



C R P G

Centre de Recherches Pétrographiques et Géochimiques
www.crpq.cnrs-nancy.fr

UMR 7358

Post-doc position:

Early differentiation of alkaline series: An experimental perspective

We are opening a one year post-doc position (potential 6 months extension) at CRPG laboratory (Université de Lorraine, Nancy, France). The project is related to igneous petrology, and will use the tools of experimental petrology (piston cylinder), and analytical in-situ geochemistry (SEM, EPMA, LA-ICP-MS, SIMS, Raman). We are looking for candidates with an expertise in experimental petrology and potentially in other analytical techniques.

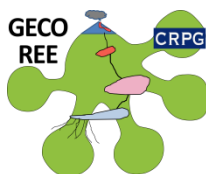
The main issue of the proposed project is to bring unprecedented constraints on the genesis of evolved alkaline melts and related carbonatite magmas, and more specifically on the link between the potential parental melts with such highly evolved products. With this project, we aim at quantifying experimentally, for the first time, the differentiation of alkaline series at continental Moho depths, and related partition coefficients of several trace elements (including REE). Parental magmas that will be considered will be Mg-nephelinite and melilitite (H₂O-, CO₂-bearing). Preliminary experiments of equilibrium crystallization have been performed at CRPG in the last years, thus the post-doc project will focus on fractional crystallization with the aim of comparing the results (stable phases, phase diagrams, mineral and melt compositions, presence of immiscible carbonatite melt...) for both crystallization types, and eventually improve our understanding of the evolution of alkaline magmatic series.

This project is funded in the frame of the " Laboratory of Excellence Ressources 21: Strategic metals in the 21st century" (LabEx R21), and will allow to the selected candidate to evolve in an exceptional scientific environment at Université de Lorraine where all experimental and analytical facilities required for the project are available.

Collaborations: Lydéric France (CRPG); Célia Dalou (CRPG); Pierre Condamine (LMV); Marie Camille Caumon (GeoRessources)

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Application: <https://emploi.cnrs.fr/Offres/CDD/UMR7358-LYDFRA-008/Default.aspx?lang=EN>



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