



The Collaborative Research Center SFB 1076 “**AquaDiva** – Understanding the Links between Surface and Subsurface Biogeosphere” is funded by the Deutsche Forschungsgemeinschaft (DFG). AquaDiva is an ambitious research center with more than 70 researchers and Institutes at four faculties of the Friedrich Schiller University Jena (FSU) and three non-university research institutes in Jena or Leipzig. The integrated Research Training Group AquaDiva is educating doctoral researchers in a structured, interdisciplinary training program. AquaDiva combines different research areas, such as ecology, microbiology, hydrogeology, soil science, geomorphology, geochemistry, geology, geophysics, chemistry, and information science, to a comprehensive picture of subsurface research (www.aquadiva.uni-jena.de).

The Integrated Research Training Group AquaDiva invites applications for a

Doctoral Researcher Position (m/f; Ref.No. 144/2017)

at the Institute of Organic Chemistry and Macromolecular Chemistry, Friedrich Schiller University Jena
(subject to the final grant decision end of May)

**Development and Fundamental Characterization of a Polymer Tracer Library for Subsurface
(Reactive) Environmental Transport Experiments**

Fluid flow and reactive transport in the Hainich Critical Zone Exploratory (CZE) environment take place in a complexly structured hydrogeological setting. In order to reconstruct migration pathways of natural organic matter, tailored conservative and reactive tracers, which act as functional analogues, are required. The joint project aims to create a tracer library based on methacrylic copolymers with controlled colloidal size, hydrophobicity, pH-, and redox dependent behavior, as well as controlled stability. In this part of the project, the tracer library will fundamentally be development, and characterized by a breadth of physicochemical analysis techniques, in particular by methods of (hydrodynamic) separation, and light scattering technology.

Requirements:

- A Master’s degree (or equivalent) in **e.g., polymer chemistry, synthetic organic chemistry, analytical chemistry**, or a related discipline; candidates expected to earn their degree by September 2017 are welcome to apply
- **Solid knowledge** of controlled polymerization techniques, polymer functionalization, and use in life science settings together with associated characterization science
- **Excellent technical skills** in e.g.: Analytical Chemistry, separation science, mass spectrometry, and willingness to interdisciplinarily combine synthetic approaches with tailored polymer characterization approaches
- Readiness to **collaborate** with short timescale **work in the field** and **accompany implementation**
- Enthusiasm to play an active role in the **interdisciplinary research team** of AquaDiva
- Highly **motivated** and **creative personalities**, with an interest to **shape their own thesis project**
- Excellent written and oral communications skills in **English**

We offer:

- A doctoral researcher position (TV-L E13 - salary agreement for public service employees, 65%) with funding from Sep 1, 2017, until Jun 30, 2021, as well as generous research funding with the possibility of a three-months research stay abroad
- Opportunity for research on an innovative and unique Critical Zone research platform
- A comprehensive mentoring program with supervision by a team of advisors
- A communicative atmosphere within a scientific network providing top-level research facilities and training program, including participation in international and national conferences and workshops
- The place of work is Jena, Germany, a young and lively university town with dynamic business activities, successful scientific centers of innovation, and a vibrant cultural scene around a university with a rich tradition

Severely disabled applicants with equal qualification and aptitude are given preferential consideration.

Applications should be written in English. The **application deadline is June 16th, 2017**.

Applications are submitted exclusively via an online application tool: <https://apply.jsmc.uni-jena.de>

Selected applicants will be invited to a recruitment symposium in Jena, Germany, presumably in August, 2017.

For more **information on the position**, feel free to contact Prof. Dr. Ulrich S. Schubert (ulrich.schubert@uni-jena.de).

For more **information on the application process**, please contact the coordinator, Dr. Maria Fabisch (maria.fabisch@uni-jena.de).

More **project details**: <http://www.aquadiva.uni-jena.de/Graduate+school/Open+positions-p-213.html>.