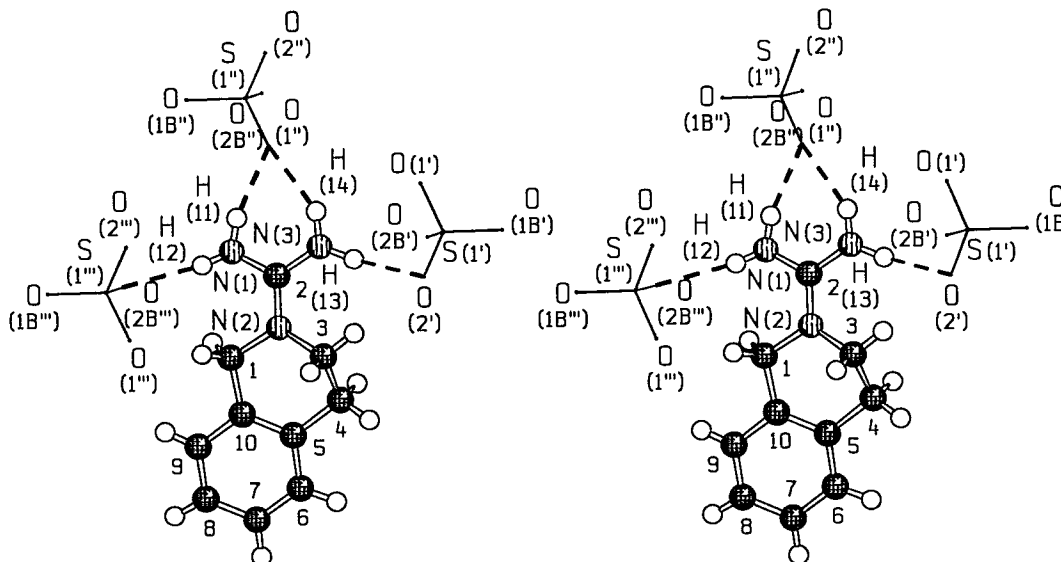
P.A.Bates, S.A.Islam, M.J.E.Sternberg

Acta Cryst., C (Cr.Str.Comm.), 49, 300, 1993

JUKWAN C2/c Z= 4 NATOMS= 32 DIFF AS=1 R-FACTOR= 0.042

REMARK CIF entry LI1020

10 C-H BONDS: S.D.= 0.054; MEAN = 0.988; RANGE: 0.901 - 1.073



H(11)	- O(1 ^{II})	2.002		diff = -0.718	(H bond)
H(12)	- O(2B ^{III})	2.091		diff = -0.629	(H bond)
O(2 ^I)	- H(13)	1.994		diff = -0.726	(H bond)
H(14)	- O(1 ^{II})	2.110		diff = -0.610	(H bond)

JUNVAP

Dichloromethyleneiminium hexachloroantimonate

C1 H2 Cl2 N1 1+, Cl6 Sb1 1-

R.Minkwitz, W.Meckstroth, H.Preut

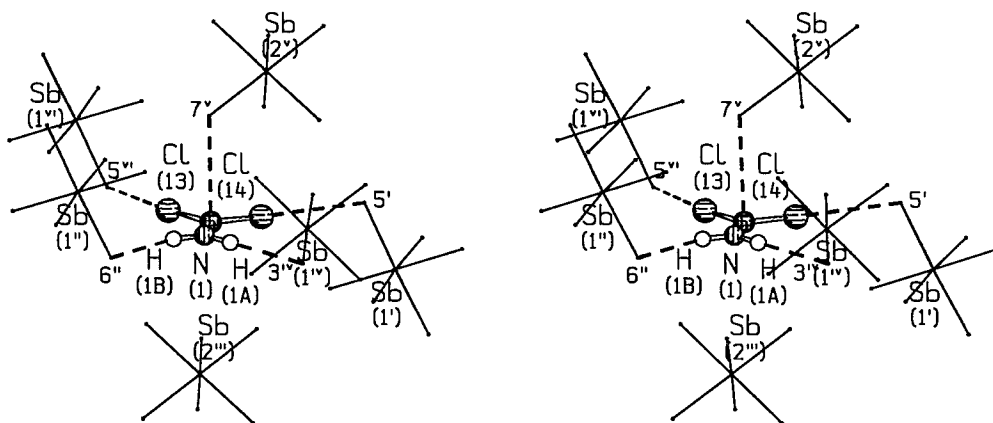
Z.Anorg.Allg.Chem., 617, 136, 1992

JUNVAP P21/c Z= 8 NATOMS= 22 DIFF AS=2 R-FACTOR= 0.042

REMARK CSD 56548 contains no further data for this compound

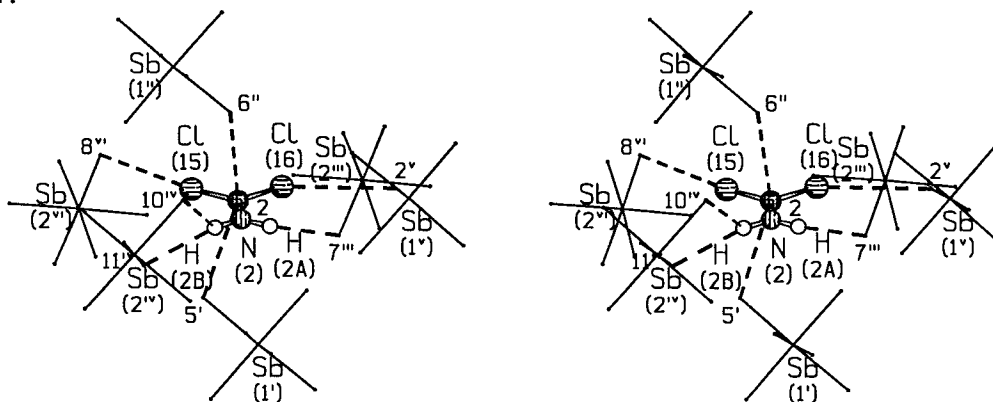
H atoms were added in the present paper.

cation #1:



H(1B)	- Cl(6 ^{II})	2.315		diff = -0.635	(H bond)
H(1A)	- Cl(3 ^{IV})	2.414		diff = -0.536	(H bond)
C(1)	- Cl(7 ^V)	3.436		diff = -0.014	
Cl(14)	- Cl(5 ^I)	3.264		diff = -0.236	strong
Cl(13)	- Cl(5 ^{VI})	3.648		diff = 0.148	

cation #2:



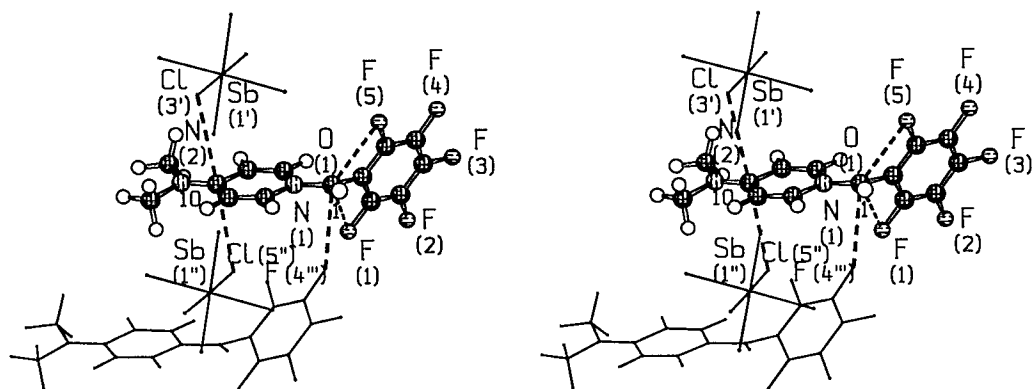
H(2A)	- Cl(7 ^{III})	2.287		diff = -0.663	(H bond)
H(2B)	- Cl(10 ^{IV})	2.639		diff = -0.311	(H bond)
H(2B)	- Cl(11 ^{IV})	2.579		diff = -0.371	(H bond)
C(2)	- Cl(6 ^{II})	3.511		diff = 0.061	
Cl(16)	- Cl(2 ^V)	3.631		diff = 0.131	
Cl(15)	- Cl(8 ^{VI})	3.325		diff = -0.175	strong
C(2)	- Cl(5 ^I)	3.597		diff = 0.147	

JUNVET

N-Pentafluorobenzoyl-4-dimethylaminopyridinium hexachloroantimonate
at -80 deg.C

C14 H10 F5 N2 O1 1+, Cl16 Sb1 1-
S.Hollenstein, C.Lohse, T.Laube
Croat.Chem.Acta, 65, 727, 1992

JUNVET P1 Z= 1 NATOMS= 39 DIFF AS=2 R-FACTOR= 0.029
10 C-H BONDS: S.D.= 0.002; MEAN = 1.080; RANGE: 1.076 - 1.084



Cl(5 ^{II})	- C(10)	3.290	diff = -0.160	strong
Cl(3 ^I)	- C(10)	3.383	diff = -0.067	
F(4 ^{III})	- C(1)	3.037	diff = -0.133	strong
C(1)	- F(1)	2.844	diff = -0.326	very strong
C(1)	- F(5)	2.800	diff = -0.370	very strong

JUXBEJ

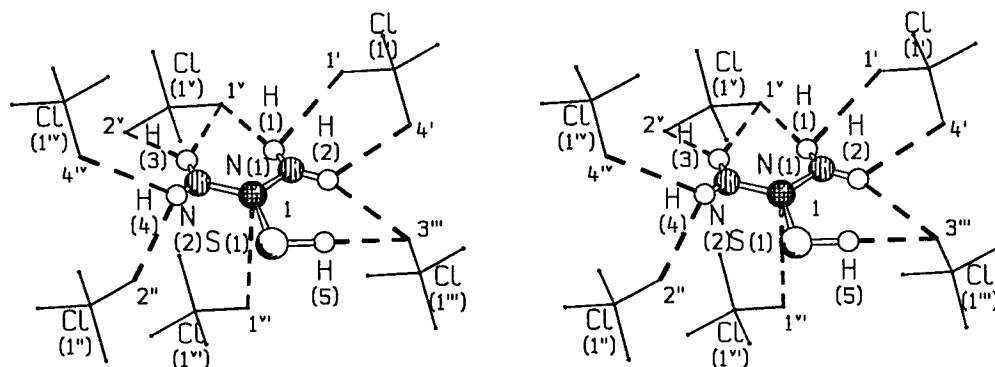
Thiourea hydrogen perchlorate
at -70 deg.C

C1 H5 N2 S1 1+, Cl1 O4 1-

Kh.M.Eskudero, V.M.Akimov, M.Yu.Antipin, S.V.Lindeman, Yu.T.Struchkov

Zh.Neorg.Khim., 37, 767, 1992

JUXBEJ P-1 Z= 2 NATOMS= 14 DIFF AS=1 R-FACTOR= 0.044



H(1)	- O(1 ^V)	2.142	diff = -0.578	(H bond)
O(2 ^{II})	- H(4)	2.354	diff = -0.366	(H bond)
O(3 ^{III})	- H(5)	2.249	diff = -0.471	(H bond)
O(4 ^I)	- H(2)	2.513	diff = -0.207	(H bond)
O(3 ^{III})	- H(2)	2.446	diff = -0.274	(H bond)
H(3)	- O(1 ^V)	2.482	diff = -0.238	(H bond)
H(3)	- O(2 ^V)	2.463	diff = -0.257	(H bond)
O(1 ^I)	- H(1)	2.774	diff = 0.054	(H bond)
O(4 ^{IV})	- H(4)	2.624	diff = -0.096	(H bond)
C(1)	- O(1 ^{VI})	3.384	diff = 0.164	

