

**PhD Position in Analytical Chemistry / Conservation Science**  
**University of Neuchâtel, Switzerland**Edith Joseph  
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We are looking for a highly motivated PhD candidate to work in developing and optimizing alternative green treatments for the preservation of metallic heritage at the interface of analytical chemistry and art conservation.

This research focuses on innovative biological methods of stabilization for the preservation of artistic and archaeological iron artefacts. The research team will exploit the unique properties of some microorganisms to remove iron reactive compounds from corroded surfaces. This research will rely on recent advances achieved within a project on the biotechnological stabilization of iron corrosion. To this purpose, two different strategies will be adopted: 1) reduction of iron species and 2) complexation of iron species.

The successful candidate will hold a University Master's degree in materials science, microbiology or chemistry. Experience in dealing with cultural heritage and/or microorganisms would be an advantage. The ideal applicant will have strong analytical abilities (including FTIR/Raman microscopy, XRD, SEM-EDS, XRF and Synchrotron XAS) focused on solving technical/organizational issues and be able to manage short-term deadlines as well as to develop a long term development strategy.

In addition, he/she will be able to communicate results in a multidisciplinary and multicultural environment. In particular, the candidate will assist in teaching Bachelor students, in particular for the preparation and supervision of laboratory courses in chemistry. A good knowledge of English is required and French language proficiency or willingness to acquire it would be an asset.

Funding is assured by the University of Neuchâtel for a maximum of 3 ½ years. The PhD candidate will be based at the University of Neuchâtel, under the supervision of Edith Joseph. The PhD candidate will be registered at the doctoral program "Molecular Sciences in the Context of Life and Material Sciences" of which the University of Neuchâtel is member.

The University of Neuchâtel is a university on a human scale, with about 4'500 students. Its small size enables it to provide high-level training and to foster relationships between students and professors. It is one of the most international universities in Switzerland, with about 100 nationalities present and more than a fifth of the student body coming from abroad. Ideally located midway between Geneva and Zürich, in the heart of Europe, it is a perfect place to study or undertake high-level research in an idyllic setting between lake and mountains.

Information on the Chemistry Institute is available at: <http://www.unine.ch/chim/home.html>

Information on the doctoral program is available at: <http://www.unine.ch/dp-mls>

The University of Neuchâtel is an equal opportunity employer. Please send your complete application including a letter of interest, curriculum vitae with a list of publications, copies of diplomas and work certificates, copy of bachelor and/or master's thesis, proposal of potential thesis topic (2 pages max.) and the names and contact information of two references to Edith Joseph (edith.joseph@unine.ch).

Application deadline: February 18, 2019

Short-list selection: February 19-21, 2019

Phone interview: February 25, 2019

Final decision and communication of approval: February 27-28, 2019

PhD start: April 1, 2019.

FACULTÉ DES SCIENCES

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