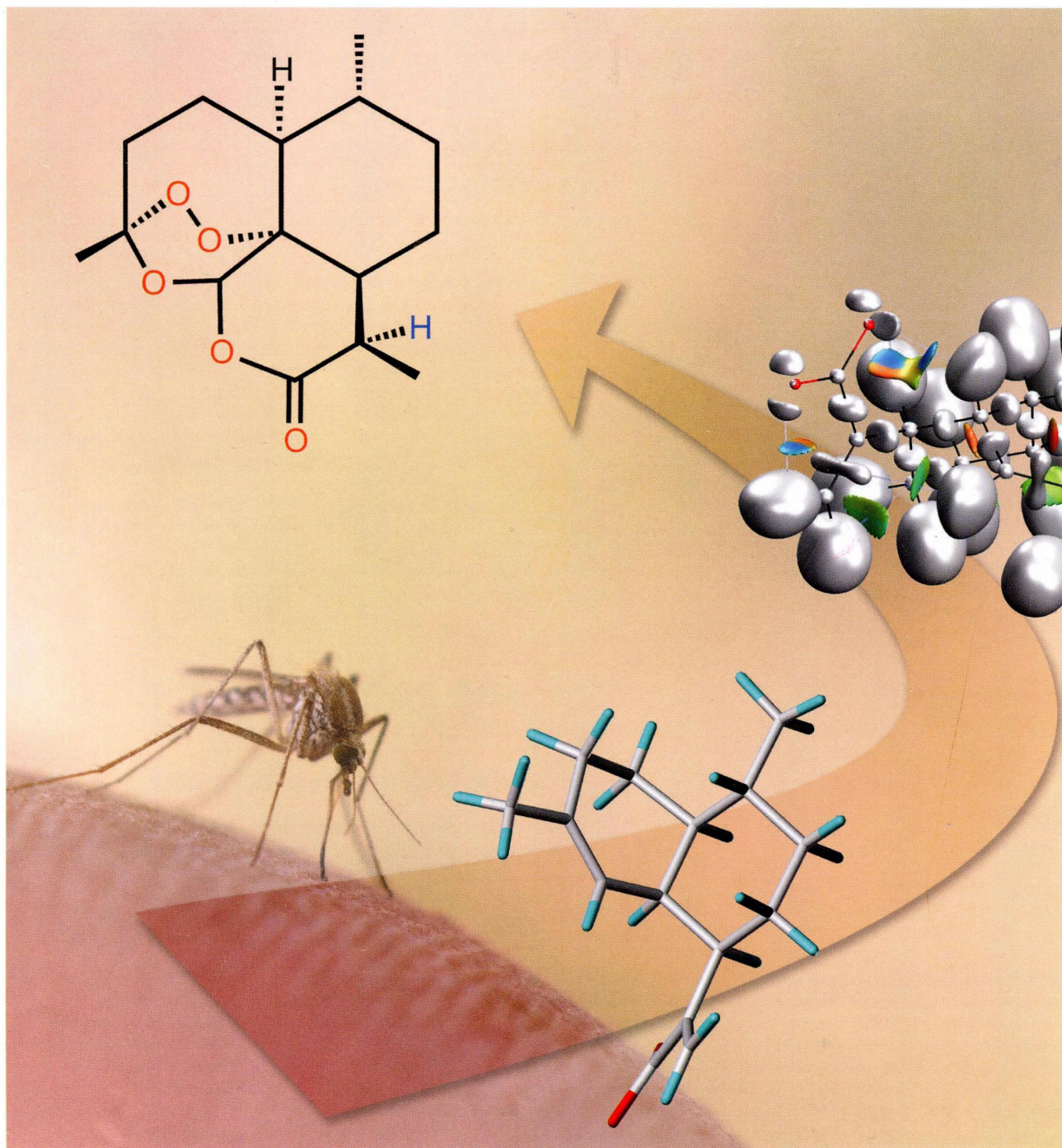


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# JOC

*The Journal of Organic Chemistry*

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**ON THE COVER:** The almost perfect diastereoselection in the hydrogen-free hydrogenation of artemisinic acid by diazene (“diimide”, obtained from hydrazine and air on the way to artemisinin, a powerful drug against malaria) is shown to be due to intramolecular weak interactions involving CH bonds and the  $\pi$  density from the double bond of an acrylate. See Castro, Chaudret, Eisenstein, and co-workers, p 5939.

