

## KATHERINE R. BERMINGHAM

### PERSONAL INFORMATION

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Rutgers University  
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### RESEARCH INTERESTS

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- Using the distribution of isotopes in meteorites and terrestrial materials to constrain the building blocks of the Solar System and the Earth.
- Integrating high precision cosmochemical isotope data and astrophysical models to identify the stellar contributors to the early Solar System.
- Mass spectrometry and the development or refinement of analytical chemical techniques to collect high precision isotopic data.
- Utilizing petrographic observations, mineral data, whole rock element data, and radiogenic and stable isotopic compositions from meteorites and terrestrial samples to generate a contextualized understanding of isotope data.

### EDUCATION

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- 2011      **Ph.D. in Natural Sciences**  
Institut für Mineralogie, Westfälische Wilhelms-Universität (WWU), Münster, Germany  
*Dissertation: Stable Ba and Ca isotope compositions of meteorites and their components: Insights into the early Solar System.*
- 2007      **Honours thesis for completion of B.Sc. with Honours**  
Research School of Earth Sciences, Australian National University (ANU), Canberra, Australia.
- 2006      **B.Sc. (Chemistry and Earth Sciences)**  
Australian National University, Canberra, Australia.

### ACADEMIC POSITIONS

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- January 2020 – present      Assistant Professor: Rutgers University, New Brunswick, NJ, 08854, USA.
- January 2020 – present      Visiting Assistant Professor: University of Maryland, College Park, MD, USA.
- June 2020 – present      Member of Institute of Earth, Ocean, and Atmospheric Sciences, Rutgers University, New Brunswick, NJ, 08854, USA.
- 2020 – 2022      Smithsonian Research Associate with the National Museum of Natural History.
- 2018 – 2020      Assistant Research Scientist: University of Maryland, College Park, MD, USA.
- 2012 – 2018      Postdoctoral Research Associate: University of Maryland, College Park, MD, USA.
- 2010 – 2011      Completion of PhD at Westfälische Wilhelms-Universität, Münster, Germany.
- 2008 – 2010      Marie Skłodowska-Curie Early-Stage Research Fellow, host Westfälische Wilhelms-Universität, Münster, Germany.
- 2005 – 2006      Chemistry Tutor: Research School of Chemistry, the Australian National University, Australia.
- 2003      Research Assistant (Environmental Law): College of Law, Australian National University, Australia.
- 2002 – 2006      Laboratory Assistant in organic and inorganic chemistry laboratories: Research School of Chemistry, the Australian National University, Australia.

## **FELLOWSHIPS AND AWARDS**

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- 2012 Heitfeld Award recipient (awarded to outstanding PhD thesis): Westfälische Wilhelms-Universität, Münster, Germany.
- 2008 – 2010 Marie Curie Early-Stage Research Fellow (European Union).
- 2007 A.L. Hales Honors Year Scholarship recipient (Australian National University).
- 2005 – 2008 Recipient of Australian National University Chancellor’s Letter of Commendation.

## **GRANTS as PI or co-PI**

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- 2022 – present PI for “Collaborative Research: GLOW Tracing Earths accretion using siderophile element genetics” (NSF GLOW NSF ~\$610,733; ~\$457,000 awarded to RU, ~\$153,733 to SWRI).
- 2022 – present PI (with Juliane Gross) for New Jersey Space Grant Consortium “Funds for purchasing meteorite samples for teaching, outreach, and scientific analysis” (\$5,000).
- 2022 – present PI (as supervisor) for Rutgers University Sparks Undergraduate Fellowship Award to undergraduate student Anirudh Patel (\$2,000).
- 2021 – present PI for Rutgers University COVID Impact on Scholarly Productivity Faculty Grant Program for graduate student Krystyna Doran (\$5,000).
- 2021 – present PI for “Acquisition of a State-Of-The-Art TIMS for the Advancement of Cosmochemistry”, NASA Planetary Major Equipment and Facilities (~\$400,000).
- 2021 – present PI for “The scope and significance of tungsten isotope variations: Implications for mantle evolution”, NSF Petrology and Geochemistry Program (NSF Earth Sciences, ~\$340,000).
- 2018 – present PI for “A Search for Technetium in the Early Solar System”, NASA Emerging Worlds program (~\$230,000). R.J. Walker (Co-I) and Elizabeth Cottrell (Co-I).
- 2016-2019 Co-PI for “Tungsten and Ruthenium Isotopic Study of the Chemical Evolution of Earth”, NSF EAR (~\$460,000). R.J. Walker (PI) and A. Mundl (Co-PI).

