

ON THE COVER: To shed light on the problem of preparing persilylated ammonium salts, the Schulz group studied the catalytic redistribution reaction of alkyl-substituted silanes in the presence of highly reactive silylium ions. The cover picture depicts the old lighthouse of Rostock-Warnemünde at the Baltic Sea magnifying the hidden exchange reaction in alkyl-substituted silanes catalyzed by $[\text{R}_3\text{Si}-\text{H}-\text{SiR}_3]^+$ ions, finally explaining why $[(\text{Me}_3\text{Si})_3\text{NSi}(\text{H})\text{Me}_2]^+$ is formed rather than $[(\text{Me}_3\text{Si})_4\text{N}]^+$ in the reaction of $(\text{Me}_3\text{Si})_3\text{N}$ with $[\text{Me}_3\text{Si}-\text{H}-\text{SiMe}_3]^+$. See the paper by Schulz et al. on pages 3223–3226.

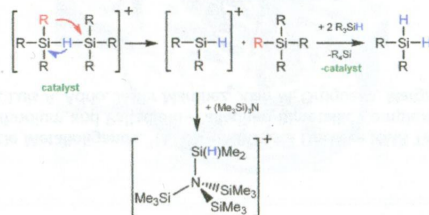
Communications

3223


[dx.doi.org/10.1021/om500519j](https://doi.org/10.1021/om500519j)

Synthesis of the First Persilylated Ammonium Ion, $[(\text{Me}_3\text{Si})_3\text{NSi}(\text{H})\text{Me}_2]^+$, by Silylium-Catalyzed Methyl/Hydrogen Exchange Reactions

René Labbow, Fabian Reiß, Axel Schulz,* and Alexander Villinger

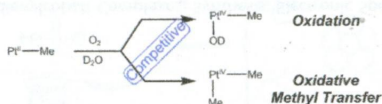


3227


[dx.doi.org/10.1021/om500243n](https://doi.org/10.1021/om500243n)

Methylplatinum(II) and Molecular Oxygen: Oxidation to Methylplatinum(IV) in Competition with Methyl Group Transfer to Form Dimethylplatinum(IV)

Jason D. Prantner, Werner Kaminsky, and Karen I. Goldberg*

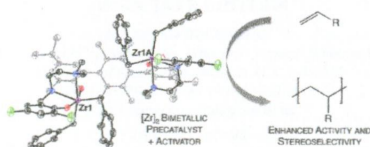


3247 **S**

dx.doi.org/10.1021/om500608j

Bimetallic Zirconium Amine Bis(phenolate) Polymerization Catalysts: Enhanced Activity and Tacticity Control for Polyolefin Synthesis

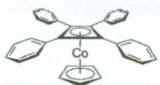
Madalyn R. Radlauer and Theodor Agapie*

**Articles**3251 **S**

dx.doi.org/10.1021/om400403j

Tetraarylcyclobutadienecyclopentadienylcobalt Complexes: Synthesis, Electronic Spectra, Magnetic Circular Dichroism, Linear Dichroism, and TD DFT Calculations

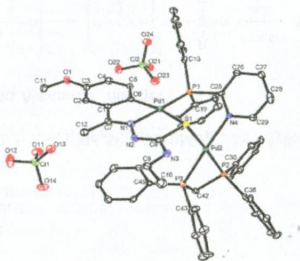
Gregg S. Kottas, Thierry Brotin, Peter F. H. Schwab, Kamal Gala, Zdeněk Havlas, James P. Kirby, John R. Miller, and Josef Michl*

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dx.doi.org/10.1021/om401069a

Novel Bidentate [N,S] Palladacycle Metalloligands. ¹H–¹⁵N HMBC as a Decisive NMR Technique for the Structural Characterization of Palladium–Rhodium and Palladium–Palladium Bimetallic Complexes

M. Teresa Pereira, José M. Antelo, Luis A. Adrio, Javier Martínez, Juan M. Ortiueira, Margarita López-Torres, and José M. Vila*



