

## Supporting information for:

### **[NH<sub>2</sub>(C<sub>2</sub>H<sub>4</sub>)<sub>2</sub>O]MX<sub>5</sub>: a new family of morpholinium nonlinear materials among halogenoantimonate(III) and halogenobismuthate(III) compounds. Structural characterization, dielectric and piezoelectric properties.**

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**Table S1. Selected bond lengths (Å) and angles (deg) for [MX<sub>5</sub>]<sup>2-</sup> moieties at 100 K.**

MCA			
Sb-Cl(1)	2.4091(7)	Cl(1)-Sb-Cl(5)	83.99(3)
Sb-Cl(2)	2.8888(8)	Cl(4)-Sb-Cl(5)	90.81(2)
Sb-Cl(3)	2.5058(7)	Cl(3)-Sb-Cl(5)	171.77(2)
Sb-Cl(4)	2.4408(7)	Cl(1)-Sb-Cl(2)	84.03(2)
Sb-Cl(5)	2.8380(8)	Cl(4)-Sb-Cl(2)	173.73(2)
Cl(1)-Sb-Cl(4)	93.66(2)	Cl(3)-Sb-Cl(2)	84.74(2)
Cl(1)-Sb-Cl(3)	87.79(3)	Cl(5)-Sb-Cl(2)	94.73(2)
Cl(4)-Sb-Cl(3)	89.35(2)		
MBA			
Sb-Br(1)	2.5823(5)	Br(1)-Sb-Br(2)	84.62(2)
Sb-Br(2)	3.0180(6)	Br(4)-Sb-Br(2)	174.85(6)
Sb-Br(3)	2.6509(5)	Br(3)-Sb-Br(2)	85.64(2)
Sb-Br(4)	2.6109(5)	Br(1)-Sb-Br(5)	84.65(2)
Sb-Br(5)	3.0489(7)	Br(4)-Sb-Br(5)	92.67(2)
Br(1)-Sb-Br(4)	94.29(2)	Br(3)-Sb-Br(5)	173.79(6)
Br(1)-Sb-Br(3)	89.34(2)	Br(2)-Sb-Br(5)	92.23(2)
Br(4)-Sb-Br(3)	89.33(2)		
MBB			
Bi-Br(1)	2.6853(6)	Br(3)-Bi-Br(2)	85.74(2)
Bi-Br(2)	3.0041(7)	Br(1)-Bi-Br(5)	84.20(2)
Bi-Br(3)	2.7192(6)	Br(4)-Bi-Br(5)	93.95(2)
Bi-Br(4)	2.7093(6)	Br(3)-Bi-Br(5)	173.44(2)
Bi-Br(5)	3.1124(8)	Br(2)-Bi-Br(5)	91.61(2)
Bi-Br(5) <sup>1</sup>	3.1843(7)	Br(1)-Bi-Br(5) <sup>1</sup>	175.91(2)
Br(5)-Bi <sup>2</sup>	3.1844(7)	Br(4)-Bi-Br(5) <sup>1</sup>	88.84(2)
Br(1)-Bi-Br(4)	95.22(2)	Br(3)-Bi-Br(5) <sup>1</sup>	91.01(2)
Br(1)-Bi-Br(3)	89.57(2)	Br(2)-Bi-Br(5) <sup>1</sup>	91.42(2)
Br(4)-Bi-Br(3)	88.65(2)	Br(5)-Bi-Br(5) <sup>1</sup>	95.05(2)
Br(1)-Bi-Br(2)	84.58(2)	Bi-Br(5)-Bi <sup>2</sup>	171.51(2)
Br(4)-Bi-Br(2)	174.39(2)		

<b>MCB</b>			
Bi-Cl(1)	2.5557(9)	Cl(3)-Bi-Cl(5) <sup>3</sup>	174.83(2)
Bi-Cl(2)	2.5928(9)	Cl(1)-Bi-Cl(4)	83.96(3)
Bi-Cl(3)	2.6570(2)	Cl(2)-Bi-Cl(4)	170.74(2)
Bi-Cl(4)	2.7973(9)	Cl(3)-Bi-Cl(4)	87.51(2)
Bi-Cl(5)	2.9600(9)	Cl(5) <sup>3</sup> -Bi-Cl(4)	89.19(3)
Bi-Cl(5) <sup>3</sup>	2.7866(10)	Cl(1)-Bi-Cl(5)	168.74(2)
Cl(5)-Bi <sup>4</sup>	2.7866(10)	Cl(2)-Bi-Cl(5)	85.63(3)
Cl(1)-Bi-Cl(2)	87.68(3)	Cl(3)-Bi-Cl(5)	93.63(3)
Cl(1)-Bi-Cl(3)	95.35(3)	Cl(5) <sup>3</sup> -Bi-Cl(5)	83.26(3)
Cl(2)-Bi-Cl(3)	89.31(2)	Cl(4)-Bi-Cl(5)	103.24(3)
Cl(1)-Bi-Cl(5) <sup>3</sup>	88.26(3)	Bi <sup>4</sup> -Cl(5)-Bi	170.25(3)
Cl(2)-Bi-Cl(5) <sup>3</sup>	94.55(3)		

Symmetry transformations used to generate equivalent atoms:  
 1: x+1/2,-y+1/2,-z+1    2: x-1/2,-y+1/2,-z+1  
 3: x-1/2,-y+1/2,-z+1    4: x+1/2,-y+1/2,-z+1

