

Dung T. Do

CONTACT INFORMATION	Department of Chemistry Byrd 417 The Citadel Charleston, SC 29409	Phone: 843-953-7475 E-mail: ddo@citadel.edu Website: https://sites.google.com/view/thedogroup/research
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EMPLOYMENT	Department of Chemistry, The Citadel, SC Assistant Professor (Tenure-Track) <ul style="list-style-type: none"><i>Rapid assembly of complex molecules and development of a new C-H activation paradigm</i>	2022-current
	Department of Chemistry, Washington College, MD Visiting Assistant Professor <ul style="list-style-type: none"><i>Synthesis of 1,3-oxazolidines via oxidative dearomatization</i>	2021-2022
	School of Pharmacy, University of Connecticut, CT Postdoctoral Research Associate <ul style="list-style-type: none"><i>Development of a broad-spectrum inhibitor targeting the most clinically relevant Human Herpesviruses (HHVs)</i>	2019-2021
	Department of Chemistry, Vietnam National University, Hanoi Assistant Professor <ul style="list-style-type: none"><i>Total synthesis of tetrahydrofuran-based natural products</i><i>Asymmetric synthesis via stereoselective desymmetrization</i>	2016-2019
	Department of Chemistry, Indiana University, Bloomington, IN Postdoctoral Research Associate <ul style="list-style-type: none"><i>Design and Synthesis of Biological Imaging Agents</i><i>Direct Asymmetric α-Allylation of Aryl Acetic Acid Esters</i>	2014-2016
EDUCATION	University of North Carolina at Chapel Hill Ph.D., Chemistry <ul style="list-style-type: none"><i>Advisor: Jeffrey S. Johnson</i><i>Dissertation: Stereoselective functionalization of Meldrum's acids and the efforts toward total synthesis of echinosporin</i>	2009-2014
	Vietnam National University, Hanoi (VNUH) M.S., Chemistry B.S., Chemistry	2004-2006 2000-2004
TEACHING EXPERIENCE	The Citadel, SC CHE 151: General Chemistry CHE 161: General Chemistry Lab CHE 208: Organic Chemistry CHE 218: Organic Chemistry Lab	Fall 22, 23 Fall 22, 23 Spring 23 Spring 23
	Washington College, MD CHE 140: Reactions of Organic Molecules (2 sections & lab) CHE 120: Chem Prin. of Organic Molecules (1 section & lab) CHE 340: Synthesis of Organic Molecules	Spring 22 Fall 21 Fall 21

Vietnam National University, Hanoi

Organic Chemistry I, II; Asymmetric Synthesis

2017-2019

Organic Chemistry I, II (lab); Medicinal Chemistry (lab)

Hanoi International School, Hanoi

International Baccalaureate (IB) Chemistry

2016-2019

FELLOWSHIPS,
GRANTS, AND
AWARDS

Swain Family School of Science & Mathematics Research Grant, The Citadel: \$3,000 2023

Swain Family School of Science & Mathematics Travel Grant, The Citadel: \$2,000 2023

John S. Toll Student-Faculty Research Grant, Washington College 2022

The Pacificchem 2021 Early Career Chemist Grant 2021

Young Investigator Grant, Hanoi University of Science, VNUH 2018-2019

Graduate Assistantship, Department of Chemistry, UNC at Chapel Hill 2009-2014

Vietnam Education Foundation (VEF) Fellowship 2009-2014

Scholarship for Master's Program in Chemistry 2004

Scholarship for Outstanding Undergraduate Students, VNUH 2001-2003

Bronze Medal in Vietnam National Olympic Chemistry for High School Students 2000

PUBLICATIONS

Independent Publications (*corresponding author)1. Dung T. Do*. "A Hidden Catalysis: Metal-, and Organocatalyst-free One-pot Assembly of Chiral Aza-tricyclic Molecules", **2021**.*ChemRxiv. Preprint.* <https://doi.org/10.26434/chemrxiv.12757943.v1>2. Hoang M. Le, Hung D. Mac, Oh Chang Ho, Dung T. Do*. "Total synthesis of lophirone F hexamethyl ether." *European Journal of Organic Chemistry* **2019**, 13, 2362-2367.**Graduate and Postdoctoral Publications**1. M. Rodrigues, P. Bhattacharjee, A. Brinkmalm, D. T. Do, C. M. Pearson, S. De, A. Ponjavic, J. A. Varela, F. S. Ruggeri, I. Baudrexel, J. E. Lee, A. R. Carr, K. Kulenkampff, T. P. J. Knowles, H. Zetterberg, T. N. Snaddon, S. Gandhi, S. F. Lee, D. Klenerman. "Amyloid precipitation in biofluids using a structure-specific chemical antibody", *Nature Chem.* **2022**, 14, 1045-1053.2. Lisa-Maria Needham, Judith Weber, Colin M Pearson, Dung T Do, Felix Gorka, Guanpeng Lyu, Sarah Elizabeth Bohndiek, Thomas N Snaddon, Steven F Lee. "A Comparative Photophysical Study of Structural Modifications of Thioflavin T-Inspired Fluorophores", *J. Phys. Chem. Lett.* **2020**, 11, 19, 8406-8416.3. Lisa-Maria Needham, Judith Weber, Juan A Varela, James WB Fyfe, Dung T Do, Catherine K Xu, Luke Tutton, Rachel Cliffe, Benjamin Keenlyside, David Klenerman, Christopher M Dobson, Christopher A Hunter, Karin H Muller, Kevin O'Holleran, Sarah E Bohndiek, Thomas N Snaddon, Steven F Lee. "ThX-a next-generation probe for the early detection of amyloid aggregates" *Chem. Sci.*, **2020**, 11, 4578-4583.4. Lisa-Maria Needham, Judith Weber, James, W.B. Fyfe, Omaru M. Kabia, Dung T. Do, Ewa Klimont, Yu Zhang, Margarida Rodrigues, Christopher M. Dobson, Sonia Ghandi, Sarah E. Bohndiek, Thomas N. Snaddon, Steven F. Lee. "Bifunctional fluorescent probes for detection of amyloid aggregates and reactive oxygen species." *R. Soc. open sci.* **2018**, 5, 171399-171410.5. James Giarrusso, Dung T. Do, and Jeffrey S. Johnson. "Chemoselective and Diastereoconvergent Cu(II)-Catalyzed Aerobic Endoperoxidation of Polycarbonyls." *Org. Lett.* **2017**, 19 (12), 3107-3110.

