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Shô Itô\*
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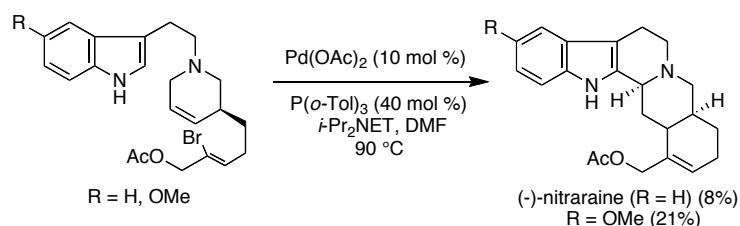
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Shô Itô\*

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43 Cascading Single-step Stereoselective Construction of the  $\alpha$ -Alloyohimbine Framework: A New Synthesis of (-)-Nitrarine

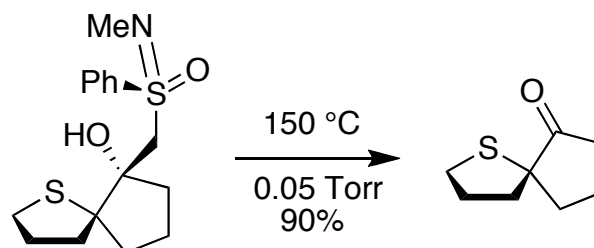
Hideki Sakagami and Kunio Ogasawara\*



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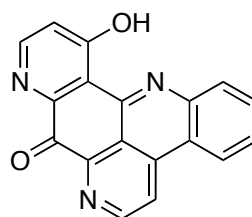
Miriam Alvarez, Richard Todd Bibart, Fabrizio Fabris, Dafydd R. Owen, James C. Lanter, and Leo A. Paquette\*



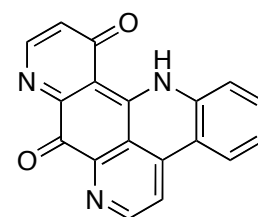
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Masahiro Kataoka and Tsuguo Sato\*



meridine (1)

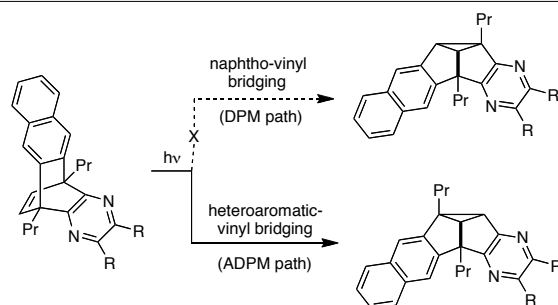


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Rama Krishna Peddinti, Chuan-Hung Chou, and Chun-Chen Liao\*



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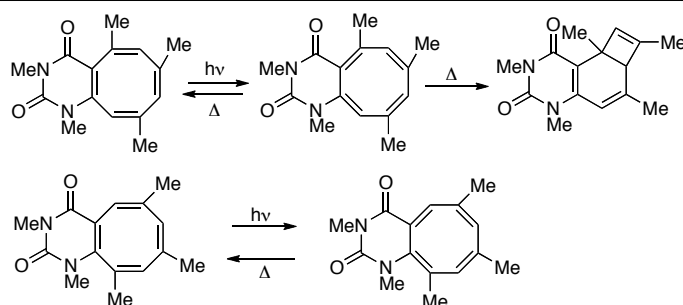
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Akiyo Sakushima, Shun Uchiyama, Ken-ichi Nishijima, Kazue Ohkura, and Koh-ichi Seki\*



Pentamethylcyclooctapyrimidine-2,4-dione

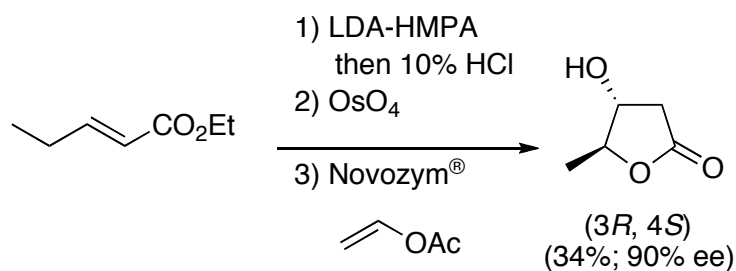
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Yoshiharu Iwabuchi, Tomoyuki Esumi, Toshiko Nishioka, Takashi Nishiyama, and Susumi Hatakeyama\*

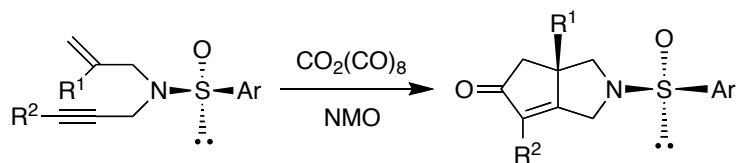

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Takashi Watanabe and Kunio Hiroi\*



