

# Daniel J. Nasrallah, Ph.D.

## Work Address

Roanoke College  
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Salem, VA 24153

## Personal Information

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## Professional Experience

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<b>Assistant Professor</b> , Chemistry Department <i>Roanoke College, Salem, VA</i>	2023–present
<b>Assistant Adjunct Professor</b> , Department of Chemistry and Biochemistry, Donald J. Cram Teacher-Scholar <i>The University of California Los Angeles (UCLA), Los Angeles, CA</i>	2020–2023

## Education

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<b>Postdoctoral Research</b> , Advisor: Prof. Neil Garg <i>The University of California Los Angeles (UCLA), Los Angeles, CA</i>	2020–2023
<b>Ph.D. in Organic Chemistry</b> , Advisor: Prof. Corinna Schindler <i>The University of Michigan (UM), Ann Arbor, MI</i>	2015–2020
<b>B.S. in Chemistry with a Concentration in Research</b> , Advisor: Prof. Mitchell Croatt <i>The University of North Carolina at Greensboro (UNCG), Greensboro, NC</i> • <b>Full University Honors</b> , <i>Lloyd International Honors College, Summa Cum Laude</i>	2010–2014

## Teaching Experience

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<i>Roanoke College, Salem, VA</i> Chemistry 221, Organic Chemistry I • Fall 2023, 30 students, (6.60/7, summative mean student evaluation) Chemistry 221L, Organic Chemistry I Lab • Fall 2023, 15 students, (6.44/7, summative mean student evaluation) Chemistry 111L/117L, General Chemistry I Lab • Fall 2023, 17 students, (6.62/7, summative mean student evaluation) Chemistry 222L, Organic Chemistry II Lab • Spring 2024, 15 students Chemistry 112L, General Chemistry II Lab • Spring 2024, 36 students (two sections)	2023–present
<i>The University of California Los Angeles, Los Angeles, CA</i> Chemistry 30BL, Organic Chemistry Laboratory I • Fall 2020, 83 students, taught virtually (8.10/9, overall student evaluation), Winter 2021, 99 students, taught virtually (8.40/9), Spring 2021, 121 students, taught virtually (8.51/9), Winter 2022, 72 students (8.47/9), Spring 2022, 98 students (8.47/9), Fall 2022, 81 students (8.58/9), Spring 2023, 93 students (8.73/9)	2020–2023
<b>Guest Lecturer</b> , Organic Chemistry I/II <i>The University of Michigan, Ann Arbor, MI</i> • For Prof. Brian Coppola, Organic Chemistry II • For Prof. Brian Coppola, Organic Chemistry I • For Prof. Corinna Schindler, Organic Chemistry I	Oct. 18 <sup>th</sup> , 2019 Nov. 21 <sup>st</sup> , 2018 Nov. 23 <sup>rd</sup> , 2016
<b>Graduate Student Instructor</b> , Organic Chemistry I/II <i>The University of Michigan, Ann Arbor, MI</i>	
<b>Science Learning Center Instructor</b> , Organic Chemistry I • Instructed 75 Science Learning Center Undergraduate Facilitators and Tutors to ensure the material was being appropriately and correctly communicated to students. Taught Tutors and Facilitators pedagogical strategies to engage their students and wrote weekly handouts detailing difficult topics and relevant practice problems.	Fall 2017–Fall 2018
<b>Course Administrator</b> , Organic Chemistry I • Worked alongside the course professor, Prof. Kathleen Nolta, to write and edit exams and answer keys. Organized 16 graduate students to proctor and grade exams for 1,100 students.	Winter 2017
<b>Discussion Leader</b> , Graduate Student Instructor, Organic Chemistry I	Fall 2015–Fall 2016

- Taught discussions for Prof. Brian Coppola and Prof. Anne McNeil. Presented lecture overviews to undergraduate students about relevant course material, designed and wrote weekly practice problems.