## **TEACHING**

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- Fall/Spring Seminar in Planetary Science: Cosmos Café (460:630, new UG/G course by Bermingham) at Rutgers University.
- Fall/Spring Seminar in Applied Cosmochemistry and Geochemistry (460:632, new UG/G course by Bermingham) at Rutgers University.
- Fall Cosmochemistry (16:460:560, new UG/G course by Bermingham) at Rutgers University.
- Fall Structure and Formation of the Terrestrial Planets (460:441 and 460:506, UG/G course, new material in syllabus) at Rutgers University.
- Spring Building Blocks of the Solar System (01:460:116, new UG course by Bermingham) at Rutgers University.
- Spring/Fall Guest lecturer for: Recent Advances in Geology – meteoritics and cosmochemistry (University of Maryland); Major Events in Earth History (Rutgers University); Astrobiology (Rutgers University); Petrology (Rutgers University).
- 2015 Co-lecturer for undergraduate (3<sup>rd</sup>/4<sup>th</sup> year) Optical Mineralogy, Department of Geology, University of Maryland, College Park, USA.
- 2012 – 2019 Guest lecturer for Geochemistry and Cosmochemistry courses taught by Prof. Walker, Department of Geology, University of Maryland, College Park, USA.

## **STUDENTS/POSTDOCTORAL RESEARCH SCIENTISTS (since Fall 2020)**

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- F2022 – present PhD Alexandra Ostroverkhova (Rutgers University) advisor.
- F2021 – Samantha Lord (Rutgers University) Undergraduate Senior Thesis project, advisor.
- F2020 – present PhD Krystyna Doran (Rutgers University) co-advising with Juliane Gross (NASA-Rutgers University).
- F2020 – present PhD Candidate Doug Pike (Rutgers University) advisor for PhD qualifier project.

F2021 – present	Anirudh Patel* (Rutgers University) Undergraduate Senior Thesis project, advisor collaborating with Brad Meyer (Clemson University) and Hope Tornabene (Rutgers University). *Ani was awarded The Sparks Undergraduate Fellowship Award (\$2000), Highest Honors in the Physics major (based on excellent honors project and academic record), recipient of the Paul L. Leath Prize for an outstanding senior thesis (~\$250), and recipient of the Henry Rutgers Scholar Award which recognizes graduating seniors and exceptional juniors who have completed outstanding independent research projects leading to a thesis in their major field of study or an interdisciplinary thesis.
F2020-S2021 Spring 2021	George Kharchilava (Rutgers University) Undergraduate Aresty research project, advisor. Katelyn Frizzell; Doug Pike; Alissa Madera (PhD students at Rutgers University) research projects, advisor.
Spring 2022	Yogita Kadlag (Rutgers University) postdoctoral research scientist, advisor.
Fall 2021 – present	Hope Tornabene (EPSIL Laboratory Manager), supervisor.

