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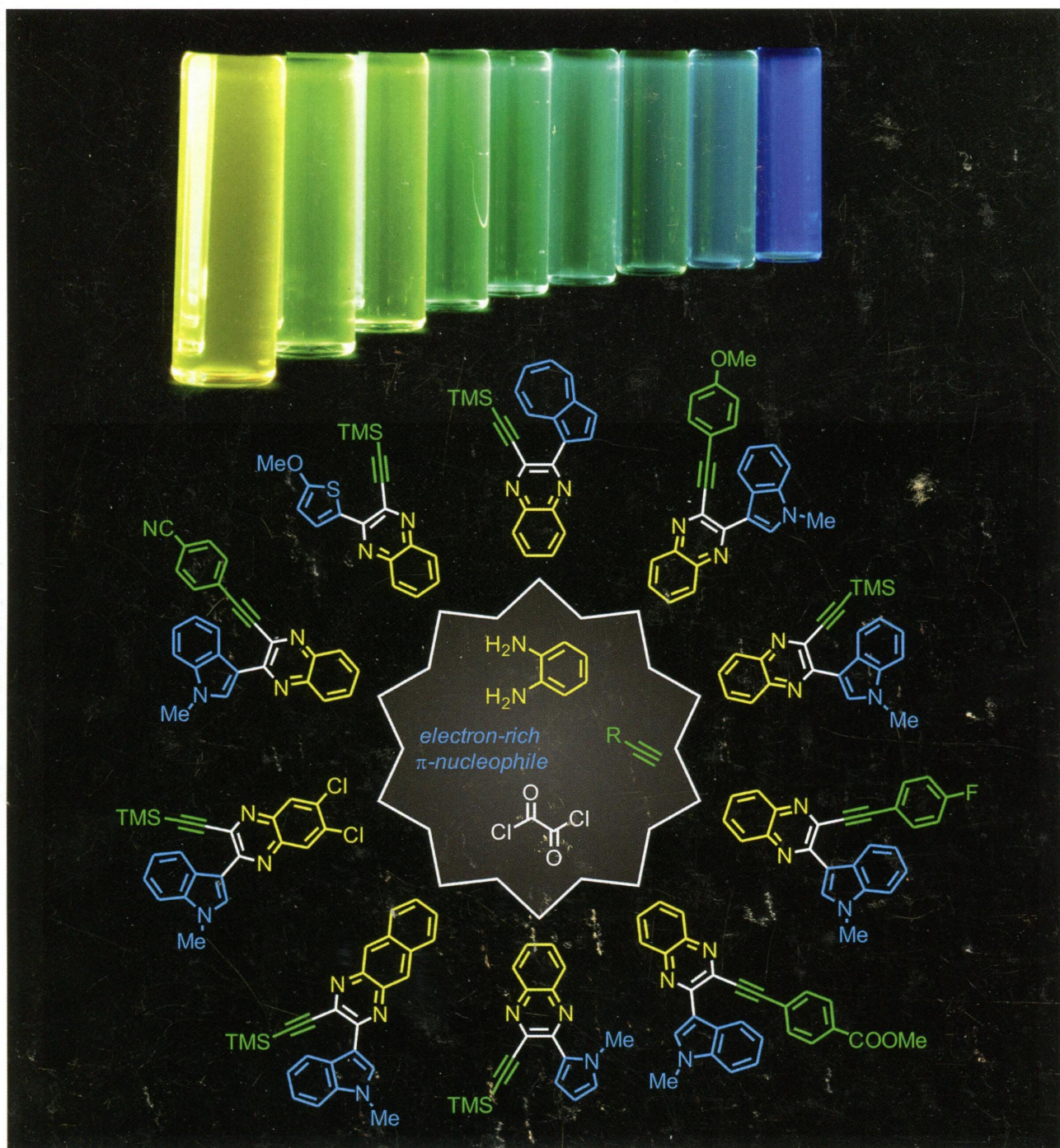
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ON THE COVER: Facile formation of functional fluorophores: diversity-oriented multicomponent reactions guide the way to luminescent π -systems. See Müller and co-workers, p 3296.

