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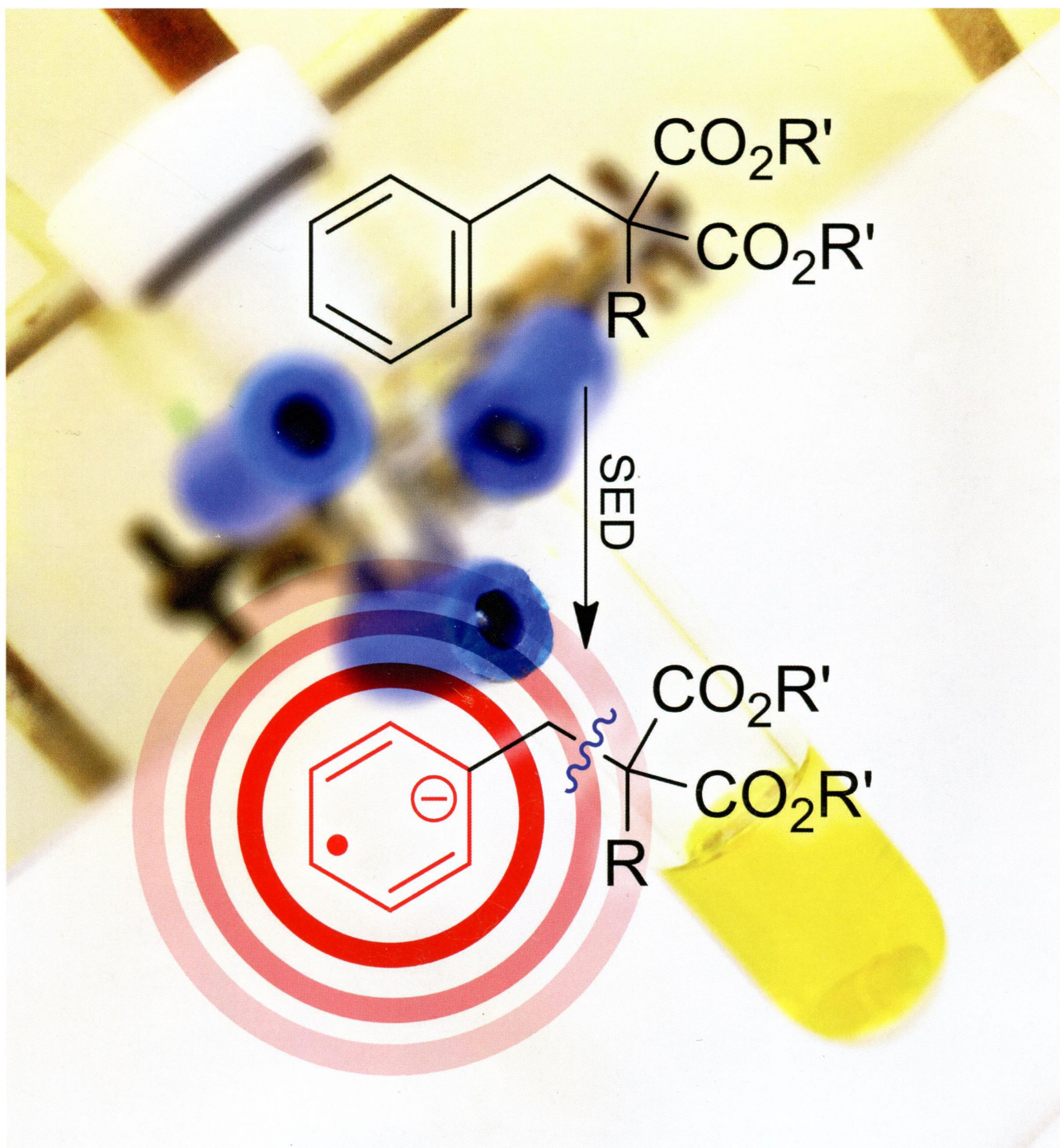
JOC

The Journal of Organic Chemistry

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VOLUME 79, NUMBER 9

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ON THE COVER: Organic super-electron donors are powerful reducing agents. Under photoactivation, they selectively activate arenes in the presence of malonates. See Murphy, p 3731. Professor Murphy is the recipient of the 2012 Bader Award.

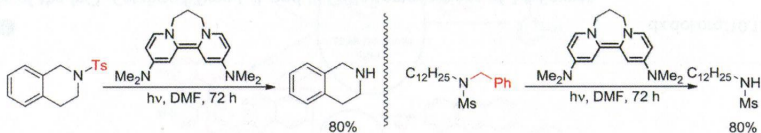
Perspective

3731

dx.doi.org/10.1021/jo500071u

Discovery and Development of Organic Super-Electron-Donors

John A. Murphy*



Featured Articles

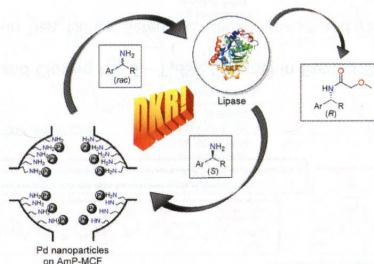
3747



dx.doi.org/10.1021/jo500508p

Chemoenzymatic Dynamic Kinetic Resolution of Primary Amines Using a Recyclable Palladium Nanoparticle Catalyst Together with Lipases