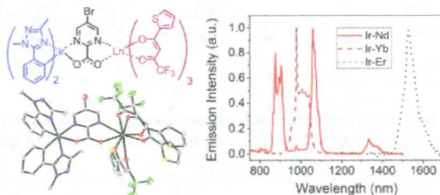
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dx.doi.org/10.1021/om401110k

Sensitized Near-Infrared Emission from Ir^{III}-Ln^{III} (Ln = Nd, Yb, Er) Bimetallic Complexes with a (N⁺O)(N⁻O) Bridging Ligand

Fang-Fang Chen, Hui-Bo Wei, Zu-Qiang Bian,* Zhi-Wei Liu, En Ma, Zhong-Ning Chen, and Chun-Hui Huang



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dx.doi.org/10.1021/om4011593

Iron-57 NMR and Structural Study of [Fe(η^5 -Cp)(SnPh₃)(CO)(PR₃)] (PR₃ = Phosphine, Phosphite). Separation of Steric and Electronic σ and π Effects

Richard M. Mampa, Manuel A. Fernandes, and Laurence Carltan*



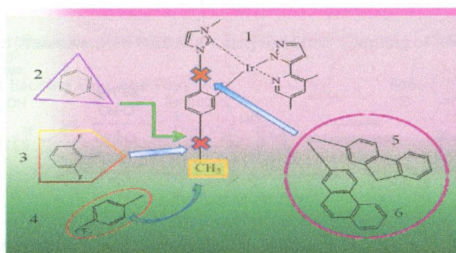
3300

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dx.doi.org/10.1021/om401194z

DFT and TD-DFT Study on the Electronic Structures and Phosphorescent Properties of a Series of Heteroleptic Iridium(III) Complexes

Xiaohong Shang, Deming Han,* Qing Zhan, Gang Zhang, and Dongfeng Li



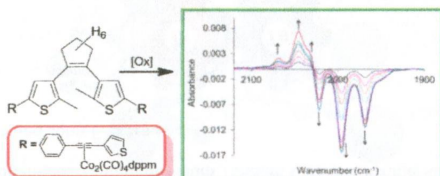
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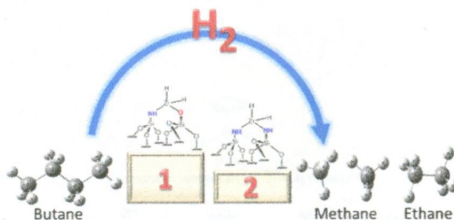
dx.doi.org/10.1021/om4005719

Incorporating Cobalt Carbonyl Moieties onto Ethynylthiophene-Based Dithienylcyclopentene Switches. 2. Electro- and Spectroelectrochemical Properties

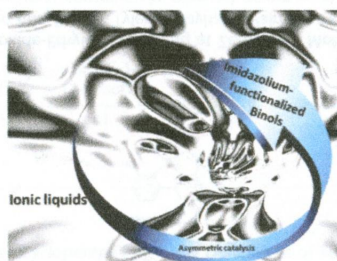
Emma C. Harvey, Jetsuda Areephong, Attilio A. Cafolla, Conor Long, Wesley R. Browne, Ben L. Feringa, and Mary T. Pryce*



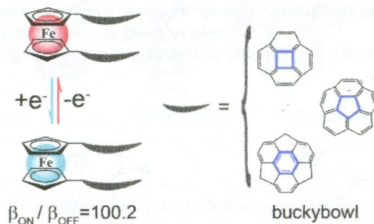
C–H and C–C Activation of *n*-Butane with Zirconium Hydrides Supported on SBA15 Containing N-Donor Ligands: [(≡SiNH–)(≡SiX–)ZrH₂], [(≡SiNH–)(≡SiX–)₂ZrH], and [(≡SiN=)(≡SiX–)ZrH] (X = –NH–, –O–). A DFT Study
Farhan Ahmad Pasha, Anissa Bendjeriou-Sedjerari, Kuo-Wei Huang, and Jean-Marie Basset*



Thermophysical Properties of Imidazolium-Functionalized Binols and Their Application in Asymmetric Catalysis
Marc Vidal and Andreea R. Schmitzer*

