

# Kelsey B. Prissel

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**EDUCATION** **Washington University in St. Louis, MO**  
*Ph.D.*, Earth and Planetary Science, *in progress*  
Dissertation Topic: “Experimental Constraints on Igneous Iron Isotopic Fractionation”  
Advisor: Michael J. Krawczynski  
*M.A.*, Earth and Planetary Science, May 2016

**Brown University**, Providence, RI  
*Sc.B.*, Geology-Chemistry, May 2014  
University Honors, Sigma Xi  
Thesis Topic: “Melting Mercury: phase equilibria of an ultramafic magma at low oxygen fugacity,” Advisor: Stephen W. Parman

**ACADEMIC AWARDS** **NASA Earth and Space Sciences Fellowship**, 2017 - present.  
**Roger B. Chaffee Graduate Fellowship**, 2014 - 2017.  
McDonnell Center for the Space Sciences, Washington University in St. Louis

**Brown University Department of Geological Sciences Awards**  
Senior Award for Academics and Research, May 2014  
Sarah LaMendola Undergraduate Research Award, May 2013

**AGU Outstanding Student Paper Award**, Planetary section, 2012

**ACADEMIC EXPERIENCE** **Washington University in St. Louis, MO**  
*Graduate Student Teaching Experiences* 2014 - present  
Teaching Center certifications: [CIRTL](#) Practitioner, Preparation in Pedagogy  
EPSc 352: Earth Materials, Graduate Student Instructor, Fall 2017.  
EPSc 441: Introduction to Geochemistry, Substitute Lecturer, Fall 2015 and 2016.

**Lunar and Planetary Institute**, Houston, TX  
*Summer Research Intern* June - August 2013  
Compositional analysis of amphiboles in Martian meteorites with Drs. Allan Treiman and Yann Sonzogni

**Brown University**, Providence, RI  
*Teaching Assistant and Tutor* 2011 - 2013  
GEOL 1370: Environmental Geochemistry, Fall 2013.  
GEOL 0050: Introductory Geology, Spring 2013.  
MATH 0090, MATH 0100: Introductory Calculus, 2011-2013.

**PUBLICATIONS** **KB Prissel**, MJ Krawczynski, NX Nie, N Dauphas, H Couvy, MY Hu, EE Alp, M Roskosz, Effects of Olivine Crystallization and Melt Titanium Composition on Iron Isotopic Fractionation in Basalts, *Geochimica et Cosmochimica Acta*, under review.

**KB Williams**, CRM Jackson, LC Cheek, KL Donaldson-Hanna, SW Parman, CM Pieters, MD Dyar, TC Prissel (2016) [Reflectance Spectroscopy of Chromium-bearing Spinel with Application to Recent Orbital Data from the Moon](#), *American Mineralogist*, 101 (3), 726-734.

B Fegley Jr., NS Jacobson, **KB Williams**, JMC Plane, L Schaefer, K Lodders (2016) [Solubility of Rock in Steam Atmospheres of Planets](#), *Astrophysical Journal*, 824 (2), 103. [Washington University in St. Louis media feature](#).

CRM Jackson, LC Cheek, **KB Williams**, K Donaldson-Hanna, CM Pieters, SW Parman, RF Cooper, MD Dyar, M Nelms, MR Salvatore (2014) [Visible-Infrared Spectral Properties of Iron-bearing Aluminate Spinel Under Lunar-like Redox Conditions](#), *American Mineralogist*, 99 (10), 1821-1833.

## SELECTED ABSTRACTS

\*Poster \*\*Oral Presentation

**KB Prissel\***, MJ Krawczynski, N Dauphas, NX Nie (2018), Evaporative Iron Loss During One-Atmosphere Gas-Mixing Experiments, Sixteenth International Symposium on Experimental Mineralogy, Petrology, and Geochemistry.

**KB Williams\*\***, MJ Krawczynski, JA Van Orman (2016), Two-Oxide Disequilibrium: A New Geospeedometer Based on Diffusion in Ilmenite, AGU Fall Meeting, V13F-08.

**KB Williams\*\***, MJ Krawczynski, NX Nie, N Dauphas, H Couvy, MY Hu, EE Alp (2016), The Role of Differentiation Processes in Mare Basalt Iron Isotope Signatures, LPSC 47, 2779.

SW Parman\*\*, **KB Williams**, HP O'Brien, S Wang, TC Prissel, EM Parmentier, PC Hess, JW Head (2015), Phase Equilibria Constraints on Mercury Melting Conditions, LPSC 46, 2345.

**KB Williams\*\***, Y Sonzogni, AH Treiman (2014), Amphibole in the Tissint Martian Meteorite: Composition and Implication for Volatile Content of Parental Magma, LPSC 45, 1435.

**KB Williams\***, CRM Jackson, LC Cheek, TC Prissel, SW Parman, CM Pieters (2012), The Effect of Cr content on the Reflectance Properties of Mg-Spinel, AGU Fall Meeting, P43A-1905.

## LEADERSHIP, OUTREACH, SERVICE

**Referee**, *Geochimica et Cosmochimica Acta*

**Executive Secretary**, NASA Solar System Workings, Emerging Worlds

**Goldschmidt 2018 Session Convener**, Mantle and Core theme

**ExMASS Science Advisor**, Lunar and Planetary Institute 2016 - present

**Letters to a Pre-Scientist**, Classroom coordinator and pen pal 2015 - present

**Washington University in St. Louis**, Graduate Student President (2016 - present), Graduate Student Peer Mentor (2016 - present), Prospective Weekend coordinator (2015 - 2017), Research as Art coordinator (2014 - 2016)

**K-12 Guest Speaker** 2012 - present

Lessons on topics including mineralogy, volcanology, lunar science, and careers in planetary science, Skype-a-Scientist participant

**Brown University Office of Residential Life**, Residential Counselor 2011 - 2014

**Brown University Athletics Department** 2010 - 2014

NCAA Division I varsity softball team captain and peer advisor, Student Athlete Advisory Committee, RI elementary school classroom volunteer

**Brown University**

Admissions Interviewer, Kappa Delta Sorority, Women in Science and Engineering, Geology Department Undergraduate Group, Eco-Reps, Athletes in Action