

## EDUCATION

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University of California, Irvine, Ph.D., Organic Chemistry	2017–2023
California State University, Los Angeles, B.S. Chemistry, Cum Laude, Departmental Honors	2014–2017

## RESEARCH EXPERIENCE

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<b>University of California, Santa Barbara (UCSB)</b>	2024–present
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Chancellor's Postdoctoral Fellow at California NanoSystems Institute (CNSI)

Research Advisor: Co-advised by Prof. Megan T. Valentine and Prof. Matthew Helgeson

Current Research Aims: Probing polyelectrolyte complexes and polymer-composite structure via optical microscopy methods. *Research entails close collaboration and co-advisement from Prof. Samanvaya Srivastava.*

<b>University of California, Los Angeles</b>	Feb. 2024–Aug 2024
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Research Advisor: Prof. Samanvaya Srivastava

Postdoctoral Scholar at Samueli School of Engineering

BASF CARA Project: Investigations of high-strength polyurethane-inorganic composites from recycled and virgin materials.

<b>University of California, Irvine (UCI)</b>	2017–2023
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Research Advisor: Prof. Suzanne A. Blum

Research Assistant at School of Physical Science – Department of Chemistry

Dissertation: Development of Fluorescence Microscopy Methods for Investigations of Polymer-Catalyst Dynamics and Polymer Molecular Weight

## PUBLICATIONS

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4. **Garcia IV, A.** Blum, S. A.; "Polymer Molecular Weight Determination via Fluorescence Lifetime." *J. Am. Chem. Soc.* **2022**, *144*, 22416–22420. [Link to article](#)

3. Donggeng, Y.; **Garcia IV, A.**; Blum, S. A.; Welsher, K. D. "Growth Kinetics of Single Polymer Particles in Solution via Active-Feedback 3D Tracking." *J. Am. Chem. Soc.* **2022**, *144*, 14698–14705. [Link to article](#)

2. **Garcia IV, A.**; Saluga S. J.; Dibble, J. D.; López, P.; Saito, N.; Blum, S. A. "Does Molecular Catalyst Selectivity Change with Time? Polymerization Imaged by Single-Molecule Spectroscopy." *Angew. Chem. Int. Ed.* **2021**, *60*, 1550–1555. [Link to article](#)

1. Easter, Q. T.; **Garcia IV, A.**; Blum, S. A. "Single-Polymer-Particle Growth Kinetics with Molecular Catalyst Speciation and Single-Turnover Imaging." *ACS Catal.* **2019**, *9*, 3375–3383. [Link to article](#)

## AWARDS AND RECOGNITION

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UCSB, BASF Research Forum Selected Participant	2025
UCSB, University of California President's Lindau Nobel Meetings Fellow	2025
UCSB, Chancellor's Postdoctoral Fellowship	2024 –present
UCI, Scientific Laboratory Management Graduate Fellowship	2021–2022
UCI, Allergan Graduate Fellowship in Organic Chemistry	2020
University of Colorado, Boulder, Leadership Alliance Summer Research Scholar	2016
CSULA, Dean's List, Spring	2016
CSULA, National Institutes of Health MARC U-STAR Scholar	2015–2017
CSULA, Rasouk Chemistry Scholarship	2015
National Institutes of Health MBRS-RISE Scholar	2014
Pasadena City College, Natural Science Department, Superior Service in Chemistry,	2014
Pasadena City College, ACS Student Outstanding and Green Chemistry Chapter Awards	2013

## PRESENTATIONS

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<b>Garcia IV, A.;</b> "Bridging Nanoscale Chemistry to Bulk Properties for Polymer-Inorganic Composites." APS Global Physics Summit. Anaheim, California, Contributed Talk.	2025
<b>Garcia IV, A.;</b> "Development of Fluorescence Microscopy Methods for Investigations of Polymer-Catalyst Dynamics and Polymer Molecular Weight." Center for Polymers and Organic Solids Seminar Series. UC Santa Barbara, Invited Talk.	2024
Iyer, D.; <b>Garcia IV, A.;</b> Galadari, M.; Wirawan F.; Huacoc, V.; Srivastava, S. "High-Strength Polyurethane-Inorganic Composites." California Research Alliance (CARA) 10th Anniversary Symposium and Spring Program Review, Poster Presentation.	2024
<b>Garcia IV, A.;</b> Saluga S. J.; Dibble, J. D.; López, P.; Saito, N.; Blum, S. A. "Does Molecular Catalyst Selectivity Change with Time? Polymerization Imaged by Single-Molecule Spectroscopy." ACS Spring Conference. San Diego, California, Contributed Talk	2022
<b>Garcia IV, A.;</b> Easter, Q. T.; Blum, S. A. "Effect of Polymer Composition and Morphology on Catalyzed Polymerization at the Single-Polymer-Particle Level." Probing Chemical Reactions by Single-Molecule Spectroscopy. Kloster Hoechst (Odenwald), Germany, Poster Presentation.	2019
<b>Garcia IV, A.;</b> Miyake M. G. "Investigation of Methylene Lactide for Organocatalyzed Atom Transfer Radical Polymerization." Leadership Alliance National Symposium. Stamford, Connecticut, Contributed Talk.	2016
<b>Garcia IV, A.;</b> Vazquez M.; Krishna L. F. "Quantifying Polycyclic Aromatic Hydrocarbons in Particulate Matter." CSULA 23rd Annual Student Symposium on Research, Scholarship and Creative Activity. California State University, Los Angeles, Poster Presentation (Outstanding Poster Award).	2015

## COMMUNITY OUTREACH AND MENTORSHIP

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UCSB, Materials Research Laboratory FLAM Undergraduate Research Mentor	summer 2025
UCLA, Amazon Summer Undergraduate Research Program Mentor	2024
UCI, Blum Laboratory Safety Chair	2019–2021
UCI, Teaching Assistant, Graduate- and Undergraduate-level Courses	2017–2022
CSULA, Student Instructor for Research Techniques Workshop	2017
CSULA, Here We Come (Chemistry Lessons for Local Elementary Students)	2015, 2017
Pasadena City College, ACS Chemistry Club Treasurer	2014
Pasadena City College, MESA Scholar	2013–2014