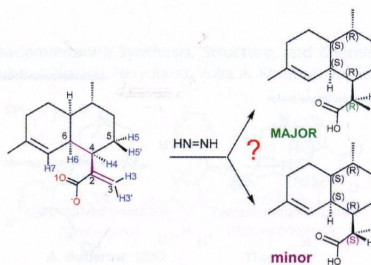
## Featured Articles

5939 **5**

[dx.doi.org/10.1021/jo500233z](https://doi.org/10.1021/jo500233z)

### Nonclassical CH– $\pi$ Supramolecular Interactions in Artemisinic Acid Favor a Single Conformation, Yielding High Diastereoselectivity in the Reduction with Diazene

Bertrand Castro,\* Robin Chaudret,\* Gino Ricci, Michael Kurz, Philippe Ochsenbein, Gerhard Kretzschmar, Volker Kraft, Kai Rossen, and Odile Eisenstein\*

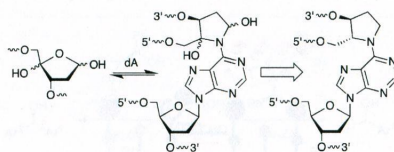


5948 **5**

[dx.doi.org/10.1021/jo500944g](https://doi.org/10.1021/jo500944g)

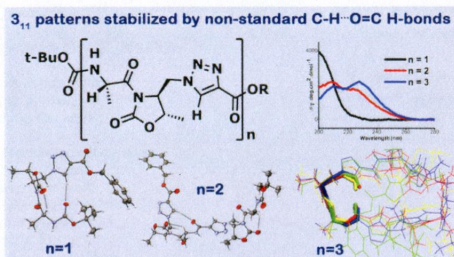
### Synthesis of Cross-Linked DNA Containing Oxidized Abasic Site Analogues

Souradyuti Ghosh and Marc M. Greenberg\*

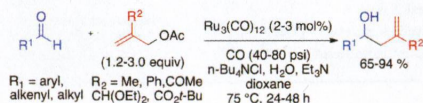


**$\alpha,\epsilon$ -Hybrid Foldamers with 1,2,3-Triazole Rings: Order versus Disorder**

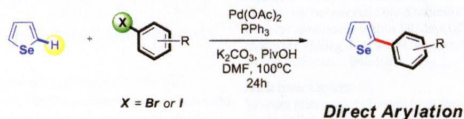
Lorenzo Milli, Michele Larocca, Mattia Tedesco, Nicola Castellucci, Elena Ghibaudi, Andrea Cornia, Matteo Calvaresi, Francesco Zerbetto, and Claudia Tomasini\*

**Catalytic, Nucleophilic Allylation of Aldehydes with 2-Substituted Allylic Acetates: Carbon–Carbon Bond Formation Driven by the Water–Gas Shift Reaction**

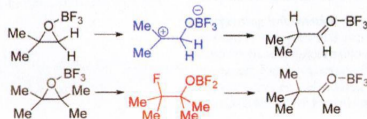
Scott E. Denmark\* and Zachery D. Matesich

**Articles****Palladium-Catalyzed Direct Arylation of Selenophene**

Daniel S. Rampon, Ludger A. Wessjohann, and Paulo H. Schneider\*

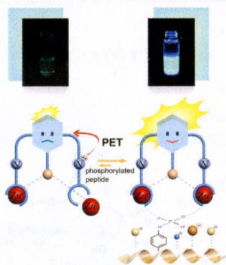
**Theoretical Study on the  $\text{BF}_3$ -Catalyzed Meinwald Rearrangement Reaction**

José María Fraile, José Antonio Mayoral, and Luis Salvatella\*



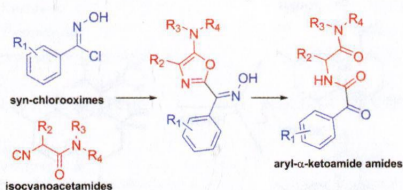
### Phosphorescent Sensor for Phosphorylated Peptides Based on an Iridium Complex

Jung Hyun Kang, Hee Jin Kim, Tae-Hyuk Kwon,\* and Jong-In Hong\*



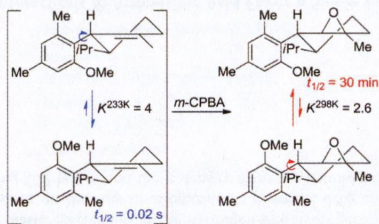
### Reaction between (*Z*)-Arylchlorooximes and $\alpha$ -Isocyanoacetamides: A Procedure for the Synthesis of Aryl- $\alpha$ -ketoamide Amides

