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9 **From the "Ordeal Bean" (*Physostigma venenosum*) to the Ordeal of Alzheimer's Disease ----- Some of the Legacy of Percy Lavon Julian (1899 - 1975)**
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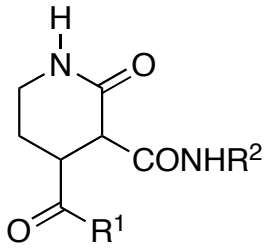
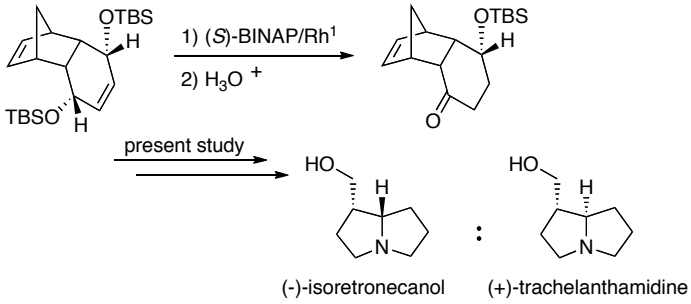
Alexander v. Zychlinski and Ivar Ugi*



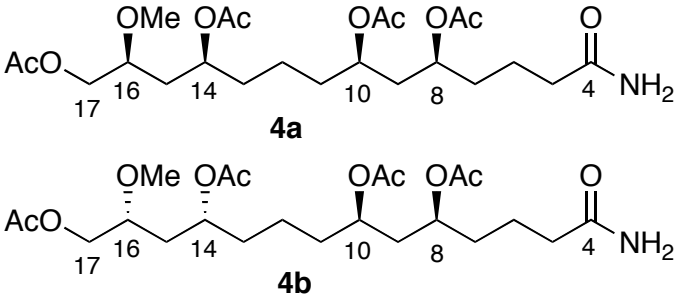
33 **An Enantio- and Diastereoselective Synthesis of (-)-Isoretronecanol and (+)-Trachelanthamidine from a *meso* Precursor**

Kou Hiroya, Masayo Kishi, Hiroyuki Konno, and Kunio Ogasawara*



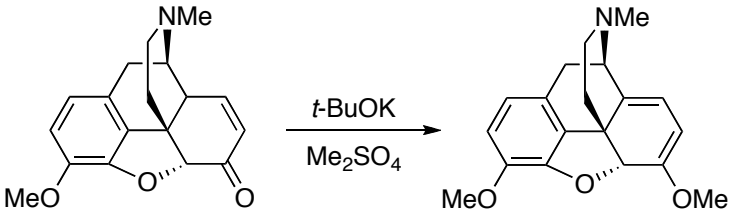
39 **Studies on the Stereochemistry of Theonezolides A-C[1]: Elucidation of the Relative Configurations of 1,3-Diol Moieties of the C-4 ~ C-17 Fragment**

Masami Ishibashi, Shinji Takeuchi, Makiko Yonezawa, and Jun'ichi Kobayashi*



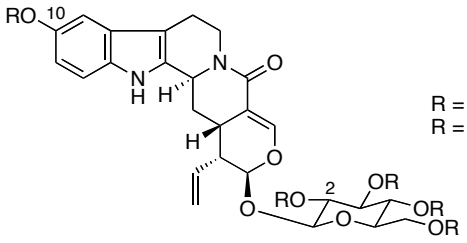
43 **A Novel Synthesis of Thebaine from Codeine**

Andrew Coop and Kenner C. Rice*



49 **Isolation, Partial Synthesis and Stereochemical Study of 10-Hydroxystrictosamide, a Constituent of *Nauclea orientalis* in Thailand**

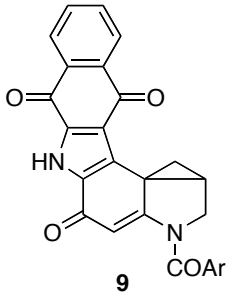
Norio Aimi, Boonsom Liawruangrath, Dammrong Santiarworn, Mariko Kitajima, Michiko Funahashi, Masayo Sakai, Osamu Ohmori, and Hiromitsu Takayama*



R = H : 10-hydroxystrictosamide
R = Ac : pentaacetyl derivative

53 **Synthesis and Cytotoxicity of Various Structural Types of Novel Cyclopropapyrroloindole(CPI) Derivatives**

Yasumichi Fukuda,* Hirosuke Furuta, Yoshie Kusama, Hiroyuki Ebisu, Yasuo Oomori, and Shiro Terashima



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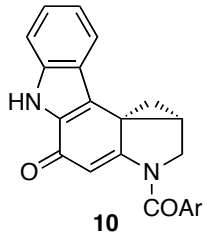

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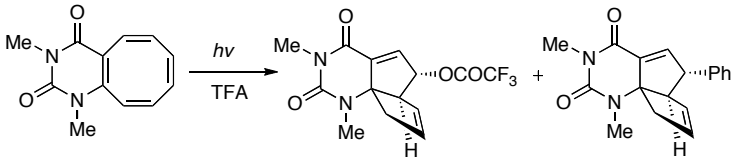
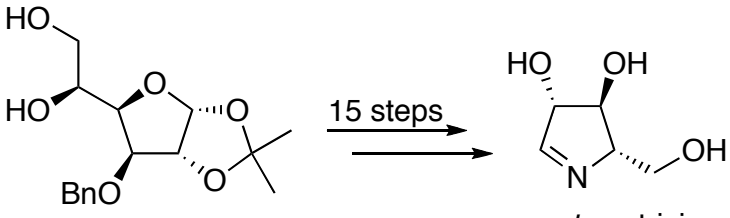
59 **Acid-catalyzed Photorearrangement of 1,3-Dimethyl-cyclooctapyrimidine-2,4-dione into 10,12-Diazatricyclo-[6.4.0.01,5]dodeca-3,7-diene-9,11-diones**

Yukari Noguchi, Kazue Ohkura, and Koh-ichi Seki*



63 **Synthesis of Unnatural Enantiomer of Nectrisine and Its Biological Activity**

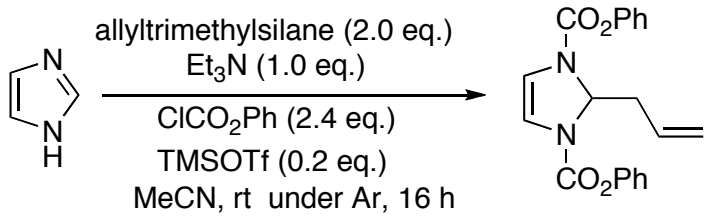
Yong Jip Kim, Akira Takatsuki, Naoto Kogoshi, and Takeshi Kitahara*



ent-nectrisine

67 **Allylation of *N*-Acyl Quaternary Salts of Azaaromatics with Allyltrimethylsilane in the Presence of Triflate Ion**

