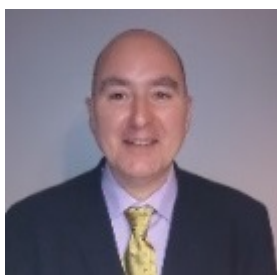


Institut de Chimie de Clermont-Ferrand



UMR 6296 CNRS / UCA / SIGMA

Director



[Fabrice Leroux](https://iccf.uca.fr/annuaire/m-fabrice-leroux)(<https://iccf.uca.fr/annuaire/m-fabrice-leroux>)

Research

ICCF is structured around six research teams with strong specificities recognized at national and international levels in various multidisciplinary domains:

- **Chemistry/Health:** The team [Materials for Health \(MPS\)](https://iccf.uca.fr/english-version/research/materials-for-health)(<https://iccf.uca.fr/english-version/research/materials-for-health>) with the integration of hospitable practitioners develops the technologies and needed materials for clinical applications, through the reconstruction and the tissular engineering and the interactions packaging/contents of medical devices - the team [Organic and Medicinal Chemistry \(COM\)](https://iccf.uca.fr/english-version/research/organic-and-medicinal-chemistry)(<https://iccf.uca.fr/english-version/research/organic-and-medicinal-chemistry>) designs, according to innovative strategies or through healing plants extraction, organic molecules with biological activities which are evaluated on new therapeutic targets, and more particularly connected to the pain and to the cancer.
- **Chemistry/Biology:** The team [Biocatalysis and Metabolism \(BIOMETA\)](https://iccf.uca.fr/english-version/research/biocatalysis-and-metabolism)(<https://iccf.uca.fr/english-version/research/biocatalysis-and-metabolism>) develops original activities in the field of transaminases,

transcetolases and aldolases for the synthesis of chiral molecules for microbial metabolism in atmospheric chemistry and for the biodegradation of organic contaminants in the ground.

- **Chemistry/Physics:** The team [Photochemistry](https://iccf.uca.fr/english-version/research/photochemistry)(<https://iccf.uca.fr/english-version/research/photochemistry>) has a strong expertise in the field of environmental study of polymers and their life cycle, and of the photochemical reactions in the aquatic medium – the team [Thermodynamics and Molecular interactions \(TIM\)](https://iccf.uca.fr/english-version/research/thermodynamics)(<https://iccf.uca.fr/english-version/research/thermodynamics>) has various specificity such as the study of ionic liquids as new media for solvation, the transport mechanisms during cellulose dissolution, CO₂ capture using aqueous solvents and a methodology for interface simulation using coarse grain models (mesoscopic scale)
- **Chemistry/Materials:** The team [Inorganic Materials \(MI\)](https://iccf.uca.fr/english-version/research/inorganic-materials)(<https://iccf.uca.fr/english-version/research/inorganic-materials>) is recognized for its contribution on fluorinated materials, electrochemical storage, nano-structured materials (Layered Double Hydroxides) at the polymer interface or in interaction with biomolecules, luminescent materials as nano-probe for imaging and finally cold plasma for photovoltaic applications.

<https://iccf.uca.fr/english-version/the-lab/about>(<https://iccf.uca.fr/english-version/the-lab/about>)