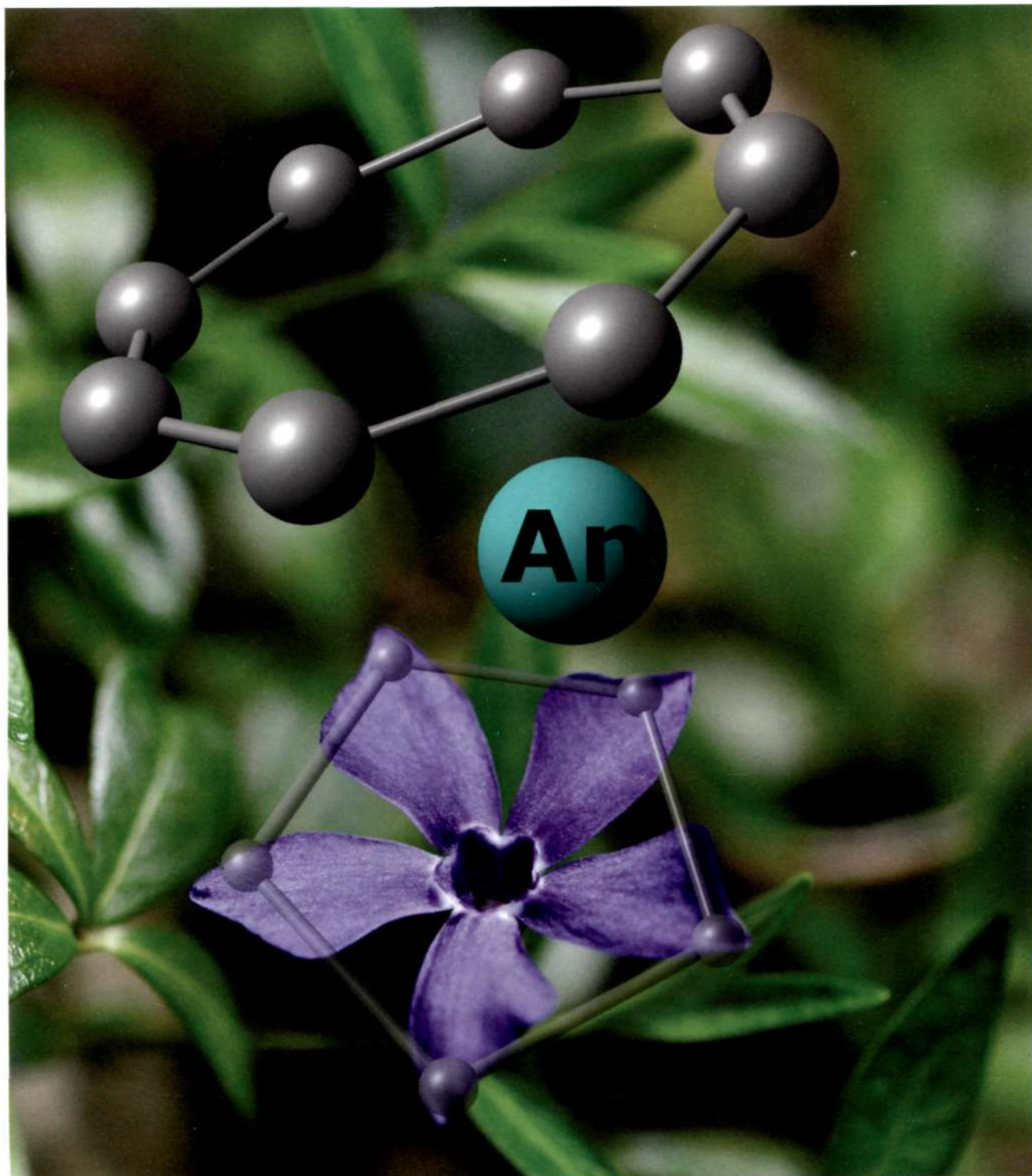


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ON THE COVER: The cover illustration shows the $(\eta\text{-C}_5\text{H}_5)(\eta\text{-C}_8\text{H}_8)\text{An}$ motif in which the actinide atom is bound to the most popular cyclopentadienyl and cyclooctatetraenyl ligands. The five-membered ring fits in with the corolla of a periwinkle, symbol of lasting friendship. See the paper by Ephritikhine on pages 2464–2488.