Mariateresa Giustiniano,\* Valentina Mercalli, Hilde Cassese, Salvatore Di Maro, Ubaldina Galli, Ettore Novellino, and Gian Cesare Tron\*



### Atropisomerism about Aryl-Csp<sup>3</sup> Bonds: The Electronic and Steric Influence of *ortho*-Substituents on Conformational Exchange in Cannabidiol and Linderatin Derivatives

Hatice Berber,\* Pedro Lameiras, Clément Denhez, Cyril Antheaume, and Jonathan Clayden



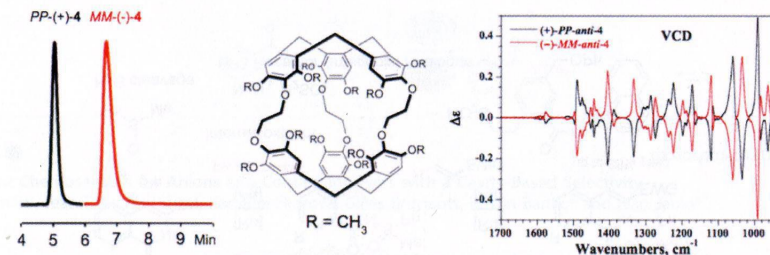


6028 **S**

dx.doi.org/10.1021/jo500621g

**Chiroptical Properties of Nona- and Dodecamethoxy Cryptophanes**

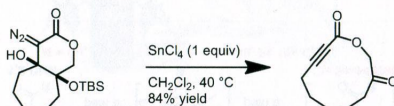
Thierry Brotin,\* Nicolas Vanthuyne, Dominique Cavagnat, Laurent Ducasse, and Thierry Buffeteau\*

6037 **S**

dx.doi.org/10.1021/jo500634d

**Fragmentation of Bicyclic  $\gamma$ -Silyloxy- $\beta$ -hydroxy- $\alpha$ -diazolactones as an Approach to Ynolides**

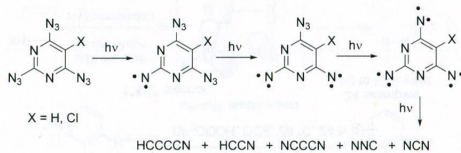
Ali Bayir and Matthias Brewer\*

6047 **S**

dx.doi.org/10.1021/jo500677g

**Matrix Isolation, Zero-Field Splitting Parameters, and Photoreactions of Septet 2,4,6-Trinitrenopyrimidines**

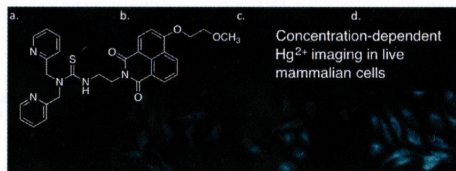
Sergei V. Chapyshev,\* Evgeny N. Ushakov, Patrik Neuhaus, and Wolfram Sander\*

6054 **S**

dx.doi.org/10.1021/jo500710g

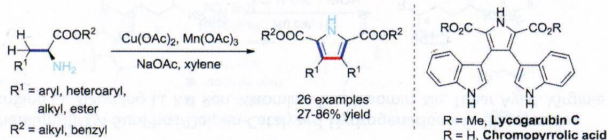
**Thiourea-Based Fluorescent Chemosensors for Aqueous Metal Ion Detection and Cellular Imaging**

Mireille Vonlanthen, Colleen M. Connelly, Alexander Deiters, Anthony Linden, and Nathaniel S. Finney\*



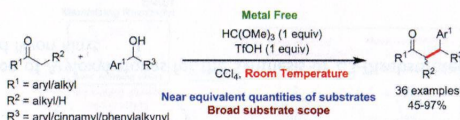
### Cu/Mn Co-oxidized Cyclization for the Synthesis of Highly Substituted Pyrrole Derivatives from Amino Acid Esters: A Strategy for the Biomimetic Syntheses of Lycogarubin C and Chromopyrrolic Acid

Nini Zhou, Tao Xie, Lin Liu, and Zhixiang Xie\*



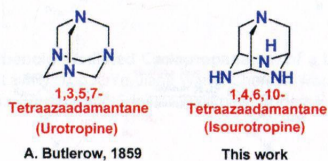
### Triflic Acid Promoted Direct $\alpha$ -Alkylation of Unactivated Ketones Using Benzylic Alcohols via in Situ Formed Acetals

