■ CELEBRATION OF PROFESSOR TOHRU FUKUYAMA

■ CURRICULUM VITAE

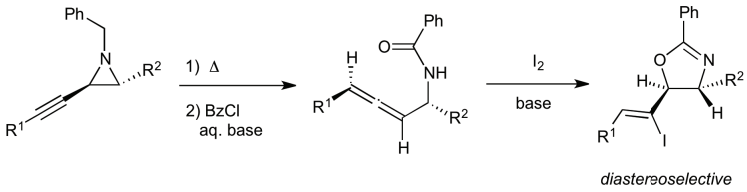
■ PUBLICATIONS

■ REVIEWS

■ COMMUNICATIONS

93 **Diastereoselective Synthesis of 5-Iodoalkenyl-2-oxazolines by Electrophilic Cyclization of Allenyl Amides**

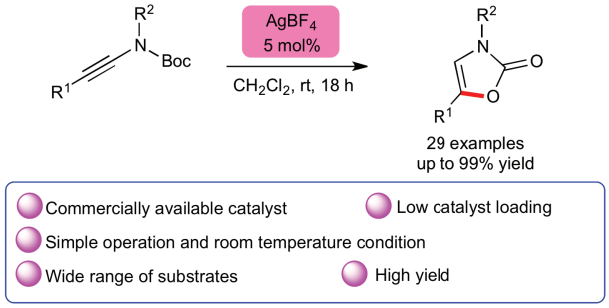
Tsukasa Hirokane, Ayaka Kawakami, Kenji Matsumoto, and Masahiro Yoshida*



Oxazoline Electrophilic Cyclization Aziridine Allene Diastereoselective Reaction

100 **An Efficient Silver Tetrafluoroborate-Catalyzed Cycloisomerization of Ynamides**

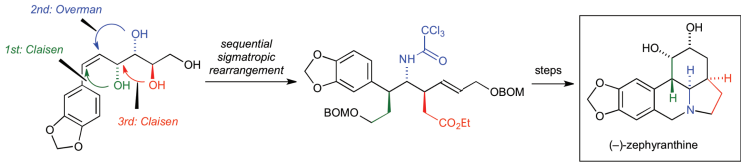
Winai Ieawsuwan* and Somsak Ruchirawat



Silver Tetrafluoroborate Cycloisomerization Catalysis Ynamide Oxazol-2(3*H*)-one

111 **Total Synthesis of (–)-Zephyranthine**

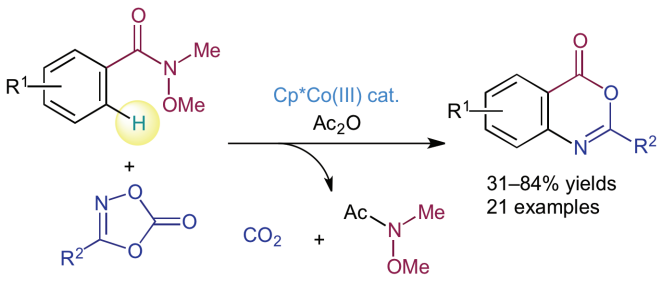
Koki Ishii, Yuna Seki-Yoritate, Mizuki Ishibashi, Ming Wai Liaw, Takeshi Oishi, Takaaki Sato,* and Noritaka Chida*



Zephyranthine Lycorine-Type Alkaloid Sequential Sigmatropic Rearrangement Chirality Transfer

118 **One-Step Synthesis of 4*H*-3,1-Benzoxazin-4-ones from Weinreb Amides and 1,4,2-Dioxazol-5-ones via Cobalt-Catalyzed C–H Bond Activation**

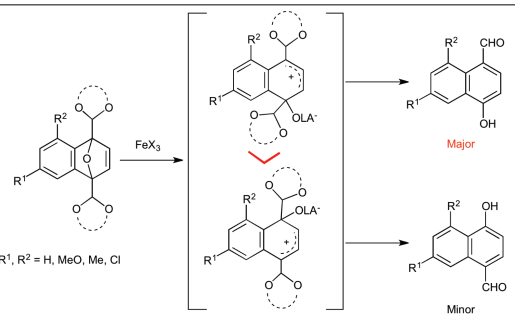
Iku Tanimoto, Kentaro Kawai, Akane Sato, Tatsuhiko Yoshino,* and Shigeki Matsunaga*