Editor's Page

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[dx.doi.org/10.1021/om4003895](https://doi.org/10.1021/om4003895)

Award-Winning Organometallic Chemistry: The 2012 "Prix de l'Etat" and "Médaille Berthelot" of the French Academy of Sciences

John A. Gladysz



Reviews

2464

[dx.doi.org/10.1021/om400145p](https://doi.org/10.1021/om400145p)

Recent Advances in Organoactinide Chemistry As Exemplified by Cyclopentadienyl Compounds

Michel Ephritikhine*

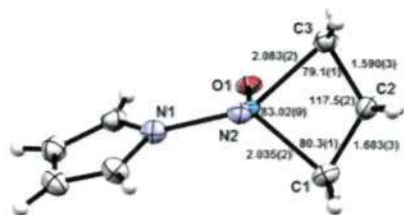
Peculiar properties
of 5f elements



Activation of small molecules
Catalysis
Magnetism

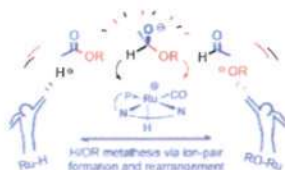
2489 **S** dx.doi.org/10.1021/om400114h

Monoaryloxyde Pyrrrole (MAP) Imido Alkylidene Complexes of Molybdenum and Tungsten That Contain 2,6-Bis(2,5-*R*₂-pyrrolyl)phenoxide (*R* = *i*-Pr, Ph) Ligands and an Unsubstituted Metallacyclobutane on Its Way to Losing Ethylene
Michael R. Reithofer, Graham E. Dobreiner, Richard R. Schrock,* and Peter Müller



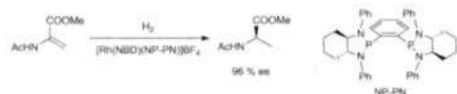
2493 **S** dx.doi.org/10.1021/om400122n

Direct H/OR and OR/OR' Metathesis Pathways in Ester Hydrogenation and Transesterification by Milstein's Catalyst
Faraj Hasanayn* and Abdulkader Baroudi



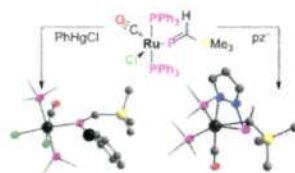
2497 **S** dx.doi.org/10.1021/om400185q

Novel Bis(1,3,2-diazaphospholidine) Ligands for Asymmetric Catalysis
Inmaculada Arribas, Eleuterio Álvarez, and Antonio Pizzano*



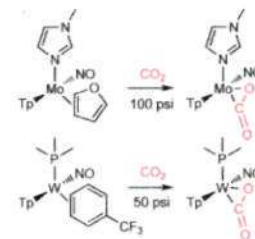
2501 **S** dx.doi.org/10.1021/om4001988

Amphiphilic Reactivity of a Ruthenaphosphaalkenyl: Synthesis of *P*-Pyrazolylphosphaalkene Complexes of Ruthenium(0)
Nicola Trathen,* Victoria K. Greenacre, Ian R. Crossley,* and S. Mark Roe



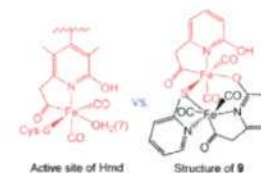
2505 **S** dx.doi.org/10.1021/om4002022

Synthesis of Tungsten and Molybdenum Carbon Dioxide Complexes
Robert G. Carden Jr., James J. Ohane, Robert D. Pike, and Peter M. Graham*



