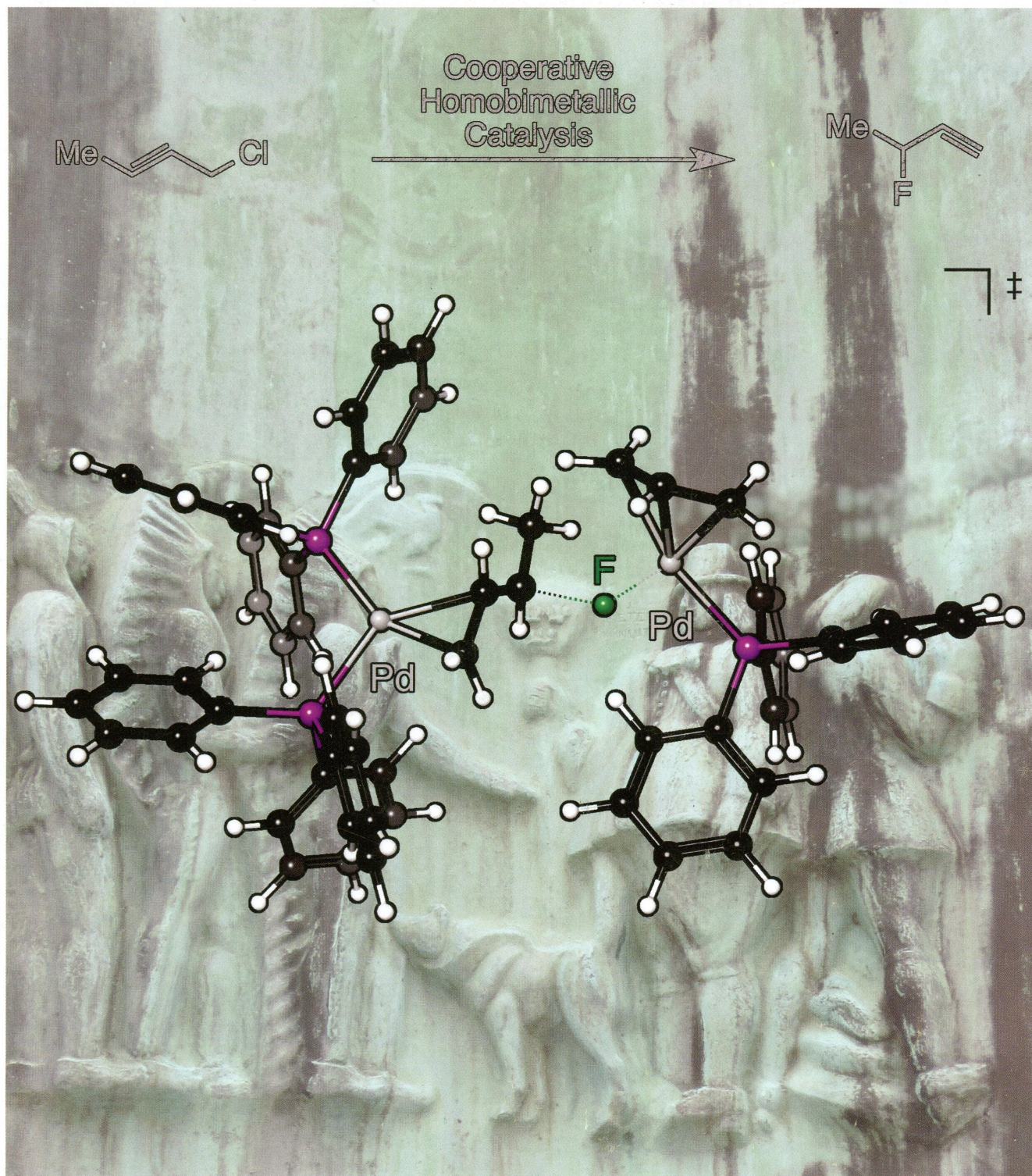


ORGANOMETALLICS



ON THE COVER: The cover graphic illustrates the structure of a homobimetallic transition state proposed for C–F bond formation in palladium-catalyzed allylic fluorination. Just as the cooperation between two palladium complexes is crucial for the observed reactivity, the background photograph commemorates the cooperation of Swedish colonists and Native Americans. This Gothenburg monument also embodies the collaborative nature of this study, undertaken by American and Swedish research groups. Detailed mechanistic investigations are described in the article by Doyle et al. on pages 2121–2133.