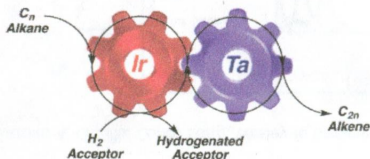


Impact of Redox Stimuli on Ferrocene–Buckybowl Complexes: Switchable Optoelectronic and Nonlinear Optical Properties
Wen-Yong Wang, Na-Na Ma, Shi-Ling Sun, and Yong-Qing Qiu*



Scope and Mechanism of Homogeneous Tantalum/Iridium Tandem Catalytic Alkane/Alkene Upgrading using Sacrificial Hydrogen Acceptors

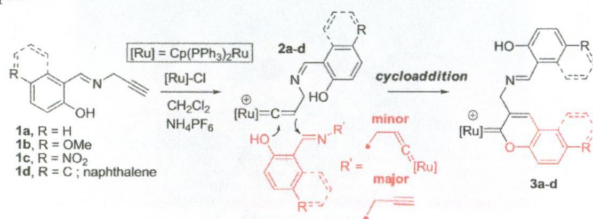
David C. Leitch, Jay A. Labinger,* and John E. Bercaw*



Coupling Reactions of *N*-Propargyl Semi-Salen Compounds Induced by Ruthenium Complex

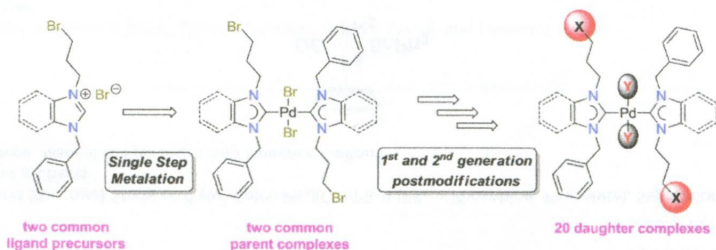
Hsin-Tzu Hsu, Fu-Yuan Tsai, Ying-Chih Lin,* and Yi-Hong Liu

Please provide a synopsis



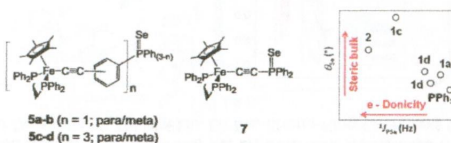
Bis(functionalized NHC) Palladium(II) Complexes via a Postmodification Approach

Qiaoqiao Teng, Daniel Upmann, Sheena Ai Zi Ng Wijaya, and Han Vinh Huynh*



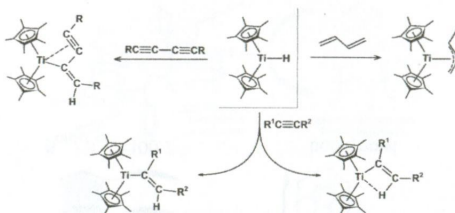
Selenophosphine Derivatives with Pendant Electron-Rich $Fe(\kappa^2-C_5Me_5)C \equiv C-$ Substituents

Ayham Tohmé, Hiba Sahnoune, Thierry Roisnel, Vincent Dorcet, Jean-François Halet,* and Frédéric Paul*



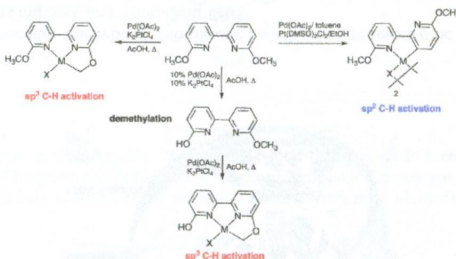
Steric Effects in Reactions of Decamethyltitanocene Hydride with Internal Alkynes, Conjugated Diynes, and Conjugated Dienes

Jiří Pinkas, Róbert Gyepes, Ivana Císařová, Jiří Kubišta, Michal Horáček, and Karel Mach*



