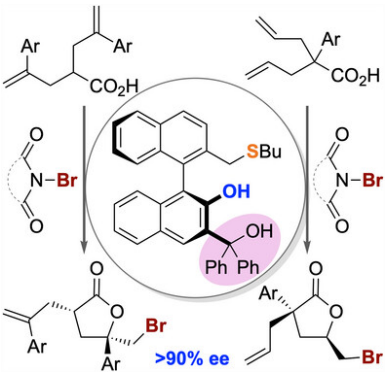
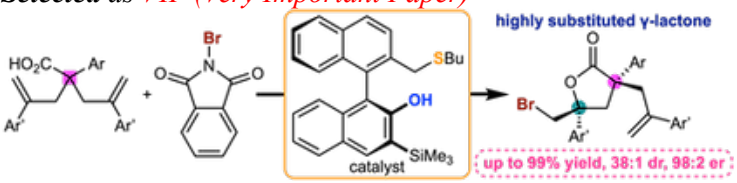
Original Papers

2025

Synthesis of a BINOL-Derived Sulfide Catalyst Bearing a Diphenylmethanol Unit and Its Application in Asymmetric Bromolactonizations
Y. Furuya, R. Nishiyori, S. Shirakawa*
Asian J. Org. Chem. **2025**, *14*, e00249.

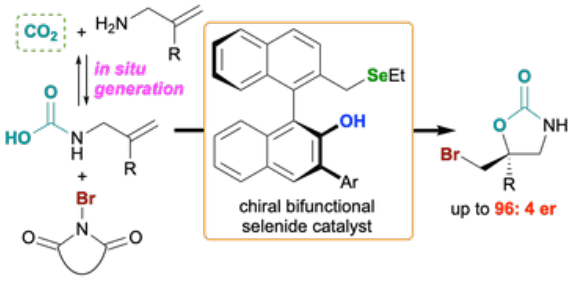


Asymmetric Synthesis of γ-Lactones Bearing α,γ-Bis-quaternary Stereocenters via Chiral Bifunctional Sulfide-Catalyzed Desymmetrizing Bromolactonization
Y. Furuya, R. Nishiyori, K. Okuno, T. Mori, S. Sumida, M. Yamakawa, and S. Shirakawa*
Asian J. Org. Chem. **2025**, *4*, e202500062.
Selected *as VIP (Very Important Paper)*

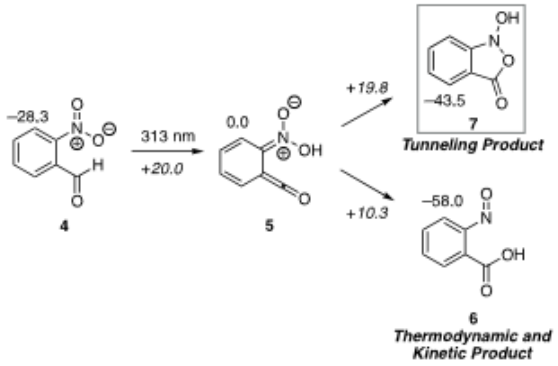


2023

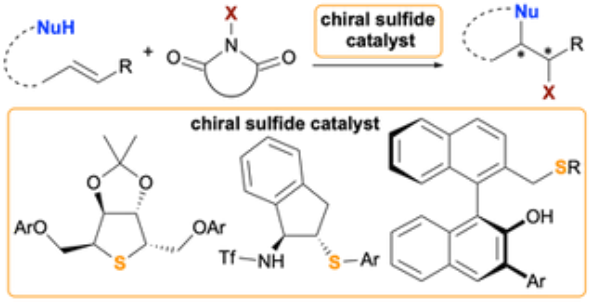
Catalytic asymmetric CO2 utilization reaction for the enantioselective synthesis of chiral 2-oxazolidinones
R. Nishiyori, T. Mori, and S. Shirakawa*
Org. Biomol. Chem. **2023**, *21*, 4002–4006.



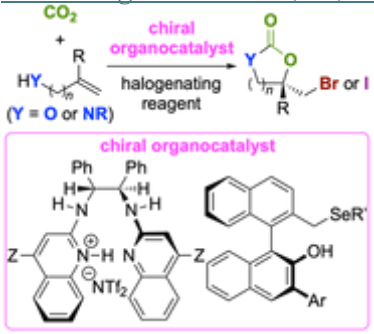
トンネル効果支配：速度論および熱力学支配に次ぐ第三の反応性パラダイム
西依隆一
有機合成化学協会誌 **2023**, *81*, 731–732.



