

Sarah Yunmi Lee (이윤미)

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Education

- **Massachusetts Institute of Technology**, Ph.D., Organic Chemistry, 2014
Thesis title: Asymmetric Nucleophilic Catalysis with Planar-Chiral DMAP Derivatives and Chiral Phosphines: Synthetic and Mechanistic Studies
- **Korea Advanced Institute of Science and Technology**, B.S., Chemistry (*Summa Cum Laude*), 2009

Experience

- 2018.03– present **Assistant Professor at Yonsei University**
- 2014.11–2017.12 **NIH Postdoctoral Fellow with Professor John F. Hartwig** UC Berkeley
- 2014.10–2014.11 **Postdoctoral Fellow with Professor Gregory C. Fu** Caltech
- 2012.05–2014.08 **Research Assistant with Professor Gregory C. Fu** Caltech
- 2009.11–2012.04 **Research Assistant with Professor Gregory C. Fu** MIT
- 2008.02–2009.02 **Undergraduate Researcher with Professor Sukbok Chang** KAIST

Honors and Awards

- 2020 **Outstanding Teaching Award (2019)**, Yonsei University
- 2019–2020 **POSCO TJ Park 청암 Science Fellowship for Young Investigator**
- 2015–2017 **National Institutes of Health (NIH) Postdoctoral Fellowship (F32)**
Ruth L. Kirschstein National Research Service Award (GM113404)
- 2012 **Morse Travel Award**, Department of Chemistry, MIT
- 2010 **Outstanding Graduate Student Teaching Award**, Department of Chemistry, MIT
- 2009–2010 **Moore Fellowship**, Department of Chemistry, MIT

Representative Publications

- Kim, B.; Song, Y.; Lee, S. Y.* “Stereodivergent Silver-Catalyzed Synthesis of Pyroglutamic Acid Esters” *Chem. Commun.* **2021**, Advance Article.
- Kim, B.; Kim, Y.; Lee, S. Y.* “Stereodivergent Carbon–Carbon Bond Formation between Iminium and Enolate Intermediates by Synergistic Organocatalysis” *J. Am. Chem. Soc.* **2021**, *143*, 73–79.
- Han, J.; Kim, J.; Lee, J.; Kim, Y.; Lee, S. Y.* “Boron Lewis Acid-Catalyzed Hydrophosphinylation of *N*-Heteroaryl-Substituted Alkenes with Secondary Phosphine Oxides” *J. Org. Chem.* **2020**, *85*, 15476–15487.
- Lee, S. O.; Choi, J.; Kook, S.; Lee, S. Y.* “Lewis acid-catalyzed double addition of indoles to ketones: synthesis of bis(indolyl)methanes with all-carbon quaternary centers” *Org. Biomol. Chem.* **2020**, *18*, 9060–9064.
- Lee, S. Y.; Hartwig, J. F.* “Palladium-Catalyzed, Site-Selective Direct Allylation of Aryl C–H bonds by Silver-Mediated C–H Activation: A Synthetic and Mechanistic Investigation” *J. Am. Chem. Soc.* **2016**, *138*, 15278–15284.
- Lee, S. Y.; Fujiwara, Y.; Nishiguchi, A.; Kalek, M.; Fu, G. C.* “Phosphine-Catalyzed Enantioselective Intramolecular [3+2] Annulations To Generate Fused Ring Systems” *J. Am. Chem. Soc.* **2015**, *137*, 4587–4591. (*ACS Editors’ Choice*)
- Lee, S. Y.; Neufeind, S.; Fu, G. C.* “Enantioselective Nucleophile-Catalyzed Synthesis of Tertiary Alkyl Fluorides via the α -Fluorination of Ketenes: Synthetic and Mechanistic Studies” *J. Am. Chem. Soc.* **2014**, *136*, 8899–8902. (*ACS Editors’ Choice*)
- Lee, S. Y.; Murphy, J. M.; Ukai, A.; Fu, G. C.* “Nonenzymatic Dynamic Kinetic Resolution of Secondary Alcohols via Enantioselective Acylation: Synthetic and Mechanistic Studies” *J. Am. Chem. Soc.* **2012**, *134*, 15149–15153. (*Highlights in Angewandte*: Díaz-Álvarez, A. E.; Mesas-Sánchez, L.; Dinér, P. “Non-Enzymatic Dynamic Kinetic Resolution of Secondary Aryl Alcohols: Planar Chiral Ferrocene and Ruthenium Catalysts in Cooperation” *Angew. Chem., Int. Ed.* **2013**, *52*, 502–504.)