

Development of a simulation model of the post-combustion CO₂ capture process by absorption-regeneration using demixing solvents: application to cement flue gases

PhD student: Seloua MOUHOUBI

Chemical and Biochemical Process Engineering Unit

Seloua.MOUHOUBI@umons.ac.be

PhD supervisors:

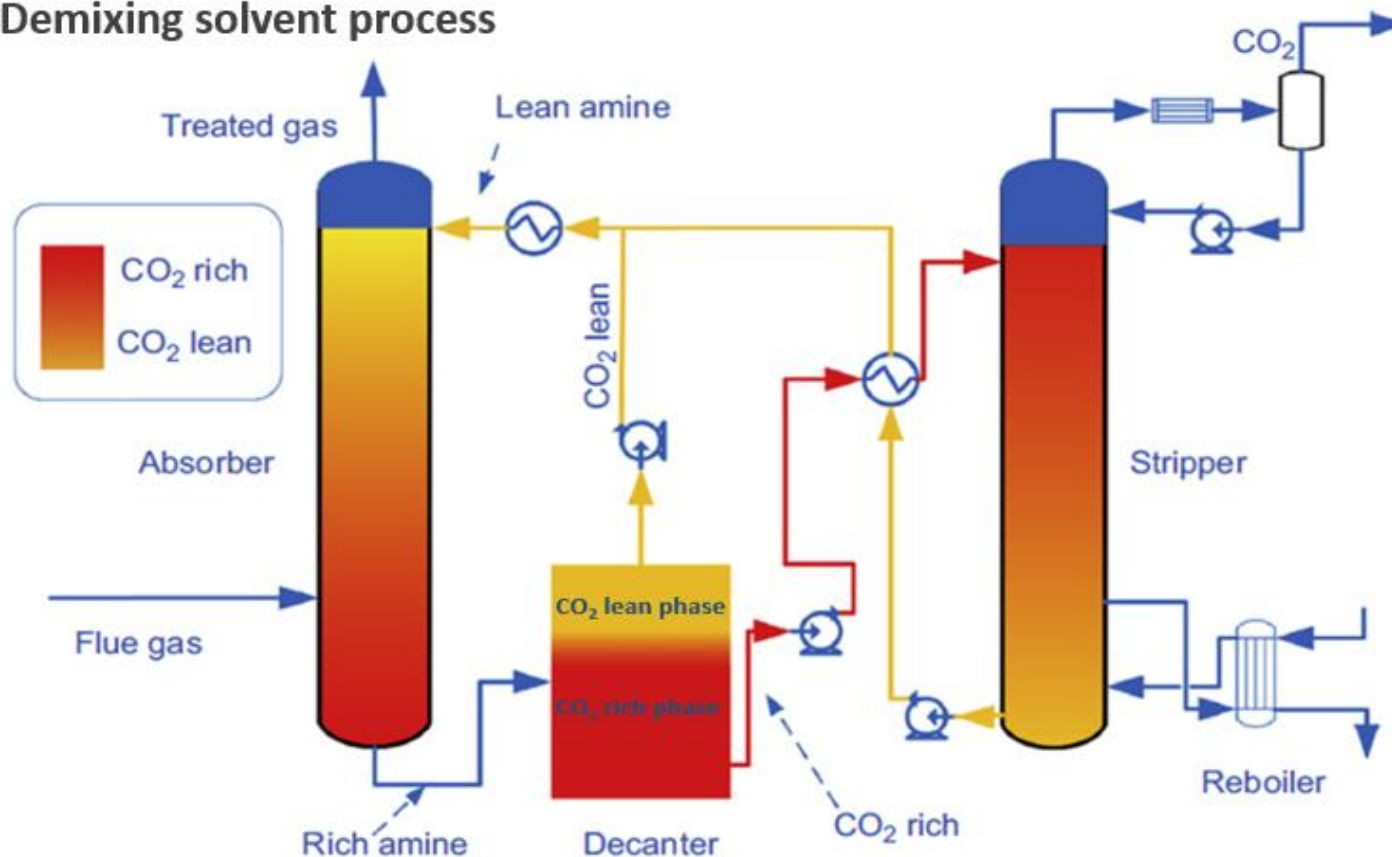
Professor Diane THOMAS

Professor Guy DE WEIRELD

Context of the study

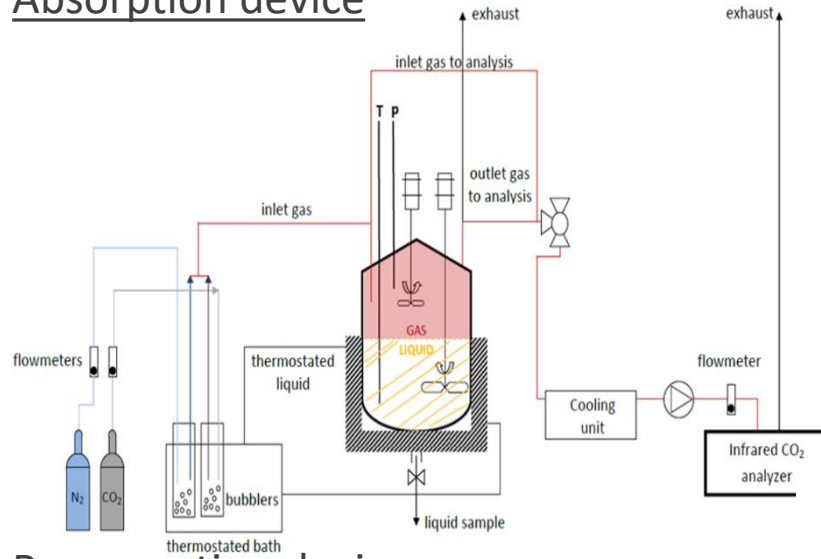
- Researches on post-combustion CO₂ capture → MEA conventional process
- New technologies to reduce the capture cost → Demixing solvents processes

Demixing solvent process

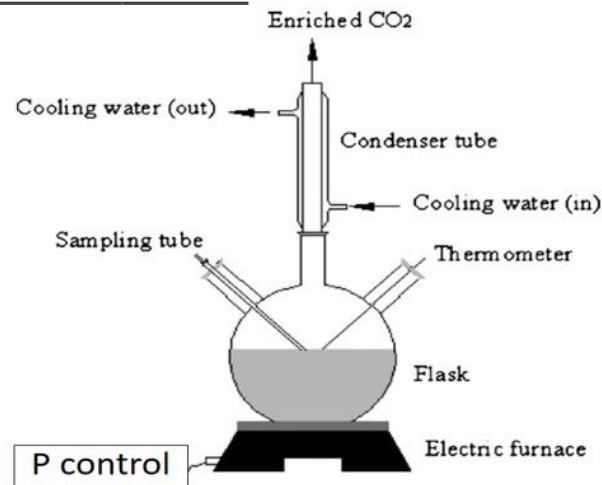


Thesis steps

Absorption device



Regeneration device



Experiment

- Equilibrium tests
- Kinetic tests
- Absorption-regeneration tests in micro pilot

