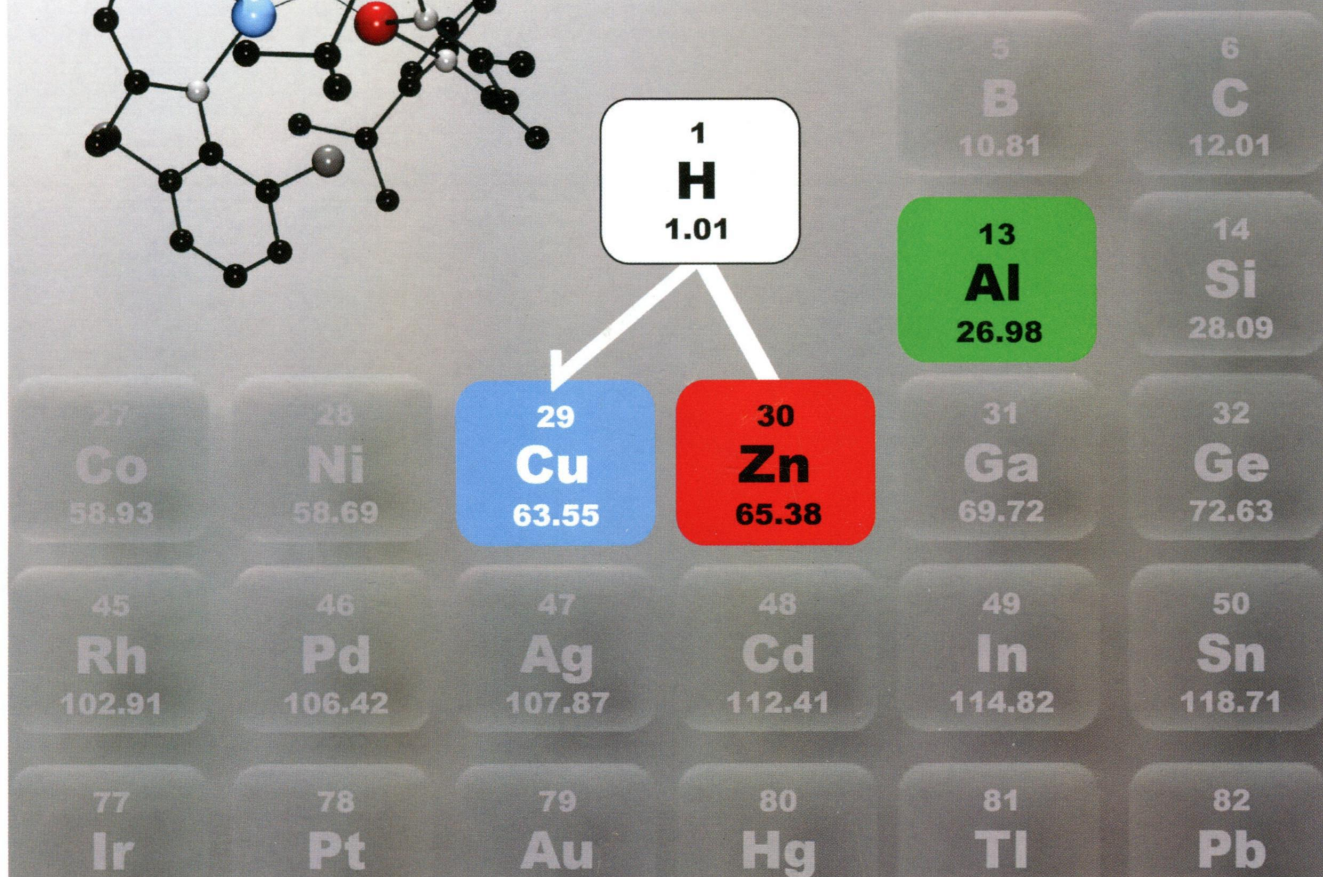
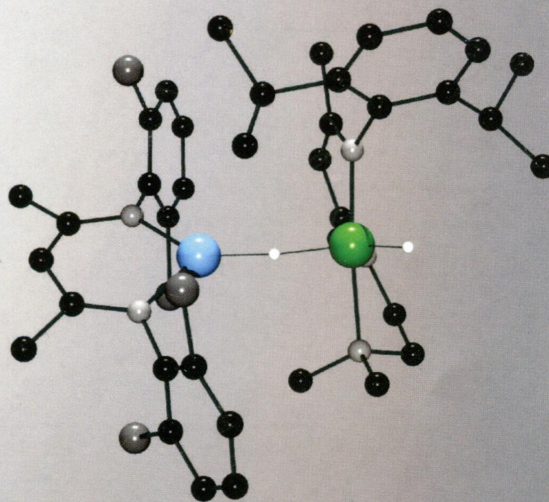
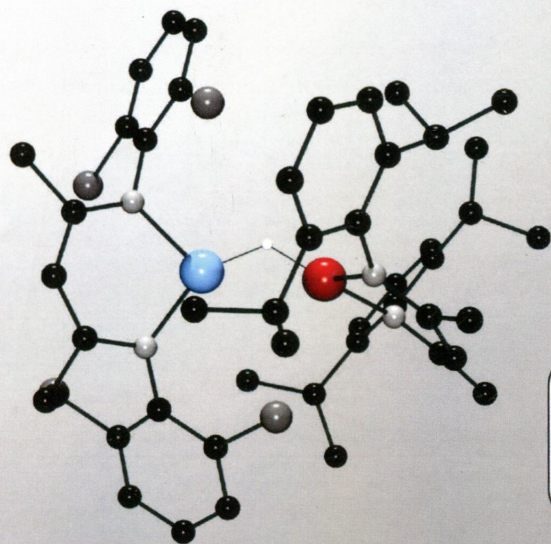


