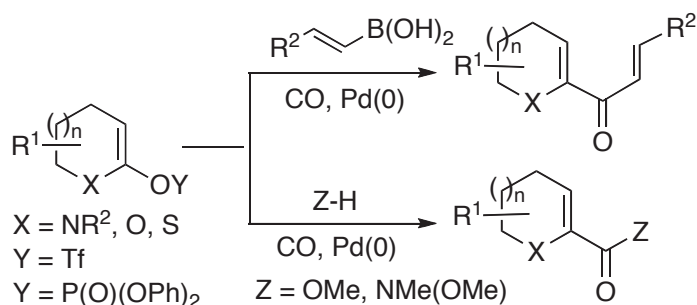


## ■ REVIEWS

- 697 **Carbonylative Palladium-Catalyzed Reactions of Lactam-, Lactone-, and Thiolactone-Derived Vinyl Triflates and Phosphates for the Synthesis of *N*-, *O*-, and *S*-Heterocycles**

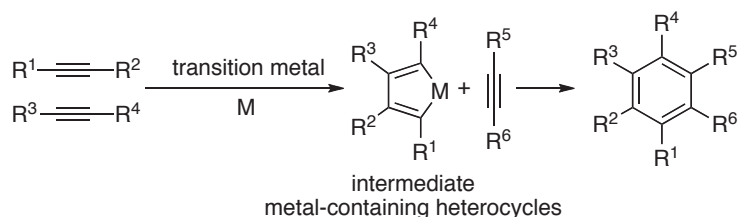
Ernesto G. Occhiato,\* Dina Scarpi, and Cristina Prandi\*



Palladium Carbonylation Coupling Reaction Boronic Acid Nazarov Reaction

- 725 **Recent Development for Formation of Aromatic Compounds *via* Metallacyclopentadienes as Metal-Containing Heterocycles**

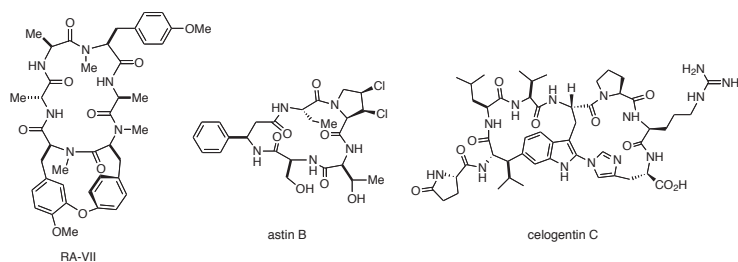
Lishan Zhou, Shi Li, Ken-ichiro Kanno, and Tamotsu Takahashi\*



Aromatic Compound Intermolecular Coupling Reaction Alkyne Metallacyclopentadiene Selectivity

- 739 **Bioactive Cyclic Peptides from Higher Plants**

Hiroshi Morita\* and Koichi Takeya

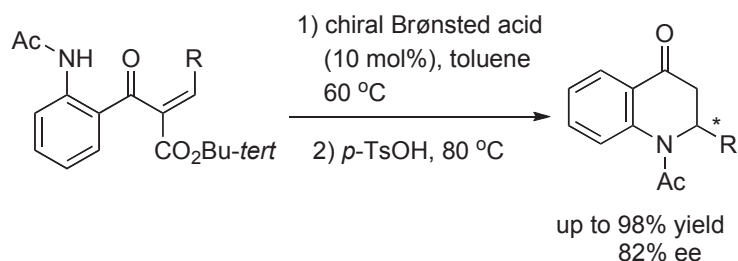


Cyclic Peptide Cyclopeptide Higher Plant

## ■ COMMUNICATIONS

- 765 **Enantioselective Synthesis of 2-Aryl-2,3-dihydro-4-quinolones by Chiral Brønsted Acid Catalyzed Intramolecular Aza-Michael Addition Reaction**

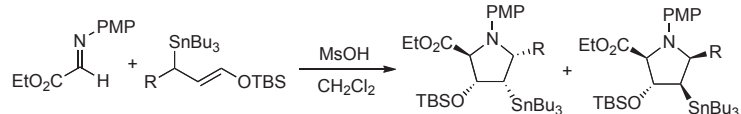
Zhen Feng, Qing-Long Xu, Li-Xin Dai, and Shu-Li You\*



Asymmetric Catalysis *N*-Triflylphosphoramidate Enantioselectivity Michael Addition Organocatalysis

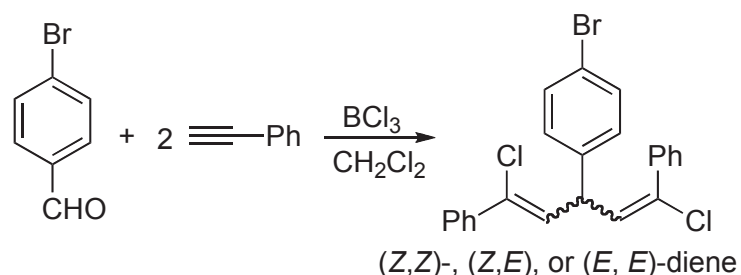
**773 Facile Synthesis and Ring-Opening of 4-(Tributylstannyl)-pyrrolidine-2-carboxylates**

Makoto Shimizu,\* Hiromi Ando, Hitoshi Shibuya, and Iwao Hachiya


 Pyrrolidine-2-carboxylate    Cyclization    Allylstannane     $\alpha$ -Iminoacetate    Methanesulfonic Acid

**779 Boron Trichloride Mediated Alkyne-Aldehyde Coupling Reactions**

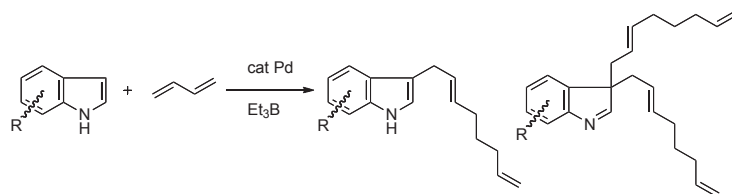
Min-Liang Yao, Michael P. Quinn, and George W. Kabalka\*



Boron Halide    Diene    Aldehyde Reaction    Synthesis

**787 Allylic Alkylation of Indoles with Butadiene Promoted by Palladium Catalyst and Triethylborane**

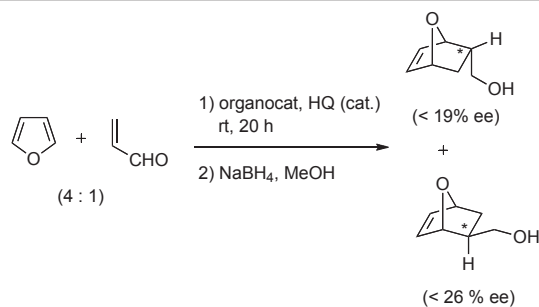
Masanari Kimura,\* Katsumi Tohyama, Yumi Yamaguchi, and Tomohiko Kohno



Indole    Butadiene    Palladium    Triethylborane    Allylation

**799 Organocatalytic Asymmetric Diels-Alder Reaction of Furan under High Pressure**

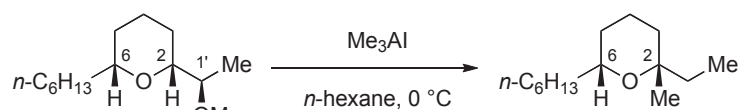
Akiko Mimoto, Keiji Nakano, Yoshiyasu Ichikawa, and Hiyoshizo Kotsuki\*



