Faculty of Environmental Sciences

At the **Department of Hydro Sciences**, the **Institute of Water Chemistry** offers, **as soon as possible**, a position as

**Research Associate**

(Subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

lasting to the end of the project on 31.12.2022 which entails 65 % of the fulltime weekly hours. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG). The position offers the chance to obtain further academic qualification (e.g. PhD).

Within the framework of an ESF funded junior research group, it is the aim to develop a system for peptide-based cell-cell communication between yeasts and bacteria for technological processes. A priority objective shall be the comprehensive elucidation of control mechanisms, which are necessary for a balanced cultivation of microbial communities and the optimal exchange of metabolites, in order to enable a conscious use of those mechanisms.

**Tasks:** Establishing analytical methods for the quantification of signal peptides (pheromones) using HPLC-MS/MS and modification thereof in order to meet the needs of more complex matrices and low concentrations, including pre-analytical approaches like SPE, GPC/SEC or ultrafiltration; furthermore, the quantitative determination of selected antibiotics in water and culture media samples, the deduction of kinetic data concerning the biochemical degradation of antibiotics and the characterisation of transformation products.

**Requirements:** Junior researcher, a very good university degree in the fields of chemistry, biochemistry, food chemistry, environmental sciences or similar, obtained no longer than 4 years ago (plus e.g. times of parental leave); a high level of motivation and interest in scientific and interdisciplinary research; very good knowledge of English language (written and spoken); ability to work independently and well-structured in a team with a high level of communication and cooperation within the junior research group; analytical thinking; exceptional skills in laboratory work as well as a deep understanding within the field of analytical chemistry (especially determination of peptides and antibiotics using HPLC-MS/MS, sample preparation), hydrochemistry, biochemistry and microbiology.

Applications from women are particularly welcome. The same applies to people with disabilities.

Please, send your expressive application including all common documents by **09.01.2020** (stamped arrival date of the university central mail service applies) to **TU Dresden, Fakultät Umweltwissenschaften, Fachrichtung Hydrowissenschaften, Institut für Wasserchemie, Herrn Prof. Dr. Stefan Stolte, Helmholtzstr. 10, 01069 Dresden**. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

**Reference to data protection:** Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: [https://tu-dresden.de/karriere/datenschutzhinweis](https://tu-dresden.de/karriere/datenschutzhinweis)