# Allison A. Baczynski

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**EDUCATION**

**Northwestern University** Evanston, IL

PhD in Earth and Planetary Sciences September 2014

*Thesis: Evaluating Carbon Cycle Dynamics and Hydrologic Change during*

*The Paleocene-Eocene Thermal Maximum, Bighorn Basin, Wyoming*

Advisor: Dr. Francesca McInerney

Master of Science in Earth and Planetary Sciences June 2011

**Macalester College** Saint Paul, MN Bachelor of Arts in Chemistry, Geology minor, Magna Cum Laude May 2007

Study abroad semester, University of Yaoundé, Cameroon, francophone home stay

**RESEARCH EXPERIENCE**

**Pennsylvania State University,**

**Laboratory for Isotopes and Metals in the Environment (LIME)** University Park, PA

*Isotope Ratio Mass Spectrometry Lab Manager* June2021 – present

**Pennsylvania State University, Department of Geosciences** University Park, PA

*Assistant Research Professor* August2019 – present

**Pennsylvania State University, Department of Geosciences** University Park, PA

*Postdoctoral Scholar; Advisor Dr. Katherine H. Freeman* 2014 – 2019

* Developed a gas chromatograph-isotope ratio mass spectrometer (GC-IRMS) capable

of precise isotopic analyses on trace quantities too low for conventional analysis

* Explored high sensitivity improvements in elemental analyzer, EA-IRMS by

improving peak separation and gas transfer efficiency

* Investigated controls on organic matter preservation across diverse terrestrial and marine environments during past episodes of climate change to better assess future environmental change

**Northwestern University, Department of Earth and Planetary Sciences** Evanston, IL

*Graduate Research Assistant; Advisor Dr. Francesca A. McInerney*  2008 – 2014

* Utilized bulk and compound-specific stable carbon and hydrogen isotopic techniques

to understand climate and ecosystem change recorded in the geologic record

* Explored carbon cycle and hydrologic cycle dynamics during the Paleocene-Eocene

Thermal Maximum (PETM) in the continental interior of North America

**Science Museum of Minnesota, Saint Croix Watershed Research Station** Marine on Saint Croix, MN

*Laboratory Technician; Director Dr. Daniel R. Engstrom*2007 – 2008

* Conducted fieldwork and laboratory analyses to investigate how precipitation, water-table levels,

and atmospheric sulfate deposition influence methylmercury production in a boreal wetland

* Collected piston cores from Minnesota lakes, processed and analyzed cores, including 210Pb dating

**Macalester College,** **Department of Chemistry** Saint Paul, MN

*Undergraduate Research Assistant Organic Chemistry; Advisor Dr. Ronald G. Brisbois* 2005 – 2007

* Optimized reaction conditions and improved synthetic scheme for dehydroannulenes
* Synthesized cyclophanes for intramolecular transannular and intermolecular host-guest interactions

**PUBLICATIONS**

***Published:***

Inglis GN, Martinez PS, Tierney J, Witkowski C, Lyons SL, **Baczynski AA**, and Freeman KH, (2023) Impact of organic carbon reworking upon GDGT temperature proxies during the Paleocene-Eocene Thermal Maximum. *Organic Geochemistry*, 183, 104644.

Pehr K, **Baczynski AA**, Bekker A, Hoffmann A, Freeman KH, Poulton SW, and Love GD, (2023) Compound-specific carbon isotope measurements of individual lipid biomarkers from immature Ediacaran rocks of Baltica. *Organic Geochemistry*, 182, 104641.

**Baczynski AA,** Brodie CR, Kracht O, and Freeman KH, (2023) Sequential measurement of 13C, 15N, and 34S isotopic composition on nanomolar quantities of carbon, nitrogen, and sulfur using nano-elemental/isotope ratio mass spectrometry. *Rapid Communications in Mass Spectrometry,* 37(5):e9444.

Scher MA, Barclay RS, **Baczynski AA**, Smith BA, Sappington J, Bennett LA, Chakraborty S, Wilson JP, Megonigal JP, and Wing SL, (2022) The effect of CO2 concentration on carbon isotope discrimination during photosynthesis in *Ginkgo biloba*: implications for reconstructing atmospheric CO2 levels in the geologic past. *Geochimica et Cosmochimica Acta*, 337, 82-94.