## Research Experience

### Research at Roanoke College 2023–present

*Roanoke College, Salem, VA*

- **Research Interests:** Investigations into metal-free methods to make important chemical bonds.
- **Mentees:** Alexis Hamilton – 2<sup>nd</sup> year chemistry major planning to pursue medicinal chemistry after graduate school, Samson Hill – 2<sup>nd</sup> year chemistry major planning to pursue chemistry graduate school.

### Postdoctoral Research 2020–2023

*The University of California Los Angeles, Los Angeles, CA*

**Advisor:** Prof. Neil Garg

- **Research Interests:** Development of enantioselective nickel-catalyzed transformations, enantioselective synthesis of Lissodendoric Acid A, synthesis and biological activity of THC derivatives.
- **Mentees:** Arismel Tena-Meza – mentored during 1<sup>st</sup> year of grad school, currently 3<sup>rd</sup>-year graduate student, Maya Rao – mentored for a 1-week research-intensive, currently high school senior.

### Ph.D. Research 2015–2020

*The University of Michigan, Ann Arbor, MI*

**Ph.D. Research Advisor:** Prof. Corinna Schindler

- **Research Interests:** Development of novel methods, mechanistic experimentation, and computational investigations.
- **Mentees:** Troy Zehnder – mentored during 1<sup>st</sup> year of grad school, Jiahao (Bobby) Wan – mentored visiting undergraduate scholar from University of Science and Technology of China for one semester, Rania Daboul – mentored for two years of undergraduate research.

**Winter 2016 Rotation Advisor:** Prof. John Montgomery

- **Research Interests:** Synthesis and testing of new ligands (NHCs, BACs, and CAACs) for nickel-catalyzed reductive coupling.

**Summer 2015 Rotation Advisor:** Prof. Corinna Schindler

- **Research Interests:** Development of carbocyclization strategies.

### Postbaccalaureate Research 2014–2015

*The University of North Carolina at Greensboro, Greensboro, NC*

**Advisor:** Prof. Mitchell Croatt

- **Research Interests:** Development of flow chemistry set-up to streamline the synthesis of biologically active molecules and their analogs.
- **Mentee:** Michael Spano – mentored visiting undergraduate scholar from Federal University of Technology Paraná, Brazil for 1 year, currently 4<sup>th</sup>-year graduate student at University of California, Irvine.

### Summer International Research Program Summer 2012

*The University of Bristol, Bristol, England*

**Advisor:** Prof. Timothy Gallagher

- **Research Interests:** Development of Stille coupling method to access analogs of biologically active molecules.

### Undergraduate Research 2010–2014

*The University of North Carolina at Greensboro, Greensboro, NC*

**Advisor:** Prof. Mitchell Croatt

- **Research Interests:** Development of rhodium-catalyzed cycloadditions and synthesis and applications of hypervalent iodonium alkynyl triflates.

## Publications Prior to Independent Career

15) Traficante, E.; Burns, S.; Kim, J.-H.; Nasrallah, D. J.; Ryu, H.; Kim, D.; Galliher, M.; Albright, H.; Vonesh, H.; Baik, M.-H.; Schindler, C. Interrupted Carbonyl-Olefin Metathesis of Cyclic, Aliphatic Ketones. *Submitted*.

14) Bulger, A.;<sup>†</sup> Nasrallah, D. J.;<sup>†</sup> Tena Meza, A.;<sup>†</sup> Garg, N. K. [Enantioselective Nickel-Catalyzed Mizoroki–Heck Cyclizations of Amide Electrophiles](#). *Chemical Science* **2024**, *15*, 2593–2600.

13) Nasrallah, D. J.; Garg, N. K. [Studies Pertaining to the Emerging Cannabinoid Hexahydrocannabinol \(HHC\)](#). *ACS Chemical Biology* **2023**, *18*, 2023–2029.