JUYYUX

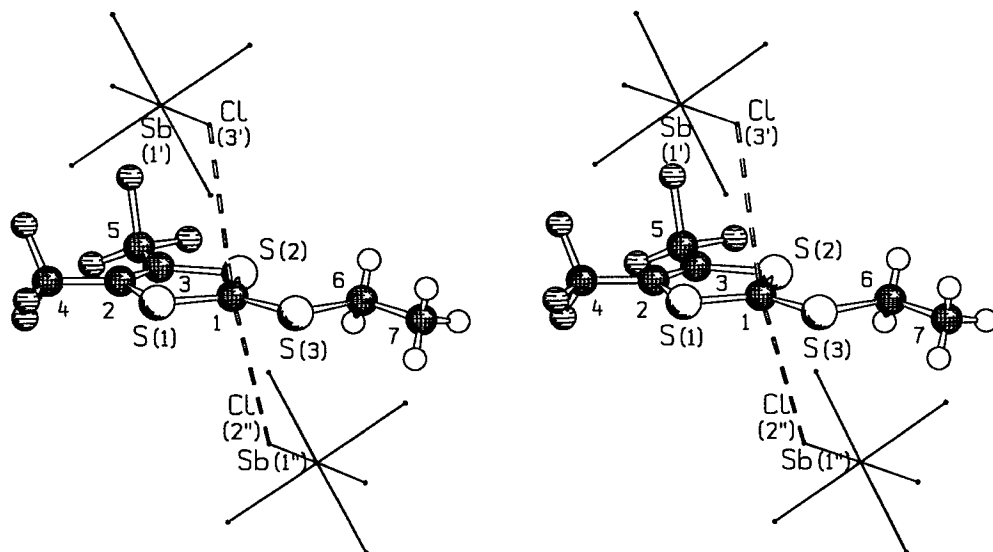
2-Ethylthio-4,5-bis(trifluoromethyl)-1,3-dithiolium hexachloroantimonate

C7 H5 F6 S3 1+, Cl6 Sb1 1-

M.Frasch, S.Mono, H.Pritzkow, W.Sundermeyer

Chem.Ber., 126, 273, 1993

JUYYUX P21/c Z= 4 NATOMS= 28 DIFF AS=2 R-FACTOR= 0.037
 REMARK CSD 56695 used
 DISORD One trifluoromethyl group is disordered
 5 C-H BONDS: S.D.= 0.051; MEAN = 0.913; RANGE: 0.818 - 0.950

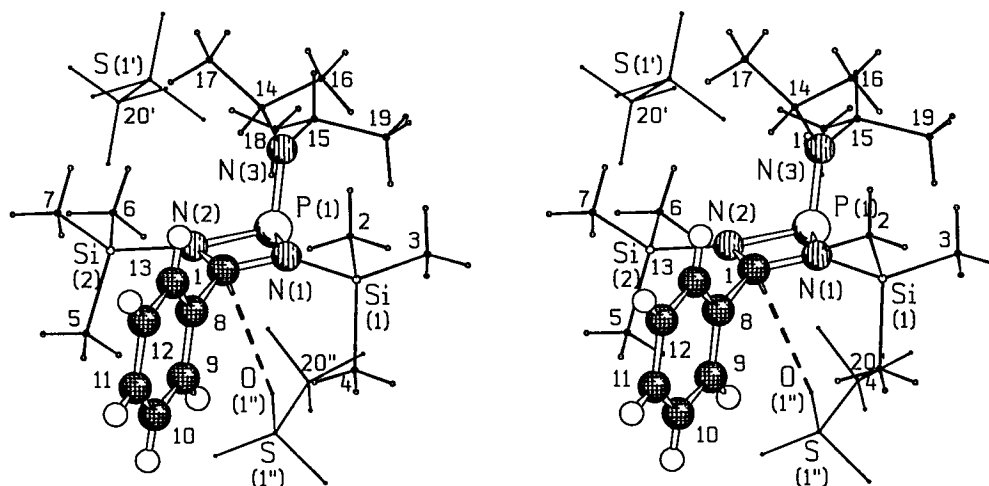


C(1)	- Cl(2 ^{II})	3.629	diff = 0.179
C(1)	- Cl(3 ^I)	3.722	diff = 0.272

KAZDEU

2-Di-isopropylamino-1,3-bis(trimethylsilyl)-4-phenyl-1,3-diaza-2-phosphetene
 trifluoromethanesulfonate
 C19 H37 N3 P1 Si2 1+, C1 F3 O3 S1 1-
 C. Roques, M.-R. Mazieres, J.-P. Majoral, M. Sanchez, J. Jaud
 Inorg. Chem., 28, 3931, 1989

KAZDEU P21/n Z= 4 NATOMS= 70 DIFF AS=3 R-FACTOR= 0.073
 37 C-H BONDS: S.D.= 0.003; MEAN = 0.970; RANGE: 0.955 - 0.978



C(1)	- O(1 ^{II})	3.375	diff = 0.155
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KECGOO

4-Amino-5-azatricyclo[5.5.0.0^{3,9}]dodec-4-ene-3,7-diol hydrochloride

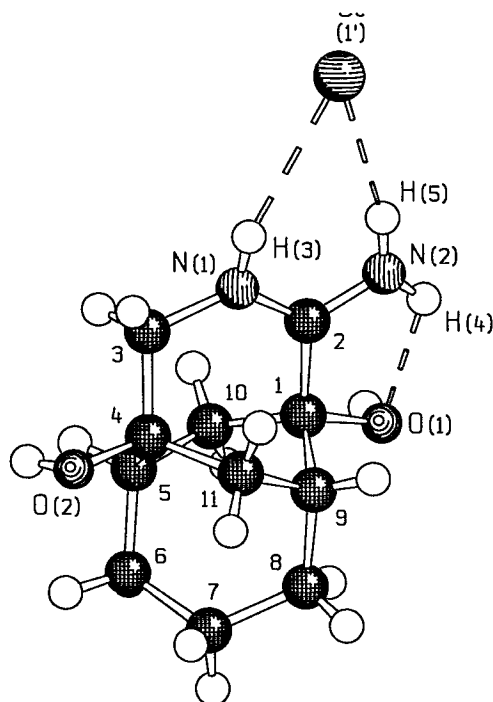
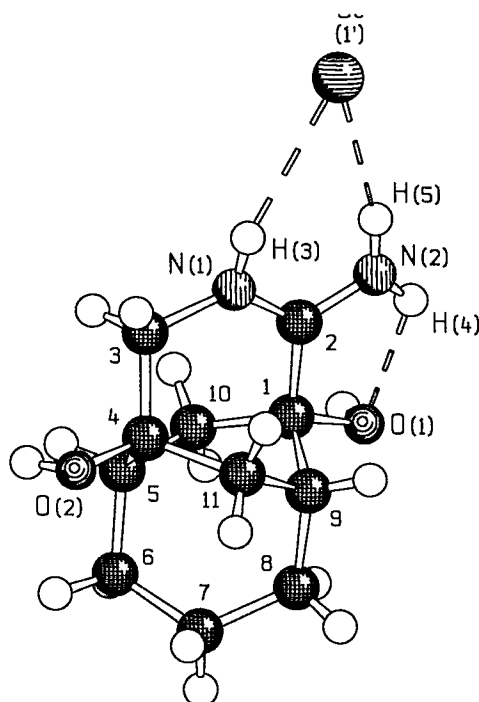
C11 H19 N2 O2 1+, Cl1 1-

Sungho Kim, R. Bishop, D. C. Craig, I. G. Dance, M. L. Scudder

J. Org. Chem., 55, 355, 1990

KECGOO P21 Z= 2 NATOMS= 35 DIFF AS=1 R-FACTOR= 0.024

14 C-H BONDS: S.D.= 0.029; MEAN = 0.979; RANGE: 0.928 - 1.024



H(3)	- Cl(1 ^I)	2.675		diff = -0.275	(H bond)
H(5)	- Cl(1 ^I)	2.336		diff = -0.614	(H bond)
O(1)	- H(4)	2.086		diff = -0.634	(H bond)

KESDER

3-Dimethyliminium-7-methylene-1,5-dimethyl-bicyclo(3.3.1)-nonane
trifluoromethanesulfonate

at -80 deg.C

C14 H24 N1 1+, C1 F3 O3 S1 1-

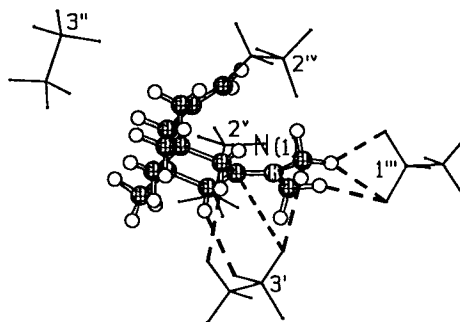
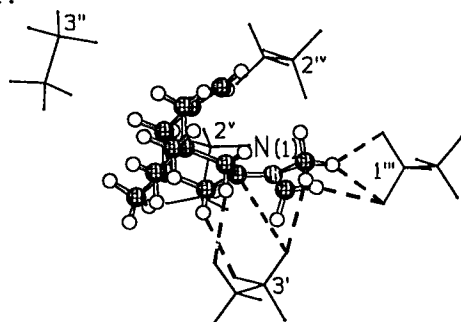
S. Hollenstein, T. Laube

Angew. Chem., Int. Ed. Engl., 29, 188, 1990

KESDER Pna21 Z= 12 NATOMS=141 DIFF AS=2 R-FACTOR= 0.047

72 C-H BONDS: S.D.= 0.047; MEAN = 1.066; RANGE: 0.842 - 1.161

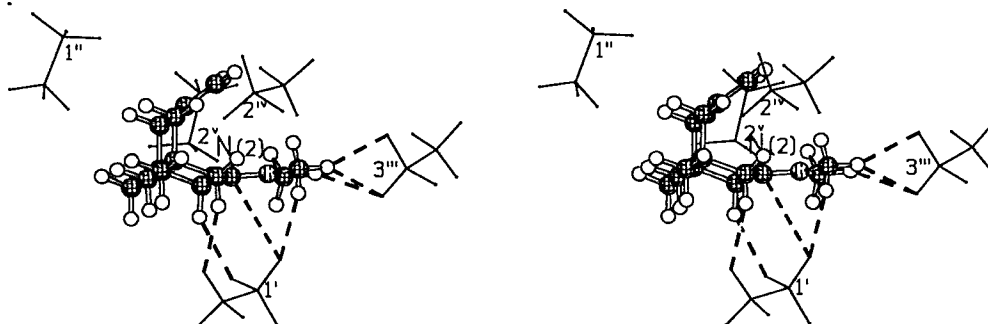
cation #1:



C(3)	- O(7 ^I)	3.345		diff = 0.125
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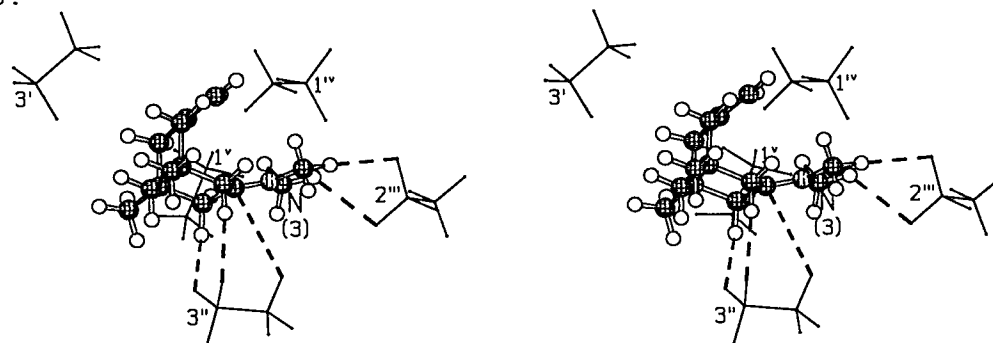
H(1)	- F(8 ^I)	2.662		diff = -0.008 (H bond)
H(3)	- O(9 ^I)	2.541		diff = -0.179 (H bond)
H(19)	- O(1 ^{III})	2.700		diff = -0.020 (H bond)
H(19)	- O(3 ^{III})	2.531		diff = -0.189 (H bond)
H(20)	- O(7 ^I)	2.659		diff = -0.061 (H bond)
H(22)	- O(1 ^{III})	2.405		diff = -0.315 (H bond)

cation #2:



H(25)	- F(2 ^I)	2.360		diff = -0.310 (H bond)
H(28)	- O(2 ^I)	2.424		diff = -0.296 (H bond)
H(43)	- O(7 ^{III})	2.618		diff = -0.102 (H bond)
H(43)	- O(8 ^{III})	2.365		diff = -0.355 (H bond)
H(44)	- O(1 ^I)	2.498		diff = -0.222 (H bond)
H(46)	- O(7 ^{III})	2.449		diff = -0.271 (H bond)
C(17)	- O(1 ^I)	3.381		diff = 0.161

cation #3:



H(67)	- O(6 ^{III})	2.538		diff = -0.182 (H bond)
H(70)	- O(5 ^{III})	2.681		diff = -0.039 (H bond)
H(49)	- O(8 ^{II})	2.518		diff = -0.202 (H bond)
H(52)	- O(9 ^{II})	2.328		diff = -0.392 (H bond)
C(31)	- F(7 ^{II})	3.470		diff = 0.300

The names of the anions I and II in the environment of cation #3 are interchanged in Fig. 31c of the manuscript.