Korasidis VA, Wing SL, Nelson DM, and **Baczynski AA,** (2022) Reworked pollen reduces apparent floral change during the Paleocene-Eocene Thermal Maximum. *Geology*, 50(12),1398-1402.

Schmidt LA, Diefendorf AF, Schlanser K, **Baczynski AA**, Dechesne M, Dunn R, Freeman KH, Currano ED, (2022) Local differences in paleohydrology have stronger influence on plant biomarkers than regional climate across two Paleogene Laramide Basins, Wyoming, USA. *Palaeogeography, Palaeoclimatology, Palaeoecology,* 596, 110977.

Ramos EJ, Breecker DO, Barnes JD, Li F, Gingerich PD, Loewy SL, Satkoski AM, **Baczynski AA**, Wing SL, Miller NR, Lassiter JC, (2022) Swift weathering response on floodplains during the Paleocene-Eocene Thermal Maximum, *Geophysical Research Letters*, 49, e2021GL097436.

Denis ED, Maibauer BJ, Bowen GJ, Jardine PE, Harrington GJ, **Baczynski AA**, McInerney FA, Collinson ME, Belcher CM, Wing SL, and Freeman KH, (2021) Decreased soil carbon in a warming world: Degraded pyrogenic carbon during the Paleocene-Eocene Thermal Maximum, Bighorn Basin, Wyoming, *Earth and Planetary Science Letters*, 566, 116970.

**Baczynski AA,** McInerney FA, Freeman KH, Wing SL, and the Bighorn Basin Coring Project (BBCP) Science Team, (2019) Carbon isotope record of trace *n*-alkanes in a continental PETM section recovered by the Bighorn Basin Coring Project (BBCP), *Paleoceanography and Paleoclimatology*, 34(5), 853-865.

Lyons SL, **Baczynski AA,**Babila TL, Bralower TJ, Hajek EA, Kump LR, Polites EG, Trampush SM, Vornlocher JR, Zachos JC, and Freeman KH, (2019) Paleocene-Eocene Thermal Maximum prolonged by fossil carbon oxidation, *Nature Geoscience*, 12, 54-60.

Arnold TE, Diefendorf AF, Brenner M, Freeman KH, and **Baczynski AA,** (2018) Climate response of the Florida Peninsula to Heinrich events in the North Atlantic, *Quaternary Science Reviews*, 194, 1-11.

**Baczynski AA,** Polissar PJ, Juchelka D, Schwieters J, Hilkert A, Summons RE, and Freeman KH, (2018) Picomolar scale compound-specific isotope analyses, *Rapid Communications in Mass Spectrometry*, 32, 730-738.

**Baczynski AA,** McInerney FA, Wing SL, Kraus MJ, Bloch JI, and Secord R, (2017) Constraining paleohydrologic change during the Paleocene-Eocene Thermal Maximum in the continental interior of North America, *Palaeogeography, Palaeoclimatology, Palaeoecology*, 465, 237-246.

**Baczynski AA,** McInerney FA, Wing SL, Kraus MJ, Morse PE, Bloch JI, Chung AH, and Freeman KH, (2016) Distortion of carbon isotope excursion in bulk soil organic matter during the Paleocene-Eocene Thermal Maximum, *Geological Society of America Bulletin*, 128(9/10), 1352-1366, doi: 10.1130/B31389.1.

**Baczynski AA**, McInerney FA, Wing SL, Kraus MJ, Bloch JI, Boyer DM, Secord R, Morse PE, and Fricke HC, (2013) Chemostratigraphic implications of spatial variation in the Paleocene-Eocene Thermal Maximum carbon isotope excursion, SE Bighorn Basin, Wyoming, *Geochemistry, Geophysics, Geosystems*, 14, 4133-4152, doi:10.1002/ggge.20265.

Clyde WC, Gingerich PD, Wing SL, Röhl U, Westerhold T, Bowen GJ, Johnson K, **Baczynski AA**, Diefendorf A, McInerney FA, Schnurrenberger D, Noren A, Brady K, and the BBCP Science Team (2013) Bighorn Basin Coring Project (BBCP): A continental perspective on early Paleogene Hyperthermals, *Scientific Drilling*, 16, 21-31, doi:10.5194/sd-16-21-2013.