- 12) Zehnder, T. E.; **Nasrallah, D. J.**; Stanley, J. L.; Kiernicki, J. J.; Szymczak, N. K.; Schindler, C. S. [Development of an In Situ Protocol for the Intramolecular Olefination of Oximes](#). *Organometallics* **2023**, *42*, 479–485.
- 11) McAtee, C. C.; **Nasrallah, D. J.**; Ryu, H.; Gatazka, M. R.; McAtee, R. C.; Baik, M.-H.; Schindler, C. S. [Catalytic, Interrupted Carbonyl-Olefin Metathesis for the Formation of Functionalized Cyclopentadienes](#). *ACS Catalysis* **2023**, *13*, 3036–3043.
- 10) Ippoliti, F. M.;<sup>†</sup> Adamson, N. J.;<sup>†</sup> Wonilowicz, L. G.; **Nasrallah, D. J.**; Darzi, E. R.; Donaldson, J. S.; Garg, N. K. [Total Synthesis of Lissodendoric Acid A via Stereospecific Trapping of a Strained Cyclic Allene](#). *Science* **2023**, *379*, 261–265.
- 9) **Nasrallah, D. J.**;<sup>†</sup> Zehnder, T. E.;<sup>†</sup> Ludwig, J. R.; Steigerwald, D. C.; Kiernicki, J. J.; Szymczak, N. K.; Schindler, C. S. [Hydrazone and Oxime Olefination via Ruthenium Alkylidenes](#). *Angewandte Chemie International Edition* **2022**, *61*, e202112101.
- 8) Davis, A. J.;<sup>†</sup> Watson, R. B.;<sup>†</sup> **Nasrallah D. J.**; Gomez-Lopez, J. L.; Schindler, C. S. [Superelectrophilic Aluminum\(III\)-Ion Pairs Promote a Distinct Reaction Path for Carbonyl-Olefin Ring Closing Metathesis](#). *Nature Catalysis* **2020**, *3*, 787–796.
- 7) Riehl, P. R.; **Nasrallah, D. J.**; Schindler, C. S. [Catalytic, Transannular Carbonyl-Olefin Metathesis Reactions](#). *Chemical Science* **2019**, *10*, 10267–10274.
- 6) Ludwig, J. R.; Watson, R. B.;<sup>†</sup> **Nasrallah, D. J.**;<sup>†</sup> Gianino, J. B.; Zimmerman, P. M.; Wiscons, R. A.; Schindler, C. S. [Interrupted Carbonyl-Olefin Metathesis via Oxygen Atom Transfer](#). *Science* **2018**, *361*, 1363–1369.
- 5) Fakhouri, L.; Cook, C.; Al-Huniti, M.; Console-Bram, L.; Hurst, D.; Spano, M.; **Nasrallah, D.**; Caron, M.; Barak, L.; Reggio, P.; Abood, M.; Croatt, M. [Design, Synthesis and Biological Evaluation of GPR55 Agonists](#). *Bioorganic & Medicinal Chemistry* **2017**, *25*, 4355–4367.
- 4) Hyatt, I. F. D.; **Nasrallah, D. J.**; Maxwell, M. A.; Hairston, A. C. F.; Abdalhameed, M. M.; Croatt M. P. [Formation and in situ Reactions of Hypervalent Iodonium Alkynyl Triflates to form Cyanocarbenes](#). *Chemical Communications* **2015**, *51*, 5287–5289.
- 3) Smith, C. L.; Hirschhäuser, C.; Malcolm, G. K.; **Nasrallah, D. J.**; Gallagher T. [Synthesis of Mono- and Diaza-‘Pyridones’ via Stille Coupling of Alkoxytannanes](#). *Synlett* **2014**, *13*, 1904–1908.
- 2) **Nasrallah, D. J.**; Croatt, M. P. [Rhodium\(I\)-Catalyzed \[2+2+2+2\] Cycloaddition of a Diyne to form a Cyclooctatetraene](#). *European Journal of Organic Chemistry* **2014**, *18*, 3767.
- 1) Hyatt, I. F. D.; **Nasrallah, D. J.**; Croatt, M. P. [Synthesis of Hypervalent Iodonium Alkynyl Triflates for the Application of Generating Cyanocarbenes](#). *Journal of Visualized Experiments* **2013**, *79*, e50886, DOI:10.3791/50886.