Organocatalyst    Asymmetric Diels-Alder Reaction    Furan    Acrolein    High Pressure Reaction

**805 Methyl Insertion Reactions of Tetrahydropyrans Having a C1'-Mesyloxy Group on the C2-Side Chain with Trimethylaluminum**

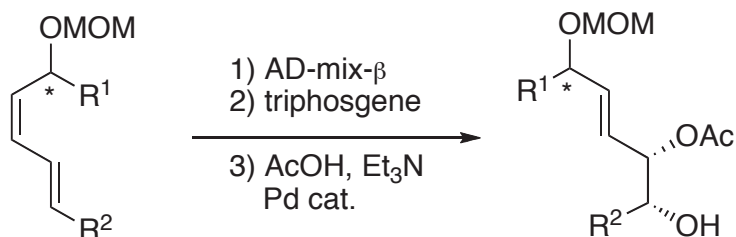
Keigo Nakamura, Atsushi Kimishima, and Tadashi Nakata\*



Trimethylaluminum    Tetrahydropyran    Methyl Insertion    Antiperiplanar    1,2-Hydride Shift

**811 Synthesis of the 1,2-Anti Type of 3*E*-Alkene-1,2,5-triol Derivatives**

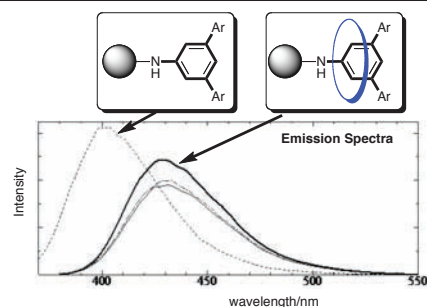
Yuichi Kobayashi,\* Akira Takeuchi, and Hatsuhiro Hattori



Borate    Boronate Ester    Nickel    Palladium Catalyzed Reaction    Trioxilin A3

**819 Preparation and Photochemical Properties of [2]Rotaxanes Containing an Aniline Moiety Encapsulated by Crown Ethers**

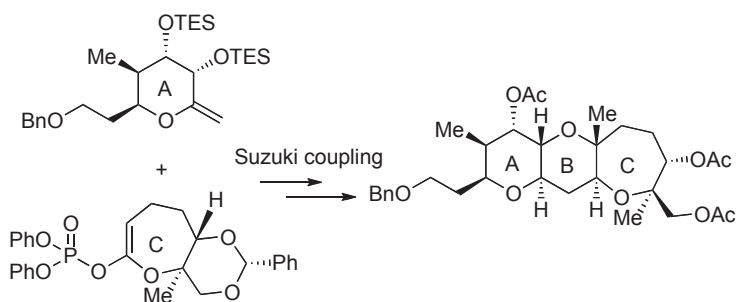
Yuji Tokunaga,\* Satoshi Nakashima, Takuya Iwamoto, Kei Gambayashi, Kenji Hisada, and Tomonori Hoshi



Rotaxane    Aniline    Crown Ether    UV-VIS and Emission Spectra

**825 Synthesis of the ABC Ring Fragment of Brevisin, a New Dinoflagellate Polycyclic Ether**

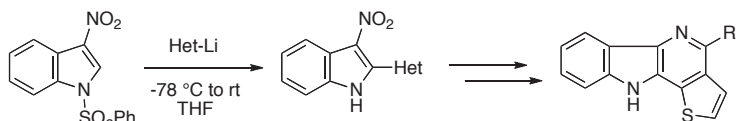
Naohito Ohtani, Ryosuke Tsutsumi, Takefumi Kuranaga, Tomohiro Shirai, Jeffrey L. C. Wright, Daniel G. Baden, Masayuki Satake,\* and Kazuo Tachibana\*



Suzuki-Miyaura Cross Coupling Reaction    Ketene Acetal Phosphate    Polycyclic Ether

**831 Nucleophilic Addition of Hetarylithium Compounds to 3-Nitro-1-(phenylsulfonyl)indole: Synthesis of Tetracyclic Thieno[3,2-*c*]-5-carbolines**

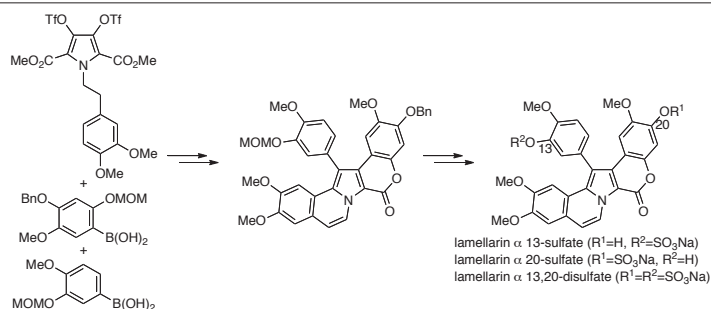
Philip E. Alford, Tara L. S. Kishbaugh, and Gordon W. Gribble\*



3-Nitroindole    Michael Addition    Arylation    Electron-Deficient Indole

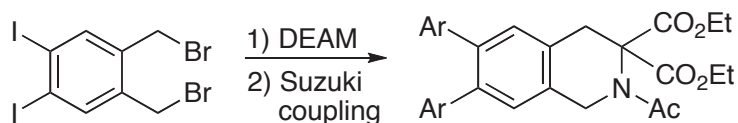
**841 Divergent Synthesis of Lamellarin  $\alpha$  13-Sulfate, 20-Sulfate, and 13,20-Disulfate**

Tsutomu Fukuda, Takeshi Ohta, Sho Saeki, and Masatomo Iwao\*


 Lamellarin  $\alpha$  13-Sulfate    Lamellarin  $\alpha$  20-Sulfate    Lamellarin  $\alpha$  13,20-Disulfate

**847 Diversity-Oriented Approach to 1,2,3,4-Tetrahydroisoquinoline-3-carboxylic Acid (Tic) Derivatives Using Diethyl Acetamidomalonate as a Glycine Equivalent: Further Expansion by Suzuki–Miyaura Cross-Coupling Reaction**

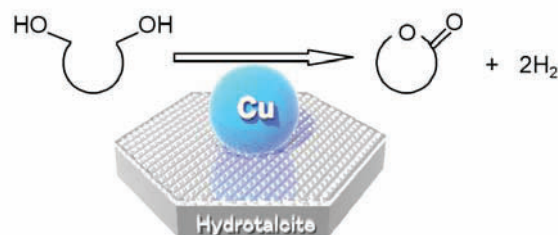
Sambasivarao Kotha,\* Shilpi Misra, Nimita Gopal Krishna, Nagaraju Devunuri, Henning Hopf, and Abhilash Keecherikunnel



Unusual Amino Acid    Building Block Approach    Suzuki Coupling Reaction    Boronic Acid

**855 Oxidant-Free Lactonization of Diols Using a Hydrotalcite-Supported Copper Catalyst**

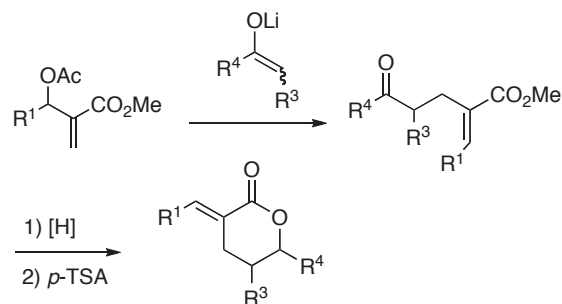
Yusuke Mikami, Kaori Ebata, Takato Mitsudome, Tomoo Mizugaki, Koichiro Jitsukawa, and Kiyotomi Kaneda\*