**Table S2. Hydrogen bonds for [NH<sub>2</sub>(C<sub>2</sub>H<sub>4</sub>)<sub>2</sub>O]<sub>2</sub>MX<sub>5</sub> at 100 K.**

D – H...A	d(D – H)	d(H...A)	d(D...A)	<(DHA)
<b>MCA</b>				
N(1)-H(1C)...O(1) <sup>1</sup>	0.92	2.51	3.182(2)	131
N(1)-H(1C)...Cl(2)	0.92	2.67	3.336(2)	130
N(1)-H(1D)...Cl(5) <sup>2</sup>	0.92	2.40	3.291(2)	162
N(2)-H(2C)...Cl(2) <sup>3</sup>	0.92	2.65	3.386(2)	137
N(2)-H(2C)...Cl(3) <sup>3</sup>	0.92	2.67	3.396(2)	136
N(2)-H(2D)...Cl(2) <sup>4</sup>	0.92	2.34	3.172(2)	151
<b>MBA</b>				
N(1)-H(1C)...O(1) <sup>3</sup>	0.92	2.64	3.310(2)	130
N(1)-H(1C)...Br(2)	0.92	2.73	3.414(2)	132
N(1)-H(1D)...Br(5) <sup>5</sup>	0.92	2.57	3.452(2)	161
N(2)-H(2C)...Br(2) <sup>1</sup>	0.92	2.82	3.543(2)	136
N(2)-H(2C)...Br(3) <sup>1</sup>	0.92	2.80	3.522(2)	137
N(2)-H(2D)...Br(2) <sup>6</sup>	0.92	2.52	3.321(2)	145
<b>MBB</b>				
N(1)-H(1C)...O(1) <sup>7</sup>	0.92	2.53	3.231(4)	133
N(1)-H(1C)...Br(2)	0.92	2.77	3.416(3)	128
N(1)-H(1D)...Br(5) <sup>2</sup>	0.92	2.62	3.499(3)	160
N(2)-H(2C)...Br(2) <sup>8</sup>	0.92	2.92	3.627(3)	134
N(2)-H(2C)...Br(3) <sup>8</sup>	0.92	2.72	3.456(3)	137
N(2)-H(2D)...Br(2) <sup>6</sup>	0.92	2.51	3.318(3)	147
<b>MCB</b>				
N(1)-H(1C)...O(1) <sup>3</sup>	0.92	2.64	3.260(3)	126
N(1)-H(1C)...Cl(1) <sup>2</sup>	0.92	2.75	3.413(3)	130
N(1)-H(1C)...Cl(3) <sup>9</sup>	0.92	2.78	3.399(3)	126
N(1)-H(1D)...O(2) <sup>9</sup>	0.92	2.03	2.862(3)	150

N(1)-H(1D)...Cl(2) <sup>9</sup>	0.92	2.99	3.621(3)	127
N(2)-H(2C)...Cl(3) <sup>10</sup>	0.92	2.46	3.281(3)	149
N(2)-H(2C)...Cl(1) <sup>6</sup>	0.92	2.88	3.450(3)	121
N(2)-H(2D)...Cl(4) <sup>6</sup>	0.92	2.31	3.221(3)	169

Symmetry transformations used to generate equivalent atoms:

1: $-x+1, y+1/2, -z+3/2$	2: $x+1/2, -y+1/2, -z+1$	3: $-x+1, y-1/2, -z+1/2$
4: $-x+1/2, -y+1, z-1/2$	5: $x+1/2, -y+3/2, -z+1$	6: $-x+1/2, -y+1, z+1/2$
7: $-x+1, y+1/2, -z+1/2$	8: $-x+1, y-1/2, -z+3/2$	9: $x-1/2, -y+1/2, -z+1$
10: $-x+3/2, -y+1, z+1/2$		

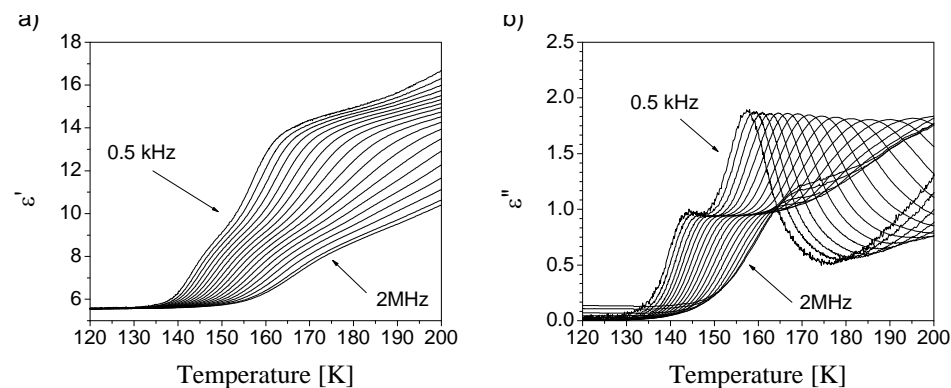


Figure S1. Temperature dependence of the real (a) and imaginary (b) parts of the complex electric permittivity obtained on cooling for MBB crystal.

