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Personal Information

Date of Birth	November 30th, 1989
Place of Birth	Saitama, Japan
Gender	Male
Nationality	Japan

Education

2012.3 **B. Pharmaceutical Sciences**, Faculty of Pharmaceutical Sciences, Meiji Pharmaceutical University, Japan
(Professor Hiroshi Kogen)

2014.3 **M. Pharmaceutical Sciences**, Graduate School of Pharmaceutical Sciences, Meiji Pharmaceutical University, Japan
(Professor Hiroshi Kogen)

2017.3 **PhD. Pharmaceutical Sciences**, Graduate School of Pharmaceutical Sciences, Meiji Pharmaceutical University, Japan
(Professor Hiroshi Kogen)

Academic Career

2017.3–2018.4 **Postdoctoral Researcher**, Meiji Pharmaceutical University, Japan
(Professor Hiroshi Kogen)

2018.4–2019.3 **Postdoctoral Researcher**, School of Science, Department of Chemistry, Tokyo Institute of Technology, Japan
(Professor Nobuharu Iwasawa & Associate Professor Jun Takaya)

2019.4–2022.12 **Assistant Professor**, Department of Pharmacy, Showa Pharmaceutical University
(Professor Osamu Tamura)

2023.1–2024.3 **Postdoctoral Researcher**, Research Foundation Itsuu Laboratory

2024.4–present **Specially Appointed Assistant Professor**, WPI-ICReDD, Hokkaido University (JST-ERATO Maeda Artificial Intelligence for Chemical Reaction Design and Discovery Project)
(Professor Satoshi Maeda, Professor Tsuyoshi Mita)

Fellowships & Grants

2021-2022 Grant-in-Aid for Young Scientists from Showa Pharmaceutical University

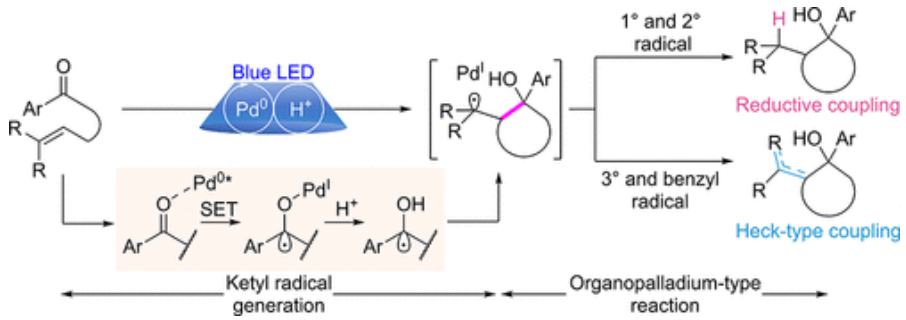
2021-2022 Sasakawa Scientific Research Grant from the Japan Science Society

2021-2023 JSPS Grant-in-Aid for Young Scientist (21K15233)

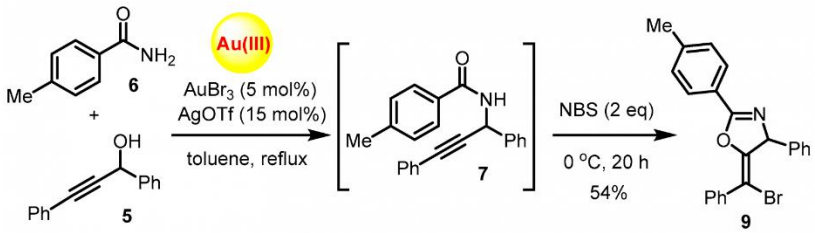
2024-2025 2024 The NOASTEC Foundation Subsidy for Young Scientists