C-H Bond Activation Cobalt Catalysis Benzoxazinone Weinreb Amide Dioxazolone

126 **Acetal Elimination Reaction Accompanied with Regioselective Ring Opening of 1,4-Bisacetal-1,4-epoxy-1,4-dihydronaphthalenes**

Yoshinari Sawama,* Takahiro Kawajiri, Yuta Yamamoto, Yuko Shishido, Ryota Goto, and Hironao Sajiki*

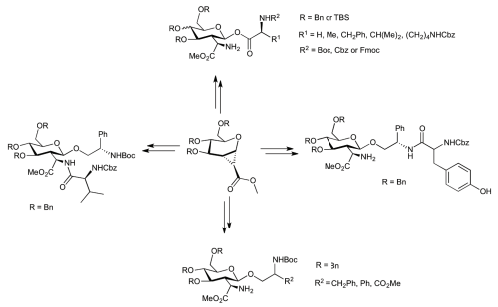


1,4-Epoxy-1,4-dihydronaphthalene Lewis Acid Naphthalene Acetal Iron(III) Chloride

■ PAPERS

200 **Efficient Synthesis of *O*-Linked Glycoconjugates of Amino Acids from Carbohydrate-Derived Donor-Acceptor Cyclopropanes**

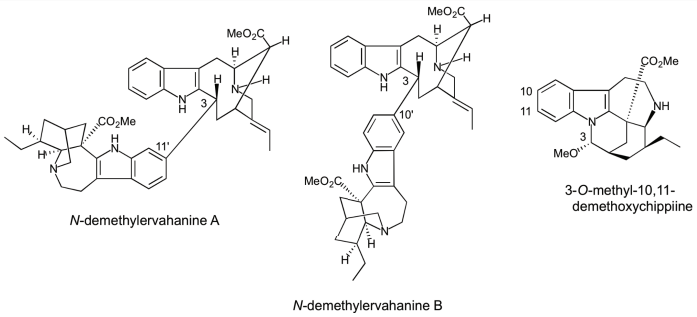
Gade Kishore, Vibha Gautam, Shrutisagar Dattatraya Haveli, and Srinivasan Chandrasekaran*



Amino Acid Amino Alcohol Glycopeptide Glycoconjugate Donor-Acceptor Cyclopropane

213 **New Indole Alkaloids from *Ervatamia cumingiana***

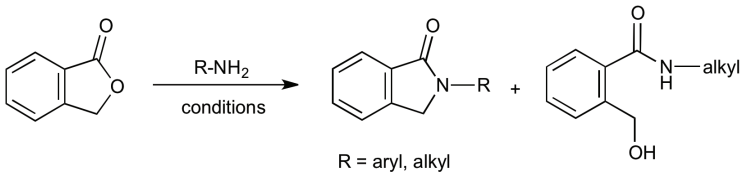
Mariko Kitajima, Shumpei Nakano, Noriyuki Kogure, Sanan Subhadhirasakul, and Hiromitsu Takayama*



Alkaloid Indole *Ervatamia* Structure Elucidation ECD

222 **Exploration of Moderate Conditions and Substrate Variation in the Direct Condensation between Phthalide and Primary Amine Catalyzed by $GaCl_3$. Are Aliphatic Amines Less Reactive than Aromatic Ones?**

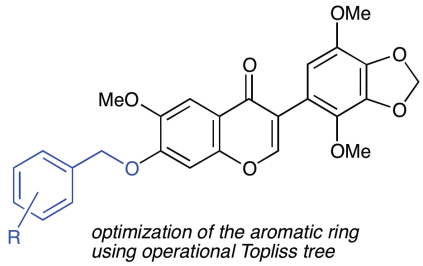
Ichiro Takahashi,* Yoshinori Nishiwaki, Kenta Saitoh, Takatoshi Matsunaga, Akihiro Aratake, Toshio Morita, and Shinzo Hosoi



Phthalimidine Phthalide Primary Amine $GaCl_3$ Hessert-Sugasawa Procedure

238 **Structure–Activity Relationship Study of Gatastatin Based on the Topliss Tree Approach**

