

Shane W. Flynn

University of California, Irvine
Department of Chemistry
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Education

Ph.D Chemistry (Anticipated 2021) Advisor: Vladimir Mandelshtam University of California, Irvine	2017-Present
M.S. Chemistry Advisor: William A. Goddard (III) California Institute of Technology, Pasadena	2015-2017
B.S. Chemistry (Honors), B.S. Biology (Honors), Minor Mathematics University Honors College Graduate University of Massachusetts, Boston	2010-2015

Publications

- Shane W. Flynn**, Vladimir A. Mandelshtam, "Sampling general distributions with quasi-regular grids: Application to the vibrational spectra calculations" *J. Chem. Phys. Comm.* **2019** 151(24) p.241105
- Jonathan Nichols, **Shane W. Flynn**, Jason R. Green, "Order and disorder in irreversible decay processes" *J. Chem. Phys.* **2015** 142(6) p. 064113
- Shane W. Flynn**, Helen C. Zhao, Jason R. Green, "Measuring Disorder in irreversible decay processes" *J. Chem. Phys.* **2014** 141(10) p. 104107.

Research Experience

Graduate Researcher, Chemistry University of California, Irvine Advisor: Vladimir Mandelshtam Research: Numerical Methods; Quantum Statistical Mechanics.	2017-Present
Graduate Researcher, Chemistry California Institute of Technology, Pasadena Advisor: William A. Goddard (III) Research: Soft Condensed Matter; Simulations and Method development for analyzing Polymer and Protein Dynamics.	2015-2017
Undergraduate Researcher, Chemistry University of Massachusetts, Boston Advisor: Jason R. Green Research: Complex Kinetics from the perspective of Non-Equilibrium Mechanics and Information Theory.	2013-2015

Undergraduate Researcher, Biology

2010-2015

University of Massachusetts, Boston

Advisor: Steve Ackerman

Research: Transcription Factors and Immune Response in Arabidopsis Thaliana.

Research Presentations (Select)

Shane W. Flynn, William A. Goddard (III), "Thermodynamic Characterization of Polymer Electrolytes", May **2016**, "Caltech. Graduate Research Conference.", California Institute of Technology.

Shane W. Flynn, Jason R. Green, "Molecular Populations", April **2015**, "Northeast Student Chemistry Research Conference, sponsored by the Northeastern Section of the Younger Chemist Committee", Tufts University.

Shane W. Flynn, Helen C. Zhao, Jason R. Green, "Information in a rate coefficient: When are rate coefficients constant?", July **2014**, American Conference in Theoretical Chemistry, Telluride, CO.

Teaching Experience (Select)**Teaching Assistant**

2020

University of California, Irvine

Course: Mathematical Methods in Chemistry (Graduate Level, Ch.237)

Teaching Assistant

2018, 2019

University of California, Irvine

Course: Thermodynamics and Introduction to Statistical Mechanics (Graduate Level, Ch.232A)

Teaching Assistant

2016-2018

University of California, Irvine

Course: Chemical Thermodynamics, Kinetics, and Dynamics (Undergraduate Level, Ch.132A, Ch.132C)

Teaching Assistant

2016

California Institute of Technology, Pasadena

Course: Nature of the Chemical Bond (Graduate Level, Ch.120A)

Teaching Assistant

2016

California Institute of Technology, Pasadena

Course: General Chemistry (Undergraduate Level, Ch.1B)

Teaching Assistant

2015-2016

California Institute of Technology, Pasadena

Course: Experimental Methods in Solar Energy Conversion (Undergraduate Level Ch.3x)

Undergraduate Teaching Assistant

2014

University of Massachusetts, Boston

Course: Linear Algebra (Undergraduate Level, Ma.260)

Undergraduate Teaching Assistant

2012-2013

University of Massachusetts, Boston

Course: Molecular Biology (Undergraduate Level, Bio.370)

Undergraduate Teaching Assistant

2013-2015

Courses: Chemical Principles (Undergraduate Level, Ch.115,116)

Awards and Honors (Select)**Annual Award in Theoretical Chemistry**

Hypercube Modeling Software

University of Massachusetts, Boston

2015

Annual Award in Physical Chemistry

Department of Chemistry,

University of Massachusetts, Boston

2014

Annual Research Grant Competition for Undergraduate Students

The Office of the Provost, Vice Chancellor for Academic Affairs, (\$933)

University Honors Program, University of Massachusetts, Boston

2013-2014

Annual Research Grant Competition for Undergraduate Students

The Office of the Provost, Vice Chancellor for Academic Affairs, (\$500)

University Honors Program, University of Massachusetts, Boston

2011-2012

Chancellor's Scholarship for Excellence

Full Tuition and Fees

University Honors Program, University of Massachusetts, Boston

2010-2015