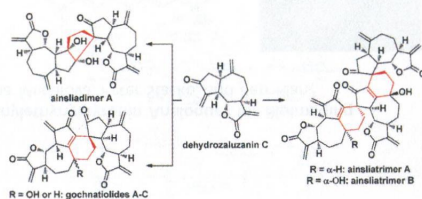
JOCSynopsis

3289

dx.doi.org/10.1021/jo5002092

Strategies toward the Biomimetic Syntheses of Oligomeric Sesquiterpenoids

Chao Li and Xiaoguang Lei*



Featured Articles

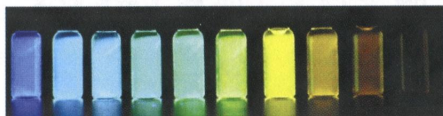
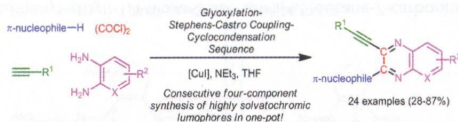
3296

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dx.doi.org/10.1021/jo4025978

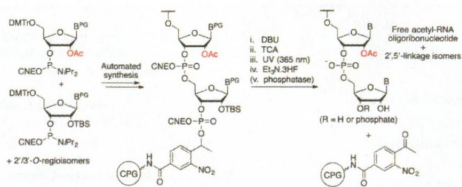
Solvatochromic Fluorescent 2-Substituted 3-Ethynyl Quinoxalines: Four-Component Synthesis, Photophysical Properties, and Electronic Structure

Charlotte F. Gers, Jan Nordmann, Ceyda Kumru, Walter Frank, and Thomas J. J. Müller*



Solid-Phase Synthesis and Hybridization Behavior of Partially 2'/3'-O-Acetylated RNA Oligonucleotides

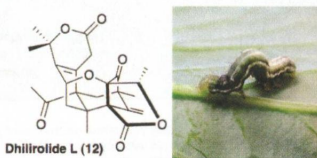
Jianfeng Xu, Colm D. Duffy, Christopher K. W. Chan, and John D. Sutherland*



Articles

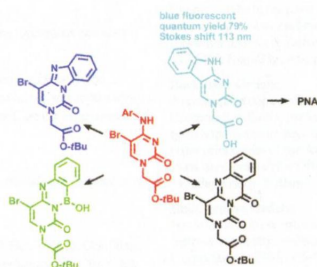
Dhilirolides E–N, Meroterpenoids Produced in Culture by the Fungus *Penicillium purpurogenum* Collected in Sri Lanka: Structure Elucidation, Stable Isotope Feeding Studies, and Insecticidal Activity

Ryan M. Centko, David. E. Williams, Brian O. Patrick, Yasmin Akhtar, Miguel Angel Garcia Chavez, Yan Alexander Wang, Murray B. Isman, E. Dilip de Silva,* and Raymond J. Andersen*



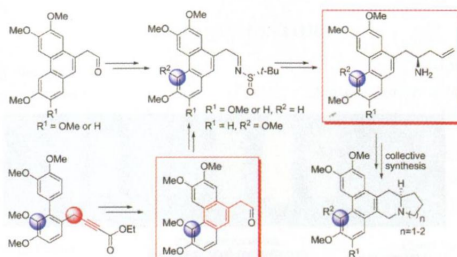
Pyrimidine-Fused Heterocyclic Frameworks Based on an N4-Arylcytosine Scaffold: Synthesis, Characterization, and PNA Oligomerization of the Fluorescent Cytosine Analogue 5,6-BenzopC

Mojmír Suchý and Robert H. E. Hudson*



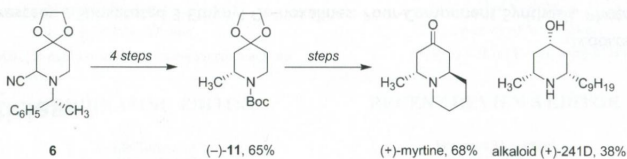
Collective Asymmetric Synthesis of (–)-Antofine, (–)-Cryptopleurine, (–)-Tylophorine, and (–)-Tylocrebrine with *tert*-Butanesulfinamide as a Chiral Auxiliary