Publication

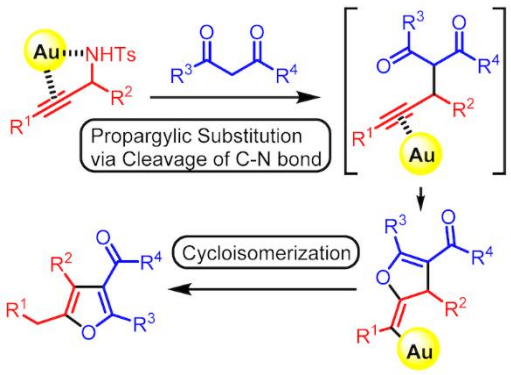
1. "Ketyl Radical Generation by Photoexcited Palladium and Development of Organopalladium-Type Reactions"
   Tanaka, K. III
   ACS Catal. **2024**, 14, 5269–5274



2. (*E*)-5-[Bromo(phenyl)methylene]-4-phenyl-2-(*p*-tolyl)-4,5-dihydrooxazole.
   Morita, N.; Kurami, S.; Ishii, N.; Tanaka, K. III; Hashimoto, Y.; Tamura, O.
   Molbank **2024**, *2024*, M1769.



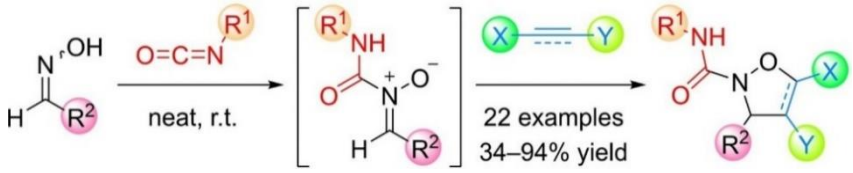
3. "Gold(III)-Catalyzed Propargylic Substitution Reaction Followed by Cycloisomerization for Synthesis of Poly-Substituted Furans from N-Tosylpropargyl Amines with 1,3-Dicarbonyl Compounds.
   Morita, N.; Uchida, S.; Chiaki, H.; Ishii, N.; Tanikawa, K.; Tanaka, K. III; Hashimoto, Y.; Tamura, O.
   Molecules **2024**, *29*, 378.



4. "Intermolecular 1,3-Dipolar Cycloaddition Reaction of *N*-Carbamoyl Nitrones Generated by N-Selective Carbamoylation of Oximes with Isocyanates."

Yamamoto, A.; Tanaka, K. III; Hashimoto, Y.; Morita, N.; Tamura, O.

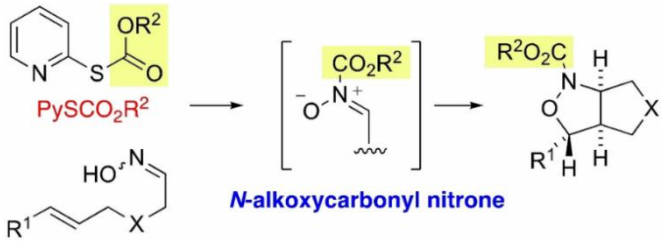
Chem. Eur. J., **2024**, *30*, e202303790.



5. "Direct Generation of *N*-Alkoxycarbonyl Nitrones from Oximes: Intramolecular Cycloaddition of Oximes Having Alkene Moieties."

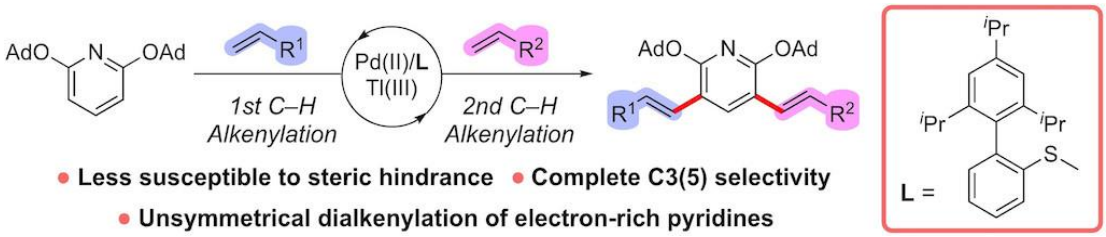
   Sagara, H.; Suzuki, Y.; Morita, N.; Ban, S.; Tanaka, K. III; Yamamoto, A.; Hashimoto, Y.; Tamura, O.