(<sup>†</sup> contributed equally)

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#### Patents

- 1) **Methods for Preparation of Hexahydrocannabinol**. Nasrallah, D. J.; Garg, N. K. U.S. Provisional Patent Application No. 63/514,060

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#### Presentations

- 20) *American Chemical Society 266<sup>th</sup> National Meeting*, **2024**, New Orleans, LA, “Developing Oral Presentation Skills in a Sophomore Organic Chemistry Lab” (Poster Presentation)
- 19) *UCLA Center for Cannabis and Cannabinoids Journal Club*, **2023**, Presented Virtually, “Studies Pertaining to the Emerging Cannabinoid Hexahydrocannabinol (HHC)” (Invited Presentation)
- 18) *Roanoke College 1<sup>st</sup> Annual Diversity and Inclusion Symposium*, **2023**, Salem, VA, “Scientist-Like-Me” (Oral Presentation)
- 17) *National Organic Symposium*, **2022**, La Jolla, CA, “Enantioselective Nickel-Catalyzed Mizoroki–Heck Reactions of Amides” (Poster Presentation)
- 16) *Gordon Research Conference - Organic Reactions and Processes*, **2019**, Easton, MA, “Development of New Reactions between Transition Metals and Ubiquitous Functional Groups” (Poster Presentation)

- 15) *Division of Organic Chemistry, Graduate Research Symposium, 2019*, Durham, NC, “New Strategies for Carbonyl-Olefin Metathesis” (Poster Presentation)
- 14) *Sigma Seminar, 2019*, Ann Arbor, MI, “New Strategies for Carbonyl-Olefin Metathesis” (Oral Presentation)
- 13) *Merck Symposium and Lectureship Series, 2018*, Ann Arbor, MI, “Masked Carbonyl-Olefin Metathesis Reaction” (Poster Presentation)
- 12) *American Chemical Society 256<sup>th</sup> National Meeting, 2018*, Boston, MA, “Interrupted Carbonyl-Olefin Metathesis Reaction via Oxygen Atom Transfer” (Oral Presentation)
- 11) *Isabella and Jerome Karle Symposium, 2018*, Ann Arbor, MI, (Organic Chemistry Poster Award) “Development of a Tunable Transition Metal Catalyzed Masked Carbonyl Olefin Metathesis Reaction” (Poster Presentation)
- 10) *MCubed Symposium, 2017*, Ann Arbor, MI, “Exciting New Methods of C-C Bond Formation” (Poster Presentation)
- 9) *National Organic Symposium, 2017*, Davis, CA, “Interrupted Carbonyl-Olefin Metathesis Reaction” (Poster Presentation)
- 8) *Merck Symposium and Lectureship Series, 2017*, Ann Arbor, MI, “Interrupted Carbonyl-Olefin Metathesis Reaction” (Poster Presentation)
- 7) *Isabella and Jerome Karle Symposium, 2017*, Ann Arbor, MI, “Interrupted Carbonyl-Olefin Metathesis Reaction” (Poster Presentation)
- 6) *Wayne State Symposium, 2016*, Detroit, MI, “Interrupted Carbonyl-Olefin Metathesis Reaction” (Poster Presentation)
- 5) *Isabella and Jerome Karle Symposium, 2016*, Ann Arbor, MI, “Development of an Interrupted Carbonyl-Olefin Metathesis Reaction” (Oral Presentation)
- 4) *Merck Symposium and Lectureship Series, 2016*, Ann Arbor, MI, “Development of Interrupted Carbonyl-Olefin Metathesis Reaction through Friedel-Crafts Alkylation” (Poster Presentation)
- 3) *American Chemical Society 251<sup>st</sup> National Meeting, 2016*, San Diego, CA, “Development of Carbocation Trapping Metathesis Reaction” (Oral Presentation)
- 2) *Merck Symposium and Lectureship Series, 2015*, Ann Arbor, MI, “Development of Interrupted Carbonyl-Olefin Metathesis Reaction through Friedel-Crafts Alkylation” (Poster Presentation)
- 1) *Isabella and Jerome Karle Symposium, 2015*, Ann Arbor, MI, “Development of Interrupted Carbonyl-Olefin Metathesis Reaction through Friedel-Crafts Alkylation” (Poster Presentation)

