

CuCF₃: a readily available and versatile reagent for the preparation of fluorine containing products

Unique Technology Offer

- Dialkoxycopper compounds smoothly react with fluoroform (HCF₃) to form a CuCF₃ reagent in high yields.
- CuCF₃ reagent is a first-in-class perfluoroalkylating agent.
- CuCF₃ reagent promotes efficient perfluoroalkylation of iodo- and bromoarenes, including heterocyclic arenes, arylboronic acids, α -haloketones and metal complexes.
- Stage of development: tested at laboratory scale, successfully implemented in a flow process.
- IP position: National phase entry in Europe and USA (proceeding)

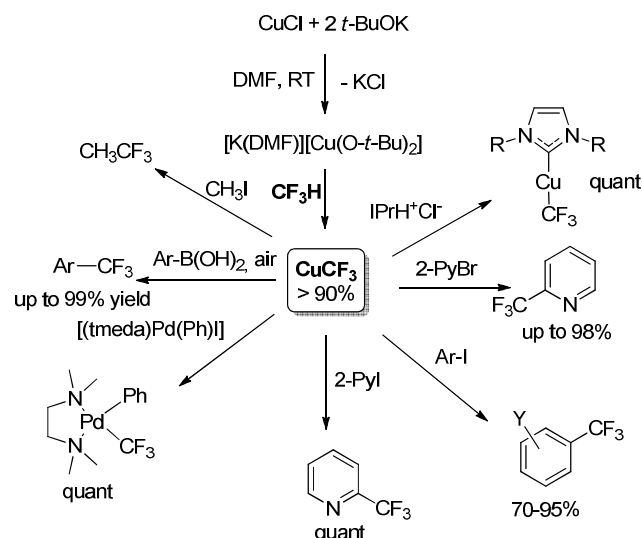
Value Proposition

- Trifluoromethylation reagents and methods are usually expensive.
- Reagent can be stored in solution for long periods of time.
- HCF₃ is cheap and available in bulk amounts (sub-product of PTFE synthesis).
- Unique scope of applications/versatile reagent.
- HCF₃ presents high global warming potential, despite not being an ozone depleter: greenhouse gas valorization.

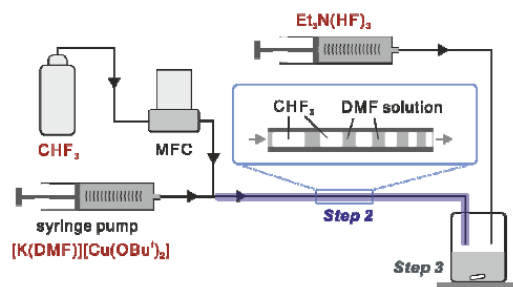
Business opportunity

- Fluorinated compounds are found in different high-volume markets such as pharmaceuticals, crop protection, polymers, advanced materials (e.g. for electronics).
- The global fluorochemicals market generated \$15,3 billion revenue in 2011 and is expected to grow at a compound annual growth rate of 5% till 2018 (fast growth for specialty fluorochemicals).

Technology concept



Flow Process set-up for CuCF₃ preparation



Licensing Opportunity

- Partner for joint development and commercialisation of applications is sought.
- Global licensing rights for the reagent are available.
- Regional licensing deals will be considered.
- Flexible licensing strategy related to development milestones.

Further information:

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