

Elisabeth Streit Falk

Postdoctoral Scholar
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Education:

- 2013 Columbia University, Lamont-Doherty Earth Observatory
Graduate student in Geochemistry and Petrology
Ph.D. completed November 2013, conferred February 2014
Advisor: Prof. Peter Kelemen
Title: "Carbonation of Peridotite in the Oman Ophiolite"
- 2011 Columbia University, Lamont-Doherty Earth Observatory
M.Phil., Earth and Environmental Sciences
Advisor: Prof. Peter Kelemen
Title: "Iron-rich serpentine and coexisting serpentine and quartz from carbonate-bearing serpentinized peridotite in the Oman Ophiolite"
- 2009 Columbia University, Lamont-Doherty Earth Observatory
M.A., Earth and Environmental Sciences
Advisor: Prof. Peter Kelemen
Title: "Geochemical observations and reaction path modeling of natural carbonation of peridotite in the Samail Ophiolite of Oman: implications for mineral carbon sequestration"
- 2007 California Institute of Technology (Caltech)
B.S. with Honors, Geology (4.0 cumulative GPA)

Awards & Recognitions:

- 2013 Woods Hole Oceanographic Institution Postdoctoral Scholar award
2011 New York Academy of Sciences Education Fellow Teaching Credential
2009-2012 NSF Graduate Research Fellowship (awarded in 2008)
2007-2009 NSF IGERT Fellowship
2006, 2005 Caltech Upper Class Merit Award (full tuition scholarship)
2005 Howard Reynolds Memorial Prize in Geology at Caltech
2004 Summer Undergraduate Research Fellowship at Caltech

College-level Teaching experience:

Spring 2011 TA for EESC 1053: Planet Earth at Columbia University
Spring 2010 TA for EESC 1053: Planet Earth at Columbia University
Fall 2008 TA for EESC 2200: The Solid Earth System at Columbia University
Spring 2006 TA for Ge 1: Earth and Environment at Caltech
Fall 2006 TA for Ge11a: Earth as a Planet at Caltech

Outreach, Service, & Mentorship:

2012-2013 LDEO Mentoring Award Committee; *Chair, 2013*
2010-2011 New York Academy of Science Education Fellow in Afterschool STEM Mentoring Program (teaching & leading weekly afterschool Earth Science activities in a high-need middle school in New York City)
2011 Spearheaded planning committee for graduate student field trip to Iceland
2011 Science fair mentor at Mott Hall II Middle School
2011 Supervised high school student Greg Dgheim's summer research at LDEO
2008 Experiment leader for Take a Girl To College Day at Columbia (WISC)
2007, 2010 Experiment leader for Girls' Science Day at Columbia (WISC)
2007-2011 Exhibit demonstrator & tour leader at LDEO Open House

Publications (E.E. Streit = E.S. Falk):

Peer-reviewed journal publications

Streit, EE, Kelemen, PB, Eiler, JM (2012). Coexisting serpentine and quartz from carbonate-bearing serpentinitized peridotite in the Samail Ophiolite, Oman. *Contributions to Mineralogy & Petrology* 39 (5): 821-837. DOI 10.1007/s00410-012-0775-z

Kelemen, P., Matter, J., **Streit, E.**, Rudge, J., Curry, W., Blusztajn, J. (2011). Rates and Mechanisms of Mineral Carbonation in Peridotite: Natural Processes and Recipes for Enhanced, in situ CO₂ Capture and Storage. *Annual Review of Earth and Planetary Sciences* 39: 545-576.

Conference abstracts

Streit, E. and Eiler, J. (2013). Clumped Isotope Measurements of Magnesite. Poster presented at 3rd International Workshop on Clumped Isotopes, Harvard University, Cambridge, MA, 10-11 Jan. Poster

Streit, E., Kelemen, P., Eiler, J., Goldstein, S. (2012) Listvenite from the Oman Ophiolite: complete carbonation of peridotite during hydrothermal alteration by CO₂-rich fluids. Abstract V43C-2842 presented at 2012 Fall Meeting, AGU, San Francisco, CA., 3-7 Dec. Poster

Streit, EE, Kelemen, PB, Matter, JM, Paukert, AP, Eiler, JM (2012). Low- and high-temperature regimes of serpentinization and carbonation of peridotite in the Oman Ophiolite. Abstract presented at 2012 Serpentine Days Workshop, Porquerolles, France, 2-6 Sept. Oral presentation.

Streit, E. (2011). Natural carbonation and hydration of peridotite in the Oman Ophiolite. Inter-university Student Initiative in Carbon Sequestration (ISICS) Spring Meeting, New York, NY, 4 Feb. Oral presentation.

Streit, E. and Kelemen, P. (2010), Low Temperature Carbonation and Hydration of Peridotite. Abstract GC23G-05 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec. Oral presentation.

Streit, E., Kelemen, P., Matter, J., Spiegelman, M. (2009), Mineral carbon storage in peridotite bodies: insights from natural carbonation of peridotite in Oman, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract H13A-0908. Poster.

Streit, E., Kelemen, P., Matter, J. (2009), Natural Carbonation of Peridotite and Applications for Carbon Storage, *Eos Trans. AGU* 90(22), Jt. Assem. Suppl., Abstract U23A-02. Invited oral presentation.

Streit, E., Kelemen, P., Matter, J. (2008), Serpentinization and carbonation of peridotite in the Samail Ophiolite, Oman. *AGU Chapman Lherzolite Conference, Mt. Shasta, CA*. Poster.

Professional memberships

American Geophysical Union
Geological Society of America
Mineralogical Society of America
National Association of Geoscience Teachers

Language skills

English – native speaker
Spanish – proficient
French – basic
Arabic – basic