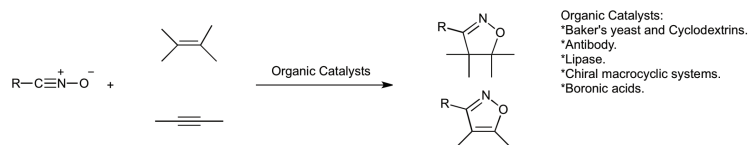


■ REVIEWS

725 Mini-Review: Organic Catalysts in the 1,3-Dipolar Cycloaddition Reactions of Nitrile Oxides

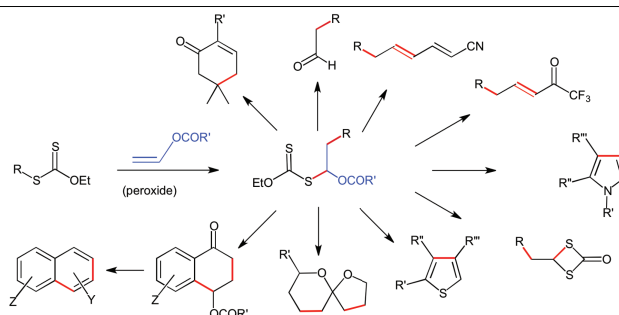
Silvia Roscales* and Joaquín Plumet*



Nitrile Oxide Click Chemistry Organic Catalyst

742 Xanthates and Vinyl Esters, a Remarkably Powerful Alliance

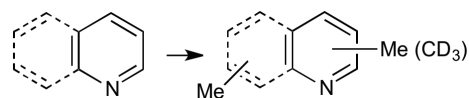
Béatrice Quiclet-Sire and Samir Z. Zard*



Vinyl Ester Radical Addition Pyrrole Thiophene Naphthalene

766 Introducing a Methyl Group into Pyridines and Quinolines: A Mini-Review

Eliezer Falb and Alfred Hassner*

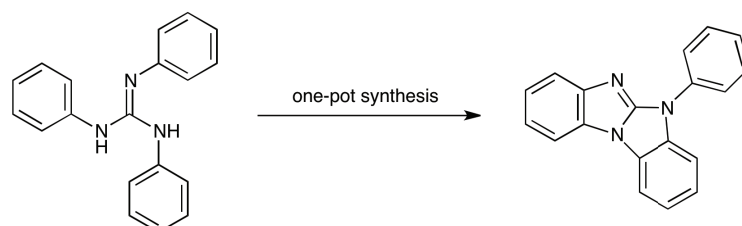


Pyridine Quinoline Methylation/Deuteromethylation Photoredox Catalysis

■ COMMUNICATIONS

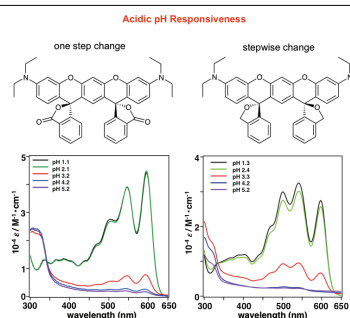
815 Synthesis of a Tetracyclic Aminobenzimidazole Derivative via Tandem Cyclization of Triphenylguanidine

Yuki Akamatsu, Shinichiro Kamino, and Daisuke Sawada*



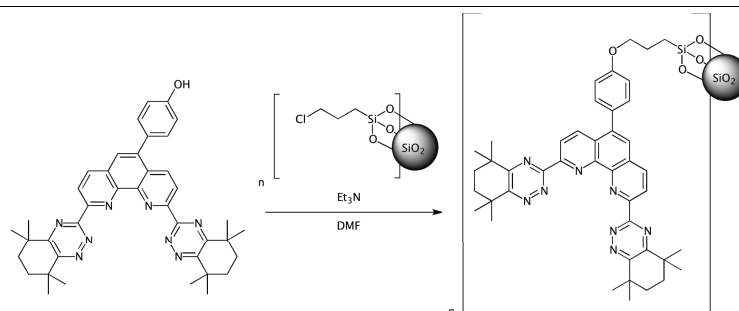
Guanidine Aminobenzimidazole C-H Activation Cyclization

- 820 Syntheses and Acid-Stimulus Responsiveness of Aminobenzopyranoxanthene Spiroethers**
 Ryosuke Hosoda, Shinichiro Kamino,* Masashi Ueda, and Daisuke Sawada*



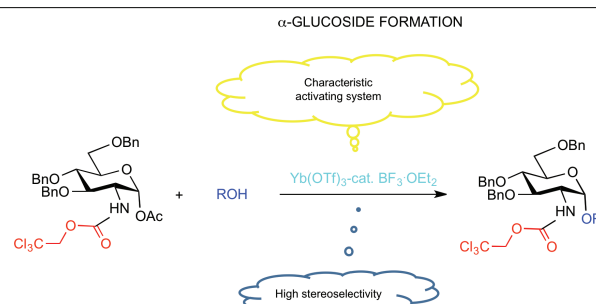
Aminobenzopyranoxanthene Acid-Stimulus Responsiveness pH Responsiveness

- 825 Separation of Minor Actinides from Lanthanides Using Immobilized Ligand Systems: The Role of the Counterion**
 Ashfaq Afsar, Petr Distler, Laurence M. Harwood,* Jan John, Jasraj S. Babra, Zoe Y. Selfe, Joeseeph Cowell, and James Westwood



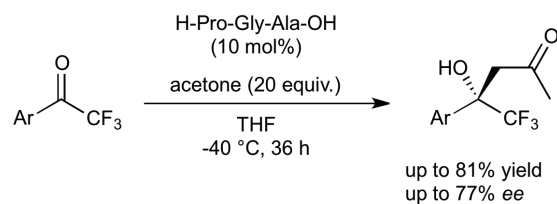
Extraction CyMe4-BTPhen SANEX CyMe4-BTPhen Functionalized Silica Gel Counterion

