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CALL FOR APPLICATIONS 2025 – FELLOWS

Supervisor	Xiaojun Liu
Supervisor page	https://uteam.fr/consultant/presentation/xiaojun-liu
Host Institution	Université de Technologie Compiègne (UTC) https://www.utc.fr/en/
Research Lab	Laboratoire Transformations Intégrées de la Matière Renouvelable https://timr.utc.fr/
Research Team	Activités microbiennes et bioprocédés https://timr.utc.fr/recherche/equipe-de-recherche-timr/mab-activites-microbiennes-et-bioprocetes/

Project Title

Molecular Insights into Lignocellulosic Biomass Conversion to Biogas

Project Description

Biogas from lignocellulosic biomass (LCB) via anaerobic digestion (AD) is a key point in the EU's sustainable energy plan. However, LCB's complex structure requires pretreatments and tools to assess their efficiencies are limited. This collaboration between UTC and Sorbonne Université focuses on molecular-level LCB characterization during pretreatment and AD, using a complementary set of multi-scale methods to understand biogas enhancement mechanisms and to develop reliable prediction models.

Keywords

lignocellulosic biomass pretreatment, anaerobic digestion, molecular-level characterization

Description of the Host Lab

The research unit Transformations Intégrées de la Matière Renouvelable aims to develop, validate and implement knowledge and know-how for renewable material transformation processes and reactions.

To submit your application, please send an email with the required documents to
mcsa-pf@sorbonne-universite.fr