Kraus MJ, McInerney FA, Wing SL, Secord R, **Baczynski AA,** and Bloch JI, (2013) Paleohydrologic response to continental warming during the Paleocene-Eocene Thermal Maximum, Bighorn Basin, Wyoming. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 370, 196-208.

**TEACHING AND ADVISING**

**Pennsylvania State University** University Park, PA

*Undergraduate student mentor*

* Supervised research of Madeline Murtaugh 6/2021-8/2022
* Anna Feldman (Colorado College) 2020-2021
* Supervised research of Mia Turner Fall-Spring 2019

*Faculty Instructor,* Geosc 572: Field Stratigraphy Spring 2018

*Guest Lecturer:* (1) carbon transport, burial, and respiration and (2) petroleum and gas Fall 2016, 2017

 systems, Organic Geochemistry (Geosc 419), K. Freeman instructor

*Guest Lecturer:* carbon isotope fractionation in vascular plants and paleo applications, Spring 2015, 2016

 Stable Isotopes, (Geosc 518), K. Freeman instructor

*Undergraduate REU mentor* Summer 2016, 2017

* Supervised summer research of Jamie Vornlocher

*Graduate**Student Mentor*  June 2014-Present

* Taught proper laboratory safety and protocols
* Instructed experimental design, instrument techniques and troubleshooting
* Guided students in data interpretation and led data analysis workshops

Juliana Drozd (2022-present), Katie Horisk (2021-present), Esther Munoz (2021-present), Paul Volante (2021-present), Hanna Leapaldt (2021-present), Garrett Shepherd (2021-present), Sam Shaheen (2021-present), Youki Sato (2020-present), Emma Hartke (2020-present), Troy Ferland (2017-2021), Allie Fox (2016-2020), Shelby Lyons (2015-2020)

**Northwestern University** Evanston, IL

*Northwestern Athletic Department Tutor*  January 2013-June 2013

* Tutored individual student athletes in Earth Science classes
* Designed and led Earth Science review sessions for groups of student athletes

*SERTS (Science and Engineering Research and Teaching Synthesis) Workshop Leader* Spring 2010

* Lead scientific short course for non-science majors
* Directed hands on activities and presented overview of climate change research
* Facilitated discussions about primary scientific literature
* Graded student papers

*Teaching Assistant*  January 2010-June 2011

Earth 111: Human Dimensions of Global Change

Earth 114: Evolution and the Scientific Method

ISEN 130: Sustainability – Energy, Environment, & Ethics

* Designed and led weekly discussion sections for 5-20 students
* Organized and coordinated short courses for 30-40 students
* Graded quizzes, exams, and student papers

*Undergraduate**Research Supervisor* September 2009-June 2013

* Instructed proper laboratory and analysis protocol
* Supervised undergraduate field research
* Supervised undergraduate thesis work of Alexa Socianu

**Wellstone International High School** Minneapolis, MN

*Classroom Assistant and Tutor* January 2007-May 2007

* Mentored international high school students
* Tutored high school students in English, science, history, and mathematics
* Worked with seniors to prepare resumes and college applications

**Macalester College** Saint Paul, MN

*Teaching Assistant*  September 2006-December 2006

CHEM 311: Thermodynamics and Kinetics

* Assisted with weekly laboratory set-up
* Instructed and supervised students during laboratory experiments

**INVITED TALKS**

* National Museum of Natural History Department of Paleobiology Seminar Speaker, February 2021
* Terrestrial and Coastal Climates of the PETM Workshop, 2019
* Geological Society of America, Fall Meeting 2019
* Paleontological Society Short Course: *Biogeochemical Approaches in Paleobiology and Paleoecology*, Geological Society of America Fall Meeting 2017
* Geological Society of America, Fall Meeting 2016

**SCIENCE COMMUNICATION**

* Bighorn Basin Paleontology Symposium, Worland, WY, July 2012
* Wrote article for The TravelingGeologist (http://www.travelinggeologist.com) blog, a platform for Earth Scientists to share their research and passion for science with a broad audience. Typical monthly page views: >20,000.
* Initiated collaboration between graduate students from the Medill School of Journalism and Earth and Planetary Sciences Department (Northwestern University) to improve communication between scientist and journalist
* Consulted as science advisor for Northwestern University library exhibit: *Two Degrees and You: A Northwestern University Approach Climate Change*

