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# Two Novel Alkaloids with a Unique Fused Hexacyclic Skeleton from *Daphniphyllum subverticillatum*

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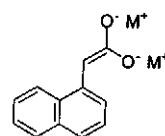
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**On the Cover:** Alkali enediolates from carboxylic acids are important synthetic reagents. For a dicesium salt, the small amount of monomer in equilibrium with dimer is the active alkylating reagent. The dilithium salt is aggregated so tightly that only the dimer reacts. Mixed aggregates are also formed. Ab initio calculations suggest structures as shown. See Streitwieser and co-workers, p 7937.

## Articles

- 7937 **Aggregation and Reactivity of the Dilithium and Dicesium Enediolates of 1-Naphthylacetic Acid**

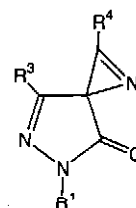


M = Li, Cs

Aggregation  
Mixed Aggregates  
Alkylation Kinetics  
Theoretical Models

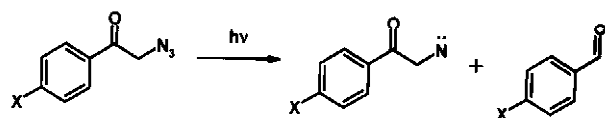
Andrew Streitwieser,\* Marc Husemann, and  
Yeong-Joon Kim

- 7943 **Spiro-Fused (C2)-Azirino-(C4)-pyrazolones, a New Heterocyclic System. Synthesis, Spectroscopic Studies and X-ray Structure Analysis**



Wolfgang Holzer,\* Rosa M. Claramunt,\*  
Marta Pérez-Torrallba, Davide Guggi, and  
Thomas H. Brehmer

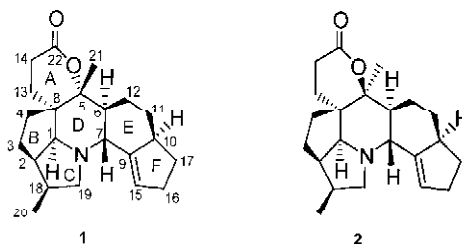
- 7951 **Photolysis of  $\alpha$ -Azidoacetophenones: Direct Detection of Triplet Alkyl Nitrenes in Solution**



Pradeep N. D. Singh, Sarah M. Mandel,  
Rachel M. Robinson, Zhendong Zhu, Roberto Franz,  
Bruce S. Ault, and Anna D. Gudmundsdóttir\*

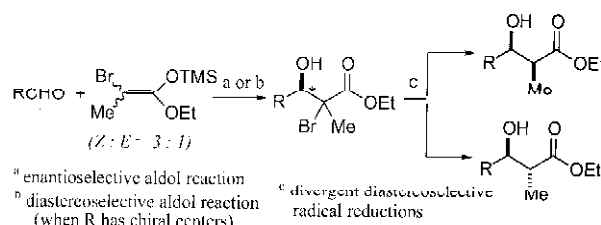
**7961 Two Novel Alkaloids with a Unique Fused Hexacyclic Skeleton from *Daphniphyllum subverticillatum***

Sheng-Ping Yang and Jian-Min Yue\*



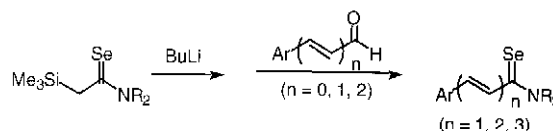
**7967 Regulated-Stereoselective Construction of Thirteen Stereogenic Centers Necessary for the Frame of (+)-Discodermolide, Based on Iterative Lewis Acid-Promoted Aldol Reactions**

Syun-ichi Kiyooka,\* Kazi Abdus Shahid, Fumitaka Goto, Momotoshi Okazaki, and Yoshihiro Shuto



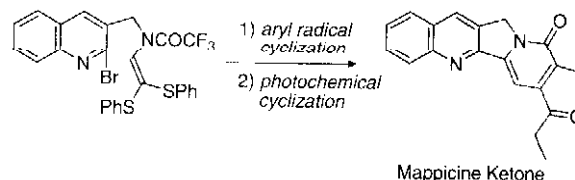
**7979 Highly Efficient Peterson Olefination Leading to Unsaturated Selenoamides and Their Characterization**

Toshiaki Murai,\* Akinori Fujishima, Chigusa Iwamoto, and Shinzi Kato



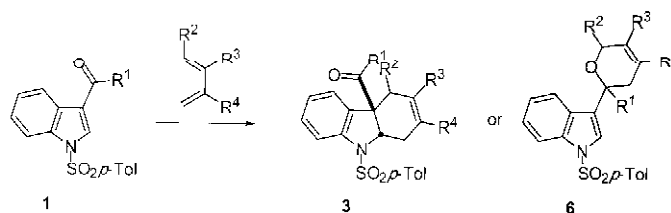
**7983 Total Synthesis of Mappicine Ketone (Nothapodytine B) by Means of Sulfur-Directed 5-exo-Selective Aryl Radical Cyclization onto Enamides**

