

ON THE COVER: The total synthesis of (−)-lycojapodine A was accomplished through a remarkable tautomer locking strategy. The central step in this synthesis involved a late-stage Dess–Martin periodinane/TFA-mediated tandem process, which constructed the previously unknown carbinolamine lactone motif and enabled a biomimetic transformation to generate (−)-lycojapodine A in a single operation. See Lei and co-workers, p 800.

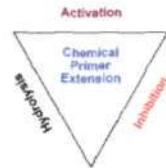
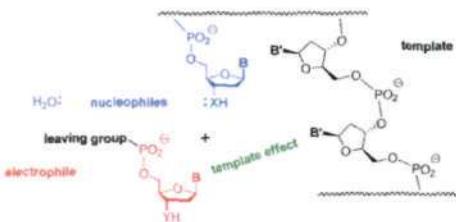
JOC Synopsis

793

[dx.doi.org/10.1021/jo3025779](https://doi.org/10.1021/jo3025779)

Nucleotide-Based Copying of Nucleic Acid Sequences without Enzymes

Andreas Kaiser and Clemens Richert*



Featured Articles

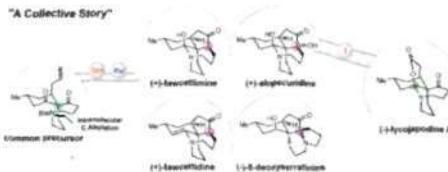
800



[dx.doi.org/10.1021/jo3017555](https://doi.org/10.1021/jo3017555)

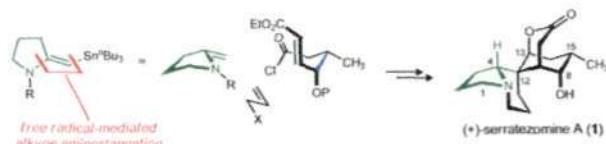
Collective Synthesis of *Lycopodium* Alkaloids and Tautomer Locking Strategy for the Total Synthesis of (−)-Lycojapodine A

Houhua Li, Xiaoming Wang, Benke Hong, and Xiaoguang Lei*



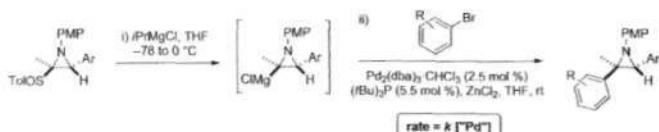
Total Synthesis of the Lycopodium Alkaloid Serratezomine A Using Free Radical-Mediated Vinyl Amination to Prepare a β -Stannylin Enamine Linchpin

Julie A. Pigza, Jeong-Seok Han, Aroop Chandra, Daniel Mutnick, Maren Pink, and Jeffrey N. Johnston*



Palladium-Catalyzed Cross-Coupling of Aziridinylmetal Species, Generated by Sulfinyl–Magnesium Exchange, with Aryl Bromides: Reaction Optimization, Scope, and Kinetic Investigations

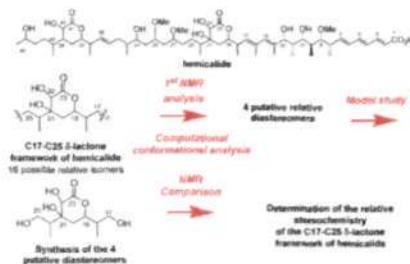
Matthew Hughes, Tom Boultwood, Gianfranco Zeppetelli, and James A. Bull*



Articles

Relative Stereochemical Determination and Synthesis of the C17–C25 δ -Lactone Fragment of Hemicalide

Etienne Fleury, Geoffroy Sorin, Elise Prost, Ange Pancrazi, Fran ois Sautel, Georges Massiot, Marie-Isabelle Lannou, and Janick Ardisson*



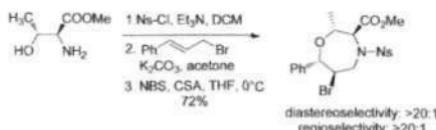
Control over the E/Z Selectivity of the Catalytic Dimerization of Group 6 (Fischer) Metal Carbene Complexes