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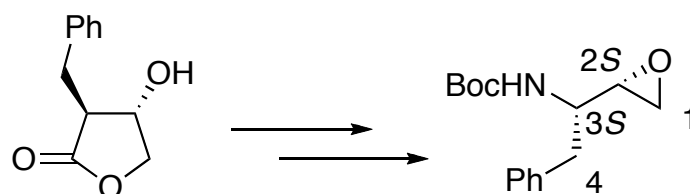
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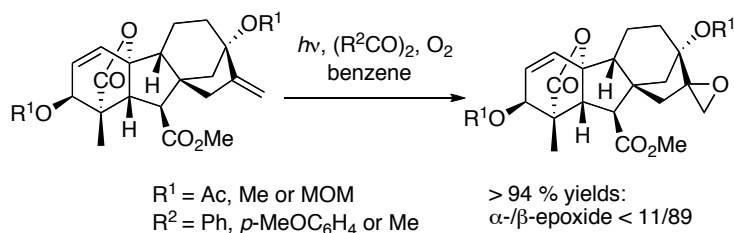
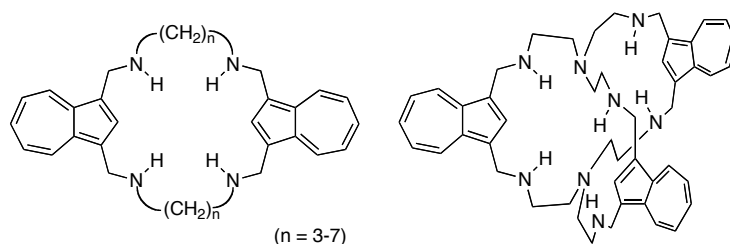


Photo-Epoxydation    Radical Reaction    Benzil    Stereoselectivity

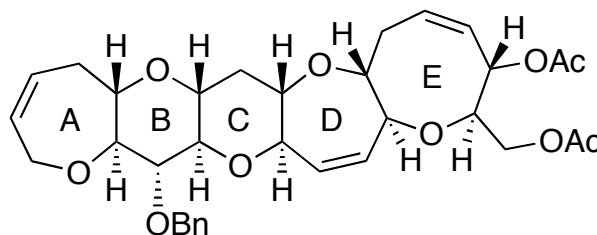
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Tetsuo Nozoe, Teruo Kurihara, and Hidetsugu Wakabayashi\*


 Macrocyclic    Azulenocoronand    Cryptand    Azulenoid     $\alpha,\omega$ -Alkanediamine

**93 Convergent Strategy for Synthesizing Polycyclic Ether Marine Toxins: Synthesis of the ABCDE Ring Fragment of Ciguatoxin CTX3C**

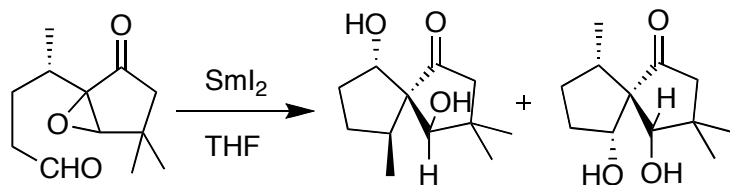
Hiroki Oguri, Tohru Oishi, Kenji Maeda, Megumi Maruyama, and Masahiro Hiramata\*



Intermolecular Alkylation    Ring-closing Metathesis    Grubbs' Catalyst    Tetrahydrooxepin    Tetrahydrooxocin

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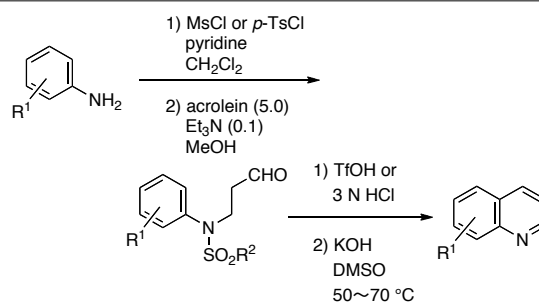
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Cyclization    Hydrindanone    Radical Reaction    Epoxide    Spiro Compound

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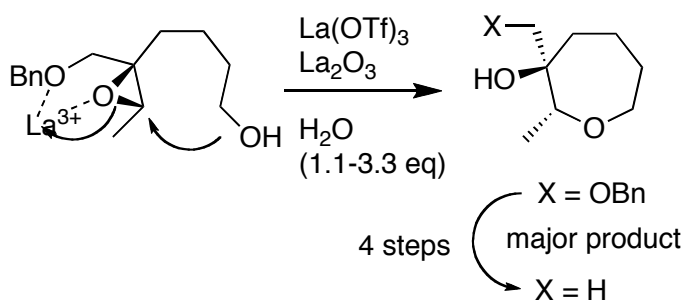
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Quinoline    Dehydroquinoline    Aniline    Sulfonamide    Cyclization

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Tetsuo Tokiwano, Hiroshi Morishita, Kenshu Fujiwara, and Akio Murai\*



7-endo Ring-Opening of Hydroxy Epoxide

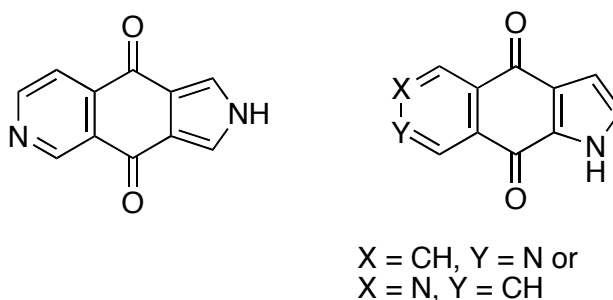
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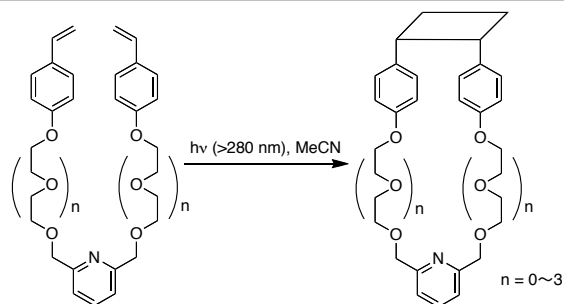
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Takashi Funaki, Koichi Kimura, Seiichi Inokuma, and Jun Nishimura\*



