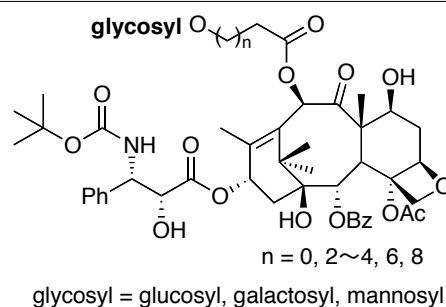


## ■ COMMUNICATIONS

**561 Synthesis and Biological Evaluation of Water Soluble Taxoids Bearing Sugar Moieties**

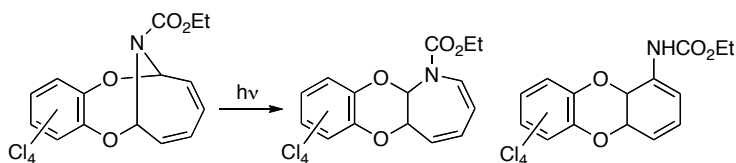
Yoshinori Tsuchiya, Kosho Nakamura, Tetsuya Amano, Wakao Iwatani, Ko-zo Hara, Ko-ji Hara, Katsuhiko Mikuni, Katsuyoshi Nakanishi, Tetsuta Oshitari, Hiroshi Okumoto, and Tadakatsu Mandai\*



Paclitaxel    Docetaxel    Acylating Agent    Water Soluble Taxoid    Anticancer Agent

**567 Photochemistry of Heterocyclic Cage Compound: Photoreaction of 2,7-Dihydroazepine to Give 2,3-Dihydroazepine and Photoreaction of the 2,3-Dihydroazepine to Form 1,2-Dihydroaniline**

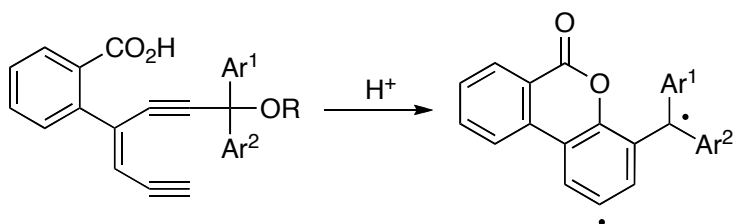
Yoshitaka Emoto and Katsuhiro Saito\*



Photorearrangement    Time Dependence    Solvent Effect    Triplet Sensitization    Ring Contraction

**571 Acid-catalyzed Cycloaromatization of Eneidyne Model Compounds *via* Enyne-Allene Intermediates**

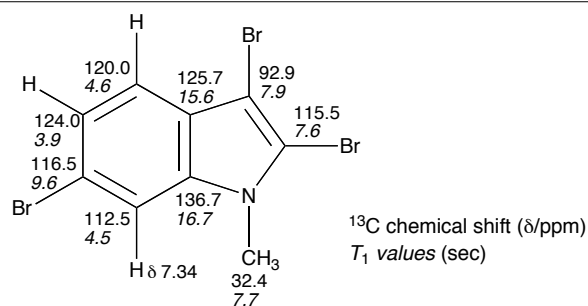
Hisao Nemoto, Akira Shigenaga, Ichiro Suzuki, and Masayuki Shibuya\*



Diradical    Ionic Character    Electron-withdrawing Group

**577 Carbon-13 Spin-Lattice Relaxation Time (T1) for Assignment of Brominated Carbons**

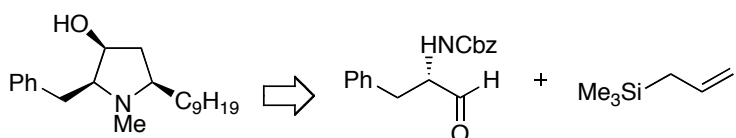
Takenori Kusumi, Kyoko Utsumi, and Takashi Ooi\*



Marine Natural Product    Brittle Star    Indole    <sup>13</sup>C NMR Spectrometry

**581 Efficient Stereoselective Synthesis of (2*S*,3*S*,5*R*)-(+)-Preussin**

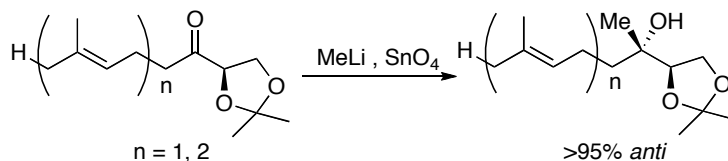
Henryk Gruza, Antoni Krasinski, and Janusz Jurczak\*



Allylic Addition    α-Amino Aldehyde    Diastereoselectivity    Antifungal Agent

**585 Diastereocontrol in the Reaction of (*R*)-2,2-Dimethyl-4-acyl-1,3-dioxolanes with Alkylmetals: A Facile Entry to Enantiopure Terpenetriols**

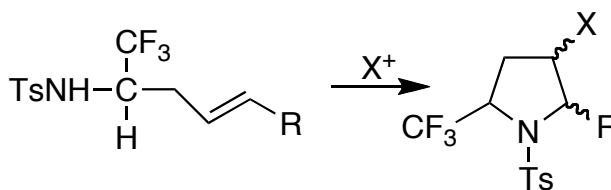
Koichi Mikami, Hisashi Mikoshiba, and Takeshi Nakai\*



Gymnoprenol    Asymmetric Synthesis    Glycerketone Acetonide    Organometallic Addition    Chelation Model

**589 Synthesis of  $\alpha$ -(Trifluoromethyl)pyrrolidines by Cyclization of *N*-Tosyl- $\alpha$ -(trifluoromethyl)homoallylamine Derivatives**

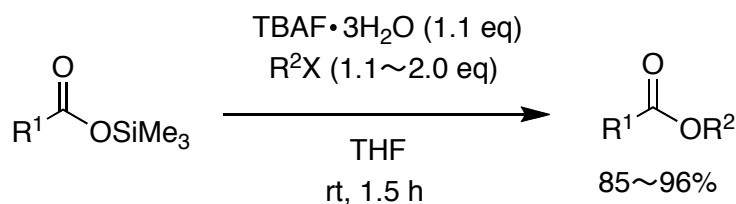
Akira Ando, Masaaki Omote, Kazuyuki Sato, Shuichi Jonoshita, and Isumaro Kumadaki\*



