

Kenji Yamashita, Ph.D.

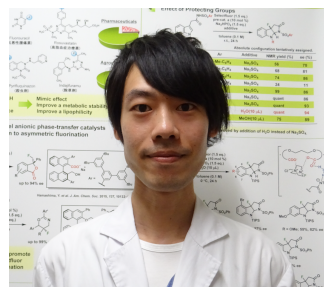
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BIRTH

Birthered at Tokushima Prefecture, Japan on June 19, 1988.

EDUCATION/CAREER

- | | |
|------------------|---|
| 2008.4–2012.3 | B. Eng. in Chemistry, Nagoya University, Nagoya, Japan
(Prof. Kazuaki Ishihara) |
| 2012.4–2014.3 | M. Eng. in Chemistry, Nagoya University, Nagoya, Japan
(Prof. Kazuaki Ishihara) |
| 2014.4–2017.3.27 | Ph.D. in Engineering, Nagoya University, Nagoya, Japan
(Prof. Kazuaki Ishihara) |
| 2015.7–2015.10 | Visiting Scholar, University of Michigan, Michigan, United States
(Prof. Melanie S. Sanford) |
| 2017.6–2019.3 | Postdoctoral Fellow, Princeton University, Princeton, United States
(Prof. Robert Knowles) |
| 2019.4–present | Assistant Professor, University of Shizuoka, Shizuoka, Japan
(Prof. Yoshitaka Hamashima) |

AWARDS

- | | |
|------|--|
| 2014 | Best Presentation Award from Chemical Society of Japan, Tokai Region |
| 2014 | Poster Award at 4th CSJ Chemistry Festa 2014 |
| 2014 | Poster Award at 106th Symposium on Organic Synthesis, Japan |
| 2014 | Poster Award at 45th Annual Meeting of Union of Chemistry-Related Societies in Chubu Area, Japan |
| 2015 | CSJ Student Presentation Award 2015 |
| 2017 | IGER Annual Research Award 2016 |
| 2017 | CSJ Student Presentation Award 2017 |
| 2022 | Oral Communication Award at 5th International Symposium on Halogen Bonding (ISXB5) |
| 2024 | The Society of Synthetic Organic Chemistry, Japan, Tokai Branch Young |

Investigator Award

FELLOWSHIP

- 2015.7–2015.10 The Tatematsu Foundation Subsidy for Inter-Institute Researches
2016.4–2018.3 Research Fellow of the Japan Society for the Promotion of Sciences (JSPS) DC2
2017.6–2018.5 Postdoctoral Fellowship of the Uehara Memorial Foundation
2023.4–2025.4 The Research Foundation for Pharmaceutical Sciences
2025.10–2026.9 Tobe Maki Foundation Research Grant

PUBLICATION

1. Manabu Hatano, Takahiro Horibe, Kenji Yamashita, Kazuaki Ishihara “Chiral Supramolecular Magnesium(II) Binaphtholate Catalysts for the Enantioselective Direct Mannich-Type Reaction and Hetero-Diels–Alder Reaction”
Asian J. Org. Chem., **2013**, 2, 952.
2. Manabu Hatano, Kenji Yamashita, Mai Mizuno, Orie Ito, Kazuaki Ishihara “C-Selective and Diastereoselective Alkyl Addition to β,γ -Alkynyl- α -imino Esters with Zinc(II)ate Complexes”
Angew. Chem. Int. Ed., **2015**, 54, 2707.
3. Manabu Hatano, Kenji Yamashita, Kazuaki Ishihara “C- and N-Selective Grignard Addition Reactions of α -Aldimino Esters in the Presence or Absence of Zinc(II) Chloride: Synthetic Applications to Optically Active Azacycles”
Org. Lett., **2015**, 17, 2412.
4. Manabu Hatano, Yuji Tabata, Yurika Yoshida, Kohei Toh, Kenji Yamashita, Yoshihiro Ogura, Kazuaki Ishihara “Metal-Free Transesterification Catalyzed by Tetramethylammonium Methyl Carbonate”
Green Chem., **2018**, 20, 1193.
5. Kuo Zhao*, Kenji Yamashita*, Joseph E. Carpenter, Trevor C. Sherwood, William R. Ewing, Peter T. Cheng, Robert R. Knowles “Catalytic Ring Expansions of Cyclic Alcohols Enabled by Proton-Coupled Electron Transfer”
J. Am. Chem. Soc., **2019**, 141, 8752.
*These authors contributed equally.
6. Hiromichi Egami, Taiki Rouno, Tomoki Niwa, Kousuke Masuda, Kenji Yamashita, Yoshitaka Hamashima “Asymmetric Dearomative Fluorination of 2-Naphthols with a Dicarboxylate Phase-Transfer Catalyst”
Angew. Chem. Int. Ed., **2020**, 59, 14101.

