UNIVERSITÉ CÔTE D'AZUR

Postdoctoral position - Rock weathering experiments with microbial ecosystems under Archean conditions

> Entity/Service : GéoAzur laboratory, Université Côte d'Azur (with CNRS, IRD and Observatoire de la Côte d'Azur), Sophia Antipolis : Valbonne

- **Type of Recruitment: Contractual (18 months temporary contract, CDD)**
- **Category: Post-Doctoral Researcher**
- **Working Hours: Full-time**
- **Location: UMR Géoazur , Campus Azur du CNRS 250 rue Albert Einstein - CS 10269 - F 06905 SOPHIA ANTIPOLIS Cedex**
- **Reference Number : 2026-DDIE06**

The challenge

Did life shape the surface of the early Earth? For most of its history, microorganisms were the only life forms populating the ocean and continents, in a world with a faint young Sun, an anoxic atmosphere and oceans, and possibly no plate tectonics. Rock weathering regulates the carbon–climate system and the habitability of a planet, and microorganisms can influence it directly (through their metabolisms) or indirectly (through the chemical reactions they are involved in).

One of the PhD students of the Pandora project has designed and built an experimental set-up at CEREEP ECOTRON Île-de-France that reproduces rock weathering under Archean-like conditions, with and without a microbial ecosystem from the anoxic waters of Lac Pavin, a ferruginous maar lake in the Massif Central. Water–rock and water–air calibrations and sterilization tests are completed: the experiments are ready to go and we are looking for completing the team.

Do you have experience in microbial ecology, geomicrobiology or astrobiology, and in anoxic microbial cultures and incubations?

We're looking for our future postdoctoral researcher in geomicrobiology!

Join us at Université Côte d'Azur/CEREEP ECOTRON Île de France, recognized for their scientific and educational excellence, to create a responsible and innovative university to serve as a model for the 21st century.

Your missions

You will work alongside the PhD student who built the experiment, and you will be involved in the biological component of the project and extend it with a new experiment.

- **Lead the biological side of the current experiment:** monitor the microbial ecosystem (Archean-like functions: methanogens, methanotrophs, sulfate-reducing, sulfur-oxidizing and nitrate-reducing microorganisms) in the incubated versus sterile reactors.
- **Characterize the microbial communities:** DNA extraction and metabarcoding, together with the Genoscope team, and interpretation of community composition across rock types and conditions.
- **Co-organize a field campaign at Lac Pavin:** sample anoxic water below 60 m (Niskin bottles, in-situ incubations of rocks) and bring the samples back under anoxic conditions for use in the experiments.
- **Design, set up and run a new experiment** similar to the existing one, using the freshly collected samples, and publish the results in international journals and present them at conferences.

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This job is for you if

- You possess a PhD in biology, microbiology, geomicrobiology or astrobiology (or a closely related field) and a strong interest in the evolution of the Earth and the interactions between life and minerals.
- You have mastered molecular microbiology techniques (DNA extraction, PCR, metabarcoding and bioinformatic analysis of sequencing data) and, ideally, anaerobic culture or incubation techniques.
- You are autonomous, rigorous and at ease in field work (boat-based sampling on a lake) as well as in a geochemistry laboratory.
- You like interdisciplinary teamwork between geology, geochemistry and biology, and communicating your results in English (French is a plus).

Compensation and benefits

- Contractual remuneration (excluding variable compensation): 3500 gross per month depending on your profile
- Vacation: 45 days annual leave
- Telework: 2 days/week
- Partial reimbursement of commuting expenses
- Partial coverage of supplementary medical insurance fees
- Access to CROUS university restaurants and cafeterias at special rates
- Tickets for entertainment and outings at preferential rates

The work environment

GéoAzur is a joint research unit of Université Côte d'Azur, CNRS, IRD and the Observatoire de la Côte d'Azur, based on the Sophia Antipolis campus near Nice. The project is carried out in collaboration with the Laboratoire de Géologie of the École Normale Supérieure (Paris) and the CEREEP-Ecotron Île-de-France, which brings together expertise in geosciences, geochemistry and ecology.

You will work in the team of Nicolas Coltice and Samuel Abiven with daily collaboration with the PhD student who built the experiment. The geographical location will be between Nice and Paris / Île-de-France.

The little extras

- Free parking
- Sports complex/Library access

Your professional background

PhD in biology, geomicrobiology or astrobiology

How to apply

Interested in this ad? Don't hesitate! Apply now by email to: Chaima.MOHAMED@univ-cotedazur.fr.
Your application should include a CV and cover letter, which we will read carefully.

Recruitment calendar:

Deadline for receipt of applications: 22/11/2026

From 22/11/2026: Responses to applications, shortlisting and organizing interviews

Desired start date: 01/01/2027

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Open to Europe and to the world, Université Côte d'Azur coordinates higher-education and research activities in the Côte d'Azur region and has created an environment where education, research and innovation meet the highest standards. While engaged in a deep and ongoing transformation of its role and organization, Université Côte d'Azur is also a dynamic leader in the local region known for its exceptional quality of life between sea and mountains. In this context, Université Côte d'Azur is recognized for its excellence and is committed to human-centered values, socially engaged, and ethically responsible.

> Key figures

36 116 Students

21 Component education institutions
including 8 Graduate Schools and 6 associate components

60 Laboratories and research

5432 Permanent employees
including 1,809 faculty, 1,347 administrative staff plus around 2,276 lecturers and fellow researchers at CNRS, INSERM, OCA, Inria, INRAE, etc.

> Values



univ-cotedazur.fr

WHY JOIN US ?

> A socially committed university

- Disability support
- Gender equality
- Quality of life at work
- Scientif ethics and integrity
- Prevention of discriminations
- Eco-responsible campuses

> Our benefits

- Numerous skills development programs: training and advice on careers and mobility
- Up to 2 days of telework per week, subject to the needs of the service
- 45 days of annual leave per year (full-time)
- Sustainable mobility allowance (for cycling, carpooling)
- Partial reimbursement of public transport costs
- Partial coverage of supplementary medical insurance
- Sporting activities, cultural events and social clubs
- Staff cafeteria
- Full range of French social benefits
- Parenting support



10 good reasons to join us

> Current job opportunities

- All our job offers are available on the web Working at Université Côte d'Azur
- All our positions are open to people with disabilities

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