Gong M. Chu, Israel Fern andez,* and Miguel A. Sierra*

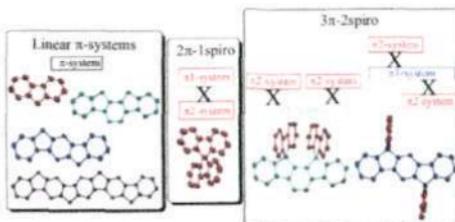


Stereo- and Regioselective Synthesis of Polysubstituted Chiral 1,4-Oxazepanes

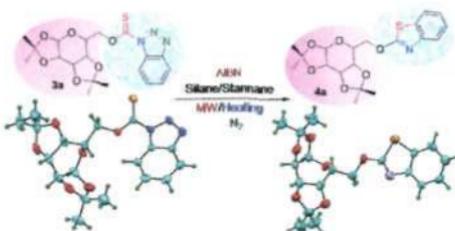
Michelle Bezanson, Joshua Pottel, Rana Bilbeisi, Sylvestre Tournieux, Mickaël Cueto, and Nicolas Moitessier*

**Modulation of the Electronic Properties of 3 π -2spiro Compounds Derived from Bridged Oligophenylens: A Structure–Property Relationship**

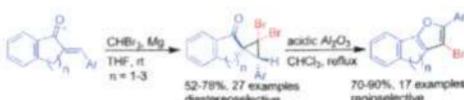
Cyril Poriel,* Joëlle Rault-Berthelot,* and Damien Thirion

**Synthesis of Glycoconjugate Benzothiazoles via Cleavage of Benzotriazole Ring**

Dhananjay Kumar, Amrita Mishra, Bhuwan B. Mishra, Subrato Bhattacharya, and Vinod K. Tiwari*

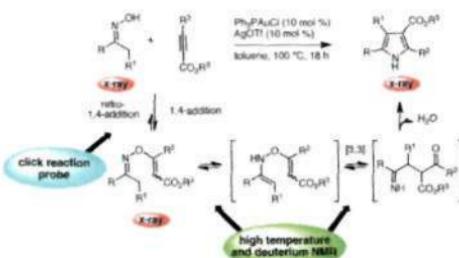
**Synthesis of Fused Bromofurans via Mg-Mediated Dibromocyclopropanation of Cycloalkanone-Derived Chalcones and Cloke–Wilson Rearrangement**

Elumalai Gopi and Irishi N. N. Namboothiri*



Development of a Gold-Multifaceted Catalysis Approach to the Synthesis of Highly Substituted Pyrroles: Mechanistic Insights via Huisgen Cycloaddition Studies

Simbarashe Ngwerume, William Lewis, and Jason E. Camp*



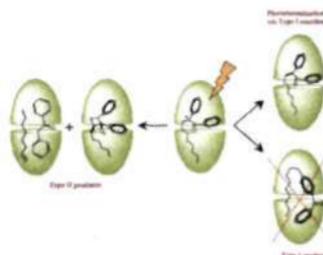
Triple Shifts and Thioether Assistance in Rearrangements Associated with an Unusual Biomethylation of the Sterol Side Chain

Young J. Hong, José-Luis Giner, and Dean J. Tantillo*

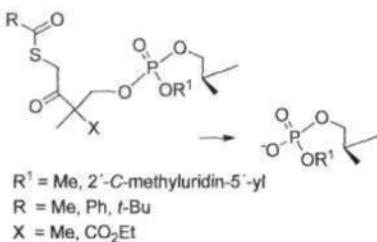


Role of Free Space and Conformational Control on Photoproduct Selectivity of Optically Pure α -Alkyldeoxybenzoins within a Water-Soluble Organic Capsule

Revathy Kulasekharan, Murthy V. S. N. Maddipatla, Anand Parthasarathy, and V. Ramamurthy*

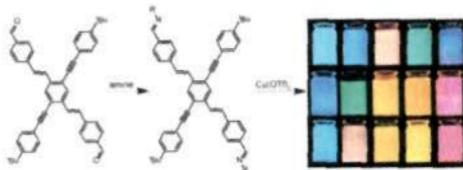


2,2-Disubstituted 4-Acylthio-3-oxobutyl Groups as Esterase- and Thermolabile Protecting Groups of Phosphodiesters
 Emilia Kiuru,* Zafar Ahmed, Harri Lönnberg, Leonid Beigelman, and Mikko Ora*



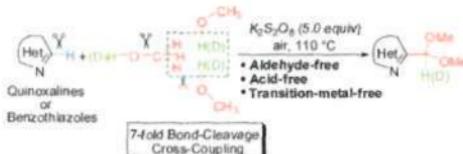
Imine Formation as a Simple Reaction to Construct Copper-Reactive Cruciform Fluorophores