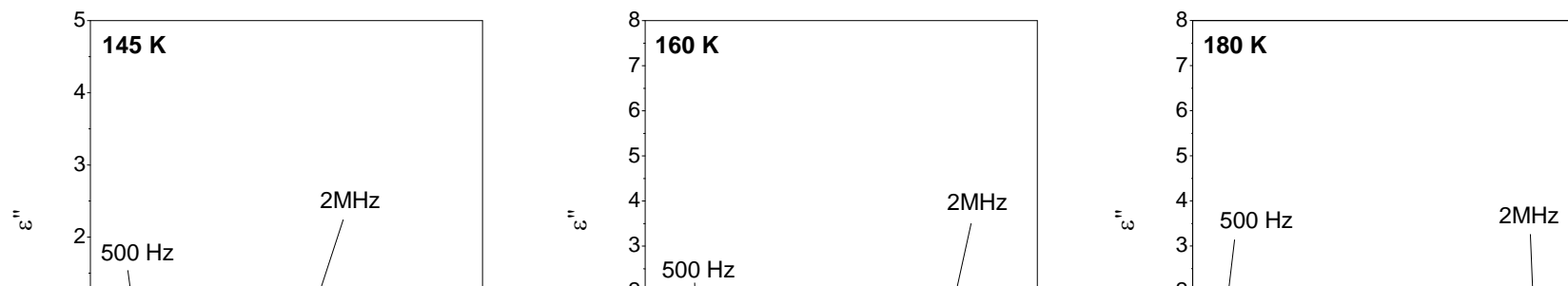


Figure S2. Cole-Cole plots of  $\epsilon''$  vs  $\epsilon'$  at selected temperatures obtained for MBB crystal.

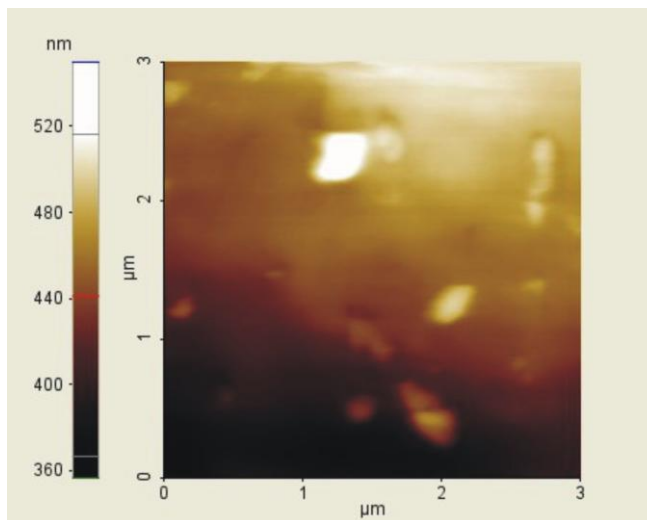
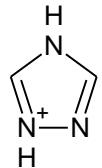
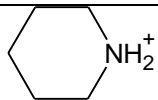
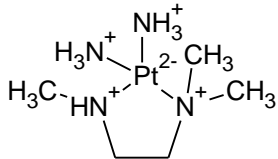
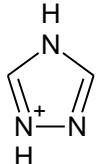
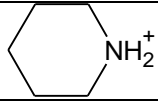
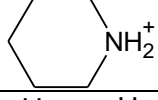
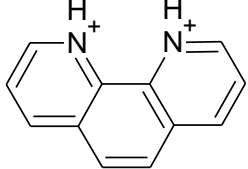
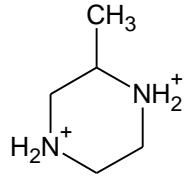
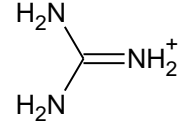


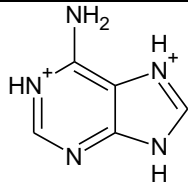
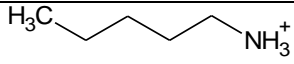
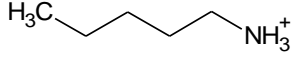
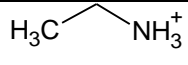
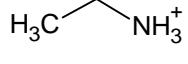

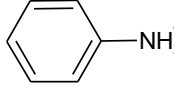
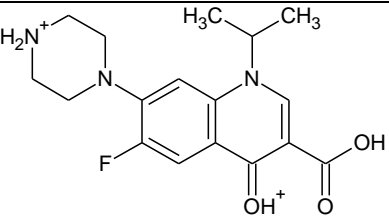
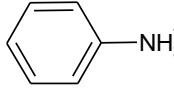
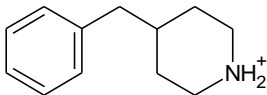
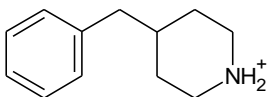
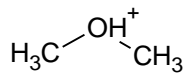
Figure S3. Topography image of MCB crystal.

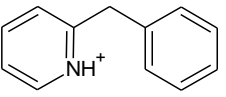
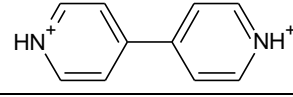
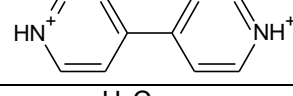
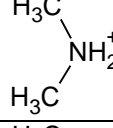
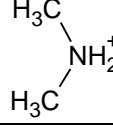
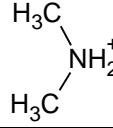
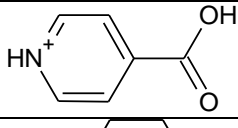
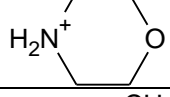
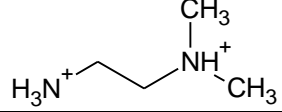
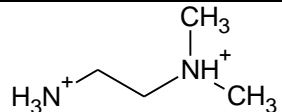
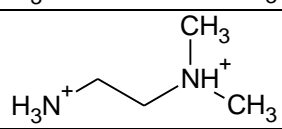
### Results of the Cambridge Structural Database (CSD) survey.