KIBPIU

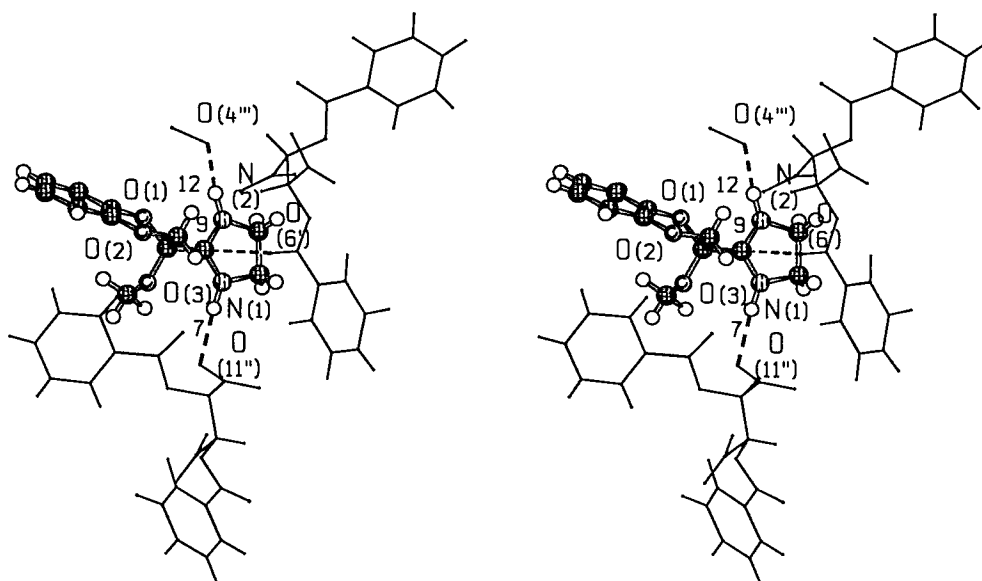
(+)-2-(2-Methoxy-2,3-dihydro-1,4-benzodioxin-2-yl)-4,5-dihydroimidazolium hydrogen dibenzoyltartrate methanol solvate

C12 H15 N2 O3 1+, C18 H13 O8 1-, C1 H4 O1

A.A.Freer, G.A.Sim

J.Chem.Soc., Perkin Trans.2, , 1717, 1990

KIBPIU P21 Z= 2 NATOMS= 72 DIFF AS=2 R-FACTOR= 0.043
25 C-H BONDS: S.D.= 0.081; MEAN = 0.957; RANGE: 0.764 - 1.159



O(6 ^I)	- C(9)	3.082		diff = -0.138	strong
H(7)	- O(11 ^{II})	1.998		diff = -0.722	(H bond)
O(4 ^{III})	- H(12)	1.765		diff = -0.955	(H bond)

KIBPOA

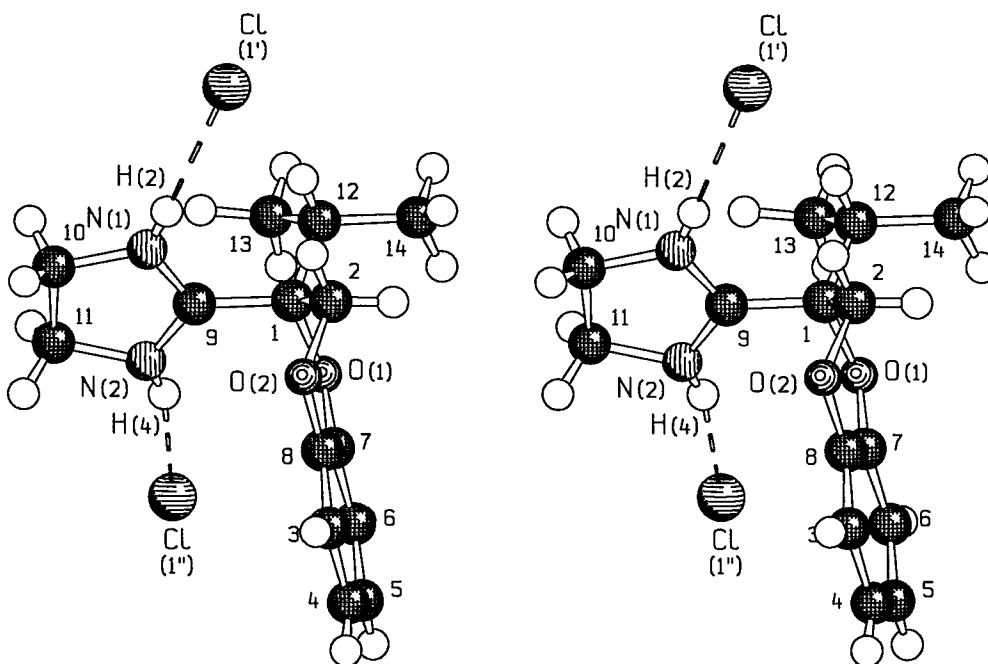
2-(2-Isopropyl-2,3-dihydro-1,4-benzodioxin-2-yl)-4,5-dihydroimidazolium chloride

C14 H19 N2 O2 1+, Cl1 1-

A.A.Freer, G.A.Sim

J.Chem.Soc., Perkin Trans.2, , 1717, 1990

KIBPOA P21/n Z= 4 NATOMS= 38 DIFF AS=2 R-FACTOR= 0.063
17 C-H BONDS: S.D.= 0.068; MEAN = 0.949; RANGE: 0.853 - 1.092



Cl(1 ^I)	- H(2)	2.369		diff = -0.581	(H bond)
H(4)	- Cl(1 ^{II})	2.359		diff = -0.591	(H bond)

KIBPUG

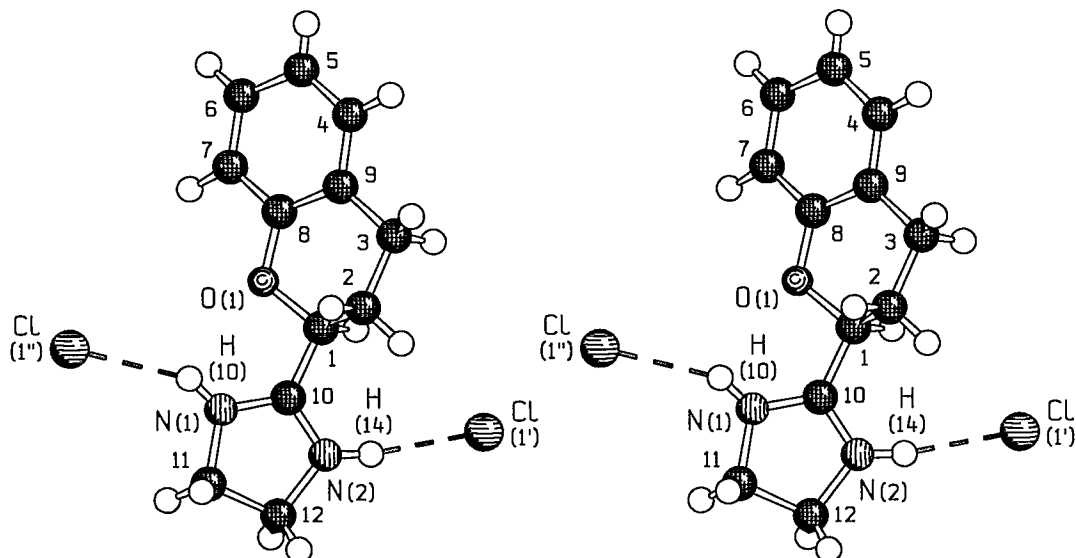
2-(2,3-Dihydro-1-benzopyran-2-yl)-4,5-dihydroimidazolium chloride

C12 H15 N2 O1 1+, Cl1 1-

A.A.Freer, G.A.Sim

J.Chem.Soc., Perkin Trans.2, , 1717, 1990

KIBPUG P-1 Z= 2 NATOMS= 31 DIFF AS=1 R-FACTOR= 0.051
 13 C-H BONDS: S.D.= 0.037; MEAN = 0.975; RANGE: 0.891 - 1.036



H(10)	- Cl(1'')	2.348	diff = -0.602 (H bond)
H(14)	- Cl(1')	2.239	diff = -0.711 (H bond)

KOHVOS

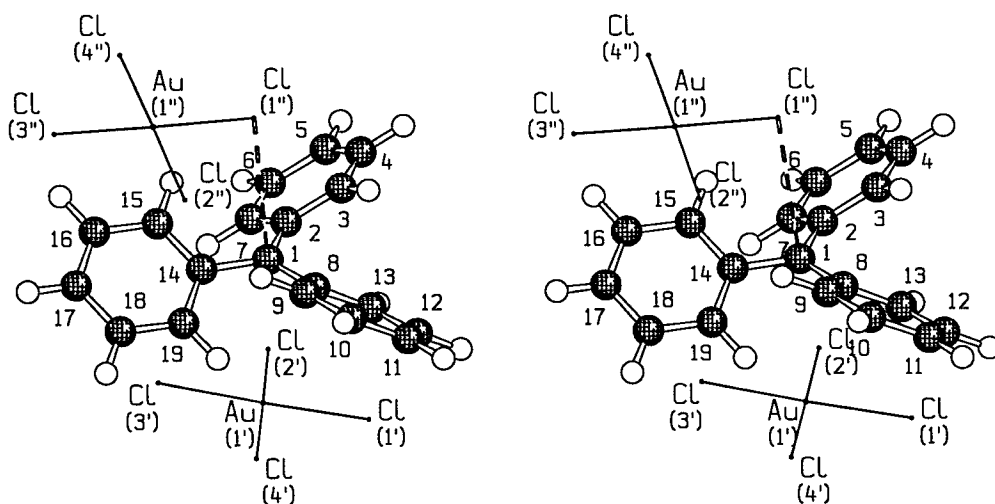
Triphenylmethylium tetrachloro-gold(iii)