Thimon Schwaebel, Vera Schäfer, Jan Wenz, Benjamin A. Coombs, Juan Tolosa, and Uwe H. F. Bunz*

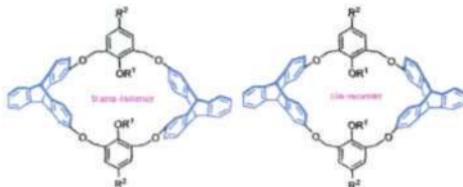


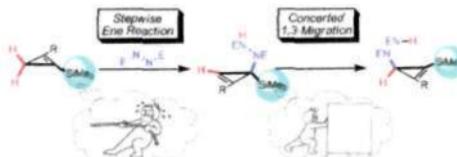
Multifold Bond Cleavage and Formation between MeOH and Quinoxalines (or Benzothiazoles): Synthesis of Carbaldehyde Dimethyl Acetals

Yunkui Liu,* Bo Jiang, Wei Zhang, and Zhenyuan Xu



Triptycene-Derived Homooxacalixarene Analogues: Synthesis, Structures, and Complexation with Fullerenes C_{60} and C_{70}
 Tao Xie, Shu-Zhen Hu, and Chuan-Feng Chen*



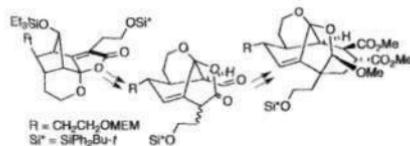


996

dx.doi.org/10.1021/jo302467w

Synthetic Studies on CP-225,917 and CP-263,114: Access to Advanced Tetracyclic Systems by Intramolecular Conjugate Displacement and [2,3]-Wittig Rearrangement

Farzad Malih, Derrick L. J. Clive,* Che-Chien Chang, and Minaruzzaman



1014

dx.doi.org/10.1021/jo302470p

Design, Synthesis, and Structural and Spectroscopic Studies of Push–Pull Two-Photon Absorbing Chromophores with Acceptor Groups of Varying Strength

Alma R. Morales, Andrew Frazer, Adam W. Woodward, Hyo-Yang Ahn-White, Alexandr Fonari, Paul Tongwa, Tatiana Timofeeva, and Kevin D. Belfield*



1026

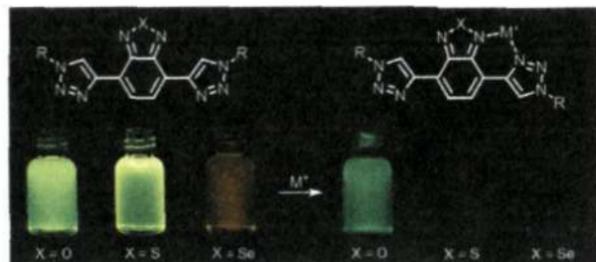
dx.doi.org/10.1021/jo302473s

Reactions of the Phthalimide N-Oxyl Radical (PINO) with Activated Phenols: The Contribution of π -Stacking Interactions to Hydrogen Atom Transfer Rates

Claudio D’Alfonso, Massimo Bietti,* Gino A. DiLabio,* Osvaldo Lanzalunga,* and Michela Salamone



Water-Soluble Bis-triazolyl Benzochalcogendiazole Cycloadducts as Tunable Metal Ion Sensors
 Jonathan J. Bryant, Benjamin D. Lindner, and Uwe H. F. Bunz*



Synthesis of 2-Aryl-1,2-dihydrophthalazines via Reaction of 2-(Bromomethyl)benzaldehydes with Arylhydrazines
 Nayyef Aljaar, Jürgen Conrad, and Uwe Beifuss*

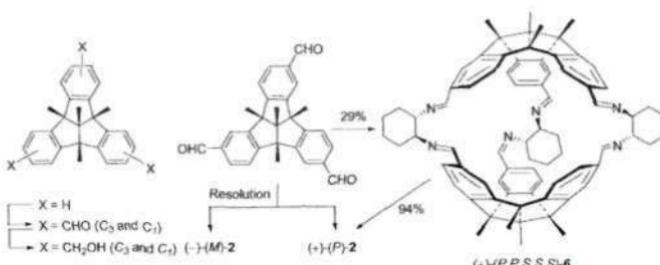


Cross-Coupling of ArX with ArMgBr Catalyzed by N-Heterocyclic Carbene-Based Nickel Complexes
 Wang-Jun Guo and Zhong-Xia Wang*