Articles

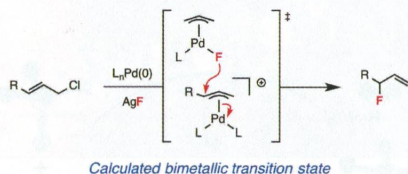
Cover Paper

2121


[dx.doi.org/10.1021/om401240p](https://doi.org/10.1021/om401240p)

Mechanistic Investigations of Palladium-Catalyzed Allylic Fluorination

Matthew H. Katcher, Per-Ola Norrby, and Abigail G. Doyle*



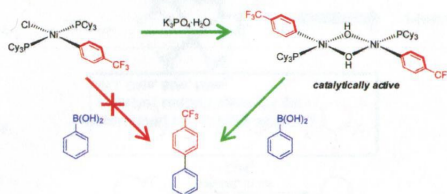
Communications

2134


[dx.doi.org/10.1021/om5001327](https://doi.org/10.1021/om5001327)

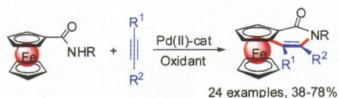
Nickel Hydroxo Complexes as Intermediates in Nickel-Catalyzed Suzuki–Miyaura Cross-Coupling

Alec H. Christian, Peter Müller, and Sebastien Monfette*



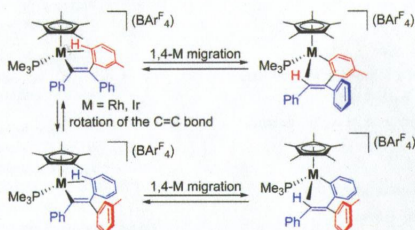
Palladium-Catalyzed Direct Dehydrogenative Annulation of Ferrocenecarboxamides with Alkynes in Air

Wucheng Xie, Bin Li, Shansheng Xu, Haibin Song, and Baiquan Wang*



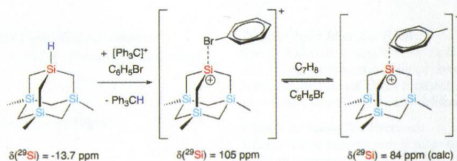
Reversibility of 1,4-Metal Migration in Cp*Rh^{III} and Cp*Ir^{III} Complexes

Yousuke Ikeda, Koichi Takano, Maiko Waragai, Shintaro Kodama, Noriko Tsuchida, Keiko Takano, and Youichi Ishii*



Synthesis and Structure of the First Bridgehead Silylium Ion

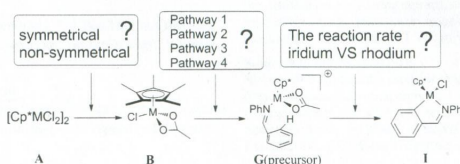
Rudolf J. Wehmschulte,* Kenneth K. Laali,* Gabriela L. Borosky, and Douglas R. Powell



Articles

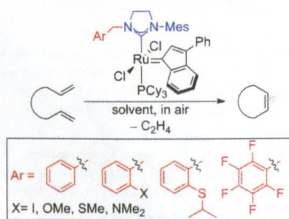
Theoretical Study on Iridacycle and Rhodacycle Formation via C–H Activation of Phenyl Imines

Jing Li, Wei Hu, Yiming Peng, Yaomou Zhang, Junda Li, and Wenxu Zheng*



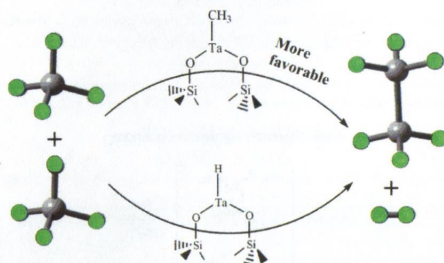
Synthesis, Structure, and Catalytic Activity of New Ruthenium(II) Indenylidene Complexes Bearing Unsymmetrical N-Heterocyclic Carbenes

Osman Ablialimov, Mariusz Kędziołek, Maura Malińska, Krzysztof Woźniak, and Karol Grela*



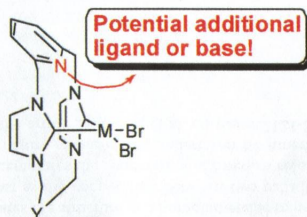
A Reaction Mechanism of Methane Coupling on a Silica-Supported Single-Site Tantalum Catalyst

