

# ORNL Publications

## External Publication

### Job Posting Title

Postdoctoral Research Associate - Biogeochemical Reactive Transport Modeling NB50687348

### Posted Date

09/10/2018

### End Posting Date

10/30/2018

### Purpose

The Environmental Sciences Division at Oak Ridge National Laboratory is seeking a postdoctoral researcher to develop and evaluate novel multiscale models for reactive transport in stream corridors.

### Major Duties/Responsibilities

You will work as part of a multidisciplinary team studying mercury transport and transformation processes in low-order streams. You will develop models for nutrient and contaminant dynamics in low-order streams, taking into account rate-limited mass transfer between the flowing streams and biogeochemically active transient storage zones. Working as part of a team, you will implement those models in advanced community software running on high-performance computing resources. A significant focus will be on comparing the models to column and flume experiments and to field observations in low-order streams.

### Qualifications Required

A Ph.D. in hydrology, environmental sciences, geosciences, environmental or chemical engineering or a related field is required. Basic understanding of mass transfer processes in the stream corridor and working knowledge of geochemical speciation modeling are required. Experience with multicomponent reactive transport modeling would be a distinct advantage, as would experience with modeling solute transport in the hyporheic zones of streams or rivers. Experience and demonstrated productivity with numerical models of complex phenomena in C/C++ or modern versions of Fortran is required, as is willingness to learn Python or similar scripting tools. You must work independently and collaboratively as part of a dynamic, multidisciplinary team.

Applicants must have received their most recent degree less than five years prior to the date of application and must complete all degree requirements before starting their appointment.

The appointment length will be up to 24 months with the possibility of an extension of up to 12 months. Initial appointments and extensions are subject to performance and availability of funding.

For additional information please contact Scott Painter ([paintersl@ornl.gov](mailto:paintersl@ornl.gov))

This position will remain open for a minimum of 5 days after which it will close when a qualified candidate is identified and/or hired.

We accept Word(.doc, .docx), Excel(.xls, .xlsx), PowerPoint(.ppt, .pptx), Adobe(.pdf), Rich Text Format(.rtf), HTML(.htm,

.html) and text files(.txt) up to 2MB in size. Resumes from third party vendors will not be accepted; these resumes will be deleted and the candidates submitted will not be considered for employment.

If you have trouble applying for a position, please email [ORNLRecruiting@ornl.gov](mailto:ORNLRecruiting@ornl.gov).

Notice: If the position requires a Security Clearance, reviews and tests for the absence of any illegal drug as defined in 10 CFR 707.4 will be conducted by the employer and a background investigation by the Federal government may be required to obtain an access authorization prior to employment and subsequent reinvestigations may be required.

If the position is covered by the Counterintelligence Evaluation Program regulations at 10 CFR 709, a counterintelligence evaluation may include a counterintelligence-scope polygraph examination.

ORNL is an equal opportunity employer. All qualified applicants, including individuals with disabilities and protected veterans, are encouraged to apply. UT-Battelle is an E-Verify Employer.