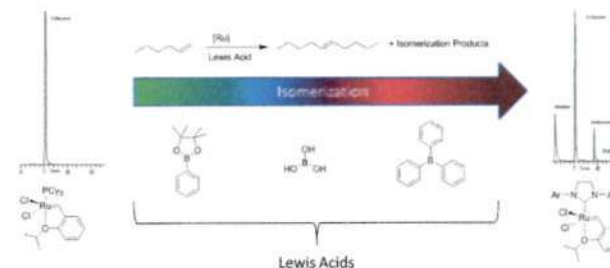
2509 **S** dx.doi.org/10.1021/om400240e

A Novel Acylmethylpyridinol Ligand Containing Dinuclear Iron Complex Closely Related to [Fe]-Hydrogenase
Li-Cheng Song,* Gao-Yu Zhao, Zhao-Jun Xie, and Ji-Wei Zhang



2513 **S** dx.doi.org/10.1021/om400257b

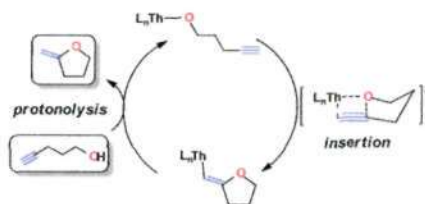
Effects of Boron-Containing Lewis Acids on Olefin Metathesis
Chester Simocko and Kenneth B. Wagener*



2517  dx.doi.org/10.1021/om300881b

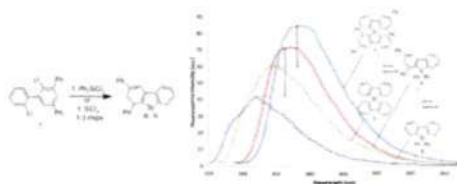
Organothorium-Catalyzed Hydroalkoxylation/Cyclization of Alkynyl Alcohols. Scope, Mechanism, and Ancillary Ligand Effects

Stephen D. Wobser and Tobin J. Marks*

2529  dx.doi.org/10.1021/om300891n

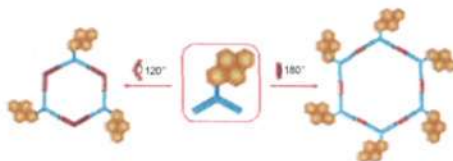
Synthesis and Photophysical Properties of Asymmetric Substituted Silafluorenes

Erika Pusztai, Irina S. Touloukhonova, Nicole Temple, Haley Albright, Uzma I. Zakai, Song Guo, Ilia A. Guzei, Rongrong Hu, and Robert West*

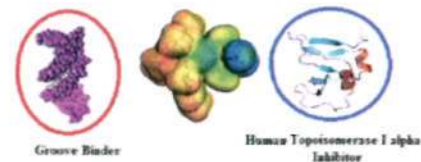
2536  dx.doi.org/10.1021/om301108s

Construction of Supramolecular Pyrene-Modified Metallacycles via Coordination-Driven Self-Assembly and Their Spectroscopic Behavior

Nai-Wei Wu, Jing Zhang, Deji Ciren, Qing Han, Li-Jun Chen, Lin Xu,* and Hai-Bo Yang*

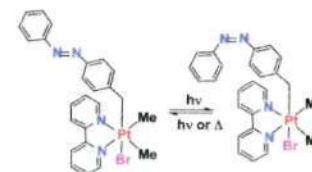
2546  dx.doi.org/10.1021/om301223kA Chloro-Bridged Heterobimetallic (η^5 -Arene)ruthenium–Organotin Complex as an Efficient Topoisomerase I α Inhibitor

Rais Ahmad Khan, Ahmad Asim, Rita Kakkar, Deepti Gupta, Vivek Bagchi, Farukh Arjmand, and Sartaj Tabassum*