[2+2] Photocycloaddition

Crownophane

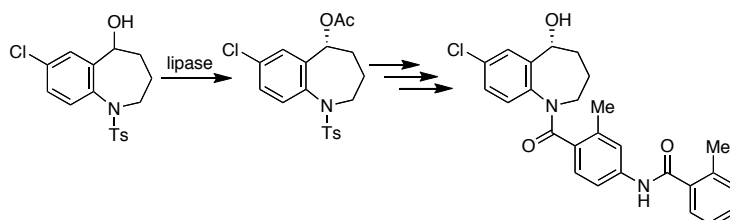
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Kinetic Resolution

5-Hydroxybenzazepine

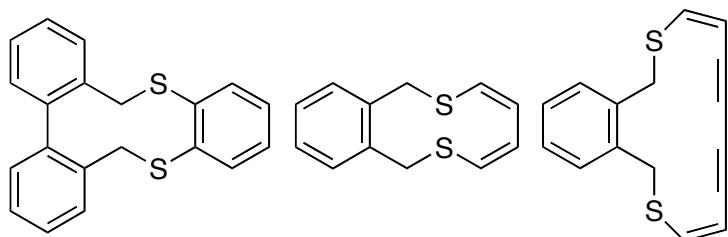
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Mikio Hori, Tadashi Kataoka, Masahiro Mizuno, Hiroyoshi Watanabe, and Hiroshi Shimizu\*


 Tribenzo[*b,f,h*][1,4]dithiecin

Dihydro-2,7-benzodithiecin

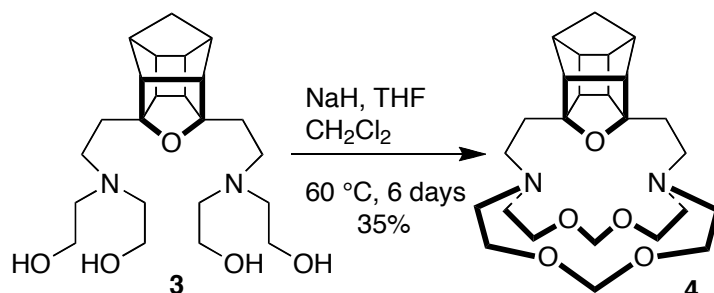
Benzodithiacyclotetradecin

Hexahydro-2,7-benzodithiecin-4,5-diol

Butadiyne

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Mohamed Takhi, Hyun-Soon Chong, H. K. Hariprakash, and Alan P. Marchand\*



Crown Ether

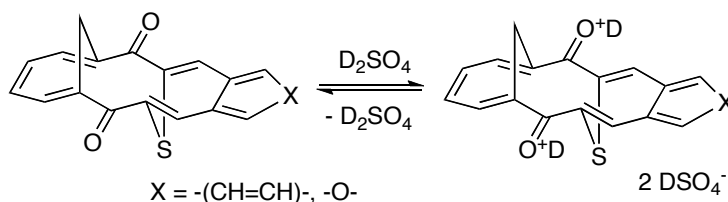
Cryptand

Cage Compound

Alkali Metal Picrate Extraction

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Mayumi Kyogoku, Takanori Kajioka, Sha. I. Shaheen, Ryuta Miyatake, Shinji Furuta, Teruhiko Nishikawa, Yukiyasu Hirano, Atsushi Fukuta, Yoshihiro Mizukami, Shin-ya Kuramoto, Mitsunori Oda, Shengli Zuo, and Shigeyasu Kuroda\*



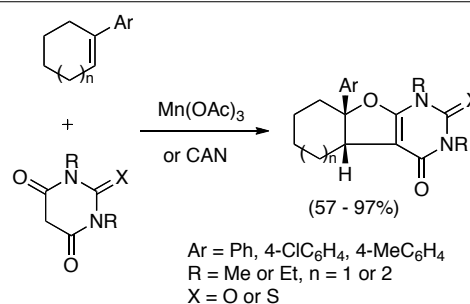
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Kazu Kurosawa, Shougo Kajikawa, and Hiroshi Nishino\*


 Hexahydrobenzo[*h*]furan

Radical Cyclization

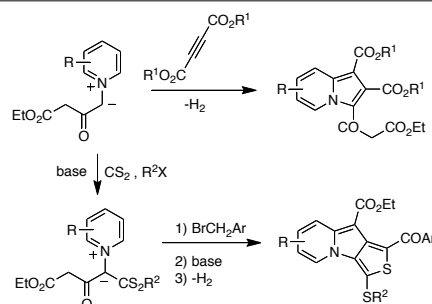
Mn(III)

Ce(IV)

Barbituric Acid Derivative

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Katsuaki Yasuraoka, Hiroyuki Suga, Suketaka Ito, and Akikazu Kakehi\*



