



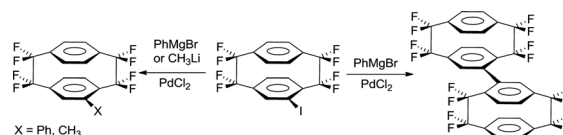
## Graphical Abstracts/J. Fluorine Chem. 175 (2015) v–xi

### Palladium catalyzed cross- and homo-coupling reactions of 4-Halo-1,1,2,2,9,9,10,10-octafluoro[2.2]paracyclophanes with various organometallic reagents

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- Reaction conditions for Kumada style couplings were examined.
- Slower addition of the organometallic gave more cross-coupled products.
- Lower temperatures gave more homo-coupled product.

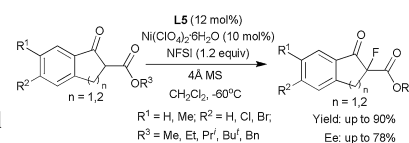


### Enantioselective fluorination of $\beta$ -ketoesters catalysed by complexes of new mono-oxazoline ligands

Teng Niu, Xiping Han, Danfeng Huang, Ke-Hu Wang, Yingpeng Su, Yulai Hu, Ying Fu

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- A new kind of mono-oxazoline ligands was prepared.
- The ligands combined diaryl methyl units and chiral oxazoline ring together.
- Pyridine ring was used as the linker of the two units.
- The ligands were applied in the enantioselective electrophilic fluorination of  $\beta$ -ketoesters.
- Moderate ee values were obtained.

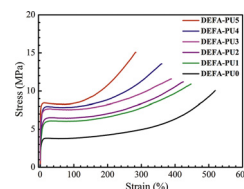


### Studies on waterborne polyurethanes based on new medium length fluorinated diols

Junpei Li, Xingyuan Zhang, Zheng Liu, WeiHu Li, Jiabing Dai

CAS Key Laboratory of Soft Matter Chemistry, Department of Polymer Science and Engineering, University of Science and Technology of China, Hefei 230026, China

- WPU with fluorinated medium branched chain were synthesized.
- Water/solvent resistance, thermal and mechanical properties of WPU were improved.
- Effect of physical properties on WPU with fluorine content was well studied.
- This study opens a window to produce high-performance polyurethane materials.

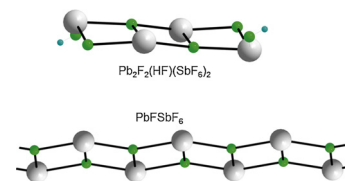
*J. Fluorine Chem.*, 175 (2015) 12

## Crystal structure determination of $\text{Pb}_2\text{F}_2(\text{HF})(\text{SbF}_6)_2$ , $\text{PbFSbF}_6$ and $\text{Ba}(\text{HF})(\text{AF}_6)_2$ : (A = As, Sb)

Melita Tramšek, Zoran Mazej, Evgeny Goreschnik, Gašper Tavčar

Department of Inorganic Chemistry and Technology, Jožef Stefan Institute, Jamova 39, SI-1000 Ljubljana, Slovenia

- Ribbon-like  $[\text{Pb}_4\text{F}_4]^{4+}$  units in the structure of  $\text{Pb}_2\text{F}_2(\text{HF})(\text{SbF}_6)_2$ .
- Similar  $[\text{Pb-F}]_n^{n+}$  ribbon-like polymers are observed in the crystal structure of  $\text{PbFSbF}_6$ .
- HF is coordinated to metal centre in  $\text{Ba}(\text{HF})(\text{AF}_6)_2$  (A = As, Sb).



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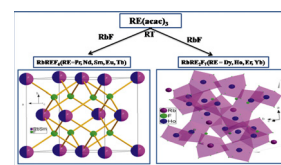
## Synthesis of $\text{RbREF}_4$ (RE = Pr, Nd, Sm, Eu, and Tb) and $\text{RbRE}_2\text{F}_7$ (Dy, Ho, Er and Yb) under non-aqueous conditions

Vikash Kumar Tripathi, Sanjay Kumar Saroj, Rajamani Nagarajan

Materials Chemistry Group, Department of Chemistry, University of Delhi, Delhi 110007, India

- Crystalline fluorides containing Rb and lanthanides obtained by simple synthesis.
- Structure and stoichiometry varied across the lanthanide series.
- Cubic symmetry up to Tb and orthorhombic structure from Dy to Yb was observed.
- Raman spectra of the investigated phases have been presented for the first time.
- Optical transitions from UV and PL spectra were analyzed.

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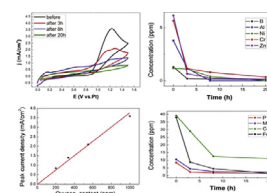
## Characterization and removal of oxygen ions in LiF-NaF-KF melt by electrochemical methods

Heng Wang, Shizhe Liu, Bing Li, Zuxin Zhao

East China University of Science and Technology, 130 Meilong Road, Shanghai, 200237, China

- Oxidation of oxygen ions is controlled by the ions diffusion process.
- The dependency of anodic peak currents vs oxygen ions concentration is linearity.
- Oxygen ions concentration can be reduced to 200ppm after 20h electrolysis.
- Active cations and some anions are well removed for 20h electrolysis.

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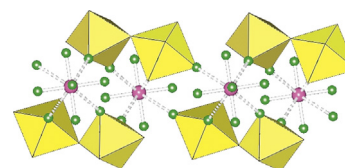


## Single-crystal structure determination of $\text{NO}_2\text{SbF}_6$ , $\text{XeF}_5\text{SbF}_6$ and $\text{XeF}_5\text{Sb}_2\text{F}_{11}$

Zoran Mazej, Evgeny A. Goreschnik

Jožef Stefan Institute, Jamova 39, SI-1000 Ljubljana, Slovenia

- Crystal structure of  $\text{NO}_2\text{SbF}_6$  (150 K) differs from that of  $\text{NO}_2\text{AsF}_6$  (291 K).
- Crystal structure of  $\text{XeF}_5\text{SbF}_6$  is isotypic to  $\text{XeF}_5\text{MF}_6$  (M = Nb, Ru, Pt).
- In  $\text{XeF}_5\text{Sb}_2\text{F}_{11}$  each  $[\text{XeF}_5]^+$  cation has four interaction with three  $[\text{Sb}_2\text{F}_{11}]^-$  anions.



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