Trifluoromethyl    Fluorine    Pyrrolidine    Cyclization    Ene Reaction

**593 Facile Conversion of Trialkylsilyl Esters to Alkyl Esters Mediated by Tetrabutylammonium Fluoride Trihydrate**

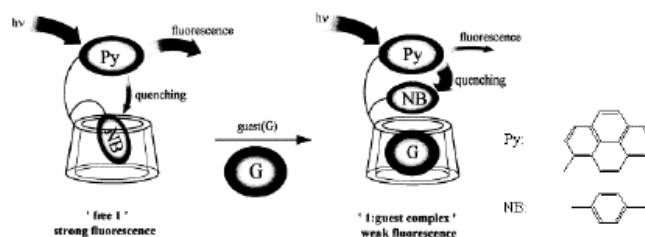
Hayato Sugimoto, Takashi Ooi, and Keiji Maruoka\*



Alkylation    Deprotection    Alkyl Halide    Lactone    Ammonium Carboxylate

**597 A Molecule Detection Sensor of Modified Cyclodextrin Based on Guest-responsive Intramolecular Fluorescence Quenching**

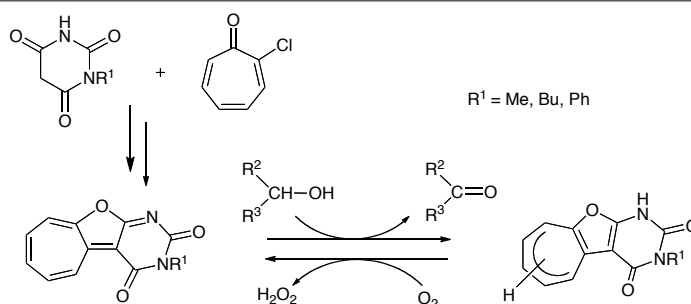
Taiyo Aoyagi, Toshinao Yamasaki, Akio Yoshida, and Akihiko Ueno\*



Modified Cyclodextrin    Pyrene    Host-Guest Complex    Nitrobenzene    Fluorescence Quenching

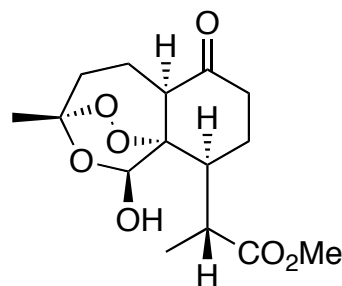
**601 Studies on Pyrimidine-annulated Heterocycles: Synthesis and Function of Novel 9-Substituted Cyclohepta[*b*]pyrimido[5,4-*d*]furan-8,10(9*H*)-diones**

Yutaka Mizuta, Tohru Takayasu, and Makoto Nitta\*


 Cyclohepta[*b*]pyrimido[5,4-*d*]furan-8,10(9*H*)-dione    Heteroazulene

**607 Synthesis of a Novel Artemisinin Analogue Having Potent Antimalarial Activity**

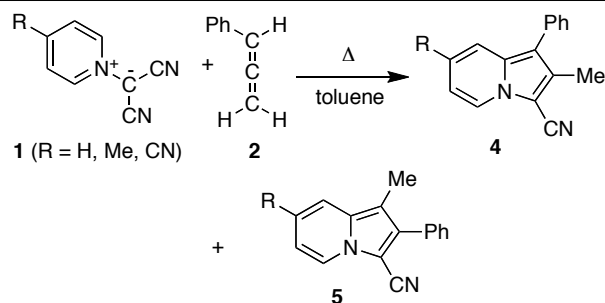
Yusuke Wataya, Hye-Sook Kim, Masahiro Toyota, Yuko Tanaka, Ruriko Katagiri, Kiyosei Takasu, and Masataka Ihara\*



Antimalarial Activity    1,2,4-Trioxane    Artemisinin    Octalone

**611 1,3-Dipolar Cycloaddition of 1-Phenylpropa-1,2-diene with Pyridinium Dicyanomethylides: 1-Phenylpropa-1,2-diene as a Synthetic Equivalent of 1-Phenylpropyne**

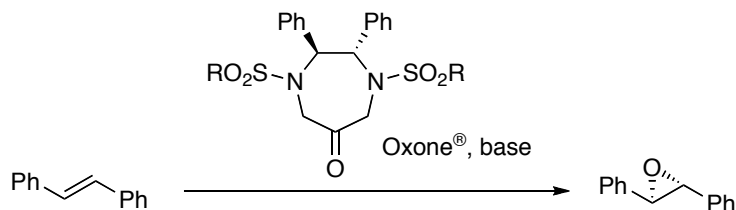
Akikazu Kakehi, Kinuyo Aoyama, Naoto Hayashi, Yukio Ikemi, Takane Uchida, Naoki Tanaka, and Kiyoshi Matsumoto\*



1,3-Dipolar Cycloaddition    Pyridinium Ylide    Allene    Indolizine A    X-Ray Analysis

**615 Chiral Ketone-catalyzed Asymmetric Epoxidation of Stilbene with Oxone®**

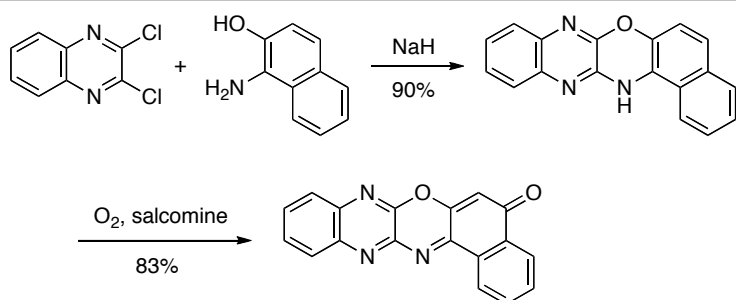
Koichiro Matsumoto and Kiyoshi Tomioka\*



Asymmetric Reaction    Epoxidation    Dioxirane    Olefin    Ketone

**619 An Efficient and Expedient Synthesis of a Novel 5H-Naphth[1',2':5,6][1,4]oxazino[2,3-b]quinoxalin-5-one and Its Unique Inhibitory Activity against a Panel of Human Cancer Cell Lines**