Karl P. J. Gustafson, Richard Lihammar, Oscar Verho, Karin Engström, and Jan-E. Bäckvall*

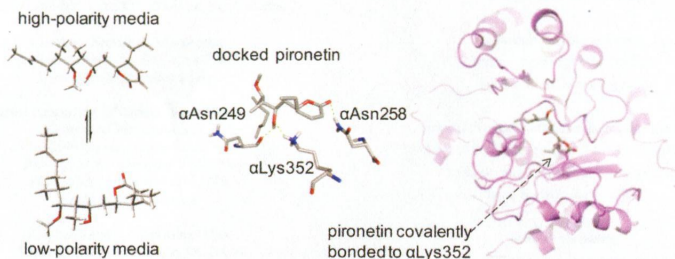


3752 **S**

dx.doi.org/10.1021/jo500420j

Studies of (–)-Pironetin Binding to α -Tubulin: Conformation, Docking, and Molecular Dynamics

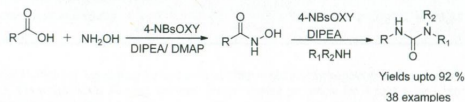
Angel E. Bañuelos-Hernández, José Alberto Mendoza-Espinoza, Rogelio Pereda-Miranda, and Carlos M. Cerda-García-Rojas*

3765 **S**

dx.doi.org/10.1021/jo4026429

Ethyl 2-Cyano-2-(4-nitrophenylsulfonyloxymino)acetate-Mediated Lossen Rearrangement: Single-Pot Racemization-Free Synthesis of Hydroxamic Acids and Ureas from Carboxylic Acids

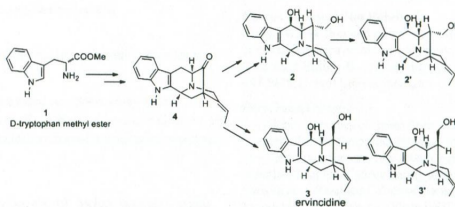
Kishore Thalluri, Srinivasa Rao Manne, Dharm Dev, and Bhubaneswar Mandal*

3776 **S**

dx.doi.org/10.1021/jo402692u

Stereospecific Total Synthesis of the Indole Alkaloid Ervincidine. Establishment of the C-6 Hydroxyl Stereochemistry

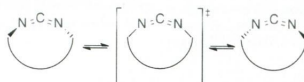
Sundari K. Rallapalli, Ojas A. Namjoshi, V. V. N. Phani Babu Tiruveedhula, Jeffrey R. Deschamps, and James M. Cook*

3781 **S**

dx.doi.org/10.1021/jo4026435

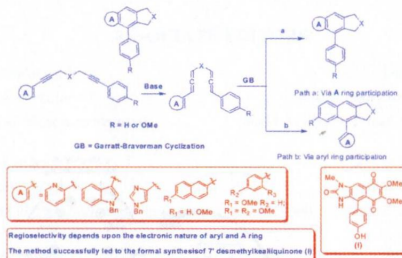
Computational Studies of Carbodiimide Rings

Robert Damrauer,* Hai Lin, and Niels H. Damrauer*



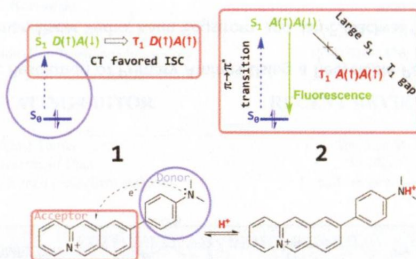
Selectivity in Garratt–Braverman Cyclization of Aryl-/Heteroaryl-Substituted Bis-Propargyl Systems: Formal Synthesis of 7'-Desmethylkealiquinone

Joyce Das, Raja Mukherjee,* and Amit Basak*



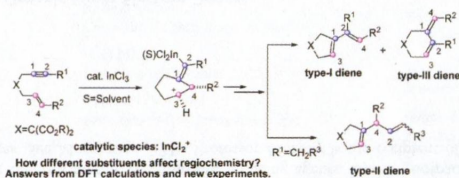
Switching Off the Charge Transfer and Closing the S_1 - T_1 ISC Channel in Excited States of Quinolinium Derivatives: A Theoretical Study

Soydan Yalcin, Laura Thomas, Maoqun Tian, Nurgul Seferoglu, Heiko Ihmels,* and Yavuz Dede*



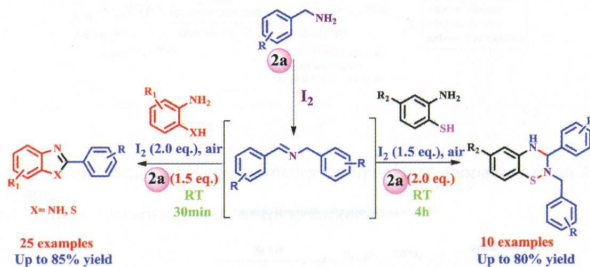
Mechanisms of the InCl_3 -Catalyzed Type-I, II, and III Cycloisomerizations of 1,6-Enynes

