Brandon Radoman-Shaw, Ph.D.

Email: fsp14@txstate.edu

Education

Doctor of Philosophy in Geological Sciences

Case Western Reserve University, Cleveland, OH <u>Dissertation title</u>: Geologic materials exposed to Venus surface conditions using the Glenn Extreme Environment Rig (GEER)

Bachelor of Science in Geosciences

Trinity University, San Antonio, TX <u>Honors</u>: *cum laude* (GPA: 3.5/40) <u>Second Major</u>: French

Teaching Experience

Geology Lecturer

Department of Geography and Environmental Studies Texas State University – San Marcos, TX

 I am a full-time lecturer in geology, teaching Physical Geology, Historical Geology, Sedimentation & Stratigraphy and Earth Materials. Duties include preparing and delivering lectures, creating lab assignments, grading assignments, managing online course materials and fieldtrips. I also organize the labs and manage the graduate instructors.

Adjunct Instructor

Alamo Colleges (Northeast Lakeview and Northwest Vista College) San Antonio, TX

• I was a part-time adjunct lecturer in geology, having taught Earth Sciences I Lecture in an online format. Duties include preparing and delivering lectures, creating assignments, grading assignments, and managing online course materials. I also created and teach a fully remote online course for the institution.

Adjunct Faculty

Department of Mathematical, Physical, and Engineering Sciences Texas A&M University – San Antonio, TX

 I am a part-time adjunct lecturer in geology, teaching Introduction to Earth Sciences I & II and Earth Sciences Lab I & II in face-to-face and online formats. Duties include preparing and delivering lectures, creating lab assignments, grading assignments, and managing online course materials. I also created and organized the department sample collection.

Research Experience

Graduate Student Researcher

Department of Earth, Environmental, and Planetary Science Case Western Reserve University Advisor: Dr. Ralph Harvey

 I was a part of an interdisciplinary research team using the Glenn Extreme Environment Rig at NASA Glenn Research Center in Cleveland, OH. I prepared and performed microanalysis (including SEM, XRD, XEDS, EPMA, TEM, FIB as well as TGA) on several geologic materials exposed to Venus's surface physical conditions and atmosphere, as well as extraterrestrial samples, officially classifying meteorite NWA 10106 in 2015. Coursework included planetary

August 2020-July 2023

August 2021-Present

May 2019

May 2012

June 2021-August 2022

August 2012-April 2019

materials, materials science (specifically microanalysis), petrology, geochemistry, sedimentology, mineralogy, and fieldwork (including mapping and sample collection) in Canada and the USA. This research was published in *Meteoritics and Planetary Science* in 2022.

Undergraduate Student Researcher

May 2010-May 2012

Department of Geosciences, Trinity University Advisors: Dr. Kathleen Surpless & Dr. Leslie Bleamaster

 I collected and analyzed sediment in the Great Valley Group Basin in California, and later completed my senior thesis on structural mapping and geophysical interpretations of Devana Chasma, Venus. I also interned at the NASA Ames Research Center studying aeolian deposition on Mars using the MARSWIT wind tunnel under Dr. Ronald Greeley. Coursework included sedimentology, stratigraphy, basin analysis, planetary geology and field courses in SE China and the USA.

Publications

- Radoman-Shaw, B.G., Harvey, R.P., Costa, G., Jacobson, N.S., Avishai, A., Nakley, L.M. and Vento, D. (2022), Experiments on the reactivity of basaltic minerals and glasses in Venus surface conditions using the Glenn Extreme Environment Rig. Meteorit. Planet. Sci., 57: 1796-1819. https://doi.org/10.1111/maps.13902
- Costa G.C.C., Jacobson N.S., Lukco D., Hunter G.W., Nakley L., **Radoman-Shaw B.**, Harvey R.P. (2018) Oxidation behavior of stainless steels 304 and 316 under the Venus atmospheric surface conditions. Corrosion Science, doi: 010106/j.corsci.2018.01.002.
- Jacobson N.S., Kulis M., Radoman-Shaw B., Harvey R. Myers D.L., Schaefer L. and Fegley Jr. B., (2017) Thermodynamic Constraints on the Lower Atmosphere of Venus. Earth and Space Chemistry, 1, 422-430.
- Costa G.C.C, Jacobson N.S., Lukco D., Hunter G.W., Nakley, L., Radoman-Shaw B., and Harvey R. (2017) Chemical and Microstructural changes in metallic and ceramic materials exposed to Venusian Surface Conditions. NASA Technical Report NASA/TM-2017-219437.
- Radoman-Shaw B., Harvey R., Costa G.C.C, Nakley, L., and Jacobson N.S. (2016) Reaction of Basaltic Materials under high-fidelity Venus Surface Conditions using the Glenn Extreme Environment Rig: First Results. NASA Technical Report GRC-E-DAATN31034.

Conference Abstracts

- Radoman-Shaw B.G., Harvey R.P., Costa G.C.C., Jacobson N.S., Avishai A., and Nakley L.M. (2017) *The Stability of Minerals and Volcanic Glasses on the Surface of Venus*. Venus Modeling Workshop, abstract 8031.
- Radoman-Shaw B.G., Harvey R.P., Costa G.C.C., Jacobson N.S., Avishai A., and Nakley L.M. (2017) *The Stability of Calcium Silicates and Calcium Carbonate on the Surface of Venus.* LPSC 48, abstract 1964.
- Radoman-Shaw B.G., Harvey R.P., Costa G.C.C., Nakley L.M., and Jacobson N.S. (2016) Reaction of Basaltic Materials under High-Fidelity Venus Surface Conditions using the Glenn Extreme Environment Rig: First Results. International Venus Conference, abstract.
- Radoman-Shaw B.G., Harvey R.P., Costa G.C.C., Jacobson N.S., Avishai A., and Nakley L.M. (2017) *Microanalysis of Geologic Materials Exposed to Surface Conditions of the Planet Venus*. Microscopy and Microanalysis Conference 23, abstract 2188.
- Radoman-Shaw B.G., Humayun M., Harvey R.P., and Karner J. (2014) *Large Metal Grains in Ordinary Chondrites*. LPSC 45, abstract 2229.