

Curriculum Vitae

Jun Kikuchi

Date of Birth: Feb. 28, 1990

Work Address: Graduate School of Pharmaceutical Sciences
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Education

2014.4 – 2017.3 Ph.D.
Department of Chemistry, Graduate School of Science, Tohoku University (*Advisor*: Prof. Masahiro Terada)

2012.4 – 2014.3 M.Sc.
Department of Chemistry, Graduate School of Science, Tohoku University

2008.4 – 2012.3 B.Sc.
Department of Chemistry, Graduate School of Science, Tohoku University

2014.10 – 2016.1 Cooperative Education Program of IMS with Tohoku University
Institute for Molecular Science

2015.7 – 2015.9 Visiting student
California Institute of Technology (Prof. Brian M. Stoltz)

Research Experiences

2022.1 – present Assistant Professor
Graduate School of Pharmaceutical Sciences, Tohoku University

2017.4 – 2021.12 Assistant Professor
Department of Chemistry, Graduate School of Science, Tohoku University

Award

2017 Department of Chemistry Award (Tohoku University)

Publication List (Jun Kikuchi)

01/2022

Original Paper

1. “Development of Chiral Bisphosphoric Acid/Boronic Acid Co-catalyst System for Enantioselective S_N2' Reaction”
Satavisha Kayal, Jun Kikuchi, Naoya Shinagawa, Shigenobu Umemiya, Masahiro Terada, *Tetrahedron*, **2021**, 98, 132412.
2. “Dynamic Parallel Kinetic Resolution of α -Ferrocenyl Cation Initiated by Chiral Brønsted Acid Catalyst”
Yasunori Toda, Toshinobu Korenaga, Ren Obayashi, Jun Kikuchi, Masahiro Terada, *Chem. Sci.* **2021**, 12, 10306–10312.
3. “Radical Addition Reaction between Chromenols and Toluene Derivatives Initiated by Brønsted Acid Catalyst under Light Irradiation”
Jun Kikuchi, Shota Kodama, Masahiro Terada, *Org. Chem. Front.*, **2021**, 8, 4153–4159.
4. “Chiral Phosphoric Acid-Catalyzed Enantioselective [4+2] Cycloaddition Reaction of α -Fluorostyrenes with Imines”
Jun Kikuchi, Haiting Ye, Masahiro Terada, *Org. Lett.* **2020**, 22, 8957–8961.
5. “Chiral Phosphoric Acid-Catalyzed Enantioselective Phospha-Michael-Type Addition Reaction of Diarylphosphine oxides with Alkenyl Benzimidazoles”
Linan Hou, Jun Kikuchi, Haiting Ye, Ming Bao, Masahiro Terada, *J. Org. Chem.*, **2020**, 85, 14802–14809.
6. “One-pot Synthesis of Enantioenriched Secondary Amides via Enantioselective [4+2] Cycloaddition Reaction of Vinyl Azides with *N*-acyl Imines Catalyzed by Chiral Brønsted Acid”
Taishi Nakanishi, Jun Kikuchi, Atsushi Kaga, Shunsuke Chiba, Masahiro Terada, *Chem. Eur. J.* **2020**, 26, 8230–8234.
7. “Chiral Strong Brønsted Acid-Catalyzed Enantioselective Addition Reaction of Simple Olefins with Ethyl Glyoxylate”
Jun Kikuchi, Yuki Aizawa, Masahiro Terada, *Org. Chem. Front.*, **2020**, 7, 1383-1387.
8. “Chiral Brønsted Acid-Catalyzed Enantioconvergent Propargylic Substitution Reaction of Secondary Propargylic Alcohols with Thiol”

