

Kazuya KANEMOTO

Assistant Professor



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Education

- 2015 – 2018 Ph. D. (Engineering)
Graduate School of Medical and Dental Sciences,
Tokyo Medical and Dental University
(Advisor: Prof. Takamitsu Hosoya, Assoc. Prof. Suguru Yoshida)
- 2009 – 2011 M. Sc. (Engineering)
Graduate School of Engineering, Hokkaido University
(Advisor: Prof. Norio Miyaura, Assoc. Prof. Yasunori Yamamoto)
- 2005 – 2009 B. Sc. (Engineering)
Faculty of Engineering, Hokkaido University
- 2011.8 – 10 Visiting student
Rice University, Department of Chemistry
(Prof. Zachary T. Ball)

Professional Experience

- 2021.3 – Present Assistant Professor
Graduate School of Pharmaceutical Sciences, Tohoku University
- 2019.4 – 2021.2 Assistant Professor
Faculty of Science and Engineering, Chuo University
- 2018.5 – 2019.3 Assistant Professor
Institute of Biomaterials and Bioengineering,
Tokyo Medical and Dental University
- 2011.4 – 2018.4 Researcher
Astellas Pharma Inc.

Awards

2020 Meiji Seika Award in Synthetic Organic Chemistry, Japan

2017 15th IBB Bio Future Research Encouragement Prize

2022 ○H. Asanuma, S.-i. Fukuzawa, K. Kanemoto, *Journal of Sulfur Chemistry Poster Award, ISOCS-29* (Canada, Guelph)

2021 ○H. Machida, K. Kanemoto, S.-i. Fukuzawa, *Student Research Competition Winner (2.8%), Pacificchem 2021*.

2021 ○H. Asanuma, T. Watanabe, K. Kanemoto, S.-i. Fukuzawa, *Chemical Communication Poster Prize, Pacificchem 2021*.

2021 ○H. Machida, K. Kanemoto, S.-i. Fukuzawa, *Poster Prize, 11th CSJ Chemistry Festa*.

2021 ○H. Asanuma, K. Kanemoto, T. Watanabe, S.-i. Fukuzawa, *Poster Prize, 11th CSJ Chemistry Festa*.

2021 ○H. Machida, K. Kanemoto, S.-i. Fukuzawa, *Poster Prize, 119th Symposium on Organic Synthesis*.

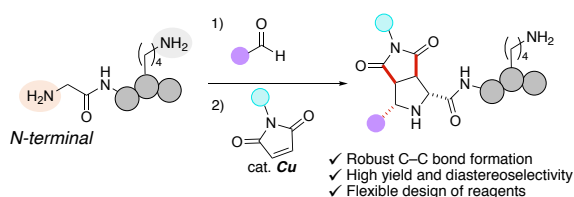
Grants

2023.4 – 2025.3	The Research Foundation for Pharmaceutical Sciences
2023.4 – 2024.3	The NOVARTIS Foundation (Japan) for the Promotion of Science
2022.4 – 2023.3	Takahashi Industrial and Economic Research Foundation
2022.4 – 2024.3	JSPS KAKENHI (Young Scientists)
2022.4 – 2023.3	Uehara memorial Foundation
2021.4 – 2023.3	Meiji Seika Award in Synthetic Organic Chemistry, Japan
2021.4 – 2022.3	Takahashi Industrial and Economic Research Foundation
2021.4 – 2022.3	Tokyo Biochemical Research Foundation
2020.4 – 2022.3	JSPS KAKENHI (Young Scientists)
2020.4 – 2022.3	Kato Memorial Bioscience Foundation
2019.9 – 2021.3	JSPS KAKENHI (Research Activity Start-up)

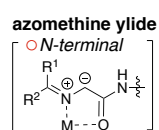
Original Paper

24 N-Terminal-selective Cu-catalyzed [3+2] cycloaddition for irreversible assembly of two modules with a peptide, H. Machida, K. Kanemoto,* H. Fuwa, 10.26434/chemrxiv-2023-sxw2w.

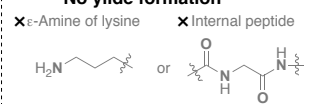
N-terminal-specific three component conjugation



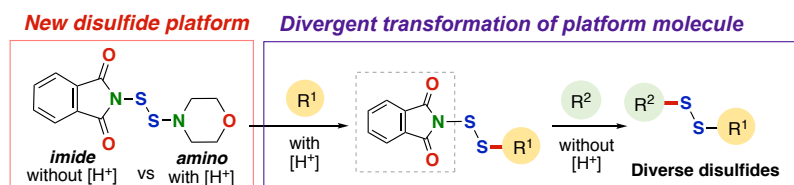
Principle of N-terminal selectivity



No ylide formation



- 23 N-(Morpholine-4-dithio)phthalimide: A Shelf-Stable, Bilateral Platform Molecule Enabling Access to Diverse Unsymmetrical Disulfides, H. Asanuma, **K. Kanemoto**,* T. Watanabe, S.-i. Fukuzawa, *Angew. Chem., Int. Ed.* e202219156, (2023).