ORGANOMETALLICS

σ -Complexes of Copper(I)



ON THE COVER: The cover page describes new σ -complexes of copper(I) discovered by the Crimmin group. The image includes a representation of the bonding in a zinc hydride σ -complex of copper(I), highlighting the position of these elements within the periodic table (position of hydrogen subject to artistic license!). While the elements are proximal, the share of electrons is in no way even. The thicker line between zinc and hydrogen represents a zinc–hydride bond, while the thinner half-arrow represents weak donation of the electrons in this bond to copper(I). The crystal structure of this complex is also included, along with one of two reported aluminum analogues. These structures clearly show the two contrasting coordination modes that have been reported. See Nako, A. E.; Tan, Q. W.; White, A. J. P.; Crimmin, M. R. *Organometallics* 2014, 33 (11), 2685–2688.

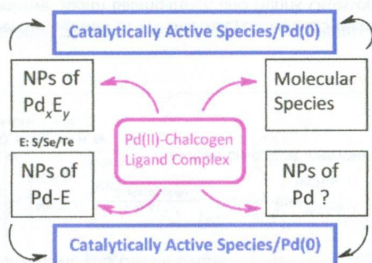
Reviews

2921

dx.doi.org/10.1021/om4007196

Formation and Role of Palladium Chalcogenide and Other Species in Suzuki–Miyaura and Heck C–C Coupling Reactions Catalyzed with Palladium(II) Complexes of Organochalcogen Ligands: Realities and Speculations

Arun Kumar, Gyandshwar Kumar Rao, Satyendra Kumar, and Ajai K. Singh*

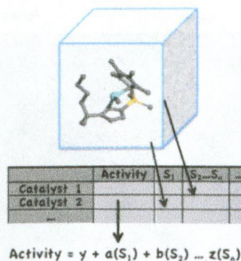


2944

dx.doi.org/10.1021/om400721v

3D-QSAR as a Tool for Understanding and Improving Single-Site Polymerization Catalysts. A Review

Victor L. Cruz,* Sonia Martinez, Javier Ramos, and Javier Martinez-Salazar



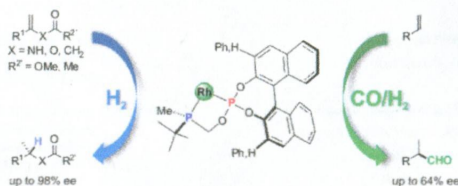
Communications

2960 

dx.doi.org/10.1021/om500378b

1,1-P-OP Ligands with P-Stereogenic Phosphino Groups in Asymmetric Hydrogenations and Hydroformylations

Joan R. Lao, J. Benet-Buchholz, and Anton Vidal-Ferran*

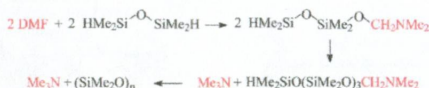


2964 

dx.doi.org/10.1021/om500439p

Platinum-Catalyzed Reduction of DMF by 1,1,3,3-Tetramethyldisiloxane, HMeSi₂OSiMe₂H: New Intermediates HSi-Me₂OSiMe₂OCH₂NMe₂ and HSiMe₂(OSiMe₂)₃OCH₂NMe₂ and Their Further Chemical Reactivity

