

BRANDI KAMERMANS (CRON)**EDUCATION**

Ph.D., Biogeology	2017
University of Minnesota- Twin Cities Department of Earth Sciences	
M.S., Biogeochemistry	2011
University of New Mexico Department of Earth and Planetary Sciences	
B.S., Biology major with a minor in Chemistry	2008
University of New Mexico Department of Biology	

AWARDS AND RECOGNITION

Carl Storm Underrepresented Minority Fellowship	2017
American Indian Science and Engineering Society (AISES)	
Lighting the Pathway to Faculty Careers for Natives in STEM (LTP) Scholar	2017
The Pennsylvania State University College of Earth and Mineral Sciences	
Distinguished Postdoctoral Fellowship	2017
University of Minnesota Doctoral Dissertation Fellow	2016
University of Minnesota Department of Earth Sciences Sam Goldich Footsteps Award	2015
National Science Foundation (NSF) Graduate Research Fellow	2011
Louis Stokes Alliance for Minority Participation Bridge to the Doctorate Fellowship	2008
Alliance for Minority Participation	2007
Ronald E. McNair Scholar	2006

GRANTS

\$1,114	EESL Green program Fall 2017	Energy and Environmental Sustainability Laboratories (EESL)
\$2,500	Thesis Research Travel Grant 2014-2015	University of Minnesota Graduate School
\$3,000	Small Student Group Grant Spring 2014	University of Minnesota College of Science and Engineering - towards the "Finding Your Path Among the Stars" AISES Region V Conference
\$840	Social Community Building Grant Spring 2015	First Annual Esci Research Symposium

CLASSROOM TEACHING EXPERIENCE**The Pennsylvania State University**

Guest lecturer, Geomicrobiology (Geosc 409) under the direction of Professor Jennifer Macalady

The University of Minnesota

Guest lecturer, Geomicrobiology (ESCI 4801) under the direction Professor Jake Bailey

Teaching assistant, Geology and Cinema (ESCI 1005) Spring 2014

Teaching assistant, Oceanography (ESCI 1007) Fall 2014

Teaching assistant, Soil Chemistry and Mineralogy (LAAS 5311) Fall 2013

OUTREACH TEACHING EXPERIENCE

Curriculum vitae

Introduction to the field of biogeochemistry to incoming freshman cohort of Millennium Scholars, Penn State University and performed fieldwork at Mt. Nittany (June 23, 2018)
Performed fieldwork with high school students as a member of UMN – AISES at Minnehaha Falls (Spring 2013)

MENTORING EXPERIENCE

Promoted careers in STEM to middle and high school female students as a mentor at ENVISION 2019 (January 26, 2019)
Mentored Rumya Ravi, for an undergraduate research thesis (July-August 2018)

SCIENCE EDUCATION IN THE COMMUNITY

Manager and lead science educator at Discovery Space, State College, PA (June -August 2019)
Developed hands-on activities for students at “Ask a Scientist” organized by Science U, Penn State. Purchased a tabletop microscope with slides for participants to view plant and mammal cells. (August 2017, April 2018, November 2018)
Volunteered for an afternoon with Discovery Space at Benner Elementary. (November, 2017)

LEADERSHIP EXPERIENCE

- Member of planning committee for the Penn State 11th Annual Postdoctoral Research Exhibition
 - Member of the EMS Environment Assessment Working Group Committee
 - President UMN - AISES (Spring 2014)
 - Chair “Finding Your Path Among the Stars” (March 14-15, 2014) AISES Region V Conference
 - Chair for 1st and 2nd Annual Esci Research Symposium Department of Earth Sciences University of Minnesota- Twin Cities (Spring 2015 and 2016)
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PEER-REVIEWED RESEARCH PUBLICATIONS