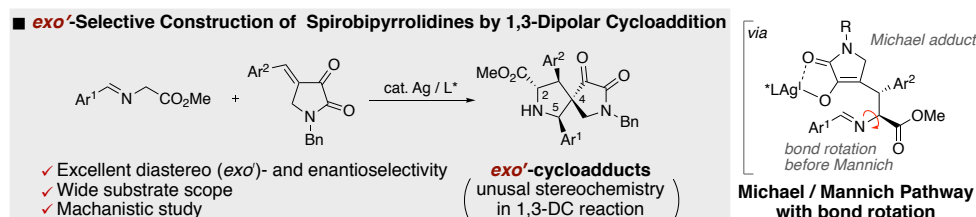


- 22 *N*-(*N*-Morpholindithio)phthalimide: A Shelf-Stable, Bilateral Platform Molecule for Accessing Diverse Unsymmetrical Disulfides, H. Asanuma, **K. Kanemoto**,* T. Watanabe, S.-i. Fukuzawa, 10.26434/chemrxiv-2022-t1xn4

- 21 Chiral Silver Complex-Catalyzed Asymmetric Conjugate Addition of 1-Pyrroline-5-Carbonitrile to α -Enones, H. Araki, S. Furuya, **K. Kanemoto**, S.-i. Fukuzawa, *J. org. Chem.* **88**, 924-932, (2023).

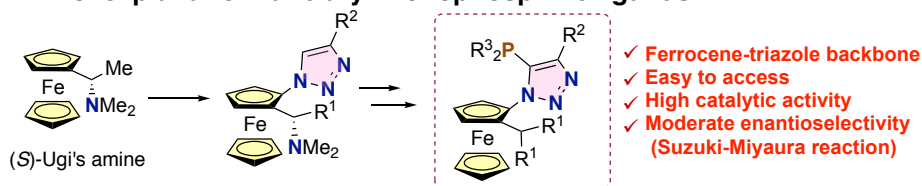
- 20 Diastereoselective Conversion of Cyclopropanols to Cyclopentane-1,3-diols via Aldol Dimerization of Zinc Homo-enolates, K. Tsukiji, Y. Sekiguchi, **K. Kanemoto**, N. Yoshikai, *Chem. Lett.* **51**, 1012-1014, (2022).

- 19 *exo'*-Selective Construction of Spiropyrrolidines by the Silver-catalyzed Asymmetric [3+2] Cycloaddition of Imino Esters with 4-Benzylidene-2,3-dioxopyrrolidines, S. Furuya, **K. Kanemoto**,* S.-i. Fukuzawa,* *Chem. Asian J.* **17**, e202200239, (2022).



- 18 Synthesis and Evaluation of Novel Planar-Chiral Monophosphine Ligands Bearing Ferrocene-Triazole Backbones, S. Sakai, **K. Kanemoto**,* S.-i. Fukuzawa,* *Eur. J. Inorg. Chem.*, **6**, e202100967, (2022).

■ Novel planar chiral biaryl monophosphine ligands



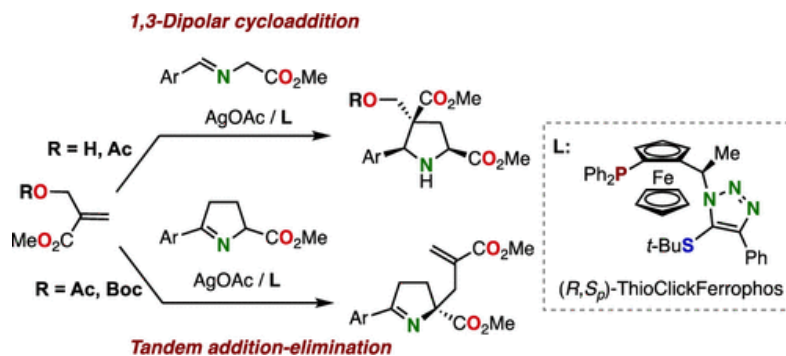
- 17 Cationic Iridium-Catalyzed Asymmetric Decarbonylative Aryl Addition of Aromatic Aldehydes to Bicyclic Alkenes, R. Nonami, Y. Morimoto, **K. Kanemoto**, Y. Yamamoto, T. Shirai,* *Chem. Eur. J.*, **28**, e202200317, (2022).