**FUNDING, FELLOWSHIPS, AND AWARDS**

NASA Laboratory Analysis of Returned Samples Program [$1,390,358] 10/2022-9/2024

 *“Carbon and Nitrogen Isotope Signatures in Extraterrestrial Organics:*

*Picomolar-Scale Compound Specific Isotope Analyses”*

 Awarded to Aaron Burton, Allison Fox, and Allison Baczynski

NASA OSIRIS-Rex Sample Analysis Participating Scientist Program [$990,058] 9/2022-8/2025

 *“Advanced Organic Isotope Studies of Asteroid Bennu Samples from OSIRIS-REx”*

 Awarded to Katherine Freeman, Christopher House, and Allison Baczynski

Gladys Snyder Education Grant [$5000] 3/2021-2/2022

*“Reinterpreting landscape change in the Denver Basin:Geochemical evidence for the*

*Paleocene-Eocene Thermal Maximum”*

Awarded to Allison Baczynski

Lawrence L. Sloss Fellowship 2009-2012

Conference Travel Grant, Northwestern University Graduate School 2009-2011

The Initiative for Sustainability and Energy (ISEN) Cluster Fellowship, Northwestern Univ. 2009-2010

**SELECTED FIELD AND LABORATORY RESEARCH EXPERIENCE**

Guadalupe Mountains and surrounding area, Texas and New Mexico May 2018

Piceance Creek Basin, Colorado October 2013

Bighorn Basin Coring Project, core sampling, MARUM, University of Bremen, Germany January 2012

Bighorn Basin Coring Project , coring, Bighorn Basin, Wyoming July 2011 University of Utah, SIRFER Stable Isotope Ecology course June 2010

Bighorn Basin, Wyoming Summer 2009-2012, 2015, 2022

Marcell Experimental Research Forest, MN 2007-2008

Southwestern Cameroon Spring 2006

**CONTINUING EDUCATION AND TRAINING**

Changing the Future for Women Faculty at Penn State January-June 2022

Penn State Bystander Intervention Workshop October 2021

**CONFERENCE ABSTRACTS**

Xie H, Lloyd M, **Baczynski AA**, and Freeman KH, **07/2023**, Carbon Isotope Fractionation of Leaf Wax *n*-Alkanes and Implications for Terrestrial Paleoclimates, Goldschmidt.

Hollingsworth EH, Pancost RD, Dickson AJ, Badger MPS, Elling FJ, Freeman KH, **Baczynski AA**, and Inglis GN, **07/2023**, Spatial patterns of fossil carbon mobilization during the Paleocene-Eocene Thermal Maximum, Goldschmidt.

Volante P, Sato YJ, Xie H, **Baczynski AA**, Betz H, and Freeman KH, **12/2022**, Intramolecular 13C/12C Measurements of Decane and Phytane via GC-Orbitrap-MS with Peak Trapping, American Geophysical Union, Fall Meeting.

Horisk K, Ivory SJ, Freeman KH, **Baczynski AA**, McCorriston J, Al-Kathiri A, and Al-Mahri A, **10/2022**, Understanding drivers of vegetation change in Dhofar, Oman: a biodiverse dryland ecosystem, Geological Society of America, Fall Meeting.

Korasidis V, Wing SL, Nelson D, and **Baczynski AA**, **08/2022**, Reworked pollen reduces apparent floral change during the Paleocene-Eocene Thermal Maximum (PETM), Climatic and Biotic Events of the Paleogene meeting.

Inglis G, et al., **08/2022**, Terrestrial carbon cycle feedbacks during past warm climates, Climatic and Biotic Events of the Paleogene meeting.

Khan S, Barclay R, Wing SL, Lloyd B, **Baczynski AA**, Wilson JP, Megonigal P, **12/2021**, Using *Ginkgo biloba* to test the Franks Method of Estimating CO2 Levels in Deep Time, American Geophysical Union, Fall Meeting.