C19 H15 1+, Au1 Cl4 1-

D.B.Dell'Amico, F.Calderazzo, A.Morvillo, G.Pelizzi, P.Robino

J.Chem.Soc., Dalton Trans., , 3009, 1991

KOHVOS P21/c Z= 4 NATOMS= 39 DIFF AS=3 R-FACTOR= 0.060
 15 C-H BONDS: S.D.= 0.000; MEAN = 1.080; RANGE: 1.079 - 1.080



C(1)	- Cl(1'')	3.650	diff = 0.200
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KOWGOS

1,2,3-tris(Dimethylamino)cyclopropenylum hexachloro-niobium(v)

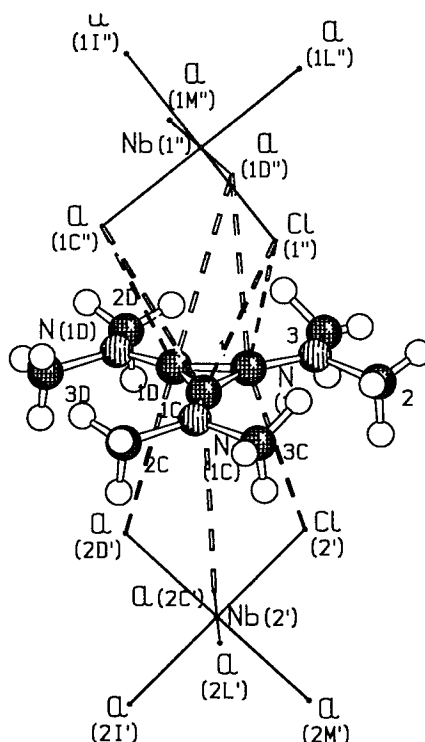
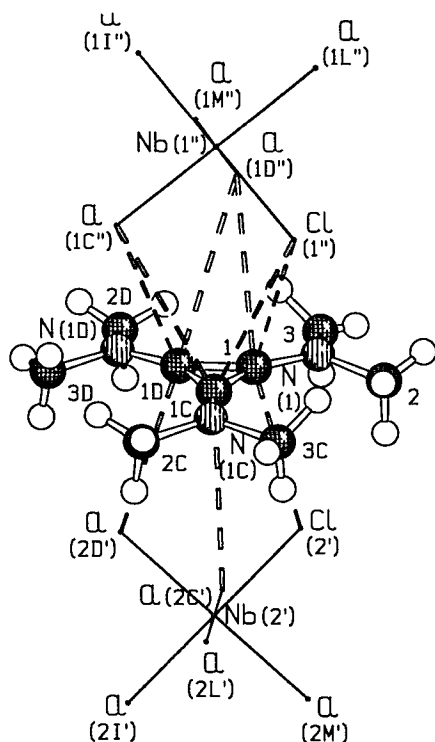
C9 H18 N3 1+, Cl6 Nb1 1-

H.N.Schafer, H.Burzlauff, A.M.H.Grimmeiss, R.Weiss

Acta Cryst., C (Cr.Str.Comm.), 48, 795, 1992

KOWGOS R-3 Z= 6 NATOMS= 44 DIFF AS=1 R-FACTOR= 0.025

18 C-H BONDS: S.D.= 0.134; MEAN = 0.937; RANGE: 0.666 - 1.090



Cl(1D ^{II})	- C(1)	3.619		diff = 0.169
Cl(1 ^{II})	- C(1C)	3.619		diff = 0.169
Cl(1C ^{II})	- C(1D)	3.619		diff = 0.169
Cl(1 ^{II})	- C(1)	3.739		diff = 0.289
Cl(2 ^I)	- C(1)	3.736		diff = 0.286
Cl(1C ^{II})	- C(1C)	3.739		diff = 0.289
Cl(2C ^I)	- C(1C)	3.736		diff = 0.286
Cl(1D ^{II})	- C(1D)	3.739		diff = 0.289
Cl(2D ^I)	- C(1D)	3.736		diff = 0.286

KOWGUY

1,2,3-tris(Dimethylamino)cyclopropenylum hexachloro-tantalum(v)

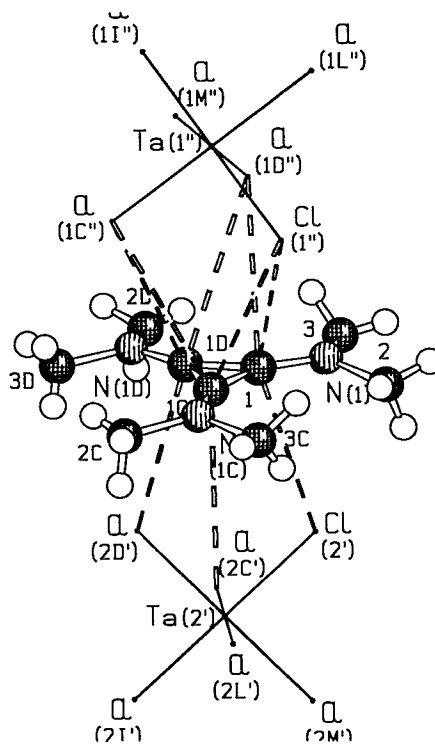
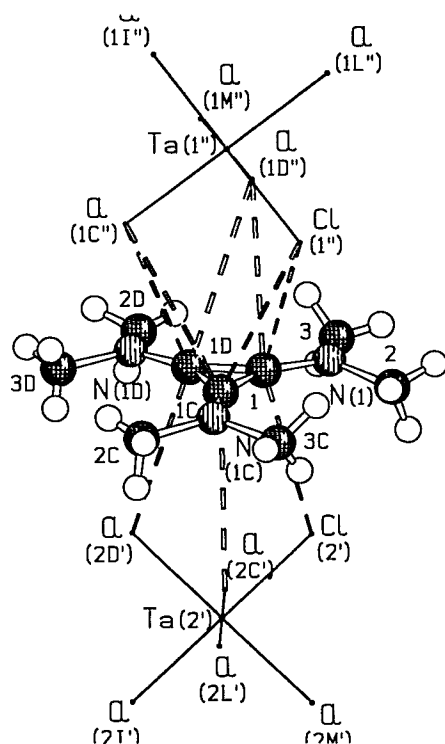
C9 H18 N3 1+, Cl6 Ta1 1-

H.N.Schafer, H.Burzlauff, A.M.H.Grimmeiss, R.Weiss

Acta Cryst., C (Cr.Str.Comm.), 48, 795, 1992

KOWGUY R-3 Z= 6 NATOMS= 44 DIFF AS=1 R-FACTOR= 0.023

18 C-H BONDS: S.D.= 0.089; MEAN = 0.883; RANGE: 0.769 - 0.995



Cl(1D ^{II})	- C(1)	3.626	<i>diff</i> = 0.176
Cl(1 ^{II})	- C(1C)	3.626	<i>diff</i> = 0.176
Cl(1C ^{II})	- C(1D)	3.627	<i>diff</i> = 0.177
Cl(1 ^{II})	- C(1)	3.745	<i>diff</i> = 0.295
Cl(2 ^I)	- C(1)	3.744	<i>diff</i> = 0.294
Cl(1C ^{II})	- C(1C)	3.745	<i>diff</i> = 0.295
Cl(2C ^I)	- C(1C)	3.744	<i>diff</i> = 0.294
Cl(1D ^{II})	- C(1D)	3.745	<i>diff</i> = 0.295
Cl(2D ^I)	- C(1D)	3.744	<i>diff</i> = 0.294

KUBLUO

tris(2,6-Dimethoxyphenyl)methyl tetrafluoroborate

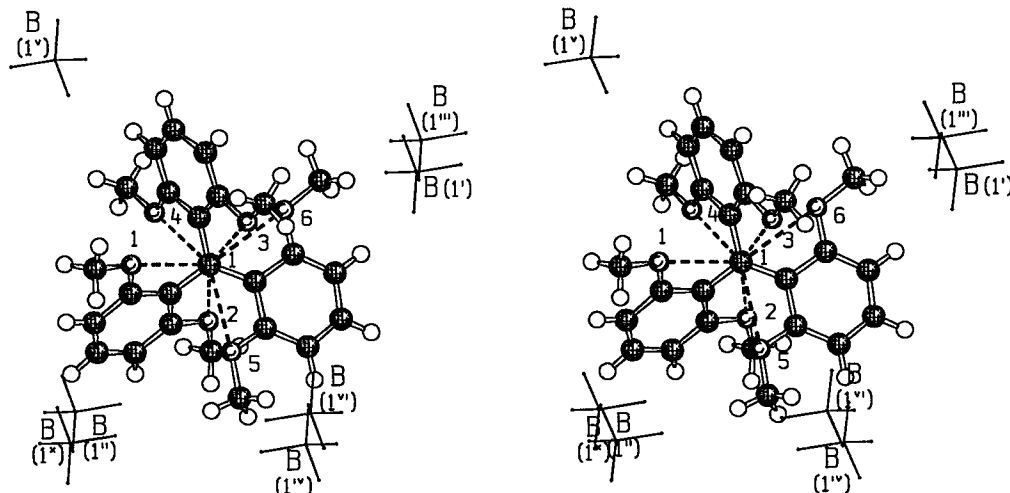
at 110 deg.K

C25 H27 O6 1+, B1 F4 1-

B.Kahr, J.E.Jackson, D.L.Ward, Sei-Hum Jang, J.F.Blount

Acta Cryst., B (Str.Sci.), 48, 324, 1992

KUBLUO P-1 Z= 2 NATOMS= 63 DIFF AS=1 R-FACTOR= 0.056
 27 C-H BONDS: S.D.= 0.012; MEAN = 1.005; RANGE: 0.985 - 1.029



C(1)	- O(1)	2.771	diff = -0.449	very strong
C(1)	- O(2)	2.769	diff = -0.451	very strong
C(1)	- O(3)	2.758	diff = -0.462	very strong
C(1)	- O(4)	2.757	diff = -0.463	very strong
C(1)	- O(5)	2.776	diff = -0.444	very strong
C(1)	- O(6)	2.779	diff = -0.441	very strong

LAFMEK

Bromochloromethyleneiminium hexachloro-antimony

C1 H2 Br1 Cl1 N1 1+, Cl6 Sb1 1-

R.Minkwitz, W.Meckstroth, H.Preut

Z.Naturforsch., Teil B, 48, 19, 1993

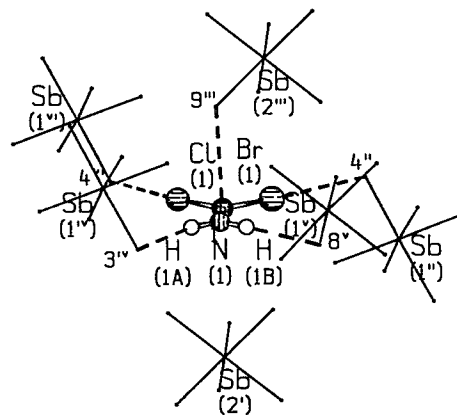
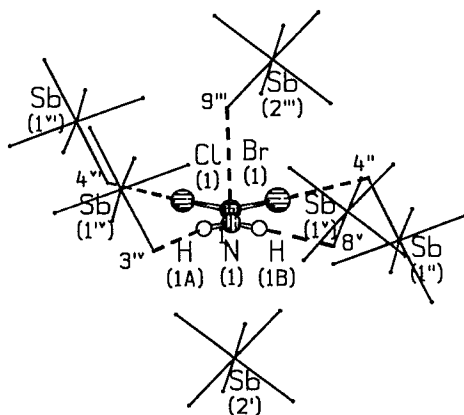
LAFMEK P21/c Z= 8 NATOMS= 22 DIFF AS=2 R-FACTOR= 0.038