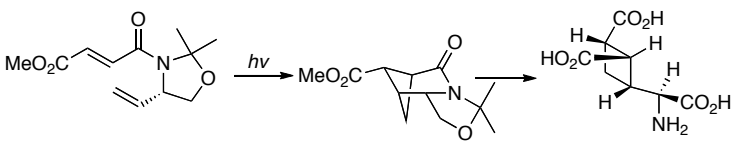
Akio Ohsawa,* Takashi Itoh, Michiko Miyazaki, and Kazuhiro Nagata



one pot synthesis

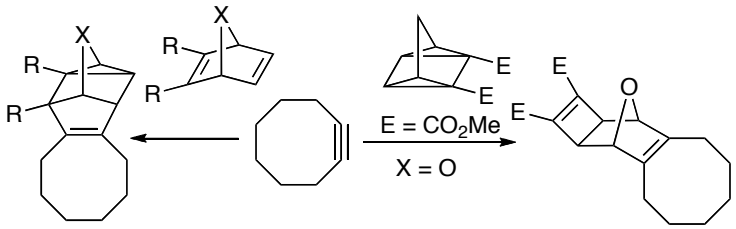
73 **Intramolecular [2+2] Photocycloaddition of Fumaramic Acid Ester Derivatives. Syntheses of 2-(2,3-Dicarboxycyclobutyl)glycines**

Yasufumi Ohfune,* Noboru Yumoto, Yasushi Shigeri, Keiko Shimamoto, and Hidekazu Tsujishima



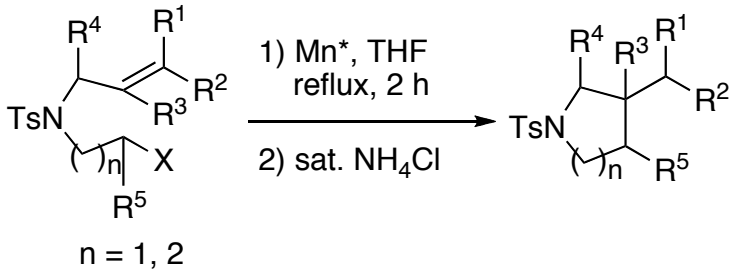
79 **Cycloaddition Reactions of Oxaquadricyclane, Oxanorbornadiene, and Related Compounds with Cyclooctyne**

Shinichi Otani, Takane Uchida, Akikazu Kakehi, Yukio Ikemi, Hiroyuki Taketsuna, and Kiyoshi Matsumoto*



85 **Reactivity of Rieke Manganese: Synthesis of Pyrrolidine and Piperidine Derivatives**

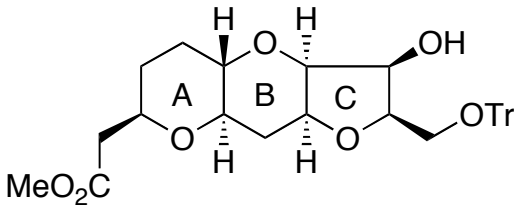
Akira Hosomi,* Jun-ichi Tateiwa, Shin-ya Nakamura, Ryo Okada, Yoshihiro Funahashi, Junji Yoshizawa, and Makoto Hojo



n = 1, 2

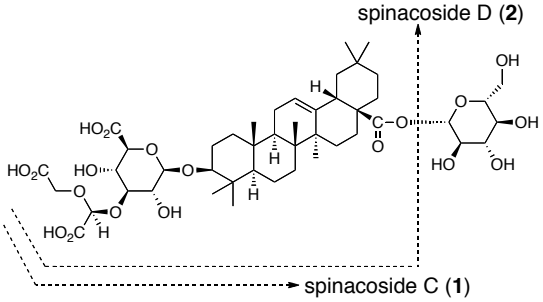
89 **On the Stereoselective Construction of the B and A Rings of Halichondrin B. A PM3 Study**

Osamu Yonemitsu,* Tatsuya Yamazaki, and Jun-ichi Uenishi



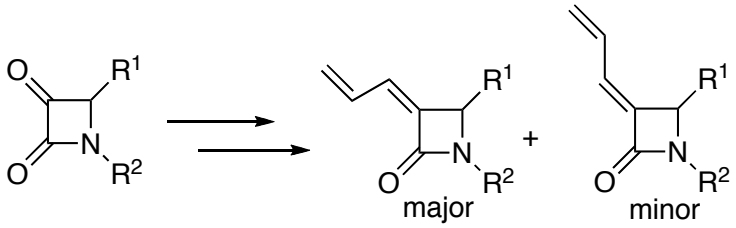
93 **Absolute Stereostructures of Spinacosides C and D with a Novel Acetal Type Substituent from *Spinacia oleracea* (Spinach) and *Basella rubra* (Indian Spinach)**

Masayuki Yoshikawa,* Toshiyuki Murakami, Kazuhiro Hirano, Hisashi Matsuda, Johji Yamahara, Kazuhiro Ohtani, Ryoji Kasai, and Kazuo Yamasaki



97 **Organic Reactions in Water: Indium Mediated Synthesis of α-Alkylidene-β-lactams**

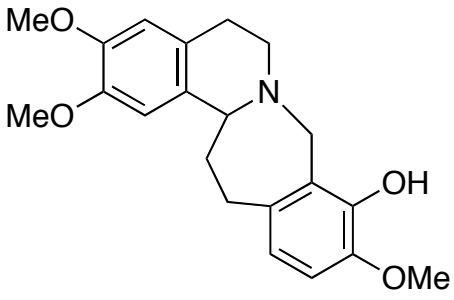
Maghar S. Manhas, Maria T. Batista, Muthusamy Jayaraman, and Ajay K. Bose*



R^1 = Ph, 4-methoxyphenyl, styryl, 3-bromophenyl, glycerol acetonide; R^2 = 4-methoxyphenyl

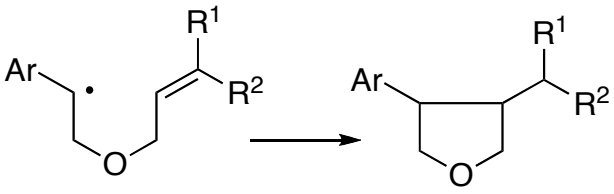
101 **Antimalarial Activities in vitro of Homoprotoberberine Derivatives. Design of Novel Antimalarials and Structure-Activity Relationship Analysis**