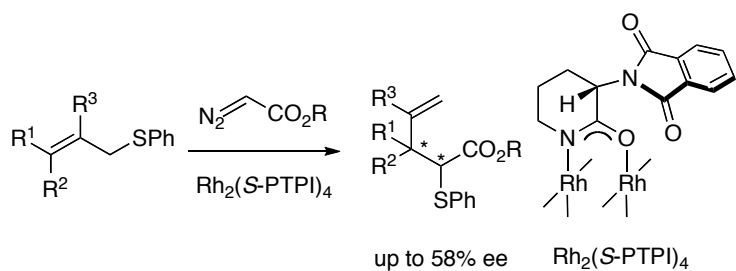
Takao Yamori, Sadamu Yoshida, Fusae Miyata, and Tadashi Katoh\*



Quinoxaline Derivative    Naphthoxazine Derivative    Quinonimine Structure    Cyclization    Salcomine Oxidation

**623 Enantiocontrol in Tandem Allylic Sulfonium Ylide Generation and [2,3] Sigmatropic Rearrangement Catalyzed by Chiral Dirhodium(II) Complexes**

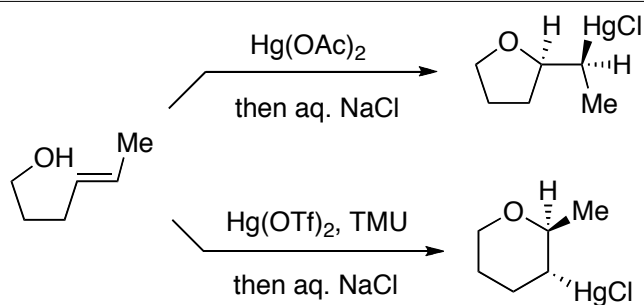
Makoto Nakajima, Hisae Okubo, Yoshimasa Yanamoto, Shinji Kitagaki, and Shunichi Hashimoto\*



Rhodium(II) Carbene Intermediate    Diazoacetate    Allylic Sulfide

**629 Intramolecular Oxymercuration of 4-Hexen-1-ols: Kinetic vs. Thermodynamic Products Regulated by Mercuric Salts**

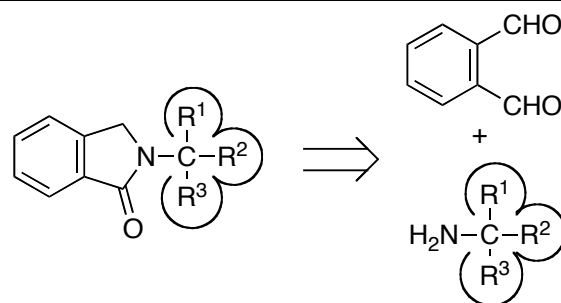
Takumichi Sugihara, Hiroshi Imagawa, Hiroko Takao, Kazuya Takahashi, Akihito Wakabayashi, Masahiro Sakakibara, Terumi Kashima, and Mugio Nishizawa\*



Oxymercuration    Mercuric Triflate    Mercuric Acetate    5-*exo*-Cyclization    6-*endo*-Cyclization

**635 Application of Phthalimidine Synthesis with Use of 1,2,3-1*H*-Benzotriazole and 2-Mercaptoethanol as Dual Synthetic Auxiliaries. 2. Effective Synthesis of Phthalimidines Possessing Bulky Group at 2-Position**

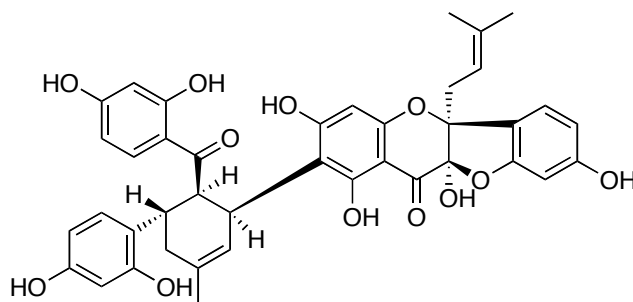
Motohiro Tanaka, Akihiko Nomura, Hiroyuki Uchida, Minoru Hatanaka, Hidehiko Kitajima, Takanori Tamura, Shigeki Kamimura, Etsushi Hirano, Mako Kimino, Teruki Kawakami, and Ichiro Takahashi\*



Double Mannich Reaction    Protonic Acid    Mild Condition    Isoindole Derivative    Bioactivity

**639 Structure of Sanggenon O, a Diels-Alder Type Adduct Derived from a Chalcone and a Dehydroprenylated Sanggenon-Type Flavanone from *Morus cathayana***

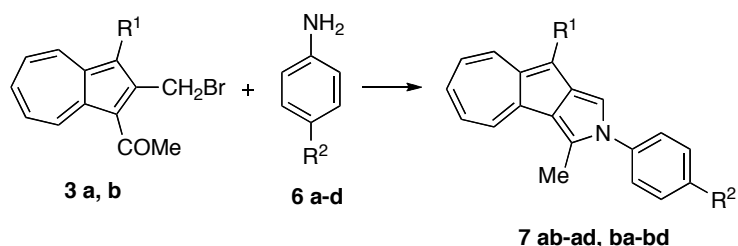
Toshio Fukai, Ya-Qin Shi, and Taro Nomura\*



Revised Structure    Sanggenon O    Absolute Structure    Moraceae    Mulberry Tree

**■ PAPERS**
**647 New Synthetic Approach to Azuleno[1,2-*c*]pyrroles and Conversion to Benz[*a*]azulenes**

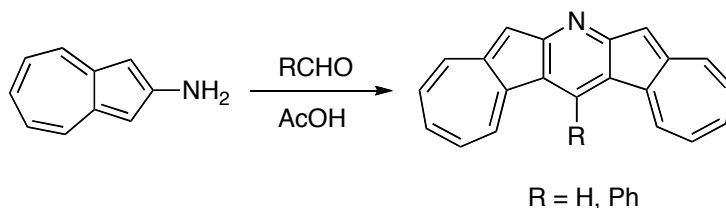
Dao-Lin Wang and Kimiaki Imafuku\*



1-Acetylazulene    Aniline    Cyclization    Cycloaddition    Azuleno[1,2-*c*]pyrrole