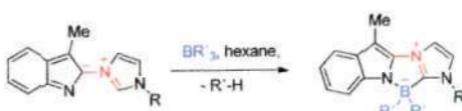


C₃-Symmetrical Tribenzotriquinacene Derivatives: Optical Resolution through Cryptophane Synthesis and Supramolecular Self-Assembly into Nanotubes

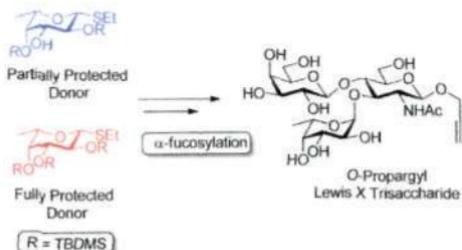
Tao Wang, Yu-Fei Zhang, Qin-Qing Hou, Wen-Rong Xu, Xiao-Ping Cao,* Hak-Fun Chow,* and Dietmar Kuck*

**Betaine–Carbene Interconversions. From N-Ylides to Zwitterionic N-Heterocyclic Carbene–Borane Adducts**

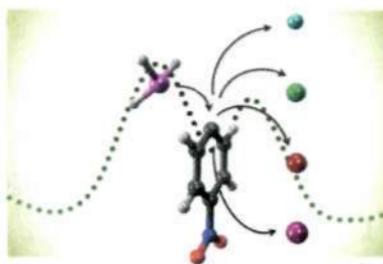
Nazar Pidlypyni, Jan C. Namyslo, Martin H. H. Drafz, Martin Nieger, and Andreas Schmidt*

**Development of Fully and Partially Protected Fucosyl Donors for Oligosaccharide Synthesis**

Robin Daly, Thomas McCabe, and Eoin M. Scanlan*

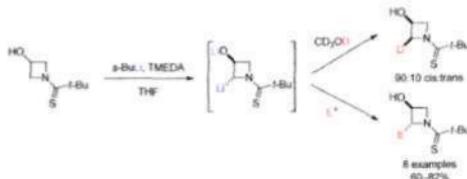


Reactivity Indices Profile: A Companion Tool of the Potential Energy Surface for the Analysis of Reaction Mechanisms. Nucleophilic Aromatic Substitution Reactions as Test Case
 Rodrigo Ormazábal-Toledo,* Renato Contreras, and Paola R. Campodónico



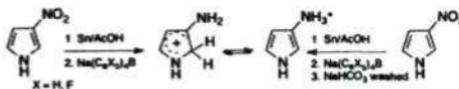
α -Lithiation–Electrophile Trapping of *N*-Thiopivaloylazetidin-3-ol: Stereoselective Synthesis of 2-Substituted 3-Hydroxyazetidines

David M. Hodgson,* Christopher I. Pearson, and Amber L. Thompson



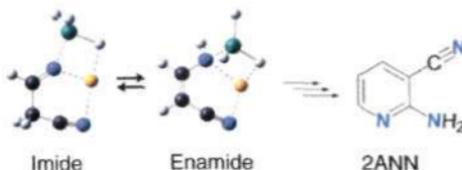
Aromaticity and Aminopyrroles: Desmotropy and Solution Tautomerism of 1*H*-Pyrrol-3-aminium and 1*H*-Pyrrol-3(2*H*)-iminium Cation: A Stable σ -Complex

Michael De Rosa* and David Arnold



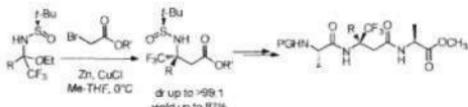
Mechanistic Models for LAH Reductions of Acetonitrile and Malononitrile. Aggregation Effects of Li⁺ and AlH₃ on Imide–Enamide Equilibria

Rainer Glaser,* Laura Ulmer, and Stephanie Coyle



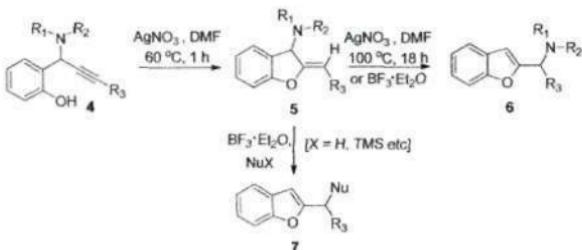
Enantiopure Trifluoromethylated $\beta^{3,3}$ -Amino Acids: Synthesis by Asymmetric Reformatsky Reaction with Stable Analogues of Trifluoromethyl N-*tert*-Butanesulfinylketoines and Incorporation into α/β -Peptides