Cycloaddition

Cyclization

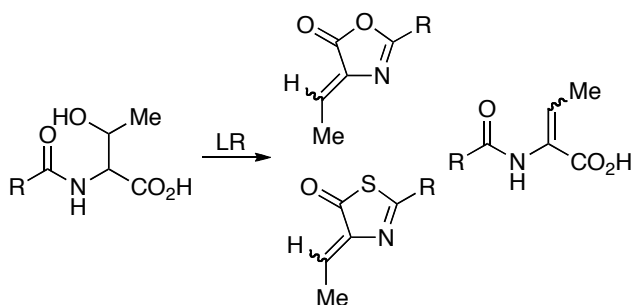
Pyridinium Methylide

Indolizine

 Thieno[5,4-*b*]indolizine

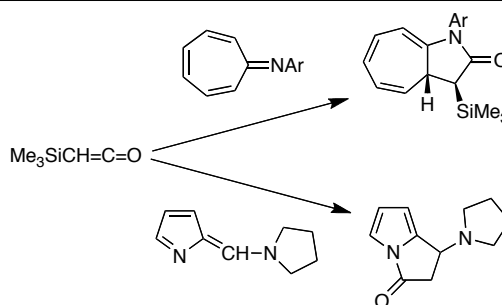
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Mayuko Ori and Takehiko Nishio\*


 Thionation    *N*-Acylthreonine    5-Oxazolone    5-Thiazolone    Thiazoline

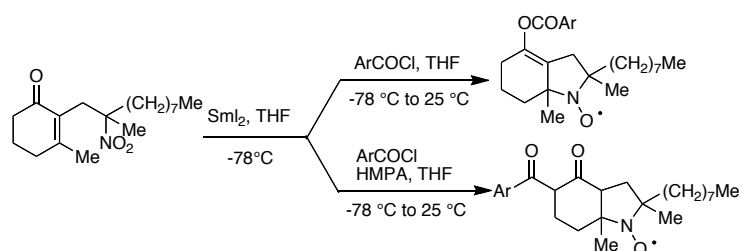
**209 Cycloaddition Reactions of Trimethylsilylketene with 8-Azaheptafulvenes and 6-Amino-1-azafulvenes**

Takayuki Shioiri, Kiyo Takaoka, and Toyohiko Aoyama\*


 Trimethylsilylketene    [8+2] Cycloaddition    1-Azaazulen-2(1*H*)-one    [6+2] Cycloaddition    1*H*-Pyrrolizin-3(2*H*)-one

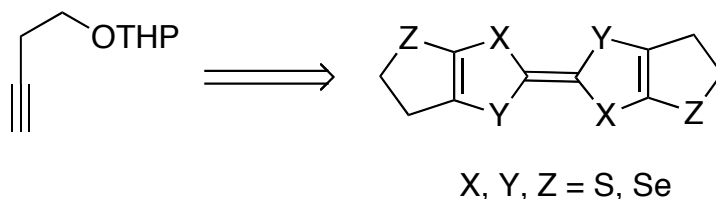
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Ken-ichi Hirao, Kasuke Fujita, Satoshi Shimono, and Rui Tamura\*


 Asymmetric Bicyclic Nitroxide    Nitro Compound    Isomerization    MO Calculation     $S_{RN}1$  Reaction

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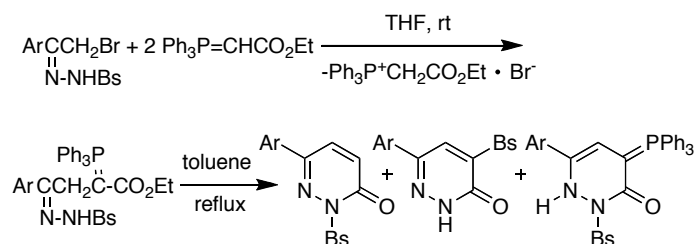
Yoshio Aso, Kazuo Takimiya, Tetsuya Jigami, Satoshi Murakami, Mie Kodani, and Tetsuo Otsubo\*



TTF    Heterocycle    Sulfur    Selenium    Transalkylation

**237 Thermolysis of Ethoxycarbonyl[2-phenyl-2-(phenylsulfonylhydrazono)ethyl]methylene triphenylphosphoranes. Formation of Substituted Pyridazinones**

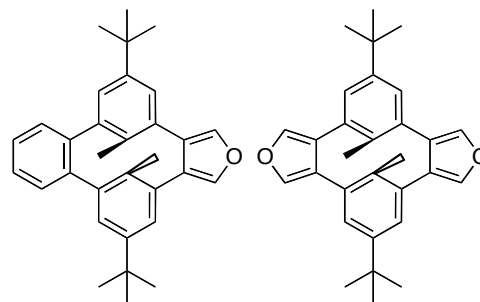
Ikuko Shibazaki, Kyoko Okada, Akikazu Kakehi, and Suketaka Ito\*


 $Ar = C_6H_4X-p$ ;  $X = H, Br, Cl, Me, OMe$ ;  $Bs = PhSO_2$ 

 Phenylsulfonylhydrazone     $\alpha$ -Bromoacetophenone    Crystallograph    3(2*H*)-Pyridazinone    1,4-Dihydro-3(2*H*)-pyridazinone

**249 [2<sub>2</sub>]Metacyclophanedienes with Furan Bridges**

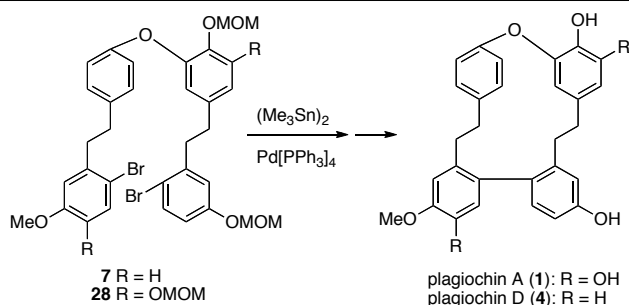
Yunxia Wang, Timothy R. Ward, and Reginald H. Mitchell\*