Xufeng Lin,* Yanyan Xi, Guodong Zhang, David Lee Phillips,* and Wenye Guo

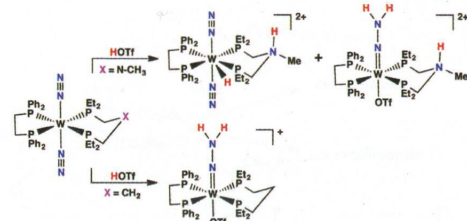


Group 10 Metal Complexes with Chelating Macrocyclic Dicarbene Ligands Bearing a 2,6-Lutidinyl Bridge: Synthesis, Reactivity, and Catalytic Activity

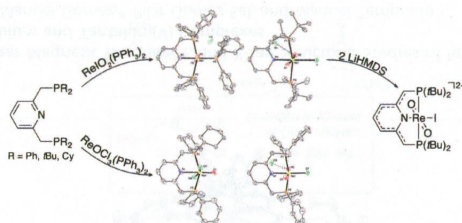
Andrea Biffis,* Matteo Cipani, Edoardo Bressan, Cristina Tubaro, Claudia Graiff, and Alfonso Venzo



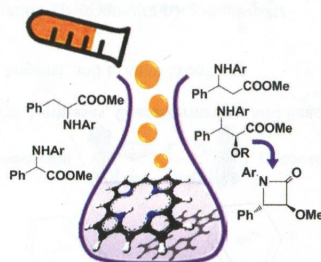
Protonation Studies of a Tungsten Dinitrogen Complex Supported by a Diphosphine Ligand Containing a Pendant Amine
 Charles J. Weiss, Jonathan D. Egbert, Shentan Chen, Monte L. Helm, R. Morris Bullock, and Michael T. Mock*



Synthesis and Characterization of Rhenium(V) Oxo Complexes Bearing PNP-Pincer Ligands
 Ties J. Korstanje, Martin Lutz, Johann T. B. H. Jastrzebski, and Robertus J. M. Klein Gebbink*

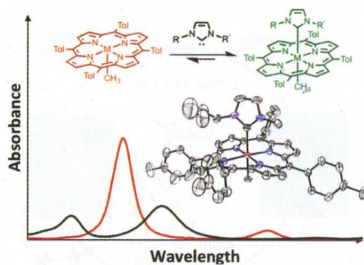


Synthesis of Biologically Relevant Compounds by Ruthenium Porphyrin Catalyzed Amination of Benzylic C–H Bonds
 Paolo Zardi, Alessandro Caselli, Piero Macchi, Francesco Ferretti, and Emma Gallo*



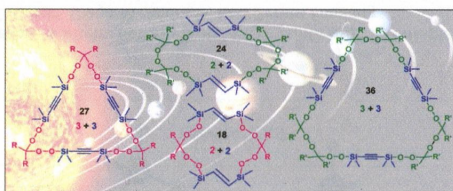
Comparative Study of Rhodium and Iridium Porphyrin Diaminocarbene and *N*-Heterocyclic Carbene Complexes

Bernie J. Anding, Arkady Ellern, and L. Keith Woo*

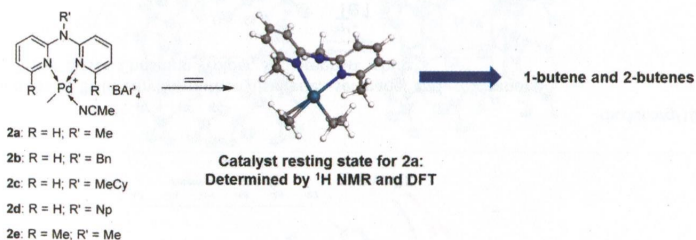


Nature Chooses Rings: Synthesis of Silicon-Containing Macrocyclic Peroxides

Ashot V. Arzumanyan, Roman A. Novikov, Alexander O. Terent'ev,* Maxim M. Platonov, Valentin G. Lakhtin, Dmitry E. Arkhipov, Alexander A. Korlyukov, Vladimir V. Chernyshev, Andrew N. Fitch, Alexander T. Zdvizhkov, Igor B. Krylov, Yury V. Tomilov, and Gennady I. Nikishin

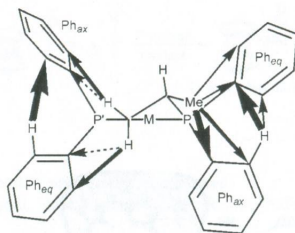
Reactivity of Bis(pyridyl)-*N*-alkylamino Methylpalladium Complexes toward Ethylene: Insights from Experiment and Theory