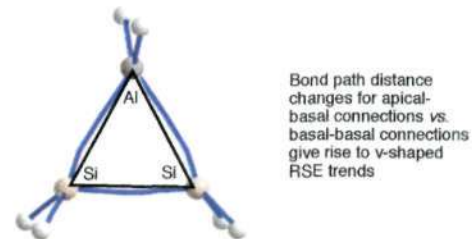
2552  dx.doi.org/10.1021/om4000314

Photoswitchable Organoplatinum(IV) Complexes

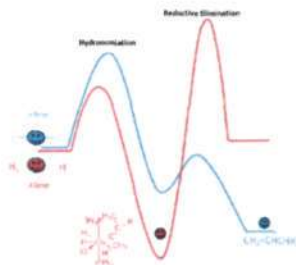
Mohamed E. Moustafa, Matthew S. McCreedy, and Richard J. Puddephatt*

2558  dx.doi.org/10.1021/om400038zOptimized Structures and Ring Strain Energies of Isoelectronic Homo- and Heterosiliranes $c-AX_2SiR_2SiR_2^q$ ($A/q = Al/1-$, $Si/0$, $P/1+$): Unexpected Effects of Charge and Size

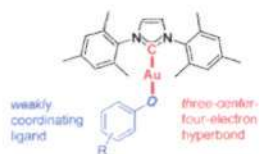
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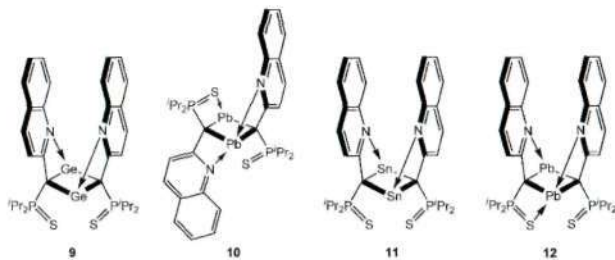
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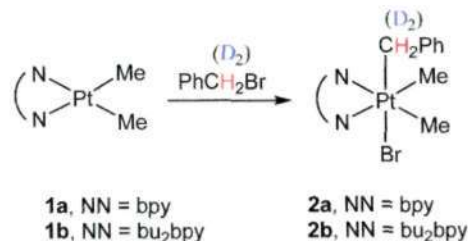
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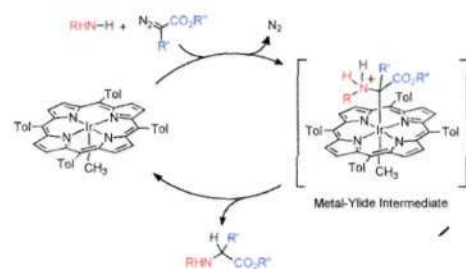
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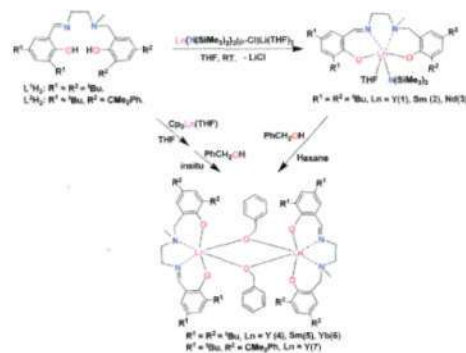
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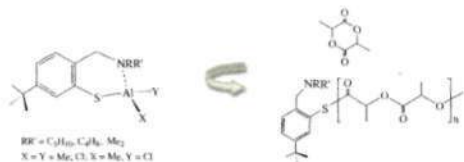


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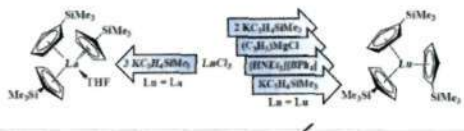


Aminoarethiolate Aluminum Complexes: Synthesis, Characterization, and Use in L-Lactide Polymerization

