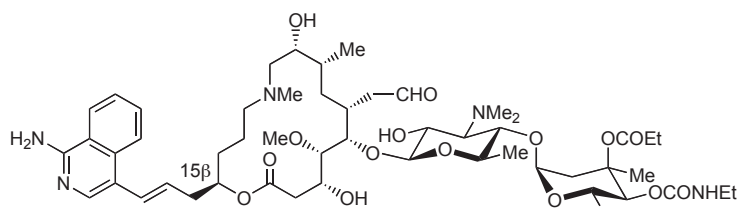


■ REVIEW

281 **Sixteen-Membered Macrolides: Chemical Modifications and Future Applications**

Keiichi Ajito,* Tomoaki Miura, Takeshi Furuuchi, and Atsushi Tamura



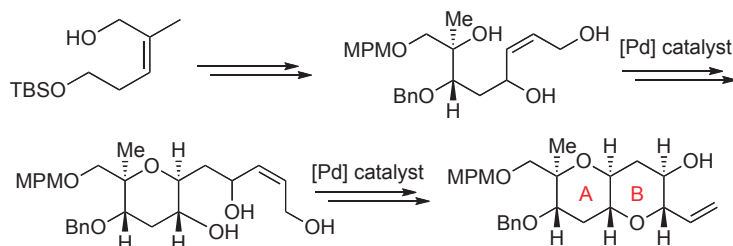
optimized 15-β-substituted-16-membered-11-azalide

Antibiotic Macrolide Azalide Respiratory Infection Macrocyclization

■ COMMUNICATION

353 **Synthetic Studies of Yessotoxin: Iterative Synthesis of the AB Ring System via Pd(II)-Catalyzed Cyclization of Alcohol**

Hajime Yokoyama,* Yasuhiro Kusumoto, Koshiro Sumiyoshi, Masahiro Miyazawa, and Yoshiro Hirai*

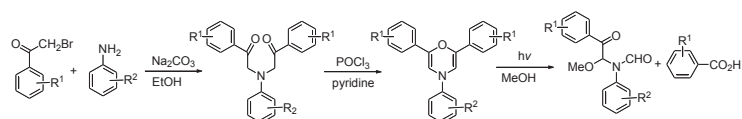


Palladium Catalyst Cyclization Polyether Synthesis

■ PAPERS

359 **Synthesis and Photochemical Properties of 2,4,6-Triaryl-4H-1,4-oxazines**

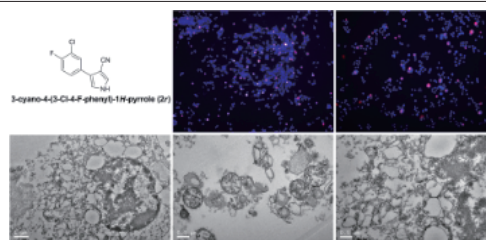
Hongbo Tan, Hongxing Xin, and Hong Yan*



4H-1,4-Oxazine Cyclodehydration Photochemical Property Photoreaction

375 Simple Synthesis of New 3-Substituted 4-(3-Chloro-4-fluorophenyl)-1*H*-pyrrole Derivatives and Their Anticancer Activity *in Vitro*

Lan Lan, Xiaoping Zhan, Weixi Qin, Zenglu Liu, and Zhenmin Mao*

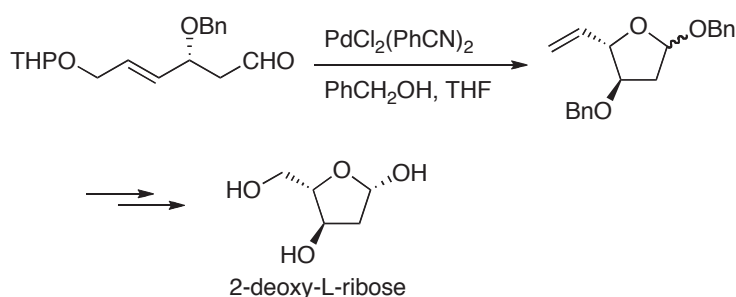


3-substituted 4-(3-Cl-4-F-phenyl)-1*H*-pyrrole derivative (2*r*) caused massive cell death towards MGC80-3 and CHO cells under the observations of fluorescence microscope and TEM.