Andrew J. Swarts, Feng Zheng, Vincent J. Smith, Ebbe Nordlander, and Selwyn F. Mapolie*



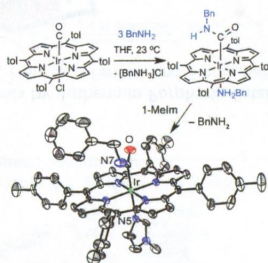
Control of the Conformation of M–Prophos Chelate Rings by CH/π Interactions

Henri Brunner,* Takashi Tsuno,* and Michael Bodensteiner



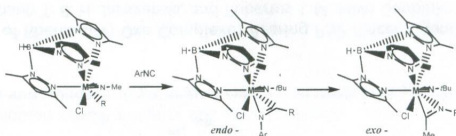
Addition of Amines to a Carbonyl Ligand: Syntheses, Characterization, and Reactivities of Iridium(III) Porphyrin Carbamoyl Complexes

Taiwo O. Dairo, Arkady Ellern, Robert J. Angelici, and L. Keith Woo*



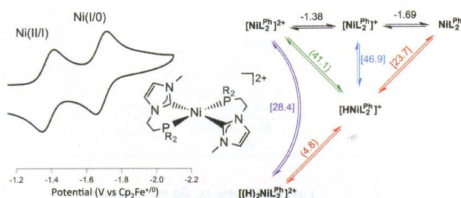
Synthesis and DFT, Multinuclear Magnetic Resonance, and X-ray Structural Studies of Iminoacyl Imido Hydridotris(3,5-dimethylpyrazolyl)borate Niobium and Tantalum(V) Complexes

Miguel Galájov, Carlos García, Manuel Gómez,* Pilar Gómez-Sal, and Manuel Temprado



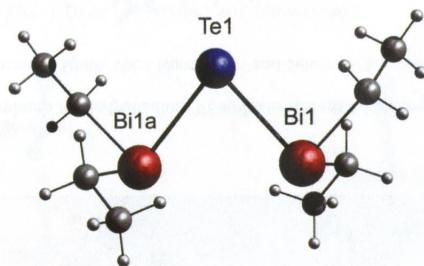
Effects of Phosphine–Carbene Substitutions on the Electrochemical and Thermodynamic Properties of Nickel Complexes

Brandon R. Galan, Eric S. Wiedner, Monte L. Helm, John C. Linehan, and Aaron M. Appel*



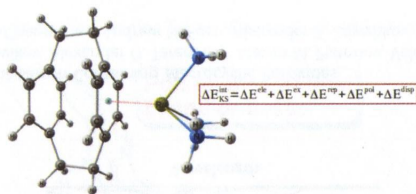
Solid-State Structures of Bis(diethylbismuthanyl)sulfane, -selenane, and -tellurane

Stefan Heimann, Dieter Bläser, Christoph Wölper, and Stephan Schulz*



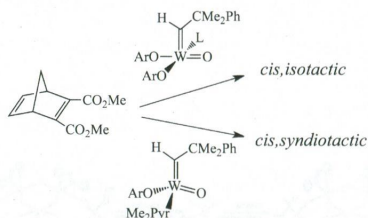
Ruthenophanes: Evaluating Cation– π Interactions in $[\text{Ru}(\eta^5\text{-C}_{16}\text{H}_{12}\text{R}_4)(\text{NH}_3)_3]^{2+/3+}$ Complexes. A Computational Insight

Giovanni F. Caramori,* Leone C. Garcia, Diego M. Andrada, and Gernot Frenking



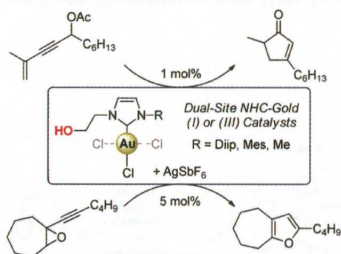
Tungsten Oxo Alkylidene Complexes as Initiators for the Stereoregular Polymerization of 2,3-Dicarbomethoxynorbornadiene

William P. Forrest, Jonathan C. Axtell, and Richard R. Schrock*



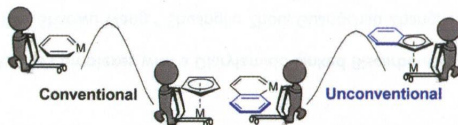
Synthesis, Characterization, and Catalytic Activity of Alcohol-Functionalized NHC Gold(I/III) Complexes

