

Krysten Villalon, PhD

Curriculum Vitae

Education

2013–2021	University of Chicago Ph.D. in Cosmochemistry
2010–2013	University of Central Florida Post-Baccalaureate Studies in Chemistry Post-Baccalaureate Studies in Astronomy
2004–2008	Vanderbilt University Bachelor of Arts in Art History Bachelor of Arts in Spanish Minor in Astronomy

Research and Laboratory Positions

Current	Northwestern University, NUANCE/EPIC Center Core Scientist
2021–2023	Field Museum of Natural History, Center for Meteoritics and Polar Studies Postdoctoral Scholar Advisor: Dr. Philipp Heck
2013–2021	University of Chicago, Department of Geophysical Sciences Graduate Research Assistant in Cosmochemistry Advisor: Dr. Andrew M. Davis
2014–2021	Field Museum of Natural History, Center for Meteoritics and Polar Studies Research Assistant Advisor: Dr. Philipp Heck
2012–2013	University of Central Florida, Department of Chemistry Research Assistant, Analytical Spectroscopy Laboratory Advisor: Dr. Andres Campiglia
2012–2013	Accutest Laboratories Laboratory Assistant, Wet Chemistry Laboratory
2011–2013	University of Central Florida, Department of Physics Research Assistant, Planetary Science Group Advisor: Dr. Yanga Fernandez
2007–2008	Vanderbilt University, Department of Physics and Astronomy Research Assistant, Astronomy Group Advisor: Dr. David James

Fellowships and Awards

2020	University of Chicago Gerald J. Wasserburg and Naomi O. Wasserburg Fellowship
2017–2020	NASA Earth and Space Sciences Fellowship (NESSF)
2019	Japan Aerospace Exploration Agency (JAXA) and Institute of Space and Astronautical Science (ISAS) Student Travel Award to the 82nd Annual Meeting of the Meteoritical Society in Sapporo, Japan.
2017	NASA Emerging Worlds Travel Award to 80th Annual Meeting of the Meteoritical Society in Santa Fe, NM.
2017	Lunar and Planetary Institute (LPI) Travel Award to Accretion: Building New Worlds Conference in Houston, TX.

Teaching Experience

Winter 2014, 2015, 2016*, 2017, 2020*	Evolution of the Solar System
Fall 2015	Earth as a Planet
Fall 2014	Chemistry of the Atmosphere
Fall 2013; Spring 2014, 2016, 2019**	Global Warming
Spring 2018*	Physics of the Earth

*Teaching Assistantships, *Head TA, **Lecturer*

Community Involvement

2020, 2021	Científico Latino Graduate Student Mentorship Initiative (GSMI) Mentor
2019	University of Chicago, Chicago Center for Cosmochemistry (C ³) Presolar Grain Workshop Session Chair
2016, 2019	Field Museum of Natural History Members Night at the Field Museum Volunteer
2018	University of Chicago, Chicago Center for Cosmochemistry (C ³) C ³ Seminar Series Coordinator
2017	Field Museum of Natural History Aquarius Project & Cosmochemistry Volunteer
2015–2016	University of Chicago, Office of International Affairs (OIA) International Program for Academic and Cultural Transitions (IMPACT) Mentor

Referreed Papers

- Villalon K. L.**, Ohtaki K. K., Bradley J. P., Ishii H. A., Davis A. M., and Stephan T. (2021) Search for Meteoritic GEMS II: Comparison of Inclusions in Amorphous Silicates from the Paris Chondrite and from Anhydrous Chondritic Interplanetary Dust Particles. *Geochimica et Cosmochimica Acta*, in press.
- Ohtaki K. K., Ishii H. A., Bradley J. P., **Villalon K. L.**, Davis A. M., and Stephan T. (2021) Search for Meteoritic GEMS I: Comparison of Amorphous Silicates in Paris and Acfer 094 Chondrite Matrices and in Anhydrous Interplanetary Dust Particles. *Geochimica et Cosmochimica Acta*, in press.
- Nie N. X., Dauphas N., **Villalon K. L.**, Liu N., Heard A. W., Morris R. V., and Mertzman S. (2020) A. Iron Isotopic and Chemical Tracing of Basalt Alteration and Hematite Spherule Formation in Hawaii: A Prospective Study for Mars. *Earth and Planetary Science Letters*, 544, 116385.
- Heck P. R., Schmitz B., Rout S. S., Tenner T., **Villalon K.**, Cronholm A., Terfelt F., and Kita N. T. (2016) A Search for H-Chondritic Chromite Grains in Sediments That Formed Immediately After the Breakup of the L-Chondrite Parent Body 470 Ma Ago. *Geochimica et Cosmochimica Acta*, 77, 120.