Srinivasa Rao Koppolu, Naganaboina Naveen, and Rengarajan Balamurugan\*



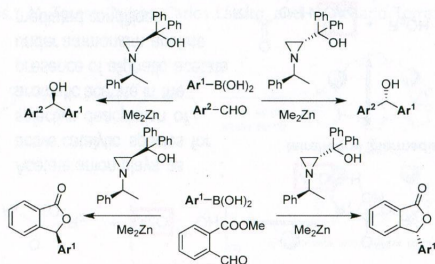
### Urotropine Isomer (1,4,6,10-Tetraazaadamantane): Synthesis, Structure, and Chemistry

Artem N. Semakin, Alexey Yu. Sukhorukov,\* Yulia V. Nelyubina, Yulia A. Khomutova, Sema L. Ioffe, and Vladimir A. Tartakovsky



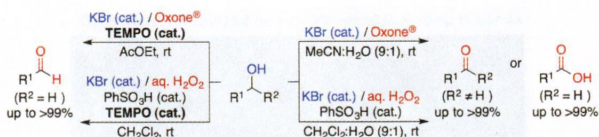
### Diastereomeric Aziridine Carbinol Catalyzed Enantioselective Arylation Reaction: Toward the Asymmetric Synthesis of Both Enantiomers of Chiral 3-Aryl Phthalide

Xixi Song, Yuan-Zhao Hua, Jing-Guo Shi, Ping-Ping Sun, Min-Can Wang,\* and Junbiao Chang\*



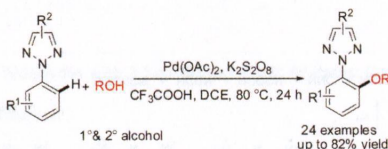
### Selective Oxidation of Alcohols with Alkali Metal Bromides as Bromide Catalysts: Experimental Study of the Reaction Mechanism

Katsuhiko Moriyama,\* Misato Takemura, and Hideo Togo\*



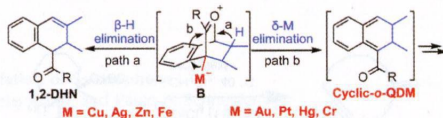
### Palladium-Catalyzed Ortho-Alkoxylation of 2-Aryl-1,2,3-triazoles

Suping Shi and Chunxiang Kuang\*



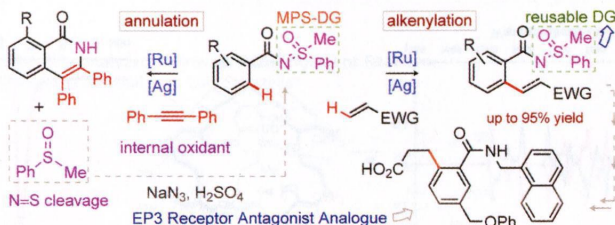
### Mechanistic Insight into Transition Metal-Catalyzed Reaction of Enynal/Enynone with Alkenes: Metal-Dependent Reaction Pathway

Shifa Zhu,\* Hua Huang, Zhicai Zhang, Tongmei Ma,\* and Huanfeng Jiang



### Sulfoximine-Directed Ruthenium-Catalyzed *ortho*-C–H Alkenylation of (Hetero)Arenes: Synthesis of EP3 Receptor Antagonist Analogue

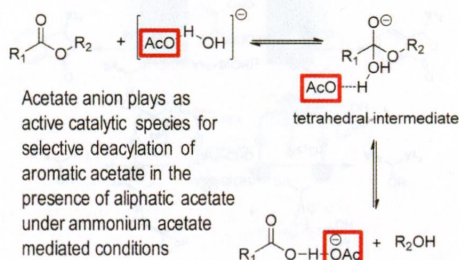
M. Ramu Yadav, Raja K. Rit, Majji Shankar, and Akhila K. Sahoo\*





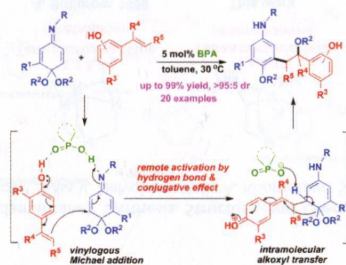
### Density Functional Theory Study of Selective Deacylation of Aromatic Acetate in the Presence of Aliphatic Acetate under Ammonium Acetate Mediated Conditions