Fabienne Grellepois*



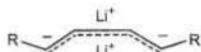
Concise Synthesis of α -Substituted 2-Benzofuranmethamines and Other 2-Substituted Benzofurans via α -Substituted 2-Benzofuranmethyl Carbocation Intermediates

Nikhom Wongsaa, Ubonta Sommart, Thunwadee Ritthiwigrom, Arife Yazici, Somdej Kanokmedhakul, Kwanjai Kanokmedhakul, Anthony C. Willis, and Stephen G. Pyne*



Internally versus Externally Solvated Derivatives of Doubly Bridged 1,4-Dilithio-2-butene: Structures and Dynamic Behavior. A "T" Shaped Dimeric Cluster in the Solid State

Gideon Fraenkel,* Xiao Chen, Albert Chow, and Judith Gallucci

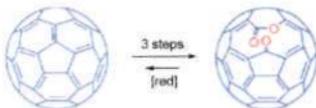


Synthesis of $C_{60}(O)_3$: An Open-Cage Fullerene with a Ketolactone Moiety on the Orifice

Nana Xin, Xiaobing Yang, Zishuo Zhou, Jianxin Zhang, Showxin Zhang, and Liangbing Gan*

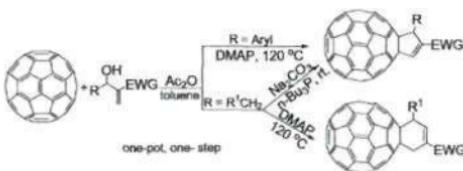
dx.doi.org/10.1021/jo302439t

dx.doi.org/10.1021/jo3026302



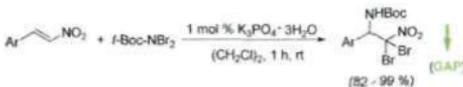
DMAP-Catalyzed [3 + 2] and [4 + 2] Cycloaddition Reactions between [60]Fullerene and Unmodified Morita–Baylis–Hillman Adducts in the Presence of Ac₂O

Hai-Tao Yang,* Wen-Long Ren, Chun-Bao Miao, Chun-Ping Dong, Yang Yang, Hai-Tao Xi, Qi Meng, Yan Jiang, and Xiao-Qiang Sun*



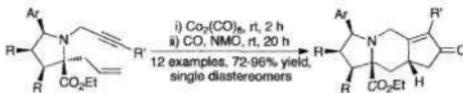
Approach to Vicinal t-Boc-amino Dibromides via Catalytic Aminobromination of Nitrostyrenes without Using Chromatography and Recrystallization

Hao Sun, Jianlin Han, Padmanabha V. Kattamuri, Yi Pan,* and Guigen Li*



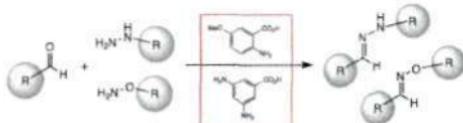
Synthesis of Functionalized Indolizidines through Pauson–Khand Cycloaddition of 2-Allylpyrrolidines

Michael P. McCormack and Stephen P. Waters*



Water-Soluble Organocatalysts for Hydrazone and Oxime Formation

Pete Crisalli and Eric T. Kool*



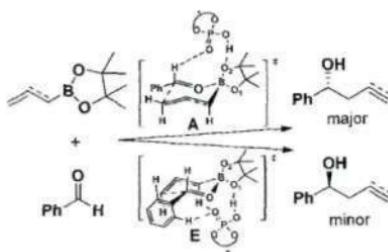
Synthesis of γ -Azido- β -ureido Ketones and Their Transformation into Functionalized Pyrrolines and Pyrroles via Staudinger/aza-Wittig Reaction

Anastasia A. Fesenko and Anatoly D. Shutalev*



Origins of Stereoselectivities in Chiral Phosphoric Acid Catalyzed Allylbورations and Propargylations of Aldehydes