### **STUDENTS TRAINED/MENTORED (University of Maryland)**

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2018 – 2020	Trained/mentored graduate student Hope Tornabene (Masters defended in August, 2020).
2016 – 2020	Trained/mentored graduate student Connor Hilton (PhD defended in October, 2020).
2014 – 2019	Supervisor of 5 undergraduate lab assistants.
2014 – 2016	Co-supervisor of undergraduate student Kyle Ludwig for senior thesis (defended in April, 2017).
2014 – 2015	Co-supervisor of undergraduate student Jonathan Tino for senior thesis (graduated in Fall, 2015).
2012 – 2016	Trained/mentored graduate student Gregory Archer (PhD defended in November, 2016).
2012 – 2016	Trained/mentored graduate student Emily Worsham (PhD defended in October, 2016).
2005 – 2006	Laboratory instructor for organic chemistry courses, Research School of Chemistry, the Australian National University, Canberra, Australia.
2005 – 2006	Chemistry Tutor: Research School of Chemistry, the Australian National University, Canberra, Australia.

### **DEPARTMENT AND UNIVERSITY SERVICE (RUTGERS UNIVERSITY)**

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2021 – present	Department liaison for New Jersey Space Science Consortium (Earth and Planetary Sciences, Rutgers University).
2022 – present	Committee for Infrastructure/Renovations (Earth and Planetary Sciences, Rutgers University).
2021 – present	Cosmos Café co-convenor (with Krys Doran) (Earth and Planetary Sciences, Rutgers University).
2021 – present	Hiring committee for tenure track faculty position (Earth and Planetary Sciences, Rutgers University).
2021 – present	PhD thesis committee member for Alissa Madera (Earth and Planetary Sciences, Rutgers University).
2021 – 2022	Masters thesis committee member for Sophie Benaroya (Earth and Planetary Sciences, Rutgers University).
2021 – 2021	PhD thesis committee member for Winnie Liu (Earth and Planetary Sciences, Rutgers University).
2021	Earth and Planetary Sciences faculty re-appointment committee (Earth and Planetary Sciences, Rutgers University).
2021	Nominating committee for Chair of Earth and Planetary Sciences, Rutgers University.
2020 – present	Lead for construction of a start-of-the-art Clean Laboratory and Mass Spectrometry Facilities (Earth and Planetary Science Isotope Laboratory, EPSIL) at Rutgers University.
2020 – present	(inaugural) Support Inclusion Diversity and Equity committee (Earth and Planetary Sciences, Rutgers University).
2020 – present	Graduate committee (Earth and Planetary Sciences, Rutgers University).
2020 – 2021	Department renovation committee (Earth and Planetary Sciences, Rutgers University).

- 2020, 2022 Hiring committee for tenure track faculty position (Earth and Planetary Sciences, Rutgers University).
- 2020 Development of advertisement for Department of Earth and Planetary Sciences for high school students (with Ying Reinfelder).

### **PROFESSIONAL SERVICE**

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- 2022 Goldschmidt Conference co-convener of 2fP “Insights into the deep and ancient Earth from geochemical studies of terrestrial and extraterrestrial materials”.
- 2021 Reviewer for National Science Foundation (NSF).
- 2021 Reviewer for German Research Foundation (DFG).
- 2021 Goldschmidt Conference co-convener of 2d “How did Earth form? An integrated approach to understanding early planetary evolution”; 3c “Calcium isotope geochemistry: from carbonates to comets”.
- 2020 Goldschmidt Conference co-convener of Session 02c: “Ancient Mantle Heterogeneities Through Time - From Observations to Modeling”.
- 2019 Co-convener of Women in Geoscience Diversity and Inclusion meet-up at the Department of Geology, University of Maryland.
- 2019 AGU Fall Meeting primary convener for session V43D: “Tracing the Cosmochemistry of the Solar System: Dust to Planets”; Co-convener for V14B: “Novel Technological Advances in Mass Spectrometry and Isotope Metrology in the Geosciences”.
- 2019 Reviewer for ETH Zurich Research Commission (Earth Fellows).
- 2018 AGU Fall Meeting primary convener for session V31D: “A Multidisciplinary Approach to Investigating the Formation of Earth and Its Chemically Distinct Reservoirs”.
- 2017 AGU Fall Meeting primary convener for session V011: “Formation of Earth and its Chemical Reservoirs from High-precision Isotope Measurements, Dynamical Modelling, Seismology, and Experimental Petrology”.
- 2016 – 2019 Co-convener of CosmoMeet, a monthly discussion group with members from Astronomy and Geology Departments at the University of Maryland aimed to foster scientific understanding and interrelationships between the disciplines.
- 2021 – present Reviewer for NSF panels.
- 2016, ‘18 – ‘22 Reviewer and/or panelist for NASA panels.
- 2015 – 2019 Lunar and Planetary Science Conference session chair.
- 2014 – 2016 Lunar and Planetary Science Conference program committee member.
- 2013 – present Reviewer for peer-reviewed journals (including *Astrophysical Journal*, *Earth and Planetary Science Letters*, *Geochimica et Cosmochimica Acta*, *Geochemical Perspectives Letters*, *Journal of Analytical Atomic Spectrometry*, *Nature Astronomy*, *Nature Geoscience*, *Nature*, *Science Advances*).
- 2013 – 2014 Convener of the Geochemistry Seminar Series, Department of Geology, University of Maryland, USA.
- 2013 Reviewer and executive secretary NASA Panel.