Shijing Xia\* and Haoyu Zhang



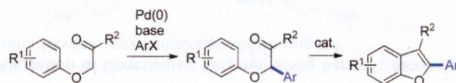
### Organocatalytic Chemo- and Regioselective Oxyarylation of Styrenes via a Cascade Reaction: Remote Activation of Hydroxyl Groups

Yu-Chen Zhang, Fei Jiang, Shu-Liang Wang,\* Feng Shi,\* and Shu-Jiang Tu



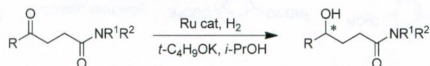
### Palladium-Catalyzed $\alpha$ -Arylation of Aryloxyketones for the Synthesis of 2,3-Disubstituted Benzofurans

Jin Ho Lee, Myungock Kim, and Ikyon Kim\*



### Enantioselective Ruthenium(II)/Xyl-SunPhos/Daipen-Catalyzed Hydrogenation of $\gamma$ -Ketoamides

Mengmeng Zhao, Wanfang Li, Xiaoming Li, Kai Ren, Xiaoming Tao, Xiaomin Xie, Tahar Ayad, Virginie Ratovelomanana-Vidal,\* and Zhaoguo Zhang\*



R = Aryl, Alkyl

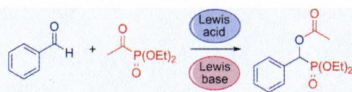
Ru cat = *trans*-RuCl<sub>2</sub>[(*S*)-XylSunPhos][(*S*)-Daipen]

ee: up to 99%



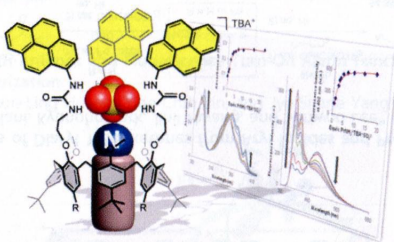
### Enantioselective Acylphosphonylation—Dual Lewis Acid–Lewis Base Activation of Aldehyde and Acylphosphonate

Ye-Qian Wen, Robin Hertzberg, and Christina Moberg\*



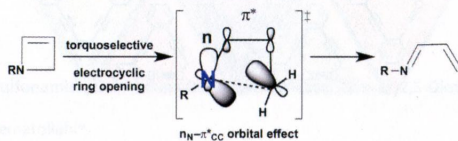
### Fluorescent Chemosensors for Anions and Contact Ion Pairs with a Cavity-Based Selectivity

Emilio Brunetti, Jean-François Picron, Karolina Flidrova, Gilles Bruylants, Kristin Bartik,\* and Ivan Jabin\*



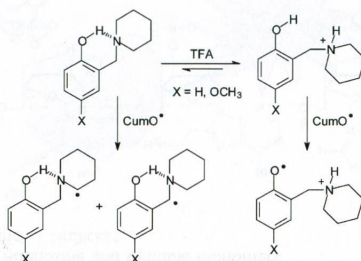
### Substituent Effects on Rates and Torquoselectivities of Electrocyclic Ring-Openings of *N*-Substituted 2-Azetines

Steven A. Lopez and K. N. Houk\*



### Structural and Medium Effects on the Reactions of the Cumyloxy Radical with Intramolecular Hydrogen Bonded Phenols. The Interplay Between Hydrogen-Bonding and Acid-Base Interactions on the Hydrogen Atom Transfer Reactivity and Selectivity

Michela Salamone,\* Riccardo Amorati, Stefano Menichetti, Caterina Viglianisi, and Massimo Bietti\*



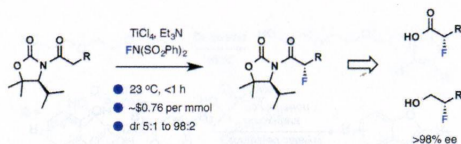
6206

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dx.doi.org/10.1021/jo500957d

### Stereoselective $\alpha$ -Fluorination of *N*-Acylloxazolidinones at Room Temperature within 1 h

Joseph Alvarado, Aaron T. Herrmann, and Armen Zakarian\*



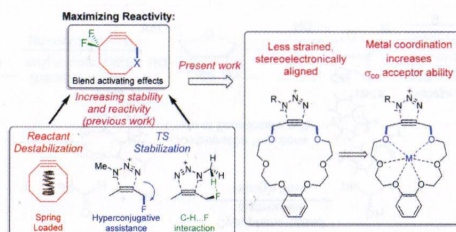
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dx.doi.org/10.1021/jo500958n

