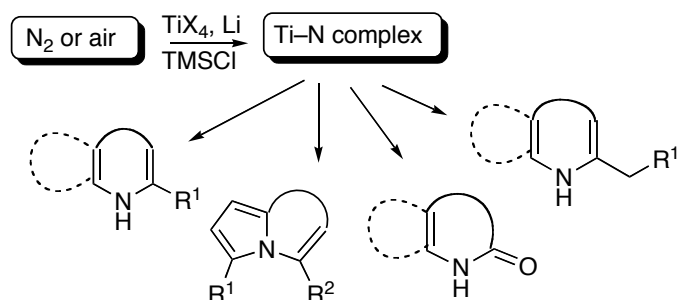


■ REVIEW

- 281 **Synthesis of Nitrogen Heterocycles Utilizing Molecular Nitrogen as a Nitrogen Source and Attempt to Use Air Instead of Nitrogen Gas**

Miwako Mori*

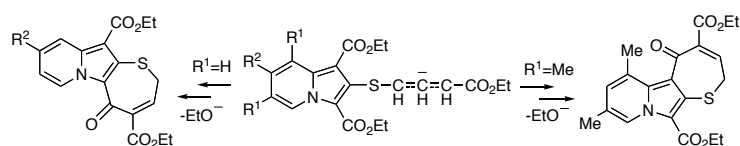


Nitrogen Fixation Titanium Nitrogen Complex Nitrogenation Nitrogen Nitrogen Heterocycle

■ COMMUNICATIONS

- 319 **First Formation of Thiepino[2,3-*b*]- and Thiepino[3,2-*a*]-indolizine Derivatives**

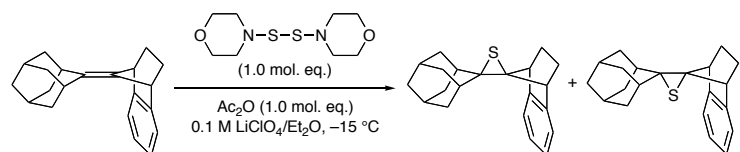
Hidetoshi Isawa, Hiroyuki Suga, and Akikazu Kakehi*



Cyclization Synthesis Thiepino[2,3-*b*]indolizine Thiepino[3,2-*a*]indolizine Allyl Anion

- 325 **Effect of a Metal Salt on Thiirane of 2'-Adamantylidene-9-benzonorborenylidene with 4,4'-Dithiodimorpholine and Acetic Anhydride**

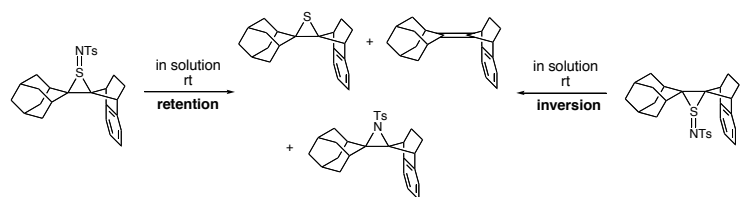
Yoshiaki Sugihara,* Hiroki Koyama, and Juzo Nakayama*



Thiirane Thiirane 4,4'-Dithiodimorpholine Acetic Anhydride Lithium Perchlorate

- 331 **Synthesis and Thermal Decomposition of Thiirane 1-Imides of 2'-Adamantylidene-9-benzonorborenylidene**

Yoshiaki Sugihara,* Ayumi Kobiki, and Juzo Nakayama*

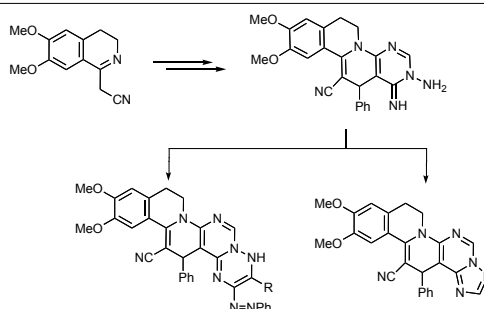


Thiirane 1-Imide 1,2-Thiazetidine Retention of Configuration Inversion of Configuration Aziridine

■ PAPERS

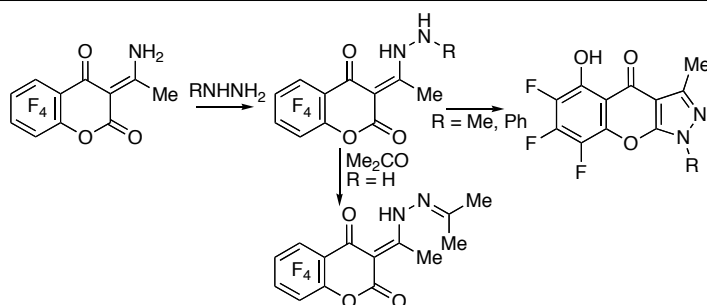
337 Synthesis of Tetra- and Penta-heterocyclic Compounds Incorporated Isoquinoline Moiety