Yusuke Wataya, Hye-Sook Kim, Hideo Nemoto, Hiromi Nakashima, Junji Miyata, and Masataka Ihara*



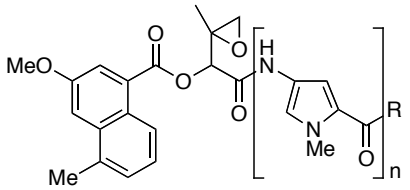
105 **Construction of 3,4-Disubstituted Tetrahydrofuran Ring by Radical Cyclizaition. A Model Study for Kainoid Synthesis**

Haruhisa Shirahama,* Kimiko Hashimoto, and Satoshi Itadani



109 **Synthesis and Evaluation of Enantiomerically Pure Azinomycin-Lexitropsin Hybrid Molecules with DNA-cleaving Activity**

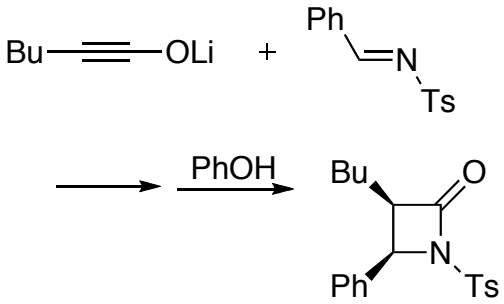
Hiromi Iitsuka, Shigenori Haruna, Kozo Shishido, and Masayuki Shibuya*



1a-c : R = OH; (2*S*, 3*S*); n = 1-3
2a-c : R = OH; (2*R*, 3*R*); n = 1-3
3a-c : R = $NH(CH_2)_3NMe_2$; (2*S*, 3*S*); n = 1-3

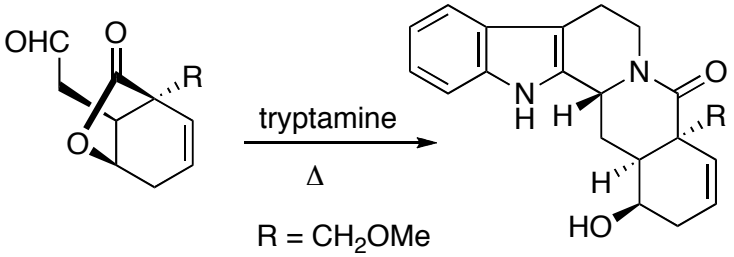
113 **Cycloaddition of Lithium Ynolate to Imines: Synthesis of 3,4-Disubstituted β-Lactams**

Kozo Shishido, Yusuke Sato, Soichiro Oya, and Mitsuru Shindo*



117 **Perhydroisoquinoline Synthesis: C(20)-Substituted Analogs of Yohimbine-Type Alkaloids**

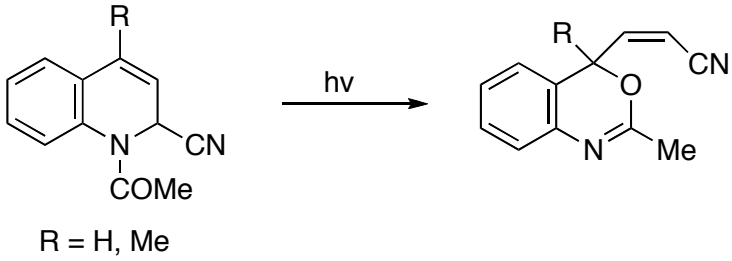
David A. Ellis and David J. Hart*



■ PAPER

121 **Photochemical Rearrangements of 1-Acetyl-1,2-dihydroquinoline-2-carbonitriles to the 3,1-Benzoxazines and Cycloprop[b]indoles**

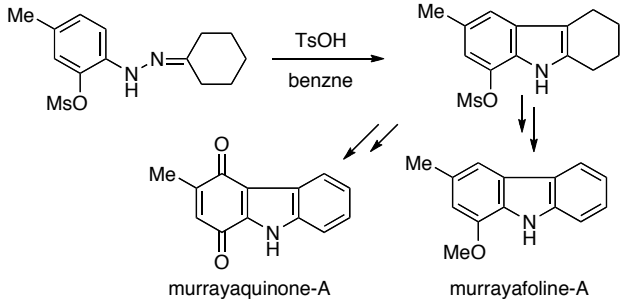
Takayuki Yakura, Chika Yukawa, Saeko Matsugashita, and Masazumi Ikeda*



R = H, Me

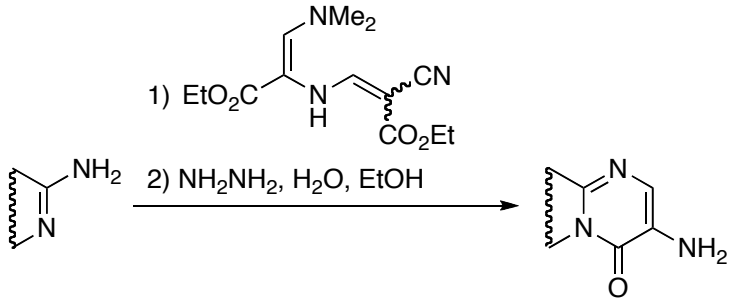
127 **New Syntheses of Murrayafoline-A and Murrayaquinone-A *via* Fischer Indolization of 2-Sulfonyloxyphenylhydrazone (Fischer Indolization and Its Related Compounds. Part 29)**

Toshiko Watanabe, Hiroshi Yokoo, and Yasuoki Murakami*



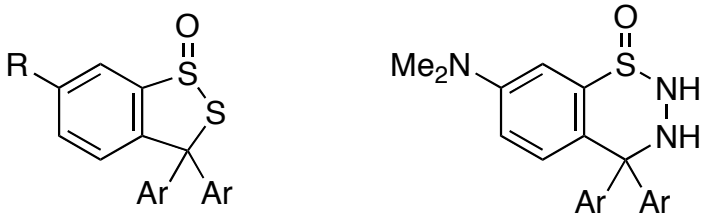
133 **The Synthesis of Ethyl 2-(2-Cyano-2-ethoxycarbonylethenyl)amino-3-dimethylaminopropenoate. The Synthesis of Substituted Aminoazolo-, Aminoazinopyrimidinones and 2*H*-1-Benzopyran-2-ones**

Simona Golic Grdadolnik, Lovro Selic, and Branko Stanovnik*



143 **Novel Heterocycles: A Benzodithiolane *S*-Oxide and a Benzothiadiazinane *S*-Oxide**