 3-Substituted 4-(3-Chloro-4-fluorophenyl)-1*H*-pyrrole Van Leusen Synthesis Anticancer Activity Cell Cycle Cell Death

399 Synthesis of 2-Deoxy-L-ribose via Palladium(II)-Catalyzed Cyclization

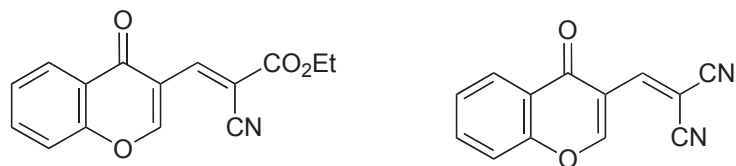
Masahiro Miyazawa,* Erika Akita, Kazusi Onda, Magsarjav Narantsetseg, Haruna Minabe, Hajime Yokoyama, and Yoshiro Hirai*



2-Deoxy-L-ribose Palladium Catalyst Cyclization Hemiacetal

413 Studies on the Chemical Transformations of Simple Condensates Derived from 3-Formylchromone under Nucleophilic Conditions

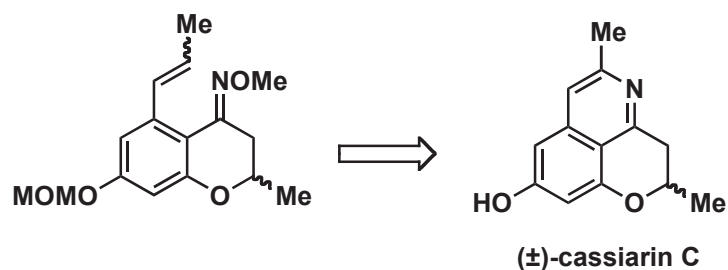
Magdy A. Ibrahim* and Nasser M. El-Gohary



Chromone Nitrogen and Carbon Nucleophiles Elimination Reaction Nucleophilic Addition

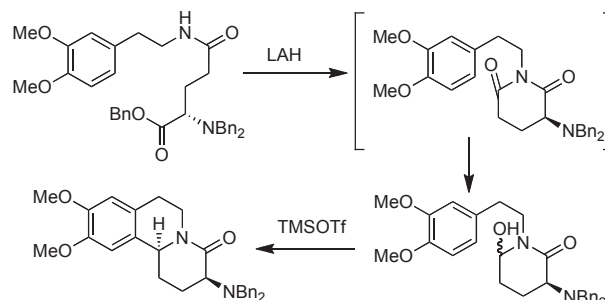
427 The First Total Synthesis of the Antiplasmodial Alkaloid (±)-Cassiarin C Based on a Microwave-Assisted Thermal Azaelectrocyclic Reaction

Yoshinari Tazaki, Yuhta Tsuchiya, Tominari Choshi,* Takashi Nishiyama, Noriyuki Hatae, Hideo Nemoto, and Satoshi Hibino*


 Thermal Azaelectrocyclic Reaction Microwave Irradiation Antiplasmodial Alkaloid Cassiarin C Pyrano[2,3,4-*f*]isoquinoline

437 Synthesis of Quinolizidinone and Indolizidinone Using *N*-Acyliminium Ion Cyclization and a One-Pot Procedure for Preparation of Benzoquinolizidinone

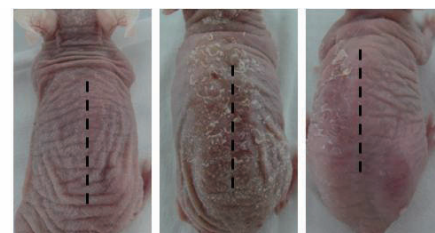
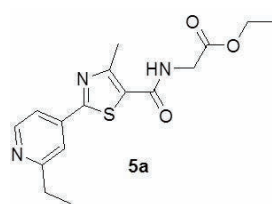
Punlop Kuntiyong,* Nuanpan Piboonsrinakara, Pijitra Bunrod, Duangkamol Namborisut, Sunisa Akkarasamiyo, Poramate Songthammawat, Chitlada Hemmara, Artid Buaphan, and Boonsong Kongkathip


 Quinolizidinone Indolizidinone *N*-Acyliminium Ion Cyclization Synthesis One-Pot Procedure

■ SHORT PAPERS

453 Identification, Synthesis and Photo-protection Evaluation of Arylthiazole Derivatives as a Novel Series of Sunscreens

Guoliang Li, Yundong He, Wenbo Zhou, Peng Wang, Yong Zhang, Weiguang Tong, Haigang Wu, Mingyao Liu, Xiyun Ye,* and Yihua Chen*