Jorge L. Martinez, Hemant K. Sharma, Renzo Arias-Ugarte, and Keith H. Pannell*



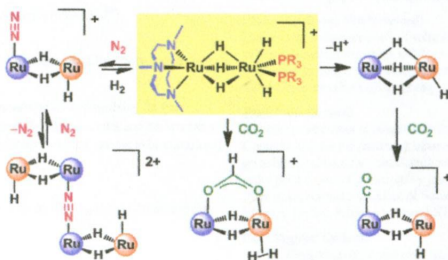
Articles

2968 

dx.doi.org/10.1021/om500018j

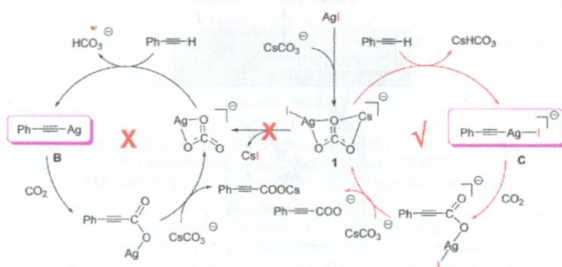
Synthesis, Structure, and Reactivity of Mixed-Ligand Dinuclear Ruthenium Polyhydrido Complexes Supported by 1,4,7-Trimethyl-1,4,7-triazacyclononane and Bulky Phosphine Ligands

Kyo Namura and Hiroharu Suzuki*



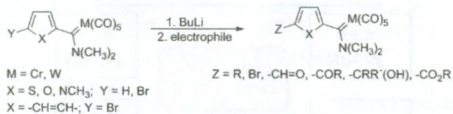
DFT Studies on the Silver-Catalyzed Carboxylation of Terminal Alkynes with CO₂: An Insight into the Catalytically Active Species

Chuang Liu, Yi Luo,* Wenzheng Zhang,* Jingping Qu, and Xiaobing Lu



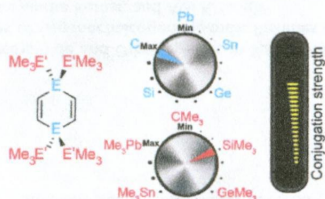
Lithiation of Chromium and Tungsten Aminocarbene Complexes: An Easy Approach to Functionalized Aminocarbene Complexes

Tomáš Tobrman, Ivana Jurásková, Hana Váňová, and Dalimil Dvořák*



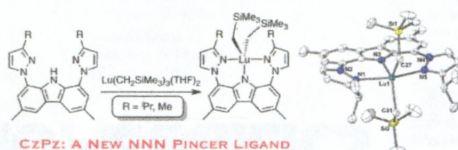
Optimization of the Cyclic Cross-Hyperconjugation in 1,4-Ditretelcyclohexa-2,5-dienes

Rikard Emanuelsson, Aleksandra V. Denisova, Judith Baumgartner, and Henrik Ottosson*

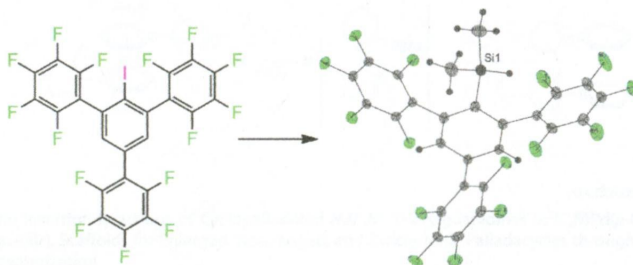


Bis(pyrazolyl)carbazole as a Versatile Ligand for Supporting Lutetium Alkyl and Hydride Complexes

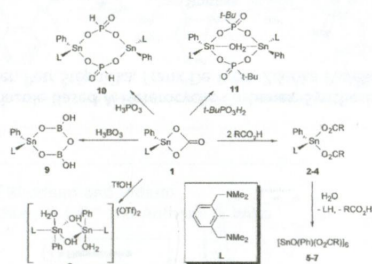
Kevin R. D. Johnson, Breanne L. Kamenz, and Paul G. Hayes*



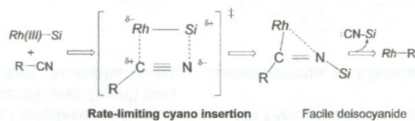
Polyfluorinated Functionalized *m*-Terphenyls. New Substituents and Ligands in Organometallic Synthesis
 Marian Olaru, Jens Beckmann, and Ciprian I. Raț*