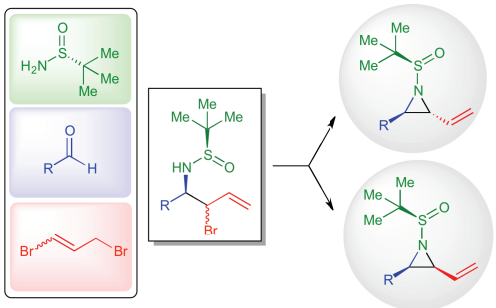
Ichiro Hayakawa,* Shuya Shioda, Takumi Chinen, Takeo Usui, and Hideo Kigoshi*



Gatastatin γ-Tubulin-Specific Inhibitor Topliss Tree

248 **Indium Mediated Allylation of *N-tert*-Butanesulfinyl Imines with 1,3-Dibromopropene: Stereoselective Synthesis of Aziridines**

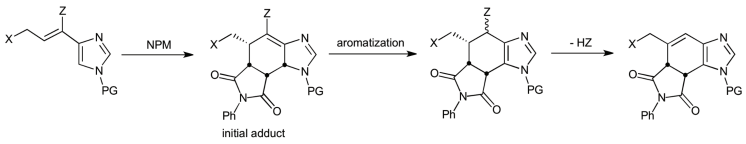
Edgar Maciá, Francisco Foubelo,* and Miguel Yus*



Aziridine Sulfinyl Imine Indium Diasteroselective Allylation 1,3-Dibromopropene

324 **Heterosubstituted 4-Vinylimidazoles – Preparation and Diels-Alder Reactions**

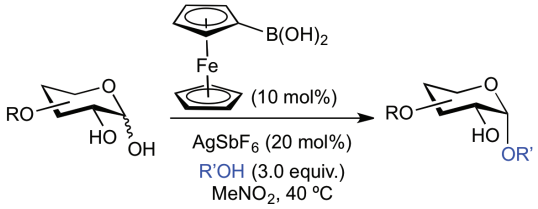
Abhisek Ray, Sabuj Mukherjee, Jayanta Das, Manoj Bhandari, Apsara Herath, Muhammed Yousufuddin, and Carl J. Lovely*



Hydrosilylation Cycloaddition Azole Stereocontrol

350 **Arylboronic Acid-Mediated Glycosylation of 1,2-Dihydroxyglucoses**

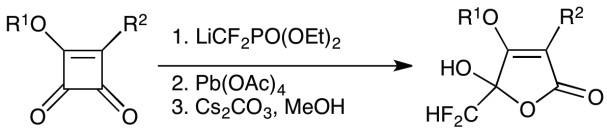
Sanae Izumi, Yusuke Kobayashi, and Yoshiji Takemoto*



Glycosylation Arylboronic Acid 1,2-Dihydroxyglycosyl Donor

363 **Synthesis of γ-Difluoromethylated Tetronate Derivatives from Squarates Using Difluoromethylphosphonate**

Yoshihiko Yamamoto,* Yuki Ishida, Takashi Kurohara, Masatoshi Shibuya, and Takeshi Yasui

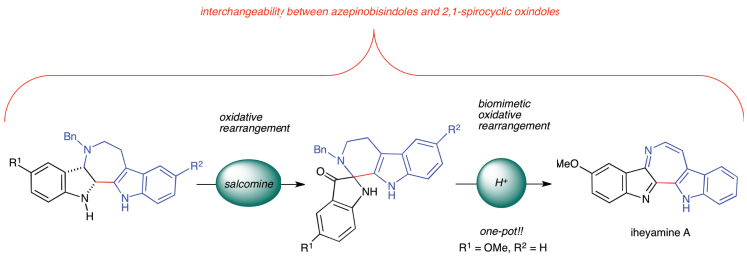


via oxidative ring expansion/dephosphorylation

Fluorine Squarate Tetronate Ring Expansion Phosphonate

379 **Biomimetic Synthesis of Iheyamine A from Spirocyclic Oxindoles**

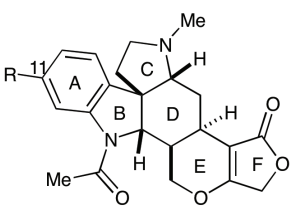
Takumi Abe,* Syuhei Satake, and Koji Yamada*



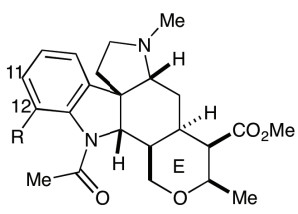
Azepinobisindole Alkaloid Iheyamine Biomimetic Synthesis Oxidative Rearrangement Cascade Reaction