Béatrice Jacques, Damien Hueber, Sophie Hameury, Pierre Braunstein, Patrick Pale, Aurélien Blanc,* and Pierre de Frémont*



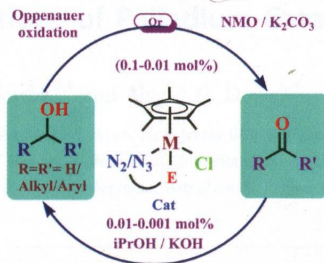
Unconventional Facile Way to Metallanaphthalenes from Metal Indenyl Complexes Predicted by DFT Calculations: Origin of Their Different Thermodynamics and Tuning Their Kinetics by Substituents

Jinglan Fan, Xuerui Wang, and Jun Zhu*



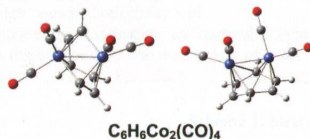
Catalyst Activation with Cp*Rh^{III}/Ir^{III}-1,2,3-Triazole-Based Organochalcogen Ligand Complexes: Transfer Hydrogenation via Loss of Cp* and *N*-Methylmorpholine *N*-Oxide Based vs Oppenauer-Type Oxidation

Fariha Saleem, Gyandshwar Kumar Rao, Arun Kumar, Goutam Mukherjee, and Ajai K. Singh*



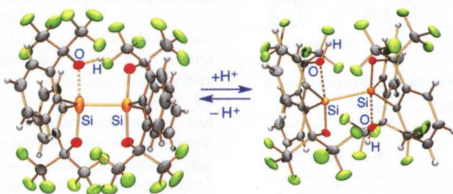
Flyover Compounds and Bridging Bent Benzene Derivatives as Intermediates in the Cobalt Carbonyl Cyclotrimerization of Alkynes

Peng Wu, Yi Zeng, Qunchao Fan, Hao Feng,* Yaoming Xie, R. Bruce King,* and Henry F. Schaefer III



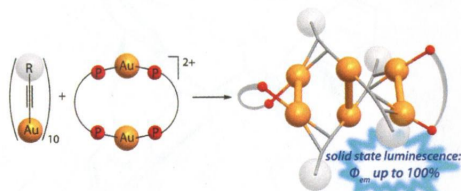
Synthesis and Isolation of a Silylsilicate Containing Two Pentacoordinated Silicon Atoms by Monoprotonation of a Disilicate and Monodeprotonation of a Disilane

Naokazu Kano,* Keishi Sasaki, Hideaki Miyake, and Takayuki Kawashima*



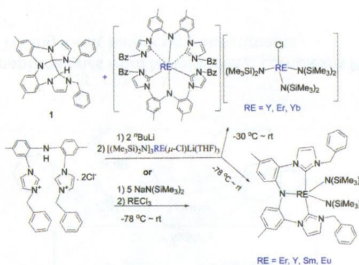
Luminescent Gold(I) Alkynyl Clusters Stabilized by Flexible Diphosphine Ligands

Igor O. Koshevoy,* Yuh-Chia Chang, Yi-An Chen, Antti J. Karttunen, Elena V. Grachova, Sergey P. Tunik,* Janne Jänis, Tapani A. Pakkanen, and Pi-Tai Chou*



CNC-Pincer Rare-Earth Metal Amido Complexes with a Diarylamido Linked Biscarbene Ligand: Synthesis, Characterization, and Catalytic Activity

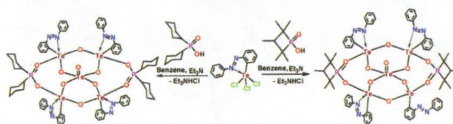
Xiaoxia Gu, Xiancui Zhu,* Yun Wei, Shaowu Wang,* Shuangliu Zhou, Guangchao Zhang, and Xiaolong Mu



Notes

Reactions of RTeCl₃ (R = 2-phenylazophenyl) with Diorganophosphinic Acids. Te–C Bond Cleavage and Stabilization of the Te=O Motif in an Umbrella-Shaped Te₃O₁₁P₂ Multi-metallacyclic Framework

Ramesh K. Metre, Subrata Kundu, Dipankar Sahoo, and Vadapalli Chandrasekhar*



Theoretical Study of the Mechanism of CO and Acetylene Migratory Insertions into Pt–Cp* Bonds

Alireza Ariafard,* Hossein Ghari, Amin Hossein Bagi, Allan J. Canty, and Brian F. Yates*

