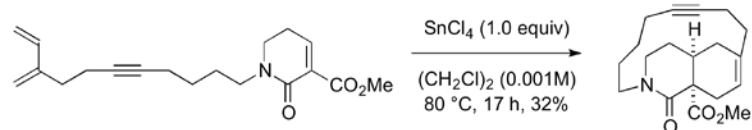


■ EDITOR'S REMARK

- 1 **Editor's Remark**
HETEROCYCLES Contents*

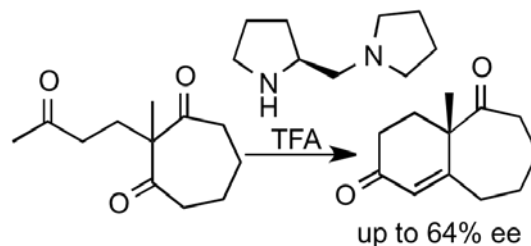
■ COMMUNICATIONS

- 3 **Synthetic Studies on Keramaphidin B: Formation of a Macrocyclic Ring by Intramolecular Diels-Alder Reaction**
Hiroki Shimoda, Takahiro Shibata, Daisuke Sekine, and Masahisa Nakada*



Alkaloid Diels-Alder Reaction Keramaphidin B Macrocyclic Ring Formation Synthetic Study

- 12 **Alternative Chiral Preparations of a Swaminathan Ketone via Asymmetric Aldol Reactions Mediated by Chiral Amines Bearing a Pyrrolidine**
Yuichi Akahane, Arisa Miura, and Kohei Inomata*

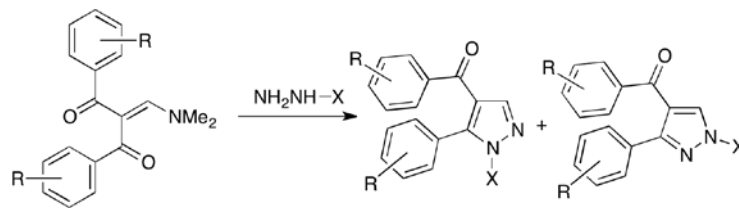


Organocatalysis Swaminathan-Narayanan Ketone 2-(Pyrrolidinylmethyl)pyrrolidine Chiral Synthesis Lipase

■ PAPERS

25 Synthesis of 4-Aroyl-5-arylpyrazoles and 4-Aroyl-3-arylpyrazoles via the Reaction of Enaminodiketones with Substituted Hydrazines

Rika Kotouge, Takashi Nishiyama, Akira Yamauchi, Kanako Ono, Noriyuki Hatae, Tsutomu Oikawa, Satoshi Hibino, and Tominari Choshi*



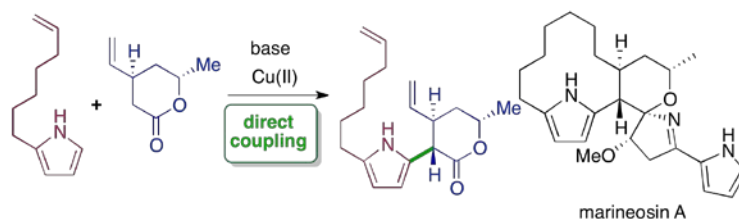
Regioselective Synthesis

1-Substituted 4-Aroyl-5-arylpyrazole

1-Substituted 4-Aroyl-3-arylpyrazole

46 Synthetic Studies on Marineosins Based on a Direct Coupling Reaction of Pyrrole and δ -Lactone

Kohei Yamamoto, Yuki Morii, Akihisa Suga, Keita Komine, Hayato Fukuda, Jun Ishihara,* and Susumi Hatakeyama*



Alkaloid

Natural Product Synthesis

Direct Coupling Reaction

Pyrrole

60 Artificial Intelligence-Designed Stereoselective One-Pot Synthesis of *trans*- β -Lactams and Its Application to Cholesterol Absorption Inhibitor SCH 47949 Synthesis

Tetsuhiko Takabatake, Takumi Yoneda, Jyo Otsuka, Natsuko Kagawa, and Masahiro Toyota*



Artificial Intelligence

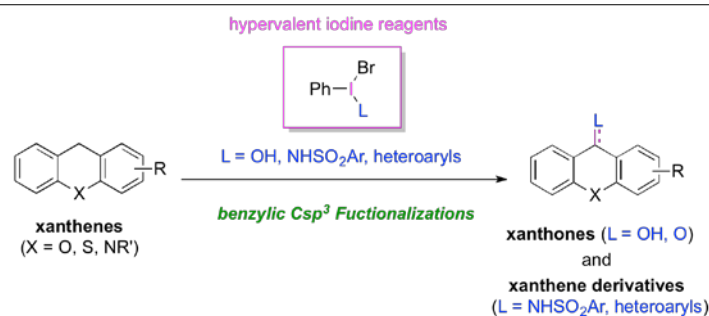
trans- β -Lactam Synthesis

Cholesterol Absorption Inhibitor

SCH 47949

85 Benzylic Oxidation and Functionalizations of Xanthenes by Ligand Transfer Reactions of Hypervalent Iodine Reagents

Toshifumi Dohi,* Keina Komiyama, Shohei Ueda, Nobutaka Yamaoka, Motoki Ito, and Yasuyuki Kita*