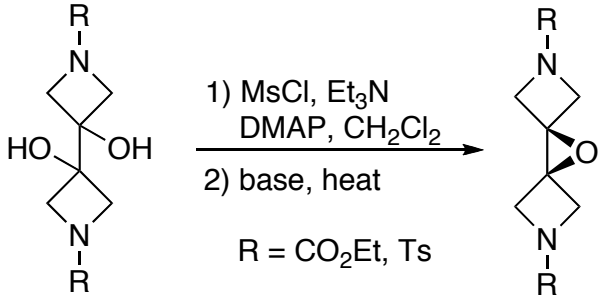
Louis M. Leichter, Nusrallah Jubran, Ming Qi, Zhongxing Zhang, and Alan R. Katritzky*



Ar = 4-$Me_2NC_6H_4$; R = Me_2N or H

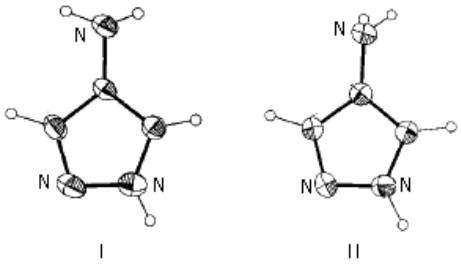
149 **Samarium Iodide Promoted Coupling of *N*-Substituted Azetidin-3-ones. A Novel Route to Spiroannulated Heterocyclic Oxiranes**

Simon G. Bott, Arokiasamy Devasagayaraj, and Alan P. Marchand*



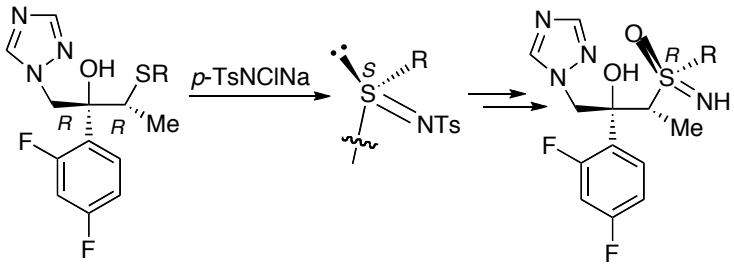
157 **The Structure of Aminoazoles and Its Relationship with Aromaticity. Crystal and Molecular Structure of Two Polymorphic Forms of 4-Aminopyrazole**

José Elguero, Manuel Yáñez, Otilia Mó, Rosa María Claramunt, Concepción Foces-Foces, Lourdes Infantes, and Pilar Cabildo*



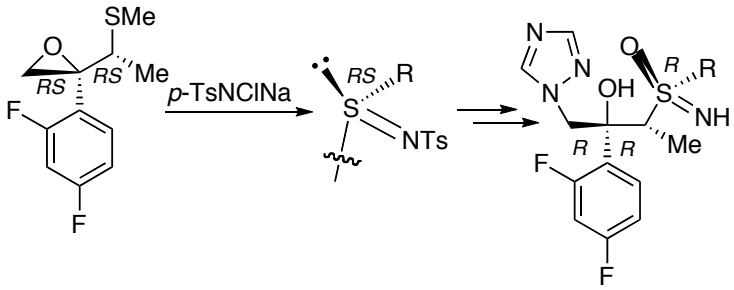
169 **Stereoselective Synthesis of Antifungal Sulfoximines, Novel Triazoles I**

Naomitsu Hirano, Shigeru Yano, Katsuo Takeda, Kuniyuki Oda, Tadatoshi Miyajima, Takao Nakano, Hiroshi Morimoto, Hiroyuki Kawanishi, and Kenji Tsujihara*



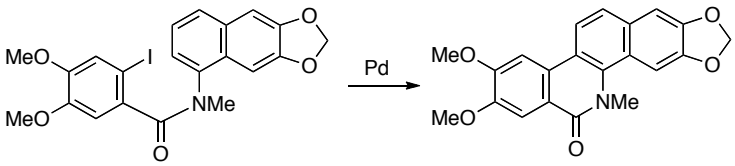
181 **Stereoselective Synthesis of Antifungal Sulfoximines, Novel Triazoles II**

Kuniyuki Oda, Tatsuya Watanabe, Takao Nakano, Hiroshi Morimoto, Hiroyuki Kawanishi, and Kenji Tsujihara*



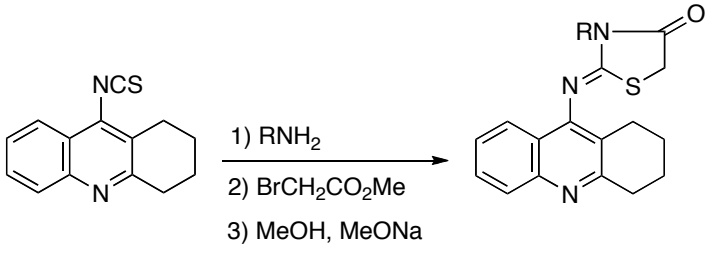
191 **Concise Synthesis of Nitidine by Palladium-assisted Biaryl Coupling Reaction**

Kentaro Shibaike and Takashi Harayama*



197 **Synthesis of Acetylcholinesterase Inhibitors on the Basis of 9-Isothiocyanato-1,2,3,4-tetrahydroacridine: 2-[(1,2,3,4-Tetrahydroacridin-9-yl)imino]-3-substituted 1,3-Thiazolidin-4-ones**

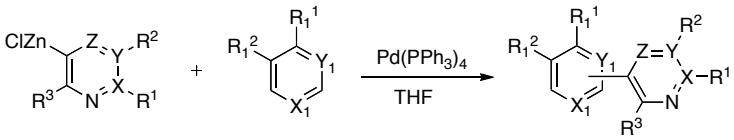
Tatiana Busová, Gundula Voss, Ján Imrich, Juraj Bernát, Slávka Hamul'aková, and Pavol Kristian*



