



RÉSEAU FRANÇAIS DU FLUOR



Team : Synthèse Totale et Réactivité Organique (SteREO)
Institut of Molecular Sciences of Marseille



<https://ism2.univ-amu.fr/fr/stereo/stereo>

Keywords : Catalysis, enantioselective synthesis, Supramolecular chemistry, methodology, complex molecules synthesis

Principal Investigator :

Adrien Quintard



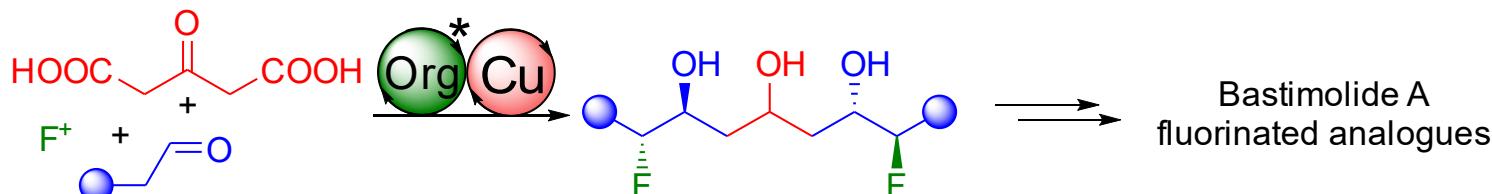
Multicatalytic fluorinated polyols synthesis

Method: Multi-catalytic synthesis of fluorinated polyols and study of their supramolecular properties

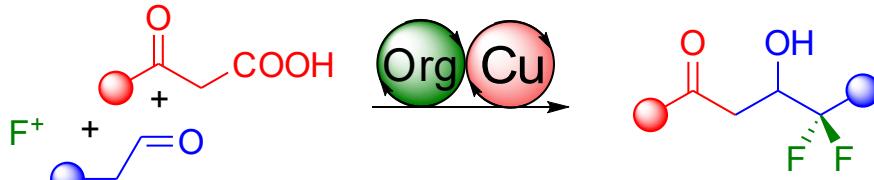
Background: ACS Catal. 2017, 7, 5513; Eur. J. Org. Chem. 2018, 3697; Chimia, 2018, 72, 580; Org. Lett. 2018, 20, 5274; Chem. Eur. J. 2019, 10.1002/chem.201902983

Collaborations : Jean. Rodriguez (Marseille), Jean-Luc Parrain (Marseille), Guilhem Quintard (INSA-Lyon)

a) Cascade enantioselective fluorination/aldolization



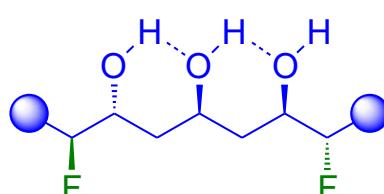
b) Bis-fluorination/aldolization



Organocatalysis
Copper catalysis

Fluorohydrin impact on polyols:

H-bonding network



trans-1,2-Fluorohydri ns

Impact:

- acidity
- conformation
- halogen interaction

Improved supramolecular properties

- Organogel
- Anion binding
- Catalysis