Conference Abstracts

- Barranco J. A., **Villalon K. L.**, Korsmeyer J. M., Greer J., and Heck P.R. (2023) A Mineral Identification Code for Finding Rare Minerals in Meteorites. *Meteoritics & Planetary Science*, 58, #6068.
- Villalon K. L.**, Greer J., Nittler L. R. , Alexander C. M. O' D., Isheim D., Seidman D.N., and Heck P.R. (2022) Undiluted Isotopic Measurements of Meteoritic Nano-oxides through Atom Probe Tomography. *Meteoritics & Planetary Science*, 57, #6510.
- Villalon K. L.**, Ohtaki K. K., Bradley J. P., Ishii H. A., Heck P. R., Keating K., Davis A. M., and Stephan T. (2020) Nanoscale Properties of GEMS-Like Material in Primitive Carbonaceous Chondrites. *Goldschmidt Abstracts*, #2685.
- Villalon K. L.**, Ohtaki K. K., Bradley J. P., Ishii H. A., Davis A. M., and Stephan T. (2020) A Nanoscale Analytical Scanning Transmission Electron Microscopy Study of the Paris Meteorite. *Lunar & Planetary Science LI*, #2723.
- Villalon K. L.**, Heck P. R., Keating K., Davis A. M., and Stephan T. (2020) GEMS-Like Material in Aguas Zarcas Interchondrule Matrix. *Lunar & Planetary Science LI*, #2757.
- Villalon K. L.**, Bradley J. P., Ishii H. A., Ohtaki K. K., Davis A. M., and Stephan T. (2019) A Nanoscale Analytical STEM Study of the Paris Meteorite. *Meteoritics & Planetary Science*, 54, #6475.
- Ishii H. A., Ohtaki K. K., Bradley J. P., Bustillo K. C., **Villalon K. L.**, Davis A. M., Stephan T., and Longo P. (2019). GEMS-like Material in Paris Matrix and GEMS in Interplanetary Dust Particles: An EDX and EELS Comparison. *Meteoritics & Planetary Science*, 54, #6405.

- Villalon K., Floss C., Stephan T., Boehnke P., Koch I., Kööp L., and Davis A.M. (2017). Strontium, Molybdenum, and Barium Isotopes in the Matrix of Acfer 094. *Meteoritics & Planetary Science*, 52, #6405.
- Villalon K., Floss C., Stephan T., Trappitsch R., Koch I., Kööp L., and Davis A.M. (2017). From Presolar to Solar Silicates: Resolving the Ancestry of Silicates in Primitive Solids. *Lunar & Planetary Science XLVIII*, #3029.
- Villalon K., Bradley J.P., Ishii H.A., Stephan T., and Davis A.M. (2016). Resolving the Ancestry of GEMS with CHILLI. *Lunar & Planetary Science XLVII*, #1796.
- Heck P. R., Schmitz B., Rout S.S., Tenner T., Villalon K., Cronholm A., Terfelt F., and Kita N.T. (2016). The Composition of the Flux of Micrometeorites After the L-Chondrite Parent Body Breakup ~40 Ma Ago: $\leq 1\%$ H Chondritic, $\geq 99\%$ L Chondritic. *Lunar & Planetary Science XLVII*, #1191.
- Kööp L., Davis A. M., Rout S. S., Villalon K. L., and Heck P. R. (2016) Investigations into the Formation Mechanisms of CM Hibonites at the Micro- to Nanoscale using the SEM and TEM. *Lunar & Planetary Science XLVII*, #2005.
- Cargile P., James D. J., Villalon K., Girgenti S., and Mermilliod J. (2007). A Lithium Abundance Study of Solar-type Stars in Blanco 1 using the 2.1 m McDonald Telescope: Developing Undergraduate Research Experiences. *Bulletin of the American Astronomical Society*, 39, 839.