Diels-Alder Reaction    Aryne    Dihydropyrene    Valence Isomerisation    Metacyclophane

**259 Total Syntheses of Plagiochins A and D, Macrocyclic Bis(bibenzyls), by Pd(0) Catalyzed Intramolecular Stille-Kelly Reaction<sup>1</sup>**

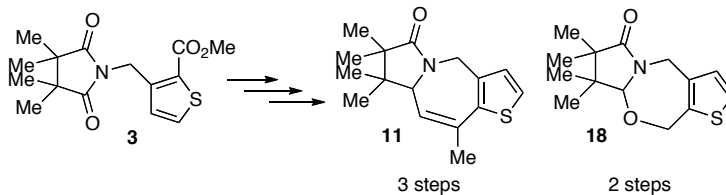
Mitsuaki Kodama, Hiroyuki Minami, Hironobu Takahashi, Takashi Mori, Hideyuki Yaso, and Yoshiyasu Fukuyama\*



Cyclic Bis (bibenzyls)    Plagiochins A, B    Stille Reaction    Palladium    Neurotrophic Activity

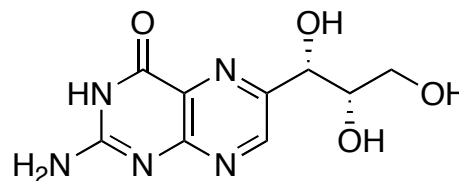
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Bernard Decroix, Stefan Marchalin, Aïcha Mamouni, and Adam Daïch\*


 Regioselective Reduction    Cationic Cyclization    *N*-Acyliminium Ion    [2] Azepine    [1,3] Oxazepine

**283 A Convenient Determination of Chiral Pteridines; Application of Fluorescence Detected Circular Dichroism (FD CD) to the Major Pterin from *Escherichia coli***

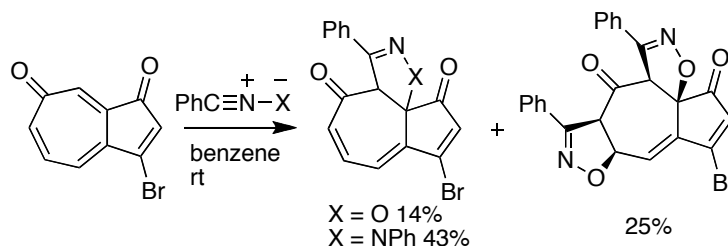
Akio Wada, Toshiharu Nagatsu, Hiroshi Ichinose, Yasumichi Hagino, Takahide Nomura, Masahiro Tazawa, Shizuaki Murata, Kazuhisa Ikemoto, and Takashi Sugimoto\*



Monapterin    Isolation    Configuration    Tetrahydromonapterin

**291 1,3-Dipolar Cycloadditions of 3-Bromo-1,5- and 3-Bromo-1,7-azulenequinones with Diazomethane, Diphenylnitrilimine, and Benzonitrile Oxide**

Tetsuo Nozoe, Hitoshi Takeshita, Nobuo Kato, Kanji Kubo, Katsuji Hirowatari, Yong Zhe Yan, and Akira Mori\*

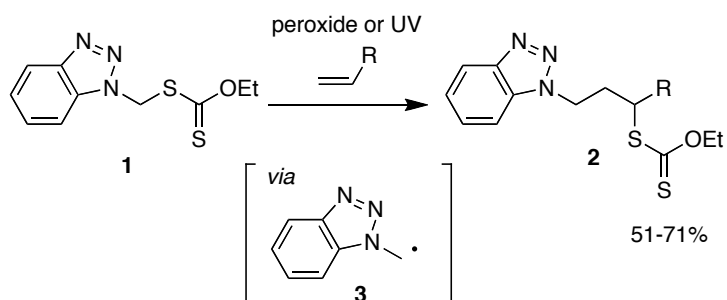


Cyclooctatrienone    Azulenopyrazole    Azulenediisoxazole    X-Ray Crystallographic Analysis    Molecular Orbital Consideration



**301 Xanthate Mediated Generation of the Benzotriazol-1-yl-methyl Radical and Its Subsequent Addition to a Variety of Olefins**

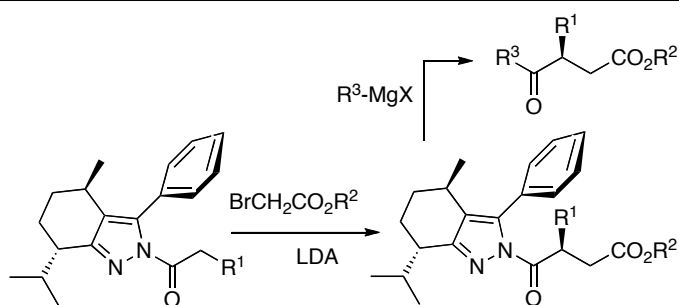
Sergey N. Denisenko, Martin A. C. Button, and Alan R. Katritzky\*



Xanthate    Benzotriazole    Radical    Dithiocarbonate

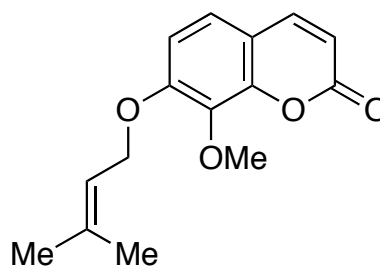
**309 Preparation of  $\beta$ -Substituted  $\gamma$ -Keto Esters by the Grignard Reaction on *N*-Acylpyrazoles**