   Adv. Synth. Catal. **2023**, *365*, 3927–3934.



6. "Electrophilic C3−H Alkenylation of 2,6-Dialkoxypyridine Derivatives via Pd(II)/Tl(III) Reaction System. Yamada, T.; Tanaka, K. III; Hashimoto, Y.; Morita, N.; Tamura, O."

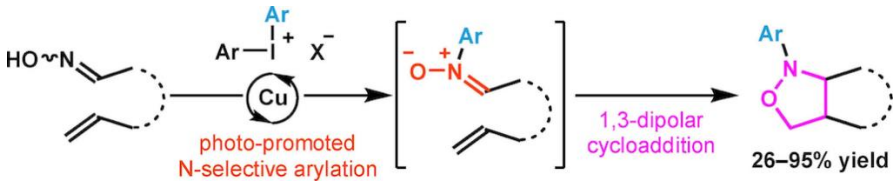
   Adv. Synth. Catal. **2023**, *365*, 3138–3148.



7. "Synthesis of *N*-Aryl Isoxazolidines by Photo-Promoted *N*-Selective Arylation of Oximes and Cyclization Using Hypervalent Iodine Reagents and Copper Catalyst."

   Tanaka, K. III; Yoshida, M.; Yamamoto, A.; Hashimoto, Y.; Morita, N.; Tamura, O.

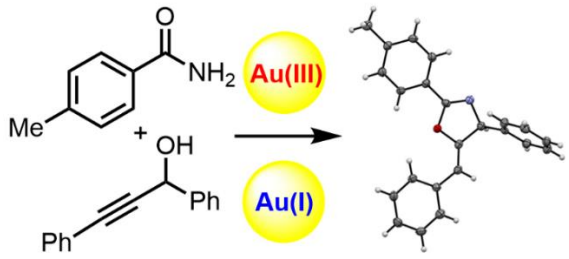
   Adv. Synth. Catal. **2023**, *365*, 1419–1424.



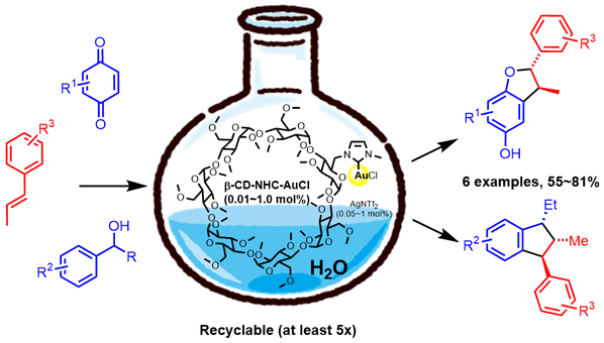
8. "(*Z*)-5-Benzylidene-4-phenyl-2-(*p*-tolyl)-4,5-dihydrooxazole."

   Morita, N.; Chiaki, H.; Aonuma, S.; Tanaka, K. III; Hashimoto, Y.; Tamura, O.

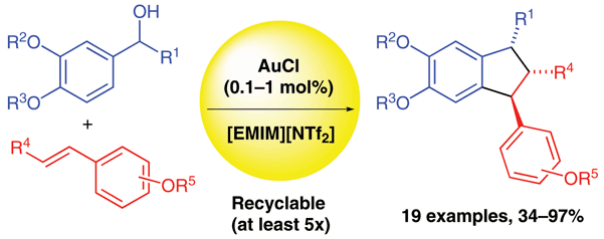
   Molbank **2023**, *2023*, M1600.