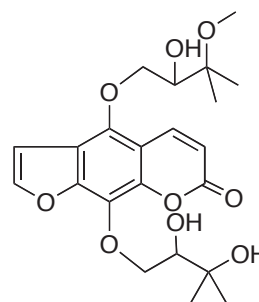


UVB	-	-	+	+	+	+
5a	-	+	-	+	-	+

Arylthiazole UVB Structure-Activity Relationship Photo-Protection

465 Two New Linear Furanocoumarins from *Angelica apaensis*

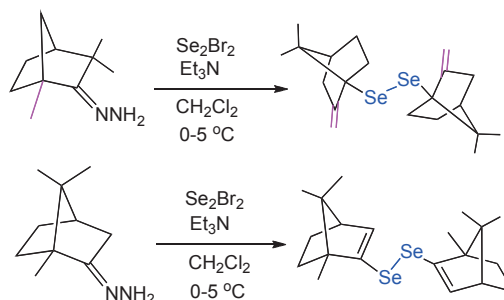
Yong Li, Min Zhang, Min Luo, Xue Wu, Qiuli Xiao, Juan Hua, and Xian Li*



Angelica apaensis Linear Furanocoumarin Cytotoxic Ability

473 Reaction of Fenchone Hydrazone with Diselenium Dibromide: Novel Formation of Bicyclic Diselenide

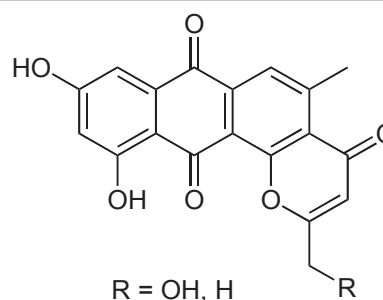
Kentaro Okuma,* Kazunori Munakata, Hiroyuki Matsui, Noriyoshi Nagahora, and Kosei Shioji



Fenchone Hydrazone Diselenium Dibromide Wagner-Meerwein Rearrangement Selenoketone

481 Anthraquinones from *Cassia fistula* and Their Anti-tobacco Mosaic Virus Activity

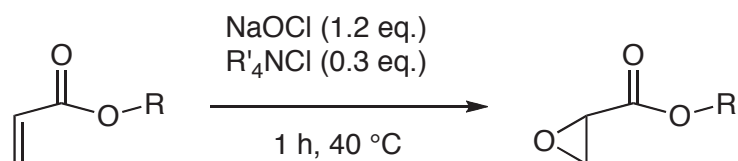
Yinke Li, Yuchun Yang, Ying Qin, Yanlin Meng, Yanqing Ye, Haiyin Yang, Xuemei Gao,* and Qiufen Hu*



Cassia fistula Anthraquinone Anti-tobacco Mosaic Virus Activity Structure Elucidation

487 Facile Synthesis of Glycidates via Oxidation of Acrylates with Aqueous Solution of NaOCl in the Presence of Ammonium Salts

Bungo Ochiai* and Taiki Hirano



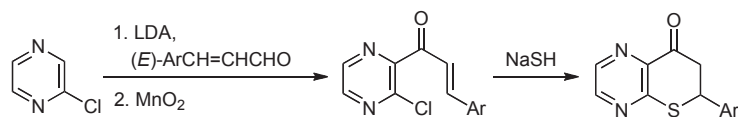
yield = 80-94%

R = Me, Et, *n*-Bu, *n*-hex, 2-ethylhexyl, *n*-dodecyl

Epoxide Oxidation Acrylate Ester Glycidate Green Synthesis

495 Synthesis of 6-Aryl-6,7-dihydro-8*H*-thiopyrano-[2,3-*b*]pyrazin-8-ones by the Reaction of 3-Aryl-1-(3-chloropyrazin-2-yl)prop-2-en-1-ones with Sodium Hydrosulfide

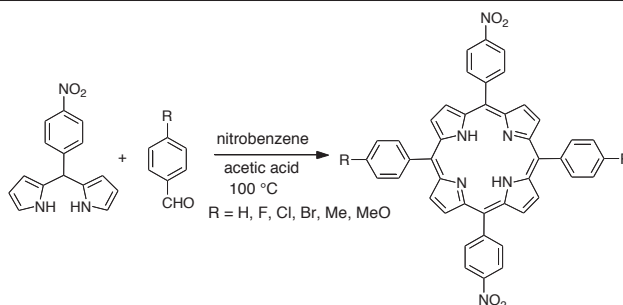
Kazuhiro Kobayashi* and Ayumi Imaoka



6,7-Dihydro-8*H*-thiopyrano[2,3-*b*]pyrazin-8-one Sodium Hydrosulfide 2-Chloropyrazine 2-Chloro-3-lithiopyrazine Conjugate Addition