Yoshihiro Tsukamoto, Yoshie Shirahata, and Choji Kashima\*


 $\alpha$ -Alkylation of *N*-Acylpyrazole    Chiral  $\beta$ -Substituted  $\gamma$ -Keto Ester    3-Phenyl-l-menthopyrazole    Grignard Reaction

**319 Revision of the Structure of a New Coumarin Isolated from *Artemisia carvifolia* Wall**

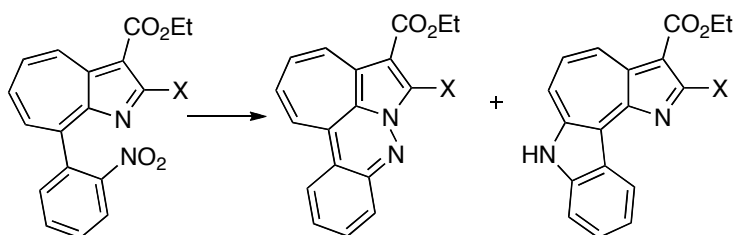
Yasuo Takeuchi, Hitoshi Abe, Masako Fujii, Yoshitaka Nishita, Keiko Katsuno, and Takashi Harayama\*



Salicylaldehyde    Wittig Reaction    Coumarin Synthesis    Methoxylated Prenyloxycoumarin    Structure Revision

**329 Reductive Cyclization of 8-(2-Nitrophenyl)-1-azaazulene Derivatives; Formation of 6a,7-Diazanaphth[3,2,1-*cd*]-azulene and 7*H*-1,7-Diazaindeno[1,2-*e*]azulene Systems, a New DNA Intercalater**

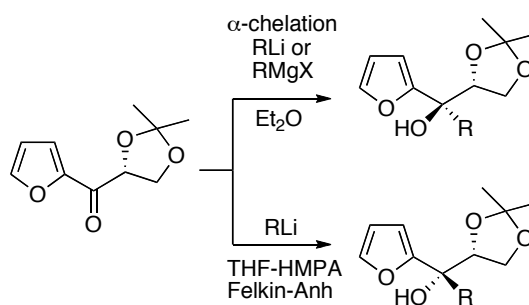
Takeo Konakahara, Yuichi Kageura, Akikazu Kakehi, Hiroyuki Fujii, Maki Nabeshima, and Noritaka Abe\*



Fused 1-Azaazulene    Mesomeric Betaine    X-Ray Structure Analysis    MO Calculation    Binding Constant

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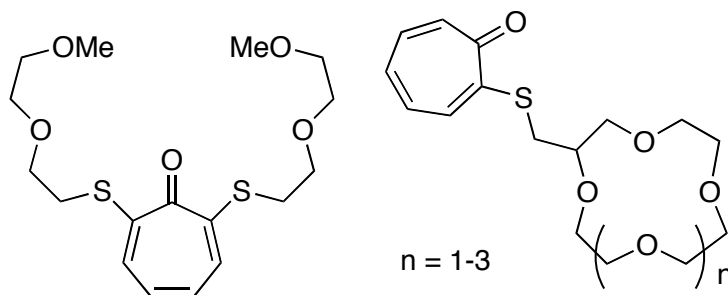
Naohiro Taramoto, Masayoshi Tsubuki, and Toshio Honda\*



Tertiary Furyl Carbinol    Nucleophilic Addition    Organolithium    Grignard Reagent

**351 Synthesis and Mercuriphilic Properties of Acyclic and Thiolariat Ethers Having a Tropone Pendant**

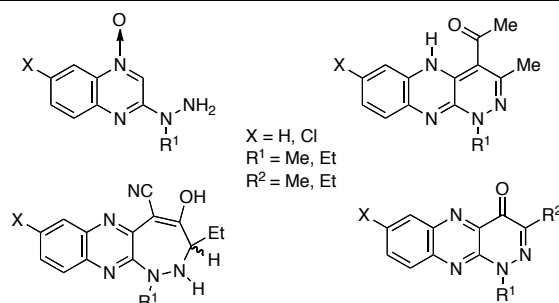
Akira Mori and Kanji Kubo\*



Troponoid    Podand    Armed Crown Ether    Mercury(II) Ion    Liquid Membrane

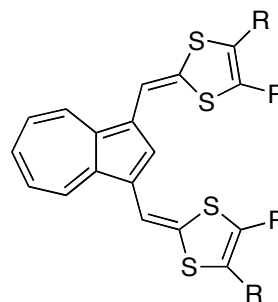
**359 Quinolone Analogues 3. Synthesis of 1,3-Dialkyl-4-oxo-1,4-dihydropyridazino[3,4-*b*]quinoxalines**

Ho Sik Kim, Yoshihisa Okamoto, Miharuru Ogura, Yaeko Kishimoto, Shinichi Ohshima, and Yoshihisa Kurasawa\*


 Quinolone Analogue    Quinoxaline *N*-Oxide    Pyridazino[3,4-*b*]quinoxaline    Antibacterial Activity    Oxidation

**377 Preparation, Structure, and Properties of 1,3-Bis(1,4-dithiafulven-6-yl)azulenes**

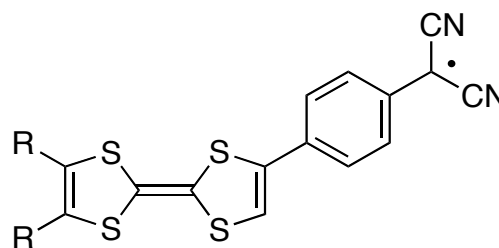
Yoshiro Yamashita, Naoki Fujisawa, Kyoko Yamaguchi, Akira Ohta, and Kunihide Fujimori\*