REMARK CSD 56551 duplicates publication

DISORD One of the cations is disordered

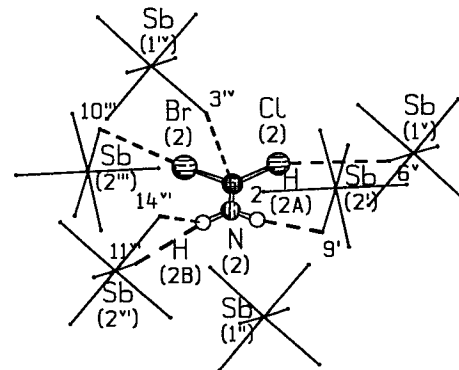
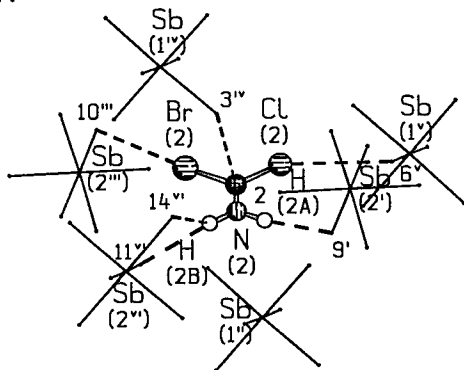
H atoms were added in the present paper.

cation #1:



H(1A)	- Cl(3 ^{IV})	2.314		diff = -0.636	(H bond)
H(1B)	- Cl(8 ^V)	2.437		diff = -0.513	(H bond)
C(1)	- Cl(9 ^{III})	3.487		diff = 0.037	
Cl(1)	- Cl(4 ^{VI})	3.532		diff = 0.032	
Br(1)	- Cl(4 ^{II})	3.219		diff = -0.381	very strong

cation #2:



H(2A)	- Cl(9 ^I)	2.282		diff = -0.668	(H bond)
H(2B)	- Cl(11 ^{VI})	2.630		diff = -0.320	(H bond)
H(2B)	- Cl(14 ^{VI})	2.583		diff = -0.367	(H bond)
C(2)	- Cl(3 ^{IV})	3.553		diff = 0.103	
Br(2)	- Cl(10 ^{III})	3.268		diff = -0.332	very strong
Cl(2)	- Cl(6 ^V)	3.568		diff = 0.068	

LALLOZ

2-Methylimidazolium hexachloro-niobium(v)

at 200 deg.K

C4 H7 N2 1+, Cl6 Nb1 1-

B.Therrien, A.L.Beauchamp

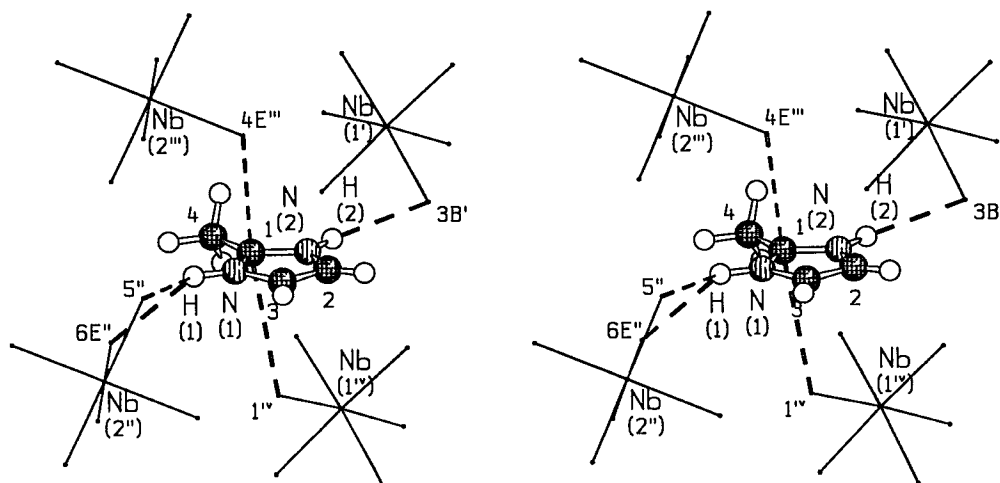
Acta Cryst., C (Cr.Str.Comm.), 49, 1303, 1993

LALLOZ C2/c Z= 8 NATOMS= 27 DIFF AS=2 R-FACTOR= 0.030

REMARK CIF entry CD1013

5 C-H BONDS: S.D.= 0.089; MEAN = 1.006; RANGE: 0.892 - 1.082

H(1) and H(2) were newly computed in the present paper.



Cl(5 ^{II})	- H(1)	2.587		diff = -0.363	(H bond)
Cl(6E ^{II})	- H(1)	2.619		diff = -0.331	(H bond)
Cl(3B ^I)	- H(2)	2.548		diff = -0.402	(H bond)
C(1)	- Cl(4E ^{III})	3.517		diff = 0.067	
C(1)	- Cl(1 ^{IV})	3.478		diff = 0.028	

MACPRP10

1,2,3-tris(Dimethylamino)cyclopropenium perchlorate

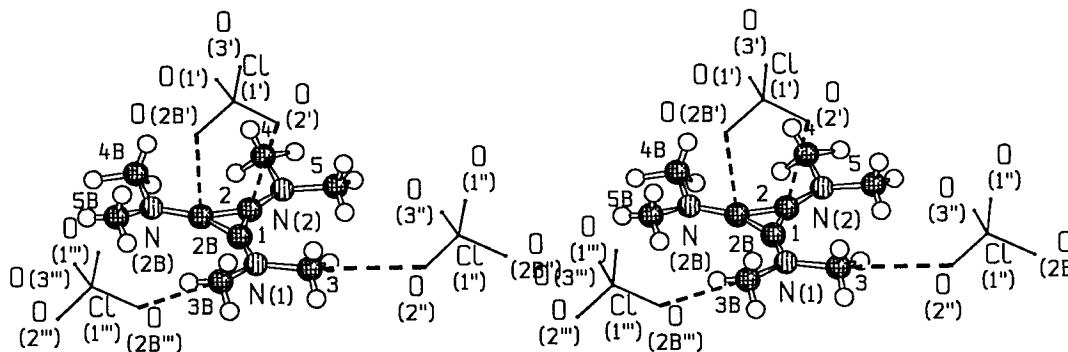
C9 H18 N3 1+, Cl1 O4 1-

A.T.Ku, M.Sundaralingam

J.Am.Chem.Soc., 94, 1688, 1972

MACPRP10 Pnma Z= 4 NATOMS= 35 DIFF AS=0 R-FACTOR= 0.076

18 C-H BONDS: S.D.= 0.104; MEAN = 0.941; RANGE: 0.821 - 1.156



O(2 ^I)	- C(2)	3.160		diff = -0.060	
C(3)	- O(2 ^{II})	3.100		diff = -0.120	strong
O(2B ^I)	- C(2B)	3.160		diff = -0.060	
C(3B)	- O(2B ^{III})	3.100		diff = -0.120	strong

MALLPC

1,1,3,3-Tetra(dimethylamino)allyl perchlorate

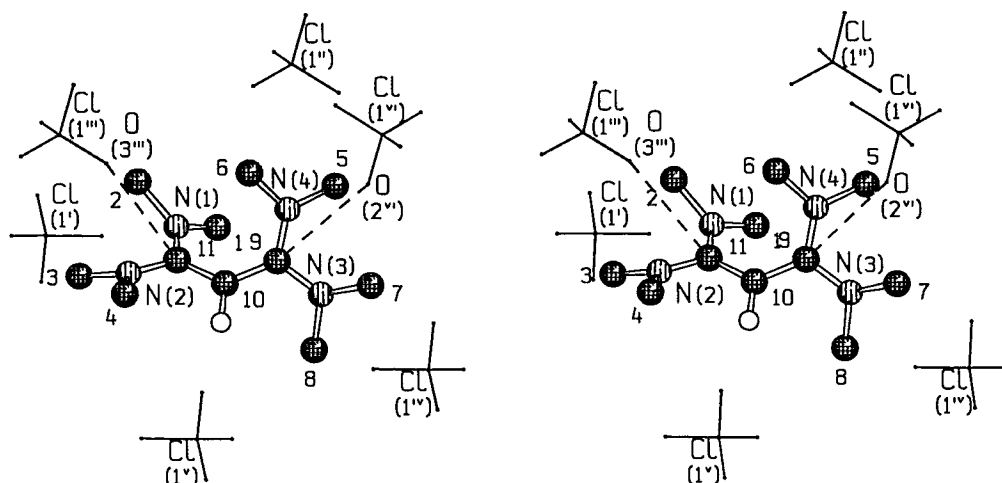
C11 H25 N4 1+, Cl1 O4 1-

E.Oeser

Chem.Ber., 107, 627, 1974

MALLPC P21/c Z= 4 NATOMS= 20 DIFF AS=2 R-FACTOR= 0.104

H atom at C(10) was added in the present paper.



C(11)	- O(3 ^{III})	3.972		diff = 0.752	very weak
C(9)	- O(2 ^{VI})	4.136		diff = 0.916	very weak

MEGUAN

Methylguanidinium nitrate

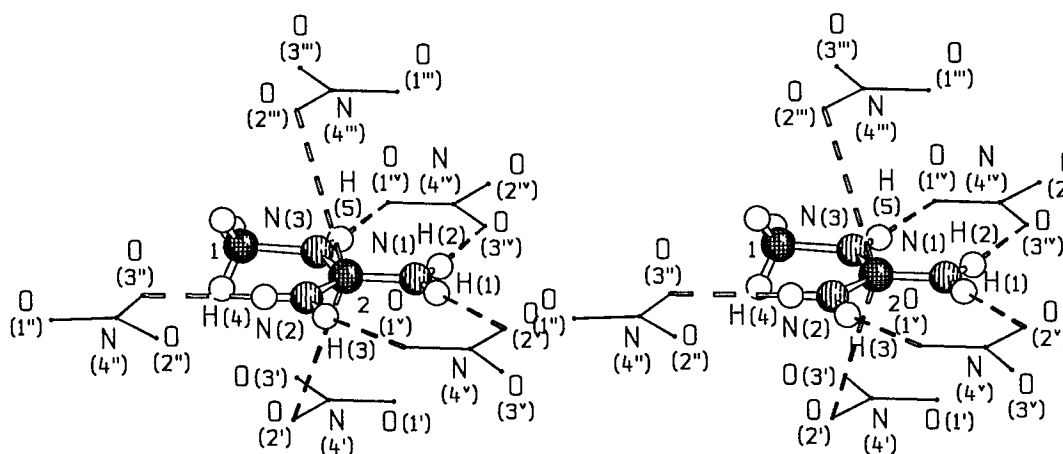
C2 H8 N3 1+, N1 O3 1-

R.M.Curtis, R.A.Pasternak

Acta Crystallogr., 8, 675, 1955

MEGUAN Prma Z= 4 NATOMS= 17 PHOT AS=2 R-FACTOR= 0.000

3 C-H BONDS: S.D.= 0.001; MEAN = 0.897; RANGE: 0.896 - 0.898



H(1)	- O(2 ^V)	2.179		diff = -0.541	(H bond)
H(2)	- O(3 ^{IV})	2.213		diff = -0.507	(H bond)
H(3)	- O(1 ^V)	2.127		diff = -0.593	(H bond)
H(4)	- O(3 ^{II})	2.295		diff = -0.425	(H bond)
H(5)	- O(1 ^{IV})	2.094		diff = -0.626	(H bond)
C(2)	- O(2 ^I)	3.418		diff = 0.198	
C(2)	- O(2 ^{III})	3.418		diff = 0.198	