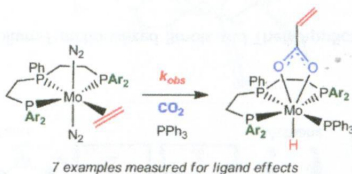
Synthesis and Characterization of Palladium(II) and Platinum(II) Adducts and Cyclometalated Complexes of 6,6'-Dimethoxy-2,2'-bipyridine: $\text{C}(\text{sp}^3)\text{-H}$ and $\text{C}(\text{sp}^2)\text{-H}$ Bond Activations

Fabio Cocco, Antonio Zucca, Sergio Stoccoro, Maria Serratrice, Annalisa Guerri, and Maria A. Cinellu*



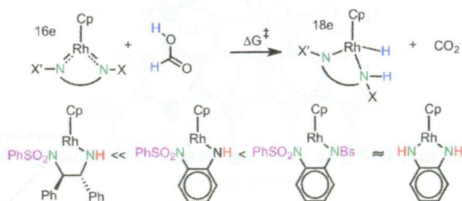
Ancillary Ligand Effects on Carbon Dioxide-Ethylene Coupling at Zerovalent Molybdenum

Brian S. Hanna, Alex D. MacIntosh, Steven Ahn, Brian T. Tyler, G. Tayhas R. Palmore, Paul G. Williard, and Wesley H. Bernskoetter*

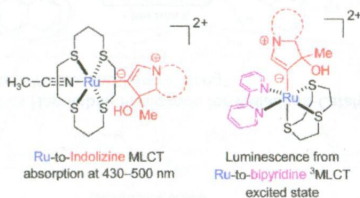


Computational Studies Explain the Importance of Two Different Substituents on the Chelating Bis(amido) Ligand for Transfer Hydrogenation by Bifunctional Cp*Rh(III) Catalysts

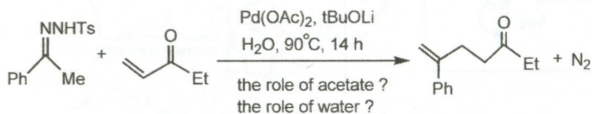
Ainaara Nova, David J. Taylor, A. John Blacker, Simon B. Duckett, Robin N. Perutz,* and Odile Eisenstein*


Metal–Indolizine Zwitterion Complexes as a New Class of Organometallic Material: a Spectroscopic and Theoretical Investigation

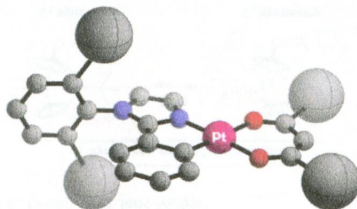
Lai-Hon Chung, Chi-Fung Yeung, Dik-Lung Ma, Chung-Hang Leung, and Chun-Yuen Wong*


Role of Acetate and Water in the Water-Assisted Pd(OAc)₂-Catalyzed Cross-Coupling of Alkenes with *N*-Tosyl Hydrazones: A DFT Study

Bingwen Li, Siwei Bi,* Yuxia Liu, Baoping Ling, and Ping Li

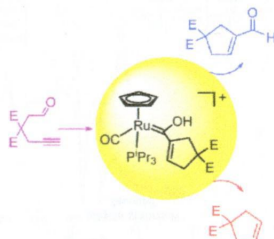

C^N-Cyclometalated Platinum(II) Complexes with Sterically Demanding 1,2-Diarylimidazole Ligands

Maik Micksch, Mario Tenne, and Thomas Strassner*



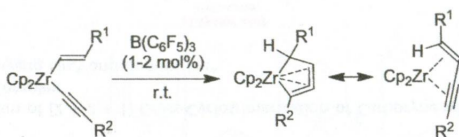
Ruthenium Hydroxycarbenes as Key Intermediates in Cycloisomerization and Decarbonylative Cyclization of Terminal Alkynals

María Batuecas, Miguel A. Esteruelas,* Cristina García-Yebra, Carlos González-Rodríguez, Enrique Oñate, and Carlos Saá*



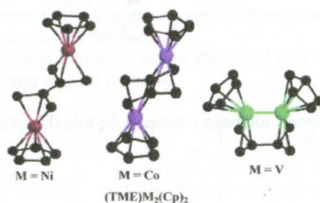
Catalytic Formation of Five-Membered Zirconacycloallenoids and Their Reaction with Carbon Dioxide