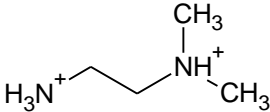
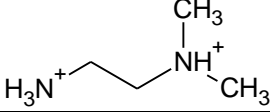
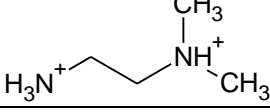
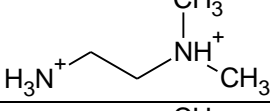
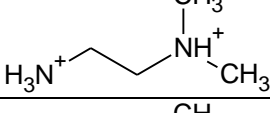
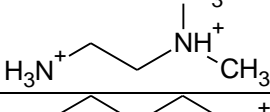

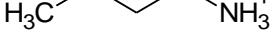
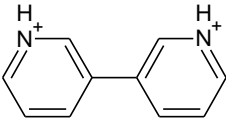
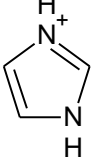
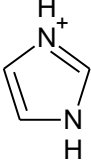
Table S3. Structures of halogenoantimonates(III) and halogenobismuthates(III) containing  $[MX_5]^{2-}$  units retrieved from the CSD. Entries marked with a bolded font were used for the structural analysis of the  $R_2MX_5$  (R – cation, M = Bi, Sb, X = Cl, Br) composition.

Refcode	Empirical formula	Cation	Space group	Anionic structure type
<b>ACIKED</b>	<b><math>(C_5H_{16}N_2)BiCl_5</math></b>	$H_3N^+ \text{---} \text{---} \text{---} \text{---} \text{---} \text{---} \text{---} NH_3^+$	<b><math>P2_12_12_1</math></b>	<i>cis</i> mode chain
AFEVEM	$(C_2H_4N_3)_2SbCl_5 \cdot (C_2H_4N_3)Cl$		$P2_12_12_1$	<i>cis</i> mode chain

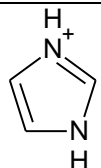
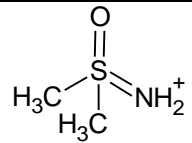
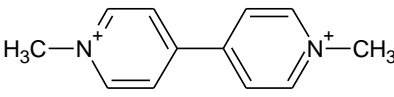
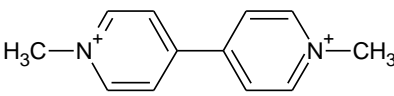
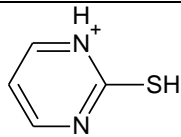
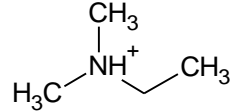
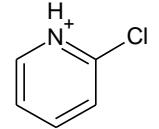
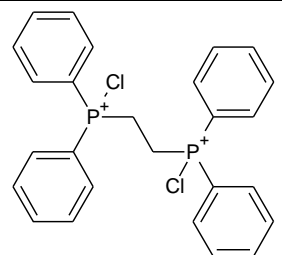
BOYWIV	$(\text{CH}_6\text{N})_2\text{SbCl}_5 \cdot (\text{CH}_6\text{N})\text{Cl}$	$\text{H}_3\text{C}-\text{NH}_3^+$	$P2_1/c$	<i>cis</i> mode chain
CAJXIV	$(\text{C}_5\text{H}_{12}\text{N})_2\text{BiCl}_5$		$Pna2_1$	<i>cis</i> mode chain
ENPTCB	$(\text{C}_5\text{H}_{20}\text{N}_4\text{Pt})\text{SbCl}_5$		$P2_12_12_1$	<i>cis</i> mode chain
LURXEB	$(\text{C}_2\text{H}_4\text{N}_3)_2\text{SbCl}_5$		$P2_1/n$	<i>cis</i> mode chain
PIPBSB	$(\text{C}_5\text{H}_{12}\text{N})_2\text{SbBr}_5$		$P2_12_12_1$	<i>cis</i> mode chain
PIPRBI	$(\text{C}_5\text{H}_{12}\text{N})_2\text{BiBr}_5$		$P2_12_12_1$	<i>cis</i> mode chain
PURLIX	$(\text{C}_{12}\text{H}_{10}\text{N}_2)\text{BiCl}_5 \cdot 2\text{H}_2\text{O}$		$P2/c$	<i>cis</i> mode chain
SOWPAV	$(\text{C}_6\text{H}_{18}\text{N}_2)\text{BiCl}_5$	$\text{H}_3\text{N}^+ \text{---} \text{CH}_2 \text{---} \text{CH}_2 \text{---} \text{CH}_2 \text{---} \text{CH}_2 \text{---} \text{CH}_2 \text{---} \text{CH}_2 \text{---} \text{NH}_3^+$	$P2_1/n$	<i>cis</i> mode chain
SOWQEA	$(\text{C}_6\text{H}_{18}\text{N}_2)\text{SbBr}_5$	$\text{H}_3\text{N}^+ \text{---} \text{CH}_2 \text{---} \text{CH}_2 \text{---} \text{CH}_2 \text{---} \text{CH}_2 \text{---} \text{CH}_2 \text{---} \text{CH}_2 \text{---} \text{NH}_3^+$	$Pn2_1a$	<i>cis</i> mode chain
SUXTUB	$(\text{C}_5\text{H}_{14}\text{N}_2)\text{BiCl}_5$		$P2_12_12_1$	<i>cis</i> mode chain
YOYWOY	$(\text{CH}_6\text{N}_3)_2\text{SbCl}_5 \cdot 2(\text{CH}_6\text{N}_3)\text{Cl}$		$P2_1/c$	<i>cis</i> mode chain