R = *i*-Pr, Bu, Bn, 2-furylmethyl, cyclohexyl

205 **Organozinc Derivatives of Diazines, Metalation of Diazines XXIII**

Anne Leprêtre-Gaquere, Nelly Plé, Alain Turck, and Guy Quéguiner*

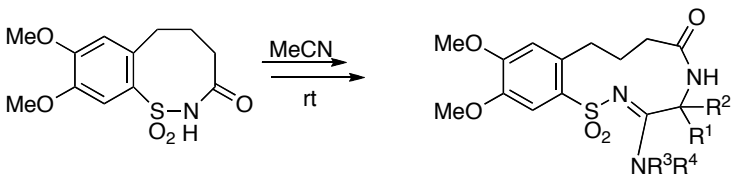


X = CH, N R^1 = H, SMe
Y = CH, N R^2 = H, OMe
Z = CH, N R^3 = H, SMe, Cl

X_1 = CH, N $R_1{}^1$ = Br, I, H
Y_1 = CH, N $R_1{}^2$ = Br, H

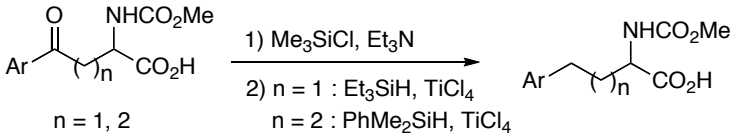
215 **Ring Enlargement of Eight- and Nine-membered Cyclic Sulfonamide Derivatives in Reactions with 3-Amino-2*H*-azirines**

Anthony Linden, Tonya R. Mihova, and Heinz Heimgartner*



233 **New Silane Reduction of Aromatic Ketones Mediated by Titanium Tetrachloride: A Synthesis of γ- and δ-Aryl Substituted Amino Acids**

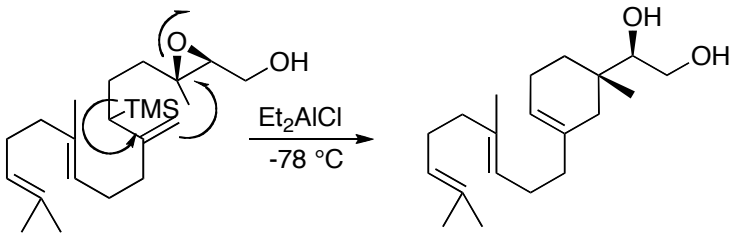
Koichi Homma, Michihisa Yato, and Akihiko Ishida*



n = 1, 2

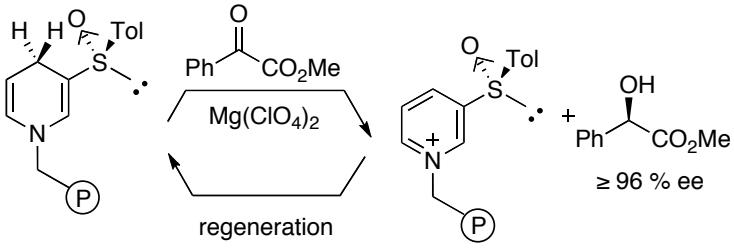
255 **Synthesis of 6-Epoxygeranylgeraniol and Its Application to the Construction of A/B Acyclic Pimarane Type Diterpene**

Toshifumi Hirukawa, Minoru Oguchi, Takashi Fukumoto, Yoshinobu Kashibuchi, and Tadahiro Kato*



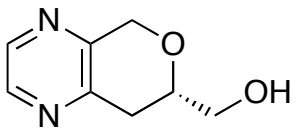
261 **Studies on Novel and Chiral 1,4-Dihydropyridines. VI. Preparation of a Polymer-supported 1,4-Dihydropyridine Having a Chiral Sulfinyl Group and Its Application to Biomimetic Reduction**

Kazuyuki Miyashita, Masahiro Nishimoto, Satoshi Tatematsu, Toshihiko Nishiyama, Satoshi Obika, and Takeshi Imanishi*



269 **Clavulazine, a New Marine Pyrazine Congener from the Okinawan Soft Coral *Clavularia viridis***

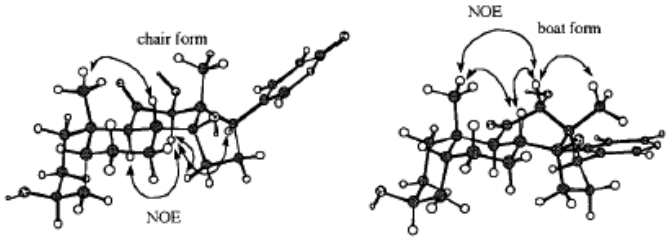
Ken Fujimori, Kinzo Watanabe, and Kazuo Iguchi*



clavulazine

275 **Conformational Preference of Two Toad Poison Bufadienolides, Bufarenogin and ψ-Bufarenogin**

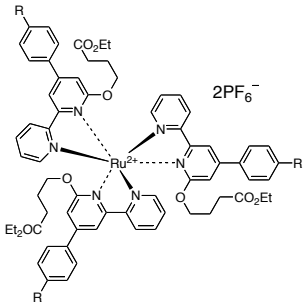
Hideji Itokawa, Koichi Takeya, Hiroshi Morita, Rui Takano, Ayano Kotake, and Yoshiaki Kamano*



Bufarenogin ψ-Bufarenogin

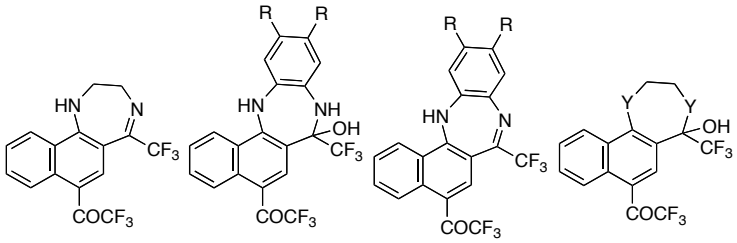
281 **Synthesis of 2,2'-Bipyridines Bearing Amino or Carboxyl Group at the Side Chain and Physical Properties of Their Ruthenium(II) Complexes**

Yoshinobu Yokomori, Junko Ohkanda, Tetsuji Satoh, Yumi Horie, Hideyuki Fujii, Yoshihiro Kitamura, and Akira Katoh*



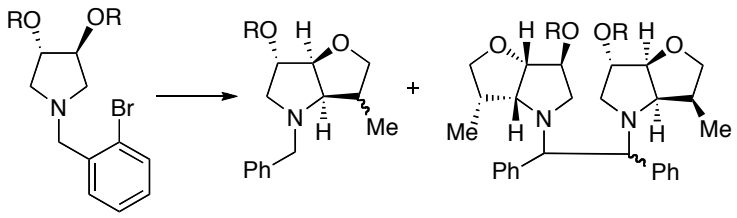
297 **A Facile and Convenient Synthetic Method for Fluorine-containing Naphtho[1,2-*e*][1,4]diazepines, Naphtho-[1,2-*e*][1,4]dithiepins and Naphtho[1,2-*e*][1,4]dioxepins**