Tayseer A. Abdallah,* Hamdi M. Hassaneen, and Hayam A. Abdelhadi


 Isoquinolino[2',1'-6,1]pyridine[2,3-*d*]pyrimidine 1,2,4-Triazolo[1,5-*e*]pyrimidine 1,2,4-Triazino[2,3-6,1]pyrimidine[4,5-*f*]quinolizine

347 Transformations of 3-(1-Aminoethylidene)-5,6,7,8-tetrafluorobenzopyran-2,4-dione with Hydrazines

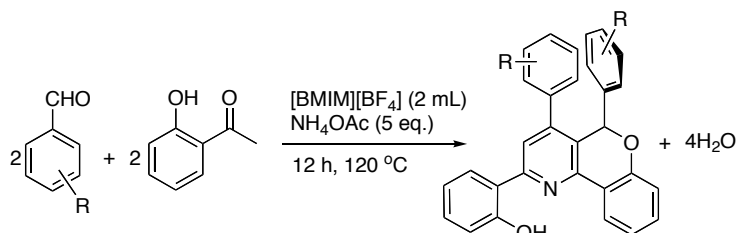
Konstantin V. Shcherbakov, Yanina V. Burgart, and Victor I. Saloutin*



3-(1-Aminoethylidene)-5,6,7,8-tetrafluorobenzopyran-2,4,-dione Fluorinated Recyclization Substitution Hydrazine

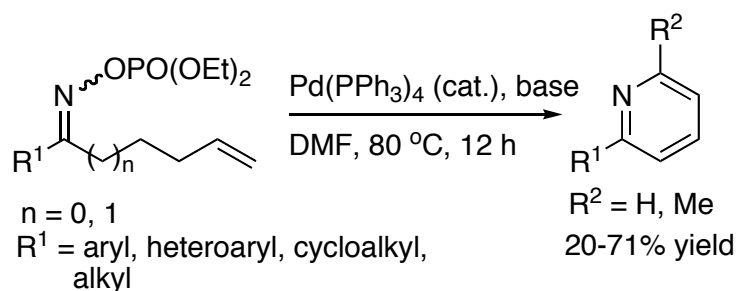
357 Synthesis of 2,4,5-Triaryl-5*H*-chromeno[4,3-*b*]pyridines in Ionic Liquid

Hui Wu,* Yu Wan, Xiu-mei Chen, Lei-lei Lu, Yang Shen, Cai-fa Chen, Hai-qiang Xin, Hua-hong Xu, Li-ling Pang, Rui Ma, and Cai-hui Yue


 Ionic Liquid 2,4,5-Triaryl-5*H*-chromeno[4,3-*b*]pyridine One-Pot Reaction Synthesis Aromatic Aldehyde

369 Studies on the Amino-Heck Reactions of Unsaturated Ketones *O*-Phosphinyloximes for the Preparation of Substituted Pyridines

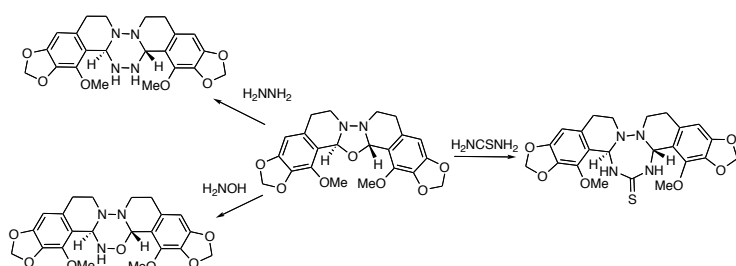
Jia-Liang Zhu,* Yi-Lin Su, Yu-An Chang, I-Chia Chen, and Chuan-Chen Liao



