

**Boston University** Department of Earth & Environment

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## **Ph.D. Assistantship, Marine Biogeochemistry and Engineering**

### **Description:**

We are looking for a highly motivated individual to undertake research leading to a Ph.D. in Earth Sciences. This person will help develop a novel instrumentation system for making automated biogeochemical measurements in marine sediments. Our group has been funded to produce a field-deployable porewater sampling device coupled to an underwater mass spectrometer. This system will sustainably measure a full suite of biogenic gases (e.g., O<sub>2</sub>, CO<sub>2</sub>, N<sub>2</sub>, Ar, CH<sub>4</sub>, H<sub>2</sub>S) across a vertical gradient and calculate in situ reaction rates based on simultaneous estimates of gas concentrations and vertical advective porewater exchange. The student will be expected to lead the Boston University effort in the design and development of the instrument. This person will also help create an online instruction manual with videos explaining how to build the porewater sampling system, how to calibrate and test the mass spectrometer, etc., with the goal of propagating this technology to the wider community. This person will be based at Boston University in the Department of Earth and Environment and will also work collaboratively and spend time with groups at the SRI International in St. Petersburg, FL, and Skidaway Institute of Oceanography in Savannah, GA.

### **Applications:**

The start date is negotiable but we expect the successful candidate to have enrolled by January 2015. Applicants must have a degree in oceanography, engineering, chemistry or a closely related field. MS graduates preferred. Experience in field data collection and analysis is required. Experience in a chemistry and/or engineering lab desired. Successful applicants will be self-motivated and able to work well in teams.

### **Application:**

Please send statement of interest, CV, copies of transcripts, GRE Scores, and contact information for at least three references to:

Dr. Robinson W. Fulweiler  
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[www.fulweilerlab.com](http://www.fulweilerlab.com)