Yoshitsugu Tomo, Nobukazu Kunihiro, Norikado Tsukushi, and Etsuji Okada*



305 **Intramolecular 1,5-Hydrogen Atom Transfer Radical Reaction of Pyrrolidine Derivatives**

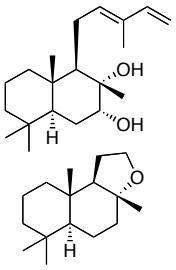
Hideaki Takano, Miyuki Ishizaki, and Osamu Hoshino*



R = allyl α- and β-Me

315 **Chemical Conversion of Labdane-Type Diterpenoid Isolated from the Liverwort *Porella perrottetiana* into (-)-Ambrox**

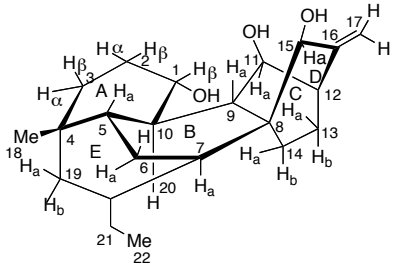
Shigeru Takaoka, Masami Tanaka, Kousuke Shiki, Toshihiro Hashimoto, and Yoshinori Asakawa*



(-)-ambrox

327 **Alkaloids of Some Mongolian Ranunculaceae Species: Detailed ^{1}H- and ^{13}C-NMR Studies of Denudatine and Lepenine**

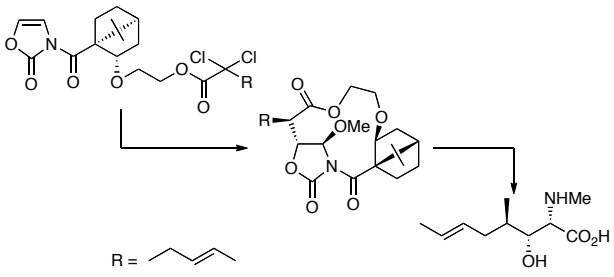
Balawant S. Joshi, Haridutt K. Desai, Quincy Teng, Filiz Mericili, Ali M. Mericli, Nyamdari Batbaiar, Jigjidsuren Tunsag, Dulamjav Batsuren, and S. William Pelletier*



stereostructure of lepenine (**5**)

343 **The Highly Stereocontrolled Radical-based Addition of a 2,2-Dichloroacyl Function to a 2-Oxazolone Heterocycle. A New Approach to MeBmt, the Key Component of Cyclosporin**

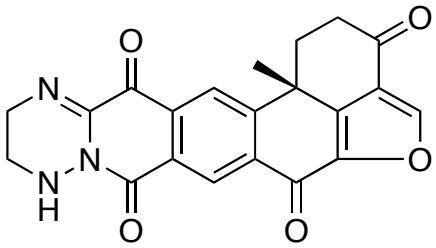
Tadao Ishizuka, Hiroyoshi Ohta, Hirofumi Matsunaga, and Takehisa Kunieda*



MeBmt

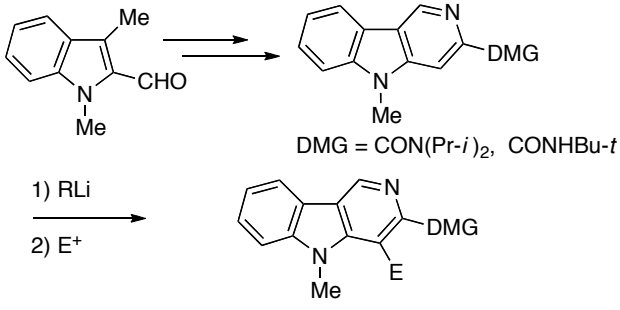
355 **Noelaquinone, a New Hexacyclic Triazine Quinone from an Indonesian *Xestospongia* Sp.**

Michelle Kelly-Borges, Wesely Y. Yoshida, Ye Zhu, and Paul J. Scheuer*



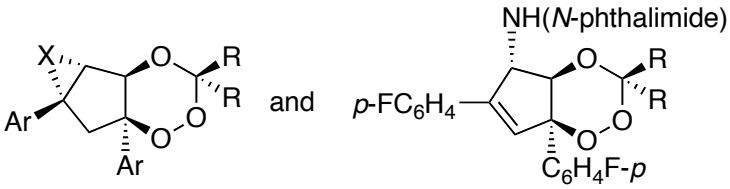
361 **Regioselective Metalation of γ-Carbolines**

Jean Bourguignon, Guy Quéguiner, Cyril Papamicaël, and Georges Dupas*



375 **The Structure and Antimalarial Activity of Some *cis*-Fused Bicyclic 1,2,4-Trioxane Derivatives**

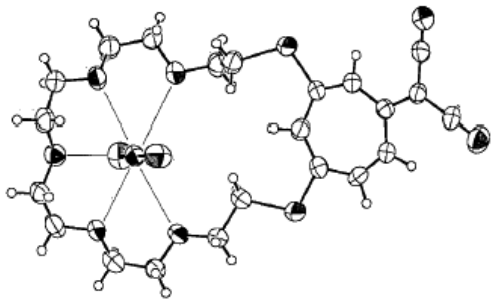
Wilbur K. Milhous, Craig J. Canfield, Gérald Bernardinelli, Géza Timári, Shigeo Kohmoto, Danielle Jaggi, and Charles W. Jefford*



Ar = Ph; R = Me; X = O or CCl_2
Ar = C_6H_4F-*p*; R, R = $(CH_2)_4$; X = N(*N*-phthalimide)

385 **Mercurophilic Property of 23-Dicyanomethylene-5,8,11,14,17-pentaoxa-2,20-dithiabicyclo[19.4.1]-hexacosa-1(26),21,24-triene**

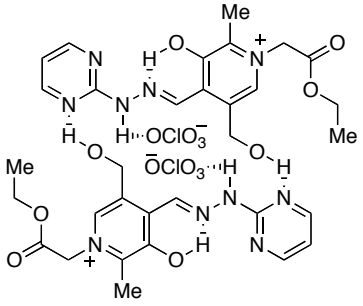
Hitoshi Takeshita, Nobuo Kato, Kanji Kubo, and Akira Mori*



393 **Iron Chelators of the Pyridoxal-based Class. Part 7. The Synthesis and Single Crystal Structure of 1-(*N*-Ethoxycarbonylmethylpyridoxyledenium)-2-(pyrimidyl)hydrazine Salts**