Wing SL, Bloch JI, Morse PE, Vitek NS, Bowen GJ, Korasidis V, **Baczynski AA**, and Kraus MJ, **10/2021**, An earliest Eocene conglomerate in the Bighorn Basin, Wyoming, and possible relationship to the Paleocene-Eocene Thermal Maximum, Geological Society of America, Fall Meeting.

Korasidis V, Wing SL, Nelson D, **Baczynski AA**, and Harrington G, **10/2021**, Reworked pollen reduces apparent floral change during the Paleocene-Eocene Thermal Maximum, Geological Society of America, Fall Meeting.

Ramos EJ, Breecker DO, Barnes JD, Li F, Gingerich PD, Loewy SL, Satkoski AM, **Baczynski AA**, Wing SL, Miller NR, and Lassiter JC, **10/2021**,Active silicate weathering on floodplains during the Paleocene-Eocene Thermal Maximum: Insights from the Bighorn Basin, Wyoming, USA, Geological Society of America, Fall Meeting.

Hollingsworth EH, Pancost RD, Dickson AJ, Badger MPS, Freeman KH, **Baczynski AA**, Denis E, and Inglis GN, **7/2021**, Variability in the mobilization of fossil organic carbon during the Paleocene-Eocene Thermal Maximum, British Organic Geochemical Society Conference.

Freeman KH, **Baczynski AA**, Karp A, Lyons SS, and Ferland TM, **12/2019**, Tracking kerogen weathering and recycled fossil carbon accompanying Cenozoic climate and landscape perturbations, American Geophysical Union, Fall Meeting.

Scher M, Barclay R, **Baczynski AA,** Wilson JP, Megonigal P, and Wing SL, **12/2019**, Evaluating the effect of 100s of ppm CO2 on discrimination in *Ginkgo*, American Geophysical Union, Fall Meeting.

**Baczynski AA,** McInerney FA, Wing SL, Freeman KH, and the Bighorn Basin Coring Project Science Team, **09/2019**, Carbon isotope record of trace *n*-alkanes in a terrestrial PETM section recovered by the Bighorn Basin Coring Project, Geological Society of America, Fall Meeting.

Freeman KH and **Baczynski AA, 07/2019**, Tracking life’s fingerprints with molecules and isotopes, Isotopes 2019, Raitenhaslach, Germany.

**Baczynski AA**, Brodie CR, Kracht O, and Freeman KH, **08/2018**, Simultaneous Measurement of 13C, 15N, and 34S isotopic composition on nanomolar quantities of C, N, and S, Gordon Organic Geochemistry Conference, poster presentation.

McInerney FA, Bush RT, **Baczynski AA,** Andrae JW, Bunney E, and Howard S, **10/2017**, ­­Why do leaf wax *n*-alkane distributions change during the Paleocene-Eocene Thermal Maximum?, Geological Society of America, Fall Meeting.

**Baczynski AA**, Fox AC, and Freeman KH, **09/2017**, Soil carbon stability during periods of global warming, Climatic and Biotic Events of the Paleogene meeting.

Wing SL, Clyde WC, Gingerich PD, Baczynski AA, Bowen GJ, Denis EH, Harrington GJ, Jardine PE, and the BBCP Science Team, **09/2017**, PETM stratigraphy of the Basin Substation core, Climatic and Biotic Events of the Paleogene meeting.

Lyons SL, **Baczynski AA**, Vornlocher JR, Polites EG, Freeman KH, **09/2017**, Destabilization of carbon on land, and coastal ocean response during the PETM: evidence from mid-Atlantic sediments, Climatic and Biotic Events of the Paleogene meeting.

Lyons SL, **Baczynski AA**, Vornlocher JR, and Freeman KH, **03/2017**, The PETM in the coastal ocean: linking terrestrial destabilization and coastal productivity in mid-Atlantic sediments, Northeast/North central GSA meeting.

McInerney FA, **Baczynski AA**, Wing SL, Kraus MJ, Bloch JI, and Freeman KH, **12/2016**, Exploiting imperfect records of the carbon isotope excursion at the Palaeocene-Eocene Thermal Maximum to infer changes in soil carbon cycling, Australian Organic Geochemistry Conference (Perth, WA, AU).