### Alkynyl Crown Ethers as a Scaffold for Hyperconjugative Assistance in Nuncatalyzed Azide–Alkyne Click Reactions: Ion Sensing through Enhanced Transition-State Stabilization

Brian Gold, Paratchata Batsomboon, Gregory B. Dudley,\* and Igor V. Alabugin\*



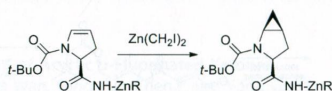
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dx.doi.org/10.1021/jo500966m

### The Effect of Additives on the Zinc Carbenoid-Mediated Cyclopropanation of a Dihydropyrrole

Antonio Ramirez,\* Vu Chi Truc,\* Michael Lawler, Yun K. Ye, Jianji Wang, Chenchi Wang, Steven Chen, Thomas Laporte, Nian Liu, Sergei Kolotuchin, Scott Jones, Shailendra Bordawekar, Srinivas Tummala, Robert E. Waltermire, and David Kronenthal



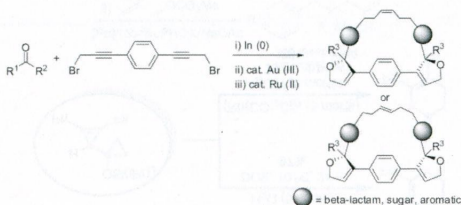
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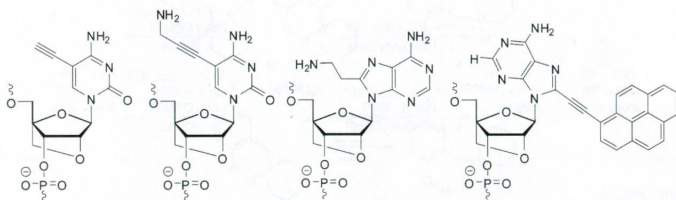
### Three-Step Metal-Promoted Allene-Based Preparation of Bis(heterocyclic) Cyclophanes from Carbonyl Compounds

Benito Alcaide,\* Pedro Almendros,\* M. Teresa Quirós, Carlos Lázaro, and M. Rosario Torres



### Synthesis, Hybridization Characteristics, and Fluorescence Properties of Oligonucleotides Modified with Nucleobase-Functionalized Locked Nucleic Acid Adenosine and Cytidine Monomers

Mamta Kaura, Pawan Kumar, and Patrick J. Hrdlicka\*



**C5-functionalized LNA-C monomers**

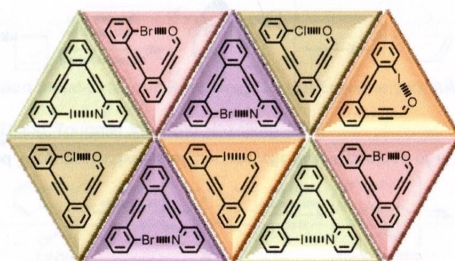
- extraordinary affinity/specificity
- enzymatic resistance

**C8-functionalized LNA-A monomers**

- decreased affinity/specificity
- *anti* vs *syn* conformations

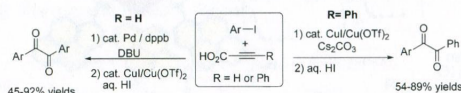
### Intramolecular Halogen Bonding Supported by an Aryldiynyl Linker

Danielle L. Widner, Qianwei R. Knauf, Mark T. Merucci, Thomas R. Ritz, Jon S. Sauer, Erin D. Speetzen, Eric Bosch, and Nathan P. Bowling\*



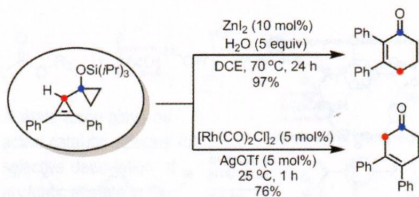
### Copper-Catalyzed Direct Synthesis of Diaryl 1,2-Diketones from Aryl Iodides and Propiolic Acids