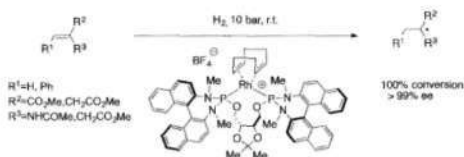
Lorena Postigo, María del Carmen Maestre, Marta E. G. Mosquera, Tomás Cuenca,* and Gerardo Jiménez*

**Synthetic Aspects of $(C_5H_4SiMe_3)_3Ln$ Rare-Earth Chemistry: Formation of $(C_5H_4SiMe_3)_3Lu$ via $[(C_5H_4SiMe_3)_2Ln]^+$ Metallocene Precursors**

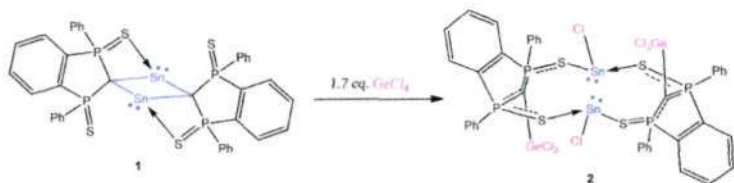
Jeffrey K. Peterson, Matthew R. MacDonald, Joseph W. Ziller, and William J. Evans*

**New Enantiopure P,P-Bidentate Bis(diamidophosphite) Ligands. Application in Asymmetric Rhodium-Catalyzed Hydrogenation**

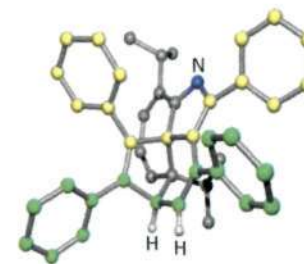
Maritza J. Bravo, Rosa M. Ceder, Guillermo Muller, and Mercè Rocamora*

**Reactivity of a Tin(II) 1,3-Benzodi(thiophosphinoyl)methanediide Complex toward Gallium, Germanium, and Zinc Compounds**

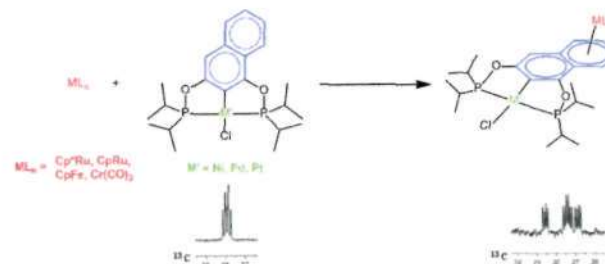
Yi-Fan Yang, Rakesh Ganguly, Yongxin Li, and Cheuk-Wai So*

**2,6-Diisopropylphenylamides of Potassium and Calcium: A Primary Amido Ligand in s-Block Metal Chemistry with an Unprecedented Catalytic Reactivity**

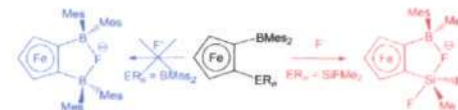
Carsten Glock, Fadi M. Younis, Steffen Ziemann, Helmar Görls, Wolfgang Imhof, Sven Krick, and Matthias Westerhausen*

**Coordination of 12-Electron Organometallic Fragments to the Arene Ring of Nonsymmetric Group 10 POCOP Pincer Complexes**

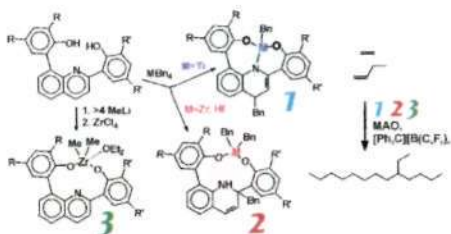
Noel Ángel Espinosa-Jalapa, Simón Hernández-Ortega, Xavier-Frédéric Le Goff, David Morales-Morales, Jean-Pierre Djukic, and Ronan Le Lagadec*