Amino-Heck Reaction Pyridine Phosphinyloxime Palladium Aza-Heterocycle

389 Chemistry of the Pseudobasic Amino Alcohols. Part 40. Synthesis of Three New Condensed Nitrogen Heterocyclic Systems

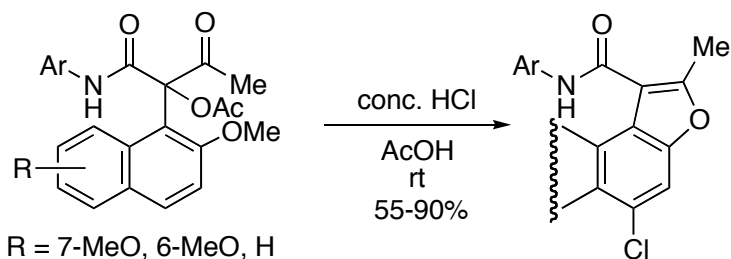
Dezső Korbonits,* Benjamin Podányi, Árpád Illár, Kálmán Simon, Miklós Hanusz, and István Hermez



Diisoquinoline Heptacycle Bis-Pseudosalt One-Pot Synthesis

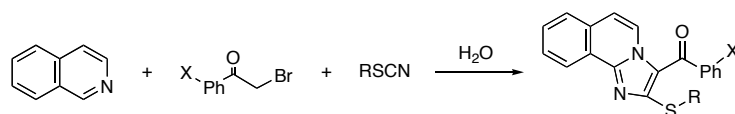
397 Synthesis of Unusual Naphtho[2,1-*b*]furans and Novel 1*H*-Benz[*e*]indolinones via Selective Intramolecular Cyclization

Zhiqi Cong and Hiroshi Nishino*


 5-Chloronaphtho[2,1-*b*]furan 1*H*-Benz[*e*]indolinone Intramolecular Cyclization Naphthoquinonemethide Benzyl-Type Oxidation

415 One-Pot Three Component Reaction for the Synthesis of 2-Alkylthio-3-arylimidazo[2,1-*a*]isoquinoline in Aqueous Media

Ebrahim Kianmehr,* Reza Faramarzi, and Hamid Estiri

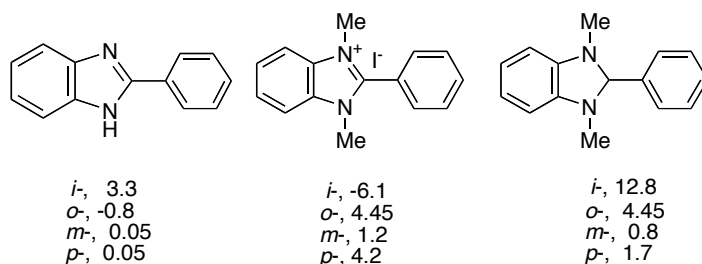


Ylide Multicomponent Reaction Thiocyanate Phenacyl Bromide

425 NMR Studies of 2-Aryl Derivatives of Benzimidazole, Benzimidazolium Ion, and Benzimidazoline

Chang Kiu Lee and In-Sook Han Lee*

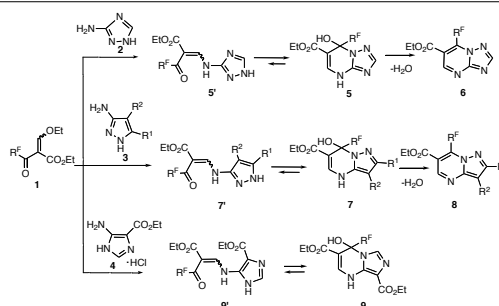
Substituent Parameters on the Chemical Shifts of Carbons



Benzimidazole Substituent Parameter on the Chemical Shift Hyperconjugation Shielding and Deshielding Orbital Hybridization

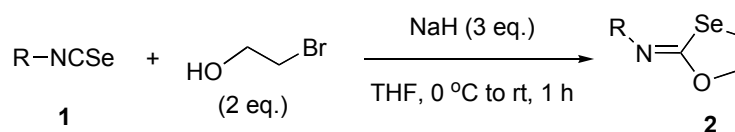
435 Synthesis of Fluoroalkylated Dihydroazolo[1,5-*a*]pyrimidines and Their Ring-Chain Isomerism

Marina V. Goryaeva,* Yanina V. Burgart, Victor I. Saloutin, Elena V. Sadchikova, and Evgeny N. Ulomskii


 Ethyl 2-Ethoxymethylidene-3-polyfluoroalkyl-3-oxopropionate Aminoazole Cyclization Dihydroazolo[1,5-*a*]pyrimidine Ring-Chain Isomerisation

449 One-Pot Synthesis of 2-Imino-1,3-oxaselenolanes by Reaction of Isoselenocyanates with 2-Bromoethanol

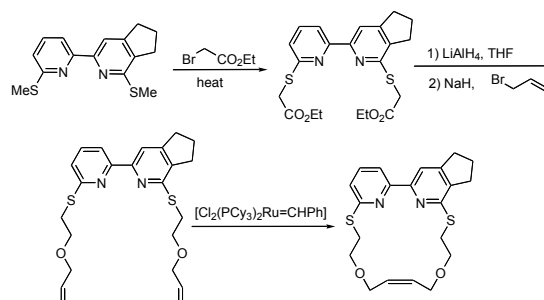
Yosuke Toyoda, Dinesh R. Garud, and Mamoru Koketsu*