Copper Nanoparticle    Heterogeneous Catalyst    Dehydrogenation    Lactone

**863 Synthesis of  $\alpha$ -Alkylidene- $\delta$ -valerolactones *via* the Conjugate Addition of Ketone Enolates to Functionalized Allyl Acetates**

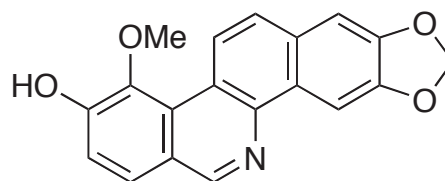
P. Veeraraghavan Ramachandran\* and Annyt Bhattacharyya



Alkylidenevalerolactone    Conjugate Addition    Cyclization    Keto Ester

**873 Synthesis of Zanthoxyline and Its Related Compounds: Revision of the Reported Structure**

Hitoshi Abe,\* Naoko Kobayashi, Yasuo Takeuchi, and Takashi Harayama\*

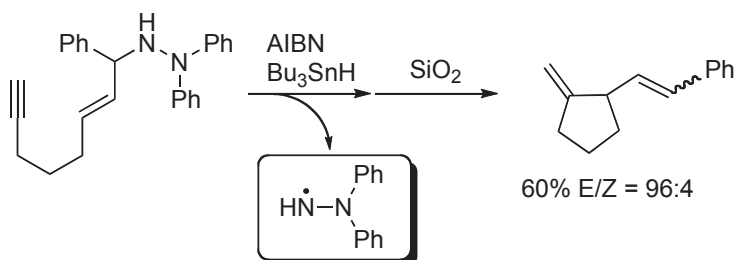


zanthoxyline (reported structure)

Benzo[*d*]phenanthridine    Palladium Catalyzed Reaction    Coupling Reaction

**879 Novel Radical Cyclization Method Accompanied by Elimination of Hydrazyl Radical**

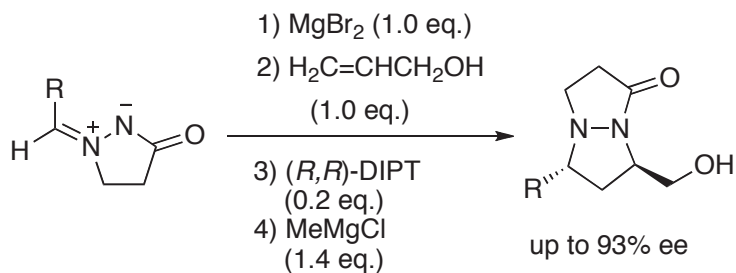
Shoji Kobayashi, Hidefumi Hirao, Tatsuro Kawauchi, and Ilhyong Ryu\*



Hydrazine    Hydrazyl Radical    Vinyl Radical    5-Exo Cyclization    1,4-Diene

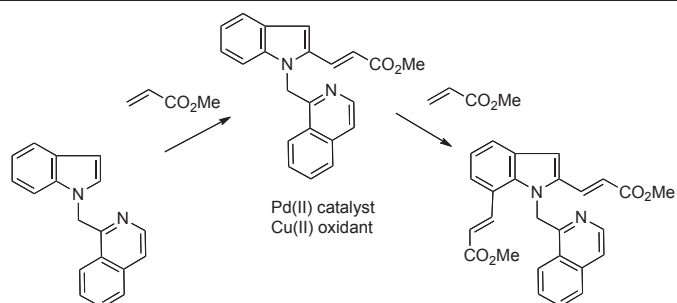
**887 Catalytic Asymmetric 1,3-Dipolar Cycloaddition of Azomethine Imines to Allyl Alcohol Utilizing Tartaric Acid Ester as a Chiral Auxiliary**

Katsuyoshi Tanaka, Tomomitsu Kato, Yutaka Ukaji,\* and Katsuhiko Inomata\*


 Enantioselective 1,3-Dipolar Cycloaddition    Azomethine Imine    Optically Active Pyrazolidine    Magnesium Bromide    Diisopropyl  $(R,R)$ -Tartrate

**895 Observation of 2,7-Disubstitution in Palladium Catalyzed Directed C-H Activation of Indoles**

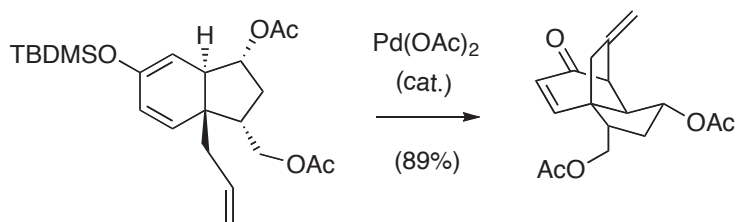
Guilia Fanton, Nicola M. Coles, Andrew R. Cowley, Jonathan P. Flemming, and John M. Brown\*



Palladium (II)    Alkenylation    Indole    Directing Group    X-Ray

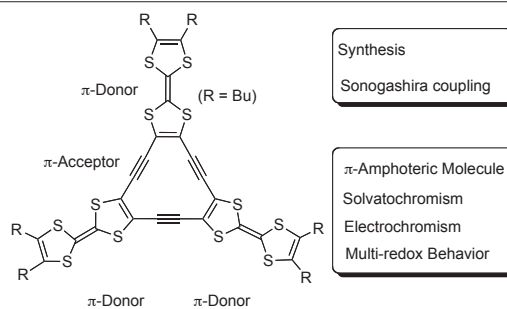
**903 Synthetic Studies toward Antitumor Sesquiterpenoid Quadrone**

Akihiro Ishihata, Megumi Saeki, Masaru Watanabe, Masataka Ihara, and Masahiro Toyota\*


 Quadrone    *Aspergillus terreus*    Cycloalkenylation    Palladium Acetate    Intramolecular Michael Addition

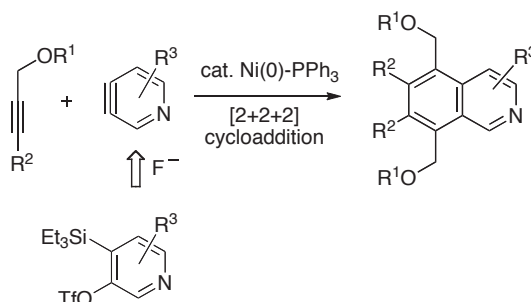
**909 Synthesis and  $\pi$ -Amphoteric Properties of Tris(tetrathiafulvaleno)hexadehydro[12]annulene**

Kenji Hara, Masashi Hasegawa, Yoshiyuki Kuwatani, Hideo Enozawa, and Masahiko Iyoda\*


 Annulene    Cation Radical     $\pi$ - $\pi$  Interaction    Redox Behavior    Tetrathiafulvalene

