



**UNIVERSITÉ
DE GENÈVE**



FONDS NATIONAL SUISSE
SCHWEIZERISCHER NATIONALFONDS
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SWISS NATIONAL SCIENCE FOUNDATION

Fully Funded PhD opportunity in Isotope Geoscience

The University of Geneva, Switzerland has an extremely strong record in Isotope Geoscience, and is supported by in-house world class analytical facilities, including access to the modern and complementary laboratories at the University of Lausanne, which is located 50km away. We are looking for a capable student to undertake their PhD at the University of Geneva. The project will test key assumptions that are used in thermochronology, with an emphasis on the $^{40}\text{Ar}/^{39}\text{Ar}$ method.

The project will combine single and multiple grain isotopic analyses, in-situ isotopic measurements and mineral characterization (texture, composition, structure) to constrain the mechanisms of Ar redistribution within crystals. Are isotopes mainly lost by thermally activated volume diffusion, leading to the generation of continuous thermal history paths? Alternatively, does the distribution of Ar reflect something else (e.g. sub-solidus mineral transformations)? The study includes a significant field component in the USA and the French Alps, in regions that are excellent natural laboratories to test thermochronological assumptions, and where the geological histories are well known.

The project is funded for a period of 4 years by the Swiss National Science Foundation. We invite people with a BSc. (hons; 1st class or 2-1), MSc. or equivalent degree in Earth Sciences, Physics or Material Sciences to apply. Thermochronology is an extremely useful and challenging tool within quantitative Earth Sciences, and therefore a high degree of competency in mathematics and natural sciences is beneficial, as is the ability to work in a clean laboratory environment with sophisticated equipment. Candidates must be able to communicate clearly in English. The start date is not fixed, although we expect to start as soon as possible, and before June 2022. All applications will be evaluated until a suitable candidate has been found.

Applications, including a cover letter, CV and list of referees should be sent to Dr. Richard Spikings (richard.spikings@unige.ch).

[More details about the facilities and staff at the Dept. of Earth Science, University of Geneva.](#)