389 **Model Studies for the Total Synthesis of 11-Demethoxymyrtoidine and Myrtoidine**

Amaan M. Kazerouni, Danny E. Mancheno, and Simon B. Blakey*



R = H, 11-demethoxymyrtoidine
R = OMe, myrtoidine

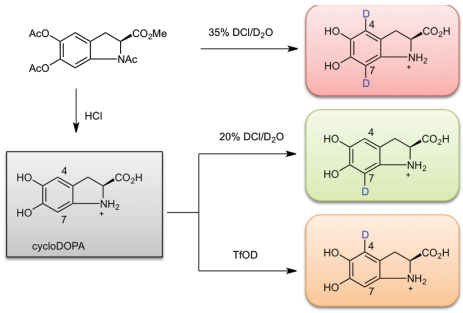


R = H, malagashanine
R = OH, 12-hydroxymalagashanine

Alkaloid Myrtoidine Malagashanine

404 **Synthesis of Deuterated CycloDOPA with Hydrogen/Deuterium Exchange**

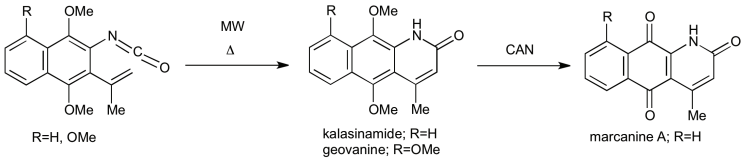
Zetryana Puteri Tachrim, Shiori Nakagawa, Tadashi Nakamura, Fumina Ohashi, Natsumi Kurokawa, Haruna Wakasa, Yurika Tokoro, Yasuko Sakihama, Yasuyuki Hashidoko, Takeyuki Suzuki, and Makoto Hashimoto*



Hydrogen/Deuterium Exchange CycloDOPA

415 **Concise Synthesis of Kalasinamide, Marcanine A, and Geovanine, and Antiproliferative Activity Evaluation of Their Azaanthracenones**

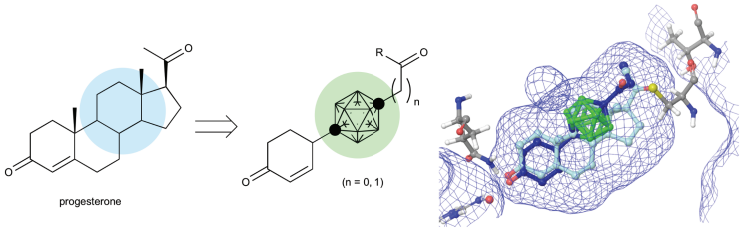
Takashi Nishiyama, Noriyuki Hatae,* Kyohko Chikaraishi, Keisuke Uchida, Chika Yokoyama, Satoshi Hibino, and Tominari Choshi*



Kalasinamide Marcanine A Geovanine Electrocyclization Antiproliferative Activity

425 **Design and Synthesis of Cyclohexenyl-*p*-carborane Derivatives as a New Class of Progesterone Receptor Antagonists**

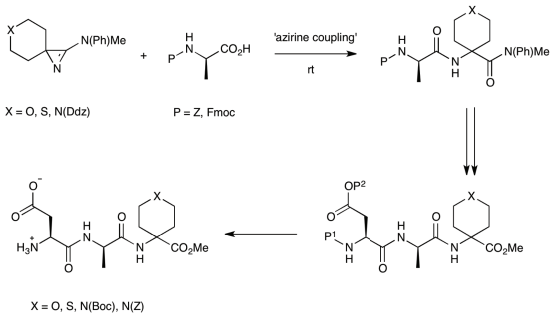
Shinya Fujii, Naoki Yanagida, Shuichi Mori, Emiko Kawachi, and Hiroyuki Kagechika*



Carborane Boron Cluster Progesterone Receptor Antagonist

446 **Heterospirocyclic 3-Amino-2*H*-azirines as Convenient Building Blocks in Peptide Synthesis**