**Syntheses and Anion Binding Capabilities of Bis(diarylboryl) Ferrocenes and Related Systems**

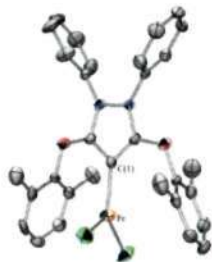
Michael J. Kelly, Alexander E.J. Broomsgrove, Ian R. Morgan, Inke Siewert, Philip Fitzpatrick, Jessica Smart, Dragoslav Vidovic, and Simon Aldridge*



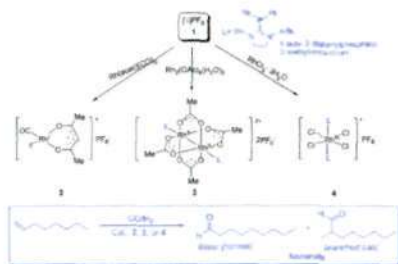
Reaction of 2,8-Bis(*o*-hydroxyaryl)quinolines with Group 4 Metal Alkyls Resulting in Three Distinct Coordination Modes of the Tridentate Ligand. X-ray Structure of Complexes and Performance as Precursors in Ethylene Polymerization Catalysis
Ilya E. Nifant'ev,^{*} Pavel V. Ivchenko, Vladimir V. Bagrov, Sandor M. Nagy,^{*} Shahram Mihan, Linda N. Winslow, and Andrei V. Churakov



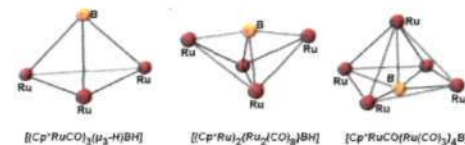
Three-Coordinate, Cyclic Bent Allene Iron Complexes
Conor Prankevicus and Douglas W. Stephan^{*}



Stable Ionic Rh(I,II,III) Complexes Ligated by an Imidazolium-Substituted Phosphine with π -Acceptor Character: Synthesis, Characterization, and Application to Hydroformylation
Hongxing You, Yongyong Wang, Xiaoli Zhao, Shengjie Chen,^{*} and Ye Liu^{*}

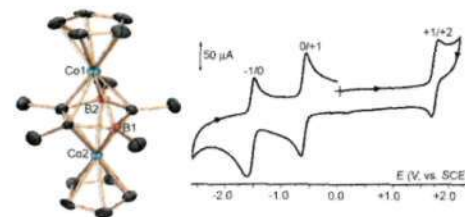


Chemistry of Homo- and Heterometallic Bridged-Borylene Complexes
K. Yuvaraj, Dipak Kumar Roy, K. Geetharani, Bijan Mondal, V. P. Anju, Pritam Shankhari, V. Ramkumar, and Sundargopal Ghosh^{*}

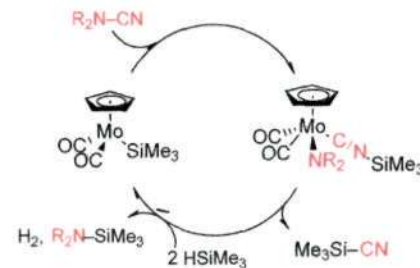


Monocationic μ -Diboroly Triple-Decker Complexes [CpCo(μ -1,3-C₃B₂Me₃)M(ring)]⁺: Synthesis, Structures, and Electrochemistry

Dmitry V. Muratov, Alexander S. Romanov, Tatiana V. Timofeeva, Walter Siebert, Maddalena Corsini, Serena Fedi, Piero Zanello,^{*} and Alexander R. Kudinov^{*}