【Selected as supplementary cover】 【Selected as hot paper】

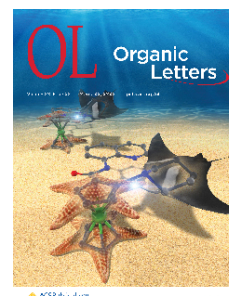
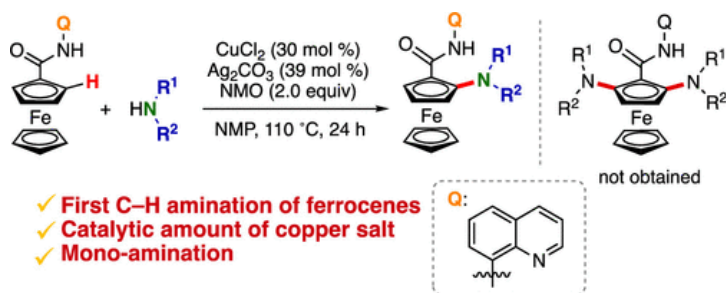
- 16 Synthesis and properties of 5,5'-diethynyl indigos and their polymers using Glaser coupling reaction, S. Kenmochi, **K. Kanemoto**, T. Ikeda, S.-i. Fukuzawa, *Fac. Sci. Eng., Chuo Univ.* **27**, 35-46, (2022).

- 15 Trifluoroacetic Acid-Mediated Desulfurilative Sulfonylation of Activated Olefins Using Potassium *p*-Toluenethiosulfonate, T. Watanebe, **K. Kanemoto**,* S.-i. Fukuzawa, *Bull. Fac. Sci. Eng., Chuo Univ.*, **27**, 15-33, (2022).

- 14 Silver/ThioClickFerrophos-Catalyzed 1,3-Dipolar Cycloaddition and Tandem Addition-Elimination Reaction of Morita–Baylis–Hillman Adducts, Y. Suzuki, **K. Kanemoto**,* A. Inoue, K. Imae, S.-i. Fukuzawa,* *J. Org. Chem.*, **86**, 14586-14596, (2021).



- 13 Copper-Catalyzed Single C–H Amination of 8-Aminoquinoline-Directed Ferrocenes, **K. Kanemoto**,* N. Horikawa, S. Hoshino, Y. Tokoro, S.-i. Fukuzawa,* *Org. Lett.*, **23**, 4966–4970, (2021). 【Selected as supplementary cover】

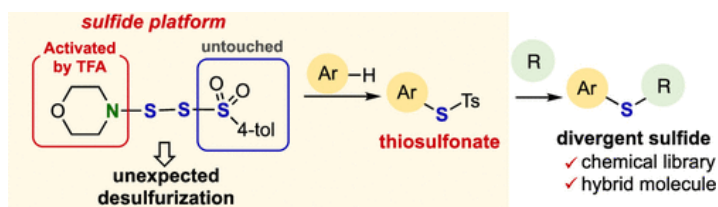


12 Palladium-Catalyzed Sulfinylation of Aryl- and Alkenylborons with Sulfinato Esters, M. Suzuki, K. Kanemoto, Y. Nakamura, T. Hosoya, S. Yoshida,* *Org. Lett.*, **23**, 3793–3797, (2021).

11 Acid-Mediated Sulfonylthiolation of Arenes via Selective Activation of *SS*-Morpholino Dithiosulfonate, K. Kanemoto,* K. Furuhashi, Y. Morita, T. Komatsu, S.-i. Fukuzawa,* *Org. Lett.*, **23**, 1582–1587, (2021).

【 Highlighted in Organic Chemistry Portal (<https://www.organic-chemistry.org/abstracts/lit7/808.shtm>)】

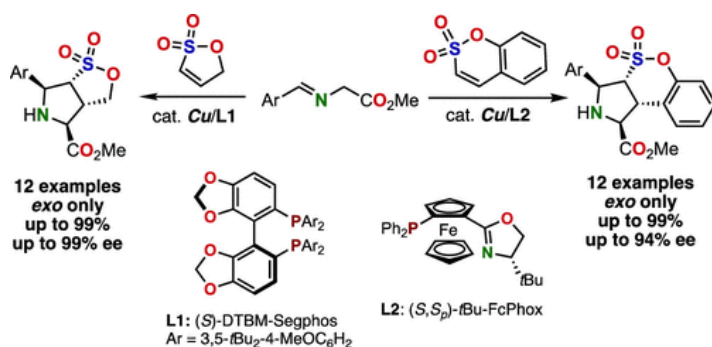
【Selected as supplementary cover】



10 Copper-Catalyzed Asymmetric 1,3-Dipolar Cycloaddition of Imino Esters to Unsaturated Sulfones, S. Furuya, K. Kanemoto,* S.-i. Fukuzawa,* *J. Org. Chem.*, **85**, 8142–8148, (2020).