6. Kevin J. Schwarz, Jessica L. Amos, J. Cullen Klein, Dung T. Do, and Thomas N. Snaddon. "Uniting C1-Ammonium Enolates and Transition Metal Electrophiles

via Cooperative Catalysis: The Direct Asymmetric α -Allylation of Aryl Acetic Acid Esters” J. Am. Chem. Soc. **2016**, 138, 5214-5217.

7. Goodman, C.G.; Do, D.; Johnson, J.S. “*Asymmetric Synthesis of anti- β -Amino- α -Hydroxy Esters via Dynamic Kinetic Resolution of β -Amino- α -Keto Esters.*” Org. Lett. **2013**, 15, 2446-2449.
8. Krabbe, S. W.; Do, D.; Johnson, J. S. “*Cu(II)-Catalyzed Aerobic Hydroperoxidation of Meldrum’s Acid Derivatives and Application in Intramolecular Oxidation: A Conceptual Blueprint for O₂/H₂ Dihydroxylation.*” Org. Lett. **2012**, 14, 5932-5935.
9. Dung T. Do, Vinh V. Nguyen, Ha T. Nguyen, Thuan V. Nguyen, Huong T. Tran, Thao M. Nguyen. “*The Synthesis and Transformation of some Derivatives of 3-acetylcoumarin*” Vietnamese Journal of Chemistry **2007**, Vol 45 (3), 284-288.

PRESENTATION

1. The 5th Asia Conference on Pharmaceutical Sciences, “*Metal-free synthesis of potential physiologically active 4-imidazolidinones from cheap chemical feedstocks.*” (oral presentation), Vietnam **August 2023**.
2. Vietnam Organic Synthesis Network (Virtual), “*A metal-, and organocatalyst-free one-pot assembly of chiral azatricyclic fused-cyclohexenones*”, **January 2022**.
3. The Pacichem 2021 Congress (Virtual), “*hidden catalysis: metal-, and organo-catalyst-free one-pot assembly of chiral aza-tricyclic molecules*” (poster presentation), **December 2021**.
4. ACS Fall 2020 National Meeting (Virtual), “*Metal- and Organocatalyst-free One-pot Assembly of Chiral Aza-tricyclic Molecules: Creating Six Contiguous Stereocenters from 2-D-flat Structures and an Amino Acid*” (oral presentation), **August 2020**.
5. ACS Spring 2020 National Meeting (Virtual), “*Oxidative Dearomatization: One-pot Synthesis of Chiral Spiroimidazolidinone Cyclohexadienones from Amino Acid Chirons.*” (oral presentation), **March 2020**.
6. Hanyang University Seminar, “*Chiral Pool Synthesis: Building molecular complexity and Total synthesis of tetrahydrofuran-based natural products.*” (oral presentation), South Korea, **July 2018**.
7. Asian Workshop of Experiment and Theory in Quantum Beam Molecular Sciences, “*Amino Acids as a Chiral Pool: Synthesis of novel chiral spiroimidazolidinones.*” (oral presentation), Ibaraki University, Japan, **June 2018**.
8. The 3rd International Symposium of Quantum Beam Sciences, “*Bifunctional fluorescent probes for detection of amyloid aggregates and reactive oxygen species.*” (poster presentation), Ibaraki University, Japan, **May 2018**.
9. Hanoi University of Science Seminar, VNUH, “*Stereoselective functionalization of meldrum’s acid derivatives.*” (oral presentation), **December 2016**.
10. Vanderbilt University Medical Center, “*Hydroperoxidation of Meldrum’s Acid Derivatives and Application in Stereoselective Access Fully Substituted Building Blocks.*” (oral presentation), Tennessee USA, **May 2014**.

MENTORSHIP

- *The Citadel*: Mentored four juniors and one senior’s research.
- *Washington College*: Mentored Senior Capstone research
- *VNUH*: Advised undergraduate students’ research
- *Indiana University*: Trained and supervised PhD and undergraduate students in aldol reactions, phase transfer catalysis, and amide coupling.
- *UNC at Chapel Hill*: Trained and supervised undergraduate students in Aldol reactions; synthesis of α -keto acids