**917 Synthesis of Substituted Isoquinolines via Nickel-Catalyzed [2+2+2] Cycloaddition of Alkynes and 3,4-Pyridynes**

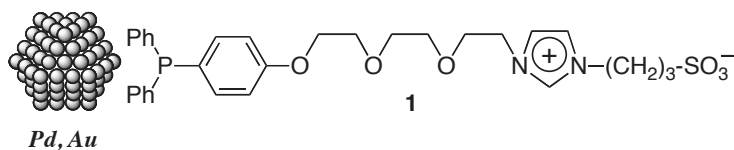
Toshihiko Iwayama and Yoshihiro Sato\*



[2+2+2] Cycloaddition    Nickel    3,4-Pyridyne    1,3-Diyne    Isoquinoline

925 **Water-Soluble Palladium and Gold Nanoparticles Functionalized by a New Phosphine with Zwitterionic Liquid Based on Imidazolium Sulfonate Linked Ethylene Glycol Moiety**

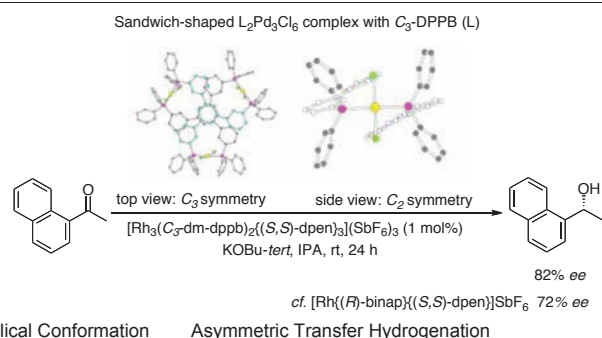
Taichi Akiyama, Chiharu Iбата, and Hisashi Fujihara\*



Imidazolium Ion    Palladium Nanoparticle    Ionic Liquid    Suzuki Coupling Reaction

933 **Helical Chirality Control of *Tropos* Sandwich-Shaped  $L_2M_3$  Complexes with  $C_3$ -Symmetric Tris(diphenylphosphinophenyl)benzene Ligand**

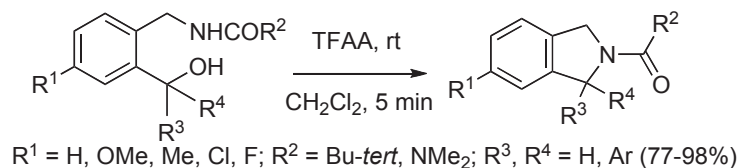
Kazuki Wakabayashi and Koichi Mikami\*



■ PAPERS

941 **A Simple and Convenient High Yielding Synthesis of Substituted Isoindolines**

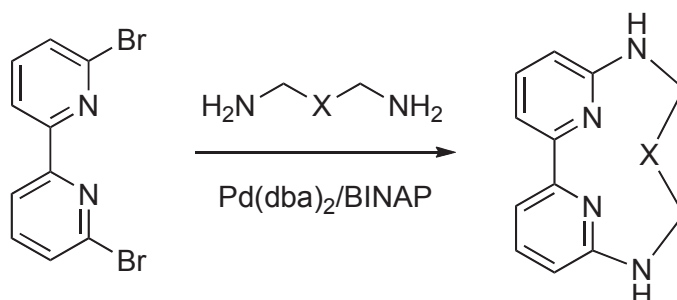
Keith Smith,\* Gamal A. El-Hiti, Amany S. Hegazy, and Ahmed Fekri



Cyclization    Dehydration    Heterocycle    Substituted Benzyl-*N,N*-dimethylurea    Synthesis

957 **Synthesis of Polyazamacrocycles Comprising 6,6'-Diamino-2,2'-bipyridine Moieties *via* Pd-Catalyzed Amination**

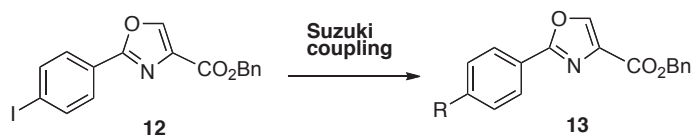
Alexei D. Averin,\* Alexei N. Uglov, Alexei K. Buryak, Alla G. Bessmertnykh, Roger Guillard, and Irina P. Beletskaya\*



2,2'-Bipyridine    Amination    Polyamine    Pd Catalysis    Macrocycle

**977 Utilization of the Suzuki Coupling to Enhance the Antituberculosis Activity of Aryloxazoles**

Garrett C. Moraski, Scott G. Franzblau, and Marvin J. Miller\*

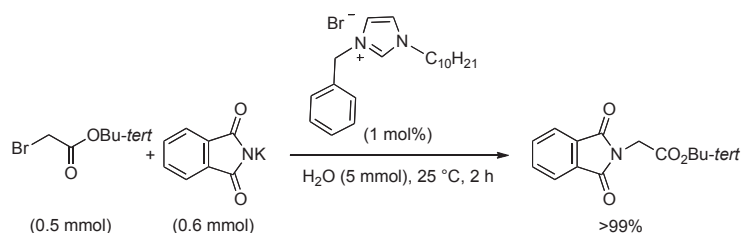


R = 2-chlorophenyl (**14**), 3-chlorophenyl (**15**), 4-chlorophenyl (**16**),  
 2-methoxyphenyl (**17**), 3-methoxyphenyl (**18**), 4-methoxyphenyl (**19**),  
 4-trifluoromethoxyphenyl (**20**), 4-cyanophenyl (**21**), 3-benzyloxyphenyl (**22**)

Antituberculosis Agent    Suzuki Coupling Reaction    Aryloxazole    Palladium Catalyzed Cross Coupling Reaction

**989 Design of Reaction Media for Nucleophilic Substitution Reactions by Using a Catalytic Amount of an Amphiphilic Imidazolium Salt in Water**

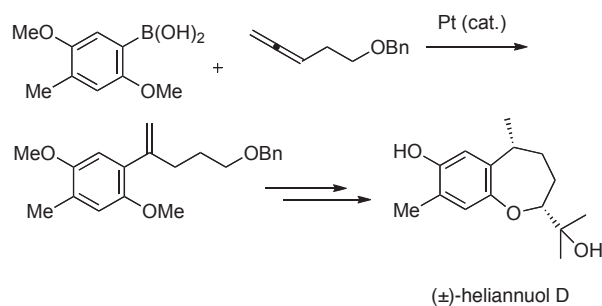
Keisuke Asano and Seiji Matsubara\*



Imidazolium Salt    Amphiphilicity    Water    Self-Assembly    Hydrophobic Effect

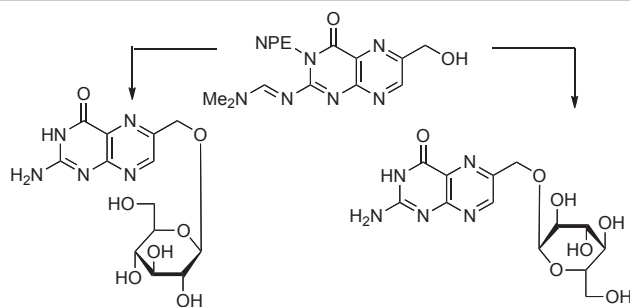
**1003 Synthesis of (±)-Heliannuol D Based on Platinum Catalyzed Regioselective Addition of Arylboronic Acids to Allenes**

Mayu Osaka, Makoto Kanematsu, Masahiro Yoshida, and Kozo Shishido\*

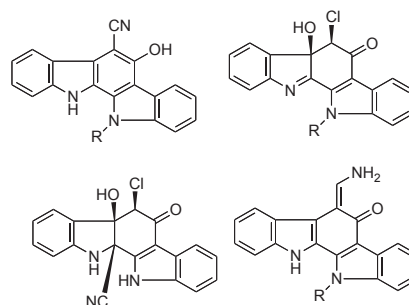

 (±)-Heliannuol D    (±)-10-*epi*-Heliannuol D    Total Synthesis    Platinum Catalyzed Addition    Allene

