Table S 1. Crystal data and structure refinement for $CH_3OCHCl^+SbF_6^-$.

Identification code	chloreth
Empirical formula	C2 H4 Cl F6 O Sb
Formula weight	319.25
Temperature	125.2). K
Wavelength	0.71073 A
Crystal system	Monoclinic
Space group	P21/c
Unit cell dimensions (deg)	a = 5.970(3) A alpha = 90.00(3) b = 12.019(5) A beta = 92.59(3) c = 10.994(5) A gamma = 90.00(3)
Volume	788.1(6) A^3
Z	4
Density (calculated)	2.657 Mg/m^3
Absorption coefficient	3.891 mm^-1
F(000)	584
Crystal size	0.6 x 0.4 x 0.1 mm
Theta range for data collection	3.39 to 25.86 deg.
Index ranges	-7<=h<=7, 0<=k<=12, 0<=l<=11
Reflections collected	1774
Independent reflections	1045 [R(int) = 0.0983]
Absorption correction	DIFABS
Max. and min. transmission	1.169 and 0.624
Refinement method	Full-matrix least-squares on F^2
Data / restraints / parameters	1045 / 0 / 104
Goodness-of-fit on F^2	1.141
Final R indices [I>2sigma(I)]	R1 = 0.0419, wR2 = 0.1344
R indices (all data)	R1 = 0.0439, wR2 = 0.1372
Extinction coefficient	0.004(2)
Largest diff. peak and hole	0.802 and -0.798 e.A^-3

Table S2. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters (A^2 x 10^3) for $CH_3OCHCl^+SbF_6^-$. U(eq) is defined as one third of the trace of the orthogonalized Uij tensor.

	x	y	z	U(eq)
Sb	6666(1)	8043(1)	844(1)	26(1)
F(1)	6434(8)	6911(4)	2011(5)	41(1)
F(2)	3886(6)	7650(5)	151(5)	50(1)
F(3)	9442(6)	8457(5)	1572(5)	41(1)
F(4)	8122(8)	7049(4)	-153(5)	45(2)
F(5)	5270(6)	9043(4)	1868(5)	38(1)
F(6)	6992(7)	9169(4)	-301(4)	42(1)
O	10630(7)	5618(5)	2041(5)	39(2)
C(1)	11555(9)	6249(6)	3148(6)	23(2)
C(2)	8831(11)	5107(7)	2176(8)	34(2)
Cl	7790(3)	4391(2)	1001(2)	48(1)

Table S 3. Bond lengths [A] and angles [deg] for $CH_3OCHCl^+SbF_6^-$.

Sb-F(2)	1.855(4)
Sb-F(4)	1.863(5)
Sb-F(6)	1.864(5)
Sb-F(5)	1.869(5)
Sb-F(3)	1.875(4)
Sb-F(1)	1.880(5)
O-C(2)	1.252(9)
O-C(1)	1.517(9)
C(2)-Cl	1.650(9)
F(2)-Sb-F(4)	91.6(3)
F(2)-Sb-F(6)	91.5(2)
F(4)-Sb-F(6)	90.1(2)
F(2)-Sb-F(5)	89.8(2)
F(4)-Sb-F(5)	178.6(2)
F(6)-Sb-F(5)	90.2(2)
F(2)-Sb-F(3)	178.7(2)
F(4)-Sb-F(3)	89.7(2)
F(6)-Sb-F(3)	88.7(2)
F(5)-Sb-F(3)	88.9(2)
F(2)-Sb-F(1)	90.2(3)
F(4)-Sb-F(1)	89.3(2)
F(6)-Sb-F(1)	178.2(2)
F(5)-Sb-F(1)	90.3(2)
F(3)-Sb-F(1)	89.5(2)
C(2)-O-C(1)	115.7(6)
O-C(2)-Cl	117.3(6)

Symmetry transformations used to generate equivalent atoms:

Table S4. Anisotropic displacement parameters (A^2 x 10^3) for $CH_3OCHCl^+SbF_6^-$.
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	17(1)	23(1)	38(1)	1(1)	1(1)	2(1)
F(1)	32(2)	33(4)	59(3)	10(2)	8(2)	1(2)
F(2)	28(2)	42(4)	76(4)	3(3)	-14(2)	-1(2)
F(3)	24(2)	32(3)	65(3)	-4(3)	2(2)	-2(2)
F(4)	44(3)	37(4)	55(4)	-7(2)	8(2)	9(2)
F(5)	34(2)	31(3)	49(3)	-4(2)	7(2)	8(2)
F(6)	38(2)	43(3)	46(3)	11(2)	6(2)	7(2)
O	24(2)	39(4)	56(4)	9(3)	5(2)	3(2)
C(1)	21(2)	13(4)	35(4)	-6(3)	-10(2)	0(2)
C(2)	27(3)	24(5)	50(6)	11(4)	3(3)	4(3)
Cl	41(1)	45(2)	58(2)	-4(1)	6(1)	-2(1)

TableS5. Hydrogen coordinates (x 10^4) and isotropic displacement parameters (A^2 x 10^3) for $CH_3OCHCl^+SbF_6^-$.

	x	y	z	U(eq)
H(11)	12928(9)	6612(6)	2955(6)	35
H(12)	11840(9)	5739(6)	3809(6)	35
H(13)	10484(9)	6797(6)	3380(6)	35
H(2)	8263(134)	4995(78)	2963(81)	40

Table S 6. Crystal data and structure refinement for $CH_3OCHF^+SbF_6^-$.

