

■ CELEBRATION OF PROFESSOR KAORU FUJI

- 1 **A Tribute to Professor Kaoru Fuji on the Occasion of His 80th Birthday**
Amos B. Smith III*

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- 4 **Preface to Heterocycles Issue Honoring the 80th Birthday of Professor Kaoru Fuji**
Takeo Kawabata*

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- 6 **Preface to Heterocycles Issue Honoring the 80th Birthday of Professor Kaoru Fuji**
Kiyosei Takasu*
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■ CURRICULUM VITAE

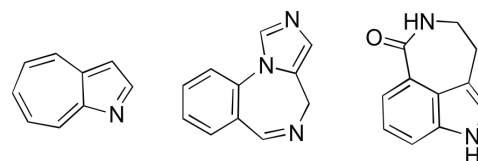
- 9 **Curriculum Vitae**
Kaoru Fuji*
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■ PUBLICATIONS

- 11 **Publication List by Kaoru Fuji**
Kaoru Fuji*

■ REVIEW

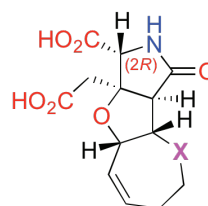
- 33 **Recent Advances in the Chemistry of Azaazulenes and Related Compounds**
Noritaka Abe*



Azaazulene Pyrrolobenzazepine Natural Product Biological Activity Heterocycle

■ COMMUNICATIONS

- 91 **An Efficient Enantiospecific Synthesis of Neuroactive Glutamate Analogs**
Shuntaro Tsukamoto, Hiyori Itagaki, Kenji Morokuma, Kei Miyako, Yuichi Ishikawa, Ryuichi Sakai, and Masato Oikawa*



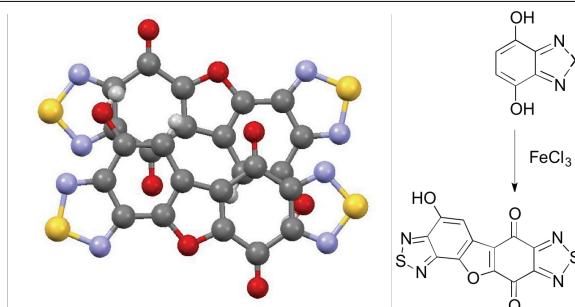
$X = \text{NH}\cdot\text{HCl}$
(2R)-TKM-107
moderately hypoactive in vivo

$X = \text{O}$
(2R)-IKM-154
weakly hypoactive in vivo

Chiral Resolution Enantioselective Synthesis Glutamate Hyperactivity Structure-Activity Relationship

99 A Novel Condensed Heterocyclic Quinone with a Dibenzofuranobisthiadiazole Skeleton

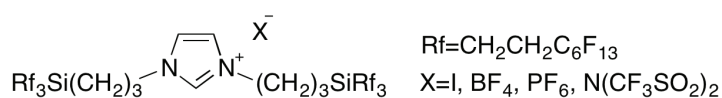
Kazuma Sugawara, Wataru Nojo, Yusuke Ishigaki, Junko Ohkanda, and Takanori Suzuki*



Quinone Intermolecular Interaction Oxidation Condensation Charge-Transfer

104 Synthesis of Novel Fluorous Imidazolium Ionic Liquids

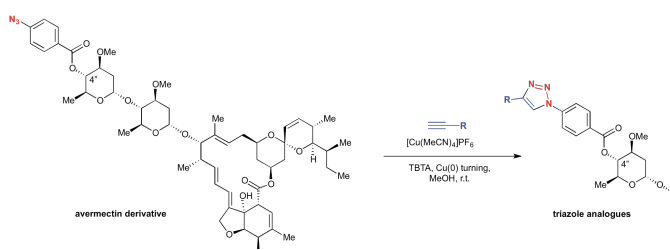
Mitsunori Honda,* Ryu Nakajima, Ko-Ki Kunimoto, and Masahito Segi*



Fluorous Ionic Liquid Ionic Liquid Imidazolium Salt Perfluoroalkyl Group

116 Rapid Exploration of Novel Anthelmintic Agents from Alkyne-Bearing Avermectin Derivatives via Click Chemistry

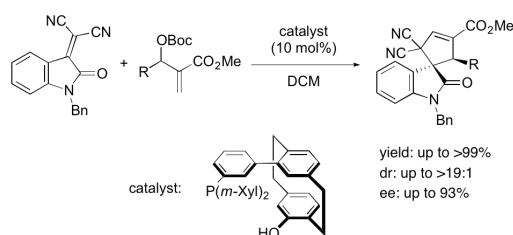
Tomoyasu Hirose, Akari Ikeda, Ayumi Tsutsui, Satoshi Ōmura, and Toshiaki Sunazuka*