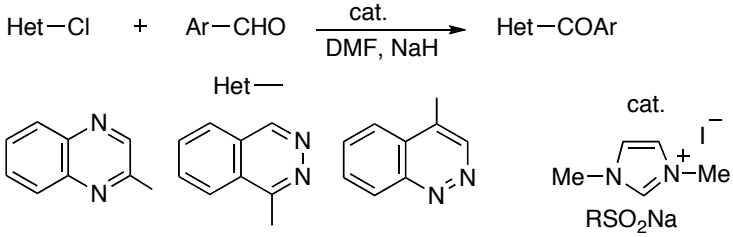
Shmuel Cohen, Shelly Avramovici-Grisaru, and Shalom Sarel*

$R^2(20)$ motif cyclic dimer pyridoxal pyrimidyl hydrazone perchlorate



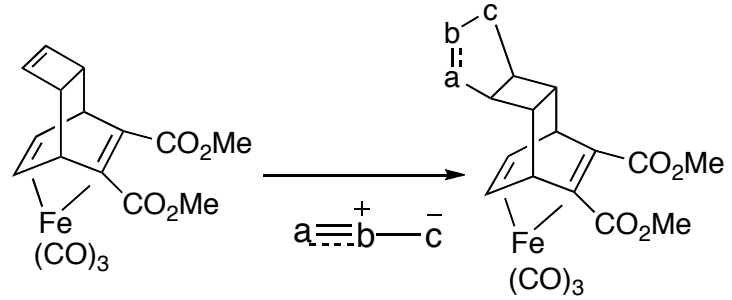
405 **Synthesis of 2-Aroylquinoxalines, 1-Aroylphthalazines, and 4-Aroylcinnolines; an Aroylation Method Using Arenecarbaldehydes Catalyzed by Azolium Salt**

Takeo Higashino, Etsuo Oishi, Ken-ichi Iwamoto, Yumiko Suzuki, and Akira Miyashita*



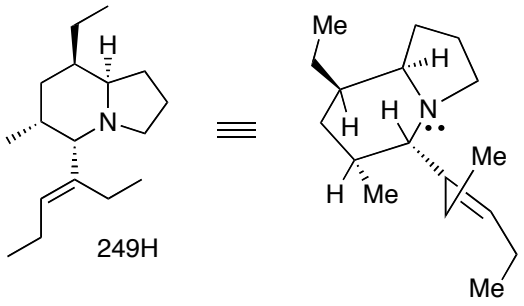
415 **Site Specificity in 1,3-Dipolar Cycloadditions to a Polycyclic Polyene Induced by Complexation with Tricarbonyliron**

Mirko Sarzi-Amade', Mauro Freccero, and Remo Gandolfi*



427 **The Isolation and Structure of the Novel *cis*-Fused Indolizidine 249H from Frog Skin: *cis*- vs. *trans*-Fused Indolizidines Distinguished by NMR**

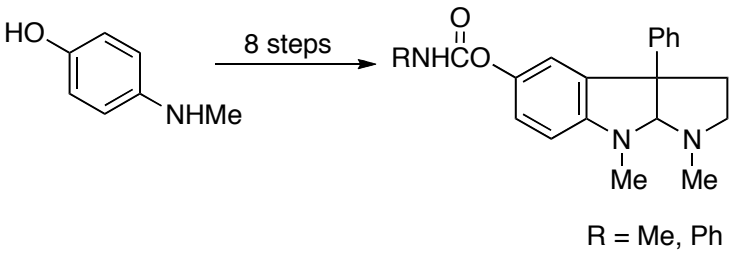
Thomas F. Spande, H. Martin Garraffo, Atsushi Shimada, Takashi Tokuyama, and John W. Daly*



■ **NOTES**

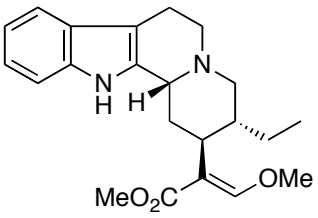
437 **Syntheses and Biological Evaluation of (±)-3a-Phenyl Congeners of Physostigmine and Phenserine**

Arnold Brossi, Xue-Feng Pei, and Nigel H. Greig*

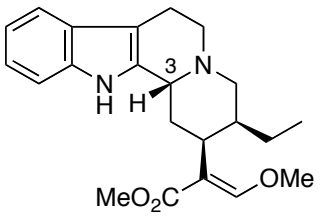


445 **Preparation of (±)-Hirsutine and (±)-3-Isocorynantheidine**

Pirjo Hanhinen, Christiane Laine, Reija Jokela, and Mauri Lounasmaa*



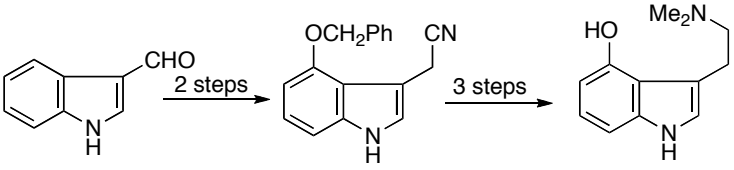
1



2

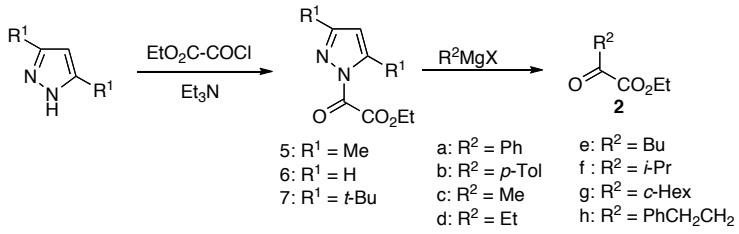
451 **A Five-Step Synthesis of Psilocin from Indole-3-carbaldehyde**

Mayumi Tamura, Fumio Yamada, and Masanori Somei*



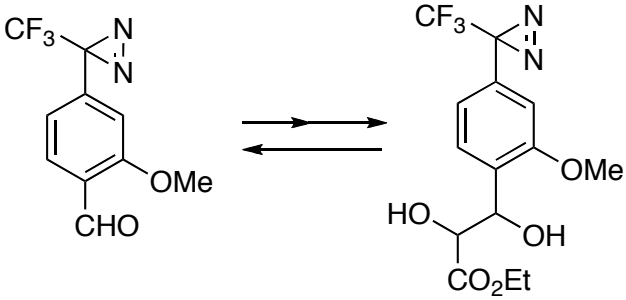
459 **A Convenient Preparation of α-Keto Esters by the Grignard Reaction on *N*-Acylpyrazoles**