Lian-Gang Zhuo, Ji-Ji Zhang, and Zhi-Xiang Yu*



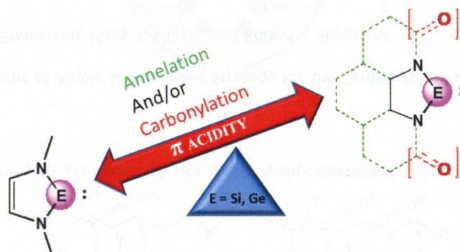
Molecular Iodine Promoted Divergent Synthesis of Benzimidazoles, Benzothiazoles, and 2-Benzyl-3-phenyl-3,4-dihydro-2H-benzo[e][1,2,4]thiadiazines

Gunaganti Naresh, Ruchir Kant, and Tadigoppula Narender*



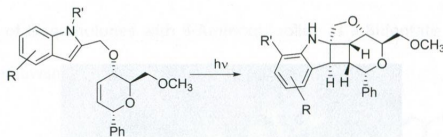
Theoretical Study on the Effect of Annelation and Carbonylation on the Electronic and Ligand Properties of *N*-Heterocyclic Silylenes and Germylenes: Carbene Comparisons begin To Break Down

Ankur Kanti Guha and Ashwini K. Phukan*



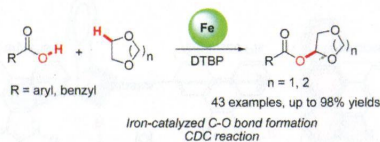
Multidimensional Reaction Screening for Photochemical Transformations as a Tool for Discovering New Chemotypes

Véronique I. Martin, John R. Goodell, Oscar J. Ingham, John A. Porco Jr., and Aaron B. Beeler*



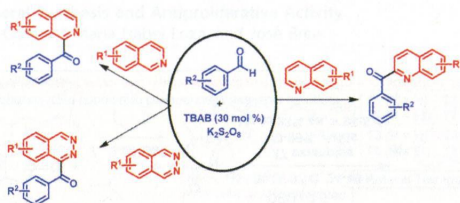
Iron-Catalyzed Cross-Dehydrogenative Coupling Esterification of Unactive C(sp³)–H Bonds with Carboxylic Acids for the Synthesis of α -Acyloxy Ethers

Jincan Zhao, Hong Fang, Wei Zhou, Jianlin Han,* and Yi Pan



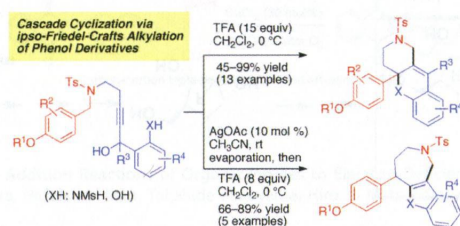
A Transition Metal-Free Minisci Reaction: Acylation of Isoquinolines, Quinolines, and Quinoxaline

Yogesh Siddaraju, Manjunath Lamani, and Kandikere Ramaiah Prabhu*



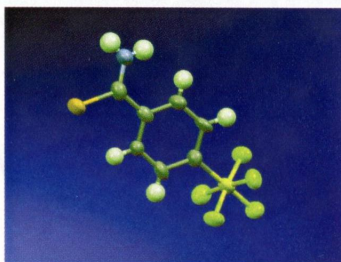
Construction of Divergent Fused Heterocycles via an Acid-Promoted Intramolecular *ipso*-Friedel–Crafts Alkylation of Phenol Derivatives

Takuya Yokosaka, Naoki Shiga, Tetsuhiro Nemoto, and Yasumasa Hamada*



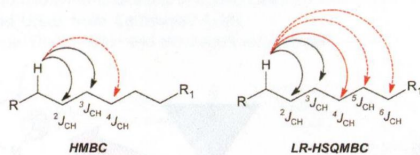
2,4-Diaryl-1,3-Chalcogen Azoles Bearing Pentafluorosulfanyl SF₅ Groups: A Synthetic and Structural Study

Guoxiong Hua, Junyi Du, Alexandra M. Z. Slawin, and J. Derek Woollins*



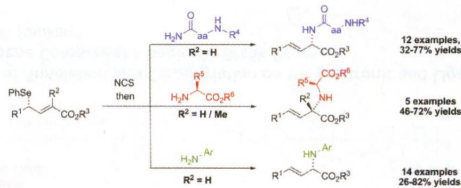
LR-HSQMBC: A Sensitive NMR Technique To Probe Very Long-Range Heteronuclear Coupling Pathways