Santhosh Kumar Podiyanchari, Georg Bender, Constantin G. Daniliuc, Gerald Kehr, and Gerhard Erker*



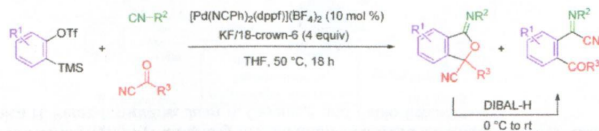
First-Row Transition Metals in Binuclear Cyclopentadienylmetal Derivatives of Tetramethylethane: η^3, η^3 versus η^4, η^4 Ligand–Metal Bonding Related to Spin State and Metal–Metal Bonds

Huidong Li, Hao Feng,* Weiguo Sun, Qunchao Fan, R. Bruce King,* and Henry F. Schaefer III



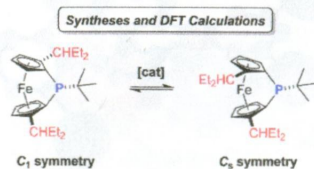
New Entry to the Synthesis of α -Iminonitriles by Lewis Acid Mediated Isomerization of Cyano-Substituted Iminoisobenzofurans Prepared by Palladium-Catalyzed Three-Component Coupling of Arynes, Isocyanides, and Cyanoformates

Jing Li, Shintaro Noyori, Kiyohiko Nakajima, and Yasushi Nishihara*



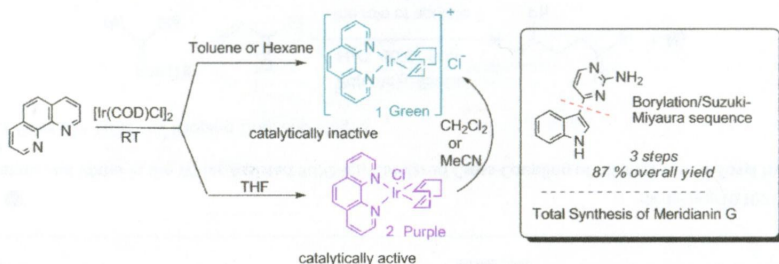
Isomerization of an Enantiomerically Pure Phosphorus-Bridged [1]Ferrocenophane

Elaheh Khozeimeh Sarbisheh, Jennifer C. Green, and Jens Müller*



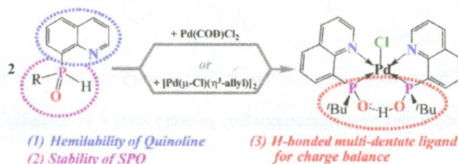
Iridium-Catalyzed C–H Borylation of Heterocycles Using an Overlooked 1,10-Phenanthroline Ligand: Reinventing the Catalytic Activity by Understanding the Solvent-Assisted Neutral to Cationic Switch

Carin C. C. Johansson Seechurn, Vilvanathan Sivakumar, Deepak Satoskar, and Thomas J. Colacot*



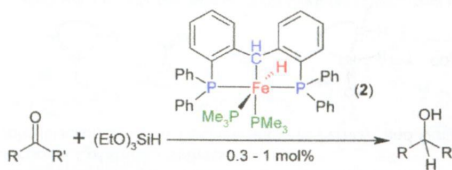
Alkyl(quinolin-8-yl)phosphine Oxides as Hemilabile Preligands for Palladium-Catalyzed Reactions

Yu-Chang Chang, Wei-Chan Chang, Chan-Yu Hu, and Fung-E Hong*

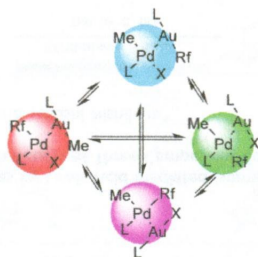


Synthesis and Catalytic Property of Iron Pincer Complexes Generated by C_{sp}¹-H Activation