#### Grants

2024	Organic Syntheses PUI Summer Research Grant (\$8,000 per summer for two summers)
2024	Faculty Professional Advancement Grant from Roanoke College (\$600 travel support)

#### Support for Undergraduate Researchers

Spring 2024	Pathways Support from Roanoke College for Alexis Hamilton (\$500 for student resources, \$400 faculty stipend)
Summer 2024	Summer Scholars from Roanoke College for Samson Hill (\$3,000 student salary)

#### Awards

2024	Professional Productivity Fund Award from Roanoke College (\$600 travel support)
2023	Roanoke Faculty Scholar from Roanoke College (one teaching release per year for three years)
2023	Faculty Summer Award from Roanoke College (summer salary stipend)
2022	Incentive Faculty Award from UCLA
2020	Donald J. Cram Teacher-Scholar from UCLA
2019	Rackham Graduate School Research Grant from UM
2018	Karle Symposium Organic Chemistry Poster Award co-sponsored by Dow and PPG
2018	Florence Fenwick Outstanding Graduate Student Instructor Award from UM
2017	Milton Tamres Outstanding Teaching Award from UM

2016–2019	Rackham Graduate School Travel Grant from UM
2016, 2017	National Science Foundation Graduate Research Fellowship Program, Honorable Mention
2015	Syngenta 15 <sup>th</sup> Annual Poster and Vender Night – 2 <sup>nd</sup> place poster prize
2014	Organic Chemistry Student Award, Division of Organic Chemistry, ACS
2014	Undergraduate Student Excellence Award from UNCG
2014	8 <sup>th</sup> Annual Carolyn and Norwood Thomas Undergraduate Research Expo – 1 <sup>st</sup> place prize for talk
2013–2014	Undergraduate Research and Creative Activity Award from the Office of Undergraduate Research
2013	Summerlin Family Scholarship
2013	UNCG Office of Undergraduate Research Travel Fund
2013	Syngenta 13 <sup>th</sup> Annual Poster and Vender Night - 1 <sup>st</sup> place prize for undergraduate poster
2013	7 <sup>th</sup> Annual Carolyn and Norwood Thomas Undergraduate Research Expo – 3 <sup>rd</sup> place prize for talk
2012–2014	Barry M. Goldwater Excellence in Education Program Scholarship
2012	International Undergraduate Research Program Award (NSF Grant 0966420)
2012	Supplemental Instruction Program Leader of the Year Award
2012	Residence Hall Association Hall Council Member of the Year Award
2012	ACS Polymer Chemistry and Polymeric Materials POLYED Organic Chemistry Student Award
2012	Lichtin Family Honors Scholarship
2012	6 <sup>th</sup> Annual Carolyn and Norwood Thomas Undergraduate Research Expo – 1 <sup>st</sup> place
2012	George T. Barthalmus Undergraduate Research Grant
2011, 2012, 2013	Henry L. Anderson Memorial Scholarship
2011, 2012	Florence L. Schaeffer Memorial Scholarship
2011	Excellence in First-Year Undergraduate Chemistry from the International Center for First-Year Undergraduate Chemistry Education
2011	Outstanding Academic Achievement in Freshman Chemistry from UNCG