R. Thomas Williamson,* Alexei V. Buevich, Gary E. Martin, and Teodor Parella



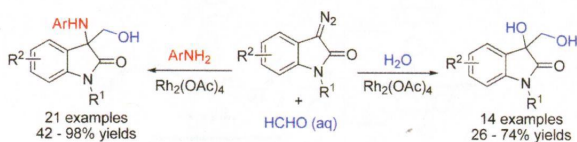
[2,3]-Sigmatropic Rearrangement of Allylic Selenimides: Strategy for the Synthesis of Peptides, Peptidomimetics, and *N*-Aryl Vinyl Glycines

Alan Armstrong,* Daniel P. G. Emmerson, Harry J. Milner, and Robert J. Sheppard

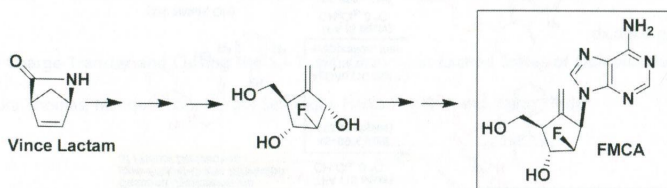


All examples show high retention of e.r.

Synthesis of 3-Amino-3-hydroxymethyloxindoles and 3-Hydroxy-3-hydroxymethyloxindoles by $\text{Rh}_2(\text{OAc})_4$ -Catalyzed Three-Component Reactions of 3-Diazoindoles with Formaldehyde and Anilines or Water
Chengjin Wang, Dong Xing,* Dongwei Wang, Xiang Wu, and Wenhao Hu*

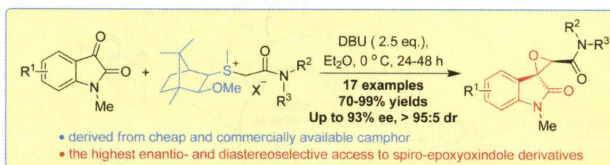


Stereoselective Synthesis of 2'-Fluoro-6'-methylene Carbocyclic Adenosine via Vince Lactam
Uma S. Singh, Ram C. Mishra, Ravi Shankar, and Chung K. Chu*

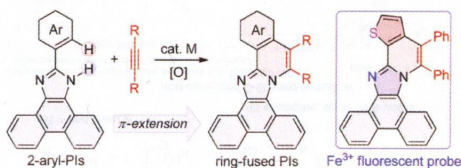


Enantio- and Diastereoselective Synthesis of Spiro-epoxyoxindoles

Amina Boucherif, Qing-Qing Yang, Qiang Wang, Jia-Rong Chen, Liang-Qiu Lu,* and Wen-Jing Xiao*

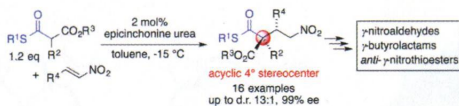


Modular Assembly of Ring-Fused and π -Extended Phenanthroimidazoles via C-H Activation and Alkyne Annulation
Liya0 Zheng and Ruimao Hua*



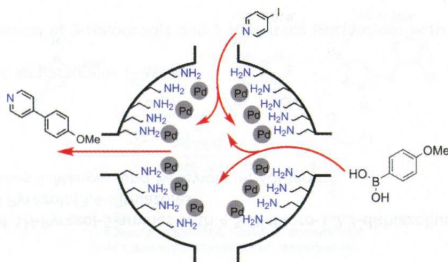
Organocatalytic Stereoselective Synthesis of Acyclic γ -Nitrothioesters with All-Carbon Quaternary Stereogenic Centers

Yukihiko Arakawa, Sven P. Fritz, and Helma Wennemers*



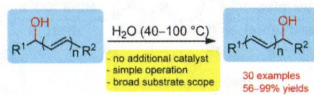
A General Suzuki Cross-Coupling Reaction of Heteroaromatics Catalyzed by Nanopalladium on Amino-Functionalized Siliceous Mesocellular Foam

Emma Bratt, Oscar Verho, Magnus J Johansson, and Jan-Erling Bäckvall*



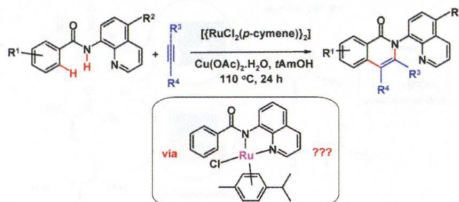
1,*n*-Rearrangement of Allylic Alcohols Promoted by Hot Water: Application to the Synthesis of Navenone B, a Polyene Natural Product

Pei-Fang Li, Heng-Lu Wang, and Jin Qu*



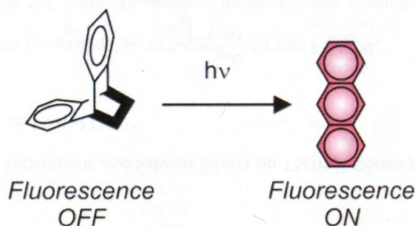
Ruthenium-Catalyzed Synthesis of Isoquinolones with 8-Aminoquinoline as a Bidentate Directing Group in C–H Functionalization