**Baczynski AA**, Polissar PJ, Juchelka D, Schwieters J, Hilkert A, and Freeman KH, **12/2016**, Pico-CSIA: Picomolar Scale Compound-Specific Isotope Analyses, American Geophysical Union, Fall Meeting, oral presentation, Abstract V33G-03.

Lyons SL, **Baczynski AA**, Vornlocher JR, and Freeman KH, **12/2016**, The PETM in the coastal ocean: changes in redox, productivity, and organic matter sources recorded in mid-Atlantic sediments, American Geophysical Union, Fall Meeting, oral presentation, Abstract PP52B-07.

Vornlocher JR, **Baczynski AA**, Lyons SL, and Freeman KH, **12/2016**, Analysis of Carbon Isotope Excursions Along the Atlantic Coastal Plain During the Paleocene-Eocene Thermal Maximum, American Geophysical Union, Fall Meeting, poster presentation, Abstract PP53C-2392.

Barclay RS, Bush RT, **Baczynski AA**, France C, and Wing SL, **08/2016**, Constraining the drivers of variance in leaf δ13C in fossil *Ginkgo adiantoides* and extant *Ginkgo biloba*: canopy effect or diagenesis?, Geological Society of America, Fall Meeting, oral presentation, Geological Society of America *Abstracts with Programs*, Vol. 48, No. 7, doi: 10.1130/abs/2016AM-287905.

**Baczynski AA**, Lyons SL, Vornlocher JR, and Freeman, KH, **09/2016**, A biomarker approach to interpreting PETM organic carbon records, Geological Society of America, Fall Meeting, invited oral presentation, Geological Society of America *Abstracts with Programs*, Vol. 48, No. 7, doi: 10.1130/abs/2016AM-287554.

**Baczynski AA**, Polissar PJ, Juchelka D, Schwieters J, Hilkert A, and Freeman KH, **06/2016**, Picomolar Scale Compound-Specific Isotope Analyses, Gordon Organic Geochemistry Conference, poster presentation.

McInerney FA, **Baczynski AA**, Wing SL, Kraus MJ, Bloch JI, Secord R, Freeman KH, **06/2016**, Climate-carbon cycle feedbacks during Paleocene-Eocene Thermal Maximum, Australian Earth Sciences Convention.

Freeman KH and **Baczynski AA, 12/2015**, Signals and noise in terrestrial archives of organic carbon: examples from the PETM, American Geophysical Union, Fall Meeting, oral presentation, Abstract PP22B-08.

McInerney FA, Bush RT, **Baczynski AA**, and Howard S, **06/2015**, Controls on leaf wax *n*-alkane chain length distributions, Leaf Wax Conference, 2015 Meeting.

**Baczynski AA**, McInerney FA, and Wing SL, **06/2015**, Leaf wax *n*-alkane records from the PETM, Bighorn Basin, Wyoming, Leaf Wax Conference, 2015 Meeting, poster presentation.

**Baczynski AA**, McInerney FA, Wing SL, and the BBCP Science Team, **07/2014**, *n*-Alkane PETM records from the Bighorn Basin, Wyoming: A core-outcrop comparison, Climate and Biota of the Early Paleogene, 2014 Meeting, poster presentation.

**Baczynski AA,** Barclay RS, Bowen GJ, Denis EH, Freeman KH, Harrington GJ, Jardine PE, Maibauer BJ, McInerney FA, Wing SL, **02/2014,** Effects of the Paleocene-Eocene Thermal Maximum on Terrestrial Plants and Carbon Storage, 10th North American Paleontological Convention, Florida Museum of Natural History, Abstract Book, Paleontological Society, p. 131.

**Baczynski AA,** McInerney FA, Wing SL, and Kraus MJ, **12/2013**, Paleohydrologic change across the Paleocene-Eocene Thermal Maximum, Bighorn Basin, WY, American Geophysical Union, Fall Meeting, oral presentation, Abstract PP34B-07.

McInerney FA, Bush RT, and **Baczynski AA**, **10/2013**, Do leaf wax lipids record plant community change or climate change? 14th Conference on Australasian Vertebrate Evolution, Paleontology, and Systematics (Adelaide, SA, AU).