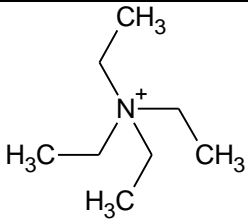
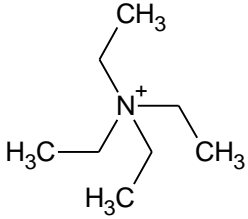
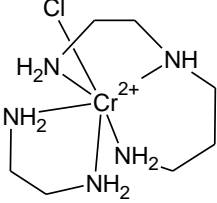
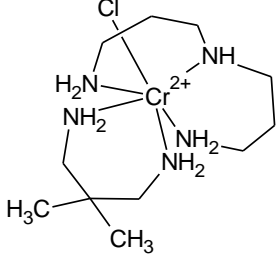
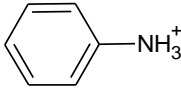
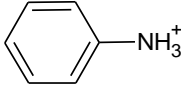
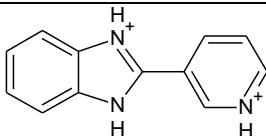
ZETGIO	$(C_5H_7N_5)SbCl_5 \cdot H_2O$		$P2_1/c$	<i>cis</i> mode chain
GIWVUE	$(C_5H_{14}N)_2SbBr_5$		$Pna2_1$	deformed <i>cis</i> mode chain
GIWVUE01	$(C_5H_{14}N)_2SbBr_5$		$P2_12_12_1$	deformed <i>cis</i> mode chain
IWIJAZ	$(C_2H_8N)_2SbBr_5$		$Pbca$	deformed <i>cis</i> mode chain
IWIJAZ01	$(C_2H_8N)_2SbBr_5$		$Cmca$	deformed <i>cis</i> mode chain
PERNAC02	$(C_4H_{12}N)_2SbCl_5$		$Pccn$	deformed <i>cis</i> mode chain
RUJVOI	$(C_6H_8N)_2SbBr_5$		$Pbca$	deformed <i>cis</i> mode chain
SOYBAK	$(C_{17}H_{20}N_3O_3F)SbCl_5 \cdot H_2O$		$P2_1/c$	deformed <i>cis</i> mode chain
ANILAC10	$(C_6H_8N)_2SbCl_5$		$P2_1/c$	<i>pseudo-cis</i> mode chain
AWOXUF	$(C_{12}H_{18}N)_2SbCl_5 \cdot 2H_2O$		$Cmc2_1$	<i>pseudo-cis</i> mode chain
BPCLSB01	$(C_{12}H_{18}N)_2SbCl_5$		$C2/c$	<i>pseudo-cis</i> mode chain
DILBUW	$(C_2H_7O)_2SbCl_5$		$Pnma$	<i>pseudo-cis</i> mode chain

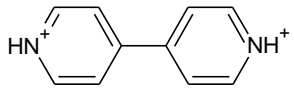
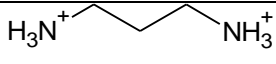
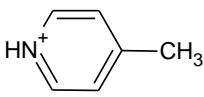
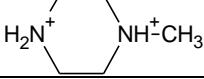
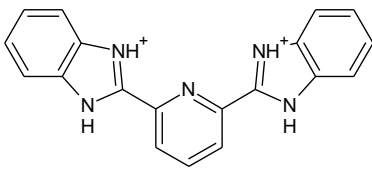
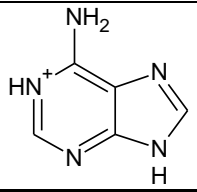
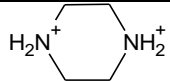
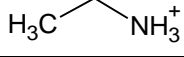
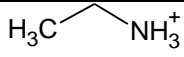
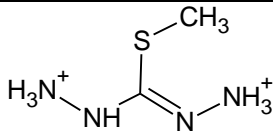
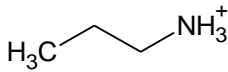
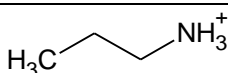
<b>LUHVOZ</b>	$(C_{12}H_{12}N)_2SbCl_5$		<b><i>P</i>-1</b>	<i>pseudo-cis</i> mode chain
<b>PYCLSB01</b>	$(C_{10}H_{10}N_2)SbCl_5$		<b><i>Pbc</i>2<sub>1</sub></b>	<i>pseudo-cis</i> mode chain
<b>PYCLSB02</b>	$(C_{10}H_{10}N_2)SbCl_5$		<b><i>Pbcm</i></b>	<i>pseudo-cis</i> mode chain
<b>SAWJOP</b>	$(C_2H_8N)_2SbCl_5$		<b><i>Pnma</i></b>	<i>pseudo-cis</i> mode chain
<b>SAWJOP01</b>	$(C_2H_8N)_2SbCl_5$		<b><i>Pnma</i></b>	<i>pseudo-cis</i> mode chain
<b>SAWJOP02</b>	$(C_2H_8N)_2SbCl_5$		<b><i>Pnma</i></b>	<i>pseudo-cis</i> mode chain
<b>YOTBOZ</b>	$(C_6H_6NO_2)_2SbCl_5 \cdot H_2O$		<b><i>P</i>2<sub>1</sub>/c</b>	<i>pseudo-cis</i> mode chain
<b>YOTCIU</b>	$(C_4H_{10}NO)_2SbCl_5$		<b><i>P</i>2<sub>1</sub>2<sub>1</sub>2<sub>1</sub></b>	<i>pseudo-cis</i> mode chain
<b>MENTIJ</b>	$(C_4H_{14}N_2)SbCl_5$		<b><i>P</i>2<sub>1</sub>/n</b>	deformed <i>pseudo-cis</i> mode chain
<b>MENTIJ01</b>	$(C_4H_{14}N_2)SbCl_5$		<b><i>P</i>2<sub>1</sub>/n</b>	deformed <i>pseudo-cis</i> mode chain
<b>MENTIJ02</b>	$(C_4H_{14}N_2)SbCl_5$		<b><i>P</i>2<sub>1</sub>/n</b>	deformed <i>pseudo-cis</i> mode chain