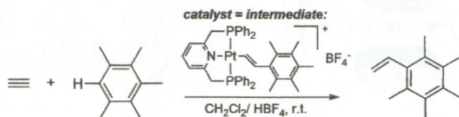
Reactivity Studies on an Intramolecularly Coordinated Organotin(IV) Carbonate
 Barbora Mairychová, Petr Štěpnička, Aleš Růžička, Libor Dostál, and Roman Jambor*



Mechanism for Activation of the C–CN Bond of Nitriles by a Cationic CpRh^{III} –Silyl Complex: A Systematic DFT Study
 Song-Lin Zhang,* Lu Huang, and Wen-Feng Bi

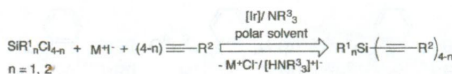


Mechanistic Studies on Platinum(II) Catalyzed Hydroarylation of Alkynes
 Christine Hahn,* Mayra Miranda, Nagendra P. B. Chittineni, Trent A. Pinion, and Ricardo Perez



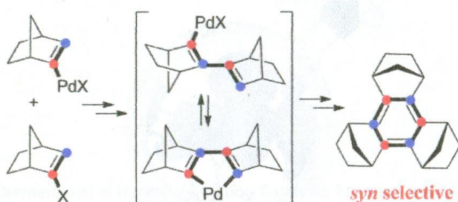
Iridium-Promoted Conversion of Chlorosilanes to Alkynyl Derivatives in a One-Pot Reaction Sequence

Ireneusz Kownacki,* Bartosz Orwat, and Bogdan Marciniak*



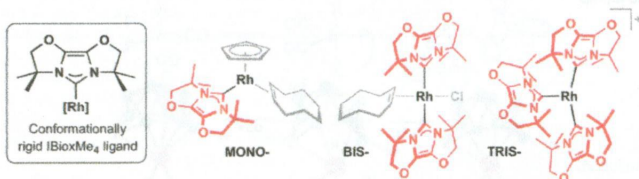
DFT Studies of Mechanism and Origin of Stereoselectivity of Palladium-Catalyzed Cyclotrimerization Reactions Affording *syn*-Tris(norborneno)benzenes

Masahiro Yamanaka,* Masumi Morishima, Yukihiro Shibata, Shuhei Higashibayashi, and Hidehiro Sakurai



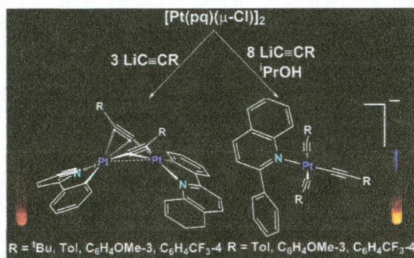
Rhodium(I) Complexes of the Conformationally Rigid IBioxMe₄ Ligand: Preparation of Mono-, Bis-, and Tris-ligated NHC Complexes

Adrian B. Chaplin*



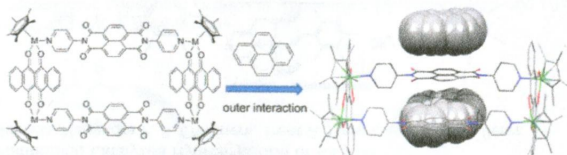
Synthesis, Structural, and Photophysical Studies of Phenylquinoline and Phenylquinolinyl Alkynyl Based Pt(II) Complexes

Elena Lalinde,* M. Teresa Moreno,* Santiago Ruiz, and Sergio Sánchez



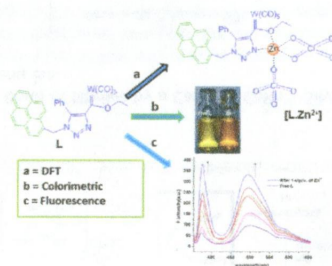
Synthesis, Characterization, and Properties of Half-Sandwich Iridium/Rhodium-Based Metallarectangles

Wen-Ying Zhang, Ying-Feng Han,* Lin-Hong Weng, and Guo-Xin Jin*



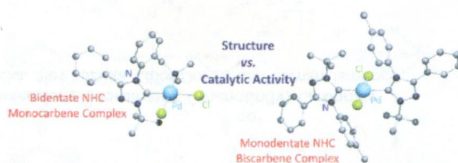
Triazolyl Alkoxy Fischer Carbene Complexes in Conjugation with Ferrocene/Pyrene as Sensory Units: Multifunctional Chemosensors for Lead(II), Copper(II), and Zinc(II) Ions