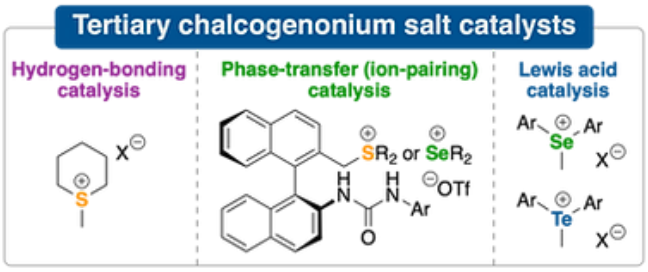
Chiral Sulfide and Selenide Catalysts for Asymmetric Halocyclizations and Related Reactions
R. Nishiyori, T. Mori, K. Okuno, and S. Shirakawa*
Org. Biomol. Chem. **2023**, *21*, 3263–3275.



Chiral Organocatalysts in Enantioselective CO_2 Utilization Reactions
T. Mori, R. Nishiyori, S. Sumida, Y. Furuya, and S. Shirakawa*
Eur. J. Org. Chem. **2023**, *26*, e202300551.

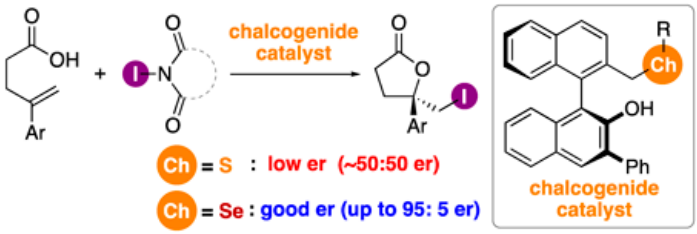


Catalysis by Tertiary Chalcogenonium Salts
K. Okuno, R. Nishiyori, and S. Shirakawa*
Tetrahedron Chem **2023**, *6*, 100037.

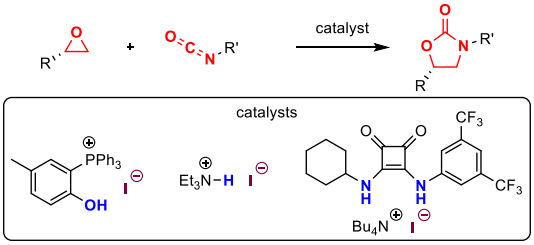


2022

Chiral Bifunctional Selenide Catalysts for Asymmetric Iodolactonizations
R. Nishiyori, K. Okuno, B. Chan, and S. Shirakawa*
Chem. Pharm. Bull. **2022**, *70*, 599–604.

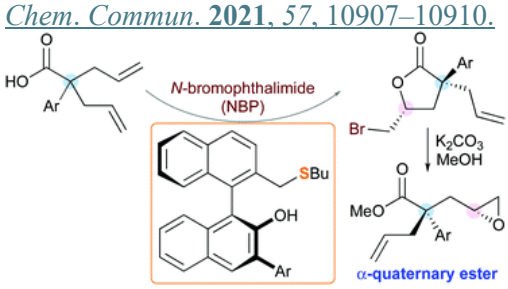


Efficient Methods for the Synthesis of Chiral 2-Oxazolidinones as Pharmaceutical Building Blocks
K. Okuno, R. Nishiyori, K. Abe, T. Mori, and S. Shirakawa*
Chirality **2022**, *34*, 915–924. (Special Issue)

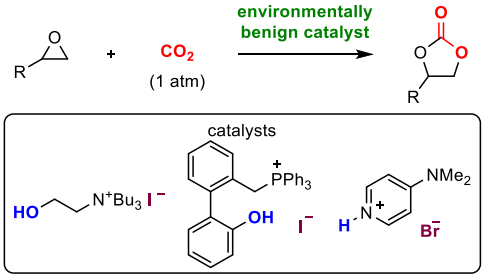


2021

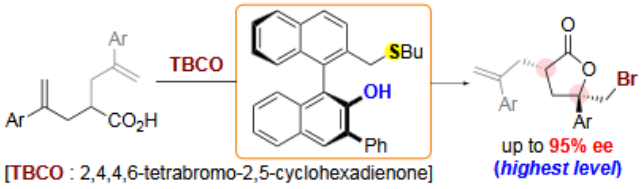
Efficient Asymmetric Syntheses of α-Quaternary Lactones and Esters through Chiral Bifunctional Sulfide-Catalyzed Desymmetrizing Bromolactonization of α, α-Diallyl Carboxylic Acids
M. Hiraki, K. Okuno, R. Nishiyori, A. A. Noser, and S. Shirakawa*
Chem. Commun. **2021**, *57*, 10907–10910.