MOCFSB10

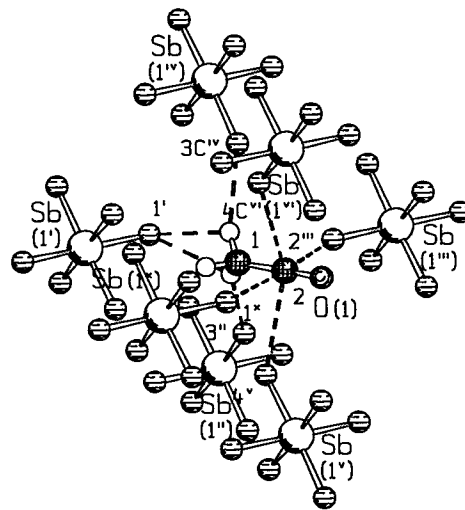
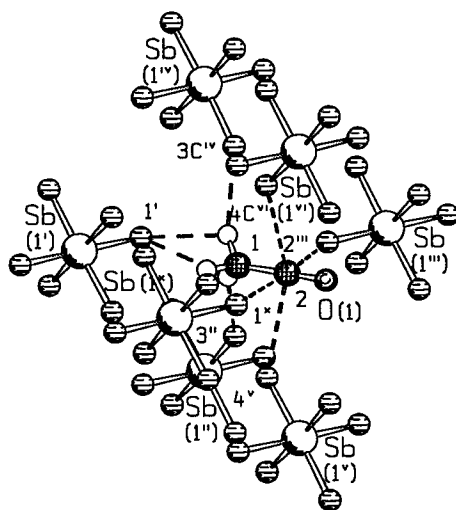
Methyloxocarbenium hexafluoroantimonate

C2 H3 O1 1+, F6 Sb1 1-

F.P.Boer

J. Am. Chem. Soc., 90, 6706, 1968

MOCFSB10 P21/m Z= 2 NATOMS= 13 PHOT AS=3 R-FACTOR= 0.056
 3 C-H BONDS: S.D.= 0.057; MEAN = 0.926; RANGE: 0.846 - 0.966



C(2)	- F(2 ^{III})	2.638	diff = -0.532	extremely strong
C(2)	- F(4 ^V)	2.724	diff = -0.446	very strong
C(2)	- F(4C ^{VI})	2.724	diff = -0.446	very strong
C(2)	- F(1 ^X)	2.773	diff = -0.397	very strong
H(2)	- F(1 ^I)	2.647	diff = -0.023	(H bond)
H(2)	- F(3 ^{II})	2.335	diff = -0.335	(H bond)
H(2C)	- F(1 ^I)	2.647	diff = -0.023	(H bond)
H(2C)	- F(3C ^{IV})	2.335	diff = -0.335	(H bond)

MPOCSB

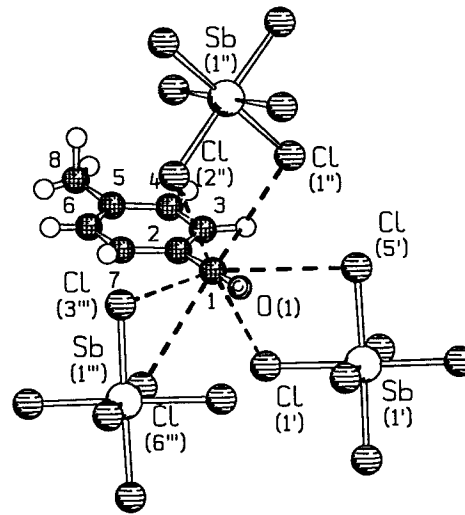
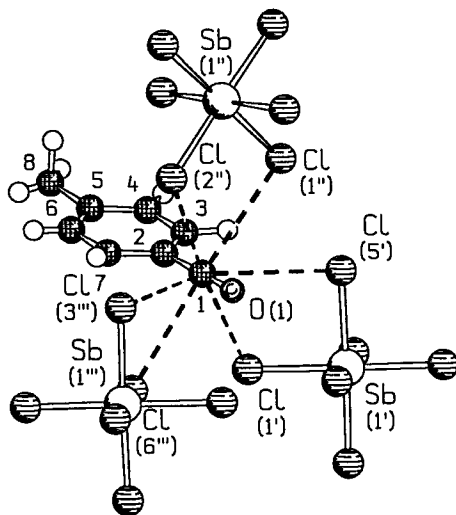
4-Methylphenyl-oxocarbonium hexachloroantimonate

C8 H7 O1 1+, Cl6 Sb1 1-

B. Chevrier, J.-M. Le Carpentier, R. Weiss

J. Am. Chem. Soc., 94, 5718, 1972

MPOCSB P21/c Z= 4 NATOMS= 23 DIFF AS=0 R-FACTOR= 0.042
 7 C-H BONDS: S.D.= 0.091; MEAN = 0.989; RANGE: 0.812 - 1.135



C(1)	- Cl(1 ^I)	3.375	diff = -0.075
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C(1)	- Cl(5 ^I)	3.718		diff = 0.268	
C(1)	- Cl(1 ^{II})	3.410		diff = -0.040	
C(1)	- Cl(2 ^{II})	3.298		diff = -0.152	strong
C(1)	- Cl(3 ^{III})	3.814		diff = 0.364	weak
C(1)	- Cl(6 ^{III})	3.321		diff = -0.129	strong

MTDXYL

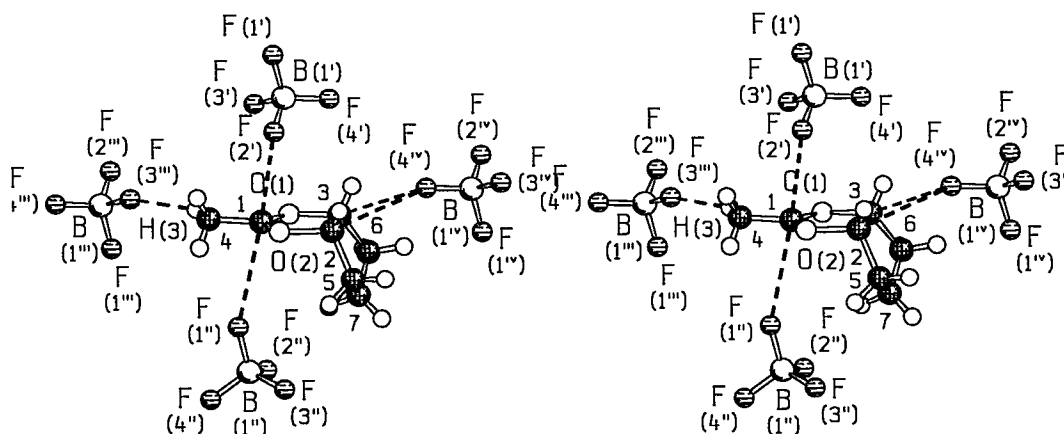
Endo-2-Methyl-cis-4,5-trimethylene-1,3-dioxolan-2-ylum tetrafluoroborate

C7 H11 O2 1+, B1 F4 1-

H. Paulsen, E. Schüttelpeiz

Chem. Ber., 112, 3214, 1979

MTDXYL P21/c Z= 4 NATOMS= 25 DIFF AS=1 R-FACTOR= 0.082
 11 C-H BONDS: S.D.= 0.079; MEAN = 0.948; RANGE: 0.814 - 1.106



C(1)	- F(2 ^I)	2.696		diff = -0.474	very strong
C(1)	- F(1 ^{II})	3.113		diff = -0.057	
C(2)	- F(4 ^{IV})	2.962		diff = -0.208	strong
C(3)	- F(4 ^{IV})	3.209		diff = 0.039	
H(3)	- F(3 ^{III})	2.655		diff = -0.015	(H bond)

MTDXYP

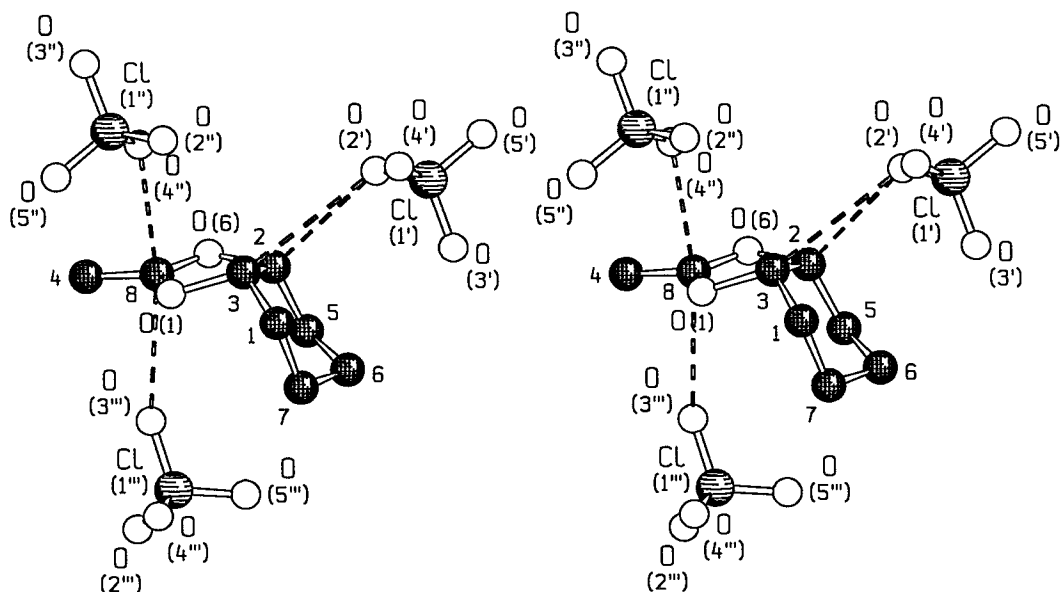
2-Methyl-4,5-tetramethylene-1,3-dioxolan-2-ylum perchlorate

C8 H13 O2 1+, Cl1 O4 1-

H. Paulsen, R. Dammeyer

Chem. Ber., 109, 605, 1976

MTDXYP P21/c Z= 4 NATOMS= 15 DIFF AS=1 R-FACTOR= 0.067
 REMARK ALL HYDROGENS REMOVED, THEY GIVE STRANGE GEOMETRY



C(8)	- O(4 ^{II})	2.768		diff = -0.452	very strong
C(8)	- O(3 ^{III})	3.086		diff = -0.134	strong
C(2)	- O(2 ^I)	3.186		diff = -0.034	
C(3)	- O(2 ^I)	3.252		diff = 0.032	

OXLCLI

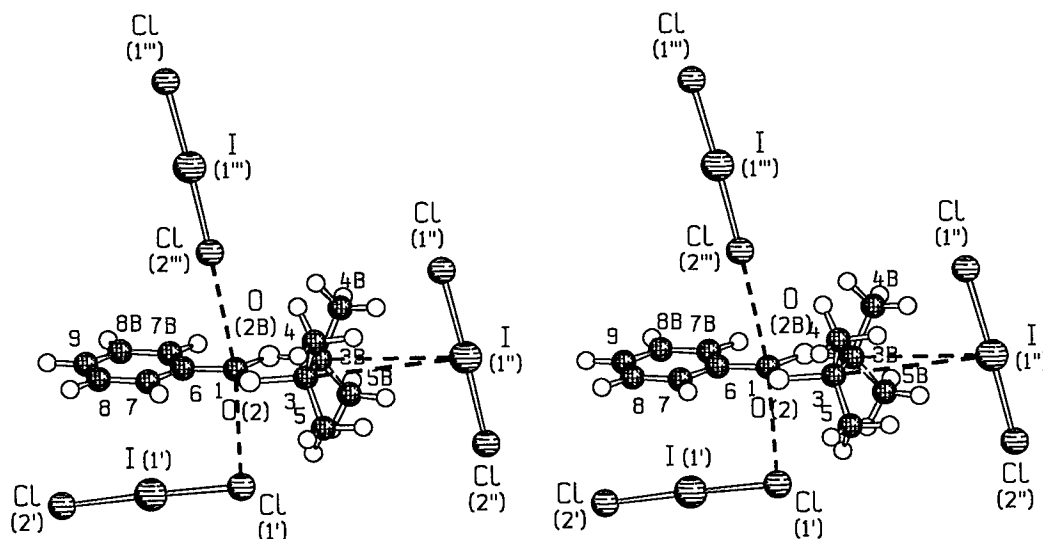
4,4,5,5-Tetramethyl-2-phenyl-1,3-dioxolan-2-ylum dichloro-iodate(i)

