

# D. Vale Cofer-Shabica, Ph.D.

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## APPOINTMENTS

**Postdoctoral Researcher** University of Pennsylvania, Philadelphia, PA, 2019–*Present*  
**Director of Education** Banneker Institute, Harvard University, Cambridge, MA, 2019  
**Visiting Scientist** Department of Chemistry, Brown University, Providence, RI, 2018–2019

## EDUCATION & TRAINING

**Ph.D. Theoretical Physical Chemistry** Brown University, Providence, RI, 2012–2018  
**Certificate in Reflective Teaching** Brown University, Providence, RI, 2013–2014  
**Sc.B. Chemical Physics** Brown University, Providence, RI, 2005–2009

## SELECTED HONORS & AWARDS

**William R. Potter Prize for Doctoral Thesis of Outstanding Merit** 2018  
Brown University Department of Chemistry award for best dissertation

**2017 Editors' Choice article: Cofer-Shabica and Stratt [2017]** 2018  
*Journal of Chemical Physics* selection of the most innovative and influential articles of 2017

**Elaine Chase Award for Leadership and Service** 2017  
Brown University Department of Chemistry award for outstanding student leadership

**William T. King Prize for Teaching Excellence** 2014  
Brown University Department of Chemistry award for best graduate teaching assistant

**Research Matters Speaker, Brown University's 250th anniversary** 2014  
Selected in University-wide competition for best graduate student talk for general audiences

**Teaching Fellowship** 2013–2015  
Brown University Department of Chemistry award for excellence in teaching

**Karen T. Romer Undergraduate Teaching and Research Award** 2008  
Brown University competitive award to fund undergraduate research

## TEACHING

**Banneker Institute, Harvard/Smithsonian Center for Astrophysics** Cambridge, MA  
Instructor: *Social Justice in Science and the World* 2019  
Instructor: *How to think about programming for astrophysicists* 2018, 2019

**Brown University Department of Chemistry** Providence, RI  
Problem Session Facilitator: *Equilibrium, Rate, and Structure* 2014, 2015  
Problem Session Facilitator: *Introductory Chemistry* 2013, 2014  
Tutorial Assistant: *Equilibrium, Rate, and Structure* 2013  
Laboratory Teaching Assistant: *Equilibrium, Rate, and Structure* 2012

<b>Blackstone Academy Charter School</b> High School Math Teacher: <i>Calculus, Pre-calculus, Statistics</i>	Pawtucket, RI 2010–2011
<b>The Metropolitan Regional Career and Technical Center</b> High School Math Teacher: <i>Algebra, Arithmetic</i>	Providence, RI 2009–2010
<b>Kaplan Tutoring Services Inc.</b> Science, Math, & Language Tutor	Barrington, RI 2008–2019
<b>Camp Ho Non Wah, BSA</b> Various positions including Program Director	Wadmalaw Island, SC 2001–2006

## PUBLICATIONS & POSTERS

**D. Vale Cofer-Shabica** and Richard M. Strat. What is special about how roaming chemical reactions traverse their potential surfaces? Differences in geodesic paths between roaming and non-roaming events. *The Journal of Chemical Physics*, 146(21):214303, 2017. doi:10.1063/1.4984617.

J. M. Budarz, M. P. Minitti, **D. V. Cofer-Shabica**, B. Stankus, A. Kirrander, J. B. Hastings, and P. M. Weber. Observation of femtosecond molecular dynamics via pump-probe gas phase x-ray scattering. *Journal of Physics B: Atomic Molecular and Optical Physics*, 49(3), 2016. doi:10.1088/0953-4075/49/3/034001.

**D. Vale Cofer-Shabica** and Richard M. Strat. The geometries of potential energy landscapes imply dynamical signatures for roaming reactions. Boston, MA, 2015. American Chemical Society, 250th National Meeting. PHYS 554 poster.

Michael P. Minitti, James M. Budarz, Adam Kirrander, Joseph Robinson, Thomas J. Lane, Daniel Ratner, Kenichiro Saita, Thomas Northey, Brian Stankus, **Vale Cofer-Shabica**, Jerome Hastings, and Peter M. Weber. Toward structural femtosecond chemical dynamics: Imaging chemistry in space and time. *Faraday Discussions*, 171:81–91, 2014. doi:10.1039/c4fd00030g.

## INVITED & SUBMITTED TALKS

Q-Chem Inc., Webinar. <b>Invited.</b>	November 2020.
University of Oklahoma, Norman, OK. <b>Invited.</b>	February 2020.
University of Jyväskylä, Jyväskylä, Finland. <b>Invited.</b>	December 2019.
University of Groningen, Groningen, The Netherlands. <b>Invited.</b>	December 2019.
Warren Wilson College, Asheville, NC. <b>Invited.</b>	February 2019.
Brown University, Providence, RI. Physical Chemistry Tea Session.	March 2017.
Brown University, Providence, RI. Physical Chemistry Tea Session.	February 2016.
Brown University, Providence, RI. Physical Chemistry Tea Session.	January 2015.
Brown University, Providence, RI. Research Matters, <b>Invited.</b>	September 2014.
Brown University, Providence, RI. Physical Chemistry Tea Session.	December 2013.
Academic Magnet High School, Charleston, SC. Commencement Address, <b>Invited.</b>	May 2010.

## SERVICE

<b>Inclusive Teaching Workshops</b> Department of Physics, Brown University	2018
<b>Diversity and Inclusion Action Committee</b> Department of Chemistry, Brown University	2016–2018
<b>WE Teach STEM Discussion Group</b> Teaching for and/or as women in STEM fields, Brown University	2015–2018
<b>Stand Up for Graduate Student Employees</b> Graduate student union organizer, Brown University	2013–2017
<b>Exhibition Night Judge</b> Blackstone Academy High School, Pawtucket, RI	2013–2019
<b>Graduate Student Recruitment</b> Department of Chemistry, Brown University	2012–2017

## AFFILIATIONS

<i>American Physical Society</i>	2018–Present
<i>Union of Concerned Scientists</i>	2018–Present
<i>American Chemical Society</i>	2015–Present

## REFERENCES

- Dr. Richard M. Stratt**, Brown University Newport Rogers Professor in Chemistry  
*Dissertation advisor*, richard\_stratt@brown.edu
- Dr. Brenda M. Rubenstein**, Brown University Assistant Professor of Chemistry  
*Committee member*, brenda\_rubenstein@brown.edu
- Dr. John Asher Johnson**, Harvard Professor of Astronomy; Director of Banneker Institute  
*Teaching supervisor and mentor*, jjohnson@cfa.harvard.edu