

Dr. Christopher Bennett
Associate Professor

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(a) Professional Preparation

University of York	York, Yorkshire (UK)	Chemistry	MChem (2002)
University of Hawai'i at Manoa	Honolulu, HI	Phys. Chem.	MSc. (2005)
University of Hawai'i at Manoa	Honolulu, HI	Phys. Chem.	Ph.D. (2007)

(b) Appointments

2023 – Present, Associate Professor, Department of Physics, University of Central Florida.
2016 – 2023 – Assistant Professor, Department of Physics, University of Central Florida.
2014 – 2016 – Research Assistant, Department of Chemistry & Biochemistry, Georgia Institute of Technology, GA.
2012 – 2014 - Postdoctoral Fellow, Department of Chemistry & Biochemistry, Georgia Institute of Technology, GA.
2009 – 2012 - NASA Astrobiology Institute Postdoctoral Fellow, Institute for Astronomy, HI.

(c) Publications

1. Slavicinska, K., Duca, D., Egorov, D., Mitra, T., Carpentier, Y., Focsa, C., Bennett, C. J., Pirim, C. "Link between Polycyclic Aromatic Hydrocarbon Size and Aqueous Alteration in Carbonaceous Chondrites Revealed by Laser Mass Spectrometry", *ACS Earth and Space Chemistry* 6(6), 1413-1428.
2. Ferrari, B., Slavicinska, K., Bennett, C. J. "Role of Suprathermal Chemistry on the Evolution of Carbon Oxides and Organics within Interstellar and Cometary Ices", *Accounts of Chemical Research* 54 (5) 1067-1079.
3. Bennett, Chris J., Stephen J. Brotton, Brant M. Jones, Anupam K. Misra, Shiv K. Sharma, and Ralf I. Kaiser. "High-Sensitivity Raman Spectrometer to Study Pristine and Irradiated Interstellar Ice Analogs." *Analytical Chemistry* 85, no. 12 (2013): 5659-5665.
4. Fortenberry, Ryan C., Daniel Peters, Brian C. Ferrari, and Christopher J. Bennett. "Rovibrational Spectral Analysis of CO₃ and C₂O₃: Potential Sources for O₂ Observed in Comet 67P/Churyumov–Gerasimenko." *The Astrophysical Journal Letters* 886, no. 1 (2019): L10.
5. Bennett, Chris J., Courtney P. Ennis, and Ralf I. Kaiser. "Implantation of Energetic D⁺ Ions into Carbon Dioxide Ices and Implications for our Solar System: Formation of D₂O and D₂CO₃." *The Astrophysical Journal* 794, no. 1 (2014): 57.
6. Jones, Brant M., Christopher J. Bennett, and Ralf I. Kaiser. "Mechanistical studies on the production of formamide (H₂NCHO) within interstellar ice analogs." *The Astrophysical Journal* 734, no. 2 (2011): 78.

7. Bennett, Chris J., and Ralf I. Kaiser. "On the formation of glycolaldehyde (HCOCH₂OH) and methyl formate (HCOOCH₃) in interstellar ice analogs." *The Astrophysical Journal* 661, no. 2 (2007): 899.

8. Lo, Yuan Hung, Chen-Ting Liao, Jihan Zhou, Arjun Rana, Charles S Bevis, Guan Gui, Bjoern Enders, Kevin M Cannon, Young-Sang Yu, Richard Celestre, Kasra Nowrouzi, David Shapiro, Henry Kapteyn, Roger Falcone, Chris Bennett, Margaret Murnane, Jianwei Miao. "Multimodal X-ray and electron microscopy of the Allende meteorite", *Science Advances*, 5(9), eaax2009, DOI: 10.1126/sciadv.aax3009

9. McKee, Aaron D., Martin Solano, Andrew Saydjari, Christopher J. Bennett, Nicholas V. Hud, and Thomas M. Orlando. "A possible path to prebiotic peptides involving silica and hydroxy acid-mediated amide bond formation." *ChemBioChem* 19, no. 18 (2018): 1913-1917.

10. Bennett, Chris J., Claire Pirim, and Thomas M. Orlando. "Space-weathering of solar system bodies: A laboratory perspective", *Chemical Reviews* 113, no. 12 (2013): 9086-9150.

(d) Graduate teaching experience

- AST5151: Physics of Planetary Processes (Spring 2019, Fall 2019, Fall 2021)
- AST 5937: Astrobiology (Fall 2020, Fall 2022)

(e) Graduate students mentored (to completion, if applicable)

- Chair of the following thesis committees: Brian Ferrari (M.Sc. Physics, Dec 2021), Katie Slavicinska (M.Sc. Physics, Dec 2021), Amy LeBleu-DeBartola (M.Sc. Physics, May 2022)
- Member of the following dissertation/thesis committees: Sushrut Modak (Mar 2022), Bijoya Dhar (Spring 2021), Stephanie Jarmak (Spring 2020), Seth Calhoun (Summer 2019).
- List total number of graduate students mentored on thesis/dissertation committees over the course of your career.

(f) Other synergistic activities related to Graduate Education

1. NASA SSERVI CLASS, 2016-present. Role: Deputy-PI/team-member.
2. UCF planetary science graduate society, G-SPACE. 2019-present. Role: Faculty Advisor
3. UCF Revolutionary Aerospace Systems Concepts and Academic Linkage Program (RASCAL). 2019-present. Role: Faculty Advisor.
4. ACS Physical Chemistry Subdivision member 2011-present, Current role: Symposium Organizer for entitled "Astrochemical Complexity in Planetary Systems" which will run for 7 sessions hosting over 60 speakers.
5. Currently Chair-Elect of ACS Astrochemistry Subdivision.