- 834 α -Glucoside Formation from 2-Deoxy-2-(2,2,2-trichloroethoxycarbonylamido)- α -D-glucopyranosyl Acetate Using an Activating System That Used a Combination of Ytterbium(III) Triflate and a Catalytic Boron Trifluoride Diethyl Etherate Complex**
 Takashi Yamanoi,* Yoshiki Oda, Akihiko Koizumi, Tsubasa Kawaguchi, Shin Yagihara, and Akihiro Yoshida



α -Glucoside Formation 2-Amino-2-deoxy- α -D-glucopyranoside 2-Deoxy-2-(2,2,2-trichloroethoxycarbonylamino)-D-glucopyranosyl Acetate

- 841 Tripeptide-Catalyzed Asymmetric Aldol Reaction of Trifluoromethylated Aromatic Ketones with Acetone**
 Kazumasa Kon, Yoshihito Kohari,* and Miki Murata



Peptide Catalyst Aldol Reaction Trifluoromethyl Ketone Organocatalyst

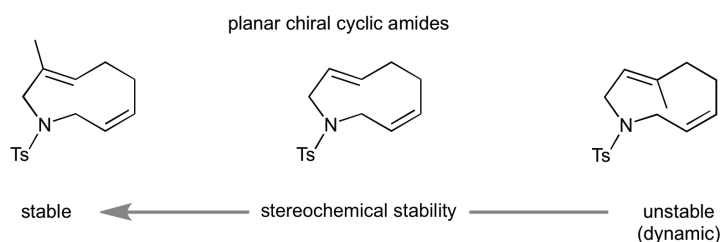
- 848 An Intermolecular [4+3] Cycloaddition Reaction Using 3-Hydroxy-2-pyrone Derivatives with an Oxyallyl Cation**
 Takahiro Suzuki,* Takamune Yanagisawa, and Keiji Tanino*



2-Pyrone [4+3] Cycloaddition Reaction Oxyallyl Cation

856 Synthesis and Stereochemical Analysis of Dynamic Planar Chiral Nine-Membered Diallylic Amide: Significant Substituent Effect on Stereochemical Stability

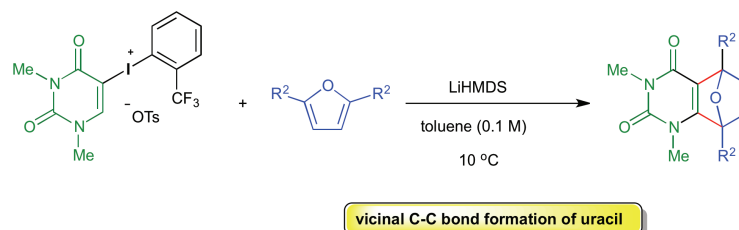
Jun-ichi Hayashi, Kazuhiro Uehara, Yusuke Ano, Yuuya Kawasaki, Kazunobu Igawa, and Katsuhiko Tomooka*



Medium-Sized Heterocycle Cyclic Amine Planar Chirality Dynamic Chirality

865 Vicinal Functionalization of Uracil Heterocycles with Base Activation of Iodonium(III) Salts

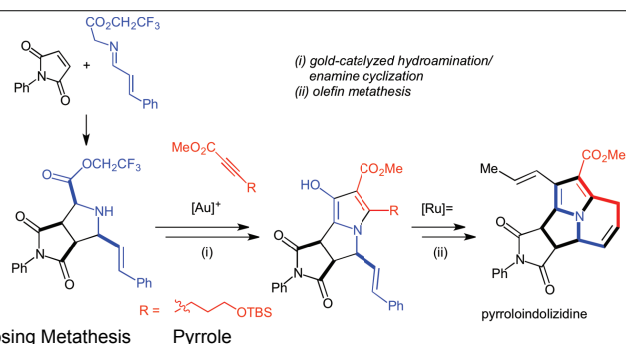
Naoko Takenaga,* Shohei Ueda, Takumi Hayashi, Toshifumi Dohi, and Shinji Kitagaki



Hypervalent Iodine Iodonium Salt Uracil Cycloaddition Difunctionalization

■ PAPERS
875 Synthetic Studies on Pyrroloindolizidine Skeleton Based on Gold-Catalyzed Hydroamination–Enamine Cyclization–Ring-Closing Metathesis Strategy

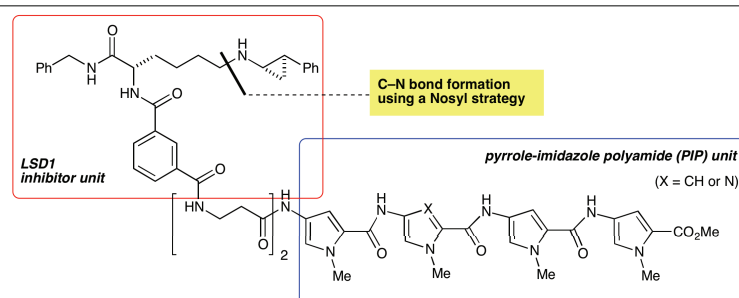
Kenji Sugimoto,* Natsumi Matsuo, Daisuke Tominaga, and Yuji Matsuya*



Pyrroloindolizidine Hydroamination Enamine Cyclization Ring-Closing Metathesis Pyrrole

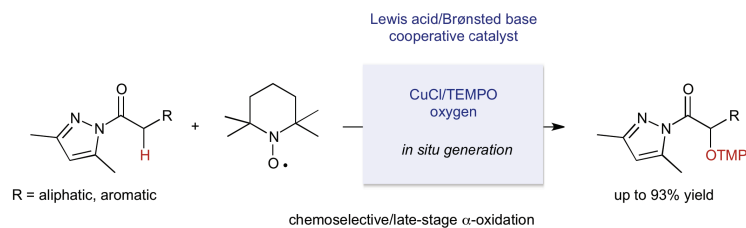
891 Synthesis of LSD1 Inhibitor-Pyrrole-Imidazole Polyamide Conjugates for Region-Specific Alterations of Histone Modification