**1013 Synthesis of 6-Hydroxymethylpterin  $\alpha$ - and  $\beta$ -D-Glucosides**

Tadashi Hanaya,\* Hiroki Baba, Kazumasa Ejiri, and Hiroshi Yamamoto

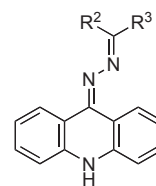
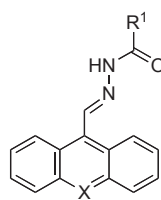

**1027 Synthetic Study Directed toward Derivatives of Biologically Active Indolo[2,3-*a*]carbazole**

Masako Sato, Yoshiaki Suzuki, Fumio Yamada, and Masanori Somei\*



**1047 Novel Carbohydrazone and Hydrazone Biomarkers Based on 9-Substituted Acridine and Anthracene Fluorogens**

Zdenka Bedlovičová, Ján Imrich,\* Pavol Kristian, Ivan Danihel, Stanislav Böhm, Danica Sabolová, Mária Kožurková, Helena Paulíková, and Karel D. Klika

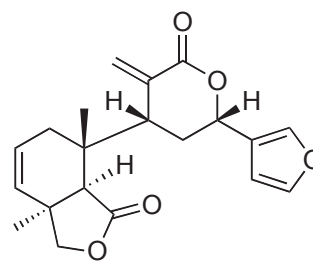


X = N, CH  
 R<sup>1</sup> = Me, C<sub>6</sub>H<sub>2</sub>, 3-Py, 4-Py, 9-oxoacridin-4-yl  
 R<sup>2</sup> = H, Me  
 R<sup>3</sup> = Me, Ph, 4-BrC<sub>6</sub>H<sub>4</sub>, 4-MeOC<sub>6</sub>H<sub>4</sub>, 2,4,6-triMeC<sub>6</sub>H<sub>2</sub>, 2,4,6-triMeOC<sub>6</sub>H<sub>2</sub>

Acridine Carbohydrazone Hydrazone Fluorescence DFT

**1067 Synthetic Study on Clutiolide Based on a Remote Chelation Controlled Ireland-Claisen Rearrangement**

Jun Ishihara,\* Okihisa Tokuda, Kazunori Shiraishi, Yukihiro Nishino, Keisuke Takahashi, and Susumi Hatakeyama\*

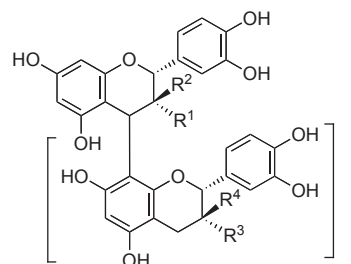


clutiolide

Clutiolide Diterpene Ireland-Claisen Rearrangement Chelation Control Diels-Alder Reaction

**1081 Structure-Activity Relationships of Synthesized Procyanidin Oligomers: DPPH Radical Scavenging Activity and Maillard Reaction Inhibitory Activity**

Akiko Saito and Noriyuki Nakajima\*

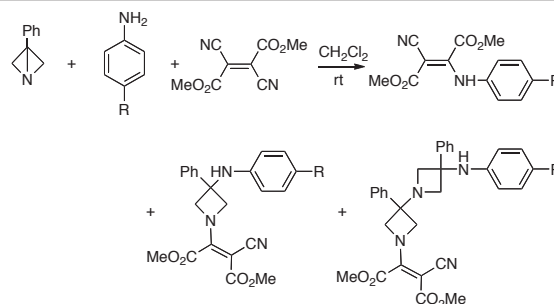


R<sup>1</sup> = R<sup>2</sup> = R<sup>3</sup> = R<sup>4</sup>: H, OH or O-Galloyl, n = 0 - 4

Condensed Tannin Antioxidant Tea Catechin Polyphenol Artificial Procyanidin Oligomer

**1091 Three-Component Reactions with 3-Phenyl-1-azabicyclo-[1.1.0]butane, Dimethyl Dicyanofumarate, and Primary Aromatic Amines**

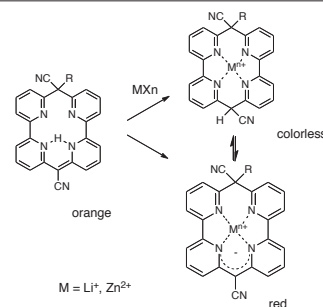
Grzegorz Mlostoń\* and Heinz Heimgartner\*



1-Azabicyclo[1.1.0]butane 2,3-Dicyanofumarate Zwitterionic Intermediate Three-Component Reaction Addition Reaction

**1103 Unusual Reactions of the Highly Strained Macrocycles with Lithium Salts: Anion Control for the Reaction Rates and Elucidation of the Properties of Their Lithium Complexes**

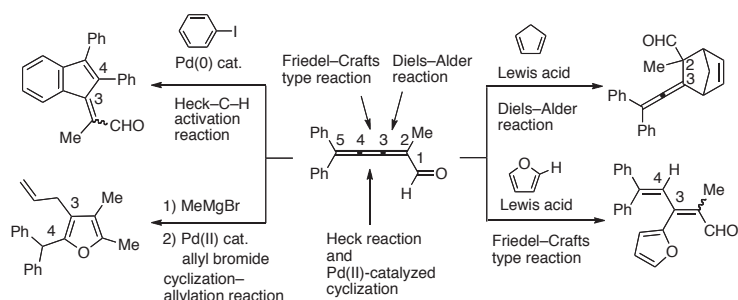
Junko Morita, Shinji Tsuchiya, Nao Yoshida, Nirei Nakayama, and Shojiro Ogawa\*



Tetraazamacrocycle Lithium Complex Unsymmetrical Structure Strained Molecule Anion Control

**1125 Reaction Behavior of Cumulene: Diels–Alder, Friedel–Crafts, and Pd-Catalyzed Domino Reactions**

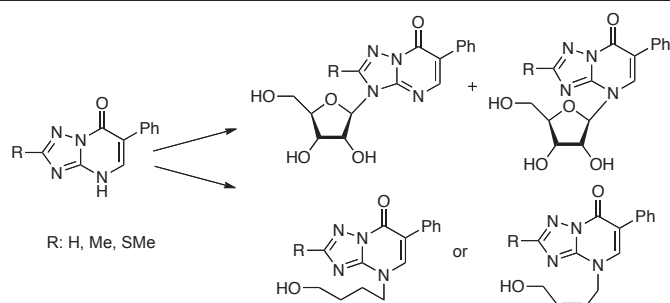
Tomohiro Asakawa, Mie Inuma, Yuko Wakasugi, Mayumi Kuno, Takumi Furuta,\* Satoshi Fujii, Kiyoshi Tanaka, and Toshiyuki Kan\*



Cumulene    Diels–Alder Reaction    Friedel–Crafts Reaction    Heck Reaction    Domino Reaction

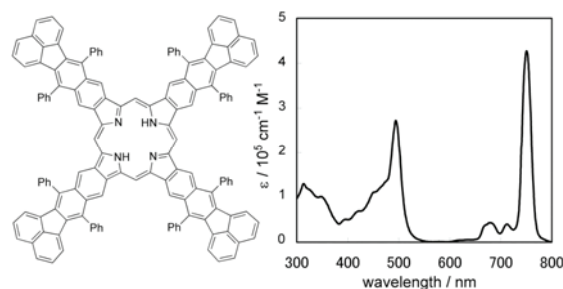
**1149 Non-Natural Nucleosides Based on 1,2,4-Triazolo[1,5-*a*]pyrimidin-7-ones**