**667 Reaction of 2-Aminoazulenes with Aldehydes. One Pot Synthesis of Diazuleno[2,1-*b*:1,2-*e*]pyridines**

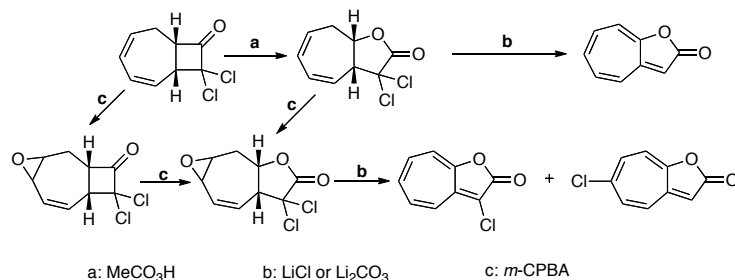
Toyonobu Asao, Shunji Ito, Tomomi Terazono, Tetsuo Okujima, and Noboru Morita\*



Azulene    Acid-catalyzed Condensation    Pyridine Derivative    Basicity    Di(1-azulenyl)methane

**679 An Efficient Preparation of 2*H*-Cyclohepta[*b*]furan-2-ones**

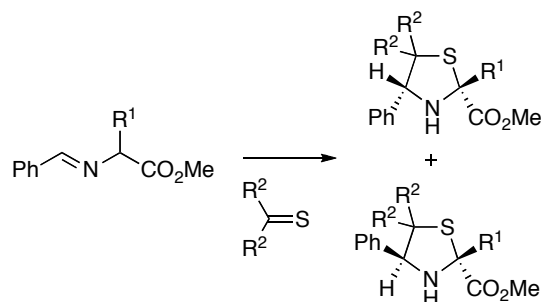
Shunji Ito, Ryuji Yokoyama, Masao Kudo, and Noboru Morita\*



Cycloaddition    Dichloroketene    Oxidation    Dehydrochlorination

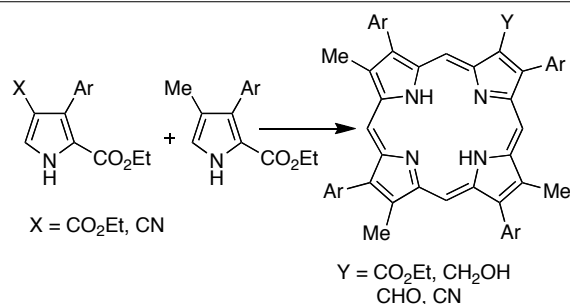
**691 Synthesis of 1,3-Thiazolidines from Aromatic Thioketones and *N*-Benzylidene  $\alpha$ -Amino Acid Esters *via* 1,3-Dipolar Cycloaddition of Azomethine Ylides**

Anthony Linden, Andreas Gebert, and Heinz Heimgartner\*


 $\alpha$ -Amino Acid Imine    Azomethine Ylide    Thiocarbonyl Compound    1,3-Dipolar Cycloaddition    X-Ray Crystallography

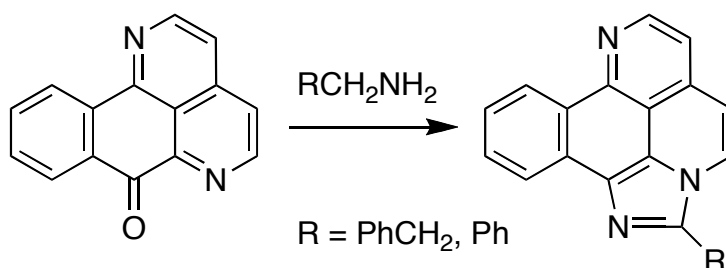
**705 Preparation of Meso-unsubstituted Porphyrins Substituted with Mono- and Tetraformyl and Other Electron-withdrawing Groups**

Takashi Murashima, Hidemitsu Uno, Yumiko Fumoto, and Noboru Ono\*


 4-Ethoxycarbonylpyrrole    4-Cyanopyrrole     $\beta$ -Monoethoxycarbonylporphyrin     $\beta$ -Monoformylporphyrin     $\beta$ -Monocyanoporphyrin

**721 The Identification, Mechanism, and Improved Synthesis of a New and Unique Heterocyclic System with a Fused Imidazole Ring**

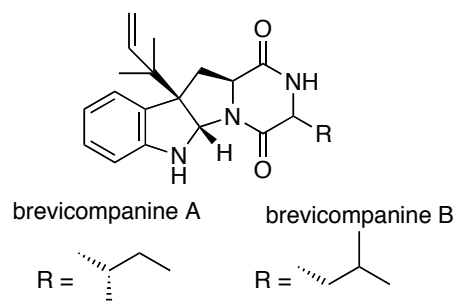
Jianwei Ren, Ashraf A. Khalil, Isamu Katsuyama, and Jordan K. Zjawiony\*



Sampangine Derivative    Arylalkylamine    Condensation    Cyclization

**727 Synthesis of Brevicompanines, Plant Growth Regulators**

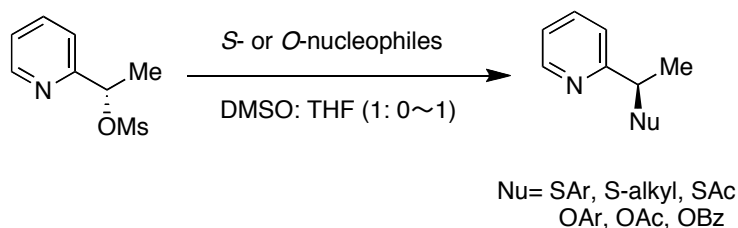
Koji Matsumura and Takeshi Kitahara\*



D-Amino Acid    Diketopiperazine Ring    Cyclization

**735 Stereospecific Substitution of 1-(2-Pyridinyl)ethyl Methanesulfonate with *S*- and *O*-Nucleophiles**

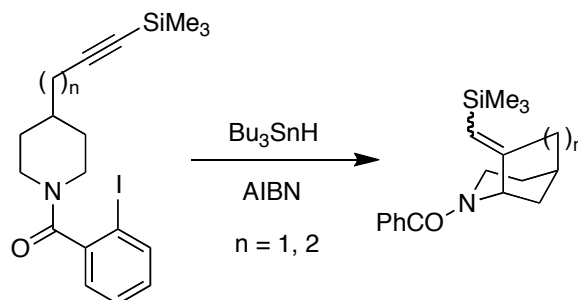
Osamu Yonemitsu, Tomoko Takagi, Masahiro Hamada, and Jun'ichi Uenishi\*