Yoshihiro Tsukamoto, Yoshie Shirahata, and Choji Kashima*



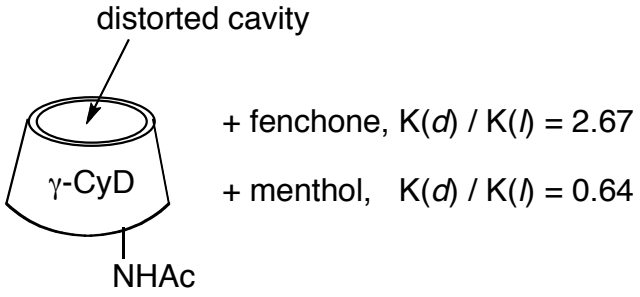
465 **A New Cleavable Carbene-generating Reagent with 3-Phenyl-3-trifluoromethyldiazirine Photophore**

Yuichi Kanaoka, Uwe Kempin, and Yasumaru Hatanaka*



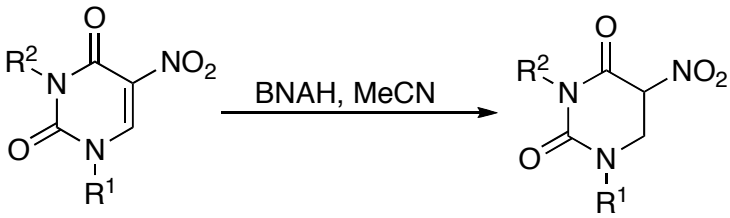
469 **Difference in Guest Binding Capability between Cyclodextrins Having an Acetylamino Moiety at Primary- and Secondary-Hydroxyl Sides: The Effect of Ring Distortion**

Jun-ichi Anzai, Tetsuo Osa, Koki Obata, Yoshinobu Sakurai, and Iwao Suzuki*



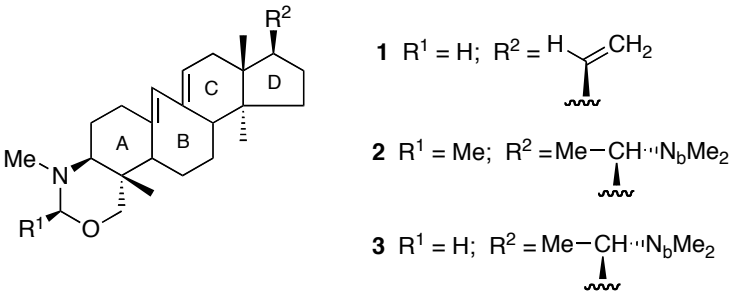
475 **Reduction of Uracil Derivatives with an NADH Model, 1-Benzyl-1,4-dihydronicotinamide**

Hironao Sajiki, Yukio Kitade, Keiko Kubo, and Kosaku Hirota*



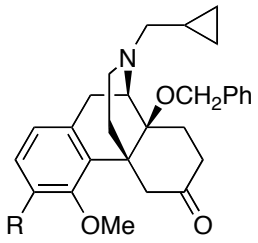
481 **Acetylcholinesterase Inhibiting Triterpenoidal Alkaloids from *Buxus hyrcana***

M. Iqbal Choudhary, S. A. Majid Ayatollahi, Afgan Farooq, Asaad Khalid, Shehnaz Parveen, and Atta-ur-Rahman*



489 **Synthesis and Biological Evaluation of 14-Alkoxymorphinans. 16. 14-*O*-Alkyl Derivatives of the μ-Opioid Receptor Antagonist Cyprodime**

John R. Traynor, Elisabeth Greiner, Roland Krassnig, and Helmut Schmidhammer*

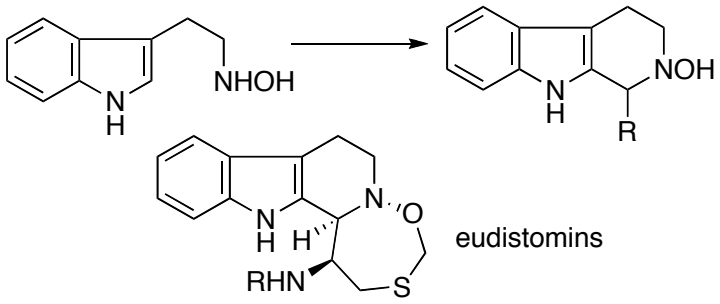


R = H, OH

■ **REVIEWS**

499 **Pictet-Spengler Reactions of *Nb*-Hydroxytryptamines and Their Application to the Synthesis of Eudistomins**

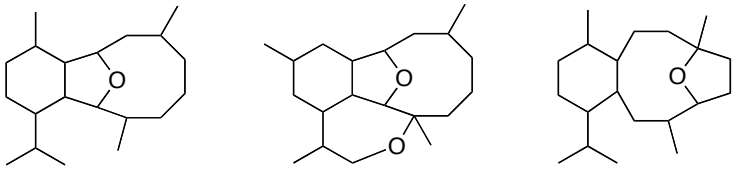
Tohru Hino and Masako Nakagawa*



eudistomins

531 **Survey of Oxygenated 2,11-Cyclized Cembranoids of Marine Origin**

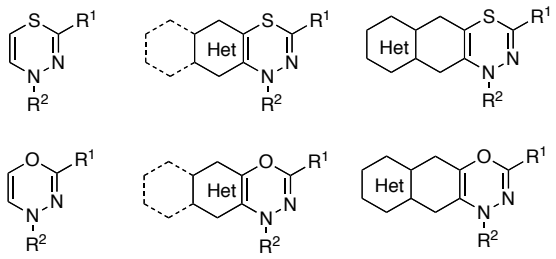
Patrick Bernardelli and Leo A. Paquette*



cladiellins asbestinins sarcodictyins

557 **Synthesis of 1,3,4-Thiadiazines and 1,3,4-Oxadiazines**

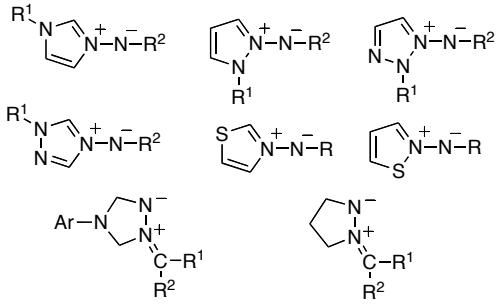
Ho Sik Kim and Yoshihisa Kurasawa*



Het = heterocycle

587 **Stable Heterocyclic Five-membered Azomethine Imines: Azolium *N*-Imides, Triazolidinium and Pyrazolidinium Ylides**

Bärbel Schulze, Arne Kolberg, and Ludmila L. Rodina*



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