7. Hiromichi Egami, Ryo Hotta, Minami Otsubo, Taiki Rouno, Tomoki Niwa, Kenji Yamashita, Yoshitaka Hamashima “Asymmetric Dearomatizing Fluoroamidation of Indole Derivatives with Dianionic Phase-Transfer Catalyst”
Org. Lett., **2020**, 22, 5656.
8. Fumihisa Kobayashi, Masashi Fujita, Takafumi Ide, Yuta Ito, Kenji Yamashita, Hiromichi Egami, Yoshitaka Hamashima “Dual-Role Catalysis by Thiobenzoic Acid in C α -H Arylation under Photoirradiation”
ACS Catal., **2021**, 11, 82.
9. Tomoki Niwa, Kousuke Nishibashi, Hitomi Sato, Kiyoshi Ujiie, Kenji Yamashita, Hiromichi Egami, Yoshitaka Hamashima “Structure Dependence in Asymmetric Deprotonative Fluorination and Fluorocyclization Reactions of Allylamine Derivatives with Linked Binaphthyl Dicarboxylate Phase-Transfer Catalyst”
J. Am. Chem. Soc., **2021**, 143, 16599.
10. Kenji Yamashita, Ryo Hirokawa, Mamoru Ichikawa, Tatsunari Hisanaga, Yoshihiro Nagao, Ryo Takita, Kohei Watanabe, Yuji Kawato, Yoshitaka Hamashima “Mechanistic Details of Asymmetric Bromocyclization with BINAP Monoxide: Identification of Chiral Proton-Bridged Bisphosphine Oxide Complex and Its Application to Parallel Kinetic Resolution”
J. Am. Chem. Soc., **2022**, 144, 3913.
11. Kenji Yamashita, Yuki Fujiwara, Yoshitaka Hamashima “Amide-Ligand-Promoted Silver-Catalyzed C–H Fluorination via Radical/Polar Crossover”
J. Org. Chem., **2023**, 88, 1865.
12. Ryo Hirokawa, Yuki Nakahara, Shotaro Uchida, Kenji Yamashita, Yoshitaka Hamashima “Enantioselective Synthesis of Bromodifluoromethyl-containing Oxazoline by Concerted Lewis/Brønsted Base Catalysis with Chiral Bisphosphine Oxide”
Chem. Asian J., **2023**, 18, e202300141. (*Special Collection on Halogen Bonding*)
13. Yuki Nakahara, Ryo Hirokawa, Shotaro Uchida, Kenji Yamashita, Yoshitaka Hamashima “Switching Regioselectivity in the Asymmetric Bromocyclization of Difluoroalkenes Catalyzed by a Chiral Bisphosphine Oxide”
Synlett, **2023**, published on the web. (*Special Issue “Dedicated to Prof. Hisashi. Yamamoto”*)
14. Eiji Sugiyama, Yuki Nishiya, Kenji Yamashita, Ryo Hirokawa, Yoshiteru Iinuma, Takashi Nirasawa, Hajime Mizuno, Yoshitaka Hamashima, Kenichiro Todoroki “Charged chiral derivatization for enantioselective imaging of D-,L-2-hydroxyglutaric acid using ion mobility spectrometry/mass spectrometry”

Chem. Commun., **2023**, 59, 10916.

15. Kenji Yamashita, Yuji Tabata, Katsuya Yamakawa, Takuya Mochizuki, Kai Matsui, Manabu Hatano, Kazuaki Ishihara “Chiral Macrocyclic Catalysts for the Enantioselective Addition of Lithium Acetylides to Ketones”
J. Am. Chem. Soc., **2023**, 145, 26238.
16. Kenji Yamashita, Fumiya Kawahara, Hoshitaka Hmashima “Benzylic C(sp³)-H Alkoxylation through Visible-Light-Driven Oxidative Radical-Polar Crossover”
Asian J. Org. Chem., **2024**, 13, e202300662.
17. Kenji Yamashita, Hayate Sano, Yuki Goto, Hiroki Hayashi, Hoshitaka Hmashima. “Direct Generation of Carboxyl Radicals from Carboxylic Acids Catalyzed by Photoactivated Ketones”
J. Am. Chem. Soc., **2025**, 147, 29711.

Reviews & Books

1. 「ペルオキシドを酸化剤とメチル源に利用したC(sp³)-Hメチル化反応」
著者： 山下賢二
ファルマシア トピックス 57巻 (2021) 12号 p.1132
2. 「鏡の中のくすり」
著者： 濱島義隆、 山下賢二
化学と教育 70巻 (2022) 5号 p.258–261
3. 「医薬資源創出を指向した不斉ブロモ環化反応の開発」
著者： 山下賢二、濱島義隆
月刊ファインケミカル 54巻 (2025) 8号 p.40–50

Invited Lecture

1. “Enantioselective Bromocyclization Reactions Enabled by Lewis/Brønsted Base Concerted Catalysis of Chiral Bisphosphine Oxide”
Kenji Yamashita
Asian International Symposium (Chiba) 19/03/2024
2. 「医薬資源合成の効率化を志向したアルケン及びC(sp³)-H結合のヘテロ官能基化反応の開発」
山下賢二
令和6年度有機合成化学協会東海支部 若手研究者のためのセミナー
(三重) 2024年7月12日