- (1) **Cron, B.R.**, Cody, S., Kafantaris, F., Druschel, G., Seewald, J., Dick, G.J., Breier, J.A., German, C.R., Toner, B.M., Dynamic biogeochemistry of the particulate sulfur pool in a buoyant deep-sea hydrothermal plume, *accepted ACS Earth and Space Chemistry*
- (2) **Cron, B.R.**, Henri, P., Chan, C.S., Macalady, J., and Cosmidis, J., 2019, Elemental sulfur formation by *Sulfuricurvum kujiense* is mediated by extracellular organic compounds, *Frontiers in Microbiology*, section Microbiological Chemistry and Geomicrobiology (9), Article 2710.
- (3) Nims, C., **Cron, B.R.**, Wetherington, M., Macalady, J., Cosmidis, J., 2019, Low frequency Raman Spectroscopy for micron-scale and in vivo characterization of elemental sulfur in microbial samples, *Scientific Reports* (9), Article number 7971
- (4) Crossey, L.J., Karlstrom, K., Schmandt, B., Crow, R., Coleman, D., **Cron, B.R.**, Takacs-Vesbach, C., Dahm, C., Northup, D., Hilton, D., Ricketts, J., Continental smokers couple mantle degassing and unique microbiology within continents, 2012, *Earth and Planetary Science Letters*, Vol. 435: 22-30.
- (5) Breier, J. A., Gomez-Ibanez, D., Sayre-McCord, R. T., Rauch, C. G., Coleman, M. L., Bennett, S. A., **Cron, B. R.**, Sheik, C. S., German, C. R., Toner, B. M., and Dick,

G. J., 2014, A large volume particulate and water multi-sampler with in situ preservation for microbial and biogeochemical studies. *Deep-Sea Research Part I*, Vol. 94: 195-206.

- (6) Hall, J., Mitchell, K., Jackson-Weaver, O., Kooser, A., **Cron, B.**, Crossey, L., Takacs-Vesbach, C., 2008, Molecular Characterization of the Diversity and Distribution of a Thermal Microbial Community by Using rRNA and Metabolic Genes: *Applied and Environmental Microbiology*, Vol. 74 No. 15: 4910.

ORAL PRESENTATIONS

Kamermans, B.R., Cosmidis, J., and Macalady, J., Evaluation of S₀ as a biosignature through investigation of bio- and organomineralized S₀ in laboratory and field experiments, 2018 Goldschmidt Conference, Boston, MA [oral presentation]

Kamermans, B.R., Ravi, R., Cosmidis, J., Macalady, J., Evaluation of S₀ as a biosignature through investigation of bio- and organomineralized S₀ in laboratory and field experiments, 2017 SACNAS National Conference, Salt Lake City, UT [oral presentation]

INVITED TALKS

Kamermans, B.R., Speciation of Iron and Sulfur in Mineral Aggregates and Organic Complexes from Hydrothermal Vents in the Mid-Cayman Rise (April 2015) Macalester Seminar

Kamermans, B.R., Exploring the geomicrobiology of hydrothermal vents (October 2013) Annual Society for Advancement of Chicanos and Native Americans in Science (SACNAS) National Conference

POSTER PRESENTATIONS

Cron, B.R., Cody, S., Kafantaris, F., Druschel, G., Dick, G.J., Breier, J.A., German, C.R., Toner, B.M., Sulfur speciation of particles reveals chemical diversity and complexity within the rising plume of the Von Damm hydrothermal plume, Mid-Cayman Rise plume, 1st Geobiology Society Conference, Banff, Canada (Summer 2017)

Cron, B., Toner, B.M., Breier, C.A., Dick, G.J., Jian, H., Sheik, C.S., Organic Carbon and Iron-rich Particles in Deep Ocean Hydrothermal Plumes, Von Damm Vent Field, Mid-Cayman Rise. Goldschmidt Conference, Yokohama, Japan (Summer 2016)

Cron, B.R., Toner, B.M., Bennett, S.A., German, C.R., Dick, G.J., and Breier, J.A., Jr. The spatial distribution and speciation of iron in buoyant hydrothermal plumes of the Mid-Cayman Rise. American Geophysical Union, Fall Meeting, San Francisco, CA, OS13B-1741 (Fall 2012)

Cron, B.R., Crossey, L.J., Karlstrom, K.E., and Northup, D.E. Microbial diversity and geochemical cycling of unique carbonate springs in northern New Mexico: the geomicrobiology of Tierra Amarilla anticline. Geological Society of America Annual Meeting, Minneapolis, MN, 242-5 (Fall 2011)

Cron, B.R., Crossey, L.J., Northup, D.E., Karlstrom, K.E., Microbial richness and diversity in CO₂-rich mound springs of the Tierra Amarilla anticline, New Mexico. New Mexico Geological Society Annual Spring Meetings, Macey Center, New Mexico Tech (Spring 2010)

REFERENCES

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