E-FIRE Postdoctoral Fellow at Boston College  
Advisor: Prof. Ethan Baxter  
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Duration: three years  
Start date: January 1st 2017 (negotiable)

The recently NSF -funded ExTerra Field Institute and Research Endeavor (E-FIRE) will unite US ExTerra scientists and students with our European colleagues also working on subduction systems (through ZIP: Zooming In between Plates). The E-FIRE Field Institutes will gather ExTerra and ZIP scientists in the field in the Western Alps to collect field data and rock samples, discuss research questions, and develop new approaches to answering these questions together. Further scientific integration will occur through workshops, student exchanges, and student internships.

The proposed research focuses on three important aspects of subduction-zone processes:
- Geochemical cycling by fluids within subduction zones
- Timing and conditions of fluid release within subduction zones
- Behavior of materials within subduction zones

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Chronology of subduction zone processes as preserved in garnet

Garnets are exceptional recorders of subduction zone processes. All Sm-Nd garnet geochronology required for E-FIRE projects will be led by the Boston College postdoctoral scholar in the new Boston College TIMS Facility, including the training and involvement of participating E-FIRE PhD students. The E-FIRE Postdoc will participate in all collaborative experiences including 2017 and 2019 field seasons in the Western Alps; a two-month internship with one of our European ZIP collaborators; and E-FIRE exchanges and workshops at major conferences (e.g. AGU, Goldschmidt) and/or E-FIRE domestic partner institutions. It is expected that the post-doc will take advantage of these collaborative opportunities and craft an integrative project, with innovative Sm-Nd garnet geochronology at its heart, that may bring together geodynamic, petrologic, and geochemical themes spanning E-FIRE initiatives. Previous experience in garnet geochronology is not required, but a strong interest and commitment to acquiring expertise in TIMS-based Sm-Nd garnet geochronology (and related applications) is essential.

Potential applicants should contact Prof. Ethan Baxter directly with any questions and to discuss research ideas. To apply please email to Prof. Baxter: 1. a CV, 2. a list of three references, and 3. a statement of research interests and goals. Review of applications will continue until the position is filled.

Links:
E-FIRE Website:  http://geoprism.org/exterra/e-fire/  
ZIP Website:  http://www.zip-itn.eu/  
Ethan Baxter’s Website:  https://www2.bc.edu/ethan-baxter/