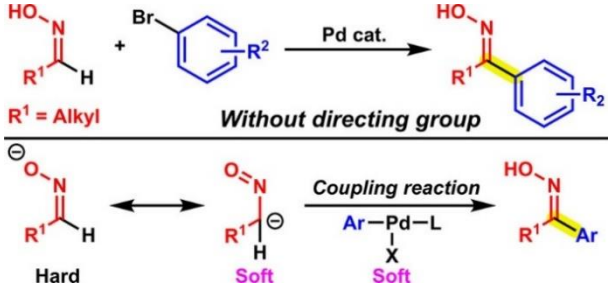
9. “Sustainable Chemical Synthesis of 2,3-Dihydrobenzofurans/1,2,3-Trisubstituted Indanes in Water Using a Permethylated β-Cyclodextrin-tagged NHC-Gold Catalyst.”
   Morita, N.; Chiaki, H.; Tanaka, K. III; Hashimoto, Y.; Tamura, O.; Krause, N.
   Synlett **2023**, *34*, 1425–1432.



10. “Gold-Catalyzed Formal (3+2) Cycloaddition in Ionic Liquid: Environmentally Friendly and Stereoselective Synthesis of Poly-substituted Indanes from Benzyl Alcohols with 1-Phenylpropenes.”
    Morita, N.; Chiaki, H.; Ikeda, K.; Tanaka, K. III; Hashimoto, Y.; Tamura, O.
    Synlett **2023**, *34*, 1068–1074.

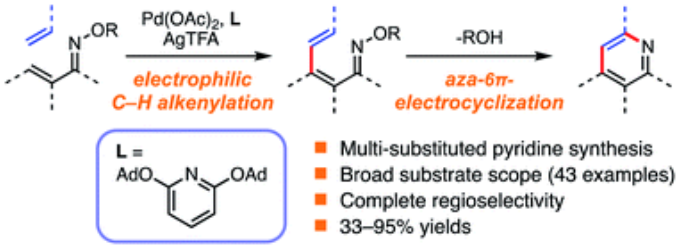


11. “Directing-Group-Free Palladium-Catalyzed C–H Arylation of Aldoxime Using Oxime’s Umpolung Properties.”
    Tanaka, K. III; Hashimoto, Y.; Morita, N.; Tamura, O.
    Org. Lett. **2022**, *24*, 8954–8958.

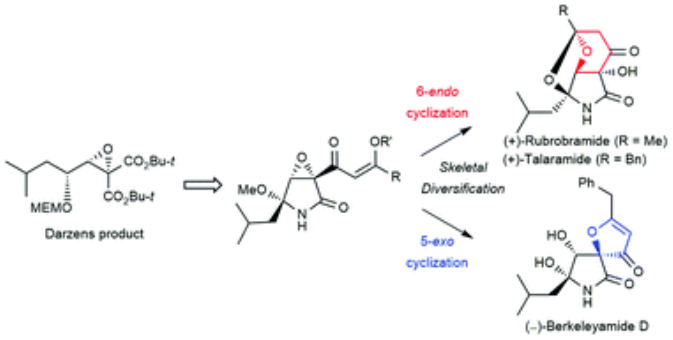


12. “Cationic palladium(II)-catalyzed synthesis of substituted pyridines from α,β-unsaturated oxime ethers”
    Yamada, T.; Hashimoto, Y.; Tanaka, K. III; Morita, N.; Tamura, O.

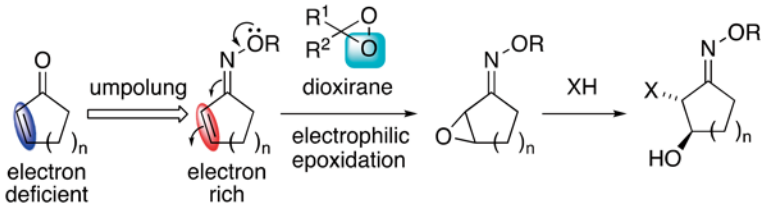
RSC Adv. **2022**, *12*, 21548–21557.



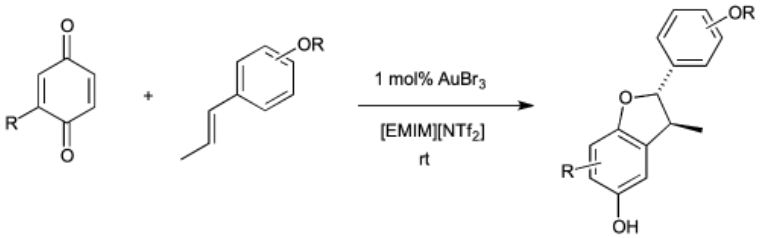
13. "Enantioselective total synthesis of (+)-rubrobramide, (+)-talaramide A, and (−)-berkeleyamide D by a skeletal diversification strategy"
Tanaka, K., III; Kobayashi, K.; Kogen, H.
Chem. Commun., **2021**, *57*, 9780-9783.



