

The Deutsches Museum is one of the largest science and technology museums worldwide. It houses a unique collection of natural science and technology. With its current exhibitions, it is a forum for information about and discussion of the latest scientific and technical developments. As a research museum, it is part of the Leibniz Association.

Our Conservation Science Department is currently looking for a

Conservation Scientist / Analytical Chemist

in part-time (estimated to be at least 60%) within the European Project *Sustainable Intelligent Management of Indoor Air Quality for the Culture and Creative Industries* (SIMIACCI).

SIMIACCI aims to enhance the preservation of Cultural Heritage artefacts in Galleries, Libraries, Archives, and Museums (GLAMs) by developing an integrated system that meets rigorous Indoor Air Quality (IAQ) standards and a substantial reduction in associated energy consumption. For this purpose, pioneer Metal-Organic Framework (MOF) materials - a porous structure crafted from metal ions and organic linkers - will capture volatile organic compounds under real environmental conditions.

Your tasks

- MOFs specifications for IAQ control in GLAMs (based on literature research and a questionnaire)
- MOFs' stability and compatibility laboratory tests
 - Planning tests based on the project description and laboratory set up
 - Artificial ageing tests of MOFs and plastic mock-ups
 - Fourier-Transform-Infrared-Spectroscopy (FTIR) and Thermogravimetry coupled with Fourier-Transform-Infrared-Spectroscopy (TGA-FTIR) analysis
 - Method development and analysis using Gas Chromatographic-Mass Spectrometry (GC/MS) methods
- Monitor Air Quality with a wireless connection and IT framework
 - Selection and implementation of sensor technologies in the GLAMS environment (collaboration with museum co-workers - curators, technicians, engineers - to select appropriate case studies in museum areas (e.g. Archive, Library, Exhibition, Storage)
 - Validation of results by comparison with reference data
- Predictive maintenance tool development and implementation (support in determining the degradation kinetics of main emission sources)
- Air cleaning devices optimization and validation (defining end-user parameters and testing air cleaner prototypes in GLAMS environment)
- Environmental and social analyses (costs analysis, environmental life cycle assessment, social life cycle assessment)
- Business model, Market validation and Exploitation strategy (interviews with GLAMs, insights into current demand and trends)
- Data interpretation and curation, scientific reporting, communication and dissemination activities (publications, temporary exhibition, video)
- Coordination and project management activities
- Laboratory security and equipment's maintenance associated with the project's tasks
- Support in the supervision of guest-researchers and interns associated with the project

Requirements

- Completed graduate studies (Master degree or equivalent) and PhD in conservation science, analytical chemistry or a related field, i.e. materials science
- Up-to-date knowledge of sample preparation, analytical procedures (particularly FTIR, TGA-FTIR and GC/MS) and laboratory security
- Publication record and experience in running research projects in collaboration with cultural heritage institutions
- English advanced level and at least German intermediate level

Personal / social / methodological Competences

- Analytical skills and joined-up thinking
- Autonomous and responsible work style
- Social and communicative competences
- Goal-orientation

We offer

- A responsible, interesting and future-oriented workplace in the city centre of Munich within an engaged, appreciative and cooperative team that offers diverse opportunities for continuing education
- Remuneration within the pay grade 13 according to the Public Sector Collective Agreement on Länder (Tarifvertrag für den öffentlichen Dienst der Länder, TV-L)
- Annual bonus payment
- Retirement provision of the public sector
- 30 days holiday and paid leave of absence on 24th and 31st of December
- Flexible work time
- A general possibility to do home office
- Corporate Health Management

The contract is limited from February 2025 to December 2028.

We welcome your application regardless of your age, gender, cultural and social origin, religion, ideology, disability and sexual identity.

Are you interested?

We are looking forward to your application by email (a file in PDF format, max. 5 MB) to **bewerbung@deutsches-museum.de** containing your motivation letter, CV, copies of your academic degrees and employer's references by **October 2, 2024**. Please include the job announcement number **2449** in the subject of your email.

Information on data protection and the processing of personal data as part of your application can be found at <http://www.deutsches-museum.de/impressum/datenschutz>.