Issei Kato, Masayuki Higashimoto, Osamu Tamura, and Hiroyuki Ishibashi\*



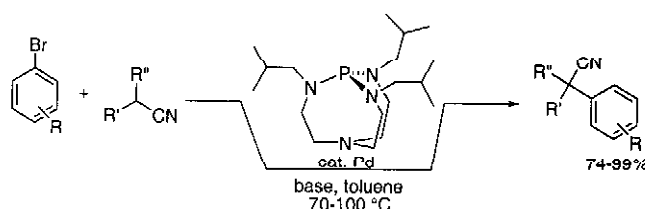
**7990 Complete and Remarkable Reversal of Chemoselectivity in [4 + 2] Cycloadditions Involving Electron-Poor Indoles as Dienophiles. Diels-Alder versus Hetero-Diels-Alder Processes**

Antony Chrétien, Isabelle Chataigner, Nathalie L'Hélias, and Serge R. Piettre\*

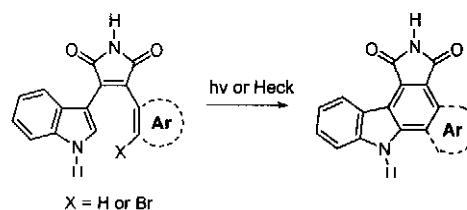


**8003 P(*i*-BuNCH2CH2)3N: An Efficient Ligand for the Direct  $\alpha$ -Arylation of Nitriles with Aryl Bromides**

Jingsong You and John G. Verkade\*

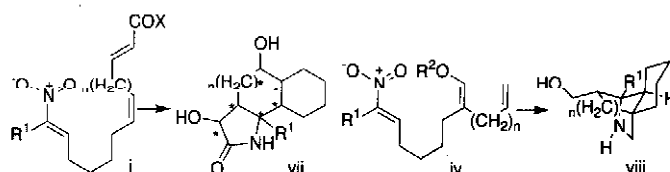


8008 **Synthesis of Aryl- and Heteroaryl[a]pyrrolo[3,4-c]carbazoles**



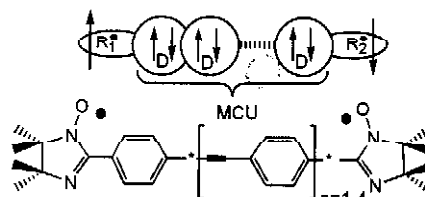
Concha Sanchez-Martinez,\* Margaret M. Faul,\* Chuan Shih, Kevin A. Sullivan, John L. Grutsch, Jeremy T. Cooper, and Stanley P. Kolis

8015 **Tandem Double Intramolecular [4+2]/[3+2] Cycloadditions of Nitroalkenes. The Fused/Bridged Mode**



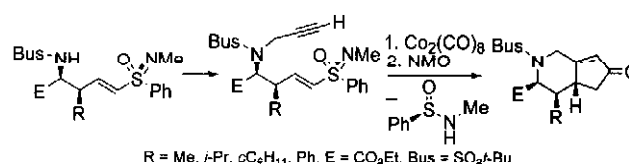
Scott E. Denmark\* and Laurent Gomez

8025 **Spin Exchange Interaction through Phenylene-Ethynylene Bridge in Diradicals Based on Iminonitroxide and Nitronylnitroxide Radical Derivatives. 1. Experimental Investigation of the Through-Bond Spin Exchange Coupling**



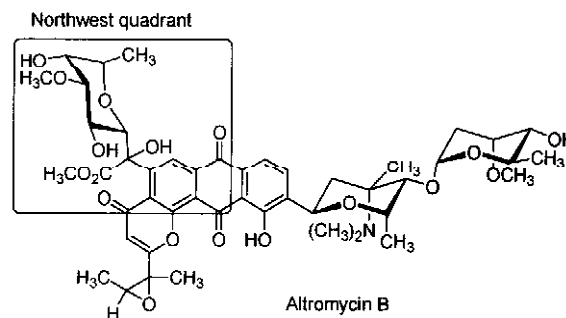
Pascale Wautelet, Jacques Le Moigne, Vladimira Videva, and Philippe Turek\*

8037 **Asymmetric Synthesis of Fused Bicyclic  $\alpha$ -Amino Acids Having a Hexahydro-cyclopenta[c]pyridine Skeleton via Intramolecular Pauson-Khand Reaction of 1-Sulfonimidoyl-Substituted 5-Azaoct-1-en-7-yne**



