



PhD Position in Planetary Sciences at KU Leuven, Department of Geology

The Department of Geology at KU Leuven invites applications for a PhD position in Planetary Sciences, focusing on research related to the planetary mantle melting and/or magma ocean crystallization. This project, funded by the European Research Council Consolidator Grant "IronHeart," offers a unique opportunity to contribute to cutting-edge research in understanding the early stages of planetary formation through experimental investigations.

Project Description:

The successful candidate will conduct experimental investigations to simulate the formation and evolution of magma oceans in planets. By recreating the extreme conditions present during the early stages of planetary accretion, the project aims to elucidate the physical and chemical processes governing magma ocean crystallization, differentiation, and subsequent solidification. While experimental studies will be the primary focus, the project will also involve numerical modeling to complement and interpret experimental results.

Responsibilities:

- Design and conduct high-temperature experiments to simulate magma ocean processes using experimental petrology techniques.
- Characterize the phase assemblages, mineralogical compositions, and textures of experimental samples through analytical methods such as electron microscopy, electron microprobe.
- Develop and implement simple numerical models to simulate magma ocean crystallization and differentiation processes.

Qualifications:

- Master's degree (or equivalent) in Geology, Earth Sciences, Planetary Sciences, or a related field.
- Strong background in igneous petrology, experimental petrology, or mineral physics.
- Proficiency in analytical techniques commonly used in petrology, such as electron microscopy, electron microprobe.
- Experience with high-temperature experimental techniques is a bonus.
- Basic understanding of numerical modeling concepts and willingness to learn and apply numerical methods to complement experimental studies.

- Excellent analytical and problem-solving skills, with a passion for planetary science research.

Appointment Details:

- Position: PhD Researcher
- Duration: 4 years.
- Salary: Competitive salary in accordance with KU Leuven's doctoral salary scale (~ 2500 EUR after tax).
- Start Date: Flexible, preferably in October 2024.

Application Procedure:

- Interested candidates should submit a single PDF file containing a cover letter outlining their research interests and relevant experience, a curriculum vitae, a list of publications, and contact information for three references. Please apply through the vacancy website of the KU Leuven.

Deadline for Applications:

- The application deadline is June 15 2024. Review of applications will begin immediately and will continue until the position is filled.

Further Information:

- For inquiries about the position or the IronHeart project, please contact Olivier Namur at Olivier.namur@kuleuven.be. Details on the Earth Sciences department and the Petrology group can be found at: <https://ees.kuleuven.be/en/geology>

About KU Leuven:

KU Leuven is a leading European research university located in Leuven, Belgium, consistently ranked among the top universities worldwide. With a rich history dating back to 1425, KU Leuven is renowned for its high-quality education, cutting-edge research, and international academic community. The Department of Geology at KU Leuven is at the forefront of Earth and planetary sciences research, offering state-of-the-art facilities and a collaborative environment for interdisciplinary exploration. Join us at KU Leuven to be part of a vibrant academic community dedicated to advancing knowledge and shaping the future of science.