McInerney FA, Bush RT, and **Baczynski AA**, **01/2013**, Can leaf wax *n*-alkane distributions be used to reconstruct plant communities? Southern Connections Conference (Dunedin, NZ).

McInerney FA, Bush RT, **Baczynski AA**, Wing SL, Kraus MJ, and Bloch JI, **12/2012**, Do Palaeocene-Eocene Thermal Maximum HMW *n*-alkanes record plant community change or climate change? Australian Organic Geochemistry Conference (Sydney, AU).

**Baczynski AA,** McInerney FA, Wing SL, and the BBCP Science Team, **12/2012**, Preliminary *n*-alkane results from Basin Substation, BBCP, American Geophysical Union, Fall Meeting, poster presentation, Abstract PP11B-2011.

Bush RT, **Baczynski AA,** McInerney FA, and Chen D, **12/2012**, Re-assessing the role of plant community change and climate in the PETM *n*-alkane record, American Geophysical Union, Fall Meeting, poster presentation, Abstract PP11B-2012.

**Baczynski AA,** McInerney FA, Wing SL, and Kraus MJ, **11/2012**, Resolving inconsistencies among PETM CIEs in the SE Bighorn Basin, Wyoming: An allochthonous carbon hypothesis, Geological Society of America, Fall Meeting, poster presentation, Geological Society of America *Abstracts with Programs*, Vol. 44, No. 7.

Moron S, Feinberg JM, Fox DL, Foreman BZ, and **Baczynski AA**, **11/2012**, Pedogenic siderite and the reproducibility of paleosol organic matter d13C values, Geological Society of America, Fall Meeting, oral presentation, Geological Society of America *Abstracts with Programs*, Vol. 44, No. 7.

Kraus MJ, McInerney FA, **Baczynski AA,** Wing SL, Secord R, and Bloch JI, **11/2012**, Paleohydrologic response to continental warming: paleosols across the Paleocene-Eocene Thermal Maximum, Bighorn Basin, Wyoming, Geological Society of America, Fall Meeting, oral presentation, Geological Society of America *Abstracts with Programs*, Vol. 44, No. 7.

Kraus MJ, McInerney FA, Newbury SS, Wing SL, **Baczynski AA**, and Secord R, **08/2012**, Changes in Fluvial Deposition Associated with the Paleocene-Eocene Thermal Maximum (PETM) in the Bighorn Basin, WY, presented at International Geologic Congress, Brisbane, Australia.

**Baczynski AA,** McInerney FA, Wing SL, and Kraus MJ, **08/2012**, Geographical variation in the PETM CIE across the SE Bighorn Basin, WY, Organic Geochemistry Gordon Research Conference, poster presentation.

Clyde W, Wing S, Gingerich P, and the **BBCP Science Team**, **04/2012**, Bighorn Basin Coring Project (BBCP): High-Resolution Continental Records of Early Paleogene Hyperthermals, Abstract EGU2012-13385 presented at European Geosciences Union General Assembly, Vienna, Austria.

Bush RT, McInerney FA, **Baczynski AA**, and Wing SL, **12/2011**, Fidelity of fossil *n*-alkanes from leaf to paleosol and applications to the Paleocene-Eocene Thermal Maximum, American Geophysical Union, Fall Meeting, poster presentation, Abstract B21E-0315.

**Baczynski AA**,McInerney FA, Wing SL, Kraus MJ, and Fricke HC, **12/2011**, Allochthonous carbon hypothesis for bulk OM and *n*-alkane PETM carbon isotope discrepancies, American Geophysical Union, Fall Meeting, poster presentation, Abstract B21E-0316.

**Baczynski AA**, McInerney FA, Kraus MJ, and Wing SL, **06/2011**, Resolving discrepancies between bulk organic matter and *n*-alkane PETM carbon isotope records from the Bighorn Basin, Wyoming, Climate and Biota of the Early Paleogene, 2011 Meeting, oral presentation.

**Baczynski AA**,McInerney FA, Kraus MJ, and Wing SL, **12/2010**, Comparison of bulk and *n*-alkane PETM carbon isotope trends from the Bighorn Basin, Wyoming, American Geophysical Union, Fall Meeting, oral presentation, Abstract ­EP54-03.