Hongkeun Min, Thiruvengadam Palani, Kyungho Park, Jinil Hwang, and Sunwoo Lee\*



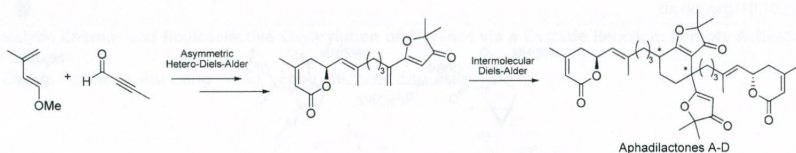


**Zn(II)- or Rh(I)-Catalyzed Rearrangement of Silylated [1,1'-Bi(cyclopropan)]-2'-en-1-ols**  
 Hang Zhang, Changkun Li, Guojun Xie, Bo Wang, Yan Zhang, and Jianbo Wang\*



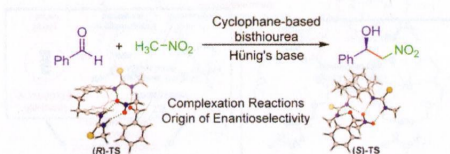
**Total Synthesis of Aphadilactones A–D**

Jian-Peng Yin, Min Gu, Ying Li,\* and Fa-Jun Nan\*



**Computational Analysis of Cyclophane-Based Bisthiourea-Catalyzed Henry Reactions**

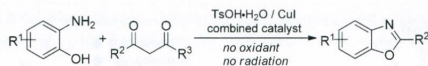
Martin Breugst\* and K. N. Houk\*



## Notes

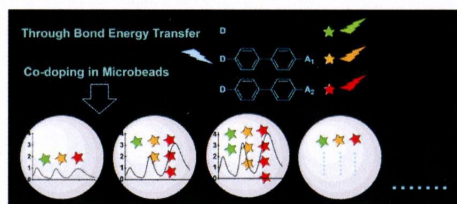
**Synthesis of Benzoxazoles from 2-Aminophenols and  $\beta$ -Diketones Using a Combined Catalyst of Brønsted Acid and Copper Iodide**

Muhammad Shareef Mayo, Xiaoqiang Yu,\* Xiaoyu Zhou, Xiujuan Feng, Yoshinori Yamamoto, and Ming Bao\*



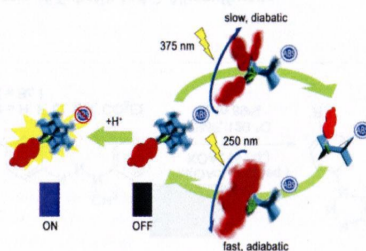
### Through-Bond Energy Transfer Cassettes for Multicolor Encoding

Xinfu Zhang, Yi Xiao,\* Ling He, and Yuhui Zhang



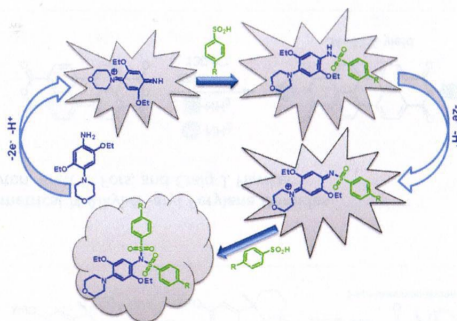
### A Light-Gated Molecular Brake with Antilock and Fluorescence Turn-On Alarm Functions: Application of Singlet-State Adiabatic Cis $\rightarrow$ Trans Photoisomerization

Wei-Ting Sun, Guan-Jih Huang, Shou-Ling Huang, Ying-Chih Lin, and Jye-Shane Yang\*



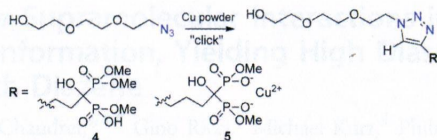
### Electrochemical Synthesis of Sulfonamide Derivatives Based on the Oxidation of 2,5-Diethoxy-4-Morpholinoaniline in the Presence of Arylsulfonic Acids

Hadi Beiginejad and Davood Nematollahi\*



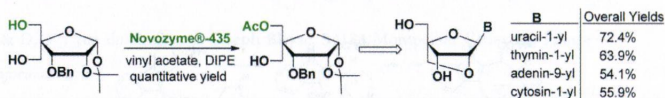
### Synthesis of Triple-Bond-Containing 1-Hydroxy-1,1-bisphosphonic Acid Derivatives To Be Used as Precursors in "Click" Chemistry: Two Examples