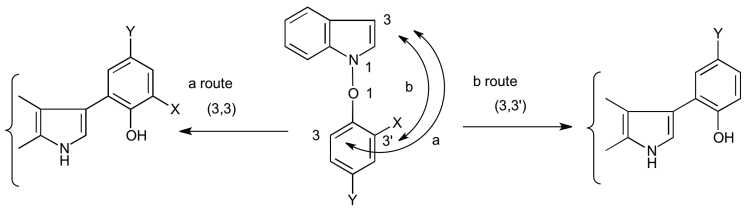
Christoph Strässler and Heinz Heimgartner*



3-Amino-2*H*-azirine Heterocyclic Amino Acid Peptide Synthesis

465 **A [3,3] Sigmatropic and Novel Ipso [3,3] Sigmatropic Rearrangement of 1-Hydroxyindole Chemistry**

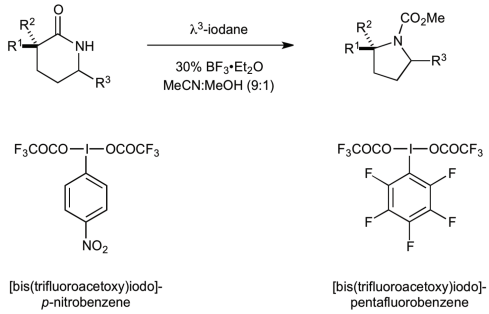
Yoshikazu Fukui, Tetsuya Kobayashi, Toshiya Kawasaki, Fumio Yamada, and Masanori Somei*



1-Hydroxyindole [3,3] Sigmatropic Rearrangement Ipso [3,3] Sigmatropic Rearrangement Ipso [1,3] Sigmatropic Rearrangement

484 **[Bis(trifluoroacetoxy)iodo]*p*-nitrobenzene and [Bis-(trifluoroacetoxy)iodo]pentafluorobenzene as Lead Reagents for the Direct Ring Contraction of Lactams to Pyrrolidines**

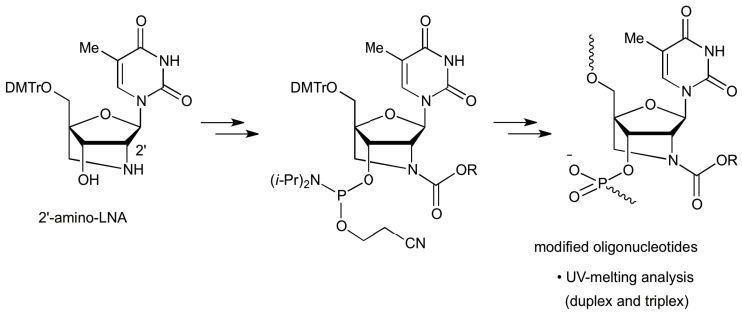
Samuel Aubert-Nicol, Nora Heinrich, Jean Lessard, and Claude Spino*



Lactam N-Heterocycle Hypervalent Iodide Ring-Contraction

502 **Synthesis and Hybridization Properties of Oligonucleotides Including 2'-*N*-Alkoxycarbonyl-2'-amino-LNA Derivatives**

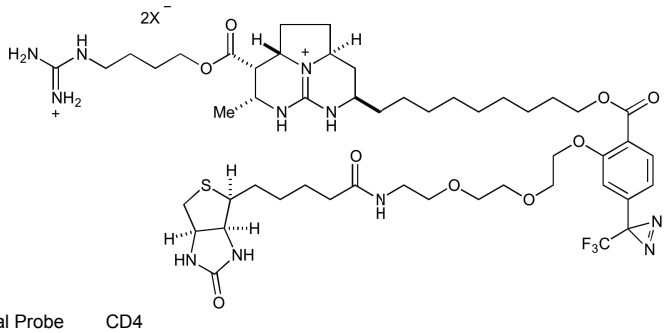
Takashi Osawa, Shoko Yamashita, Ayumi Nakanishi, Yuta Ito, and Yoshiyuki Hari*



2'-*N*-Alkoxycarbonyl-2'-amino-LNA 2'-Amino-LNA Oligonucleotide UV-Melting Experiment