C13 H17 O2 1+, Cl2 I1 1-

M.R.Caira, J.F.de Wet

Acta Crystallogr., Sect. B, 37, 709, 1981

OXLCLI Pnma Z= 4 NATOMS= 35 DIFF AS=3 R-FACTOR= 0.039
17 C-H BONDS: S.D.= 0.003; MEAN = 1.078; RANGE: 1.073 - 1.082



C(1)	- Cl(1 ^I)	3.420		diff = -0.030	
C(1)	- Cl(2 ^{III})	3.407		diff = -0.043	
C(3)	- I(1 ^{II})	4.407		diff = 0.727	very weak
C(3B)	- I(1 ^{II})	4.407		diff = 0.727	very weak

PCBTEC10

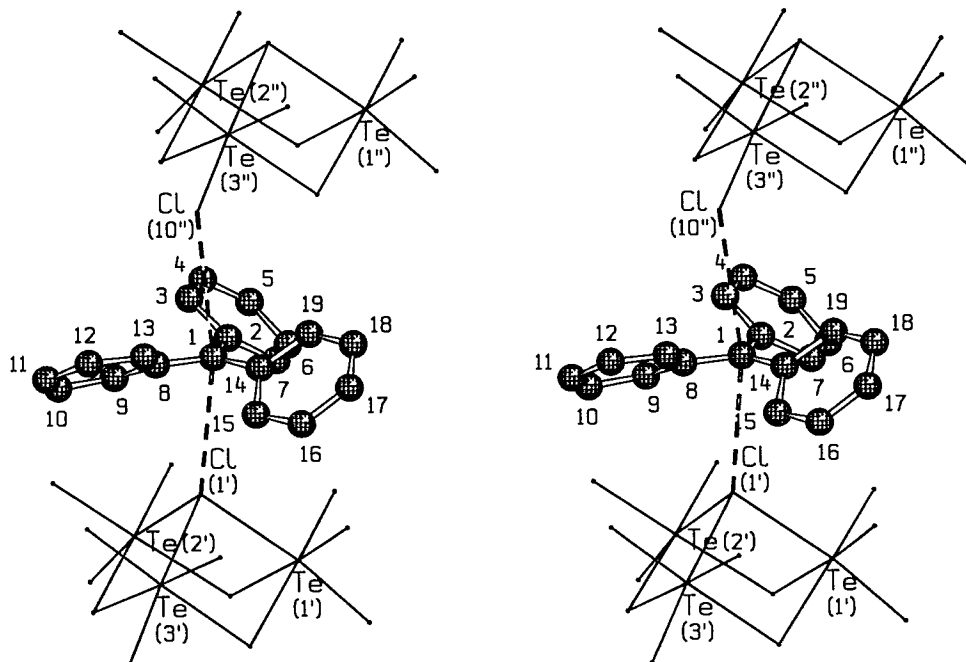
Triphenylmethyl tridecachloro-tri-tellurium

C19 H15 1+, Cl13 Te3 1-

B.Krebs, V.Paulat

Z.Naturforsch., Teil B, 34, 900, 1979

PCBTEC10 P21/c Z= 4 NATOMS= 35 DIFF AS=0 R-FACTOR= 0.065



Cl(1 ^I)	- C(1)	3.480	diff = 0.030	
Cl(10 ^{II})	- C(1)	3.918	diff = 0.468	weak

PCCLSB

tris(Trichlorophosphazeno)-carbenium hexachloro-antimony

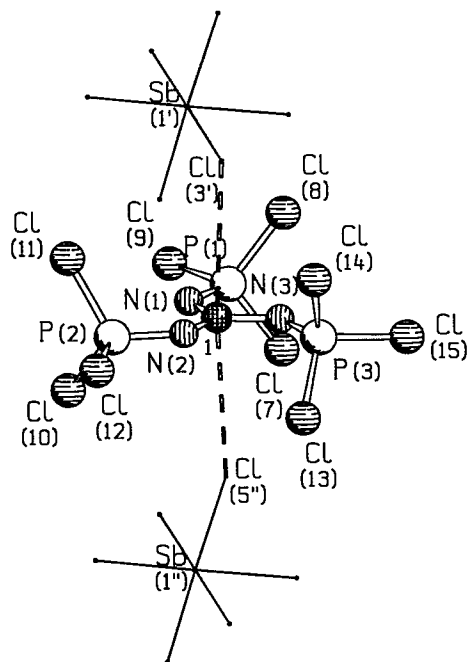
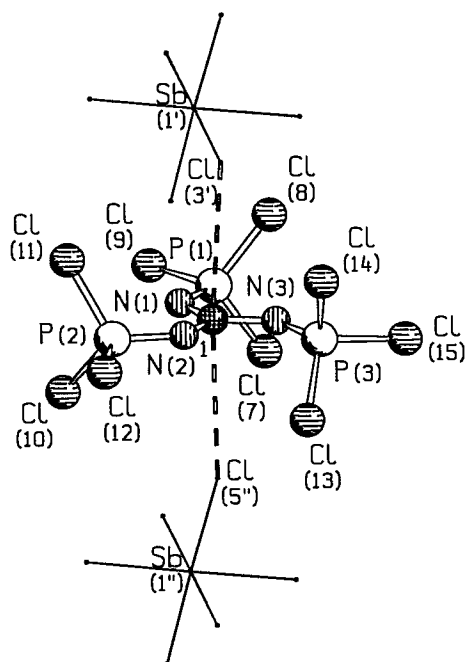
C1 C19 N3 P3 1+, Cl6 Sb1 1-

U.Müller

Z.Anorg.Allg.Chem., 463, 117, 1980

PCCLSB P-1 Z= 0 NATOMS= 23 DIFF AS=0 R-FACTOR= 0.027

ERROR Cl(11) y 0.3470, not 0.0347



Cl(3 ^I)	- C(1)	3.522	diff = 0.072
Cl(5 ^{II})	- C(1)	3.614	diff = 0.164

PHRPC10

sym-Triphenylcyclopropenium perchlorate

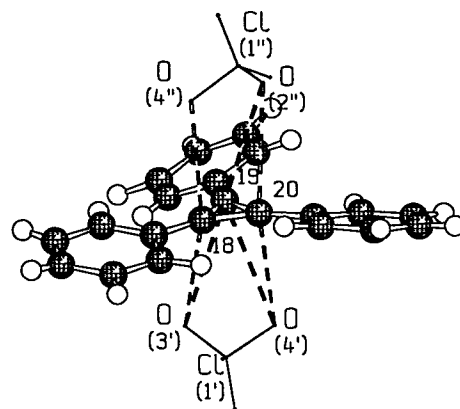
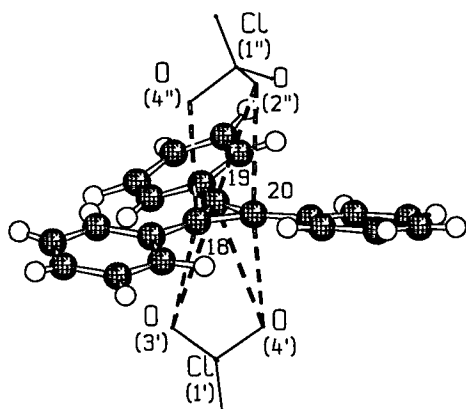
C21 H15 1⁺, Cl1 O4 1⁻

M.Sundaralingam, L.H.Jensen

J.Am.Chem.Soc., 88, 198, 1966

PHRPC10 P21/c Z= 4 NATOMS= 41 DENS AS=0 R-FACTOR= 0.075

15 C-H BONDS: S.D.= 0.085; MEAN = 0.981; RANGE: 0.845 - 1.155



C(18)	- O(4 ^{II})	3.093	diff = -0.127	strong
C(19)	- O(2 ^{II})	3.131	diff = -0.089	
C(20)	- O(4 ^I)	3.155	diff = -0.065	
C(20)	- O(2 ^{II})	3.191	diff = -0.029	
C(18)	- O(3 ^I)	3.275	diff = 0.055	
C(19)	- O(3 ^I)	3.287	diff = 0.067	
C(19)	- O(4 ^I)	3.269	diff = 0.049	

PMDXLP

2,4,4,5,5-Pentamethyl-1,3-dioxolan-2-ylum perchlorate

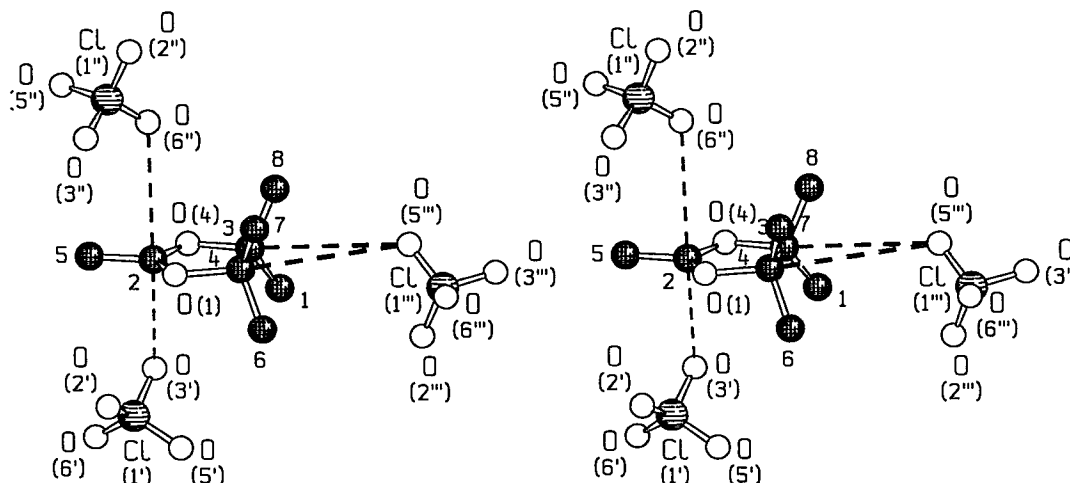
C8 H15 O2 1+, Cl1 O4 1-

H. Paulsen, R. Dammeyer

Chem. Ber., 106, 2324, 1973

PMDXLP Pbca Z= 8 NATOMS= 15 DIFF AS=3 R-FACTOR= 0.099

ERROR In Table 1, z(C6) should read 0.5385 rather than 0.3585; y(C6) should read 0.2178 rather than 0.2878



C(2)	- O(6 ^{II})	3.279		diff = 0.059	
C(2)	- O(3 ^I)	3.022		diff = -0.198	strong
C(3)	- O(5 ^{III})	3.829		diff = 0.609	very weak
C(4)	- O(5 ^{III})	3.997		diff = 0.777	very weak

SASNOP

1,4-Dimethylnaphthlene tropylium hexafluoroantimonate

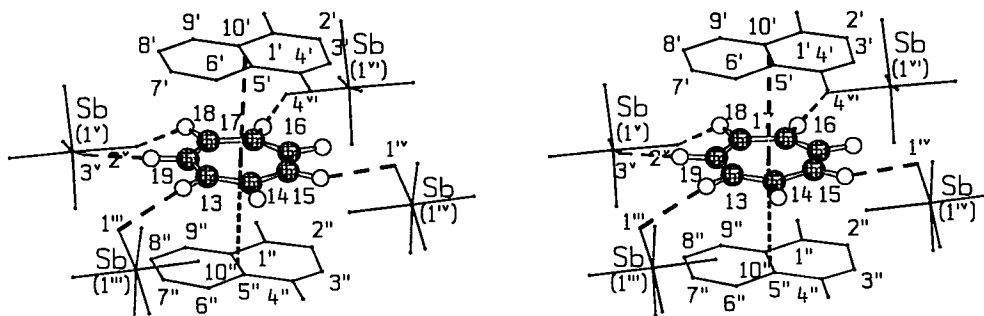
C12 H12, C7 H7 1+, F6 Sb1 1-

Y. Takahashi, S. Sankararaman, J. K. Kochi

J. Am. Chem. Soc., 111, 2954, 1989

SASNOP P21 Z= 2 NATOMS= 26 DIFF AS=3 R-FACTOR= 0.027

H atoms and centers of the tropylium ring [Z(1)] and of the naphthalene ring systems [Z(2), top; Z(3), bottom] were added in the present paper.