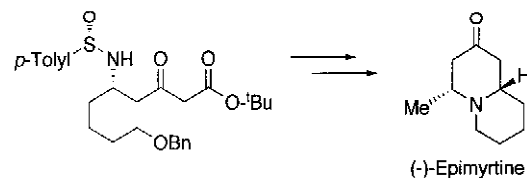
Markus Günter and Hans-Joachim Gais\*

8042 **Synthesis of Both Possible Isomers of the Northwest Quadrant of Altromycin B**



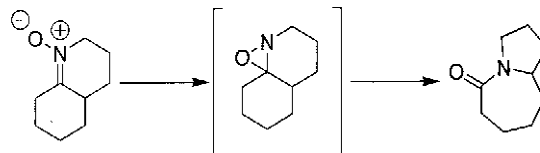
Paolo Pasetto and Richard W. Franck\*

- 8061 **Asymmetric Synthesis of the Quinolizidine**  
 ■ **Alkaloid (–)-Epimyrine with Intramolecular Mannich Cyclization and *N*-Sulfinyl  $\delta$ -Amino  $\beta$ -Ketoesters**



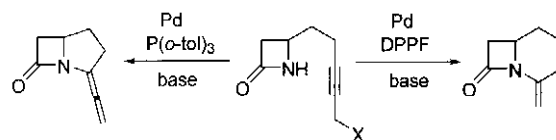
Franklin A. Davis,\* Yulian Zhang, and  
Gopinathan Anilkumar

- 8065 **Rearrangements of Bicyclic Nitrones to**  
 ■ **Lactams: Comparison of Photochemical and Modified Barton Conditions**



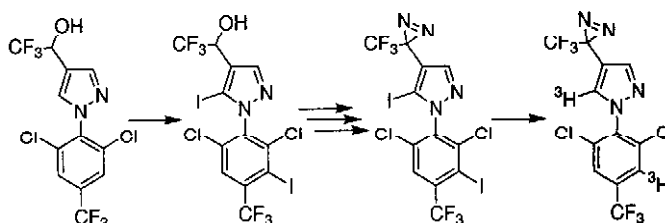
Yibin Zeng, Brenton T. Smith,  
John Hershberger, and Jeffrey Aubé\*

- 8068 **Novel Synthesis of Carbapenam by**  
 ■ **Intramolecular Attack of Lactam Nitrogen toward  $\eta^1$ -Allenyl and  $\eta^3$ -Propargylpalladium Complex**



Yuji Kozawa and Miwako Mori\*

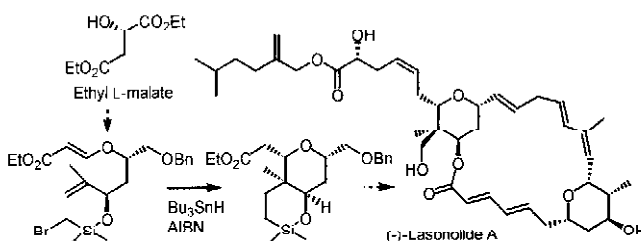
- 8075 **Synthesis of a Tritium-Labeled, Fipronil-Based,**  
 ■ **Highly Potent, Photoaffinity Probe for the GABA Receptor**



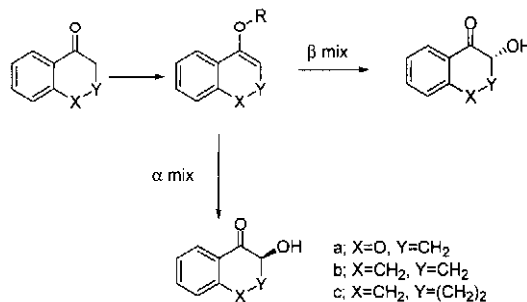
Robert E. Sammelson and John E. Casida\*

- 8080 **Lasonolide A: Structural Revision and Total**  
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Ho Young Song, Jung Min Joo, Jung Won Kang,  
Dae-Shik Kim, Cheol-Kyu Jung, Hyo Shin Kwak,  
Jin Hyun Park, Eun Lee,\* Chang Yong Hong,  
ShinWu Jeong, Kiwan Jeon, and Ji Hyun Park