- Jun Kikuchi, Kyohei Takano, Yusuke Ota, Shigenobu Umemiya, Masahiro Terada, *Chem. Eur. J.* **2020**, *26*, 11124–11128.
9. “Non-enzymatic Hybrid Catalysis for Stereoconversion of l-Amino Acid Derivatives to d-Isomers”
Yuya Nagato, Mari Kiyokawa, Yusuke Ueki, Jun Kikuchi, Kohsuke Ohmatsu, Masahiro Terada, Takashi Ooi, *Asian J. Org. Chem.* **2020**, *9*, 561–565.
 10. “Mechanism and Origin of Stereoselectivity in Chiral Phosphoric Acid-Catalyzed Aldol-Type Reactions of Azlactones with Vinyl Ethers”
Kyohei Kanomata, Yuki Nagasawa, Yukihiro Shibata, Masahiro Yamanaka, Fuyuki Egawa, Jun Kikuchi, Masahiro Terada, *Chem. Eur. J.* **2020**, *26*, 3364–3372.
 11. “Chiral Brønsted Acid-Catalyzed Formal α -Vinylolation of Ketones for the Enantioselective Construction of Quaternary Carbon Center”
Satavisha Kayal, Jun Kikuchi, Masahiro Shimizu, Masahiro Terada, *ACS Catal.* **2019**, *9*, 6846–6850.
 12. “Enantioselective Addition Reaction of Azlactones with Styrene Derivatives Catalyzed by Strong Chiral Brønsted Acids”
Jun Kikuchi, Masahiro Terada, *Angew. Chem. Int. Ed.* **2019**, *58*, 8458–8462.
 13. “Bis-phosphoric Acid Derived from BINOL Dimer as a Chiral Brønsted Acid Catalyst for Enantioselective Transformations”
Masahiro Terada, Yogesh Gupta, Jun Kikuchi, *Chem. Lett.* **2019**, *48*, 260–263.
 14. “F₁₀BINOL-derived Chiral Phosphoric Acid-Catalyzed Enantioselective Carbonyl-Ene Reaction: Theoretical Elucidation of Stereochemical Outcomes”
Jun Kikuchi, Hiromu Aramaki, Hiroshi Okamoto, Masahiro Terada, *Chem. Sci.* **2019**, *10*, 1426–1433.
 15. “Chiral Brønsted Acid-Catalyzed Intramolecular S_N2' Reaction for Enantioselective Construction of Quaternary Stereogenic Center”
Masahiro Shimizu, Jun Kikuchi, Azusa kondoh, Masahiro Terada, *Chem. Sci.* **2018**, *9*, 5747–5757.
 16. “Chiral Phosphoric Acid-Catalyzed Enantioselective Ring Expansion Reaction of 1,3-Dithiane Derivatives: Case Study of the Nature of Ion-Pairing Interaction”
Feng Li, Toshinobu Korenaga, Taishi Nakanishi, Jun Kikuchi, Masahiro Terada, *J. Am. Chem. Soc.* **2018**, *140*, 2629–2642.

17. “A Fischer Indolization Strategy toward the Total Synthesis of (–)-Goniomitine”
Beau P. Pritchett, Jun Kikuchi, Yoshitaka Numajiri, Brian M. Stoltz, *Heterocycles* **2017**, 2, 1245–1253.
18. “Enantioselective Pd-Catalyzed Allylic Alkylation Reactions of Dihydropyrido[1,2-a]indolone Substrates: Efficient Syntheses of (–)-Goniomitine, (+)-Aspidospermidine, and (–)-Quebrachamine”
Beau P. Pritchett, Jun Kikuchi, Yoshitaka Numajiri, Brian M. Stoltz, *Angew. Chem. Int. Ed.* **2016**, 55, 13529–13532.
19. “Chiral Phosphoric Acid-Catalyzed Diastereo- and Enantioselective Mannich-type Reaction between Enamides and Thiazolones”
Jun Kikuchi, Norie Momiyama, Masahiro Terada, *Org.Lett.* **2016**, 18, 2521–2523.
20. “Perfluorinated Aryls in the Design of Chiral Brønsted Acid Catalysts: Catalysis of Enantioselective [4+2] Cycloadditions and Ene-Reactions of Imines with Alkenes by Chiral Mono-Phosphoric Acids with Perfluoroaryls”
Norie Momiyama, Hiroshi Okamoto, Jun Kikuchi, Toshinobu Korenaga, Masahiro Terada, *ACS Catal.* **2016**, 6, 1198–1204.

Accounts and Reviews

1. “Enantioconvergent Substitution Reactions of Racemic Electrophiles by Organocatalysis”
Jun Kikuchi, Masahiro Terada, *Chem. Eur. J.* **2021**, 27, 10215–10225.
2. “Palladium-Catalyzed Acid Chloride Synthesis”
Jun Kikuchi, *Journal of Synthetic Organic Chemistry, Japan*, **2018**, 76, 730–731.