Rui Qin, Shihori Takayanagi, Yusuke Kondo, Jiawei Li, Naoki Shiga, Masaya Nakajima, Ken-ichi Shinohara, Natsumi Yoda, Takayoshi Suzuki, Atsushi Kaneda, and Tetsuhiro Nemoto*



Amide Condensation Pyrrole Imidazole Inhibitor

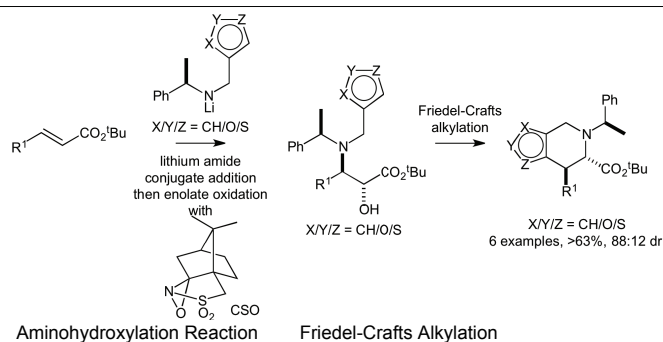
- 906 Mechanistic Insight into Catalytic Aerobic Chemoselective α -Oxidation of Acylpyrazoles**
 Seiya Taninokuchi, Ryo Yazaki,* and Takashi Ohshima*



Acylpyrazole α -Oxidation Copper(II) Catalyst Cooperative Catalyst Late-Stage Functionalization

- 919 Rapid Stereoselective Syntheses of Heteroarene-Fused Azacycles via Diastereoselective Conjugate Addition of Heteroaryl Substituted Lithium Amides**

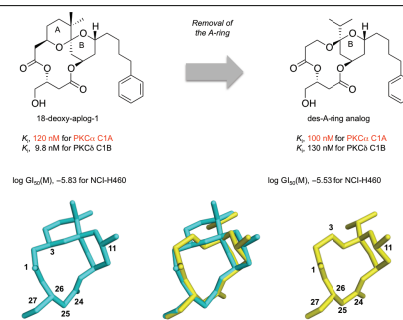
Stephen G. Davies,* Ai M. Fletcher, Katherine E. Holder, Paul M. Roberts, James E. Thomson, and David Zimmer



Lithium Amide Conjugate Addition Heteroarene-Fused Azacycle Aminohydroxylation Reaction Friedel-Crafts Alkylation

- 942 Synthesis, Conformation, and Biological Activities of a Des-A-Ring Analog of 18-Deoxy-Aplog-1, a Simplified Analog of Debromoaplysiatoxin**

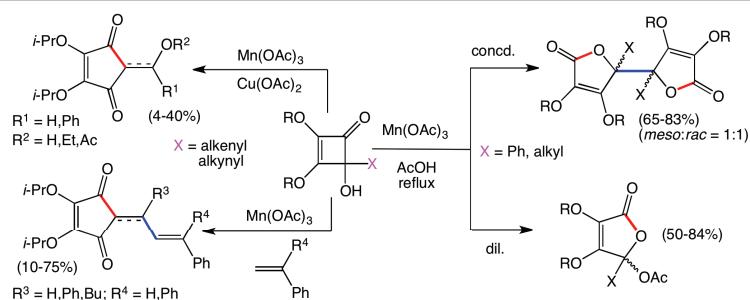
Yoshiki Ashida, Ryo C. Yanagita,* Yasuhiro Kawanami, Mutsumi Okamura, Shingo Dan, and Kazuhiro Irie



Tumor Promoter Aplysiatoxin Debromoaplysiatoxin Protein Kinase C Simplified Analog

- 958 Mn(III)-Based Oxidative Radical Ring-Expansion Reaction Using Squarate Derivatives: Selective Synthesis of Bis(butenolide)s and the Acetate Monomers**

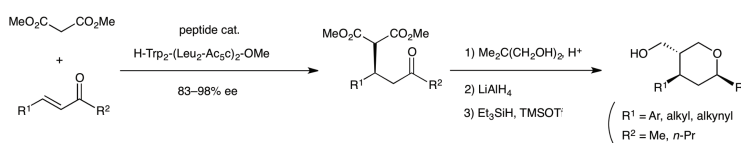
Jun-ichi Sasaki, Makoto Kobayashi, Yūsuke Ibe, and Hiroshi Nishino*



Bis(butenolide) Acetoxybutenolide Oxidative Cyclization 5-endo Cyclization Manganese(III) Acetate

- 989 Enantioselective Synthesis of 2,4,5-Trisubstituted Tetrahydropyrans via Peptide-Catalyzed Michael Addition Followed by Kishi's Reductive Cyclization**

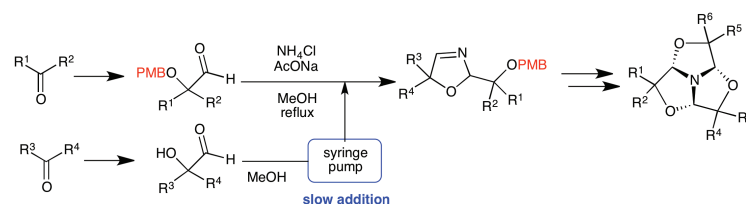
Atsushi Ueda,* Mei Higuchi, Tomohiro Umeno, and Masakazu Tanaka*



Peptide Catalyst Tetrahydropyran Michael Addition Reductive Cyclization

1003 The Practical Synthesis of Dissymmetrical 1,3,5-Trioxazatriquinane Derivatives Comprised of Three Distinct Carbonyl Compounds

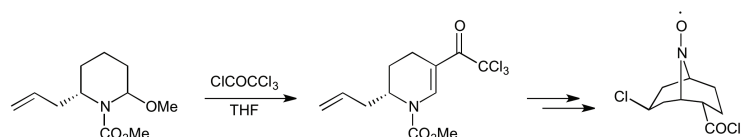
Shigeto Hirayama, Koji Obayashi, Naohisa Wada, Kousuke Ohyama, Shizuho Fuku, Koji Koyano, Fumika Karaki, Kenosuke Itoh, Hiroshi Nagase, and Hideaki Fujii*