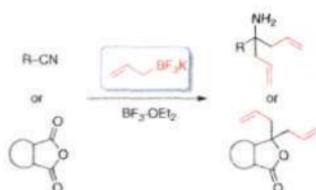
Hao Wang, Pankaj Jain, Jon C. Antilla, and K. N. Houk*



Notes

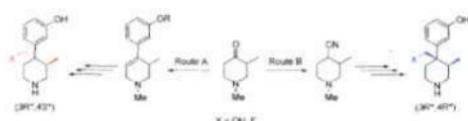
Mild Double Allylbورation Reactions of Nitriles and Acid Anhydrides Using Potassium Allyltrifluoroborate

Timothy R. Ramadhar, Jazmin Bansagi, and Robert A. Batey*



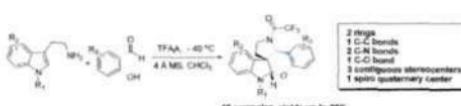
Diastereoselective Syntheses of $(3R^{\circ},4R^{\circ})$ - and $(3R^{\circ},4S^{\circ})$ -4-Aryl-3-methyl-4-piperidinemethanol and Fluoro Analogues

Sébastien Schmitt, Richard C. D. Brown, and Cécile Perrio*



Stereoselective Synthesis of Fused Spiroindolines via Tandem Mannich/Intramolecular Aminal Formation

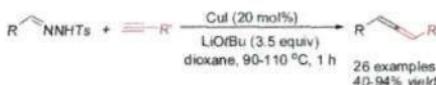
Juan Yang, Xingang Xie, Zhengshen Wang, Ruoming Mei, Huaiji Zheng, Xiaolei Wang, Ling Zhang, Jing Qi, and Xuegong She*



dx.doi.org/10.1021/jo3024686

CuI-Catalyzed Cross-Coupling of *N*-Tosylhydrazones with Terminal Alkynes: Synthesis of 1,3-Disubstituted Alleges

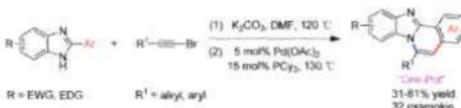
Mohammad Lokman Hossain, Fei Ye, Yan Zhang, and Jianbo Wang*



dx.doi.org/10.1021/jo302471z

Nucleophilic Addition of Benzimidazoles to Alkynyl Bromides/Palladium-Catalyzed Intramolecular C–H Vinylation: Synthesis of Benzo[4,5]imidazo[2,1-*a*]isoquinolines

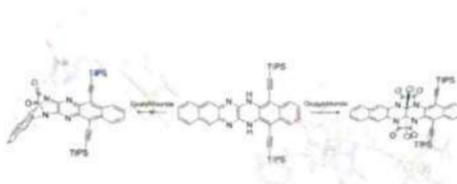
Jinsong Peng, Guoning Shang, Chunxia Chen, Zhongshuo Miao, and Bin Li*



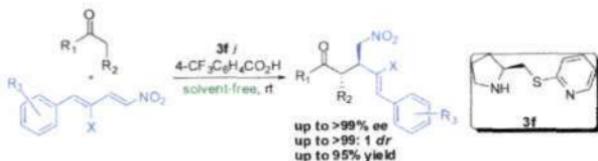
dx.doi.org/10.1021/jo3024544

Reactions of Large Tetraaza-*N,N'*-dihydroacenes: Formation of Unexpected Adducts and an Unstable Tetraazahexacene

Jens U. Engelhart, Benjamin D. Lindner, Olena Tverskoy, Manuel Schaffroth, Frank Rominger, and Uwe H. F. Bunz*

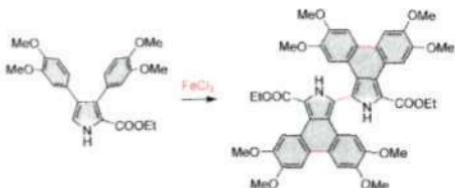


Prolinethiol Ether Catalysis in an Asymmetric Michael Reaction: Solvent-Free Synthesis of Functionalized Monohaloalkenes
Ai-Bao Xia, Chao Wu, Dan-Qian Xu,* Yi-Feng Wang, Xiao-Hua Du, Zhao-Bo Li, and Zhen-Yuan Xu*



Synthesis of Bis(phenanthropyrroles) via a Tandem Scholl Oxidation

Elżbieta Gorika, Damian Myśliwiec, Tadeusz Lis, Piotr J. Chmielewski, and Marcin Stępień*