521 **Identification of Target Protein for Batzelladines as CD4**

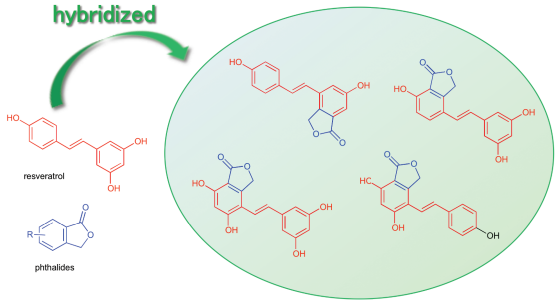
Jun Shimokawa* and Kazuo Nagasawa*



Batzelladine Guanidine Alkaloid Aziridine Photoaffinity Chemical Probe CD4

534 **Synthesis of Novel Resveratrol-Phthalide Hybrid Compounds and Evaluation of Their Inhibitory Activities of Nitric Oxide Production**

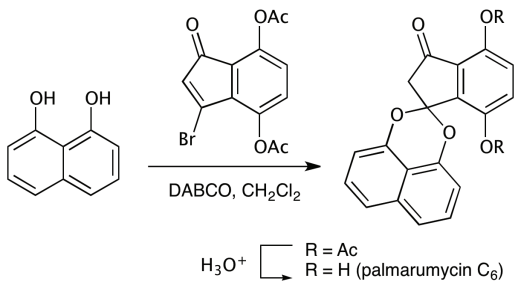
Tetsutaro Kimachi,* Tokutaro Ogata, Misae Doe, Mariko Sakanaka, Arisa Nishiuchi, Mio Aomatsu, Manami Tanaka, Maki Shimizu, Natsuko Yoshioka, Kurumi Kubota, Yui Teraoka, Chikako Nakajima, and Satoru Takahashi*



Resveratrol Phthalate Hybridization Anti-Inflammatory Biological Activity

549 **First Total Synthesis of Palmarumycin C_6 Based on Double Oxa-Michael Addition of 1,8-Dihydroxynaphthalene to 3-Bromo-1-indenone**

Hirokazu Tsukamoto, Yumi Nomura, and Takayuki Doi*

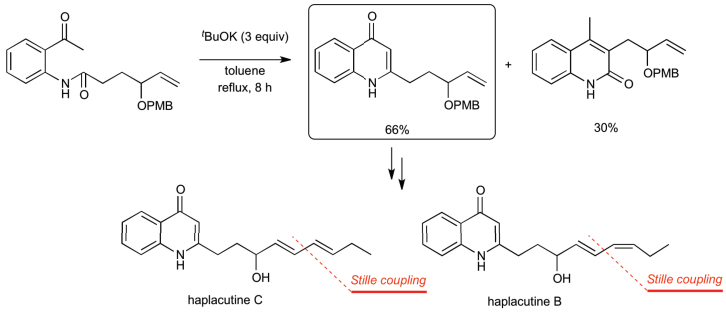


Palmarumycin C6 Double Oxa-Michael Addition Nazarov Cyclization Friedel-Crafts-Type Cyclization

■ SHORT PAPERS

614 **Total Synthesis of Haplacutines B and C**

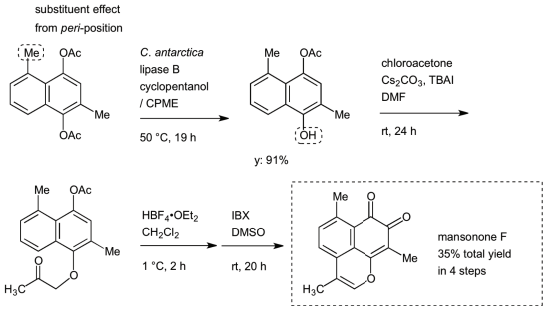
Noriki Kutsumura,* Keisuke Numata, Shiho Mosaki, and Takao Saito*



Haplacutine Total Synthesis 4-Quinolone Cyclocondensation Stille Coupling Reaction

625 **Lipase-Catalyzed Site-Selective Deacetylation of Sterically Hindered Naphthohydroquinone Diacetate and Its Application to the Synthesis of a Heterocyclic Natural Product**

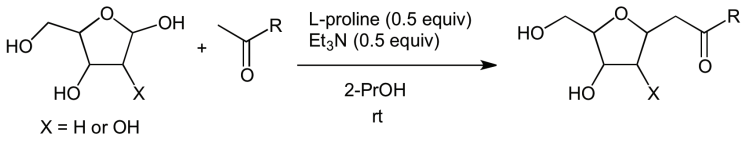
Riichi Hashimoto, Ayaka Sakakura, Kengo Hanaya, Shuhei Higashibayashi, and Takeshi Sugai*