Chiral Pyridine    Substitution Reaction    Pyridine Ligand    Pyridinylethyl Alcohol    Pyridinylethyl Mercaptane

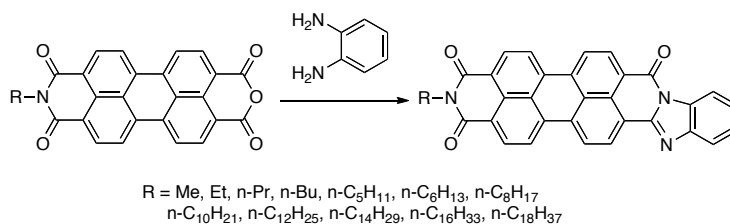
**747 Regioselective Synthesis of Bridged Azabicyclic Compounds Using Radical Translocation/Cyclization Reactions of 4-Alkynyl-1-(*o*-iodobenzoyl)piperidines**

Jun'ichi Uenishi, Yuko Nakano, Kazuya Okamoto, Tatsunori Sato, and Masazumi Ikeda\*


 2-Azabicyclo[3.2.1]octane    Morphan    1,5-Hydrogen Transfer     $\alpha$ -Acylamino Radical    Tributyltin Hydride

**757 Synthesis and Properties of Benzimidazole and Naphthoimidazole Derivatives of Perylenedicarboximide**

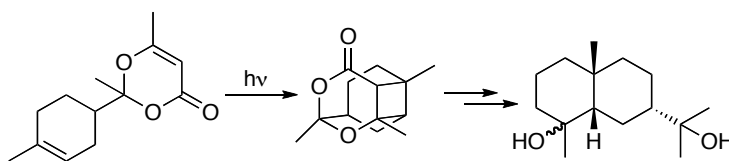
Tokiko Uchida, Kozo Kozawa, Koji Tsuda, and Yukinori Nagao\*



Perylenedicarboximide    Imidazole    Absorption Spectrum    Thermal Stability    Solubility

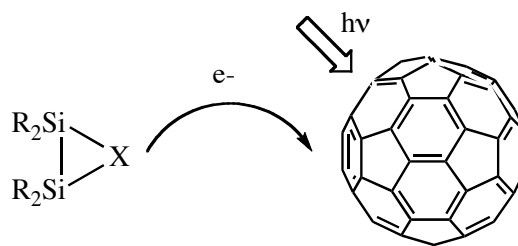
**765 Intramolecular Photocycloaddition of 2-Cycloalkenyl-1,3-dioxin-4-one. Stereoselective Synthesis of *cis*-Eudesmane-4,11-diols**

Hitoshi Takeshita, Akira Mori, Ka Li, and Toshihide Hatsui\*


 1,3-Dioxin-4-one    *cis*-Decalin    Eudesmane-4,11-diol    Photo [2+2] Cycloaddition     $\alpha,\beta$ -Unsaturated Ester

**777 Photoinduced Electron-Transfer Reactions between C<sub>60</sub> and Cyclic Disiliranes (c-R<sub>2</sub>Si-X-SiR<sub>2</sub>; X=SiR<sub>2</sub>, CH<sub>2</sub>, O, NPh, S)**

Yasuhiro Nakadaira, Masahiro Kako, Shigeru Nagase, Kaoru Kobayashi, Takeshi Akasaka, Takatsugu Wakahara, Yutaka Maeda, Mamoru Fujitsuka, Yoshiko Sasaki, and Osamu Ito\*

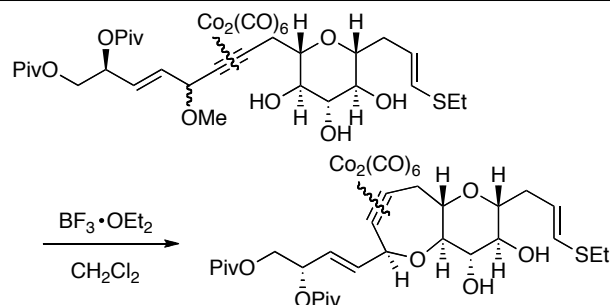


X = SiR<sub>3</sub>, CH<sub>2</sub>, O, NPh, S

Photo-Adduct    Fullerene Photochemistry    Laser Photolysis    Photoinduced Electron Transfer    C<sub>60</sub> Triplet State

**789 Synthesis of Ciguatoxin (2*S*,5*R*)-ABC Segment**

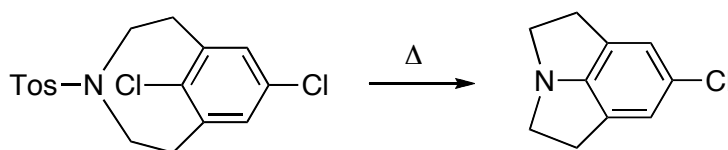
Rungnapha Saeeng and Minoru Isobe\*



Acetylene Biscobalthexacarbonyl    C-Glycosidation    Acid Cyclization    Reductive Decomplexation

**799 3-Aza[5]metacyclophanes: Synthesis and Reactions**

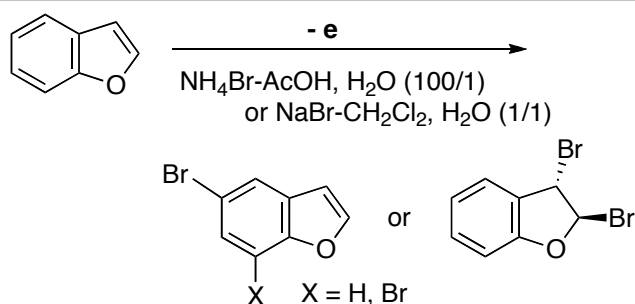
Anthony L. Spek, Willem H. de Wolf, Franciscus J. J. de Kanter, Marianne de Rijke, Arne Egberts, Norbert Gret, Stephen N'Krumah, Maurice J. van Eis, Daniël S. van Es, and Friedrich Bickelhaupt\*