### **FIELD WORK**

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- 2012 Geochemistry field trip (University of Maryland).
- 2011 Desert Fireball Network field trip in the Nullarbor, Australia, hunt for meteorites. Finder of lunar meteorite Lynch002 <https://www.lpi.usra.edu/meteor/metbull.php?code=55542>.
- 2006 Economic geology field trip (Australian National University).
- 2002 Earth Systems field trip (Australian National University).

### **PROFESSIONAL MEMBERSHIPS (past and on-going)**

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The Geochemical Society, Geological Society of Washington, American Association for the Advancement of Science, American Geophysical Union, Meteoritical Society.

**PUBLICATIONS IN PEER REVIEWED JOURNALS (\*denotes student mentored), manuscripts in preparation are not indicated here.**

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- Tornabene, H. A., Ash, R.D., Walker, R.J., **Birmingham, K.R.** (*accepted*) Genetics, Age and Crystallization History of Group IC Iron Meteorites, *Geochimica et Cosmochimica Acta*.
- Valdes, M.C., **Birmingham, K.R.**, Huang, S., Simon, J.I. (2021) Calcium Isotope Cosmochemistry. for *Chemical Geology* special issue on Calcium Isotopes: Past lessons and future directions.
- **Birmingham, K.R.**, Füri, E., Lodders, K., Marty, B. (2020) The NC-CC Isotope Dichotomy: Implications for the Chemical and Isotopic Evolution of the Early Solar System *Space Science Reviews* 216, 133.
- Lock, S.J., **Birmingham, K.R.**, Parai, R. Boyet, M. (2020) Geochemical Constraints on the Origin of the Moon and Preservation of Ancient Terrestrial Heterogeneities. *Space Science Reviews* 216, 109.
- **Birmingham, K.R.** (2020) News and Views: A hint of Earth's ancient ingredients, *Nature*, 579, 196.
- \*Tornabene H. A., \*Hilton C. D., **Birmingham K. R.**, Ash R. D., and Walker R. J. (2020) Genetics, age and crystallization history of group IIC iron meteorites. *Geochimica et Cosmochimica Acta* 288, 36–50.
- \*Hilton, C.D., **Birmingham, K.R.**, Walker, R.J., McCoy, T.J. (2019) Genetics, age, and crystallization sequence of the South Byron Trio iron meteorites and the potential relation to the Milton pallasite. *Geochimica et Cosmochimica Acta* 251, 217-228.
- **Birmingham, K.R.**, \*Worsham, E.A., Walker, R.J. (2018) New insights into Mo and Ru isotope variation in the nebula and terrestrial planet accretionary genetics. *Earth and Planetary Science Letters* 487, 221-229.
- **Birmingham, K.R.**, Gussone, G., Mezger, K., Krause, J., (2018) Origins of mass-dependent and mass-independent Ca isotope variations in meteoritic components and meteorites. *Geochimica et Cosmochimica Acta* 226, 206-223.
- **Birmingham, K.R.** and Walker, R.J. (2017) The ruthenium isotopic composition of the oceanic mantle. *Earth and Planetary Science Letters* 474, 466-473.