1,3,5-Trioxazatriquinane Practical Synthesis

1020 β -Trichloroacetylation of Cyclic Amines: Application to Synthesis of Chiral Azabicyclo-*N*-oxyls

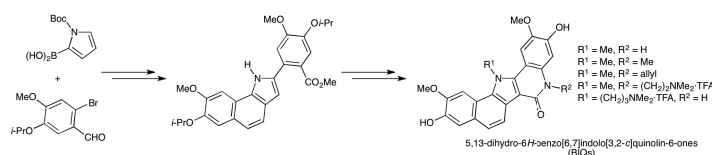
Masami Kuriyama, Satoshi Kamogawa, Kosuke Yamamoto, and Osamu Onomura*



Trichloroacetylation Cyclic Amine Azabicyclo Compound Chiral *N*-Oxyl

1032 Synthesis and Evaluation of Topoisomerase I Inhibitors Possessing the 5,13-Dihydro-6*H*-benzo[6,7]indolo[3,2-*c*]-quinolin-6-one Scaffold

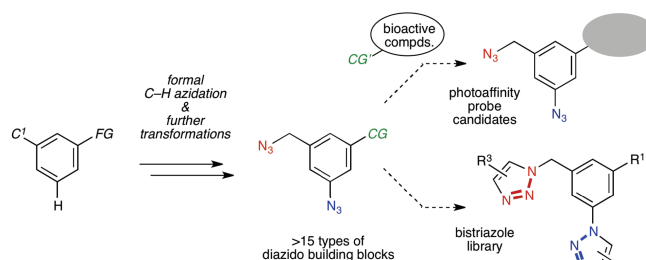
Tsutomu Fukuda,* Yuri Matsuo, Fuyuki Matsuoka, Naoki Yoshioka, Gen Onodera, Masanari Kimura, Fumito Ishibashi, and Masatomo Iwao



Topoisomerase I Inhibitor Lamellarin D BBPI Azalamellarin D Antitumor Activity

1053 Synthesis of Diverse 3-Azido-5-(azidomethyl)benzene Derivatives via Formal C–H Azidation and Functional Group-Selective Transformations

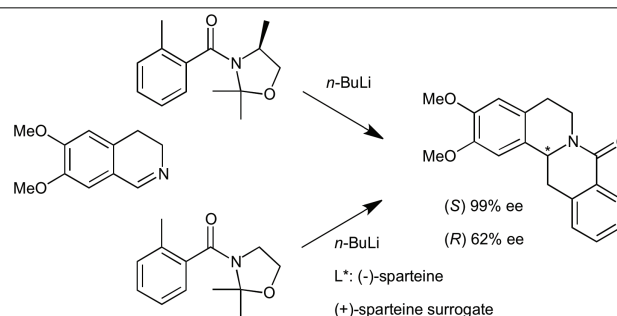
Yoshitake Nishiyama, Yoshihiro Misawa, Yuki Hazama, Kazuhiro Oya, Suguru Yoshida,* and Takamitsu Hosoya*



Azide Bistriazole Click Reaction Photoaffinity Probe Chemical Library

1073 Asymmetric Synthesis of 2,3-Dimethoxy-8-oxoberbine, Precursor of *O*-Methylbharatamine

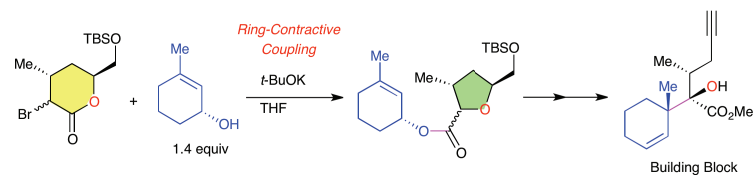
Maria Chrzanowska,* Agnieszka Dreas, and Zofia Meissner



8-Oxoberbine Chiral Oxazolidinone Lateral Metallation Methodology Asymmetric Synthesis

1086 Second-Generation Synthesis of a Chiral Building Block for Oxygenated Terpenoids via a Ring-Contractive Coupling with a Secondary Alcohol

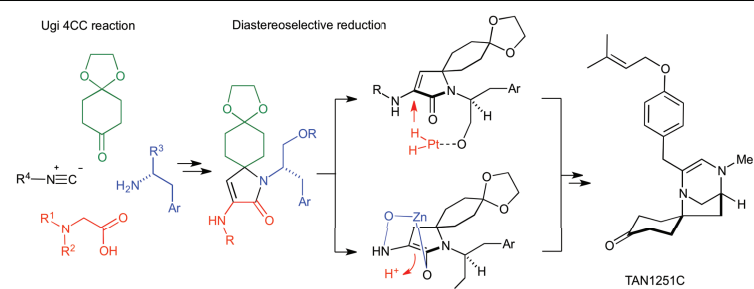
Sayuri Saito, Hiroyuki Yamakoshi, and Seiichi Nakamura*



Second-Generation Synthesis Chiral Building Block Ring-Contractive Coupling Secondary Alcohol

1095 Concise Synthesis of TAN1251C

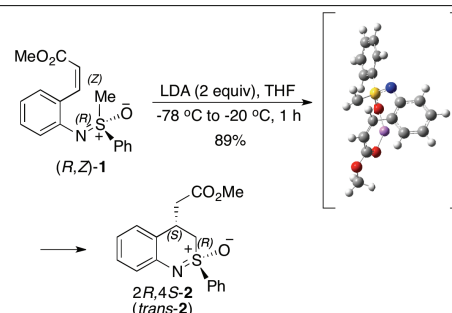
Yosuke Nagasaka, Tomohiro Asakawa, Sayaka Shintaku, Akitaka Masuda, Kosuke Matsumura, Makoto Inai, Yoshinobu Ishikawa, Masahiro Egi, Yoshitaka Hamashima, and Toshiyuki Kan*