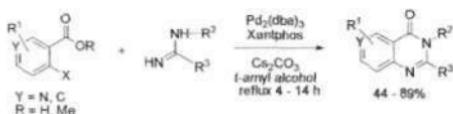
Synthesis of Imidazo[1,2-*a*]pyridines: "Water-Mediated" Hydroamination and Silver-Catalyzed Aminoxygénéation

Darapaneni Chandra Mohan, Sadu Nageswara Rao, and Subbarayappa Adimurthy*

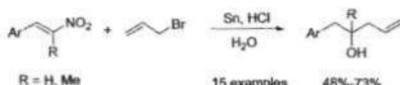


Synthesis of Quinazolin-4(3*H*)-ones via Amidine N-Arylation

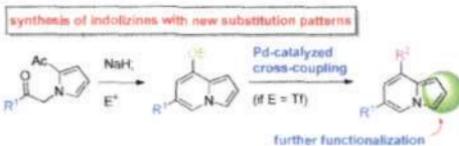
Bryan Li,* Lacey Samp, John Sagal, Cheryl M. Hayward, Christine Yang, and Zhijun Zhang



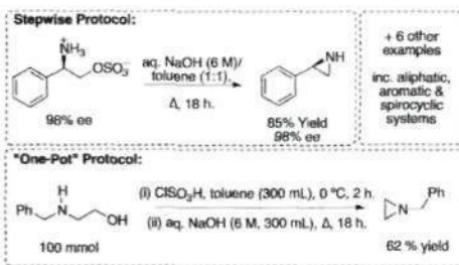
Nitroalkenes as Carbonyl Surrogates in Arylmethyl-homoallylic Alcohol Forming One-Pot Allylation Reactions in Water
Mei-Huey Lin,* Wei-Cheng Lin, Han-Jun Liu, and Tsung-Hsun Chuang



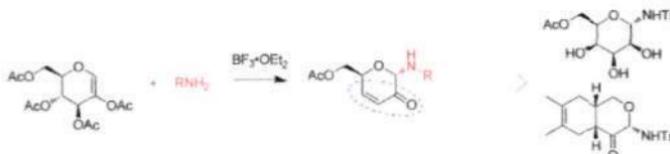
Cycloaromatization Approach to Polysubstituted Indolizines from 2-Acetylpyrroles: Decoration of the Pyridine Unit
Jin Ho Lee and Ikyon Kim*



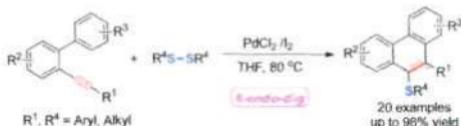
Observations on the Modified Wenker Synthesis of Aziridines and the Development of a Biphasic System
Benjamin R. Buckley,* Anish P. Patel, and K. G. U. Wijayanthan*



Ferrier-Type N-Glycosylation: Synthesis of N-Glycosides of Enone Sugars
Feiqing Ding, Ronny William, and Xue-Wei Liu*

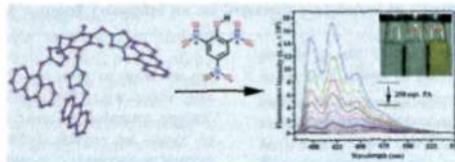


Palladium-Catalyzed Iodine-Mediated Electrophilic Annulation of 2-(1-Alkynyl)biphenyls with Disulfides
Bo-Lun Hu, Sha-Sha Pi, Peng-Cheng Qian,* Jin-Heng Li, and Xing-Guo Zhang*



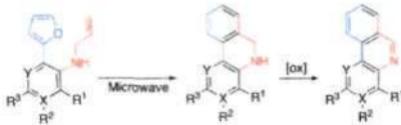
Fluorescent Tris-Imidazolium Sensors for Picric Acid Explosive

Bijan Roy, Arun Kumar Bar, Bappaditya Gole, and Partha Sarathi Mukherjee*



Synthesis of Phenanthridine Derivatives by Microwave-Mediated Cyclization of *o*-Furyl(allylamino)arenes

Matthew Lovell Read and Lise-Lotte Gundersen*



Synthesis of 1*H*-Indazoles and 1*H*-Pyrazoles via FeBr_3/O_2 Mediated Intramolecular C–H Amination

Tianshu Zhang and Weiliang Bao*