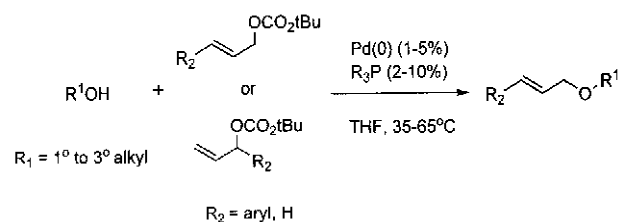


- 8088 **Asymmetric Synthesis of Cyclic Hydroxy**  
 ■ **Ketones Derived from Enol Ethers via Sharpless Asymmetric Dihydroxylation. A Study in the Correlation of the Enol Ether Chain Length and Enantioselectivity**



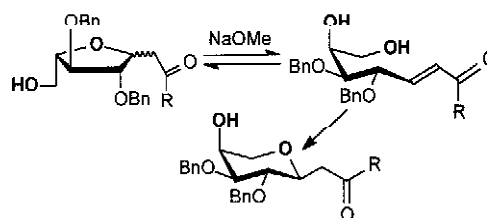
Benjamin F. Marcunc,\* Sandor Karady,  
Paul J. Reider, Ross A. Miller, Mirlinda Biba,  
Lisa DiMichele, and Robert A. Reamer

**8092 General Method for the Palladium-Catalyzed  
■ Alkylation of Aliphatic Alcohols**



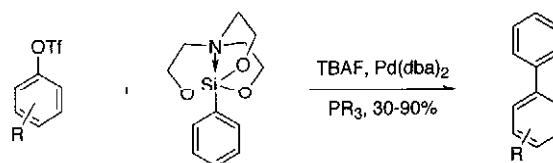
Anthony R. Haight,\* Eric J. Stoner,  
Matthew J. Peterson, and Vandana K. Grover

**8097 Epimerization of 2'-Carbonylalkyl-C-Glycosides  
■ via Enolation,  $\beta$ -Elimination and  
Intramolecular Cycloaddition**



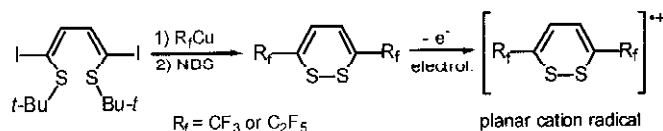
Zerong Wang, Huawu Shao, Edith Lacroix,  
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**8106 Application of Silicon-Based Cross-Coupling  
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Shaundra Riggleman and Philip DeShong\*

**8110 Synthesis, Electrochemistry, and Gas-Phase  
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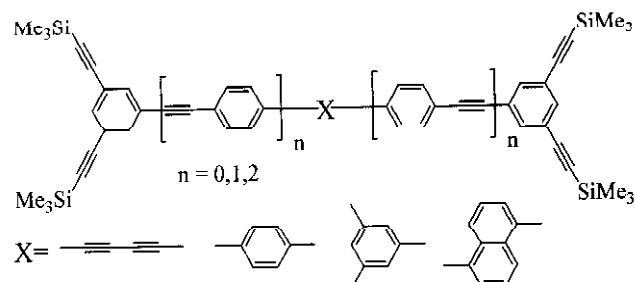
Edward D. Lorange, Richard S. Glass,\*  
Eric Block,\* and Xiaojie Li

**8115 An Efficient Route for the Synthesis of Glycosyl  
■ Phosphinic Acids**



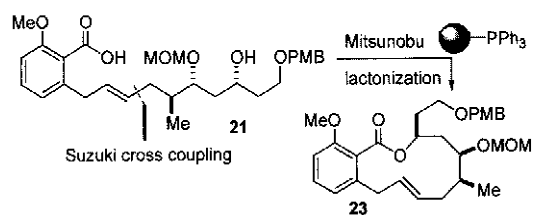
Charla A. Centrone and Todd L. Lowary\*

**8120 Synthesis of Nanostructures Based on 1,4- and  
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Conjugation. Carbon Dendron Units**



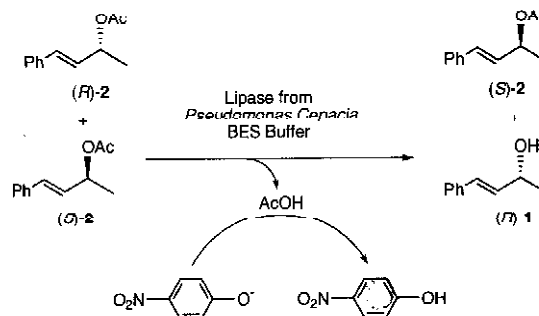
J. Gonzalo Rodríguez,\* Jorge Esquivias,  
Antonio Lafuente, and Cristina Díaz

8129 **A Formal Total Synthesis of the**  
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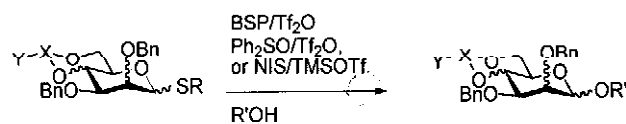
Christian Herb and Martin E. Maier\*