1,3-Dithiole    Electron Donor    Cyclic Voltammetry    Spectroelectrochemistry    X-Ray Analysis

**387 Generation and Amphoteric Redox Properties of Novel Neutral Radicals with the TTF-TCNQ Hybrid Structure 1**

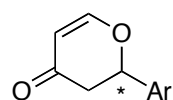
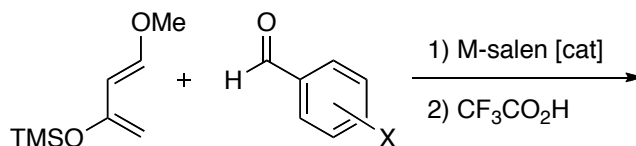
Takashi Tsuji, Masakazu Ohkita, Masahiro Yamada, and Takanori Suzuki\*



Electron Donor    Electron Acceptor    Charge-Transfer    Organic Conductor    Electron-Transfer

**395 Lewis Acid Catalysis of Second-generation Metallosalen Complexes: An Explanation for Stereochemistry of Asymmetric Hetero Diels-Alder Reaction**

Ryo Irie, Tatsuya Uchida, Kohsuke Aikawa, Jun Mihara, and Tsutomu Katsuki\*

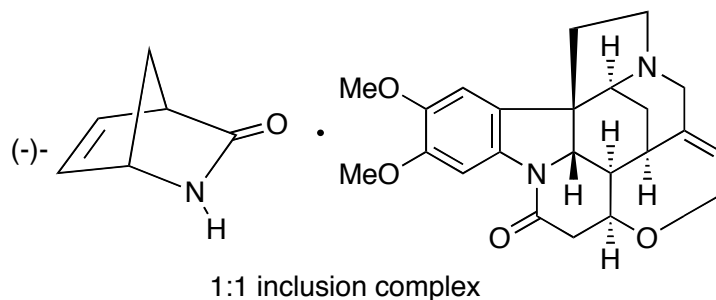

 $X =$   
 $\sigma\text{-MeO: 96\% e.e. (S) [(R,S)\text{-Cr}]$   
 $p\text{-MeO: 92\% e.e. (R) [(R,R)\text{-Cr}]$   
 $\sigma\text{-BnO: 96\% e.e. (S) [(R,S)\text{-Ru}]$ 

 (Salen)chromium Complex    (Salen)ruthenium Complex    Danishefsky's Diene    *cis*- $\beta$ -Structure

## ■ NOTES

**405 Optical Resolution of 2-Azabicyclo[2.2.1]hept-5-en-3-one by Inclusion Complexation with Brucine**

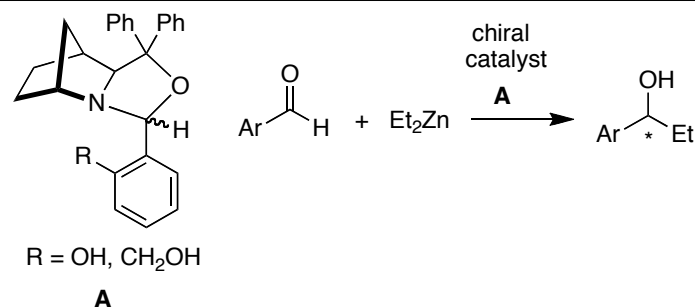
Masako Kato, Koichi Tanaka, and Fumio Toda\*



Optical Resolution    Chiral Recognition    Inclusion Complex    2-Azabicyclo[2.2.1]hept-5-en-3-one    Brucine

**411 Synthesis of New Chiral Catalysts, 2-Azanorbornyl-oxazolidines, for Enantioselective Addition of Diethylzinc to Aldehydes**

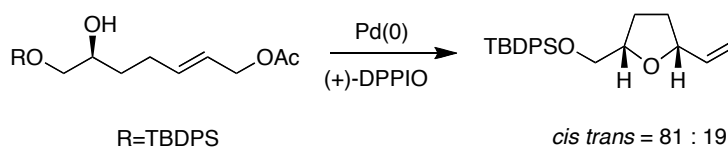
Kazuto Iwasa, Yuko Okuyama, Hiroto Nakano, and Hiroshi Hongo\*



Chiral Oxazolidine    β-Amino Alcohol    Catalytic Asymmetric Synthesis    2-Azanorbornylmethanol    Chiral Secondary Alcohol

**419 Synthesis of 2,5-Disubstituted Tetrahydrofurans Catalyzed by Palladium(0)**

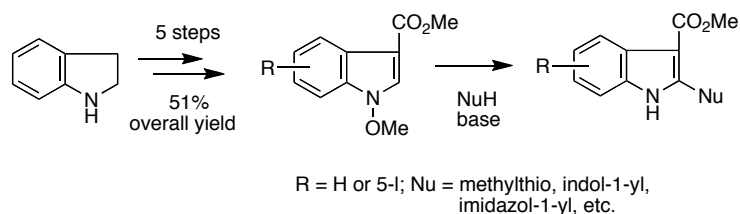
Youji Sakagami, Yasumasa Hamada, Kazushige Fujii, and Osamu Hara\*



Allylic Substitution Reaction    Reagent Control    Chiral Ligand

**425 Syntheses of Wasabi Phytoalexin (Methyl 1-Methoxyindole-3-carboxylate) and Its 5-Iodo Derivative, and Their Nucleophilic Substitution Reactions**