Cyclophane    Diels-Alder Reaction    S<sub>N</sub>2(Ar) Reaction    1,2,3,4-Tetrahydropyrrolo[3,2,1-*h*]indole

**825 Substitution vs Addition. Regioselective Electrobromination of Benzofuran**

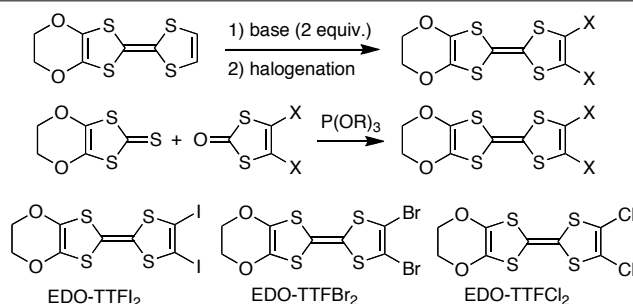
Sigeru Torii, Manabu Kuroboshi, Yusuke Kawakami, and Hideo Tanaka\*



Electrolysis    Bromination    5-Bromobenzofuran    2,3-Dibromo-2,3-dihydrobenzofuran    Benzofuran

**833 Syntheses, Structure and Conducting Properties of Halogenated Ethylenedioxytetrafulvalenes**

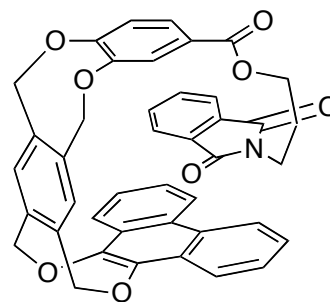
Toshiaki Enoki, Akira Miyazaki, Jun-ichi Nishijo, Naoki Yoneyama, Takehiro Kato, Isao Ikemoto, Hiroyuki Nishikawa, Haruo Matsuyama, Masato Yoshida, Kohei Ugawa, Jun-ichi Takano, Koji Takeda, Takahiro Takano, Hironori Suzuki, Kenji Hara, Eiji Ogura, Yoshiyuki Kuwatani, and Masahiko Iyoda\*



Tetrafulvalene    Donor    Electrical Conductor    Halogenated Compound    X-Ray Crystal Structure

**849 Intramolecular Complex Formation between Flexible Molecular Tweezers and Weak Electron Acceptor**

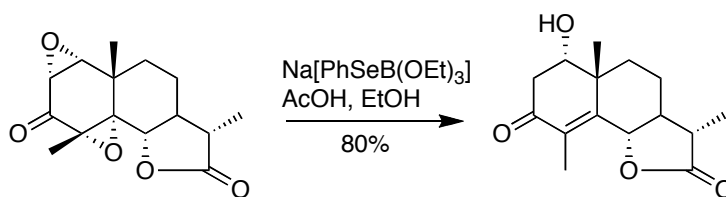
Hirota Kurebayashi and Yoshimasa Fukazawa\*



Intramolecular Charge Transfer Interaction    Molecular Mechanics    X-Ray Crystallography    Chemical Shift Simulation

**865 Short-Step Synthesis of Some Santanolides, Dehydroisoerivanin, Isoerivanin, Ludovicin C, and 1 $\alpha$ ,3 $\alpha$ -Dihydroxyarbusculin B by the Use of the Organoselenium Reduction Method of Epoxy Ketones**

Toshio Suzuki and Masaaki Miyashita\*

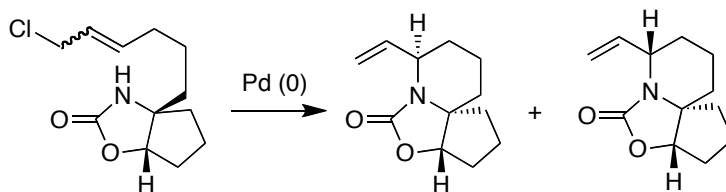


dehydroisoerivanin

 $\beta$ -Hydroxy Ketone    1,3-Diol    Sesquiterpene Lactone     $\gamma$ -Lactone    Reductive Cleavage

**871 Synthetic Studies on Halichlorine and Pinnaic Acid: Palladium-mediated Construction of the Bicyclic Spiro Core**

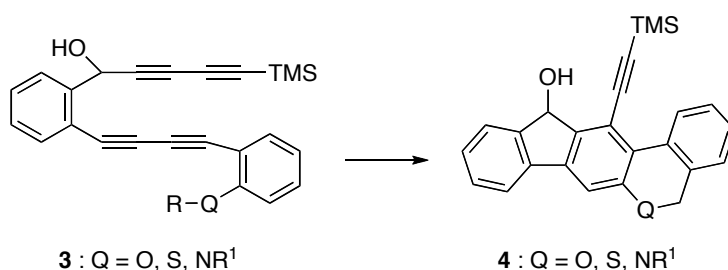
Mitsuru Shindo, Wakako Yokota, and Kozo Shishido\*



VCAM-1    Alkaloid    Piperidine    Baker's Yeast    Spiro Ring

**887 Synthesis of Indeno[1,2-*b*]phenanthrene-Type Heterocycles by Cycloaromatization of Acyclic Non-conjugated Benzotetraynes**

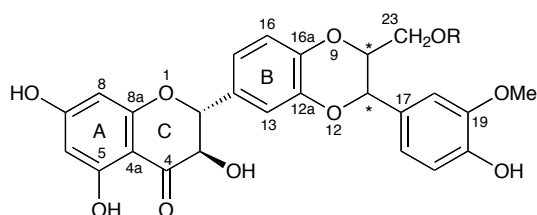
Fukuko Ueno, Kazuhiro Miyawaki, and Ikuo Ueda\*



Thermolysis    Intramolecular Annulation    Stille Reaction    1,4-Bis(trimethylbuta-1,3-diyne)