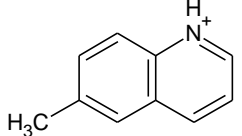
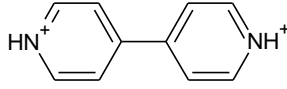
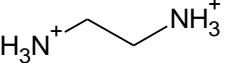
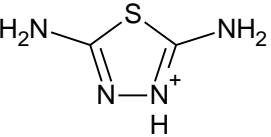
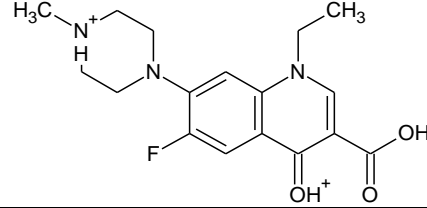
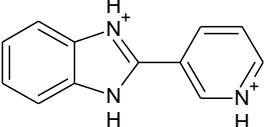
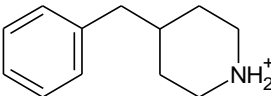
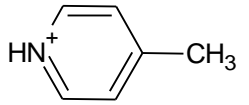
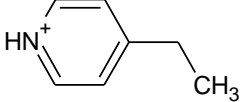
<b>MENTIJ03</b>	$(\text{C}_4\text{H}_{14}\text{N}_2)\text{SbCl}_5$		$P2_1/n$	deformed <i>pseudo-cis</i> mode chain
<b>REYFUW</b>	$(\text{C}_4\text{H}_{14}\text{N}_2)\text{SbCl}_5$		$P2_1/c$	deformed <i>pseudo-cis</i> mode chain
<b>REYFUW01</b>	$(\text{C}_4\text{H}_{14}\text{N}_2)\text{SbCl}_5$		$P2_1/c$	deformed <i>pseudo-cis</i> mode chain
<b>REYFUW02</b>	$(\text{C}_4\text{H}_{14}\text{N}_2)\text{SbCl}_5$		$P2_1/c$	deformed <i>pseudo-cis</i> mode chain
<b>REYFUW03</b>	$(\text{C}_4\text{H}_{14}\text{N}_2)\text{SbCl}_5$		$P2_1/c$	deformed <i>pseudo-cis</i> mode chain
<b>REYFUW04</b>	$(\text{C}_4\text{H}_{14}\text{N}_2)\text{SbCl}_5$		$P2_1/c$	deformed <i>pseudo-cis</i> mode chain
<b>PERNAC</b>	$(\text{C}_4\text{H}_{12}\text{N})_2\text{SbCl}_5$		$Pccn$	deformed <i>pseudo-cis</i> mode chain
<b>PERNAC01</b>	$(\text{C}_4\text{H}_{12}\text{N})_2\text{SbCl}_5$		$Ibam$	disordered <i>cis</i> mode chain
<b>MADGUU</b>	$(\text{C}_{10}\text{H}_{10}\text{N}_2)\text{SbCl}_5$		$P2_1/c$	atypical <i>cis</i> mode chain
<b>QAFHUB</b>	$(\text{C}_3\text{H}_5\text{N}_2)_2\text{SbCl}_5$		$Pbcn$	atypical <i>cis</i> mode chain
<b>[1]</b>	$(\text{C}_3\text{H}_5\text{N}_2)_2\text{SbCl}_5$		$Pna2_1$	atypical <i>cis</i> mode chain

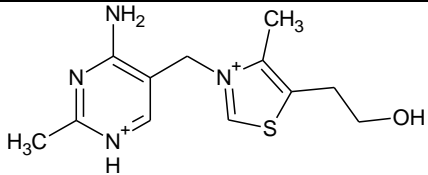
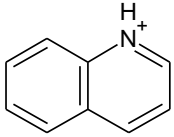
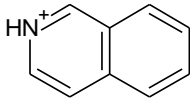
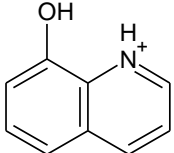
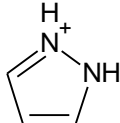
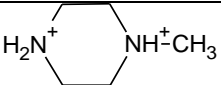
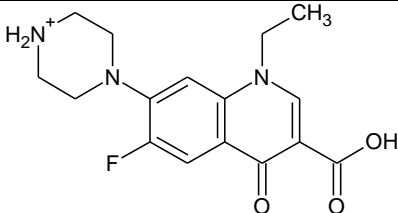
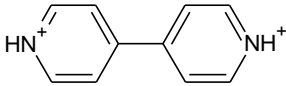
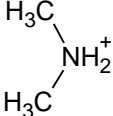