Environmentally Benign Synthesis of Cyclic Carbonates from Epoxides and Carbon Dioxide using Binary and Bifunctional Catalysts
K. Okuno, R. Nishiyori, M. Hiraki, and S. Shirakawa*
Heterocycles **2021**, *103*, 94–109. (Special Issue) (Dedicated to Professor Yasuyuki Kita on the occacion of his 77th Birthday)

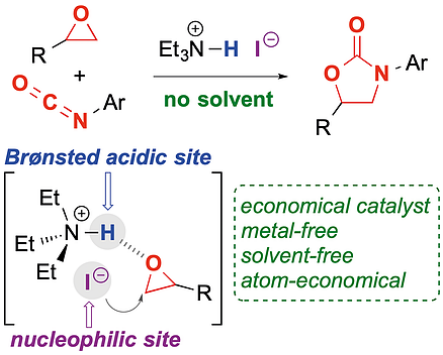


Chiral Bifunctional Sulfide-Catalyzed Highly Enantioselective Bromolactonizations of 4-Pentenoic Acids
R. Nishiyori, M. Okada, J. R. J. Maynard, and S. Shirakawa*
Asian J. Org. Chem. **2021**, *10*, 1444–1448.

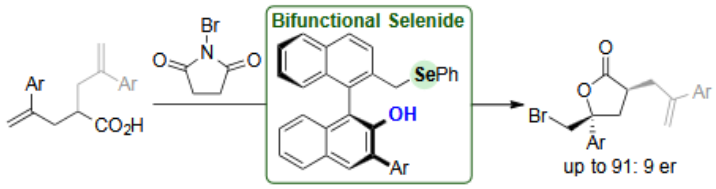


2020

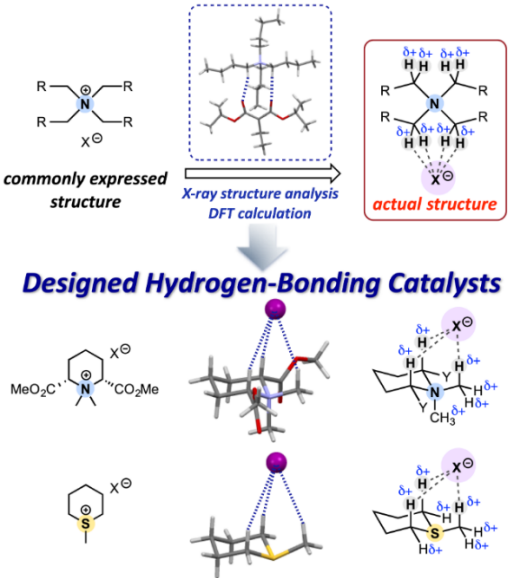
Triethylamine Hydroiodide as a Bifunctional Catalyst for the Solvent-Free Synthesis of 2-Oxazolidinones
R. Nishiyori, K. Okuno, and S. Shirakawa*
Eur. J. Org. Chem. **2020**, 4937–4941.
Highlighted *in ChemistryViews*



Chiral Bifunctional Selenide Catalysts for Asymmetric Bromolactonization
R. Nishiyori, J. R. J. Maynard, and S. Shirakawa*
Asian J. Org. Chem. **2020**, *9*, 192–196. (Special Issue) [Celebrating the 100th Annual Meeting of the Chemical Society of Japan (CSJ)]

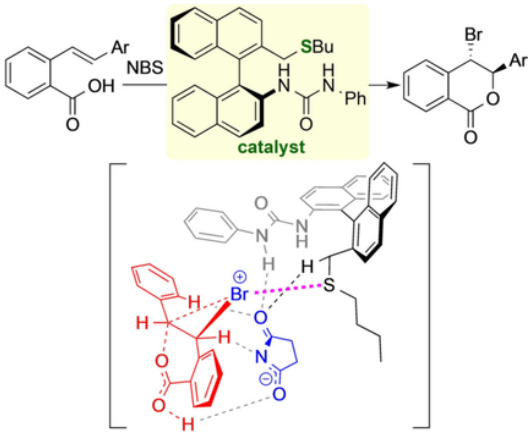


Hydrogen-Bonding Catalysis of Alkyl-Onium Salts
T. Nakamura, K. Okuno, R. Nishiyori, and S. Shirakawa*
Chem. Asian J. **2020**, *15*, 463–472. (Special Issue) [Celebrating the 100th Annual Meeting of the Chemical Society of Japan (CSJ)]



2018

Design of Chiral Bifunctional Dialkyl Sulfide Catalysts for Regio-, Diastereo-, and Enantioselective Bromolactonization
R. Nishiyori, A. Tsuchihashi, A. Mochizuki, K. Kaneko, M. Yamanaka, and S. Shirakawa*
Chem. Eur. J. **2018**, *24*, 16747–16752.
Selected *as Hot Paper*



KI-Tetraethylene Glycol Complex as an Effective Catalyst for the Synthesis of Cyclic Thiocarbonates from Epoxides and CS_2
M. Okada, R. Nishiyori, S. Kaneko, K. Igawa, and S. Shirakawa*
Eur. J. Org. Chem. **2018**, 2022–2027.
Selected *as VIP (Very Important Paper) in EJOC*