Avermectin Click Chemistry Antinematodal Activity Anthelmintic Agent Ivermectin Resistant

■ PAPERS
127 Planar Chiral Phosphino[2.2]paracyclophanol-Catalyzed Highly Regio- and Stereoselective [3+2] Annulation Reaction of Morita–Baylis–Hillman Carbonates with Dicyanomethylideneoxindoles

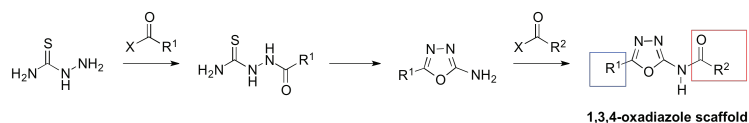
Shinji Kitagaki,* Mayuka Tsuji, Hideki Teramoto, Naoko Takenaga, and Keisuke Yoshida



Cyclophane Asymmetric Catalysis Organocatalysis Spiro Compound Annulation

145 Synthesis of 1,3,4-Oxadiazoles as Selective T-Type Calcium Channel Inhibitors

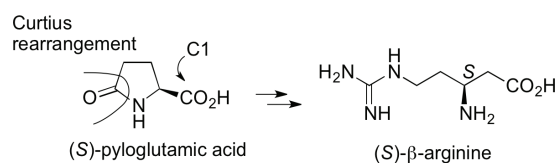
Man Zhang, Bende Zou, Medha J. Gunaratna, Sahani Weerasekara, Zongbo Tong, Thi D. T. Nguyen, Serkan Koldas, William S. Cao, Conrado Pascual, Xinmin Simon Xie,* and Duy H. Hua*



1,3,4-Oxadiazole T-Type Calcium Channel Inhibitor Neuropathic Pain Seizure

165 Synthesis of Optically Active (R)- and (S)-β-Arginine from Pyroglutamic Acid

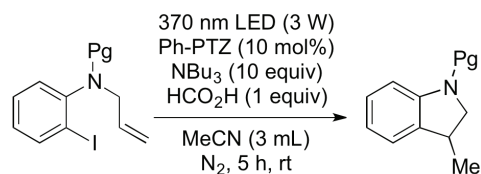
Yoko Yasuno, Akira Sawai, Ai Sekihara, and Tetsuro Shinada*



Pyroglutamic Acid Arginine Nitrile Peptide

177 Synthesis of Indolines via a Photocatalytic Intramolecular Reductive Cyclization Reaction

Eiji Yamaguchi,* Yumiko Goto, and Akichika Itoh*

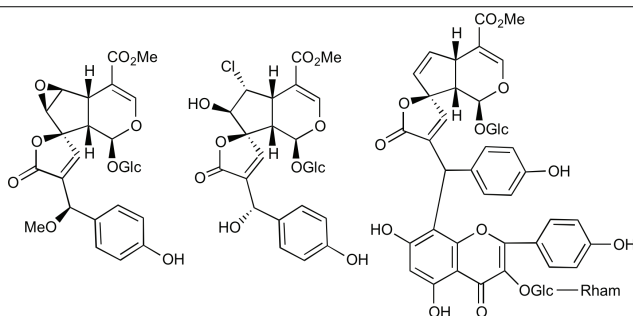


12 examples
moderate to good yield

Indoline Photocatalytic Reaction Reductive Cyclization

186 Iridoid Glucosides from *Linociera sangda*

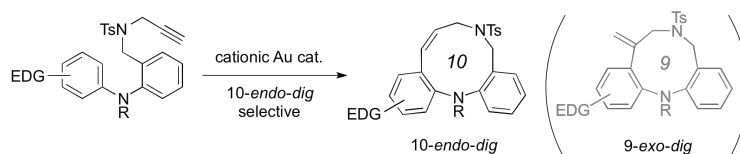
Yukiko Takenaka, Naoaki Okazaki, Toyoyuki Nishi, Naotaka Nagakura, and Takao Tanahashi*



Linociera sangda Oleaceae Iridoid Glucoside Iridoid-Flavonoid Adduct Structure Elucidation