Lipase-Catalyzed Reaction Phenolic Acetate Transesterification Naphthohydroquinone Diacetate Site-Selective Transfomation

633 **C-Glycosidation of Unprotected Aldopentoses with Ketones Using Proline-Triethylamine as Catalyst**

Jithender Enukonda, Sherida Johnson, and Fujie Tanaka*

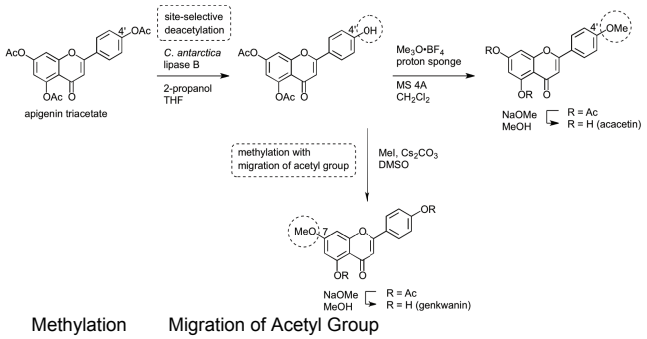


- direct C-C bond formation
- no need to protect hydroxy groups
- applicable to various aldopentoses

C-Glycosidation Reaction Aldol Reaction Mannich Reaction

638 **Site-Selective Synthesis of Acacetin and Genkwanin through Lipase-Catalyzed Deacetylation of Apigenin 5,7-Diacetate and Subsequent Methylation**

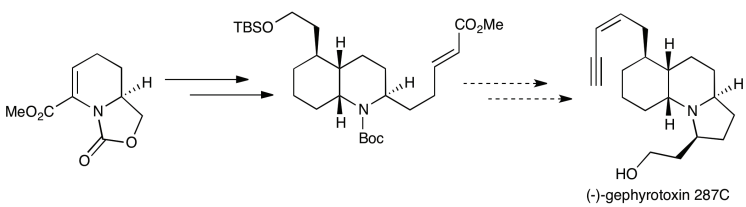
Rie Fujita, Susanta Mandal, Kengo Hanaya, Mitsuru Shoji, Shuhei Higashibayashi, and Takeshi Sugai*



Methylated Flavone *Candida antarctica* Lipase B Transesterification Methylation Migration of Acetyl Group

649 **Formal Synthesis of Gephyrotoxin 287C**

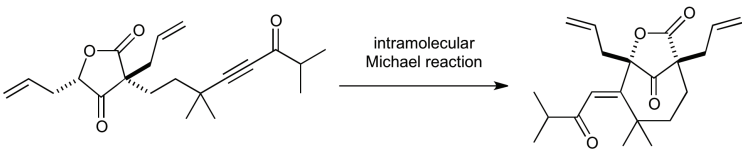
Katsuki Takashima and Naoki Toyooka*



Gephyrotoxin 287C Octahydroquinolinone Michael-Type Conjugate Addition

661 **Studies toward the Synthesis of Perforatumone: Synthesis of the 7-Oxabicyclo[4.2.1]nonane-8,9-dione Core**

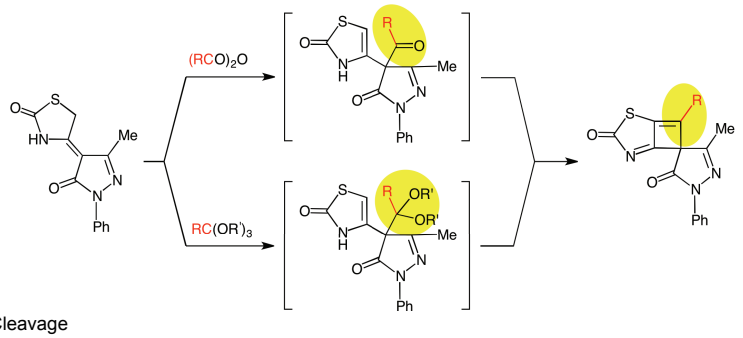
Tatsuki Nakajima, Keita Takiguchi, Keisuke Yoshida, Akihiro Ogura, and Ken-ichi Takao*



Intramolecular Michael Reaction Dieckmann Condensation Claisen Rearrangement Bridged Bicyclic Skeleton