Srinivasarao Allu and K. C. Kumara Swamy*

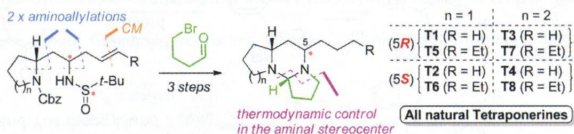


Photoactivatable Anthracenes

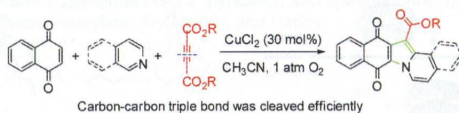
Ek Raj Thapaliya, Burjor Captain, and Francisco M. Raymo*

**Natural Tetraoperines: A General Synthesis and Antiproliferative Activity**

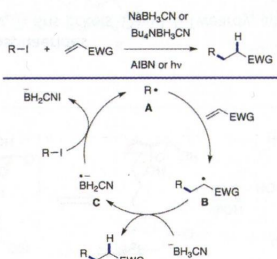
Irene Bosque, Jose C. Gonzalez-Gomez,* María Isabel Loza, and José Brea

**Copper(II)-Catalyzed Carbon–Carbon Triple Bond Cleavage of Internal Alkynes for the Synthesis of Annulated Indolizines**

Jinwei Sun, Fuyao Wang, Huayou Hu, Xiangshan Wang, Hui Wu, and Yun Liu*

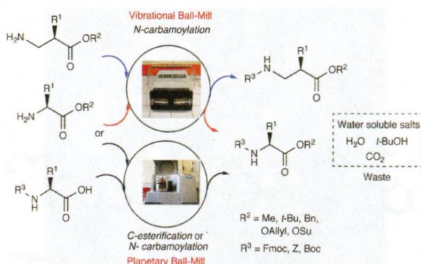
**Borohydride-Mediated Radical Addition Reactions of Organic Iodides to Electron-Deficient Alkenes**

Takuji Kawamoto, Shohei Uehara, Hidefumi Hirao, Takahide Fukuyama, Hiroshi Matsubara, and Ilhyong Ryu*



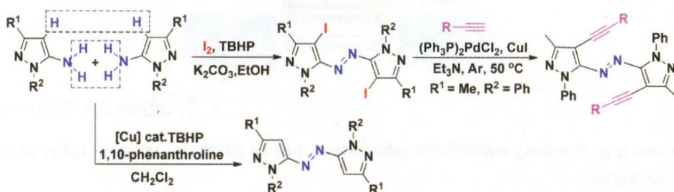
Solventless Mechanochemistry of N-Protected Amino Esters

Laure Konnert, Frédéric Lamaty, Jean Martinez, and Evelina Colacino*



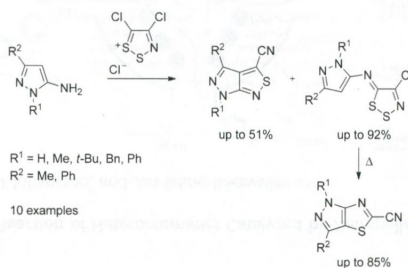
Oxidative Dehydrogenative Couplings of Pyrazol-5-amines Selectively Forming Azopyrroles

Bo Jiang,* Yi Ning, Wei Fan, Shu-Jiang Tu,* and Guigen Li



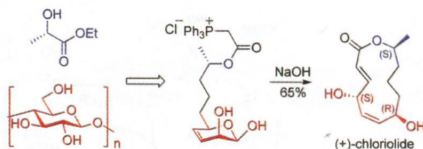
Reinvestigating the Reaction of 1*H*-Pyrazol-5-amines with 4,5-Dichloro-1,2,3-dithiazolium Chloride: A Route to Pyrazolo[3,4-*c*]isothiazoles and Pyrazolo[3,4-*d*]thiazoles

Maria Koyioni, Maria Manoli, Manos J. Manolis, and Panayiotis A. Koutentis*



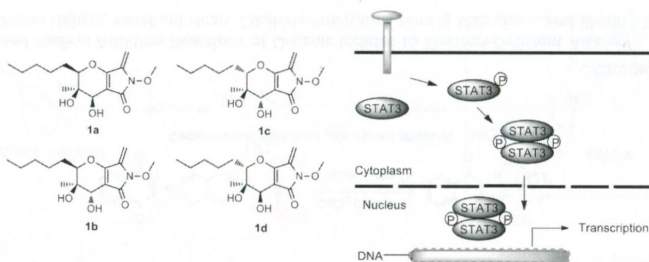
Total Synthesis of (+)-Chloriolide

Michael Ostermeier and Rainer Schobert*



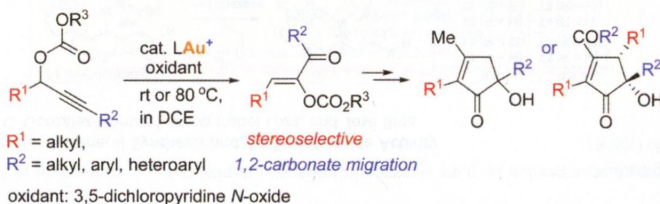
Synthetic and Biological Studies of Phaeosphaerides

Anthoula Chatzimpaloglou, Mikhail Kolosov, T. Kris Eckols, David J. Tweardy, and Vasiliki Sarli*

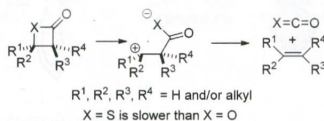


Gold-Catalyzed Oxidative Reactions of Propargylic Carbonates Involving 1,2-Carbonate Migration: Stereoselective Synthesis of Functionalized Alkenes

Ning Sun, Ming Chen, and Yuanhong Liu*

Chemistry of the β -Thiolactones: Substituent and Solvent Effects on Thermal Decomposition and Comparison with the β -Lactones.