Yanlong Zheng, Yuxiu Liu, and Qingmin Wang*



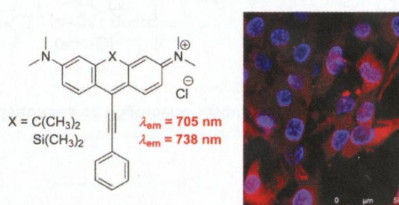
Electrochemical Access to 8-(1-Phenyl-ethyl)-1,4-dioxo-8-aza-spiro[4.5]decane-7-carbonitrile. Application to the Asymmetric Syntheses of (+)-Myrtine and Alkaloid (+)-241D

Van Ha Vu, Fadila Louafi, Nicolas Girard, Ronan Marion, Thierry Roisnel, Vincent Dorcet, and Jean-Pierre Hurvois*

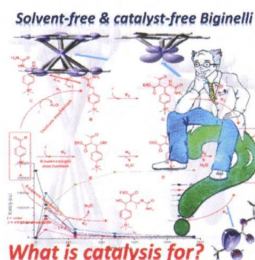


Near-Infrared Fluorescent 9-Phenylethynylpyronin Analogues for Bioimaging

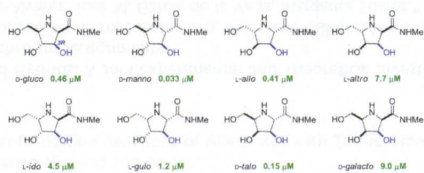
Tomáš Pastierik, Peter Šebej, Jiřina Medalová, Peter Štacko, and Petr Klán*



Facts, Presumptions, and Myths on the Solvent-Free and Catalyst-Free Biginelli Reaction. What is Catalysis for? Haline G. O. Alvim, Tatiani B. Lima, Aline L. de Oliveira, Heibbe C. B. de Oliveira, Fabricio M. Silva, Fabio C. Gozzo, Roberto Y. Souza, Wender A. da Silva, and Brenno A. D. Neto*

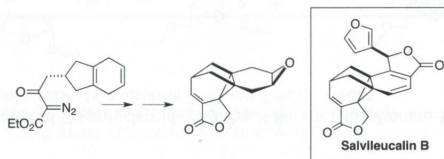


Nine of 16 Stereoisomeric Polyhydroxylated Proline Amides Are Potent β -*N*-Acetylhexosaminidase Inhibitors Benjamin J. Ayers,* Andreas F. G. Glawar, R. Fernando Martinez, Nigel Ngo, Zilei Liu, George W. J. Fleet,* Terry D. Butters, Robert J. Nash, Chu-Yi Yu, Mark R. Wormald, Shinpei Nakagawa, Isao Adachi, Atsushi Kato,* and Sarah F. Jenkinson



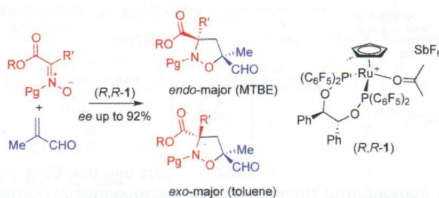
HexNAcase inhibition by 8 methyl proline amides with C3 (R)-configuration
(IC_{50} for inhibition of jack bean β -*N*-acetylhexosaminidase)

Synthesis of the Pentacyclic Core of (+)-Salvileucalin B
Douglass F. Taber* and Craig M. Paquette



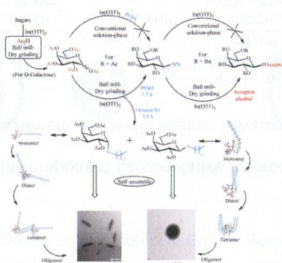
Enantioselective Ruthenium-Catalyzed 1,3-Dipolar Cycloadditions between C-Carboalkoxy Ketonitrones and Methacrolein: Solvent Effect on Reaction Selectivity and Its Rational

Khalid B. Selim, Arnaud Martel, Mathieu Y. Laurent, Jérôme Lhoste, Sandrine Py, and Gilles Dujardin*



