PhD Scholarship in geochemical modelling

University of Évora, Portugal

Requisites: The University of Évora, Portugal, accepts application for a PhD scholarship in geochemical modelling. Candidates should hold a MSc degree in Earth Sciences, Geology, Geochemistry or related areas and have a profile suitable to develop research towards a PhD in Geochemical modelling of CO$_2$+water+rock interaction in the context of CO$_2$ storage projects.

Research Activities: The activities will be carried out in the scope of the PilotStrategy project (pilotstrategy.eu), involving acquisition and interpretation of geological data to build a geochemical model able to describe the geochemical behaviour of CO$_2$ in a reservoir. The selected candidate will be required to utilize optical microscopy, X-Ray Diffraction and Scanning Electron Microscopy and other tools to identify potentially reactive mineral phases and mineral surface microtextures after exposure to CO$_2$. The selected candidate will be required to model the results of laboratory experiments on the CO$_2$+water+rock interaction, based on the interpretation of chemical analysis before and after exposure to CO$_2$, and to upscale the results of that model from the sample size to the pilot size, using TOUGHREACT, CRUNCHFLOW or similar geochemical modelling software.


Duration: 3 years

Grant: The grant amount is established according to the FCT (Foundation for Science and Technology) regulation for holders of a MSc degree or equivalent.

Deadline for application: 31 August 2022

Contacts for further information and application: Prof. Jorge Pedro, jpedro@uevora.pt or Mário Abel Gonçalves, mgoncalves@fc.ul.pt