14. "Electrophilic Epoxidation of α,β-Unsaturated Oximes with Dioxiranes and Ring Opening of the Epoxides"
Furugoori, M.; Yoshida, K.; Hashimoto, Y.; Morita, N.; Tanaka, K. III; Tamura, O.
Chem. Pharm. Bull. **2021**, *69*, 1010-1016.

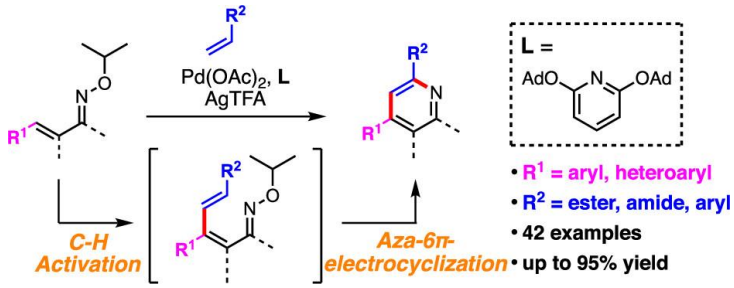


15. "Gold-Catalyzed Formal [3+2]Cycloaddition of p-Quinones and 1-Phenylpropenes in Ionic Liquid: Environmentally Friendly and Stereoselective Synthesis of Benzofuran Neolignans."
Morita, N.; Ikeda, K.; Chiaki, H.; Araki, R.; Tanaka, K. III; Hashimoto Y.; Tamura, O.
Heterocycles **2021**, 103, 714-722.



16. "Palladium(II)-Catalyzed Substituted Pyridine Synthesis from α,β-Unsaturated Oxime Ethers via a C–H Alkenylation/Aza-6π-Electrocyclization Approach."
Yamada, T.; Hashimoto, Y.; Tanaka, K. III; Morita, N.; Tamura, O.

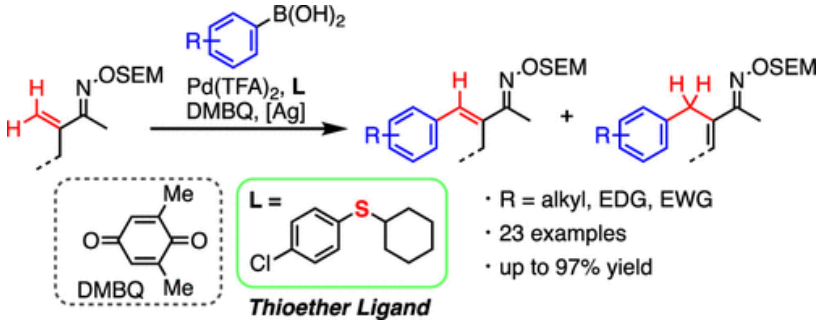
Org. Lett. **2021**, 23, 1659-1663.



17. "Thioether Ligand-Enabled Cationic Palladium(II)-Catalyzed Electrophilic C-H Arylation of α,β-Unsaturated Oxime Ethers"

    Yamada, T.; Hashimoto, Y.; Tanaka, K. III; Morita, N.; Tamura, O.

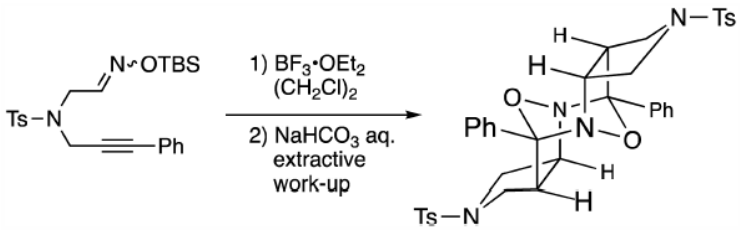
    J. Org. Chem. **2020**, 85, 12315-12328.