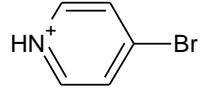
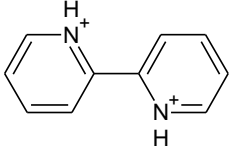
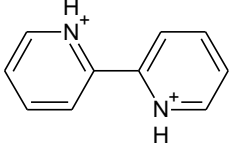
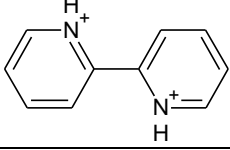
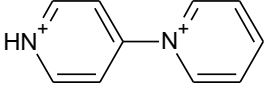
[1]	$(\text{C}_3\text{H}_5\text{N}_2)_2\text{SbCl}_5$		<i>Pbcn</i>	atypical <i>cis</i> mode chain
REGYIL	$(\text{C}_2\text{H}_8\text{NOS})_2\text{SbCl}_5$		<i>C2/c</i>	atypical <i>cis</i> mode chain
[2]	$(\text{C}_{12}\text{H}_{14}\text{N}_2)\text{BiBr}_5$		<i>P21/c</i>	<i>trans</i> mode chain
[2]	$(\text{C}_{12}\text{H}_{14}\text{N}_2)\text{BiBr}_5$		<i>P21</i>	<i>trans</i> mode chain
FORYUH	$(\text{C}_4\text{H}_5\text{N}_2\text{S})_2\text{SbBr}_5$		<i>P21/n</i>	disordered <i>trans</i> mode chain
BOMQUP	$(\text{C}_4\text{H}_{12}\text{N})_2\text{SbCl}_5$		<i>P212121</i>	<i>pseudo-trans</i> mode chain
CLPYSB	$(\text{C}_5\text{H}_5\text{NCl})_2\text{SbBr}_5$		<i>Pa</i>	<i>pseudo-trans</i> mode chain
LUWZIM	$(\text{C}_{26}\text{H}_{24}\text{Cl}_2\text{P}_2)\text{SbCl}_5$		<i>P-1</i>	isolated, interaction with cation

<b>TEDVED</b>	$(C_8H_{20}N)_2SbCl_5$		<b>P4/mnc</b>	isolated
<b>TEDVED01</b>	$(C_8H_{20}N)_2SbCl_5$		<b>Pcnn</b>	isolated
<b>TEZSIA</b>	$(C_7H_{23}N_5ClCr)SbCl_5$		<b>Pbca</b>	isolated, interaction with cation
<b>TEZSOG</b>	$(C_{11}H_{31}N_5ClCr)SbCl_5 \cdot H_3O^+Cl^- \cdot H_2O$		<b>Cc</b>	isolated
<b>DAKWIW</b>	$(C_6H_8N)_2SbCl_5 \cdot (C_6H_8N)Cl \cdot H_2O$		<b>P-1</b>	isolated, close to $M_2X_{10}^{4-}$ unit
<b>DAKWIW01</b>	$(C_6H_8N)_2SbCl_5 \cdot (C_6H_8N)Cl \cdot H_2O$		<b>P-1</b>	isolated, close to $M_2X_{10}^{4-}$ unit
<b>FOTTUE</b>	$(C_{12}H_{11}N_3)SbCl_5 \cdot H_2O$		<b>P2<sub>1</sub>/c</b>	isolated, close to $M_2X_{10}^{4-}$ unit

<b>PYCLSB</b>	$(C_{10}H_{10}N_2)SbCl_5$		<i>P-1</i>	isolated, close to $M_2X_{10}^{4-}$ unit
<b>VAVRIT</b>	$(C_3H_{12}N_2)SbCl_5$		<i>P2<sub>1</sub>/c</i>	isolated, close to $M_2X_{10}^{4-}$ unit
<b>VIKCUO</b>	$(C_6H_8N)_2SbCl_5$		<i>P-1</i>	isolated, close to $M_2X_{10}^{4-}$ unit
XISDOT	$(C_5H_{14}N_2)SbCl_5 \cdot H_2O$		<i>P2<sub>1</sub>/c</i>	isolated, close to $M_2X_{10}^{4-}$ unit
<b>YIVLIZ</b>	$(C_{19}H_{15}N_5)SbCl_5$		<i>P-1</i>	isolated, close to $M_2X_{10}^{4-}$ unit
ZETGOU	$(C_5H_6N_5)_2SbCl_5 \cdot H_2O$		<i>P-1</i>	isolated, close to $M_2X_{10}^{4-}$ unit
<b>CASPES</b>	$(C_4H_{12}N_2)_2Bi_2Cl_{10} \cdot 3H_2O$		<i>C2/c</i>	$M_2X_{10}^{4-}$ unit
<b>COJXAA</b>	$(C_2H_8N)_4Sb_2Cl_{10} \cdot 2(C_2H_8N)Cl$		<i>P-1</i>	$M_2X_{10}^{4-}$ unit
<b>COJXAA01</b>	$(C_2H_8N)_4Sb_2Cl_{10} \cdot 2(C_2H_8N)Cl$		<i>P-1</i>	$M_2X_{10}^{4-}$ unit
<b>CUMPAB</b>	$(C_2H_{10}N_4S)_2Bi_2Cl_{10} \cdot 4H_2O$		<i>P-1</i>	$M_2X_{10}^{4-}$ unit
<b>DEWKUM</b>	$(C_3H_8N)_4Sb_2Cl_{10} \cdot 2(C_3H_8N)Cl$		<i>P-1</i>	$M_2X_{10}^{4-}$ unit
<b>DEWKUM01</b>	$(C_3H_8N)_4Sb_2Cl_{10} \cdot 2(C_3H_8N)Cl$		<i>P-1</i>	$M_2X_{10}^{4-}$ unit