Petri A. Turhanen\*



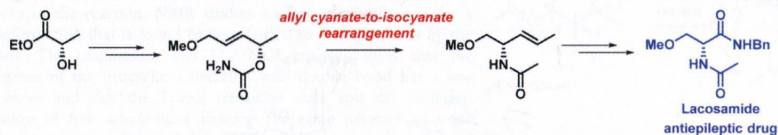
### Chemoenzymatic Convergent Synthesis of 2'-O,4'-C-Methylenribonucleosides

Vivek K. Sharma, Manish Kumar, Carl E. Olsen, and Ashok K. Prasad\*



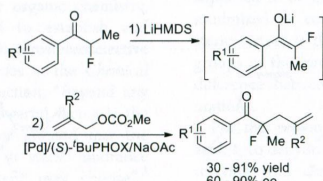
### Total Synthesis of Lacosamide

Sebastian Stecko\*



### Enantioselective Pd-Catalyzed Allylation of Acyclic $\alpha$ -Fluorinated Ketones

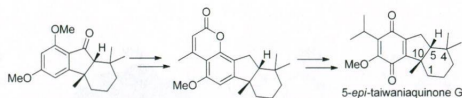
Wengui Wang, Haiming Shen, Xiao-Long Wan, Qing-Yun Chen,\* and Yong Guo\*



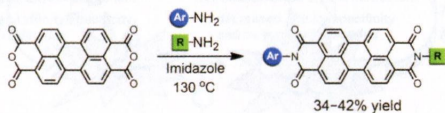


**Synthesis of 5-*epi*-Taiwaniaquinone G**

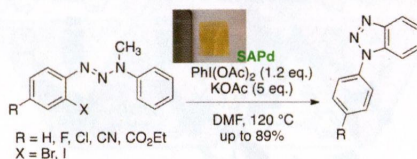
Jinqian Wang, Jing Wang, Changwei Li, Yonggang Meng, Jie Wu, Chuanjun Song,\* and Junbiao Chang\*

**One-Step Synthesis of Unsymmetrical *N*-Alkyl-*N'*-aryl Perylene Diimides**

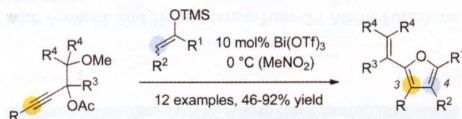
Maxwell J. Robb, Brandon Newton, Brett P. Fors, and Craig J. Hawker\*

**Palladium-Nanoparticle-Catalyzed 1,7-Palladium Migration Involving C–H Activation, Followed by Intramolecular Amination: Regioselective Synthesis of *N*1-Arylbenzotriazoles and an Evaluation of Their Inhibitory Activity toward Indoleamine 2,3-Dioxygenase**

Koji Takagi, Mohammad Al-Amin, Naoyuki Hoshiya, Johan Wouters, Hiroshi Sugimoto, Yoshitsugu Shiro, Hayato Fukuda, Satoshi Shuto, and Mitsuhiro Arisawa\*

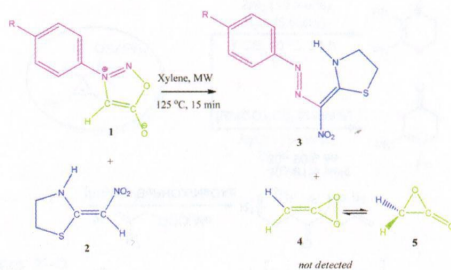
**Bismuth(III) Triflate-Catalyzed Synthesis of Substituted 2-Alkenylfurans**

Dominik Nitsch and Thorsten Bach\*



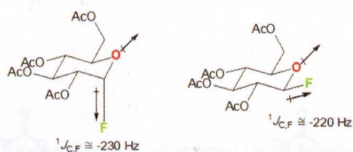
### Microwave-Assisted Coupling Reaction of *N*-Aryl Sydnone with 2-Nitromethylenethiazolidine: Unexpected Formation of (Z)-2-(Nitro((*E*)-*p*-substitutedphenyldiazenyl)methylene)thiazolidines

Yaşar Dürüst\* and Akin Sağırlı



### The Reverse Fluorine Perlin-like Effect and Related Stereoelectronic Interactions

Josué M. Silla, Matheus P. Freitas,\* Rodrigo A. Cormanich, and Roberto Ritter



### Convergent Approach to the Tetracyclic Core of the Apparicine Class of Indole Alkaloids via a Key Intermolecular Nitrosoalkene Conjugate Addition

Pradeep S. Chauhan and Steven M. Weinreb\*