18. "Synthesis and Formation Mechanism of a Compound with an Unprecedented Skeleton: Dodecahydro-4,10:5,9-diepoxydipyrrolo[3,4-b:3',4'-f][1,5]diazocine"

    Shinoda, M.; Morita, N.; Tanaka, K. III; Hashimoto, Y.; Ban, S.; Tamura, O.

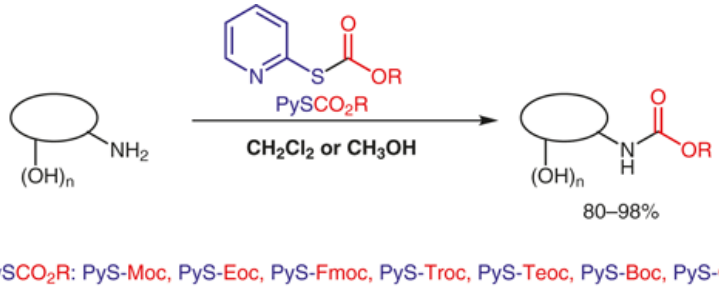
    Chem. Pharm. Bull. **2020**, 21, 4245-4249.



19. "*O*-Alkyl *S*-(Pyridin-2-yl)carbonothiolates: Operationally Simple and Highly Nitrogen-Selective Reagents for Alkoxy Carbonylation of Amino Groups"

    Suzuki, T.; Tanaka, K. III; Hashimoto, Y.; Morita, N.; Tamura, O.

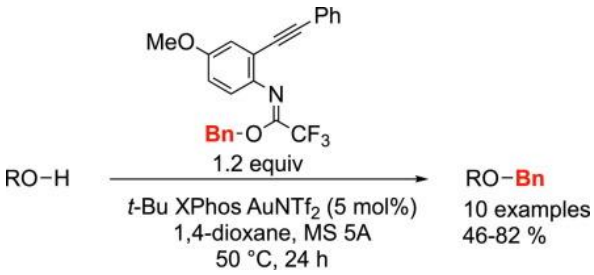
    Synlett **2020**, 31, 899-902.



20. "Intramolecular Activation of Imidate with Cationic Gold(I) Catalyst: a New Benzylation Reaction of Alcohols"

Ban, S.; Endo, T.; Matsui, R.; Morita, N.; Hashimoto, Y.; Tanaka, K. III; Tamura, O.

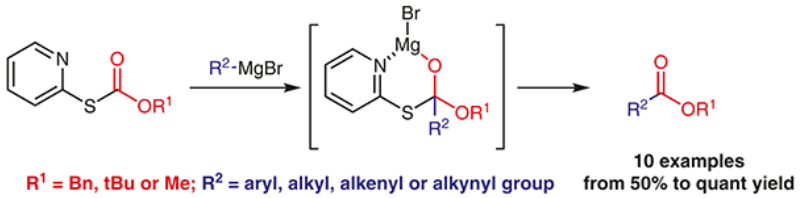
Tetrahedron lett. **2020**, 30, 152233-152235.



21. "Chelation-Based Homologation by Reaction of Organometallic Reagents with *O*-Alkyl *S*-Pyridin-2-yl Thiocarbonates: Synthesis of Esters from Grignard Reagents"

Usami, S.; Suzki, S.; Mano, K.; Tanaka, K., III; Hashimoto, Y.; Morita, N.; Tamura, O.

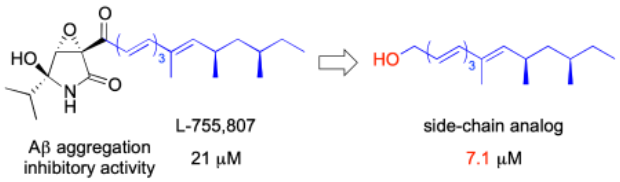
Synlett **2019**, 30, 1561-1564.



