Personal Information

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Research Experience

Since 09-2025	**Associate Professor – CP2M, IUT, Université Claude Bernard Lyon 1, France** − My research project is structured around three complementary axes: (i) the valorization of polymeric and plastic materials, (ii) the scale-up and structuring of reaction media, and (iii) the development of modeling and chemometric tools to characterize reactor hydrodynamics and chemical kinetics, and to predict process yields.
06-2025 08-2025	**Postdoctoral Researcher – CP2M, Université Claude Bernard Lyon 1, France** − Development of structured catalysts for the catalytic pyrolysis of LDPE: dip-coating of zeolites onto NiCr and SiC macroporous foams to improve external diffusion and control thermal gradients. − Close collaboration with several research laboratories within the PEPR Recycling program – France 2030 (IRCELYON, UCCS, UMET and LRGP).
06-2025 01-2025	**Research Assistant – Technology and Process Research Group (GRTP), Université de Sherbrooke, Canada** − Shaping of Ni/HAp catalyst powders into extrudates for methane reforming in a semi-pilot fixed-bed reactor (kg-lab), with the aim of minimizing pressure drop and hot spots in the catalyst bed. − Evaluation of operating parameters.
06-2025 10-2021	**PhD in Chemical Engineering – Université de Sherbrooke, Canada** (90 credits) − Development of new partially bio-based catalysts for Fischer-Tropsch synthesis (FTS) from bio-syngas. − Refurbishment, modification and instrumentation of a three-phase Mahoney-Robinson (GLS) reactor for FTS. − Analysis and optimization of FTS operating conditions: space velocity, temperature, pressure, solvent type, reaction volume, impeller type and stirring speed. − Catalytic tests for steam reforming of methane and of biomass pyrolysis gas in a quartz fixed-bed reactor, using Ni/HAp catalysts.

− Statistical modeling approach applied to catalytic reforming to identify significant parameters and build a predictive model of hydrogen yield.

Intern – Laboratoire de Génie Chimique (LGC), Toulouse, France

02-2021
07-2021

− Monitoring of the membrane separation process for mixtures of supercritical carbon dioxide and vegetable oil.

− Study of membrane performance (rejection rate, permeability, resistance) through filtration tests.

Education

2021 MSc in Chemistry, Catalysis and Processes – École Centrale de Lille & IFP School, France

2020 Master's Degree and State Engineer Diploma in Chemical Engineering – École Nationale Polytechnique, Algeria