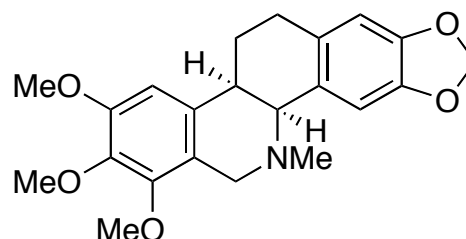
Toshiharu Ohta, Fumio Yamada, Hitomi Orita, Asuka Tanimoto, and Masanori Somei\*



1-Methoxyindole-3-carboxylate    5-Iodo-1-methoxyindole-3-carboxylate    5-Iodoindole-3-carboxylate    6-Iodoindole-3-carboxylate

**433 Alternative Synthesis of B/C-*cis* Hexahydrobenzo[*c*]phenanthridine from 2-Phenyl-1-tetralone**

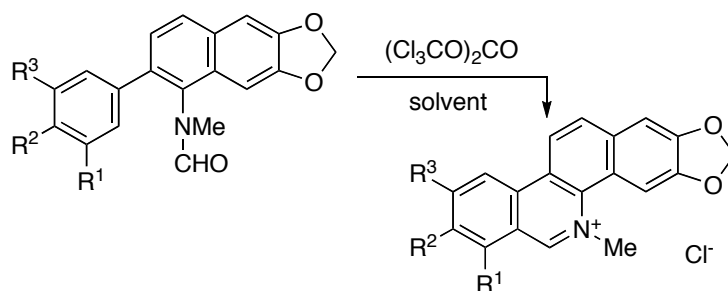
Toshiko Watanabe, Makoto Yoshida, and Tsutomu Ishikawa\*



Reductive Amidation    Formenamide    Bischler-Napieralski Reaction    Hydride Reduction

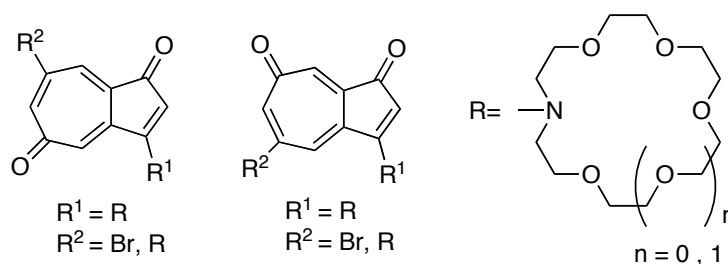
**437 Triphosgene: A Versatile Reagent for Bischler-Napieralski Reaction**

Makoto Yoshida, Tatsuru Saito, and Tsutomu Ishikawa\*


 Dehydration    Benzo[*d*]phenanthridinium Chloride    2-Phenyl-1-(*N*-methylformamido)naphthalene

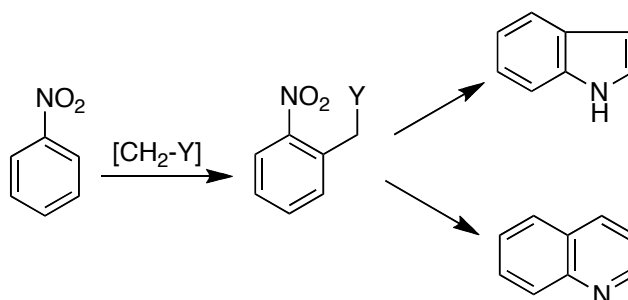
**439 Preparation of Azulenequinones Containing Azacrown Moieties and the Singular Complexation of Sodium or Potassium Cation by 3,5-Bis(aza-18-crown-6)-1,7-azulenequinone in Solution**

Noriko Matsuda, Ohki Sato, and Josuke Tsunetsugu\*


 Nucleophilic Substitution    Complexation Property    <sup>1</sup>H NMR Study    Play Catch    Sandwich

**REVIEWS**
**445 Nucleophilic Aromatic Substitution of Hydrogen as a Tool for the Synthesis of Indole and Quinoline Derivatives**

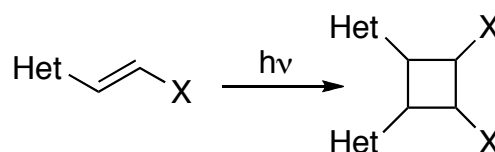
Krzysztof Wojciechowski and Mieczyslaw Makosza\*



Carbanion    Nitroarene    Vicarious Nucleophilic Substitution    Oxidative Nucleophilic Substitution

**475 Photochemical Dimerization in Solution of Heterocyclic Substituted Alkenes Bearing an Electron Withdrawing Group**

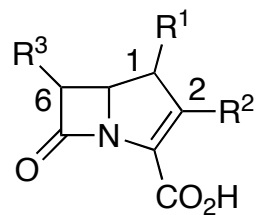
Maurizio D'Auria\*



Dimerization of Alkene    Frontier Orbital Control    Photochemistry

497 **The Structural Aspects of Carbapenem Antibiotics**

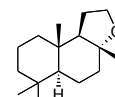
Makoto Sunagawa and Akira Sasaki\*



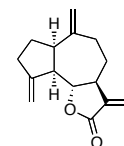
Chemical Modification    Structure-Activity Relationship    Meropenem

529 **Biotransformation of Terpenoids from the Crude Drugs and Animal Origin by Microorganisms**

Yoshiaki Noma, Toshihiro Hashimoto, and Yoshinori Asakawa\*



(-)-ambrox



dehydrocostuslactone

(-)-Ambrox    Saussureae Radix    Santonin    *Aspergillus niger*    *Botryosphaeria dothidea*