22. "Studies toward Identifying the Pharmacophore of L-755,807 for Amyloid-β Aggregation Inhibitory Activity."

Kobayashi, K.; Tanaka, K., III; Honma, Y.; Suzuki, M.; Kogen, H.

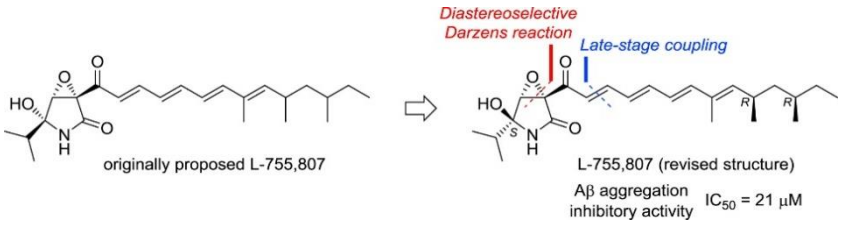
Heterocycles **2019**, 98, 1769-1776.



23. "Total synthesis, stereochemical assignment, and biological evaluation of L-755,807"

Tanaka, K., III; Honma, Y.; Yamaguchi, C.; Aoki, L.; Saito, M.; Suzuki, M.; Arahata, K; Kinoshita, K; Koyama, K.; Kobayashi, K.; Kogen, H.

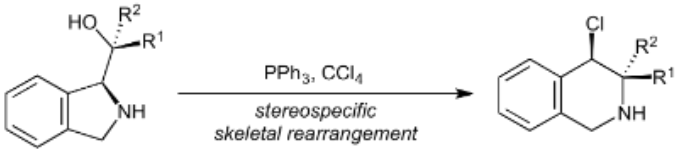
Tetrahedron **2019**, 75, 1085-1097.



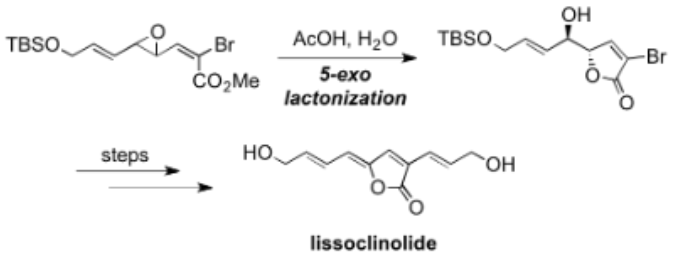
24. "Stereospecific Ring-Expanding Skeletal Rearrangement of Isoindoline to Tetrahydroisoquinoline via a Sequential Aziridine Ring Formation/Opening"

Kobayashi, K.; Kuwahara, K.; Tanaka, K., III; Kunimura, R.; Kogen, H.

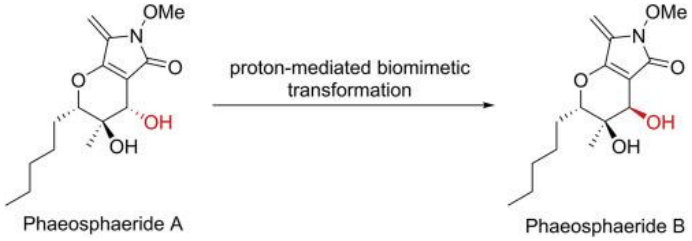
Heterocycles **2019**, 99, 1239-1250.



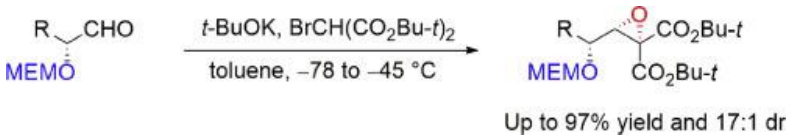
25. “Total synthesis of lissoclinolide by acid-induced lactonization of an (*E*)-α-bromo-γ,δ-epoxy acrylate derivative”
Kobayashi, K.; Kuwahara, K.; Tanaka, K., III; Kunimura, R.; Kogen, H.
Heterocycles **2018**, 97, 1019-1027.