TAN1251C Ugi 4CC Reaction Isonitrile Spiro Fused Alkaloid Diastereoselective Reduction

1117 The Effect of Lithium Ion on the Stereoselectivity of the Intramolecular Michael Addition of an *N*-Arylsulfoximine Anion

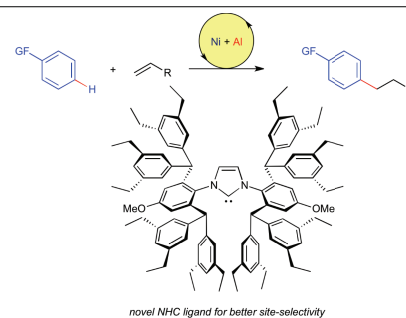
Aswin Garimalla, Quin Long, Christopher J. Cramer,* and Michael Harmata*



Sulfoximine Benzothiazine Lithium Michael Addition Asymmetric Induction

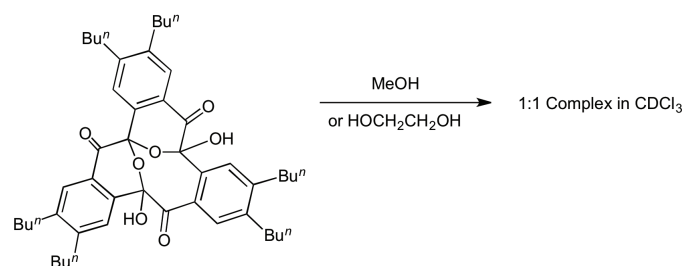
1128 Synthesis of *N*-Heterocyclic Carbene Ligands for Site-Selective C-H Alkylation by Cooperative Nickel/Aluminum Catalysis

Shogo Okumura, Tomohiro Ebara, Kazuhiko Semba, and Yoshiaki Nakao*


N-Heterocyclic Carbene C-H Activation

1145 Synthesis and Properties of a Tricyclic Hexaketone Monohydrate with Hexabutyl Side Chain

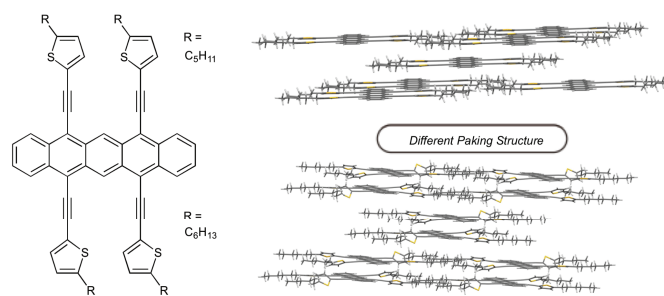
Mio Ishita, Masanori Ohkoshi, Yoshiyuki Kuwatani, Hiroyuki Otani, Tohru Nishinaga, and Masahiko Iyoda*



Annulene Polyone Ruthenium Catalyst Hemiacetal Benzopyranone Complex with Alcohol

1154 Packing and Thin-Film Structures of 5,7,12,14-Tetra(α -alkylthienylethyl)pentacenes

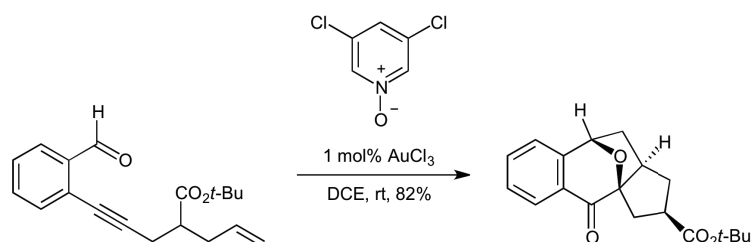
Hiroki Makino, Shin Sato, Junro Yoshino, Naoto Hayashi,* and Hiroyuki Okada*



Pentacene Derivative Alkyl Chain Length X-Ray Structure Thin-Film Structure

1170 Further Studies on the Gold-Catalyzed Oxidative Domino Cyclization/Cycloaddition to Give Polyfunctional Tetracycles

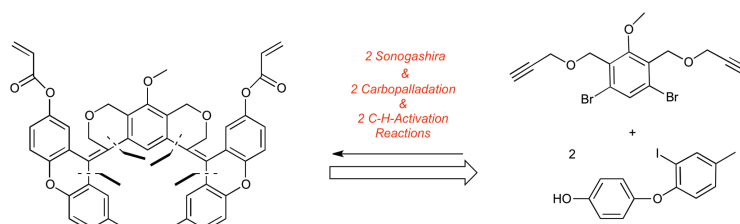
Tobias Groß, Korany A. Ali, Anne Jäger, and Peter Metz*



Catalysis Cycloaddition Domino Reaction Gold Catalyzed Reaction Oxidation

1183 Synthesis of a Poly-Heterocyclic Tetra-Substituted Alkene via a Palladium-Catalyzed Four-Fold Domino Reaction for the Design of Polymeric Molecular Switches

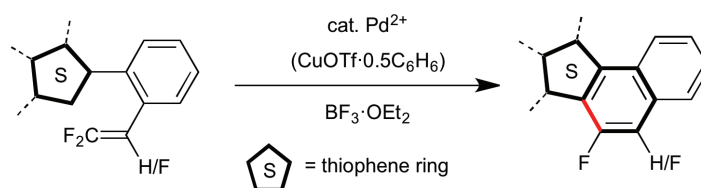
Taukeer A. Khan and Lutz F. Tietze*



Domino Reaction Molecular Switch Palladium Catalyst Polymer Tetrasubstituted Alkene

1196 Construction of Pinpoint-Fluorinated Benzothiophene Frameworks Using Palladium-Catalyzed Cyclization of o -(Fluorovinyl)phenyl-Substituted Thiophenes

