



In the frame of the project AquaKlif within the *bayklif climate initiative* of the State of Bavaria (Germany), the Chair of Applied Geology at GeoZentrum Nordbayern, University of Erlangen-Nürnberg, is offering two positions

## 1) one PhD position

### IN BIOGEOCHEMISTRY & STABLE ISOTOPE RESEARCH

We seek a highly motivated candidate for an interdisciplinary project on biogeochemistry of ground- and surface waters using aqueous chemistry and stable isotopes of dissolved and particulate carbon as well as dissolved oxygen. Studies will take place on streams, springs as well as in natural and artificial shallow groundwater and stream systems. In addition, laboratory experiments and method developments are foreseen. Project objectives include establishment of oxygen and carbon dynamics mostly in stream systems and adjacent/connected groundwater. The work involves determination of sources and sinks of oxygen and carbon including quantification of respiration and photosynthesis in the aquatic phase, as well as their links to the atmosphere.

## 2) one post-doctoral position

### IN BIOGEOCHEMISTRY & STABLE ISOTOPE RESEARCH

Background and working tasks of this position are essentially the same as described for the PhD position. The post-doctoral candidate will be encouraged to apply for own funding to extend the research stay after the first year of funded research by the group. This effort will receive full support and help by our research group. For the post-doctoral application, a one-page outline for a potential research proposal would be a convincing addition to the application.

**We offer:**

- Participation in an interdisciplinary research project with biologists, ecologists and modellers
- A vibrant academic environment
- Well-equipped stable isotope and geochemical laboratories for measurement of dissolved and particulate carbon phases (DIC, DOC, POC and CO<sub>2</sub>)

dissolved oxygen and water isotopes accomplished by major ion and trace elements.

**Candidate profile:**

- Master degree, or equivalent (for PhD Position) and PhD degree (for Post-Doc position) in Natural Sciences
- Strong interest in geochemistry, biology and chemistry or physics
- Willingness to carry out fieldwork
- Ability to independently develop and perform experimental approaches
- Enthusiasm for scientific writing
- Scientific results are expected to be published in international journals and the candidate should also present results on conferences
- A valid EU drivers licence (B) would be an advantage
- A reasonable command of German language would be an asset but is not a necessary condition for application.

Both positions envisage a starting date in January 2022. The salary for the PhD position is TVL E13 up to 65 % for 3 years with evaluation after the first year.

The salary for the post-doctoral position is TVL13 100 % for a duration of 1 year.

Both positions cover health and social security benefits.

Please address applications (cover letter, motivation statement, (research outline for the post-doctoral position), CV, academic transcripts & certificates, publication list and contact details of referees **in one coherent PDF file**) in English to [johannes.barth@fau.de](mailto:johannes.barth@fau.de) before 15<sup>th</sup> of September 2021.

Further information:

<https://www.gzn.nat.fau.de/angewandte-geologie/hydro-environmental-geology/>

<https://www.bayklif.de/en/startseite-en/>

<https://www.bayceer.uni-bayreuth.de/aquaklif/index.php?lang=en>

[https://twitter.com/HydroGeol\\_GZN](https://twitter.com/HydroGeol_GZN)