- \*Worsham, E.A, **Birmingham, K.R.**, Walker, R.J. (2017) Characterizing cosmochemical materials with genetic affinities to the Earth: Genetic and chronological diversity within the IAB iron meteorite complex. *Earth and Planetary Science Letters* 467, 157-166; (awarded the 2016 Ninninger Meteorite Award to E.A. Worsham, which recognizes an outstanding student achievement in the meteoritical sciences as embodied by an original research paper).
- \*Archer, G.J., Mundl, A., Walker, R.J., \*Worsham, E.A., **Birmingham, K.R.** (2017) High-precision analysis of  $^{182}\text{W}/^{184}\text{W}$  and  $^{183}\text{W}/^{184}\text{W}$  by negative thermal ionization mass spectrometry: Per-integration oxide corrections using measured  $^{18}\text{O}/^{16}\text{O}$ . *International Journal for Mass Spectrometry* 414, 80-86.
- **Birmingham, K.R.**, Walker, R.J., \*Worsham, E.A., (2016) High precision Ru isotope analysis using thermal ionization mass spectrometry. *International Journal for Mass Spectrometry* 406, 15-26.
- \*Worsham, E.A., **Birmingham, K.R.**, Walker, R.J., (2016) Highly siderophile element systematics of IAB iron meteorites: New insights into the formation of an enigmatic group, *Geochimica et Cosmochimica Acta* 188, 261-283.
- \*Worsham, E.A., Walker, R.J., **Birmingham, K.R.**, (2016) High-precision molybdenum isotope analysis by negative thermal ionization mass spectrometry. *International Journal for Mass Spectrometry* 407, 51-61.
- **Birmingham, K.R.**, Mezger, K., Scherer, E.E., Horan, M., Carlson, R., Upadhyay, D., Magna, T., Pack, A. (2016) Barium isotope abundances in meteorites and their implications for early Solar System evolution. *Geochimica et Cosmochimica Acta* 175, 282-298.
- Walker, R.J., **Birmingham, K.R.**, Lui, J., Puchel, I.S., Touboul, M., \*Worsham, E.A., (2015) In search of late-stage planetary building blocks. *Chemical Geology* 411, 125-142.
- **Birmingham K.R.**, Mezger K., Scherer E., Upadhyay D., Pack A., (2014) Evidence for extinct  $^{135}\text{Cs}$  from Ba isotopes in Allende CAIs? *Geochimica et Cosmochimica Acta* 133, 463-478.
- Kruijer, T.S., Touboul M., Fischer-Gödde, M., **Birmingham K.R.**, Walker, R.J., Kleine T., (2014) Protracted core formation and rapid accretion of protoplanets. *Science* 344, 1150-1154.

- Janots E., Edwin G., Hofmann B., Greenwood R., Franchi I., **Bermingham K.R.**, Netwig V., (2012) Jiddat al Harasis 556: A howardite impact melt breccia with an H chondrite component, *Meteoritics and Planetary Sciences* 47, 1558-1574.
- Norman M.D., **Bermingham K.R.**, Christy A.G., Bennett V., (2011) Euclite meteorites: Clues to early igneous processes on differentiated asteroids, *Proceedings of the 10th Australian Space Science Conference*, 133-144.