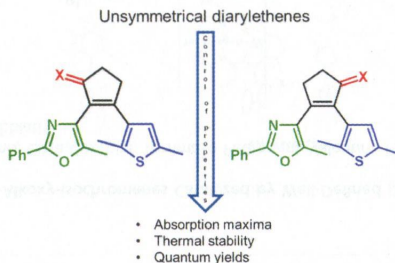
In(III) Triflate-Mediated Solvent-Free Synthesis and Activation of Thioglycosides by Ball Milling and Structural Analysis of Long Chain Alkyl Thioglycosides by TEM and Quantum Chemical Methods

Vajinder Kumar, Nikhil Taxak, Ramniwas Jangir, Prasad V. Bharatam, and K. P. Ravindranathan Kartha*



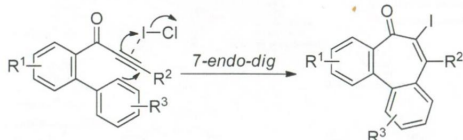
Synthesis and Comparative Photoswitching Studies of Unsymmetrical 2,3-Diarylcyclopent-2-en-1-ones

Valerii Z. Shirinian,* Andrey G. Lvov, Mikhail M. Krayushkin, Elena D. Lubuzh, and Boris V. Nabatov



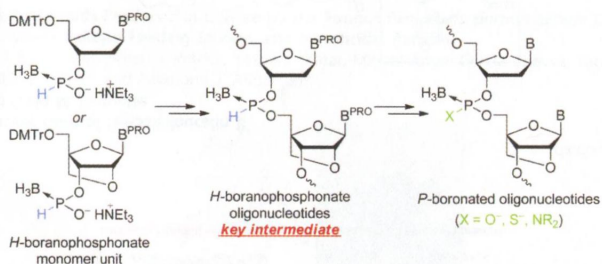
Synthesis of Dibenzocyclohepten-5-ones by Electrophilic Iodocyclization of 1-([1,1'-Biphenyl]-2-yl)alkynones

Yu Chen,* Chenlong Huang, Xiaochen Liu, Eliyahu Perl, Zhiwei Chen, Jieun Namgung, Gopal Subramaniam, Gan Zhang, and William H. Hersh



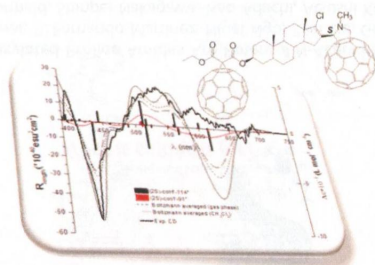
Solid-Phase Synthesis of *P*-Borated Oligonucleotides by the *H*-Boranophosphonate Method

Sho Uehara, Shingo Hiura, Renpei Higashida, Natsuhisa Oka, and Takeshi Wada*



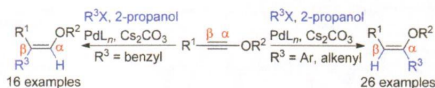
Dumbbell-Type Fullerene-Steroid Hybrids: A Joint Experimental and Theoretical Investigation for Conformational, Configurational, and Circular Dichroism Assignments

Alberto Ruiz, Cercis Morera-Boado, Luis Almagro, Julieta Coro, Enrique E. Maroto, María Ángeles Herranz, Salvatore Filippone, Dolores Molero, Roberto Martínez-Álvarez, José M. García de la Vega, Margarita Suárez,* and Nazario Martín*



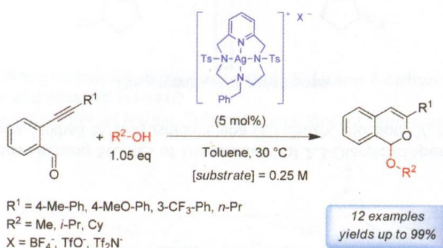
Palladium-Catalyzed Hydroarylation, Hydroalkenylation, and Hydrobenzylation of Ynol Ethers with Organoaldehydes: A Regio- and Stereoselective Entry to α,β - and β,β -Disubstituted Alkenyl Ethers