195 Gold(I)-Catalyzed 10-endo-dig-Selective Cycloisomerization of N-(2-Anilinobenzyl)propargylamines

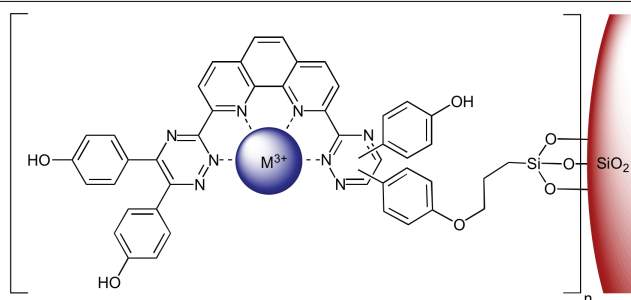
Mamoru Ito,* Daisuke Inoue, Asahi Takaki, Kyalo Stephen Kanyiva, and Takanori Shibata*



Cycloisomerization Medium Ring System Gold Catalyst 10-endo-dig-Selective Cycloisomerization

209 Extraction Properties of 4-Tetra(hydroxyphenyl)-BTPhen in Liquid-Liquid Extraction Systems with Cyclohexanone/Octanol or in a Solid-Phase Extraction System

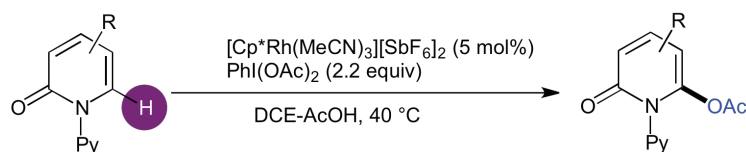
Ashfaq Afsar, Jasraj S. Babra, Petr Distler, Laurence M. Harwood,* Iain Hopkins, Jan John,* James Westwood, and Zoe Y. Selfe



SANEX BTPhen Actinide-Actinide Separation Actinide-Lanthanide Separation Solid Supported Ligand

223 Pyridine-Directed Rh-Catalyzed C6-Selective C–H Acetoxylation of 2-Pyridones

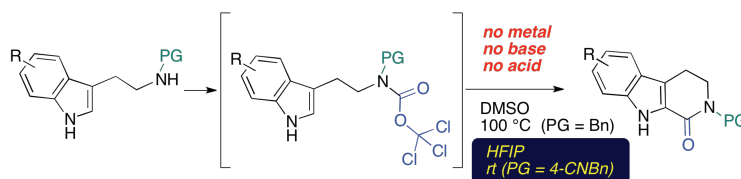
Sunit Hazra, Koji Hirano,* and Masahiro Miura*



Pyridone Acetoxylation Rhodium

235 A Mild Bischler–Napieralski-Type Cyclization of Trichloromethyl Carbamates for the Synthesis of β -Carbolinones

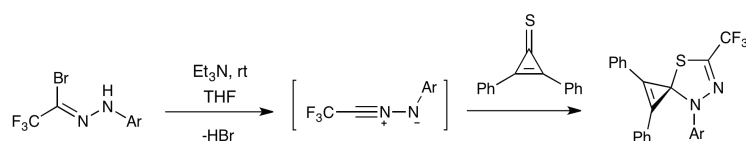
Seiya Hirao, Mayumi Kitamori, Tomoki Itoh, Yuusuke Chiba, and Takumi Abe*



Bischler–Napieralski Cyclization Carbolinone Triphosgene Additive-Free Reaction Fluorous Alcohol

251 Novel Trifluoromethylated Spiro-1,3,4-thiadiazoles via [3+2]-Cycloadditions of 2,3-Diphenylcyclopropenethione with Selected *in situ*-Generated Nitrile Imines Derived from Trifluoroacetonitrile

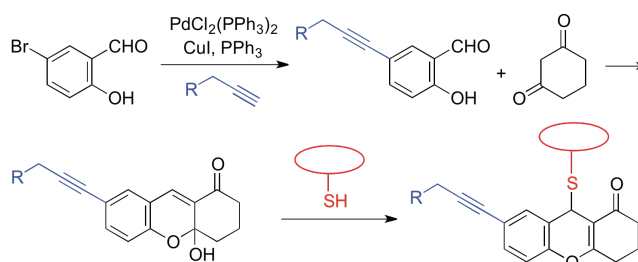
Greta Utecht-Jarzyńska, Marcin Jasiński,* Kamil Świątek, Grzegorz Młostoń, and Heinz Heimgartner*



[3+2]-Cycloaddition Cyclopropenethione Nitrile Imine 1,3,4-Thiadiazole Trifluoromethylated Heterocycle