Kraus MJ, McInerney FA, Newbury SS, **Baczynski AA**, and Wing SL, **10/2010**, Sedimentary response to climate change during the Paleocene-Eocene Thermal Maximum, Southeastern Bighorn Basin, WY, Geological Society of America, Fall Meeting, poster presentation, Geological Society of America *Abstracts with Programs*, Vol. 42, No. 5, p. 464.

Wing SL, **Baczynski AA**, Bloch JI, Boyer DM, Kraus MJ, Secord R, and McInerney FA, **10/2010**, Biotic and sedimentary change during the Paleocene-Eocene Thermal Maximum in Western North America, Geological Society of America, Fall Meeting, oral presentation, Geological Society of America *Abstracts with Programs*, Vol. 42, No. 5, p. 670.

**Baczynski AA**,McInerney FA, Jacobsen, SD, Blair NE, Thomas SM, and Kraus MJ, **12/2009**, Raman spectroscopy of carbonaceous material in PETM sediments from the Bighorn Basin, Wyoming, American Geophysical Union, Fall Meeting, poster presentation, Abstract PP41A-1485.

**PROFESSIONAL SERVICE**

***Reviews***

Manuscripts:Nature Communications; Geology; Geochimica et Cosmochimica Acta; Geophysical Research Letters; Paleoceanography and Paleoclimatology; Earth Science Reviews; Palaeogeography, Palaeoclimatology, Palaeoecology; PLOS One; Rocky Mountain Geology

Proposals:American Chemical Society, Petroleum Research Fund, Natural Environment Research Council

***Academic***

Guest Associate Editor of *Paleoceanography and Paleoclimatology* May 2022-Sept 2023

for special collection, *Illuminating a Warmer World: Insights from the Paleogene*

Participant in Terrestrial and Coastal Climates of the Paleocene Eocene 16-18 September 2019

Thermal Maximum Workshop, Santa Cruz

Co-chaired AGU session *New Vistas in Isotopologue Research*  Fall Meeting 2018

Outstanding Student Presentation Award Liaison, AGU Fall Meeting 2018

Participant in the Continental Scientific Drilling and Coring Community Workshop 4-5 June 2018

Member of 2-yr NSF RCN steering committee for Cenozoic *p*CO2 Reconstructions  2016-present

Co-chaired AGU session *Terrestrial Climate during Greenhouse Periods* Fall Meeting 2016

Outstanding Student Presentation Award Liaison, AGU Fall Meeting 2016

**OUTREACH AND COMMUNITY SERVICE**

***K-12 Outreach***

Volunteer, Discovery Space Museum, State College, PA April 2017-present

Judge, K-8 Science Fair, St. Athanasius School, Evanston, IL Spring 2013, 2014

High School Science Mentor/Tutor, Boys Hope/Girls Hope, Evanston, IL October 2012-June 2014

Workshop leader, Project Excite (collaboration between Northwestern University’s 2010-2014

 Center for Talent Development and Illinois School District 65 that strives to expose

 minority students to math and science.) Designed and led hands on science

 activities for 3rd and 4th graders

***Departmental/University***

Evaluator, Office of Postdoctoral Affairs Outreach Proposal February 2020

Poster Exhibition Committee, Office of Postdoctoral Affairs Annual September 2017

Postdoctoral Research Exhibition

Geosciences Safety Committee, Penn State March 2017-present

Judge, Environmental Chemistry and Microbiology Student Symposium, Penn State April 2016, 2017

Graduate student committee member, Northwestern Dept. EPS faculty hire Winter 2013

Graduate student volunteer, Northwestern University Science and Technology Tour April 2012

Volunteer, US EPA Game Day Challenge for recycling, Northwestern University October 2010-2013

Graduate student speaker, monthly ISENse meeting, Northwestern University June 2010

Graduate student committee member, Northwestern University lab manager hire 2009, 2012

Graduate student volunteer, Northwestern University’s annual 2009, 2010, 2012

Climate Change Symposium

**PROFESSIONAL AFFILIATIONS**

American Geophysical Union (AGU); American Society of Mass Spectrometry (ASMS); Association for Women Geoscientists (AWG)**;** Geochemical Society (GS)**;** Geological Society of America (GSA)