Weijian Cui, Jing Yin, Renwei Zheng, Cungi Cheng, Yihui Bai, and Gangguo Zhu*



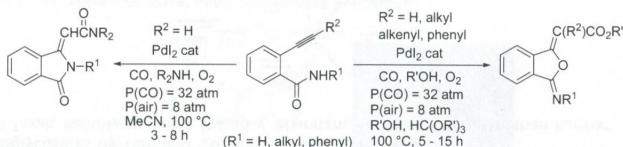
Mild Regiospecific Synthesis of 1-Alkoxy-isochromenes Catalyzed by Well-Defined [Silver(I)(Pyridine-Containing Ligand)] Complexes

Monica Dell'Acqua, Brunilde Castano, Clara Cecchini, Tommaso Pedrazzini, Valentina Pirovano, Elisabetta Rossi, Alessandro Caselli,* and Giorgio Abbiati*



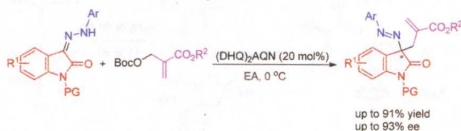
Divergent Palladium Iodide Catalyzed Multicomponent Carbonylative Approaches to Functionalized Isoindolinone and Isobenzofuranimine Derivatives

Raffaella Mancuso,* Ida Zicarelli, Donatella Armentano, Nadia Marino, Salvatore V. Giofrè, and Bartolo Gabriele*



(DHQ)₂AQN-Catalyzed Asymmetric Substitution of Isatin-Derived Hydrazones with O-Boc-Protected Morita–Baylis–Hillman Adducts: A Strategy for Synthesizing Enantioenriched Azo Compounds Incorporating an Oxindole Scaffold

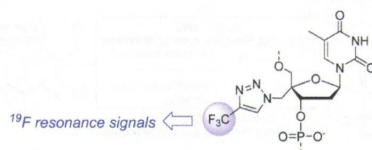
Hai-Bin Yang, Yun-Zhou Zhao, Rui Sang, and Min Shi*



3529 **S**

dx.doi.org/10.1021/jo500327a

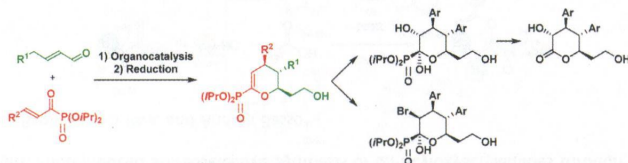
4'-C-[(4-Trifluoromethyl-1*H*-1,2,3-triazol-1-yl)methyl]thymidine as a Sensitive ^{19}F NMR Sensor for the Detection of Oligonucleotide Secondary Structures
Lotta Granqvist and Pasi Virta*

3537 **S**

dx.doi.org/10.1021/jo500347a

Organocatalytic Access to Enantioenriched Dihydropyran Phosphonates via an Inverse-Electron-Demand Hetero-Diels–Alder Reaction

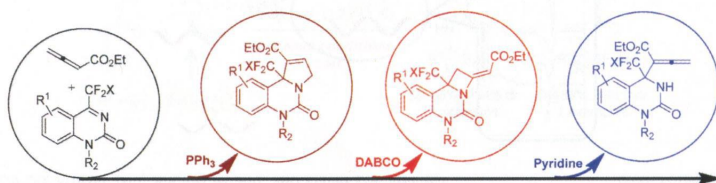
Christian F. Weise, Vibeke H. Lauridsen, Raoní S. Rambo, Eva H. Iversen, Marie-Luise Olsen, and Karl Anker Jørgensen*

3547 **S**

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Nucleophilic Lewis Base Dependent Addition Reactions of Allenoates with Trifluoromethylated Cyclic Ketimines

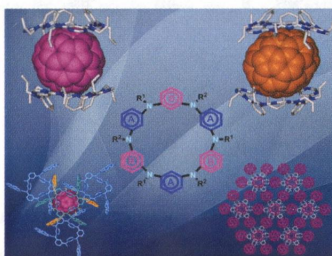
Li-Jun Yang, Shen Li, Shuai Wang, Jing Nie, and Jun-An Ma*