<b>IBENAF</b>	$(C_{10}H_{10}N)_4Sb_2Cl_{10}$		<b><i>C2/m</i></b>	$M_2X_{10}^{4-}$ unit
<b>IDOKIW</b>	$(C_{10}H_{10}N_2)_2Bi_2Br_{10}$		<b><i>P-1</i></b>	$M_2X_{10}^{4-}$ unit
<b>JIVZAP</b>	$(C_2H_{10}N_2)_2Bi_2Cl_{10} \cdot 4H_2O$		<b><i>P2_1/n</i></b>	$M_2X_{10}^{4-}$ unit
<b>JUFKEA</b>	$(C_2H_5N_4S)_4Bi_2Br_{10}$		<b><i>P-1</i></b>	$M_2X_{10}^{4-}$ unit
<b>MODBIR</b>	$(C_{17}H_{22}N_3O_3F)_2Bi_2Cl_{10} \cdot 2(C_{17}H_{22}N_3O_3F)Cl \cdot 8H_2O$		<b><i>C2/m</i></b>	$M_2X_{10}^{4-}$ unit
<b>POWREZ</b>	$(C_{12}H_{11}N_3)_2Bi_2Cl_{10} \cdot 2H_2O$		<b><i>P2_1/c</i></b>	$M_2X_{10}^{4-}$ unit
<b>QESSOX</b>	$(C_{12}H_{18}N)_4Bi_2Cl_{10} \cdot 2H_2O$		<b><i>P2_1/c</i></b>	$M_2X_{10}^{4-}$ unit
<b>QQQGRV01</b>	$(C_6H_8N)_4Sb_2Br_{10}$		<b><i>P-1</i></b>	$M_2X_{10}^{4-}$ unit
<b>RAGPAR</b>	$(C_7H_{10}N)_4Sb_2Cl_{10}$		<b><i>P4_12_12</i></b>	$M_2X_{10}^{4-}$ unit

<b>RIHLAV</b>	$(\text{C}_{12}\text{H}_{18}\text{N}_4\text{OS})_2\text{Sb}_2\text{Cl}_{10}$		<b>P-1</b>	$\text{M}_2\text{X}_{10}^{4-}$ unit
<b>RIZBEH</b>	$(\text{C}_9\text{H}_8\text{N})_4\text{Bi}_2\text{Cl}_{10}$		<b>P-1</b>	$\text{M}_2\text{X}_{10}^{4-}$ unit
RIZBIL	$(\text{C}_9\text{H}_8\text{N})_4\text{Bi}_2\text{Cl}_{10} \cdot 2\text{H}_2\text{O}$		<i>Cmca</i>	$\text{M}_2\text{X}_{10}^{4-}$ unit
SIWZUU	$(\text{C}_9\text{H}_8\text{NO})_4\text{Bi}_2\text{Cl}_{10} \cdot (\text{C}_9\text{H}_8\text{NO})_2(\text{BiCl}_5\text{H}_2\text{O}) \cdot 6\text{H}_2\text{O}$		<i>C2/c</i>	$\text{M}_2\text{X}_{10}^{4-}$ unit
VIZFAM	$(\text{C}_3\text{H}_5\text{N}_2)_4\text{Bi}_2\text{Br}_{10} \cdot 2\text{H}_2\text{O}$		<i>C2/m</i>	$\text{M}_2\text{X}_{10}^{4-}$ unit
WAVZUP	$(\text{C}_5\text{H}_{14}\text{N}_2)_2\text{Bi}_2\text{Cl}_{10} \cdot 2\text{H}_2\text{O}$		<i>P2_1/n</i>	$\text{M}_2\text{X}_{10}^{4-}$ unit
XANKAZ	$(\text{C}_{16}\text{H}_{19}\text{N}_3\text{O}_3\text{F})_4\text{Bi}_2\text{Cl}_{10} \cdot 8\text{H}_2\text{O}$		<i>C2/m</i>	$\text{M}_2\text{X}_{10}^{4-}$ unit
<b>XERLIP</b>	$(\text{C}_{10}\text{H}_{10}\text{N}_2)_2\text{Bi}_2\text{Cl}_{10}$		<b>P-1</b>	$\text{M}_2\text{X}_{10}^{4-}$ unit
<b>ZIKFUU</b>	$(\text{C}_2\text{H}_8\text{N})_4\text{Bi}_2\text{Cl}_{10}$		<i>P2_1/c</i>	$\text{M}_2\text{X}_{10}^{4-}$ unit

<b>PUQSAW</b>	$(C_5H_5NBr)_4Sb_2Br_{10}$		<b><i>P</i>-1</b>	$M_2X_{10}^{4-}$ unit
<b>PURLOD</b>	$(C_{10}H_{10}N_2)_4Bi_4Cl_{20}$		<b><i>P</i>2<sub>1</sub>/<i>c</i></b>	$M_4X_{20}^{8-}$ unit
<b>PURLOD01</b>	$(C_{10}H_{10}N_2)_4Bi_4Cl_{20}$		<b><i>P</i>2<sub>1</sub>/<i>c</i></b>	$M_4X_{20}^{8-}$ unit
<b>CEFNIK</b>	$(C_{10}H_{10}N_2)_4Sb_4Cl_{20}$		<b><i>P</i>2<sub>1</sub>/<i>c</i></b>	$M_4X_{20}^{8-}$ unit
<b>MADHAB</b>	$(C_{10}H_{10}N_2)_4Sb_4Cl_{20}$		<b><i>P</i>2<sub>1</sub>/<i>c</i></b>	$M_4X_{20}^{8-}$ unit

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