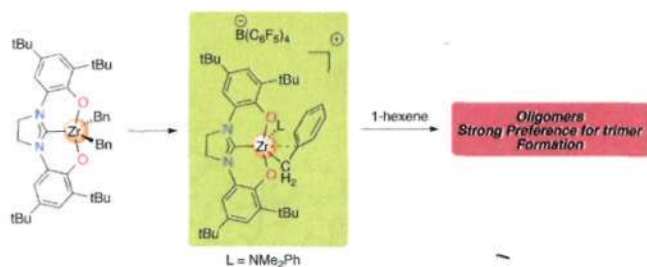


Catalytic Cycle for N–CN Bond Cleavage by Molybdenum Silyl Catalyst: A DFT Study
AbdelRahman A. Dahy, Nobuaki Koga,^{*} and Hiroshi Nakazawa



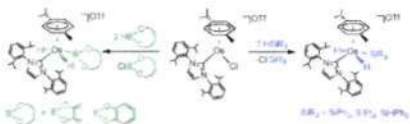
Neutral and Cationic N-Heterocyclic Carbene Zirconium and Hafnium Benzyl Complexes: Highly Regioselective Oligomerization of 1-Hexene with a Preference for Trimer Formation

Samuel Dagorne,* Stéphane Bellemin-Laponzaz,* and Charles Romain



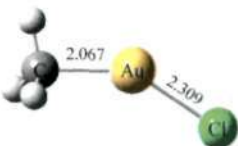
Cationic Dihydride Boryl and Dihydride Silyl Osmium(IV) NHC Complexes: A Marked Diagonal Relationship

Maria L. Buil, Miguel A. Esteruelas,* Israel Fernández, Susana Izquierdo, and Enrique Oñate



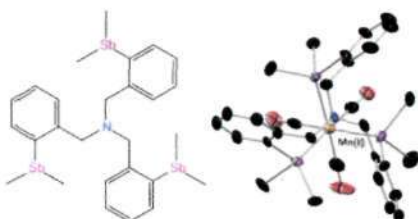
Infrared Spectra of CH₃-MX and CH₂X-MH Prepared in Reactions of Laser-Ablated Gold, Platinum, Palladium, and Nickel Atoms with CH₃Cl and CH₃Br

Han-Gook Cho and Lester Andrews*



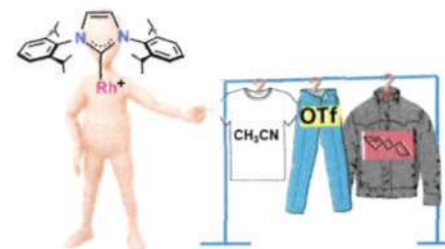
Synthesis and Reactions of a Hybrid Tristibine Ligand

Sophie L. Benjamin, William Levason, and Gillian Reid*



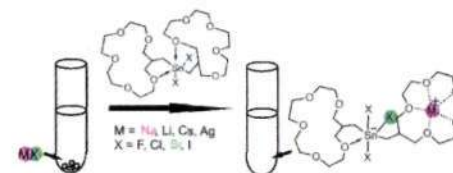
Labile Rhodium(I)-N-Heterocyclic Carbene Complexes

Laura Palacios, Andrea Di Giuseppe, Anna Opalinska, Ricardo Castarlenas,* Jesús J. Pérez-Torrente, Fernando J. Lahoz, and Luis A. Oro



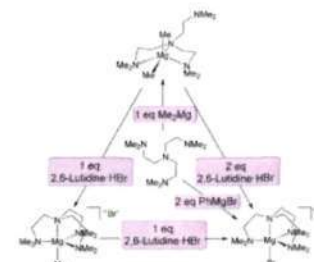
Intramolecularly Coordinated Bis(crown ether)-Substituted Organotin Halides as Ditopic Salt Receptors

Verena Arens, Christina Dietz, Dieter Schollmeyer, and Klaus Jurkschat*



Synthesis and Reactivity of Magnesium Complexes Supported by Tris(2-dimethylaminoethyl)amine (Me₆tren)