## BOOK CHAPTERS

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- **Bermingham, K.R.** and Kruijer, T.S. (2022) Constraining the formation of main belt asteroids: New isotope evidence from meteorites, for chapter in *Cambridge University Press book: Vesta and Ceres: Insights into the Dawn of the Solar System*.
- Marty, B. **Bermingham, K.R.**, Nittler, L.R., Raymond, S.N. (*accepted*) Small Bodies Clues for Solar System Formation, *COMETS III*, Space Science Series of the University of Arizona Press.
- **Bermingham, K.R.** and B.S. Meyer (*in revision*) Non-Traditional Stable Isotope Cosmochemistry and Geochemistry, *Oxford Research Encyclopedia of Planetary Science*.

## SELECTED ABSTRACTS since 2016 (\*denotes student mentored or supervised)

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- \*Tornabene, H.A., **Bermingham, K.R.**, Patel, A., Ash R.D., Pourkhorsandi, H. (2022) Chemical and isotopic composition of ungrouped iron meteorite Sirjan 001, *85<sup>th</sup> Meteoritical Society Meeting Glasgow UK*.
- Pourkhorsandi, H., Debaille, V., Kaskes, P., \*Tornabene, H.A., **Bermingham, K.R.**, Marrocchi Y., Leduc T. (2022) Sirjan 001: an ungrouped iron meteorite formed in a sulfur-rich environment, *85<sup>th</sup> Meteoritical Society Meeting Glasgow UK*.
- **Bermingham, K.R.**, \*Tornabene, H.A., Meyer, B.S., Mojzsis, S.J., Walker, R.J. (2022) Analytical Approach to Constraining the Siderophile Genetics of Late-Stage Terrestrial Accretion, *Goldschmidt Hawai'i, USA*, Abstract #12271.
- **Bermingham, K.R.**, Meyer, B.S., Mezger, K. (2022) The Stellar Building Blocks of The Solar System: New Constraints from Correlated Isotopic Compositions in Meteorites, *52<sup>nd</sup> Lunar and Planetary Science Conference Houston, USA*, Abstract #1469.
- **Bermingham, K.R.**, \*Tornabene, H.A., Meyer, B.S., \*Patel, A., Mojzsis, S.J., Walker, R.J. (2022) Siderophile Genetics of Late-Stage Terrestrial Accretion: New Constraints on the Composition of Earth's Building Blocks, *52<sup>nd</sup> Lunar and Planetary Science Conference Houston, USA*, Abstract #1468.
- Meyer, B.S. and **Bermingham K.R.** (2022) NRLEE Nucleosynthesis of Titanium-46 and Zirconium-95, *52<sup>nd</sup> Lunar and Planetary Science Conference Houston, USA*, Abstract #2555.
- **Bermingham, K.R.**, Meyer, B.S., \*Frizzell K., Mezger K. (2021) Isotopic Constraints on the Building Blocks of the Solar System, *51<sup>st</sup> Lunar and Planetary Science Conference Houston, USA*, Abstract #2107.
- \*Frizzell, K., **Bermingham, K.R.**, Meyer, B.S. (2021) Utilizing Nucleosynthetic Models and Jupyter Notebooks to Constrain the Building Blocks of the Solar System, *51<sup>st</sup> Lunar and Planetary Science Conference Houston, USA*, Abstract # 2650.
- Meyer B.S., **Bermingham, K.R.**, \*Frizzell K., Mezger K. (2021) NRLEE Nucleosynthesis, *51<sup>st</sup> Lunar and Planetary Science Conference Houston, USA*, Abstract # 2598.
- **Bermingham, K.R.**, Walker R.J., Finlayson, V.A., Peters, B.J., Nakanishi, N., Rudnick, R.L., Day, J.M.D., Jackson, M.G., Pearson, D.G. (2020, invited, withdrawn due to COVID-19 pandemic) The search for preserved late-stage accretionary components in terrestrial materials, *Goldschmidt Abstracts, Hawaii, USA*.
- Meyer, B.S. and **Bermingham, K.R.** (2020) Exploding white dwarf stars and the carriers of nucleosynthetic isotope anomalies. *51<sup>st</sup> Lunar and Planetary Science Conference Houston, USA*, Abstract #2652.