263 Synthesis of Oxygen-Heterocycles Having Linker Components for Trapping Cysteine Derivatives

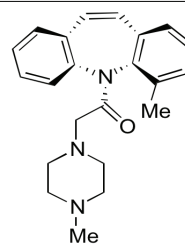
Eito Yoshioka, Ikko Minato, Hideki Takashima, and Hideto Miyabe*



Oxygen-Heterocycle Xanthene Cross Coupling Thiol Glutathione

273 Conformational Properties and M₁ Antimuscarinic Activity of 4-Substituted Pirenzepine/Telenzepine Analogues

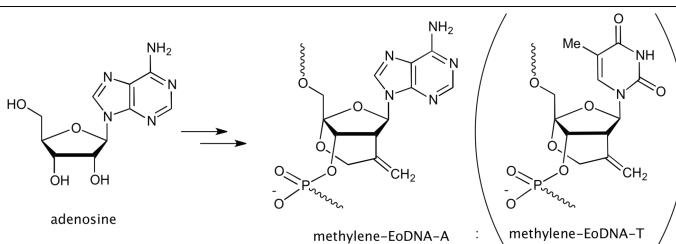
Yuki Kanase, Kosho Makino, Takashi Yoshinaga, Hidetsugu Tabata, Tetsuta Oshitari, Hideaki Natsugari, and Hideyo Takahashi*


 eutomer
 IC₅₀: 51.4 nM

Pirenzepine Telenzepine Atropisomer Conformation

284 Synthesis and Hybridizing Property of Oligonucleotides Including 2'-C,4'-C-Ethyleneoxy-Bridged 2'-Deoxyadenosine with an Exocyclic Methylene Unit

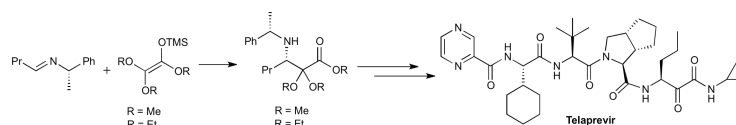
Takashi Osawa, Yoshinori Onishi, Sawako Wakita, Yuta Ito, and Yoshiyuki Hari*


 The methylene-EoDNA base pair highly stabilized DNA duplex.
 ($\Delta T_m/\text{mod.} = \text{up to } +2.5 \text{ }^\circ\text{C}$)

2',4'-Bridged Nucleic Acid DNA Duplex Oligonucleotide UV-Melting Experiment

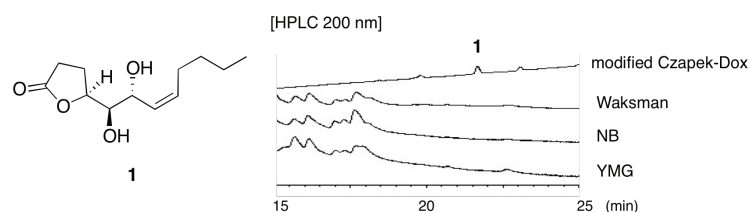
SHORT PAPERS
299 Stereoselective Synthesis of β -Amino Acids by Aldol-Type Addition

David Benito-Garagorri, Wolfgang Felzmann, Sven Nerdinger, and Kathrin Höferl-Prantz*

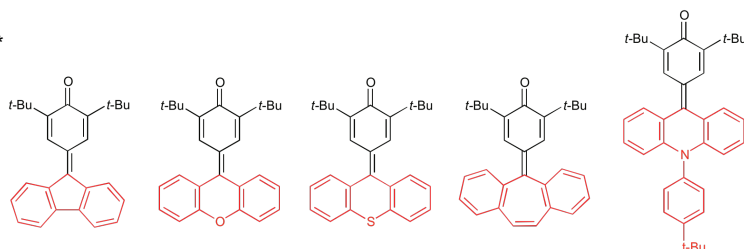

 Asymmetric Synthesis Mukaiyama-Type Aldol Addition HCV Drug Telaprevir β -Amino Acid

312 Isolation of Inohanalactone, a γ -Butyrolactone, from *Nocardia inohanensis* IFM0092^T

Natsumi Kobayashi, Yasumasa Hara, Midori A. Arai, Shoko Hara, Tohru Gono, Takashi Yaguchi, and Masami Ishibashi*

