

Post-doctoral researcher position in Computational Petrology: Aqueous thermodynamics and element mobility via fluids during prograde metamorphism

The computational petrology and geochemistry group hosted at the Institute of Geological Sciences, University of Bern is seeking a post-doctoral research associate to help in the development of thermodynamic models for aqueous species applicable to a large range of metamorphic conditions.

The open position is fully funded for 24-30 months (approx. 90-100k CHF per annum), within the framework of the Horizon 2020 ERC StG project [PROMOTING](#).

The main goal of this project is to compile results of solubility and aqueous speciation experiments and to extend the applicability of internally-consistent datasets for aqueous species to higher pressure and higher temperature conditions. This new fluid chemistry model will be coupled to Gibbs energy minimization and applied to quantify to what extent metasomatism plays a fundamental role during prograde metamorphism. This project is part of a group effort for the development of a three-phase flow model accounting for reactive melt and aqueous fluid migration through a compactable visco-plastic porous medium.

We are seeking a motivated, independent candidate familiar with solid and/or aqueous thermodynamics, ideally with strong skills in scientific programming (e.g. Matlab, Python, C, C++).

Interested candidates should send their inquiries and applications, including a cover letter (max. 2 pages stating the research motivation and interests), a detailed CV (including academic background, previous research/publications and/or industrial experience as well as the names and contact information of 2-3 referees) to Prof. Pierre Lanari (pierre.lanari@geo.unibe.ch) before the 27th of November 2020.