Hypervalent Compound

Xanthene

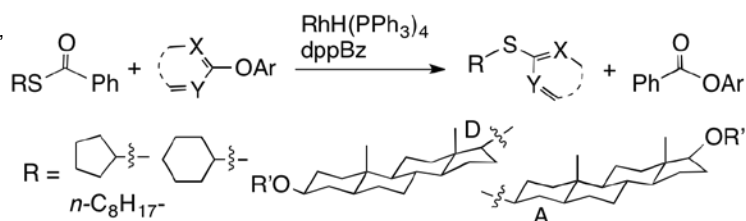
Functionalization

Ligand Transfer

Arylation

104 Synthesis of Cycloalkyl/Steroidal Heteroaryl Sulfides Using Rhodium-Catalyzed Heteroaryl Exchange Reaction

Mieko Arisawa,* Katsuya Nakai, Tomoki Yamada, Ren Suzuki, and Masahiko Yamaguchi*



Cycloalkyl/Steroidal Heteroaryl Sulfide

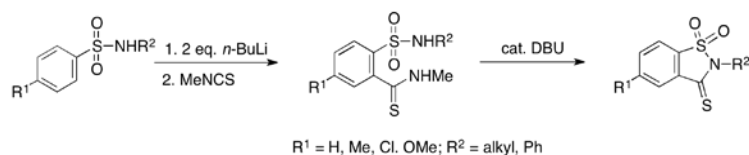
Rhodium-Catalyzed Heteroaryl Exchange Reaction

Heteroarylthiolation

■ SHORT PAPERS

- 119 **Synthesis of 1,2-Benzothiazole-3(2*H*)-thione 1,1-Dioxides by DBU-Promoted Cyclization of 2-(Aminosulfonyl)-*N*-methylbenzothioamide Derivatives**

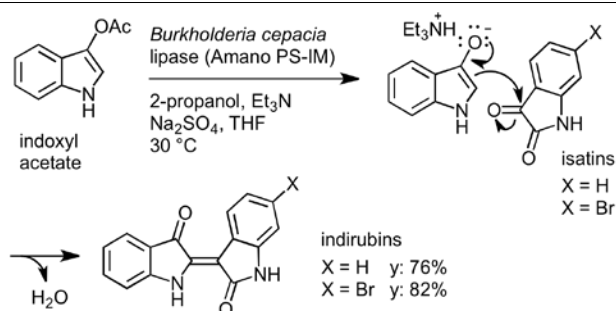
Kazuhiro Kobayashi* and Daiki Fujiwara



1,2-Benzothiazole-3(2*H*)-thione 1,1-Dioxide 2,*N*-Dilithiobenzenesulfonamide Isothiocyanate DBU Thiosaccharin

- 129 **Syntheses of Indirubins by Aldol Condensation of Isatins with Indoxyl Anion Generated *in situ* by Lipase-Catalyzed Deacetylation of Indoxyl Acetate**

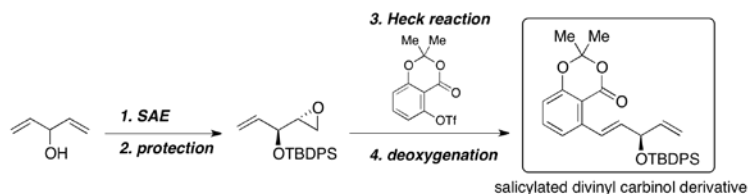
Takeshi Sugai,* Kengo Hanaya, and Shuhei Higashibayashi



Indirubin Lipase Transesterification Aldol Condensation

- 137 **An Improved Synthesis of a Salicylated Divinylcarbinol Derivative as a Part of Salicylic Macrolides**

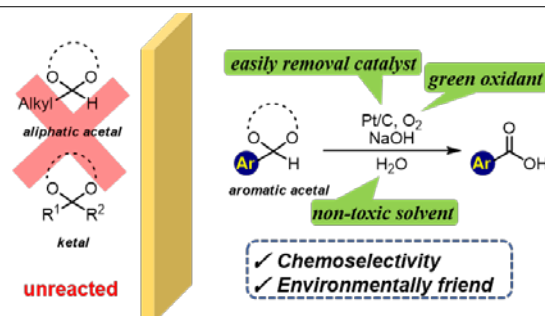
Aki Kohyama, Yoshihito Oguma, Takumi Yamagishi, Kenji Sugimoto, and Yuji Matsuya*



Sharpless Asymmetric Epoxidation Salicylic Macrolide

- 145 **Platinum on Carbon-Catalyzed and Chemoselective Aqueous Oxygen Oxidation of Aromatic Acetals to Benzoic Acids**

Naoki Yasukawa, Takumi Matsuda, Eisho Shimizu, Hironao Sajiki,* and Yoshinari Sawama*



Chemoselectivity Oxygen Water Solvent Green Reaction Acetal

■ TOTAL SYNTHESIS OF HETEROCYCLIC NATURAL PRODUCTS

- 153 Polyketides
 - 155 Aromatics
 - 158 Terpenes
 - 159 Alkaloids
 - 166 Miscellaneous
-

■ BRUSH UP YOUR HETEROCYCLES

- 167 Brush Up Your Heterocycles
-

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