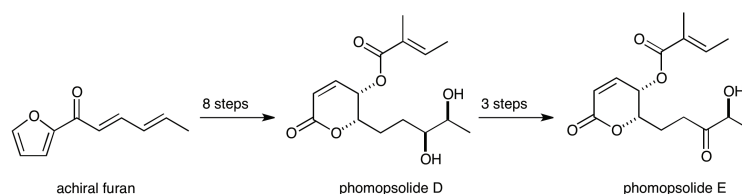
Kohei Fuchibe, Nobushige Tsuda, Kento Shigeno, and Junji Ichikawa*



Thiophene Furan Fluoroalkene Fluorine C-F Bond Activation

1217 A De Novo Asymmetric Synthesis of Phomopsolide E: A Practical Conversion from Phomopsolide D

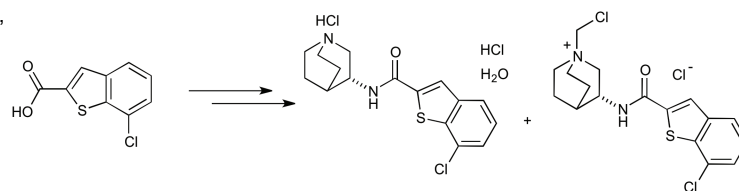
Joel M. Harris, Miaosheng Li, and George A. O'Doherty*



Natural Product Synthesis Phomopsolide Phomopsolide E De Novo Asymmetric Synthesis

1226 Optimized Synthesis and Solid State Investigations on the Drug Candidate Encenicline Hydrochloride

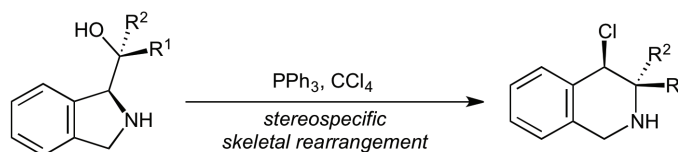
Gerhard Laus, Sandro Neuner, Ramona Metz, Thomas Müller, Volker Kahlenberg, Thomas Gelbrich, Sven Nerdinger,* Erwin Schreiner, Verena Adamer, Klaus Wurst, and Herwig Schottenberger



Heterocyclic Chemistry Amide Formation Quaternarization of Amide One-Pot Method Crystal Structure

1239 Stereospecific Ring-Expanding Skeletal Rearrangement of Isoindoline to Tetrahydroisoquinoline via a Sequential Aziridine Ring Formation/Opening

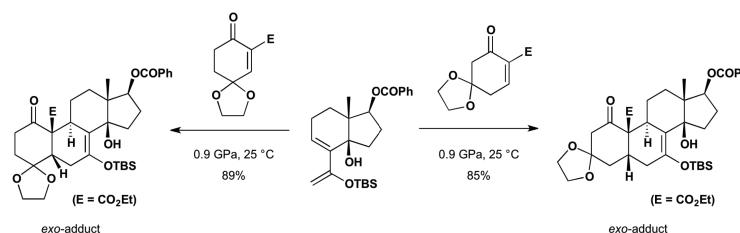
Kenichi Kobayashi,* Ryusei Endo, Yusuke Honma, Emi Kasahara, Haruka Saito, Kosaku Tanaka III, Momoko Suzuki, and Hiroshi Kogen*



Rearrangement Tetrahydroisoquinoline Isoindoline Aziridine

1251 Diastereo-/Enantioselective Diels–Alder Synthesis of 14β-Hydroxysteroid Scaffolds: A Combined Experimental and DFT Study

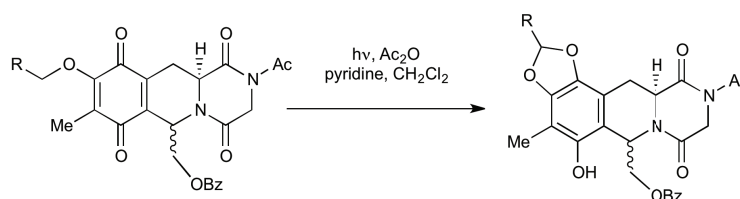
Clovis Peter, Philippe Geoffroy, Takatsugu Murata, Takayuki Tono, Isamu Shiina,* and Michel Miesch*



Diels-Alder Reaction Cardenolide Hydroxyandrostane Acetal Parallel Kinetic Resolution DFT Calculation

1276 Preparation of Tricyclic Analog as CDE Ring Model of Renieramycin Marine Natural Product by Novel Photo-Induced Transformation of 6-Methoxy-1,2,3,4-tetrahydroisoquinoline-5,8-dione

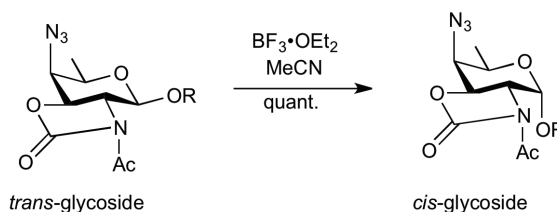
Masashi Yokoya, Shohei Takahashi, and Naoki Saito*



Transformation 1,3-Dioxole 1,2,3,4-Tetrahydroisoquinoline-5,8-dione Marine Natural Product Renieramycin

1304 1,2-cis-Selective Formation of a Unique Amino-Containing Amino Glycoside by Endocyclic Cleavage Strategy

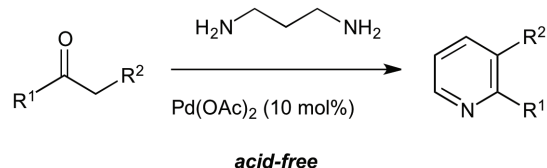
Shino Manabe* and Yukishige Ito*



Endocyclic Cleavage Reaction 2-Acetamido-4-amino-2,4,6-trideoxy-D-galactopyranoside Zwitterionic Polysaccharide