3559 **S**

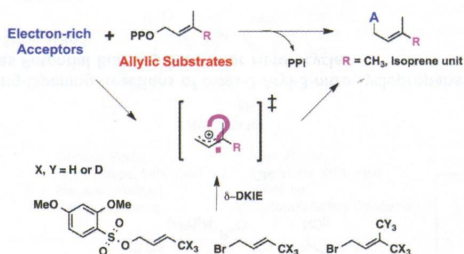
dx.doi.org/10.1021/jo5003714

Synthesis, Structure, and Fullerene-Complexing Property of Azacalix[6]aromatics

Shi-Xin Fa, Li-Xia Wang, De-Xian Wang, Liang Zhao, and Mei-Xiang Wang*

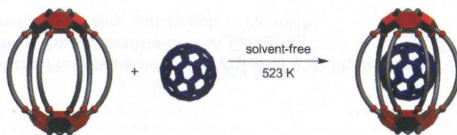


δ -Deuterium Isotope Effects as Probes for Transition-State Structures of Isoprenoid Substrates
Seoung-yeoung Choi, Martin Breugst, Kendall N. Houk,* and C. Dale Poulter*

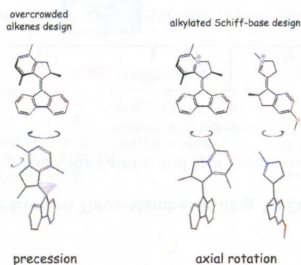


Hemicarceplexes Modify the Solubility and Reduction Potentials of C_{60}

Tzu-Huan Wong, Jia-Cheng Chang, Chien-Chen Lai, Yi-Hung Liu, Shie-Ming Peng, and Sheng-Hsien Chiu*

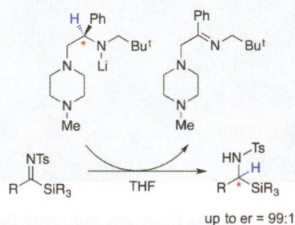


Designing Conical Intersections for Light-Driven Single Molecule Rotary Motors: From Precessional to Axial Motion
Michael Filatov* and Massimo Olivucci*



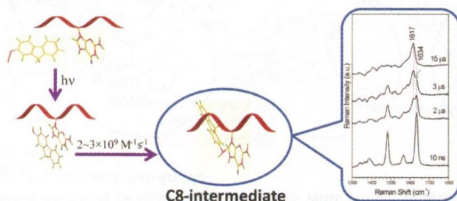
Enantioselective Synthesis of α -Silylamines by Meerwein–Ponndorf–Verley-Type Reduction of α -Silylimines by a Chiral Lithium Amide

Yasuhiro Kondo, Michiko Sasaki,* Masatoshi Kawahata, Kentaro Yamaguchi, and Kei Takeda



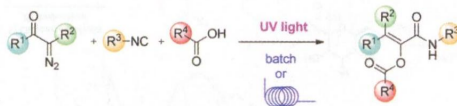
Direct Time-Resolved Spectroscopic Observation of Arylnitrenium Ion Reactions with Guanine-Containing DNA Oligomers

Jiadan Xue,* Lili Du, Ruixue Zhu, Jinqing Huang, and David Lee Phillips*



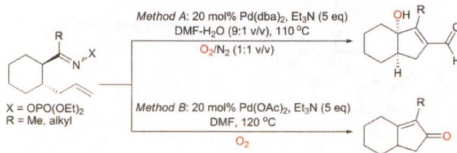
Three in the Spotlight: Photoinduced Stereoselective Synthesis of (Z)-Acloxyacrylamides through a Multicomponent Approach

Silvia Garbarino, Luca Banfi, Renata Riva, and Andrea Basso*



Access to Functionalized Bicyclo[4,3,0]nonenes via Palladium-Catalyzed Oxidative Cyclization of 2-Allylcyclohexyl Oximes

Jia-Liang Zhu,* Sih-Ting Wu, and Ji-Yun Shie



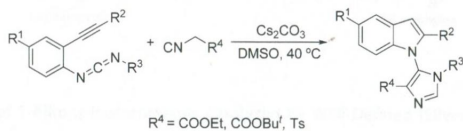
Notes

3634 **S**

dx.doi.org/10.1021/jo402552c

Synthesis of Indolyl Imidazole Derivatives via Base-Promoted Tandem Reaction of *N*-[2-(1-Alkynyl)phenyl]carbodiimides with Isocyanides