8136 **Using a Lipase as a High-Throughput Screening**  
**Method for Measuring the Enantiomeric Excess**  
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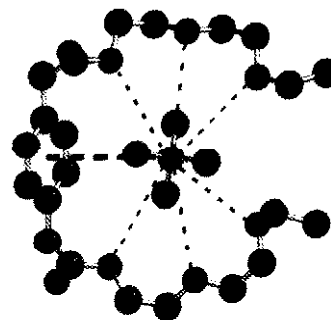
M. Burak Onaran and Christopher T. Seto\*

8142 **Influence of the 4,6-*O*-Benzylidene,**  
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**by 1-Denzenesulfinyl Piperidine/Triflic**  
**Anhydride and *N*-Iodosuccinimide/**  
**Trimethylsilyl Triflate**



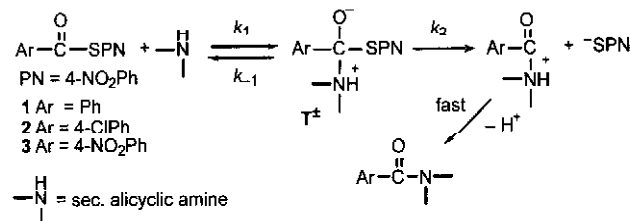
David Crich,\* Marco de la Mora, and A. U. Vinod

8149 **Binding of Tetramethylammonium to Polyether**  
**Side-Chained Aromatic Hosts. Evaluation of the**  
**Binding Contribution from Ether Oxygen**  
**Donors**



Sandra Bartoli, Gina De Nicola, and  
 Stefano Roelens\*

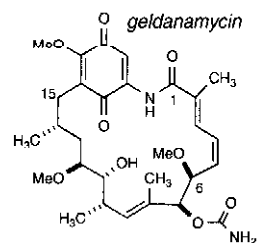
8157 **Kinetic Investigation of the Reactions of**  
***S*-4-Nitrophenyl 4-Substituted Thiobenzoates**  
**with Secondary Alicyclic Amines in Aqueous**  
**Ethanol**



Enrique A. Castro,\* Jorge Bessolo, Raul Aguayo, and  
 José G. Santos

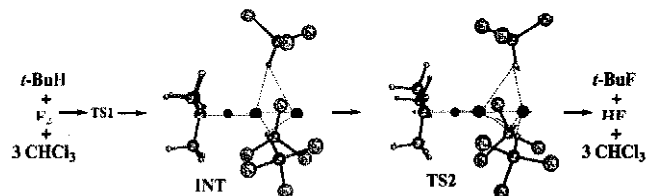
**8162 Total Synthesis of (+)-Geldanamycin and (-)-*o*-Quinogeldanamycin: Asymmetric Glycolate Aldol Reactions and Biological Evaluation**

Merritt B. Andrus,\* Erik L. Meredith,  
Erik J. Hicken, Bryon L. Simmons,  
Russell R. Glancey, and Wei Ma



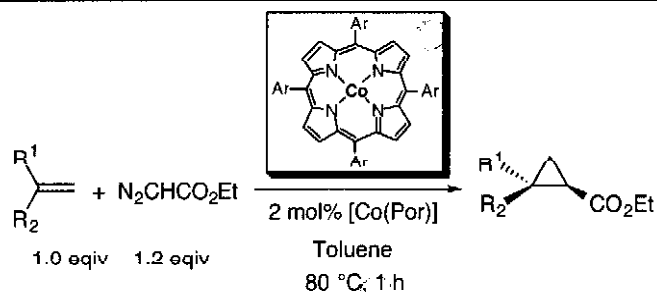
**8170 A Theoretical Study of the Mechanism of Selective Fluorination of Saturated Hydrocarbons by Molecular Fluorine. Participation of CHCl<sub>3</sub> Solvent Molecules in the Ionic Process**

Haruhiko Fukaya and Koiji Morokuma\*



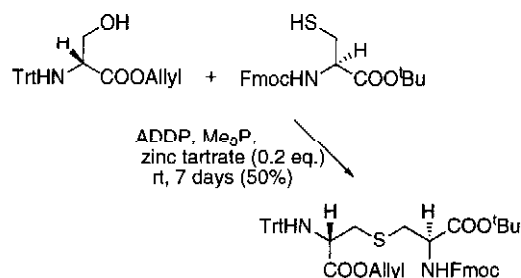
**8179 Diastereoselective and Enantioselective Cyclopropanation of Alkenes Catalyzed by Cobalt Porphyrins**