Oxaselenolane Isoselenocyanate 2-Bromoethanol Thermal Rearrangement Selenazolidine

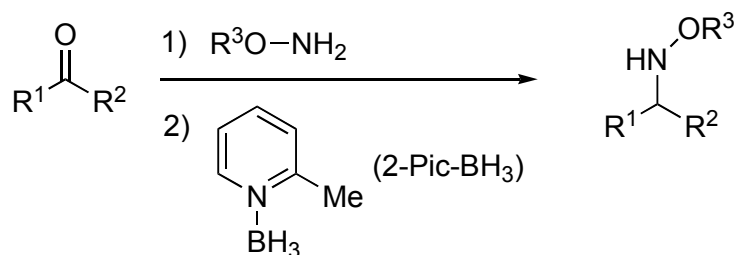
457 Synthesis of Cyclopenteno[*c*] Fused 2,2'-Bipyridine Based cyclophane by Ring-Closing Metathesis (RCM)

Justyna Ławecka, Danuta Branowska, Zbigniew Karczmazyk, and Andrzej Rykowski*


 Cyclophane Ring Closing Metathesis 2,2'-Bipyridine *S*-Transalkylation Diels-Alder / *Retro*-Diels-Alder Reaction

463 One-Pot Synthesis of Alkoxyamine Derivatives by Reductive Alkoxyamination with a 2-Picoline-Borane Complex

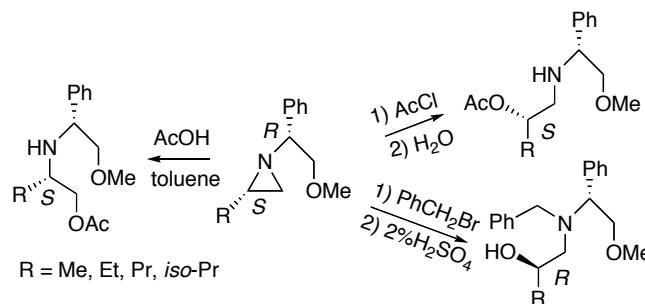
Yasushi Kawase, Takehiro Yamagishi, Teruo Kutsuma, Kimio Udea, Takeo Iwakuma, Tadashi Nakata, and Tsutomu Yokomatsu*



Heterocyclic Compound-Borane Complex Reductive Amination Aldehyde Ketone Reduction of Oxime Ether

471 Regio- and Stereoselective Ring-Opening Reaction of Chiral Aziridines: A Facile Synthesis of Chiral β -Amino Alcohols

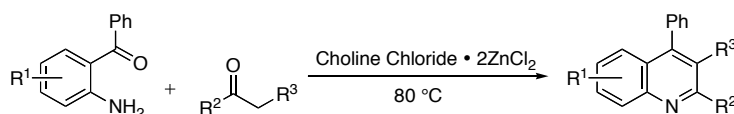
Kimio Higashiyama,* Masataka Matsumura, Hiroshi Kojima, and Takayasu Yamauchi


 R = Me, Et, Pr, *iso*-Pr

 Chiral Aziridine Ring-Opening β -Amino Alcohol Regioselectivity Stereoselectivity

NOTE
487 An Efficient Protocol for the Friedländer Quinoline Synthesis Using the Lewis Acidic Ionic Liquid Choline Chloride \cdot 2ZnCl₂

Huey-Min Wang,* Rei-Sheu Hou, Hui-Ting Cheng, and Ling-Ching Chen*


 Annulation *o*-Aminoaryl Ketone Cyclodehydration Ionic Liquid Friedländer Reaction

■ NEW HETEROCYCLIC NATURAL PRODUCTS

- 495 Polyketides
 - 496 Aromatics
 - 507 Terpenes
 - 524 Steroids
 - 526 Alkaloids
 - 536 Miscellaneous
-

■ TOTAL SYNTHESIS OF HETEROCYCLIC NATURAL PRODUCTS

- 537 Polyketides
 - 541 Aromatics
 - 545 Alkaloids
 - 550 Miscellaneous
-

■ ADDITIONS AND CORRECTIONS

- 553 Chemistry of 1-Methylenesugars: Synthetic Utilizations to 1'-C-Methyl-saccharides and Related Carbohydrates
Rie Namme and Shiro Ikegami*
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