Wenyan Hao, Yuanyan Jiang, and Mingzhong Cai*

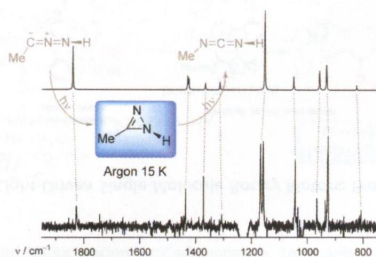


3641 **S**

dx.doi.org/10.1021/jo402744f

Generation and Characterization of a 4 π -Electron Three-Membered Ring 1*H*-Diazirine: An Elusive Intermediate in Nitrile Imine–Carbodiimide Isomerization

Cláudio M. Nunes,* Cuauhtémoc Araujo-Andrade, Rui Fausto, and Igor Reva

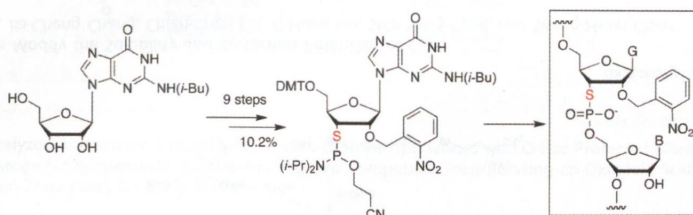


3647 **S**

dx.doi.org/10.1021/jo402837a

Synthesis and Incorporation of the Phosphoramidite Derivative of 2'-*O*-Photocaged 3'-*S*-Thioguanosine into Oligoribonucleotides: Substrate for Probing the Mechanism of RNA Catalysis

Nan-Sheng Li, Nicole Tuttle, Jonathan P. Staley, and Joseph A. Piccirilli*

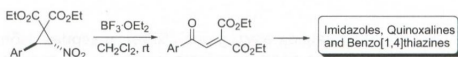


3653 **S**

dx.doi.org/10.1021/jo402848v

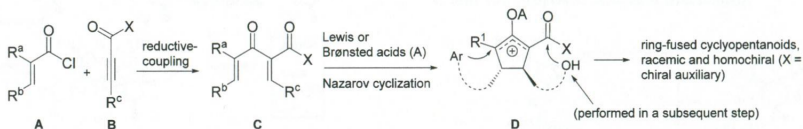
Boron Trifluoride Mediated Ring-Opening Reactions of *trans*-2-Aryl-3-nitro-cyclopropane-1,1-dicarboxylates. Synthesis of Arylmethylidene Malonates as Potential Building Blocks for Heterocycles

Thangavel Selvi and Kannupal Srinivasan*



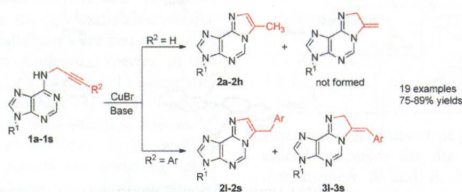
Convergent Access to Polycyclic Cyclopentanoids from α,β -Unsaturated Acid Chlorides and Alkynes through a Reductive Coupling, Nazarov Cyclization Sequence

Jason H. Chaplin, Kristal Jackson, Jonathan M. White, and Bernard L. Flynn*



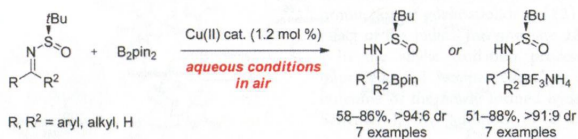
Copper-Catalyzed Intramolecular Cyclization of *N*-Propargyl-Adenine: Synthesis of Purine-Fused Tricyclics

Ren-Long Li, Lei Liang, Ming-Sheng Xie, Gui-Rong Qu,* Hong-Ying Niu, and Hai-Ming Guo*



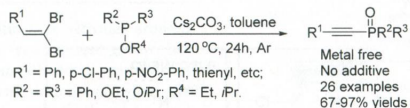
Asymmetric Synthesis of Protected α -Amino Boronic Acid Derivatives with an Air- and Moisture-Stable Cu(II) Catalyst