Amandine Noel, Bernard Delpéch, and David Crich*



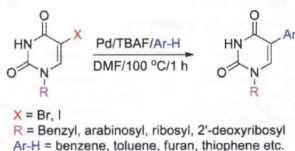
Synthesis, Structural Characterization, Aromatic Characteristics, and Metalation of Neo-Confused Porphyrins, a Newly Discovered Class of Porphyrin Isomers

Ruoshi Li, Aaron D. Lammer, Gregory M. Ferrence, and Timothy D. Lash*



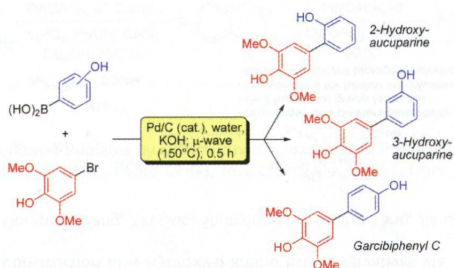
Palladium-Catalyzed Direct Arylation of 5-Halouracils and 5-Halouracil Nucleosides with Arenes and Heteroarenes Promoted by TBAF

Yong Liang, Jennifer Gloudeman, and Stanislaw F. Wnuk*



Suzuki–Miyaura Coupling of Halophenols and Phenol Boronic Acids: Systematic Investigation of Positional Isomer Effects and Conclusions for the Synthesis of Phytoalexins from Pyrinae

Bernd Schmidt* and Martin Riemer



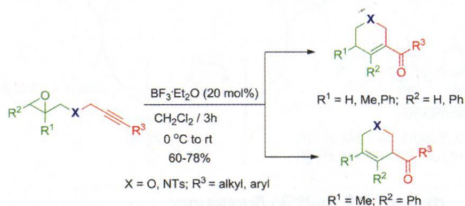
Notes

4119 **S**

dx.doi.org/10.1021/jo402550e

Lewis Acid Mediated Intramolecular C–C Bond Formation of Alkyne-Epoxyde Leading to Six-Membered Nitrogen and Oxygen Heterocycles

Priya Ghosh, Pipas Saha, Somasekhar Bondalapati, Kiran Indukuri, and Anil K. Saikia*

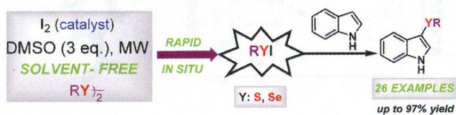


4125 **S**

dx.doi.org/10.1021/jo5000779

A Solvent- and Metal-Free Synthesis of 3-Chalcogenyl-indoles Employing DMSO/I₂ as an Eco-friendly Catalytic Oxidation System

Juliano B. Azeredo, Marcelo Godoi, Guilherme M. Martins, Claudio C. Silveira,* and Antonio L. Braga*

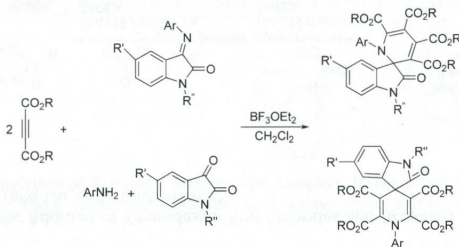


4131 **S**

dx.doi.org/10.1021/jo500144z

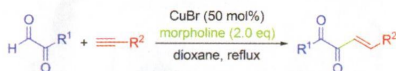
Selective Synthesis of Functionalized Spiro[indoline-3,2'-pyridines] and Spiro[indoline-3,4'-pyridines] by Lewis Acid Catalyzed Reactions of Acetylenedicarboxylate, Arylamines, and Isatins

Hong Gao, Jing Sun, and Chao-Guo Yan*



CuBr-Promoted Formal Hydroacylation of 1-Alkynes with Glyoxal Derivatives: An Unexpected Synthesis of 1,2-Dicarbonyl-3-enes

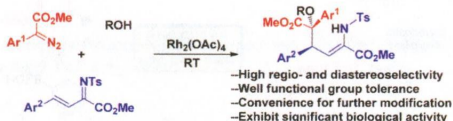
Shufeng Chen,* Xiaojie Li, Haiying Zhao, and Baoguo Li



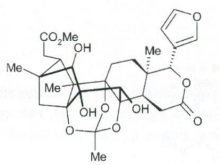
- absolute *E*-selectivity
- formal hydroacylation of the triple bond