Lingyu Huang, Ying Chen, Guang-Yao Gao, and  
X. Peter Zhang\*



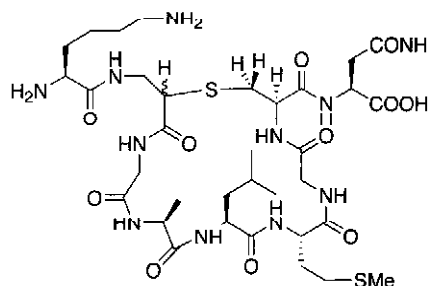
**8185 Synthesis of Orthogonally Protected Lanthionines**

M. Firouz Mulid Mustapa, Richard Harris,  
Nives Bulic-Subanovic, Susan L. Elliott,  
Sarah Bregant, Marianne F. A. Groussier,  
Jessica Mould, Darren Schultz, Nathan A. L. Chubb,  
Piers R. J. Gaffney, Paul C. Driscoll, and  
Alethea B. Tabor\*



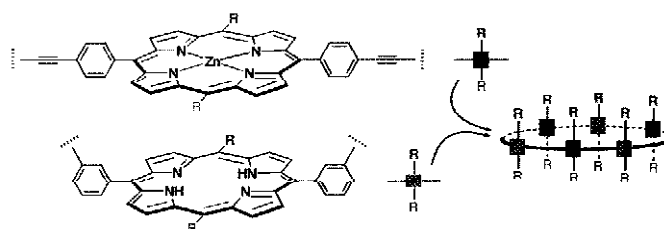
**8193 Synthesis of a Cyclic Peptide Containing Norlanthionine: Effect of the Thioether Bridge on Peptide Conformation**

M. Firouz Mohd Mustapa, Richard Harris,  
Diego Esposito, Nathan A. L. Chubb, Jessica Mould,  
Darren Schultz, Paul C. Driscoll, and  
Alethea B. Tabor\*



**8199 Synthesis of Cyclic Hexameric Porphyrin Arrays. Anchors for Surface Immobilization and Columnar Self-Assembly**

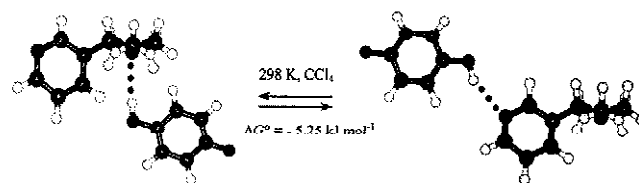
Kin-ya Tomizaki, Lianhe Yu, Lingyun Wei,  
David F. Bocian,\* and Jonathan S. Lindsey\*





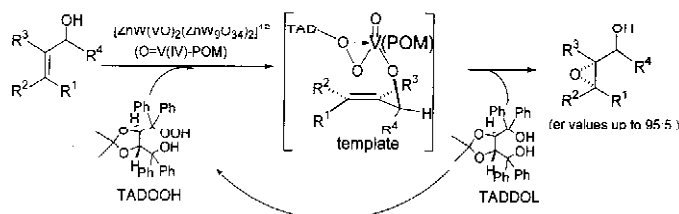
8208 **The Nicotinic Pharmacophore:**  
 ■ **Thermodynamics of the Hydrogen-Bonding Complexation of Nicotine, Nornicotine, and Models**

Jérôme Graton, Michel Berthelot, Jean-François Gal, Christian Laurence,\* Jacques Lebreton, Jean-Yves Le Questel, Pierre-Charles Maria, and Richard Robins



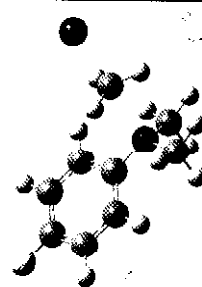
8222 **Chiral Hydroperoxides as Oxygen Source in the**  
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Waldemar Adam, Paul L. Alsters, Ronny Neumann, Chantu R. Saha-Möller, Dieter Seebach, Albert K. Beck, and Rui Zhang\*



8232 **Calculations of Substituent and Solvent Effects**  
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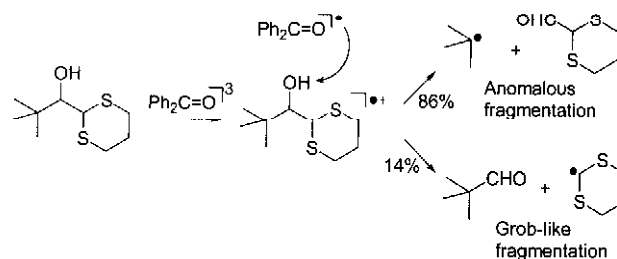
Emilia Owczarek, Wojciech Kwiatkowski, Michał Lemieszewski, Adam Mazur, Michał Rostkowski, and Piotr Panieli\*



