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Carbon dioxide capture by BIOlogically induced Carbonate precipitation (CABIOCA)

Years: 2021-2024

Background

 CO_2 anthropic emission are one of the main causes of global warming and there is currently a major issue at reducing and capturing CO_2 .

Objectives

This doctoral project aims at selecting phototrophic sulfur bacteria for the optimisation of calcium carbonates precipitation

Methodology

- Modelling of biological growth and calcium carbonate precipitation reactions
- Photobioreactor monitoring for phototrophic bacteria selection
- Batch reactor to study the kinetics of abiotic and biotic calcium carbonate precipitation

Keywords

CO2 Capture, Calcium carbonate, Microbial Induced Precipitation, Phototrophic bacteria, Sulfur cycle

Doctoral project integrated into projects: CABIOCA (INRAE CNRS 2021-2022) with GeT Laboratory https://www.get.omp.eu





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