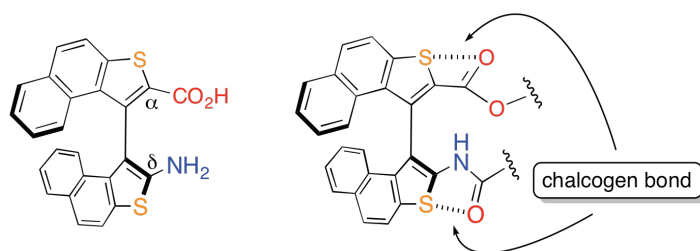

 Actinomycete *Nocardia* γ -Butyrolactone

- 318 Synthesis and Physical Properties of π -Extended Molecules Having *p*-Methylenequinone Unit**
 Rui Umeda,* Masamichi Nakatsukasa, and Yutaka Nishiyama*



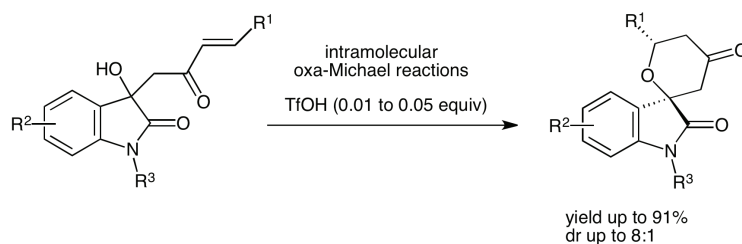
Redox Active Compound *p*-Methylenequinone Structure Fuchson Derivative π -Extended Molecule

- 328 Synthesis of Axially Chiral Binaphthothiophene δ -Amino Acid Derivatives Bearing Chalcogen Bonds**
 Shohei Hamada, Shuo Wang, Takuya Murai, Yongning Xing, Takumi Inoue, Yoshihiro Ueda, Takahiro Sasamori, Takeo Kawabata, and Takumi Furuta*



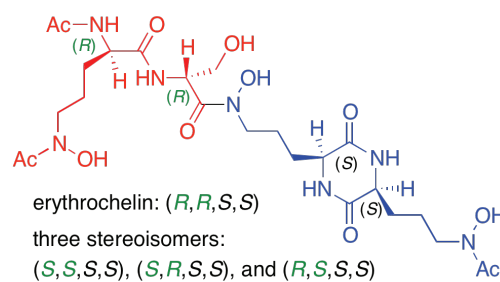
Artificial Amino Acid Axial Chirality Chalcogen Bond

- 339 Intramolecular Oxa-Michael Reactions of Aldols Generated from Enones and Isatins to Afford Spirooxindole Tetrahydropyrans**
 Maira Pasha, Muhammad Sohail, and Fujie Tanaka*



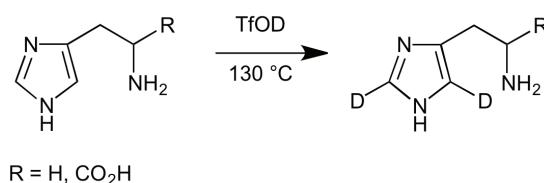
Michael Reaction Intramolecular Reaction Diastereoselective Reaction Spiro Compound

- 347 Synthesis of Three Stereoisomers of Erythrochelin, a Hydroxamate-Type Tetrapeptide Siderophore from *Saccharopolyspora erythraea***
 Michiyasu Nakao, Ayumu Adachi, Syuji Kitaike, and Shigeki Sano*



Erythrochelin Siderophore Absolute Configuration 2,5-Diketopiperazine δ -N-Hydroxyornithine

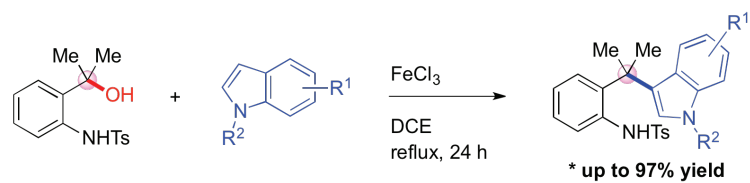
- 357 Hydrogen-Deuterium Exchange of Histidine and Histamine with Deuterated Trifluoromethanesulfonic Acid**
 Zetryana Puteri Tachrim, Natsumi Kurokawa, Yurika Tokoro, and Makoto Hashimoto*



Hydrogen-Deuterium Exchange Histidine Histamine Imidazole Triflic Acid

363 Construction of Quaternary Carbon Center by the Reaction of Aza-*o*-Quinone Methide Mediated Carbocation Intermediate

Yukiko Karuo, Shintaro Dousei, Minori Sakamoto, Atsushi Tarui, Kazuyuki Sato, Kentaro Kawai, and Masaaki Omote*



Aza-*ortho*-Quinone Methide

ortho-Quinone Methide

Quaternary Carbon Center

Contributors To This Issue

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