503 An Improved Synthesis of Di-Nitro-Functionalized *trans*-A₂B₂-Tetraphenylporphyrins

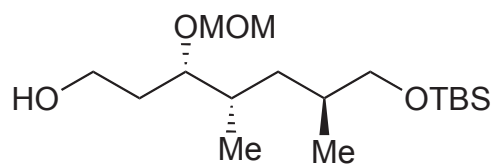
Zheng-Lin Zhang, Yuan-Bin She,* Hai-Yan Fu,*
Xu-Feng Song, and Zhi-Cheng Sun



trans-A₂B₂-Tetraphenylporphyrin Synthesis Scrambling Mixed Solvent

515 Stereocontrolled Synthesis of the C1-C7 Fragment of Enigmazole A

Takayuki Kishi, Yuka Fujisawa, Hiroyoshi Takamura,
and Isao Kadota*



Enigmazole A Marine Natural Product Phosphomacrolide Evans Chiral Auxiliary Asymmetric Synthesis

■ NEW HETEROCYCLIC NATURAL PRODUCTS

- 523 Polyketides
- 524 Aromatics
- 535 Terpenes
- 545 Steroids
- 546 Alkaloids
- 553 Miscellaneous

■ TOTAL SYNTHESIS OF HETEROCYCLIC NATURAL PRODUCTS

- 555 Polyketides
 - 560 Aromatics
 - 564 Terpenes
 - 568 Alkaloids
 - 578 Miscellaneous
-

Contributors To This Issue

- | | | | |
|----------|--------------------------|----------|-------------------------|
| 281 | Ajito, Keiichi | 503 | She, Yuan-Bin |
| 399 | Akita, Erika | 473 | Shioji, Kosei |
| 437 | Akkarasamiyo, Sunisa | 503 | Song, Xu-Feng |
| 437 | Buaphan, Artid | 437 | Songthammawat, Poramate |
| 437 | Bunrod, Pijitra | 353 | Sumiyoshi, Koshiro |
| 453 | Chen, Yihua | 503 | Sun, Zhi-Cheng |
| 427 | Choshi, Tominari | 515 | Takamura, Hiroyoshi |
| 413 | El-Gohary, Nasser M. | 281 | Tamura, Atsushi |
| 503 | Fu, Hai-Yan | 359 | Tan, Hongbo |
| 515 | Fujisawa, Yuka | 427 | Tazaki, Yoshinari |
| 281 | Furuuchi, Takeshi | 453 | Tong, Weiguang |
| 481 | Gao, Xuemei | 427 | Tsuchiya, Yuhta |
| 427 | Hatae, Noriyuki | 453 | Wang, Peng |
| 453 | He, Yundong | 453 | Wu, Haigang |
| 437 | Hemmara, Chitlada | 465 | Wu, Xue |
| 427 | Hibino, Satoshi | 465 | Xiao, Qiuli |
| 353, 399 | Hirai, Yoshiro | 359 | Xin, Hongxing |
| 487 | Hirano, Taiki | 359 | Yan, Hong |
| 481 | Hu, Qiufen | 481 | Yang, Haiyin |
| 465 | Hua, Juan | 481 | Yang, Yuchun |
| 413 | Ibrahim, Magdy A. | 453 | Ye, Xiyun |
| 495 | Imaoka, Ayumi | 481 | Ye, Yanqing |
| 515 | Kadota, Isao | 353, 399 | Yokoyama, Hajime |
| 515 | Kishi, Takayuki | 375 | Zhan, Xiaoping |
| 495 | Kobayashi, Kazuhiro | 465 | Zhang, Min |
| 437 | Kongkathip, Boonsong | 453 | Zhang, Yong |
| 437 | Kuntiyong, Punlop | 503 | Zhang, Zheng-Lin |
| 353 | Kusumoto, Yasuhiro | 453 | Zhou, Wenbo |
| 375 | Lan, Lan | | |
| 453 | Li, Guoliang | | |
| 465 | Li, Xian | | |
| 481 | Li, Yinke | | |
| 465 | Li, Yong | | |
| 453 | Liu, Mingyao | | |
| 375 | Liu, Zenglu | | |
| 465 | Luo, Min | | |
| 375 | Mao, Zhenmin | | |
| 473 | Matsui, Hiroyuki | | |
| 481 | Meng, Yanlin | | |
| 399 | Minabe, Haruna | | |
| 281 | Miura, Tomoaki | | |
| 353, 399 | Miyazawa, Masahiro | | |
| 473 | Munakata, Kazunori | | |
| 473 | Nagahora, Noriyoshi | | |
| 437 | Namborisut, Duangkamol | | |
| 399 | Narantsetseg, Magsarjav | | |
| 427 | Nemoto, Hideo | | |
| 427 | Nishiyama, Takashi | | |
| 487 | Ochiai, Bungo | | |
| 473 | Okuma, Kentaro | | |
| 399 | Onda, Kazusi | | |
| 437 | Piboonsrinakara, Nuanpan | | |
| 375 | Qin, Weixi | | |
| 481 | Qin, Ying | | |