## Notes

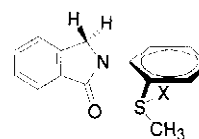
8236 **Anomalous C–C Bond Cleavage in**  
 ■ **Sulfur-Centered Cation Radicals Containing a Vicinal Hydroxy Group**

Zaiguo Li and Andrei G. Kutateladze\*

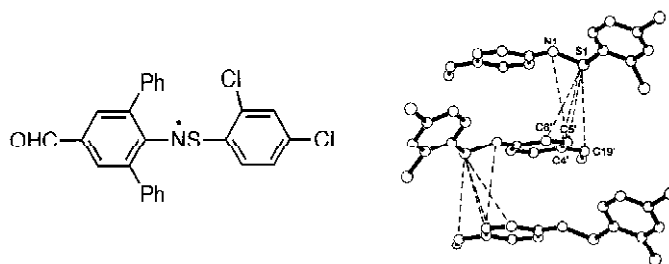


8240 **A Redox-Mediated Molecular Brake:**  
 ■ **Dynamic NMR Study of 2-[2-(Methylthio)phenyl]isoindolin-1-one and S-Oxidized Counterparts**

Parag V. Jog, Richard E. Brown, and Dallas K. Bates\*

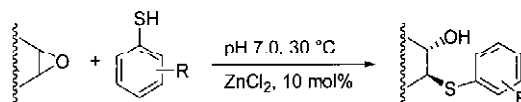


8244 **Ferromagnetic Behavior of  
Formyl-Group-Carrying Stable Thioaminy  
Radicals**



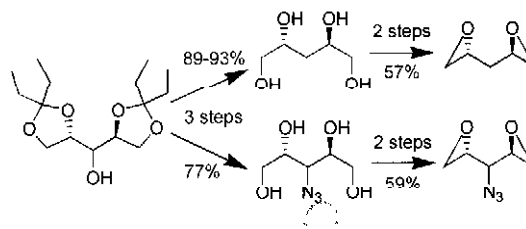
Yozo Miura,\* Shogo Nakamura, and Yoshio Teki\*

8248 **Zn(II)-Catalyzed Thiolytic Oxiranes in Water  
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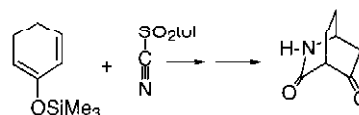
Francesco Fringuelli, Ferdinando Pizzo,\*  
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8252 **Short Synthesis of Enantiopure C<sub>2</sub>-Symmetric  
1,2:4,5-Diepoxy-pentane and  
“Pseudo”-C<sub>2</sub>-Symmetric  
3-Azido-1,2:4,5-diepoxy-pentane from Arabitol**



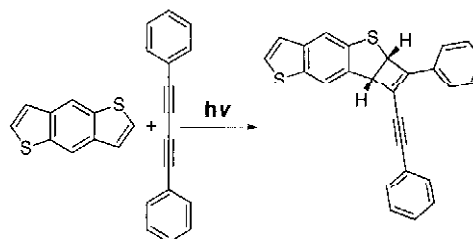
A. James Boydell, Martin J. Jeffery,  
Eva Bürkstümmer, and Bruno Linclau\*

8256 **2-Azabicyclo[2.2.2]octa-3,5-dione via a Nitrile  
Diels–Alder Reaction**



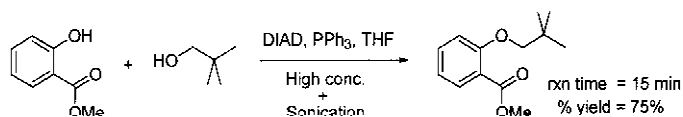
Cynthia K. McClure\* and Jeffrey S. Link

8258 **Photoaddition Reactions of Acetylene and  
Butadiyne Derivatives to Benzodithiophene**



Brigitte Wex, Bilal R. Kaafarani, Allen G. Oliver,  
Jeanette A. Krause Bauer, and Douglas C. Neckers\*

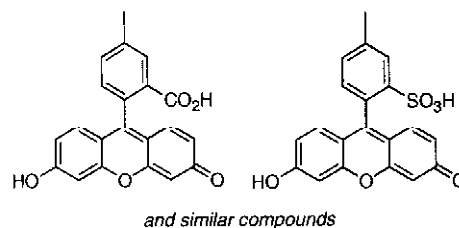
8261 **Use of Sonication for the Coupling of Sterically  
Hindered Substrates in the Phenolic Mitsunobu  
Reaction**