- **Bermingham, K.R.** and Meyer B.S. (2019) A search for technetium in the Solar System. *AGU Fall Meeting*, San Francisco, USA, Abstract V43D-0102.
- **Bermingham, K.R.** and Walker, R.J. (2019) Earth's water added during late-stage primary accretion? *50<sup>th</sup> Lunar and Planetary Science Conference* Houston, USA, Abstract #1234.
- Walker, R.J. and **Bermingham, K.R.** (2019) Revisiting the concept of late accretion (2019) *50<sup>th</sup> Lunar and Planetary Science Conference* Houston, USA, Abstract #1385.
- **Bermingham, K.R.** and Walker, R.J. (2018) Constraining the composition of terrestrial building blocks: The molybdenum isotopic composition of the Earth's mantle. *AGU Fall Meeting*, Washington DC, USA, Abstract V41D-0149.
- **Bermingham, K.R.**, Gussone, G., Mezger, K. (2018, invited, withdrawn due to family medical emergency) Origins of mass-dependent and mass-independent Ca isotope variations in meteoritic components. *Goldschmidt Abstracts*, Boston, USA.
- \*Hilton, C.F., **Bermingham, K.R.**, Ash, R.D., Walker, R.J., McCoy, T.J. (2018) Genetics, Age, and Crystallization Sequence of the South Byron Trio and the Potential Relation to the Milton Pallasite. *49<sup>th</sup> Lunar and Planetary Science Conference* Houston, USA, Abstract #1186.
- **Bermingham, K.R.**, Gussone, G., Mezger, K. (2018) Origins of mass-dependent and mass-independent Ca isotope variations in meteoritic components. *49<sup>th</sup> Lunar and Planetary Science Conference* Houston, USA, Abstract #2178.
- **Bermingham, K.R.**, \*Worsham, E.W., Walker, R.J. (2017) New insights into the genetics of planetary building blocks, *48<sup>th</sup> Lunar and Planetary Science Conference* Houston, USA, Abstract #2314.
- **Bermingham, K.R.** and Walker, R.J. (2016) Investigating signature of late accretion: The ruthenium isotope composition of the Earth's mantle, *Goldschmidt*, Yokohama, Japan.
- **Bermingham, K.R.** and Walker, R.J., (2016) Tracing the genetics of lunar impactors, *47<sup>th</sup> Lunar and Planetary Science Conference* Houston, USA, Abstract #1458.
- \*Worsham, E.A., **Bermingham, K.R.**, Walker, R.J., (2016) Comparative molybdenum-tungsten-osmium isotope evidence for the diverse genetics and chronology of IAB complex iron meteorites, *47<sup>th</sup> Lunar and Planetary Science Conference* Houston, USA, Abstract #2392.
- Mayer, B., **Bermingham, K.R.**, \*Worsham, E.A., Humayun, M., Walker, R.J., (2016) Correlated nucleosynthetic anomalies in Mo, Ru, and Pd from iron meteorites, *47<sup>th</sup> Lunar and Planetary Science Conference* Houston, USA, Abstract #2055.