Regio- and Diastereoselective Construction of α -Hydroxy- δ -amino Ester Derivatives via 1,4-Conjugate Addition of β,γ -Unsaturated *N*-Sulfonylimines

Lin Qiu, Lixin Gao, Jixing Tang, Dongwei Wang, Xin Guo, Shunying Liu,* Liping Yang, Jia Li, and Wenhao Hu*

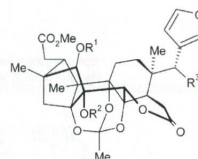
**Semisynthesis of Libiguin A and Its Analogues by Trans-Lactonization of Phragmalin**

Liene Grigorjeva, Edvards Liepinsh, Solofoniaina Razafimahefa, Aleh Yahorau, Sviatlana Yahorava, Philippe Rasoanaivo, Aigars Jirgensons,* and Jarl E. S. Wikberg*



Isolated from seeds of
Chukrasia tabularis 3.52 g/kg

synthetic transformations



$\text{R}^1 = -\text{C}(\text{O})\text{i-Pr}$, $\text{R}^2 = -\text{C}(\text{O})\text{i-Pr}$, $\text{R}^3 = (=O)$

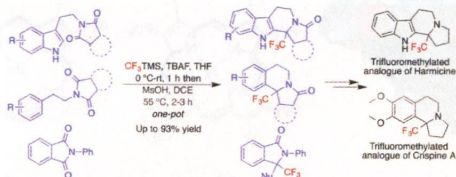
1 $\text{R}^1 = -\text{C}(\text{O})\text{Me}$, $\text{R}^2 = \text{H}$, $\text{R}^3 = -\text{OC}(\text{O})\text{CF}_3$

2 $\text{R}^1 = -\text{C}(\text{O})\text{i-Pr}$, $\text{R}^2 = \text{H}$, $\text{R}^3 = (=O)$

3 $\text{R}^1 = -\text{C}(\text{O})\text{Me}$, $\text{R}^2 = \text{H}$, $\text{R}^3 = (=O)$

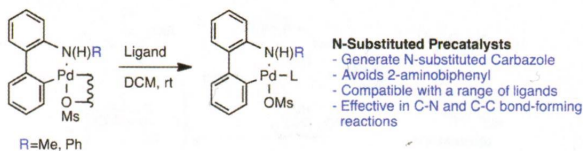
One-Pot Cascade Trifluoromethylation/Cyclization of Imides: Synthesis of α -Trifluoromethylated Amine Derivatives

Vinay Kumar Pandey and Pazhamalai Anbarasan*



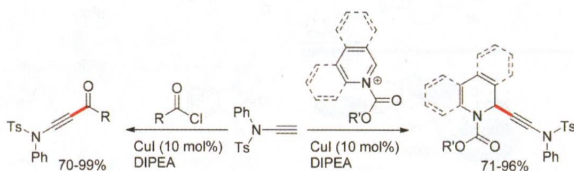
N-Substituted 2-Aminobiphenylpalladium Methanesulfonate Precatalysts and Their Use in C–C and C–N Cross-Couplings

Nicholas C. Bruno, Nootaree Niljianskul, and Stephen L. Buchwald*



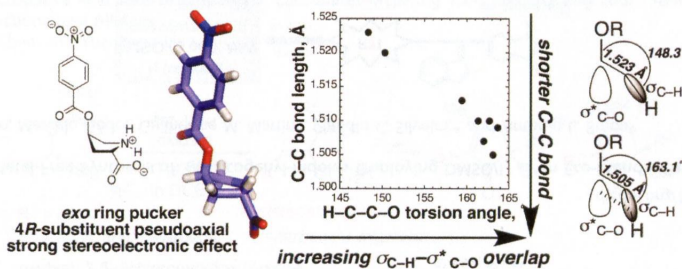
Copper(I)-Catalyzed Nucleophilic Addition of Ynamides to Acyl Chlorides and Activated N-Heterocycles

Peng Zhang, Andrea M. Cook, Yang Liu, and Christian Wolf*



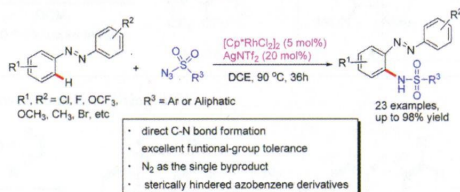
(2*S*,4*R*)-4-Hydroxyproline(4-nitrobenzoate): Strong Induction of Stereoelectronic Effects via a Readily Synthesized Proline Derivative. Crystallographic Observation of a Correlation between Torsion Angle and Bond Length in a Hyperconjugative Interaction

Anil K. Pandey, Glenn P. A. Yap,* and Neal J. Zondlo*



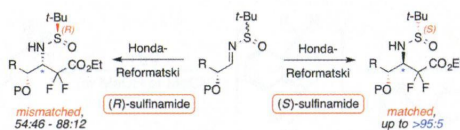
Rhodium-Catalyzed Direct C–H Amidation of Azobenzenes with Sulfonyl Azides: A Synthetic Route to Sterically Hindered *ortho*-Substituted Aromatic Azo Compounds