669 **Synthesis and DNA Cleavage Activity of Novel Spiro-[cyclobutathiazole-4,4'-pyrazole] Derivatives**

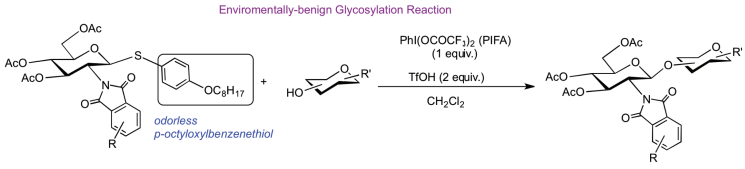
Eiichi Masumoto, Hayate Nagabuchi, Nobuhiro Kashige, Fumi Okabe-Nakahara, Fumio Miake, Kenji Yamagata, and Hiroshi Maruoka*



Pyrazole Thiazole Spiro Compound Orthoester DNA Cleavage

680 **Enviromentally-Benign Glycosylation Reaction Using Odorless *Thio*-Glycosides and Hypervalent Iodine(III) Reagent**

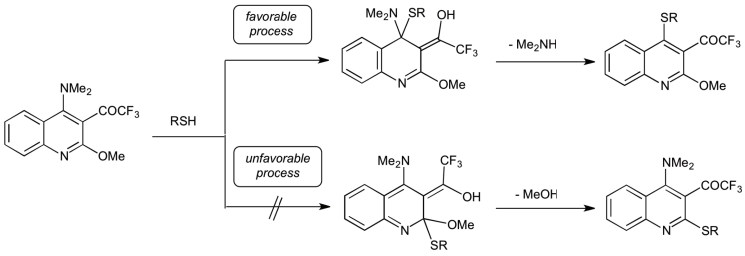
Koji Morimoto, Kana Yanase, Ibuki Odaka, Yasuyuki Kita,* and Tetsuya Kajimoto*



Odorless Thio-Glycoside Hypervalent Iodine(III) Reagent

694 **Selective Aromatic Nucleophilic Substitution of 4-(Dimethylamino)-2-methoxy-3-(trifluoroacetyl)-quinoline with Thiols – DFT Calculation Study**

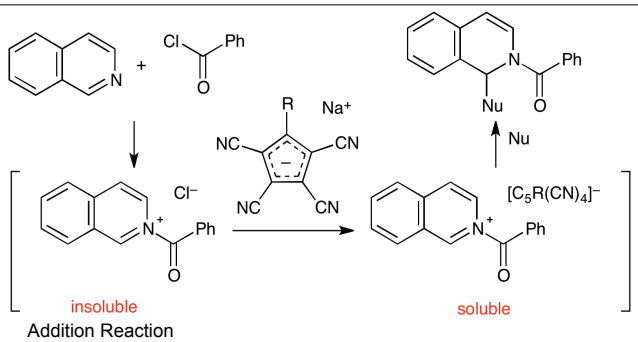
Norio Ota, Yusuke Harada, Yasuhiro Kamitori, and Etsuji Okada*



Trifluoroacetylquinoline DFT Calculation C-PCM Model Selective Aromatic Nucleophilic Substitution Solvent Effect

703 **Nucleophilic Addition to *N*-Benzoylisoquinolinium Cation Catalyzed by Sodium Tetracyanocyclopentadienides**

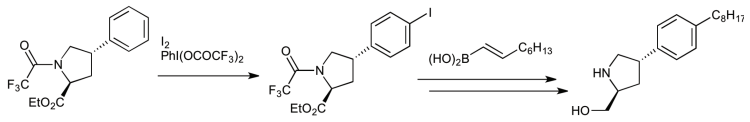
Takeo Sakai,* Mai Hattori, Akari Tada, Junpei Matsuoka, and Yuji Mori



Isoquinoline Tetracyanocyclopentadienide Phase Transfer Reaction Addition Reaction

716 **Concise Synthesis of Anticancer Active *trans*-4-(4-Octylphenyl)prolinol**

Junki Ando, Aoi Tazawa, Kohei Ishizawa, Minoru Tanaka,* and Hiroyoshi Takamura*



Concise Synthesis *trans*-4-(4-Octylphenyl)prolinol Regioselective Iodination Suzuki–Miyaura Cross-Coupling Reaction

Contributors To This Issue