#### **INVITED SEMINARS (since 2012)**

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- "Constraining the genetics of Earth's late-stage accretion" Lunar and Planetary Institute Seminar Series (June, 2022).
- "The Building Blocks of the Solar System: where do we even start?" Amateur Astronomers, Inc. (AAI) (February, 2022).
- "Isotopic investigation of our origins" ENIGMA colloquium at Rutgers University (November, 2021).
- "Stardust" Department of Earth and Planetary Sciences colloquium at Rutgers University (Fall 2020).
- "Isotopic insights to the building blocks of Earth" (September, 2020) Keynote Speaker at the 2020 TIGeR Conference Curtin University, Perth, Australia (deferred due to COVID-19 pandemic).
- "The evolution of the Solar System: Insights from meteorites and Isotopes" (January, 2020) School of Earth and Planetary Sciences (EPS) seminar, Curtin University, Perth, Australia. Deferred until 2021.
- "The Origin of Nucleosynthetic Isotope Anomalies in Meteorites" (November, 2019), Carnegie Science Astronomy Seminar, Washington D.C., USA.
- "The NC-CC divide and the Origin of Nucleosynthetic Isotope Anomalies in Meteorites" (November, 2019) Geochemistry Seminar Series, Department of Geology, University of Maryland, College Park, USA.
- "Building Blocks of the Earth" (April, 2019) Colloquium, Brown University, RI, USA
- "Building Blocks of the Solar System" (April 2019) Lunchtime seminar, Brown University, RI, USA

- “Building Blocks of Earth and the Solar System” (March, 2019) Colloquium, SWRI, Boulder, USA
- “Building Blocks of Earth and the Solar System” (February, 2019) Colloquium, Rutgers University, NJ, USA
- “Terrestrial Accretion and Planet Evolution” (October, 2018) for the International Space Science Institute (ISSI, Bern CH) and Europlanet workshop on “Reading Terrestrial Planet Evolution in isotopes and element measurements”, Switzerland.
- “The Building Blocks of Earth” (February, 2018) Colloquium, Department of Geoscience, University of Wisconsin-Madison, USA.
- “Isotope Genetics of the Solar System” (February, 2018) Colloquium, Department of Geoscience, University of Wisconsin-Madison, USA.
- “The Genetics of the Solar System and Earth” (December, 2017) Carnegie Science’s Geophysical Laboratory Seminar, Washington D.C., USA.
- “Investigating the Building Blocks of Earth” (June, 2017) Department of Mineral Sciences, National Museum of Natural History (Smithsonian Institute), Washington D.C., USA.
- “The Building Blocks of Earth” (April, 2017) Geochemistry Seminar Series, Department of Geology, University of Maryland, College Park, USA.
- “Genetics of Planetary Accretion” (February, 2017) Planetary Astronomy Seminar, Astronomy Department, University of Maryland, USA.
- “Solar System and Planetary Evolution” (2015) Colloquium, Department of Earth and Planetary Sciences, Washington University in St. Louis, USA.
- “Solar System Evolution” (2015) Geochemistry Seminar Series, Department of Geology, University of Maryland, College Park, USA.
- “Insights into the Early Solar System from Isotopic Studies” (2014) Geological Society of Washington, Washington D.C., USA.
- “Ba Isotopes Composition of Meteorites and their Components: Evidence for Extinct  $^{135}\text{Cs}$  from Ba Isotopes in Allende CAIs?” (2013) Research School of Earth Science Seminar, Australian National University, Canberra, Australia.
- “Ba Isotope Compositions of Meteorites and their Components” (2012) Geochemistry Seminar Series, Department of Geology, University of Maryland, College Park, USA.

## **PUBLIC OUTREACH**

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- Guest Lecturer at New Jersey Amateur Astronomy Society.
- Cosmos Café (with Krys Doran) at Rutgers University.
- Interview with Sky and Telescope Magazine “Misfit Meteorite Sheds Light on Solar System History” <https://skyandtelescope.org/astronomy-news/misfit-meteorite-solar-system-origins/>
- Interview with Rutgers University EOAS “Outer Limits” <https://eoas.rutgers.edu/outer-limits/>
- Guest lecturer for “Ask a Geologist” virtual seminar series through Rutgers Geology Museum.
- Training session on radiogenic isotope systematics for volunteers at National Museum of Natural History (Smithsonian Institute).
- Volunteer at University of Maryland Open Days.
- Guest lecturer at Buck Lodge Middle School, MD, USA to promote Earth Sciences.
- Volunteer at Australian National University Open Days.
- Volunteer judge for Tournament of the Minds (Australian National University).
- Volunteer for chemistry department open days for local high school students (Australian National University).