Xuefeng Jia* and Jie Han



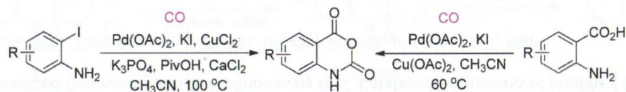
Stereoselectivity of the Honda–Reformatsky Reaction in Reactions with Ethyl Bromodifluoroacetate with α -Oxygenated Sulfinylimines

Clément Q. Fontenelle, Matthew Conroy, Mark Light, Thomas Poisson,* Xavier Pannecoucke, and Bruno Linclau*



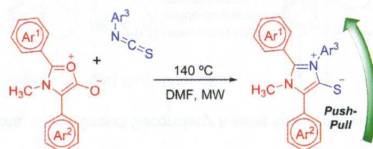
Palladium-Catalyzed Carbonylation of *o*-Iodoanilines for Synthesis of Isocto Anhydrides

Sha Gao, Ming Chen, Mi-Na Zhao, Wei Du, Zhi-Hui Ren, Yao-Yu Wang, and Zheng-Hui Guan*



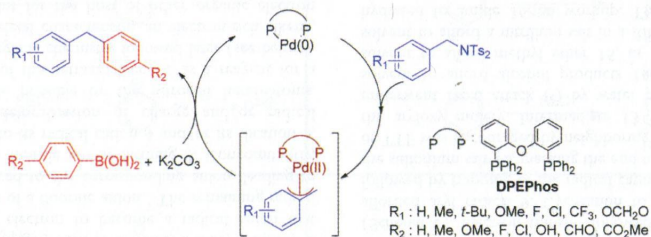
Stepwise Formation of 1,3-Diazolium-4-thiolates by Münchnone Cycloadditions: Promising Candidates for Nonlinear Optics

David Cantillo,* Martín Ávalos, Reyes Babiano, Pedro Cintas, José L. Jiménez, Mark E. Light, Juan C. Palacios, and Rocio Porro



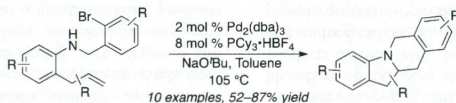
Palladium-Catalyzed Benzyltion of Arylboronic Acids with *N,N*-Ditosylbenzylamines

Sangeun Yoon, Myeng Chan Hong, and Hakjune Rhee*



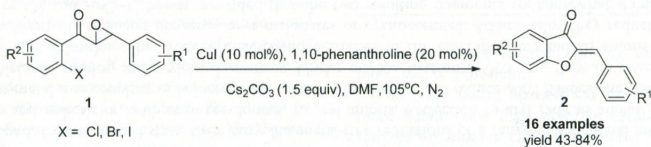
Synthesis of Substituted Tetrahydroindoloisoquinoline Derivatives via Intramolecular Pd-Catalyzed Alkene Carboamination Reactions

Jeremiah Alicea and John P. Wolfe*



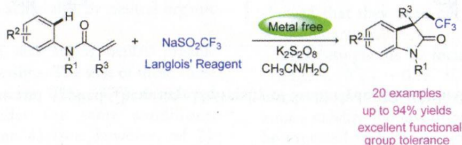
Copper-Catalyzed Intramolecular Tandem Reaction of (2-Halogenphenyl)(3-phenyloxiran-2-yl)methanones: Synthesis of (*Z*)-Aurones

Yiyi Weng, Qixu Chen, and Weike Su*



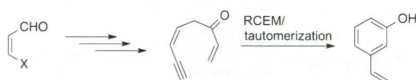
Metal-Free Direct Trifluoromethylation of Activated Alkenes with Langlois' Reagent Leading to CF₃-Containing Oxindoles

Wei Wei, Jiangwei Wen, Daoshan Yang, Xiaoxia Liu, Mengyuan Guo, Ruimei Dong, and Hua Wang*

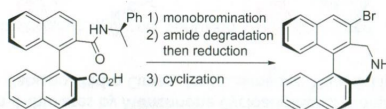


Synthesis of Substituted Styrenes and 3-Vinylphenols Using Ruthenium-Catalyzed Ring-Closing Enyne Metathesis

Kazuhiro Yoshida,* Kana Nishii, Yuto Kano, Shiro Wada, and Akira Yanagisawa*

**Synthesis of 3-Mono-Substituted Binaphthyl-Based Secondary Amine Catalysts via Monobromination of an Axially Chiral Dicarboxylic Acid Derivative**

Taichi Kano, Momotaro Takeda, Ryu Sakamoto, and Keiji Maruoka*

**Synthesis of Functionalized Coumarins and Quinolinones by NHC-Catalyzed Annulation of Modified Enals with Heterocyclic C-H Acids**

Santhivardhana Reddy Yetra, Tony Roy, Anup Bhunia, Digvijay Porwal, and Akkattu T. Biju*