**901 Chemoenzymatic Preparation of Oligoglycosides of Silybin, the Flavonolignan from *Silybum marianum***

V. Kren, N. Skottová, R. Gazák, P. Halada, P. Sedmera, J. Kubisch, and Vilím Simánek\*

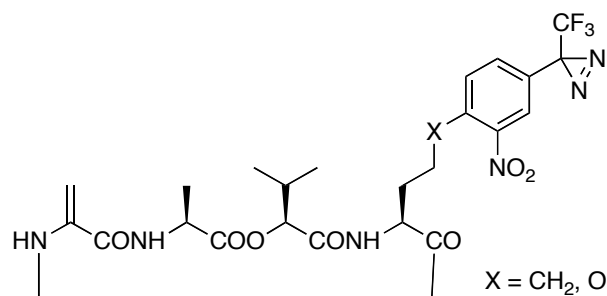


1 R = H  
 2 R =  $\beta$ -D-glucopyranosyl  
 3 R =  $\beta$ -D-galactopyranosyl

Antioxidant    Low Density Lipoprotein    Flavonolignan    Enzymatic Glycosylation    Radical Scavenger

**917 Synthesis of Alternariolide Analogs for Photoaffinity-Labeling**

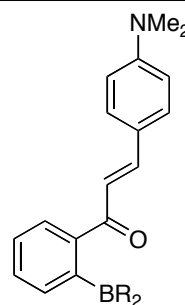
Kimiko Hashimoto, Toshikatsu Okuno, Chikanori Morita, and Haruhisa Shirahama\*



Host-specific Phytotoxin    3-(3-Nitro-4-alkyl)- and 3-(3-Nitro-4-alkoxy)phenyl-3-trifluoromethyl-diazirines    AM-Toxin    Peptide

**929 Synthesis, Structure and Spectroscopic Characteristics of 2'-Boryl-4"-dimethylaminochalcones. Effect of an Intramolecular Boron-Oxygen Coordinate Bond to the Conjugated System**

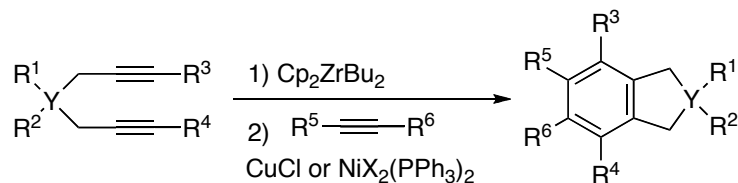
Shigenobu Yano, Masako Kato, Yuji Mikata, Yoshikazu Sugihara, Tomokazu Moriya, Sachiko Yanagimoto, Kenji Sugimoto, and Toshihiro Murafuji\*



Organoboron    Chromophore    Solvatochromism    Equilibrium    Dipole Moment

**943 Preparation of Benzoheterocycles Containing Group 14 Elements Using Zirconacyclopentadienes**

Feng Xu, Fu-Yu Tsai, Yasuyuki Ura, Yanzhong Li, and Tamotsu Takahashi\*

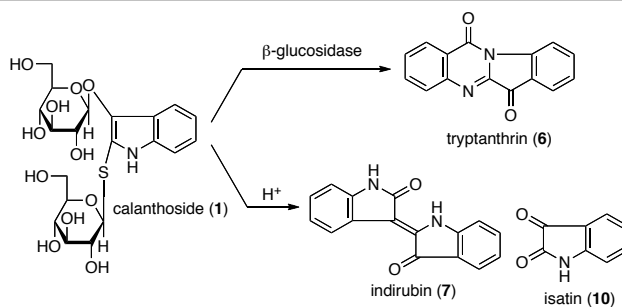


Y = Si, Ge, Sn

Benzosilacycle    Benzogermacycle    Benzostannacycle    Zirconacycle    Zirconocene

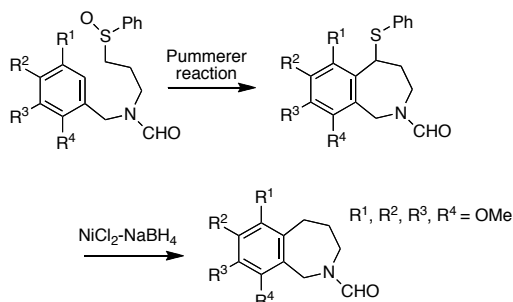
**957 Chemical Constituents of Two Oriental Orchids, *Calanthe discolor* and *C. liukuensis*: Precursor Indole Glycoside of Tryptanthrin and Indirubin**

Hisashi Matsuda, Tetsuo Sakurama, Akinobu Kishi, Toshiyuki Murakami, and Masayuki Yoshikawa\*


 Chinese Traditional Medicine    Indole *S,Q*-Bisdesmoside    Calanthoside    Glucoindican    Calaphenantheol

**967 Synthesis of 2,3,4,5-Tetrahydro-1*H*-2-benzazepines via Pummerer-Type Cyclization of *N*-Arylmethyl-*N*-(3-phenylsulfanylpropyl)formamides**

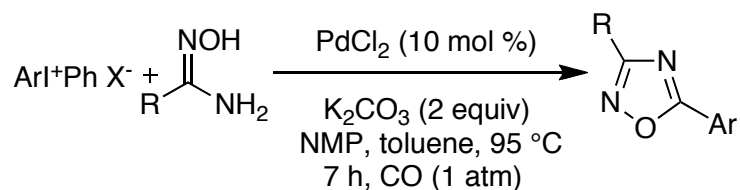
Jun Toda, Tomoko Kimura, Konomi Honda, Sachiko Terakado, Toshiaki Saitoh, Yoshie Horiguchi, and Takehiro Sano\*


 1*H*-2-Benzazepine    Pummerer Reaction    Thionium Ion    Trifluoroacetic Anhydride    BF<sub>3</sub>·Et<sub>2</sub>O

## ■ NOTE

**985 Palladium-catalyzed Carbonylative Coupling of Hypervalent Iodonium Salts with Amidoximes: Synthesis of Oxadiazoles**

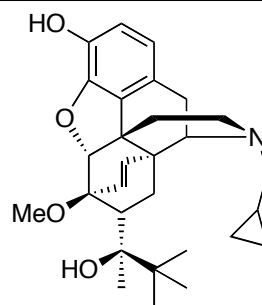
Young-Taek Hong, Hyung-Chul Ryu, and Suk-Ku Kang\*



Palladium-catalyzed Reaction    Carbonylative Cross-Coupling Reaction    Hypervalent Iodine Compound    Oxadiazole    Cyclodehydration