【Highlighted in Synfacts (H. Yamamoto, T. Hattori, *Synfacts*, **16**, 1118, (2020).)】

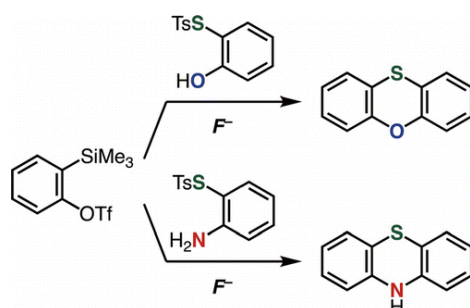
【Selected as supplementary cover】



9 Cationic Iridium/Chiral Bisphosphine-Catalyzed Enantioselective Hydroacylation of Ketones, T. Shirai,* T. Iwasaki, **K. Kanemoto**, Y. Yamamoto, *Chem. Asian J.* **15**, 1858-1862, (2020).

8 Functionalization of a Single C–F Bond of Trifluoromethylarenes Assisted by an *ortho*-Silyl Group Using a Trityl-Based All-in-One Reagent with Ytterbium Triflate Catalyst, Y. Kim, **K. Kanemoto**, K. Shimomori, T. Hosoya, S. Yoshida,* *Chem. Eur. J.* **26**, 6136-6140, (2020).

7 Synthesis of Phenoxathiins and Phenothiazines by Aryne Reactions with Thiosulfonates, **K. Kanemoto**, Y. Sakata, T. Hosoya, S. Yoshida,* *Chem. Lett.*, **49**, 593-596, (2020).



6 Synthesis of Alkynyl Sulfides by Copper-Catalyzed Thiolation of Terminal Alkynes Using Thiosulfonates, **K. Kanemoto**, S. Yoshida,* T. Hosoya,* *Org. Lett.*, **21**, 3172-3177, (2019).

【Press Release (https://www.tmd.ac.jp/archive-tmdu/kouhou/20190423_1.pdf)】

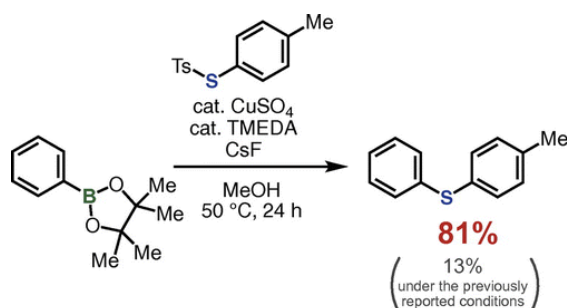
【Most downloaded article of *Org. Lett.* in April 2019】

【 Highlighted in Organic Chemistry Portal (<https://www.organic-chemistry.org/abstracts/lit6/827.shtml>)】



5 Copper-Catalyzed Regio- and Diastereoselective 1,3-Dipolar Cycloaddition Reactions of Glycine Imino Esters with 1-Propene-1,3-sultone, S. Furuya, S. Kato, **K. Kanemoto**, S.-i. Fukuzawa,* *Eur. J. Org. Chem.* 4561-4565, (2019).

- 4 Facile Synthesis of Diverse *o*-Iodoaryl Triflates from *o*-Silylaryl Triflates by Aluminum-mediated Desilyliodination, S. Yoshida,* Y. Hazama, **K. Kanemoto**, Y. Nakamura, T. Hosoya,* *Chem. Lett.*, **48**, 742-745, (2019).
- 3 Modular Synthesis of Unsymmetrical Doubly-ring-fused Benzene Derivatives Based on a Sequential Ring Construction Strategy Using Oxadiazinones as a Platform Molecule, T. Meguro, S. Chen, **K. Kanemoto**, S. Yoshida,* T. Hosoya,* *Chem. Lett.*, **48**, 582-585, (2019).
- 2 Modified Conditions for Copper-catalyzed *ipso*-Thiolation of Arylboronic Acid Esters with Thiosulfonates, **K. Kanemoto**, S. Yoshida,* T. Hosoya,* *Chem. Lett.*, **47**, 85-88, (2018).



- 1 Rhodium-catalyzed odorless synthesis of diaryl sulfides from borylarenes and *S*-aryl thiosulfonates, **K. Kanemoto**, Y. Sugimura, S. Shimizu, S. Yoshida,* T. Hosoya,* *Chem. Commun.*, **53**, 10640-10643, (2017). **[Selected as inside back cover]**