Andrew W. Buesking, Vlad Bacauanu, Irene Cai, and Jonathan A. Ellman*



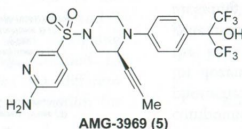
Cs_2CO_3 -Promoted One-Pot Synthesis of Alkynylphosphonates, -phosphinates, and -phosphine Oxides

Yulei Wang, Jiepeng Gan, Liu Liu, Hang Yuan, Yuxing Gao,* Yan Liu,* and Yufen Zhao



Nonracemic Synthesis of GK–GKRP Disruptor AMG-3969

Matthew P. Bourbeau,* Kate S. Ashton, Jie Yan, and David J. St. Jean Jr.

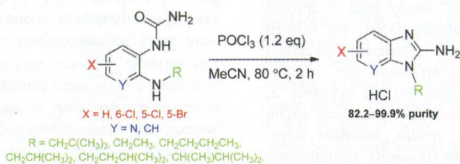


Original Route
Seven steps, 14% yield
Racemic Product
Safety Concerns

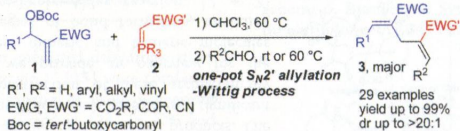
New Route
Five steps, 26% yield
>99% ee
Reduced Safety Concerns

Preparation of 2-Aminopyridoimidazoles and 2-Aminobenzimidazoles via Phosphorus Oxychloride-Mediated Cyclization of Aminoureas

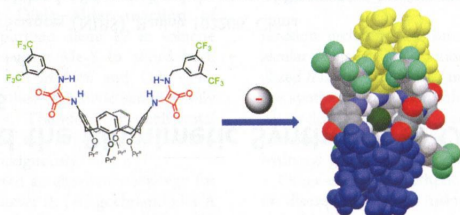
Rebecca E. Deasy, Catherine N. Slattery, Anita R. Maguire,* Douglas P. Kjell, Mai Khanh N. Hawk, Jung Min Joo, Rui Lin Gu, and Humphrey Moynihan

Catalyst-Free Synthesis of Skipped Dienes from Phosphorus Ylides, Allylic Carbonates, and Aldehydes via a One-Pot S_N2' Allylation–Wittig Strategy

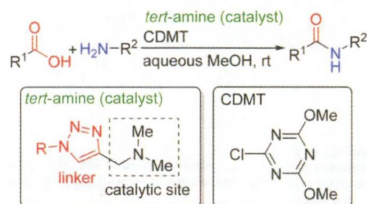
Silong Xu,* Shaoying Zhu, Jian Shang, Junjie Zhang, Yuhai Tang, and Jianwei Dou*

Anion-Induced Dimerization in *p*-Squaramidocalix[4]arene Derivatives

Carmine Gaeta,* Carmen Talotta, Paolo Della Sala, Luigi Margarucci, Agostino Casapullo, and Placido Neri

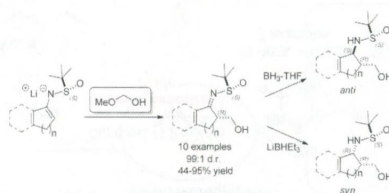


Role of Linkers in Tertiary Amines That Mediate or Catalyze 1,3,5-Triazine-Based Amide-Forming Reactions
Masanori Kitamura, Fumitaka Kawasaki, Kouichi Ogawa, Shuichi Nakanishi, Hiroyuki Tanaka, Kohei Yamada, and Munetaka Kunishima*



Diastereoselective Hydroxymethylation of Cyclic *N*-*tert*-Butanesulfinylketimines Using Methoxymethanol as Formaldehyde Source

Martins Priede, Mihail Kazak, Toms Kalnins, Kirill Shubin, and Edgars Suna*



Computational and DNMR Investigation of the Isomerism and Stereodynamics of the 2,2'-Binaphthalene-1,1'-diol Scaffold
Andrea Mazzanti,* Michel Chiarucci, Keith W. Bentley, and Christian Wolf*