F(1 ^{III})	- H(13)	2.428		diff = -0.242	(H bond)
F(1 ^{IV})	- H(15)	2.288		diff = -0.382	(H bond)
F(4 ^{VI})	- H(17)	2.341		diff = -0.329	(H bond)
F(2 ^V)	- H(18)	2.517		diff = -0.153	(H bond)

F(3 ^V)	- H(19)	2.661	<i>diff</i> = -0.009 (H bond)
Z(1)	- Z(2)	3.390	
Z(1)	- Z(3)	3.384	

SAXCAV

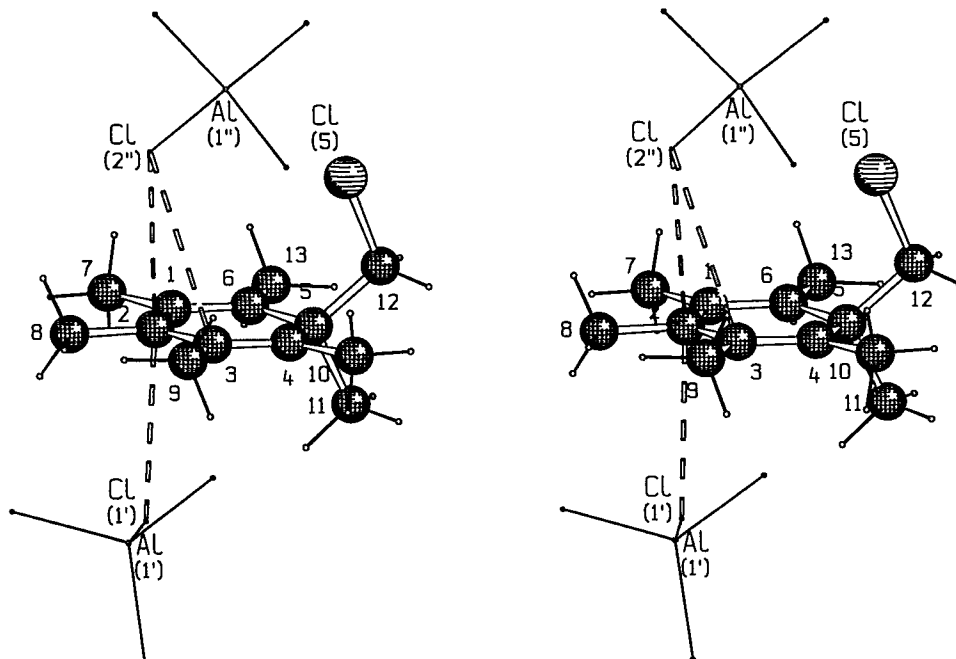
1-Chloromethyl-1,2,3,4,5,6-hexamethylbenzenium tetrachloro-aluminium

C13 H20 Cl1 1+, Al1 Cl4 1-

M.J.Zaworotko, T.S.Cameron, A.Linden, K.C.Sturge

Acta Cryst., C (Cr.Str.Comm.), 45, 996, 1989

SAXCAV P21/n Z= 4 NATOMS= 39 DIFF AS=2 R-FACTOR= 0.056
 20 C-H BONDS: S.D.= 0.001; MEAN = 1.080; RANGE: 1.079 - 1.081



C(2)	- Cl(1 ^I)	3.479	<i>diff</i> = 0.029
C(2)	- Cl(2 ^{II})	3.541	<i>diff</i> = 0.091
C(3)	- Cl(2 ^{II})	3.592	<i>diff</i> = 0.142

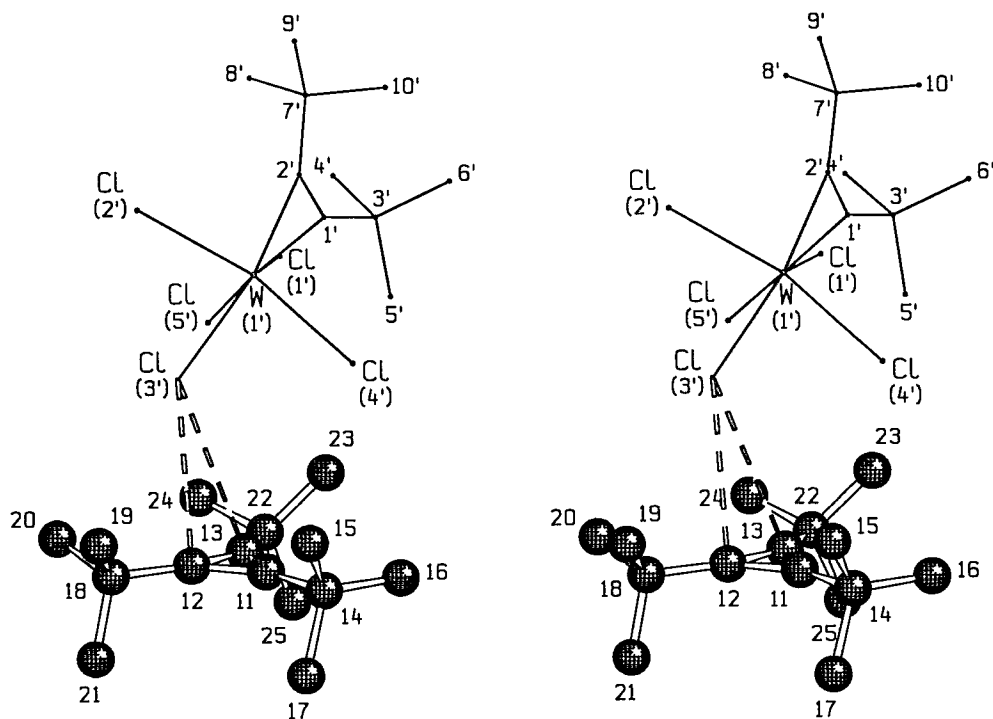
SIYDOTTri-*t*-butylcyclopropenium (η^2 -di-*t*-butylethyne)-pentachloro-tungsten

C10 H18 Cl5 W1 1-, C15 H27 1+

F.Weller, I.Pauls, K.Dehnicke, G.Becker

Z.Naturforsch., Teil B, 46, 519, 1991

SIYDOT P21/c Z= 4 NATOMS= 31 DIFF AS=3 R-FACTOR= 0.052
 REMARK CSD 54959 contains no further data



Cl(3 ^I)	- C(12)	3.359		diff = -0.091
Cl(3 ^I)	- C(13)	3.478		diff = 0.028

SODREI

5,7-Di-isopropyl-1,3,3-trimethylindan-1-yl hexachloro-tantalum

C18 H27 1+, Cl6 Ta1 1-

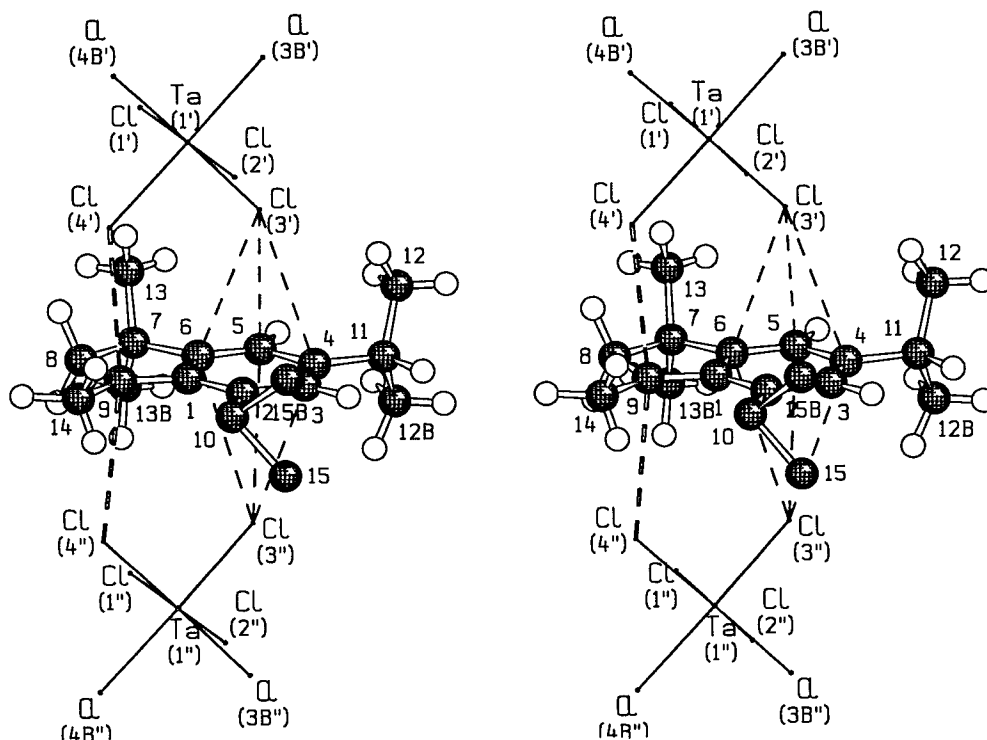
E.Solari, C.Floriani, A.Chiesi-Villa, C.Rizzoli

J.Chem.Soc., Chem.Comm., , 841, 1991

SODREI Cmca Z= 8 NATOMS= 45 DIFF AS=3 R-FACTOR= 0.040

DISORD Methyl carbon C11 of an isopropyl group is disordered over two positions with occupancies of 0.52 and 0.48 for A and B

20 C-H BONDS: S.D.= 0.095; MEAN = 1.033; RANGE: 0.863 - 1.182



Cl(4 ^I)	- C(9)	3.461		diff = 0.011
C(9)	- Cl(4 ^{II})	3.461		diff = 0.011
Cl(3 ^I)	- C(4)	3.635		diff = 0.185
C(4)	- Cl(3 ^{II})	3.634		diff = 0.184
Cl(3 ^I)	- C(5)	3.602		diff = 0.152
C(5)	- Cl(3 ^{II})	3.602		diff = 0.152
Cl(3 ^I)	- C(6)	3.672		diff = 0.222
C(6)	- Cl(3 ^{II})	3.672		diff = 0.222

TADXOL

bis(Triphenylmethylium) bis((μ_2 -chloro)-tetrachloro-hafnium(iv))
 2(C19 H15 1+), Cl10 Hf2 2-
 F. Calderazzo, P. Pallavicini, G. Pampaloni, P. F. Zanazzi
 J. Chem. Soc., Dalton Trans., , 2743, 1990

TADXOL P-1 Z= 2 NATOMS= 92 DIFF AS=2 R-FACTOR= 0.031
 30 C-H BONDS: S.D.= 0.004; MEAN = 1.080; RANGE: 1.071 - 1.087