Hua Zhao, Hongjian Sun, and Xiaoyan Li*

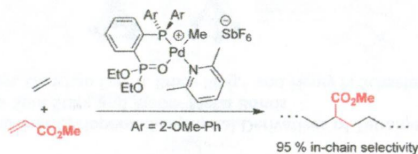


Cross Alkyl–Aryl versus Homo Aryl–Aryl Coupling in Palladium-Catalyzed Coupling of Alkyl–Gold(I) and Aryl–Halide
 Desirée Carrasco, Mónica H. Pérez-Temprano, Juan A. Casares,* and Pablo Espinet*



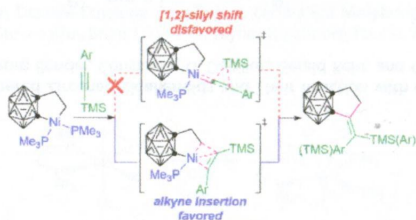
Copolymerization of Ethylene and Methyl Acrylate by Cationic Palladium Catalysts That Contain Phosphine-Diethyl Phosphonate Ancillary Ligands

Nathan D. Contrella, Jessica R. Sampson, and Richard F. Jordan*

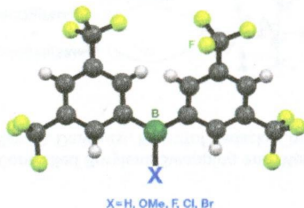


Insight into Reaction Mechanism of [2 + 2 + 1] Cross-Cyclotrimerization of Carboryne with Alkene and Trimethylsilylalkyne Mediated by Nickel Complex

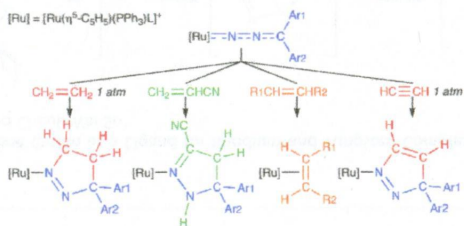
Jiji Zhang, Yangjian Quan, Zhenyang Lin,* and Zuwei Xie*



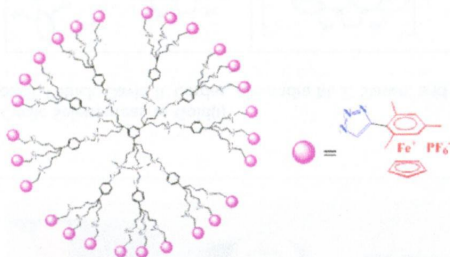
Facile Synthesis of (3,5-(CF₃)₂C₆H₃)₂BX (X = H, OMe, F, Cl, Br): Reagents for the Introduction of a Strong Boryl Acceptor Unit
Kamil Samigullin, Michael Bolte, Hans-Wolfram Lerner, and Matthias Wagner*



Preparation of Diazoalkane Complexes of Ruthenium and Their Cyclization Reactions with Alkenes and Alkynes
Gabriele Albertin,* Stefano Antoniutti, Alessandra Botter, Jesús Castro, and Mattia Giacomello

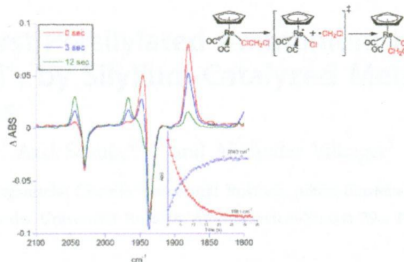


Click Chemistry of an Ethynylarene Iron Complex: Syntheses, Properties, and Redox Chemistry of Cationic Bimetallic and Dendritic Iron-Sandwich Complexes
Amalia Rapakousiou, Yanlan Wang, Roberto Ciganda, Jean-Michel Lasnier, and Didier Astruc*



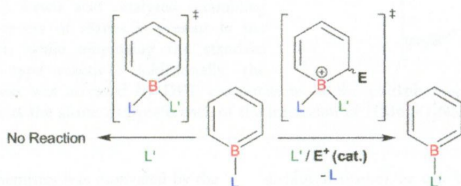
Oxidative Addition of Haloalkanes to Metal Centers: A Mechanistic Investigation

