

Joshua H. Jones

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720-201-4679

Ph.D., Organic Chemistry
(Candidate)

The City University of New York

Synthetic organic chemist interested in chemical sustainability, process chemistry, materials & textiles, flavors & fragrances, entrepreneurship.

Education:

- *Ph.D. in Organic Chemistry* (expected Spring, 2015), CUNY Graduate Center & Brooklyn College
 - Thesis: "Development of Novel Organocatalyzed Enantioselective Cascade Reactions"
 - Advisor: Prof. Stacey Brenner-Moyer
- *M.S. in Organic Chemistry* (2012), CUNY Graduate Center
- *B.A. in Chemistry & International Affairs* (2009), University of Colorado at Boulder
 - Focus on Chinese & Russian languages (acquired working fluency in both)

Skills & Experience:

- Synthesis, purification & characterization of known & novel compounds (silica gel chromatography, distillation, acid/base extraction, recrystallization, sublimation, etc.)
- Synthetic route-planning (up to 14 sequential steps; 2 mg to 100 g scale), associated literature research
- Multivariable reaction design & optimization; catalyst design & synthesis
- Air- & light-sensitive reaction techniques (Schlenk, photocatalysis)
- Characterization: NMR (Bruker & Varian), chiral HPLC (Perkin-Elmer TotalChrom), FT-IR, UV-Vis, optical rotation, HRMS; manuscript preparation
- Other software skills: ChemDraw, ChemDoodle, SciFinder, iNMR, MestReNova, Gaussian, Excel VBA

Associated lab activities

- Licensed research chemistry lab supervisor Chemical purchasing & budget management, negotiation with chemical vendors,
- Training of incoming graduate students (~ 10 students)
- Teaching General & Organic Chemistry (lecture & lab for 12 semesters)

Publications & on-going research:

- Jones, J.H.; Appayee, C.; Brenner-Moyer, S.E.* "One-pot preparation of enantiopure fluorinated beta-amino acid precursors." *Eur. J. Org. Chem.* 2014, 2014, 5273-5280.
- McGarraugh, P.G.; Jones, J.H.; Brenner-Moyer, S.E.* "A general organocatalyzed Michael-Michael cascade reaction generates functionalized cyclohexenes." *J. Org. Chem.* 2011, 76, 6309-6319.
- "Reductive cyclizations of enals by iminium-activated photoredox catalysis" (in progress)

Activities & Awards:

- June, 2013: ACS Green Chemistry & Engineering Conference, Bethesda, MD
- May, 2013: Chemistry Society Scholarship (CUNY)
- March, 2013: ACS Entrepreneurial Initiative Summit, Philadelphia, PA

Hobbies & Skills (outside chemistry):

- Mechanical: machine-shop, welding (MIG, TIG, Arc; certified 2001)
- Sports: motorcycle racing & maintenance (2- & 4-stroke, 100cc - 1200cc)

References:

- Ph.D. advisor: Prof. Stacey Brenner-Moyer, sbrenner@brooklyn.cuny.edu
- Ph.D. committee: Prof. Ryan Murelli, rpmurelli@brooklyn.cuny.edu
- Undergraduate mentor: Prof. Akin Akdag, aakdag@metu.edu.tr