Joseph Ponniah S, Subrat Kumar Barik, Arunabha Thakur, R. Ganesamoorthi, and Sundargopal Ghosh*



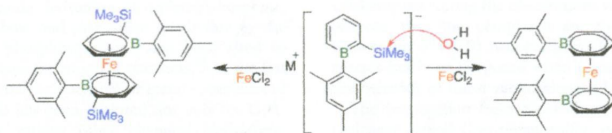
Palladium(II) Complexes of 1,2,4-Triazole-Based *N*-Heterocyclic Carbenes: Synthesis, Structure, and Catalytic Activity

Jan Turek, Illia Panov, Miloslav Semler, Petr Štěpnička, Frank De Proft, Zdeňka Padělková, and Aleš Růžička*



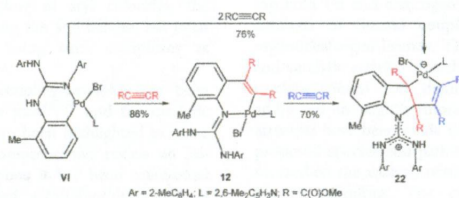
Synthesis and Reactivity of Novel Mesityl Boratabenzene Ligands and Their Coordination to Transition Metals

Ambreen Mushtaq, Wenhua Bi, Marc-André Légaré, and Frédéric-Georges Fontaine*



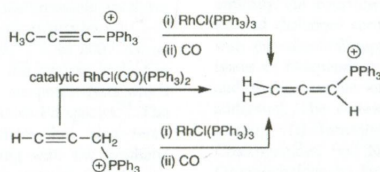
Mono- and Dialkyne Insertion Reactions of Cyclopalladated *N,N,N'*-Triarylguanidines [$\kappa^2(C,N)Pd(\mu-Br)_2$] and *cis-trans*- $[\kappa^2(C,N)Pd(\text{Lewis Base})Br]$. Scaffolds for Enlarged, Rearranged, and Zwitterionic Palladacycles through Ring Contraction cum Amine–Imine Tautomerization

Priya Saxena, Natesan Thirupathi,* and Munirathinam Nethaji



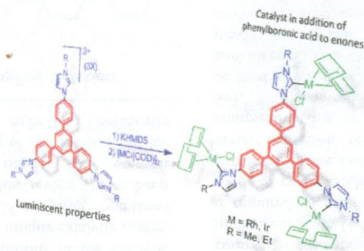
Allenylphosphonium Complexes of Rhodium and Iridium

Ian A. Cade, Annie L. Colebatch, Anthony F. Hill,* and Anthony C. Willis



Novel Rhodium and Iridium Complexes Coordinated to C₃-Symmetric Tris-NHC Ligands Based on a 1,3,5-Triphenylbenzene Core. Electronic and Catalytic Properties

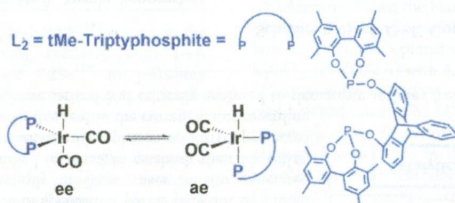
Carmen Mejuto, Gregorio Guisado-Barrios,* and Eduardo Peris*



Notes

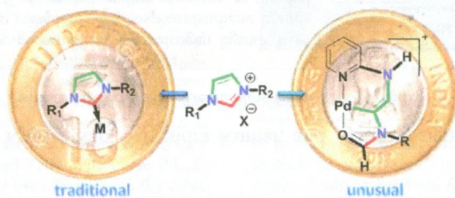
Iridium Models of Rhodium Intermediates in Hydroformylation Catalysis: Isolation and Molecular Structures of Fluxional *ae* and *ee* Isomers

Golnar Abkai, Sebastian Schmidt, Tobias Rosendahl, Frank Rominger, and Peter Hofmann*



A New Type of Palladium-Pincer Complexes Generated via Hydrolytic Ring-Opening of Imidazole-2-ylidenes

Suraj K. Gupta, Debasish Ghorai, and Joyanta Choudhury*



DNA Mismatch Recognition by a Hexacoordinate Silicon Sandwich–Ruthenium Hybrid Complex

Chen Fu, Klaus Harms, Lili Zhang, and Eric Meggers*