Veeranna Yempally, Salvador Moncho, Sohail Muhammad, Edward N. Brothers, Bruce A. Arndtsen,* and Ashfaq A. Bengali*



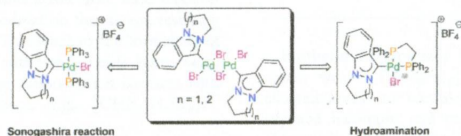
Insights into the Formation of Borabenzene Adducts via Ligand Exchange Reactions and TMSCl Elimination from Boracyclohexadiene Precursors

Marc-André Légaré, Guillaume Bélanger-Chabot, Guillaume De Robillard, André Languérand, Laurent Maron, and Frédéric-Georges Fontaine*



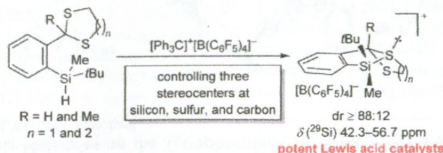
Palladium(II) Complexes Bearing an Indazole-Derived N-Heterocyclic Carbene and Phosphine Coligands as Catalysts for the Sonogashira Coupling and the Hydroamination of Alkynes

Jan C. Bernhammer, Ning Xi Chong, Ramasamy Jothibasu, Binbin Zhou, and Han Vinh Huynh*



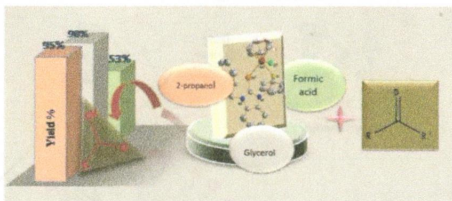
Intramolecularly Sulfur-Stabilized Silicon Cations as Lewis Acid Catalysts

Volker H. G. Rohde, Phillip Pommerening, Hendrik F. T. Klare, and Martin Oestreich*



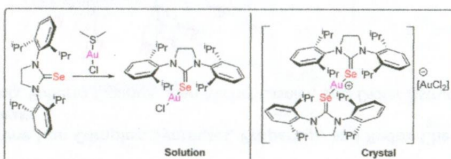
2-Propanol vs Glycerol as Hydrogen Source in Catalytic Activation of Transfer Hydrogenation with (η^6 -Benzene) ruthenium(II) Complexes of Unsymmetrical Bidentate Chalcogen Ligands

Alpesh K. Sharma, Hemant Joshi, Kamal Nayan Sharma, Pancham L. Gupta, and Ajai K. Singh*



Exploring the Coordination of Cyclic Selenoureas to Gold(I)

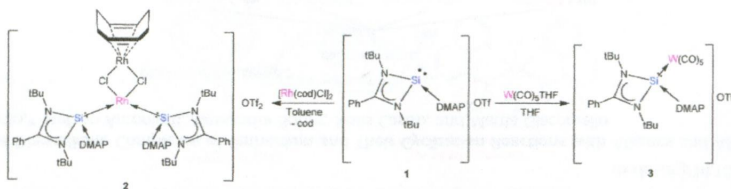
David J. Nelson, Fady Nahra, Scott R. Patrick, David B. Cordes, Alexandra M. Z. Slawin, and Steven P. Nolan*



Notes

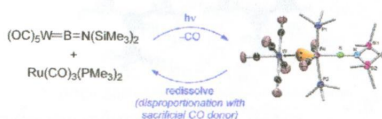
A Base-Stabilized Silyliumylidene Cation as a Ligand for Rhodium and Tungsten Complexes

Hui-Xian Yeong, Yongxin Li, and Cheuk-Wai So*



Partially and Fully Reversible Solvation-Controlled Borylene Swapping and Metal-Only Lewis Pair Formation

Stefanie Bertsch, Holger Braunschweig,* Rian D. Dewhurst, Krzysztof Radacki, Christian Saalfrank, Benedikt Wennemann, and Qing Ye



Linear Connection of Four Nitrile Molecules on the Tetraphosphine Complexes of Tungsten and Molybdenum

Qi Xiu Dai, Hidetake Seino,* and Yasushi Mizobe*