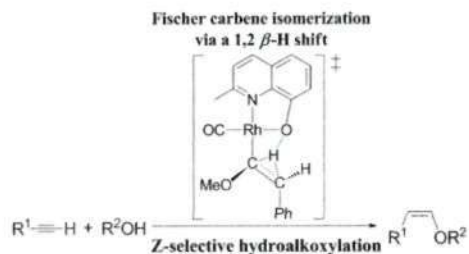
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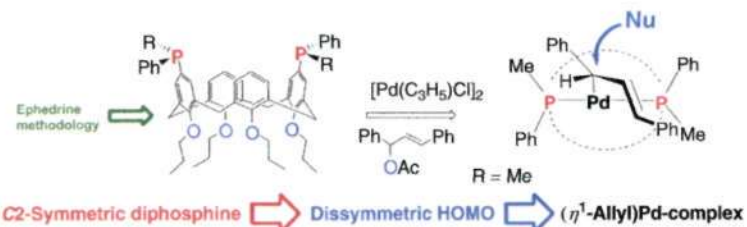
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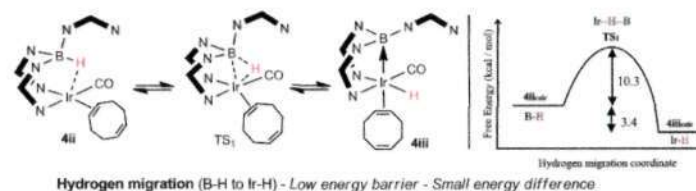
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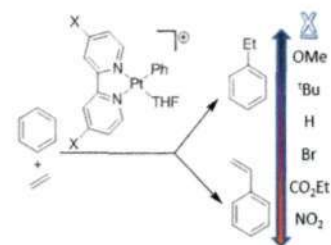
Naima Khiri-Meribout, Etienne Bertrand, Jérôme Bayardon, Marie-Joëlle Eymin, Yoann Roussel, Héléne Cattey, Daniel Fortin, Pierre D. Harvey,* and Sylvain Jugé*



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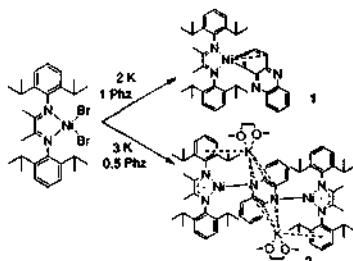
Bradley A. McKeown, H. Emanuel Gonzalez, Max R. Friedfeld, Anna M. Brosnahan, T. Brent Gunnoe,* Thomas R. Cundari,* and Michal Sabat



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dx.doi.org/10.1021/om400130m

Nickel Complexes with Two Types of Noninnocent Ligands: α -Diimine and Phenazine
 Qingsong Dong, Ji-Hu Su, Shida Gong, Qian-Shu Li, Yanxia Zhao, Biao Wu, and Xiao-Juan Yang*

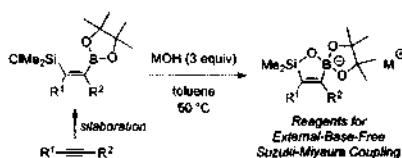


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dx.doi.org/10.1021/om400138u

Synthesis of Cyclic Alkenylborates via Silaboration of Alkynes Followed by Hydrolysis for Utilization in External-Base-Free Cross Coupling

Toshimichi Ohmura,* Kazuyuki Oshima, and Michinori Suginome*



Additions and Corrections

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dx.doi.org/10.1021/om400319e

Correction to Synthesis and Hydrolysis–Condensation Study of Water-Soluble Self-Assembled Pentacoordinate Polysilylamides

Muhammad Sohail,* Alan R. Bassindale, Peter G. Taylor,* Alexander A. Korlyukov, Dmitry E. Arkhipov, Louise Male, Simon J. Coles, Michael B. Hursthouse, Ross W. Harrington, and William Clegg