■ SHORT PAPERS

- 1315 Palladium Acetate-Catalyzed One-Pot Synthesis of Mono- and Disubstituted Pyridines**
 Shunya Mikami and Masahiro Toyota*

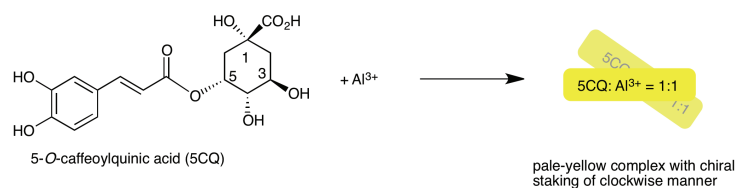


Substituted Pyridine Palladium-Catalyzed Reaction High-Concentration Reaction Conditions 1,3-Diaminopropane Pd(OAc)₂

- 1322 Formation of an Aluminum Complex of 5-O-Caffeoylquinic Acid with Chiral Molecular Stacking under Vacuolar Condition**

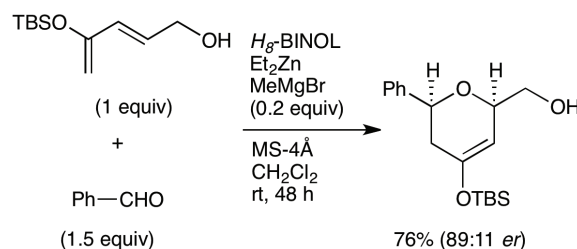
Kumi Yoshida,* Daisuke Ito, and Tadao Kondo

Aluminum complex of 5-O-caffeoylquinic acid with chiral stacking



Aluminum Complex 5-O-Caffeoylquinic Acid Chiral Molecular Stacking *Hydrangea macrophylla*

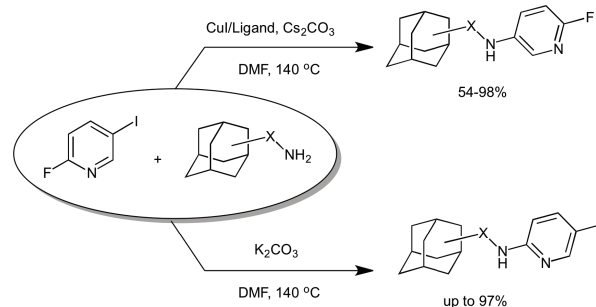
- 1330 Bimetallic Lewis Acid Template-Mediated Enantioselective Hetero-Diels-Alder Reactions of 4-Siloxy-2,4-pentadienols**
 Jun Ishihara,* Yuka Ohzono, Kengo Oka, Yasuhiro Urayama, and Susumi Hatakeyama



Hetero-Diels-Alder Reaction Bimetallic Lewis Acid Template Tetrahydropyran Asymmetric Reaction

- 1342 Problem of Regioselectivity in the Amination of 2-Fluoro-5-iodopyridine with Adamantylalkyl Amines**

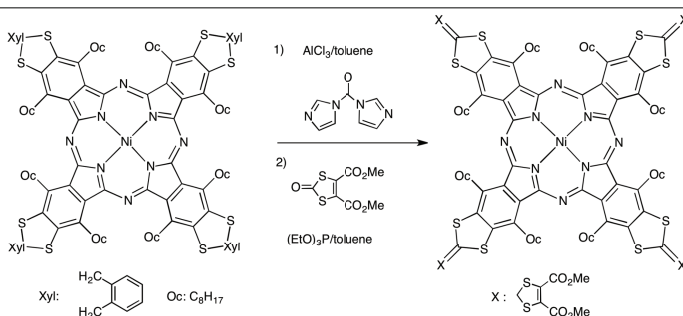
Anton S. Abel, Yury N. Kotovshchikov, Alexei D. Averin,* Olga A. Maloshitskaya, Evgenii N. Savelyev, Boris S. Orlinson, Ivan A. Novakov, and Irina P. Beletskaya



Amination Copper Catalysis Halogenopyridine Adamantane Amine

- 1355 Preparation and Optical and Electrochemical Properties of Phthalocyanine with Four Bis(carbomethoxy)-tetrathiafulvalene Units**

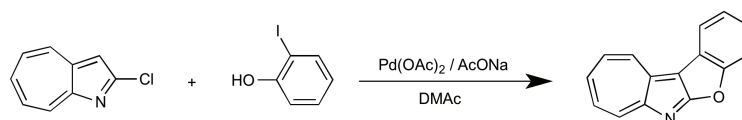
Takeshi Kimura* and Tadafumi Chiba



Phthalocyanine TTF Carbomethoxy Group

1361 Efficient Synthesis of Benzofuran Fused 1-Azaazulene

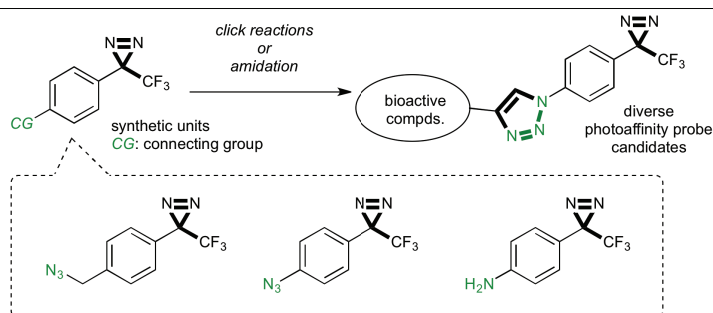
Hiroyuki Fujii,* Yusuke Hironaka, and Noritaka Abe



Azaazulene Benzofuran

1366 Divergent Synthesis of Photoaffinity Probe Candidates by Click Reactions of Azido-Substituted Aryltrifluoromethyl-diazirines