Salvatore D. Lepore\* and Yuanjun He

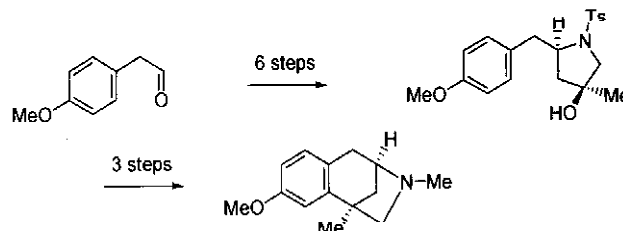
8264 **Syntheses of Regioisomerically Pure 5- or 6-Halogenated Fluoresceins**

Guan-Sheng Jiao, Jin Wook Han, and Kevin Burgess\*



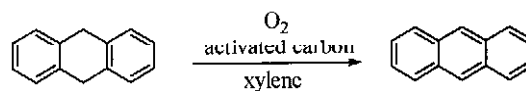
8208 **A Facile Asymmetric Route to (-)-Aphanorphine**

Hongbin Zhai,\* Shengjun Luo, Chengfeng Ye, and Yongxiang Ma



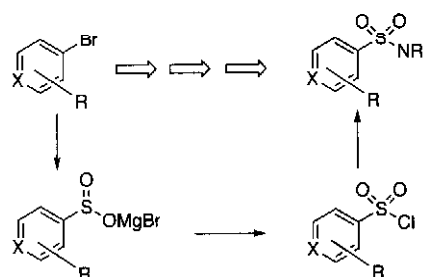
8272 **Oxidative Aromatization of 9,10-Dihydroanthracenes Using Molecular Oxygen Promoted by Activated Carbon**

Natsuki Nakamichi, Hirotoishi Kawahata, and Masahiko Hayashi\*



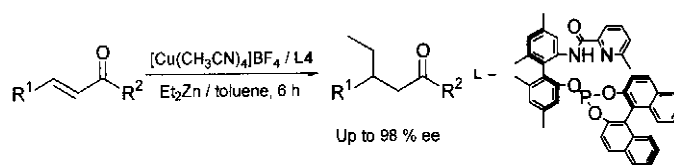
8274 **Facile One-Pot Synthesis of Aromatic and Heteroaromatic Sulfonamides**

Rina Pandya, Takashi Murashima, Livio Tedeschi, and Anthony G. M. Barrett\*



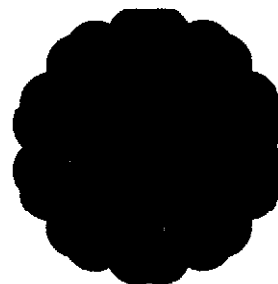
8277 **Highly Enantioselective Conjugate Addition of Diethylzinc to Acyclic Enones with Fine-Tunable Phosphite-Pyridine Ligands**

Huihui Wan, Yuanchun Hu, Yuxue Liang, Shuang Gao, Junwei Wang, Zhuo Zheng, and Xinquan Hu\*



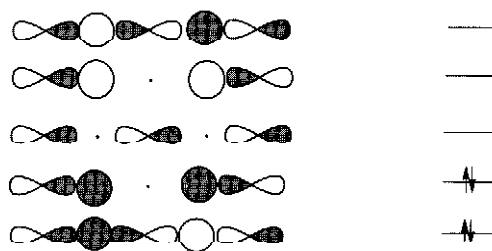
8281 **Using Cyanide To Put Noble Gases inside C<sub>60</sub>**

R. J. Cross,\* A. Khong, and M. Saunders\*



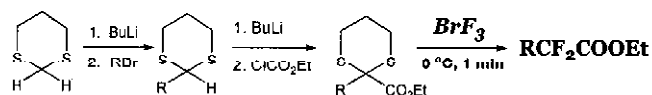
8284 Evidence for 5-Center 4-Electron Bonding in  
 ■ (C...H...C...H...C) Array

Robert Ponec\* and Gleb Yuzhakov



8287 A Novel Method for the Preparation of  
 $\alpha,\alpha$ -Difluoroesters and Acids Using  $\text{BrF}_3$

Aviv Hagooly, Revital Sasson, and Shlomo Rozen\*



## Additions and Corrections

James A. Marshall,\* Arnaud Piettre, 8290  
 Mikell A. Paige, and  
 Frederick Valeriote

Total Synthesis and Structure Confirmation of the Annonaceous  
 Acetogenins 30(*S*)-Hydroxybullatacin, Uvarigrandin A, and  
 5(*R*)-Uvarigrandin A (Narumicin I?)

■ Supporting Information is available free of charge via the Internet at <http://pubs.acs.org>.

\* In papers with more than one author, the asterisk indicates the name of the author to whom inquiries about the paper should be addressed.