Identification code	fleth_psi
Empirical formula	C2 H4 F7 O Sb
Formula weight	298.80
Temperature	125(2) K
Wavelength	0.71073 A
Crystal system	Monoclinic
Space group	P21/c
Unit cell dimensions (deg)	a = 9.942(2) A alpha = 90.00(3) b = 7.454(2) A beta = 111.27(2) c = 10.297(3) A gamma = 90.00(3)
Volume	711.1(3) A^3
Z	4
Density (calculated)	2.791 Mg/m^3
Absorption coefficient	3.959 mm^-1
F(000)	552
Crystal size	0.4 x 0.3 x 0.3 mm
Theta range for data collection	3.46 to 29.96 deg.
Index ranges	0<=h<=13, -10<=k<=10, -14<=l<=13
Reflections collected	4209
Independent reflections	2073 [R(int) = 0.0591]
Absorption correction	Psi-scan
Max. and min. transmission	0.9976 and 0.729
Refinement method	Full-matrix least-squares on F^2
Data / restraints / parameters	2072 / 0 / 113
Goodness-of-fit on F^2	1.196
Final R indices [I>2sigma(I)]	R1 = 0.0471, wR2 = 0.1446
R indices (all data)	R1 = 0.0516, wR2 = 0.1515
Extinction coefficient	0.011(2)
Largest diff. peak and hole	3.731 and -3.648 e.A^-3

Table S 7. Atomic coordinates (x 10^4) and equivalent isotropic displacement parameters (A^2 x 10^3) for $CH_3OCHF^+SbF_6^-$. U(eq) is defined as one third of the trace of the orthogonalized Uij tensor.

	x	y	z	U(eq)
Sb	2336(1)	2444(1)	6566(1)	13(1)
F(1)	1447(3)	805(3)	7404(3)	19(1)
F(2)	3179(3)	4107(3)	5737(3)	27(1)
F(3)	895(3)	4105(3)	6532(3)	29(1)
F(4)	3749(3)	735(4)	6689(4)	33(1)
F(5)	1173(3)	1573(4)	4821(3)	31(1)
F(6)	3461(3)	3343(4)	8320(3)	35(1)
O	7862(5)	2693(4)	1264(5)	20(1)
C(1)	6269(9)	2573(6)	732(10)	28(2)
C(2)	8560(8)	2625(5)	2517(8)	19(1)
F(7)	7956(6)	2522(3)	3409(4)	28(1)

Table S 8. Bond lengths [A] and angles [deg] for $CH_3OCHF^+SbF_6^-$.

Sb-F(5)	1.866(3)
Sb-F(4)	1.866(2)
Sb-F(2)	1.868(2)
Sb-F(6)	1.870(3)
Sb-F(3)	1.884(2)
Sb-F(1)	1.889(2)
O-C(2)	1.224(9)
O-C(1)	1.479(9)
C(1)-H(11)	0.72(7)
C(1)-H(12)	0.89(8)
C(1)-H(13)	0.71(7)
C(2)-F(7)	1.269(7)
C(2)-H(2)	0.65(9)
F(5)-Sb-F(4)	90.91(14)
F(5)-Sb-F(2)	90.81(13)
F(4)-Sb-F(2)	91.84(12)
F(5)-Sb-F(6)	178.59(12)
F(4)-Sb-F(6)	90.4(2)
F(2)-Sb-F(6)	89.62(13)
F(5)-Sb-F(3)	90.54(14)
F(4)-Sb-F(3)	176.68(11)
F(2)-Sb-F(3)	91.13(11)
F(6)-Sb-F(3)	88.11(14)
F(5)-Sb-F(1)	89.19(12)
F(4)-Sb-F(1)	89.61(11)
F(2)-Sb-F(1)	178.55(9)
F(6)-Sb-F(1)	90.34(12)
F(3)-Sb-F(1)	87.42(11)
C(2)-O-C(1)	120.7(5)
O-C(1)-H(11)	110(5)
O-C(1)-H(12)	116(5)
H(11)-C(1)-H(12)	99(6)
O-C(1)-H(13)	112(6)
H(11)-C(1)-H(13)	121(8)
H(12)-C(1)-H(13)	100(7)
O-C(2)-F(7)	121.9(7)
O-C(2)-H(2)	116(8)
F(7)-C(2)-H(2)	122(8)

Symmetry transformations used to generate equivalent atoms:

Table S 9. Anisotropic displacement parameters (A^2 x 10^3) for $CH_3OCHF^+SbF_6^-$.
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	6(1)	12(1)	19(1)	0(1)	4(1)	-1(1)
F(1)	16(1)	17(1)	28(1)	4(1)	12(1)	-1(1)
F(2)	26(1)	23(1)	38(1)	7(1)	19(1)	-4(1)
F(3)	19(1)	18(1)	55(2)	8(1)	19(1)	8(1)
F(4)	17(1)	24(1)	65(2)	12(1)	23(1)	13(1)
F(5)	26(1)	43(2)	21(1)	-8(1)	4(1)	-17(1)
F(6)	25(1)	46(2)	26(1)	-9(1)	2(1)	-22(1)
O	15(2)	21(1)	27(2)	4(1)	8(1)	3(1)
C(1)	12(3)	26(3)	48(4)	-2(2)	12(3)	4(1)
C(2)	15(3)	15(2)	29(3)	-1(1)	12(2)	-1(1)
F(7)	40(2)	21(2)	34(2)	-5(1)	26(2)	-4(1)

Table S 10. Hydrogen coordinates (x 10^4) and isotropic displacement parameters (A^2 x 10^3) for $CH_3OCHF^+SbF_6^-$.

	x	y	z	U(eq)
H(11)	6052(71)	1654(100)	573(68)	30
H(12)	5857(88)	2783(70)	1354(83)	30
H(13)	5949(72)	3260(100)	247(68)	30
H(2)	9262(100)	2687(67)	2705(88)	30