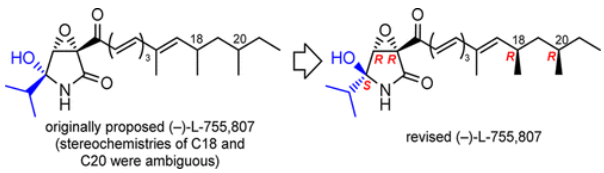
26. “Total synthesis of (−)-phaeosphaeride B by a biomimetic conversion from (−)-phaeosphaeride A.”
Kobayashi, K.; Kunimura, R.; Tanaka, K., III; Tamura, O.; Kogen, H.
Tetrahedron **2017**, 73, 2382-2388.



27. “Efficient synthesis of *syn*-α-alkoxy epoxide via a diastereoselective Darzens reaction”
Tanaka, K., III; Kobayashi, K.; Takatori, K.; Kogen, H.
Tetrahedron **2017**, 73, 2062-2067.



28. “Total Synthesis of (−)-L-755,807: Establishment of Relative and Absolute Configurations”
Tanaka, K., III; Kobayashi, K.; Kogen, H.
Org. Lett. **2016**, *18*, 1920-1923.

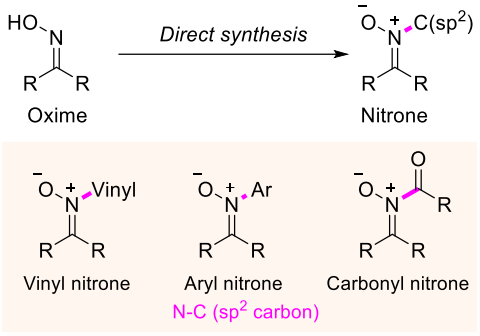


Review:

29. "Recent Advances in the Direct N–C(sp2) Nitrone Synthesis from Oxime"

    Tanaka, K. III

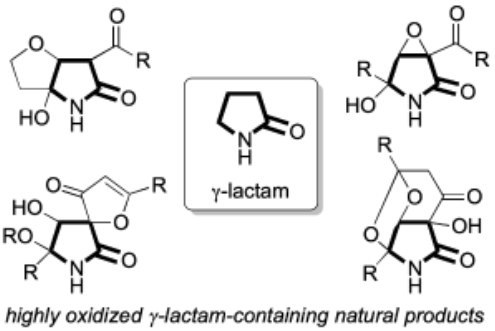
    Eur. J. Org. Chem. **2024**, e202400202.



30. "Highly Oxidized γ-Lactam-Containing Natural Products: Total Synthesis and Biological Evaluation"

    Tanaka, K. III; Kobayashi, K.; Kogen, H.

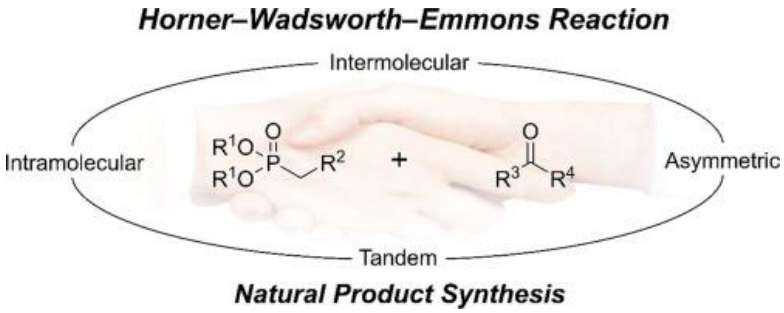
    Heterocycles **2021**, *7,* 1235–1285.



31. "Recent topics of the natural product synthesis by Horner–Wadsworth–Emmons reaction"

    Kobayashi, K.; Tanaka, K. III; Kogen, H.

    Tetrahedron Let. **2018,** *59*, 568–582.



32. "Total synthesis and biological evaluation of phaeosphaeride"

    Kobayashi, K.; Tanaka, K. III; Kogen, H.

    Catalysts **2018**, *8*, 206–215.