Oleg N. Chupakhin,\* Tatiana S. Shestakova, Sergey L. Deev, Oleg S. Eltsov, and Vladimir L. Rusinov


 Non-Natural Nucleoside    Nucleoside Analog    1,2,4-Triazolo[1,5-*a*]pyrimidin-7-one    Glycosylation    Alkyl Fragment

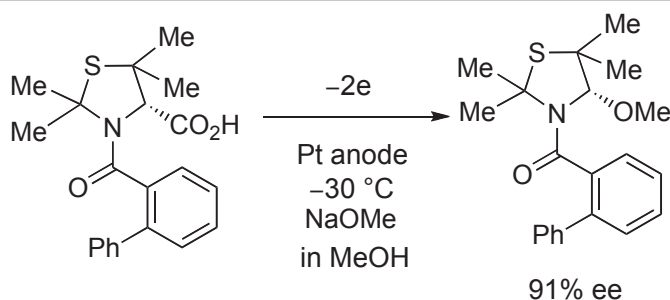
**1165 Synthesis of Tetrabenzoporphyrins Fused with Fluoranthenes**

Jun Nakamura, Tetsuo Okujima,\* Yuya Tomimori, Naoki Komobuchi, Hiroko Yamada, Hidemitsu Uno, and Noboru Ono


 [2,3]Fluoranthobenzoporphyrin    Retro Diels–Alder Reaction     $\pi$ -Expanded Porphyrin    Strong Absorption in Near-IR Region

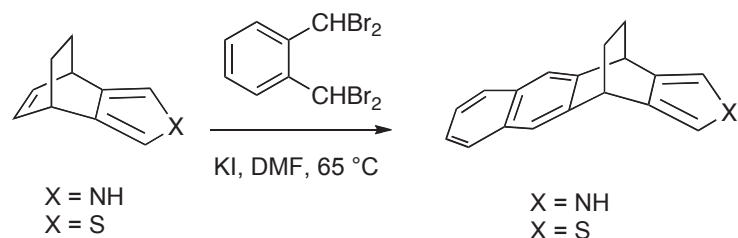
**1177 Memory of Chirality in the Electrochemical Oxidation of Thiazolidine-4-carboxylic Acid Derivatives**

George Ng'anNg'a Wanyoike, Yoshihiro Matsumura, Masami Kuriyama, and Osamu Onomura\*


 Electrochemical Oxidation    Memory of Chirality    Carbon–Carbon Bond Cleavage    Chiral *N,O*-Acetal    Thiazolidine-4-carboxylic Acid

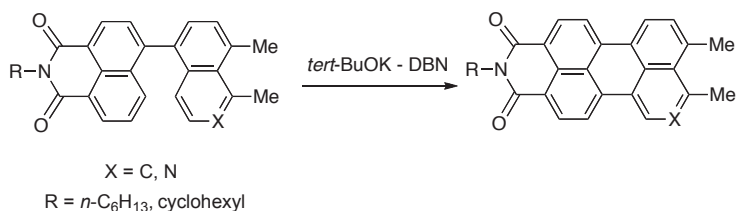
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Hiroki Uoyama, Cai Chenxin, Hiroyuki Tahara, Yusuke Shimizu, Hideki Hagiwara, Yasuaki Hanasaki, Hiroko Yamada, Tetsuo Okujima, and Hidemitsu Uno\*


 Anthra[2,3-*c*]pyrrole    Anthra[2,3-*c*]thiophene    Diels–Alder Reaction    X-Ray Structure     $\sigma$ -Quinodimethane

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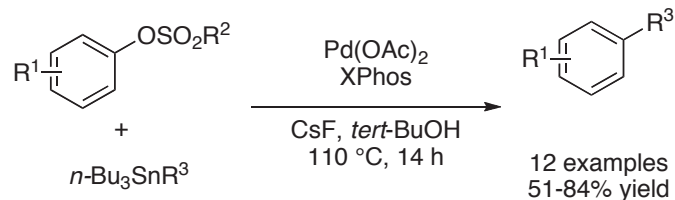
Yukinori Nagao,\* Tatsuro Yoshida, Koji Arimitsu, and Kozo Kozawa



Coupling Reaction    Ring Closure Reaction    Absorption Spectrum    Fluorescence Spectrum

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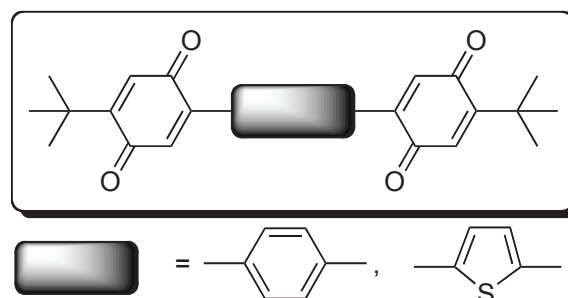
John R. Naber, Brett P. Fors, Xiaoxing Wu, Jonathon T. Gunn, and Stephen L. Buchwald\*



Aryl Mesylate    Palladium Catalysis    C-C Bond Formation    Stille Reaction    Aryl Tosylate

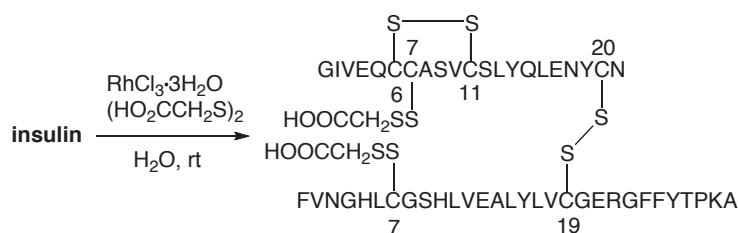
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Naoto Hayashi,\* Teru Sakakibara, Takahiro Ohnuma, Junro Yoshino, and Hiroyuki Higuchi


 $\pi$  Linker    Quinone    Electronic Absorption Spectra     $\pi$ -Conjugation System    Cyclic Voltammetry

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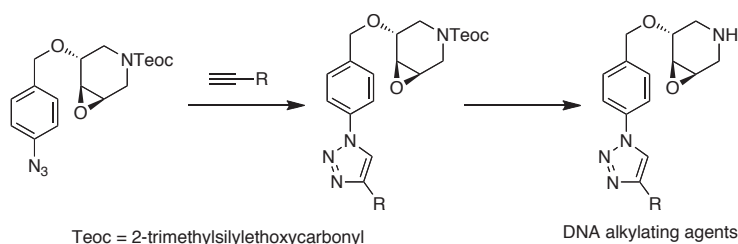
Mieko Arisawa, Manabu Kuwajima, Atsushi Suwa, and Masahiko Yamaguchi\*



Rhodium Chloride    Disulfide Exchange Reaction    Catalysis    A7/B7 Disulfide    Insulin

