



Lehrstuhl für Allgemeine und Analytische Chemie
Leitung: Univ.-Prof. Dipl.-Ing. Dr. Thomas Prohaska
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<https://aach.unileoben.ac.at/de/6665/>



VACANCY:

A full-time Senior Scientist (m / f / d) at the Department of General, Analytical and Physical Chemistry at the earliest possible point in time in an employment contract limited to 1.5 years (40 hrs/week) or 2 years (30 hrs/week).

Salary group B1 according to Uni-KV, monthly Minimum wage excl. surcharge: € 3.889,50 for 40 hours per week (14 times a year) - the actual classification is based on creditable job-specific previous experience.

We are looking for a researcher with high personal motivation for scientific excellence and integrity, with the ability to solve problems and enjoy working together in research teams in an interdisciplinary and internationally oriented environment.

We offer a PostDoc position in the field of Analytical Chemistry/Environmental Sciences/Metrology within an international high-level project dedicated to develop traceable measurement procedures for TCEs in urban mine waste. The position is embedded in a Horizon2020 EMPIR/EURAMET co-financed project of a consortium of the top leading European Metrology Institutes and Research Institutions.

Background: Technology critical elements (TCE), are a group of naturally occurring chemical elements increasingly used in high technology for their unique properties (conductive, magnetic, material properties). These critical elements are widely present in energy-efficient devices and in alternatives to fossil fuel energy. As such, TCE have gained much interest due to their economic importance and increasing scarcity. The European Commission has also identified recycling as a priority of the circular economy agenda and the amended Waste Framework Directive (2018/851/EU) has been updated with targets for the recycling of TCE-containing waste. However, progress toward this goal is currently limited predominantly due to a lack of accurate quantification of TCE. Harmonised methods for quantification of TCE will accelerate the knowledge of recycling strategies and new technology development. Therefore, new and improved reference methods and reference materials for TCE analysis in waste are needed. The overall objective of the project is to provide reliable and SI traceable determination of TCE in urban waste material at $\mu\text{g/g}$ levels in order to increase the efficiency and accuracy of TCE recycling.

Requirements: Completed doctorate in natural sciences, with a focus on analytical chemistry and environmental sciences. The successful candidate will develop analytical methods to quantify TCEs in urban waste samples based on (LA)-ICP-MS and XRF techniques. The candidate will be in charge of sample preparation, method development and analysis as well as data evaluation. The candidate will be involved in project coordination, field and laboratory experiments related. The publication of the results in peer reviewed scientific journals is obligatory. International research meetings are foreseen. Within the project, the development of standard operating procedures including training of industry partners via on-site and online seminars are within the responsibilities of the candidate. Publication of the results is mandatory. The person is explicitly encouraged to develop own research ideas and to acquire new projects. International research meetings are planned.



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We offer a varied and independent job. A team-oriented working atmosphere, intensive cooperation with project partners and commitment to teaching offer ideal professional and personal development opportunities. The Montanuniversität Leoben promotes career paths and offers excellent framework conditions for social diversity in a contemporary working environment. We strive to recruit individuals who will further enhance our diversity. Qualified international candidates are strongly encouraged to apply.

For your application, please use our online application form on the homepage: <https://www.unileoben.ac.at/jobs>. For more information, contact johanna.irrgeher@unileoben.ac.at.

Reference number: 2104 WPS; Application deadline: May 15, 2021