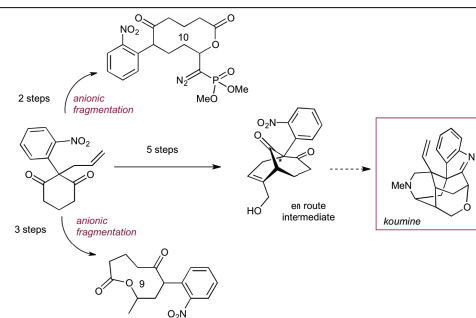
Kenji Watanabe, Junpei Tsuda, Hidenori Ochiai, Takashi Niwa, and Takamitsu Hosoya*



Diazirine Azide Carbene Photoaffinity Probe Triazole

1388 Study toward an Asymmetric and Catalytic Synthesis of Koumine

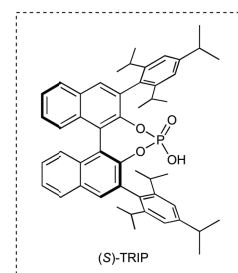
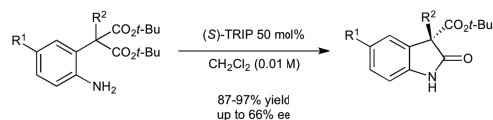
David Reyes Loya, Jacques Maddaluno, and Michael De Paolis*



Koumine Medium Size Lactone Domino Reaction Ring Expansion Desymmetrization

1398 Asymmetric Synthesis of *t*-Butyl 3-Alkyl-oxindole-3-carboxylates via Chiral Phosphoric Acid-Catalyzed Desymmetrization of Di-*t*-butyl 2-Alkyl-2-(2-aminophenyl)-malonates

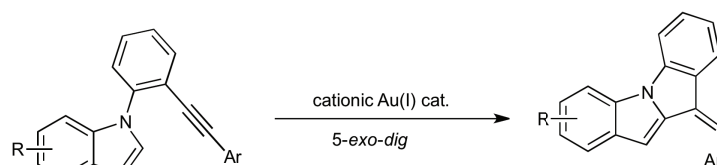
Kyoji Ishida, Masahiro Shimizu, Yu-suke Yamai, Itaru Natsutani, Shinichi Uesato, Yasuo Nagaoka, and Takaaki Sumiyoshi*



Asymmetric Desymmetrization Oxindole Synthesis Chiral Brønsted Acid

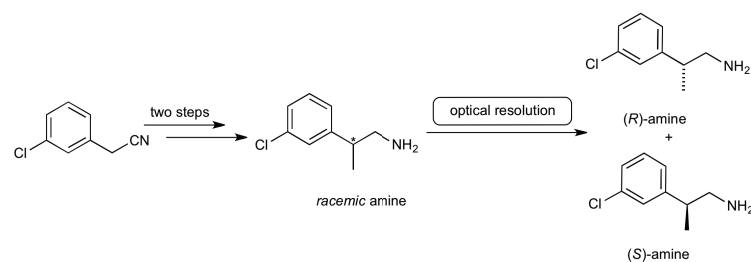
1412 Synthesis of Indolo[1,2-*a*]indole Derivatives by Cationic Au(I)-Catalyzed *exo*-Selective Cycloisomerization and Their Photophysical Properties

Madhurima Hazra, Daisuke Inoue, Mamoru Ito, Kyalo Stephen Kanyiva, and Takanori Shibata*


 up to 76%
 λ_{em} : 400-600 nm
 Φ : up to 0.67

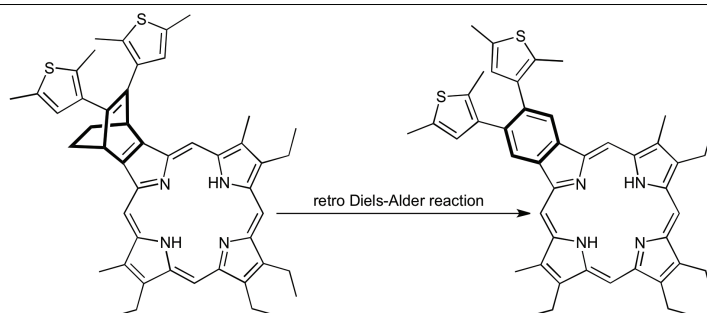
 Cycloisomerization Indolo[1,2-*a*]indole Fluorescence *exo*-Selective Reaction Gold Catalyst

- 1423 A Novel Route to (*R*)-2-(3-Chlorophenyl)propan-1-amine, a Key Intermediate for the Synthesis of Lorcaserin**
 Ivana Gazic Smilovic, Sven Nerdinger,* Sandro Neuner, Herwig Schottenberger, Thomas Gelbrich, and Klaus Wurst



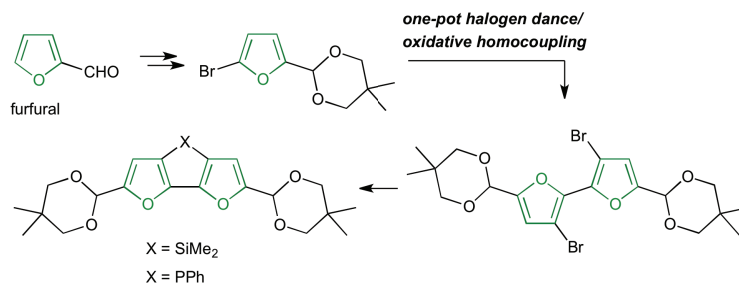
Chiral Resolution Intermediate Heterocyclic Synthesis Asymmetric Synthesis X-Ray Structure

- 1434 Synthesis of Di(3-thienyl)benzoporphyrin**
 Tetsuo Okujima,* Kota Muramatsu, Shigeki Mori, Masayoshi Takase, and Hidemitsu Uno



Benzoporphyrin 1,2-Di(3-thienyl)ethene Retro Diels-Alder Reaction Photoisomerization

- 1444 Synthesis of Furan-Fused Silole and Phosphole by One-Pot Halogen Dance/Homocoupling of Bromofurfural Derivative**
 Kentaro Okano,* Yuki Murase, and Atsunori Mori



Furan Silole Phosphole Halogen Dance Homocoupling