**1249 Synthesis and Evaluation of Novel 3,4-Epoxy piperidines as Efficient DNA Alkylating Agents**

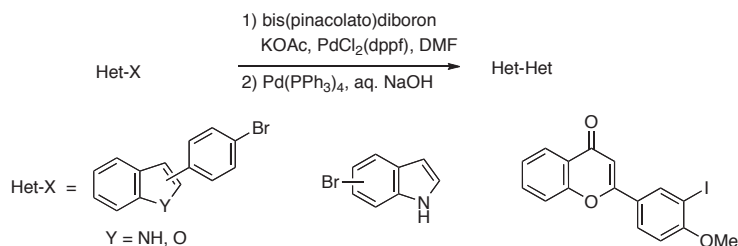
Yuji Kawada, Tetsuya Kodama, Kazuyuki Miyashita, Takeshi Imanishi, and Satoshi Obika\*



DNA Alkylating Agent    Epoxypiperidine    Huisgen Reaction    Anticancer    Azinomycin

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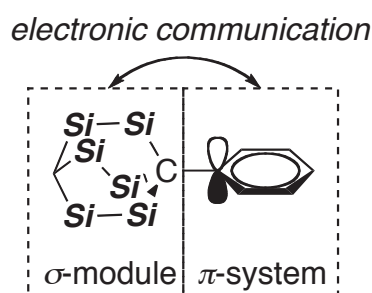
Mandar Deodhar, David StC. Black,\* Daniel Shiu-Hin Chan, and Naresh Kumar\*



Suzuki-Miyaura Coupling Reaction    Biheterocycle    Synthetic Methodology    Biindole    Bibenzofuran

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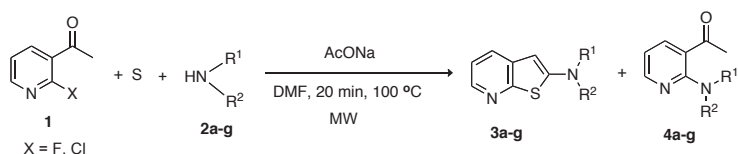
Masaki Shimizu,\* Tomoaki Kawaguchi, Hisashi Nakagawa, Katsunari Oda, and Tamejiro Hiyama\*



Silaheterocycle    Bicyclo[2.2.2]octane    Fluorescence    Conjugation    UV Absorption

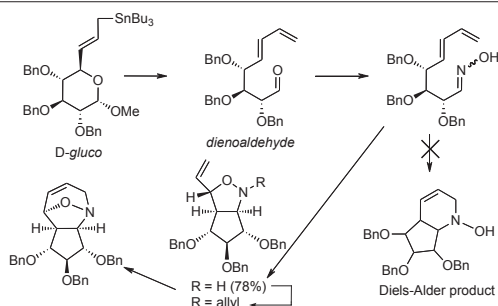
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Haribabu Ankati and Edward R. Biehl\*


 Microwave Heating    1-(2-Aminopyridin-3-yl)ethanone    2-Amino Derivatives of 3-Methylisothiazolo[5,4-*b*]pyridine and Thieno[2,3-*b*]pyridine

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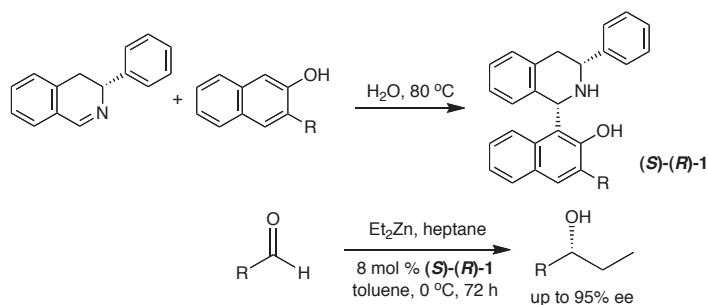
Marta Magdycz, Piotr Cmoch, and Sławomir Jarosz\*



Oxime-Olefin Cyclization    Nitron    Sugar Allyltin    Ring Closing Metathesis

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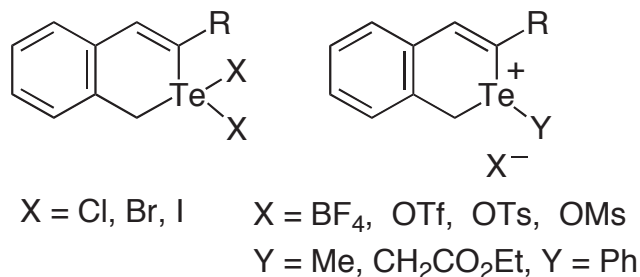
Patricia D. MacLeod, Amy M. Reckling, and Chao-Jun Li\*



Chiral Tetrahydroisoquinoline    Asymmetric Addition    Diethylzinc    Chiral Ligand    Aza Friedel-Crafts Reaction

**1339 2-Substituted Isotellurochromenium Salt Derivatives: Preparations, Structures, Spectroscopic Properties**

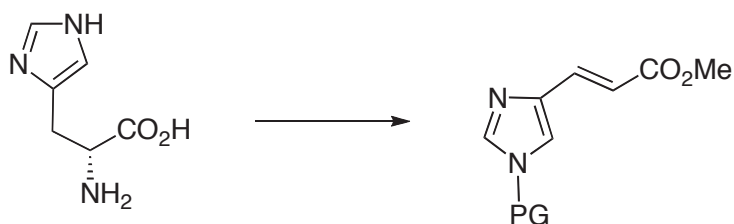
Haruki Sashida,\* Shoko Nakabayashi, Mamoru Kaname, and Mao Minoura



Isotellurochromene    Telluride    Tellurium Salt    Tellurane

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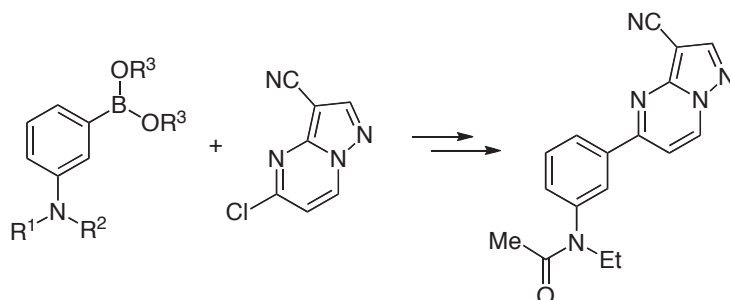
Carl J. Lovely,\* Rasapalli Sivappa, Sabuj Mukherjee, Thomas Doundoulakis, Heather M. Lima, and Muhammed Yousuffudin



Imidazole    Elimination    X-Ray Structure    Regioselective    Diazotization

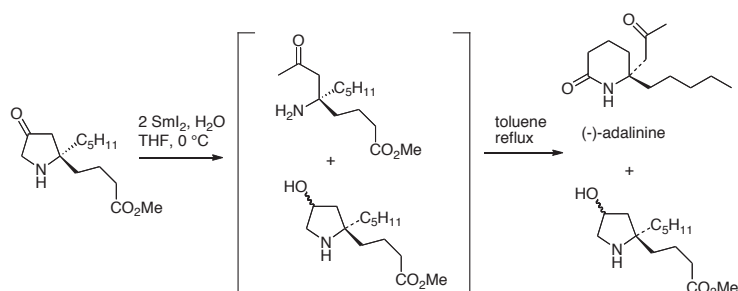
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Stanislav Rádľ,\* Michaela Blahovcová, Marcela Tkadlecová, and Jaroslav Havlíček


 Zaleplon Regioisomer    Synthesis    Spectral Property    5-Arylpyrazolo[1,5-*a*]pyrimidine-3-carbonitrile    Suzuki-Miyaura Cross Coupling Reaction