**989 Synthesis and Pharmacological Evaluation of 18,19-Dehydrobuprenorphine**

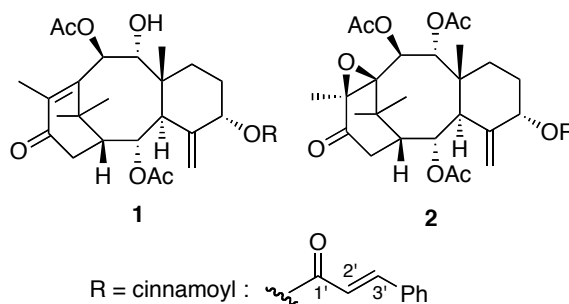
Lucia Negri, Roberta Lattanzi, Klaus Wurst, Roland Krassnig, Johannes Schütz, and Helmut Schmidhammer\*



Morphinan    Buprenorphine Analogue    Dehydrobuprenorphine    Analgesic    Opioid

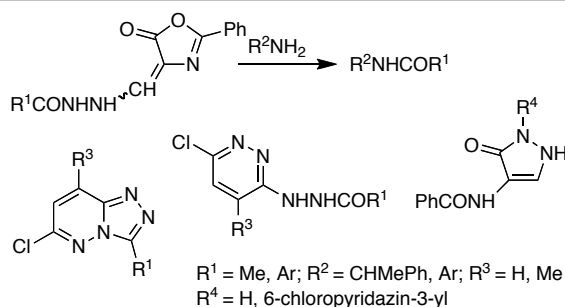
**999 Two Taxoids from *Taxus cuspidata* as Modulators of Multidrug Resistant Tumor Cells**

Takashi Tsuruo, Akihiro Tomida, Katutoshi Hirose, Naonori Hirata, Shujun Zhang, Katsuhiko Kosugi, Hirofumi Sasaki, Jun-ichi Sakai, and Masayoshi Ando\*


 Taxane Diterpene    *Taxus cuspidata*    Modulator of Multidrug Resistant Tumor Cell

**1011 4-Acylhydrazinomethylene-2-phenyloxazol-5(4*H*)-ones as Acylating Agents: Synthesis of Salicylanilides and 1,2,4-Triazololo[4,3-*b*]pyridazines**

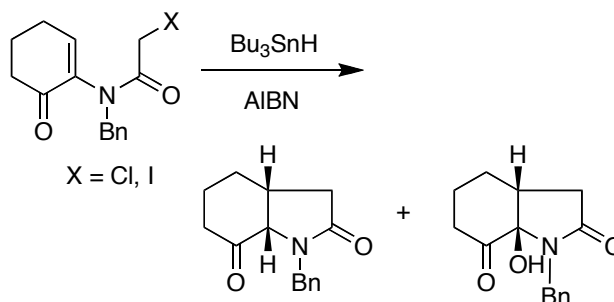
Slovenko Polanc, Franc Pozgan, and Marijan Kočever\*



Hydrazide    Amide    Pyrazol-3- and 5-one    Pyridazine    Zirconium(IV) Chloride

**1021 5-*endo-trig* Radical Cyclization of *N*-Benzyl-2-halo-*N*-(6-oxo-1-cyclohexen-1-yl)acetamides**

Tatsunori Sato, Shinji Ohtani, Serry A. A. El Bialy, and Masazumi Ikeda\*

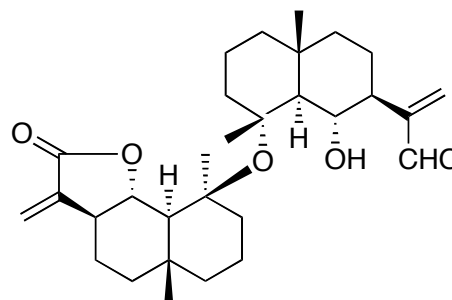

 Octahydro-7a-hydroxyindole-2,7-dione    *N*-Vinyllic  $\alpha$ -Haloacetamide    Cpto-dative Effect    Tributyltin Hydride    5-Membered Lactam



■ REVIEWS

1057 **Sesquiterpene Lactones and Acetogenin Lactones from the Hepaticae and Chemosystematics of the Liverworts *Frullania*, *Plagiochila* and *Porella***

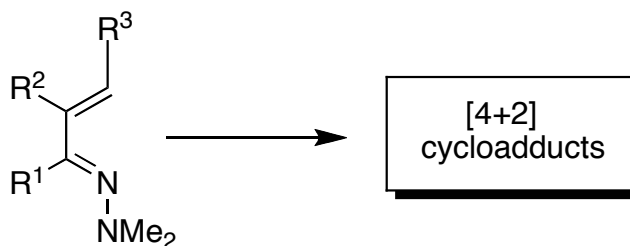
Lahlou El Hassane, Toshihiro Hashimoto, Fumihito Nagashima, Masao Toyota, and Yoshinori Asakawa\*



Bryophyte    Sesquiterpenoid    Biological Activity    2,3-Secoaromadendrane    Pinguisane

1095 **Cycloadditions of  $\alpha,\beta$ -Unsaturated *N,N*-Dimethylhydrazones. A Diels-Alder Strategy for the Building of Aza-Hetero Rings**

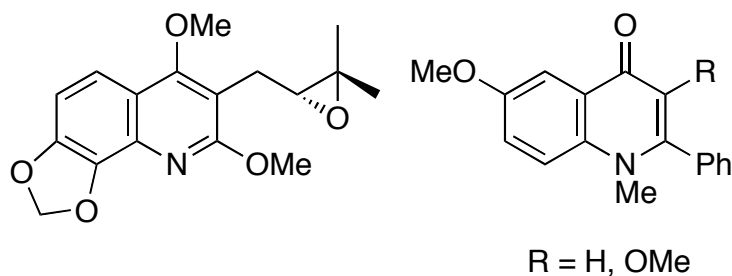
Zouhair Bouaziz, Pascal Nebois, Félix Pautet, and Houda Fillion\*



1-Azadiene    Hetero Diels-Alder Reaction    Dienophile    Quinone    Regioselectivity

1139 **Quinoline Alkaloids of *Orixa japonica***

Toshiro Noshita, Kiyoshi Murata, and Shinji Funayama\*



Biosynthesis    Absolute Stereochemistry    Biological Activity    Johzan

■ INDEXES

- 1149 **Author Index**  
1169 **Subject Index**