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#### Public Science Outreach

2023, 2024	Poster judge at the Roanoke College Showcase of Research and Creativity
2023	Co-organized the Chemistry Department Magic Show for Family Weekend at Roanoke College
2023	Volunteered with 2 <sup>nd</sup> grade students at Warner Avenue Elementary School, Los Angeles, CA to conduct science demos to inspire younger generations
2020–2023	Hosted “Careers, Grad School, and Research Opportunities” presentation and Q/A for former students after the end of each quarter at UCLA
2022	Science fair judge at the California Science & Engineering Fair
2019	Hosted Dr. Jake Yeston, Editor of <i>Science</i> Magazine, for event entitled “Publishing from the inside out”
2019	Poster judge for Authentic Research Solar Cells presentations for UM undergraduate students
2019	Poster judge for UM 1 <sup>st</sup> Annual Undergraduate Research Symposium
2019	Hosted four UM Post-docs for a CSIE UM panel discussion on the process of applying to academic faculty positions at institutions from R1-PUIs
2018	Mentored 1 <sup>st</sup> year graduate student through UM Chemistry Mentor Program
2018	Hosted Prof. Erland Stevens from Davidson College for a CSIE UM discussion about online courses
2018, 2019	Organized the 4 <sup>th</sup> and 5 <sup>th</sup> annual Chemistry Department Alumni Networking Event involving academic and industrial alumni
2017	Organized hands-on research demonstrations for 5 <sup>th</sup> –8 <sup>th</sup> grade students involved with “You be the Chemist Challenge” funded by the Chemical Education Foundation and hosted by PVS Chemical
2017	Led collaborative event between CSIE UM and the Ann Arbor Hands-on Museum to create research-specific demonstrations for the public which were showcased at the Ann Arbor Hands-on Museum
2017	Hosted Dr. Mary Kirchoff, ACS Executive Vice President for Scientific Advancement and the Director of the ACS Green Chemistry Institute, for a CSIE UM discussion about ACS programs
2016–2019	Poster judge for Isabella and Jerome Karle Symposium for UM graduate students
2016–2019	Facilitated two ten-day laboratory experiences with Michigan Math and Science Scholars (MMSS) Summer Camp
2016–2019	Represented CSIE UM during departmental recruiting and orientation events for incoming graduate students
2015–2019	Conducted chemical demonstrations and educational discussions at Females Excelling More in Math, Engineering, and the Sciences (FEMMES) events
2015–2019	Poster judge for Authentic Research Snow Chemistry presentations for UM undergraduate students

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#### Peer Review Referee

2024	<i>Drug Testing and Analysis</i> , number of papers refereed: 1
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### Educational Projects

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2023–present	<b>Scientist Like Me</b> , student project to identify and design slides showcasing diverse scientists that students relate within an organic chemistry classroom setting
2022–2023	<b>BACON</b> (Biology and Chemistry Online Notes and Tutorials), developed content to highlight chemists from underrepresented people groups
2022–2023	<b>VR Chem</b> , developing an immersive environment on virtual reality headsets where students can interact with 3D structures of organic molecules
2022	<b>ChemMatch.net</b> , developed content for a matching game to serve as both a study tool for chemistry students and a platform for the general public to learn about chemistry
2018–2022	<b>Editorial Consultant</b> , Structure and Reactivity: An Introduction to Organic Chemistry Books A/B by Prof. Brian Coppola

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### Professional Associations

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2023–present	Phi Beta Kappa, Nu Chapter, Professor Member, Roanoke College
2023–present	Alpha Chi Sigma, Beta Gamma Chapter, Professor Member, UCLA
2016–2020	Graduate student organization, Chemical Sciences at the Interface of Education (CSIE UM), UM
2013–present	Phi Beta Kappa, Epsilon Chapter, UNCG
2011–present	American Chemical Society (ACS)