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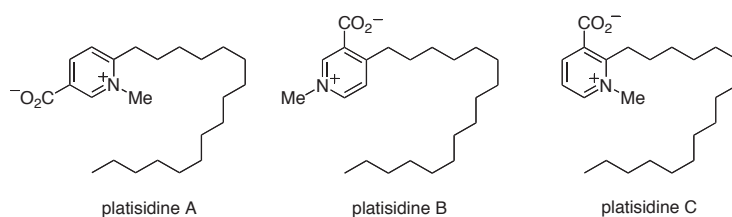
Toshio Honda\* and Chihiro Hisa



Samarium Diodide    Adalinine    Carbon-Nitrogen Bond Cleavage Reaction    4-Hydroxyproline    Chiral Synthesis

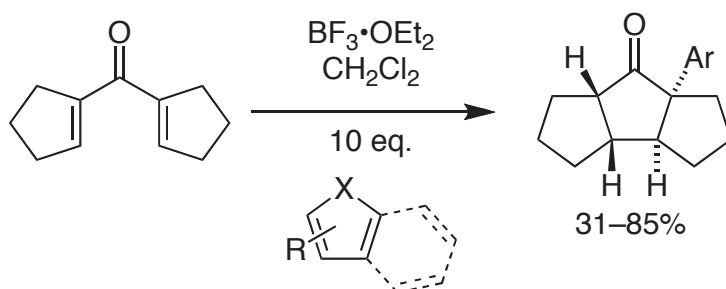
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Takaaki Kubota, Yuichiro Ishiguro, Sunao Yamamoto, Jane Fromont, and Jun'ichi Kobayashi\*


 Sponge    *Plakortis* species    Pyridinium Alkaloid    Platisidines A-C    Acetylcholinesterase Inhibitor

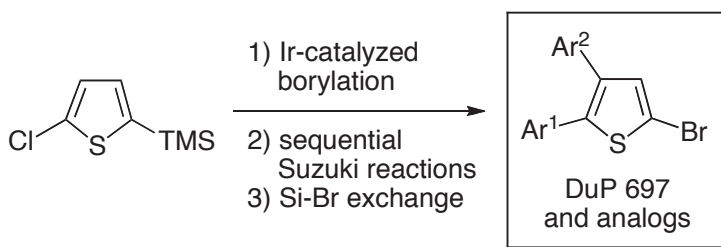
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Nazarov Reaction    Domino Process    Heteroaromatic    Electrophilic Aromatic Substitution    Triquinane

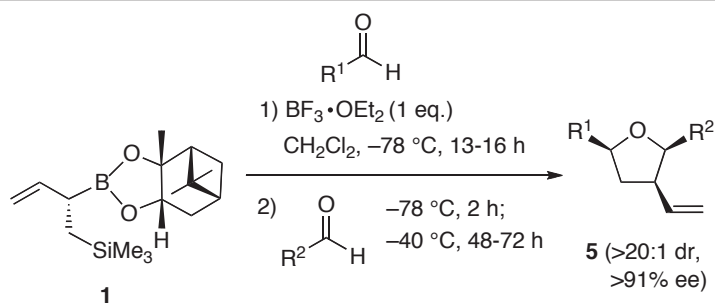
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 Venkata A. Kallepalli, Luis Sánchez, Hao Li,  
 Nathan J. Gesmundo, Clarissa L. Turton,  
 Robert E. Maleczka, Jr.,\* and Milton R. Smith, III\*


Thiophene    C-H Activation    Boronic Ester    Suzuki Coupling Reaction    COX-2

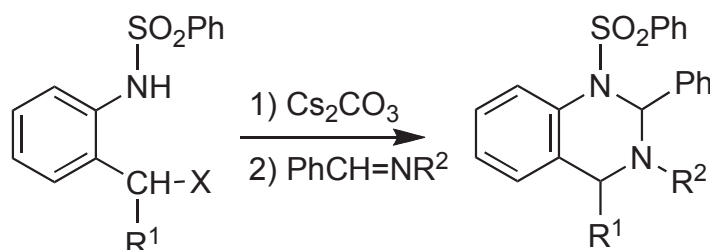
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Umakanthan Sivasubramaniam and Dennis G. Hall\*



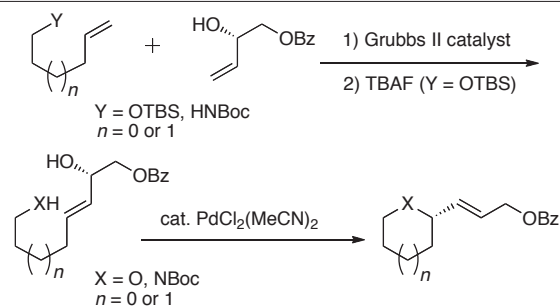
Tetrahydrofuran    Carbonyl Allylation    Allylboration    Multicomponent Reaction    Stereocontrol

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 Giuseppe Cremonesi, Piero Dalla Croce,\* Maddalena Gallanti,  
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 Tetrahydroquinazoline    *o*-Azaxylylene    Aza Diels-Alder Reaction    Imine

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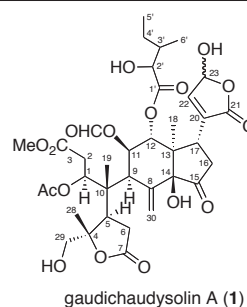
Jun'ichi Uenishi\* and Yogesh S. Vikhe



Cyclization    Palladium Catalyzed Reaction    Cross Metathesis    1,3-Chirality Transfer    Oxa- and Aza-Heterocycles

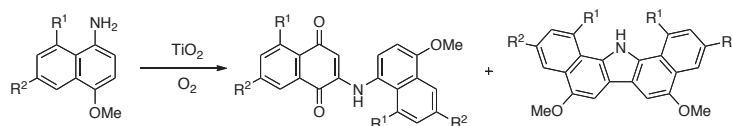
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Yuta Nagakura, Reiko Yamanaka, Yusuke Hirasawa, Takahiro Hosoya, Abdul Rahman, Idha Kusumawati, Noor Cholies Zaini, and Hiroshi Morita\*


 Gaudichaudysolin A    Limonoid    *Dysoxylum gaudichaudianum*    Meliaceae

**1479 Oxidative Dimerization of 4-Methoxynaphthylamines in the Presence of Semiconductors**

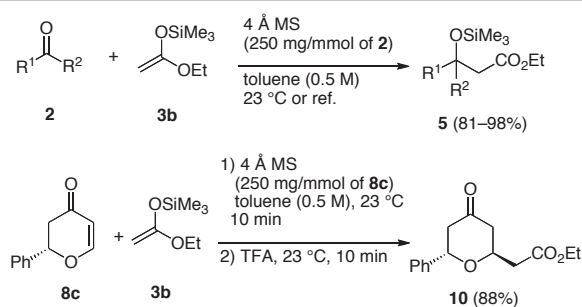
Tetsuya Takeya,\* Yosuke Takahashi, Iwao Okamoto, and Osamu Tamura\*



Molecular Oxygen    Semiconductor    4-Methoxynaphthylamine    Oxidative Dimerization    Titanium Oxide

**1489 The Mukaiyama Aldol and Mukaiyama–Michael Reactions Promoted by Commercially Available Molecular Sieves**

Masahiro Anada, Takuya Washio, Yudai Watanabe, and Shunichi Hashimoto\*



Mukaiyama Aldol Reaction    Mukaiyama–Michael Reaction    Molecular Sieves    Silylketene Acetal    Silyl Enol Ether

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