



JEAN-BAPTISTE REGNET

From France to Sweden



Project: **Laser Ablation Mass Spectrometry on altered Ooids.**

Research topic: **Ocean & Earth Sciences**

Swedish Institution: **Lund University**

French Institution: **CY Cergy Paris University**

Dates of mobility: **21/09/2022 to 02/10/2022**

Program: **SFVE-A (ex TOR)**



PRESENTATION

[Jean-Baptiste Regnet](#) is an Associate Professor at the [CY Cergy Paris University](#) since September 2018. His research focuses on feedbacks between fluid-rock interactions and the evolution of rock physical properties and their mechanical behaviour. He has a strong background in sedimentary geology of carbonate systems and their associated diagenesis. Beyond the fundamental nature of his research, he is actively working at finding viable solutions to various environmental issues by studying rocks below earth's surface, evaluating the relative hazards of geological storage, investigating energy resources such as hydrothermal energy, and charting the flow of groundwater through the earth. Thus, physics of rocks, fluid-rock interactions, geology and sedimentology of carbonate systems, experimental rock mechanics, hydrogeology, geological storage, and geothermal energy are topics, among other, which he is greatly devoted.

ACTIVITIES IN SWEDEN

During his stay at [Lund University](#), Jean-Baptiste Regnet had the opportunity to simulate carbonate diagenesis in laboratory. The elemental and isotopic geochemistry of both Ooid grains and water have been analysed before and after the lab diagenesis. The elemental composition of the water has been determined by inductively coupled plasma optical emission spectrometry (ICP-OES), the O and H isotopes by the CO₂-H₂O equilibrium technique (Horita *et al*, 1989) and the C isotope composition of dissolved inorganic carbon has been measured through a Gas-bench peripheral linked to a gas-isotope ratio mass spectrometry (G-IRMS).