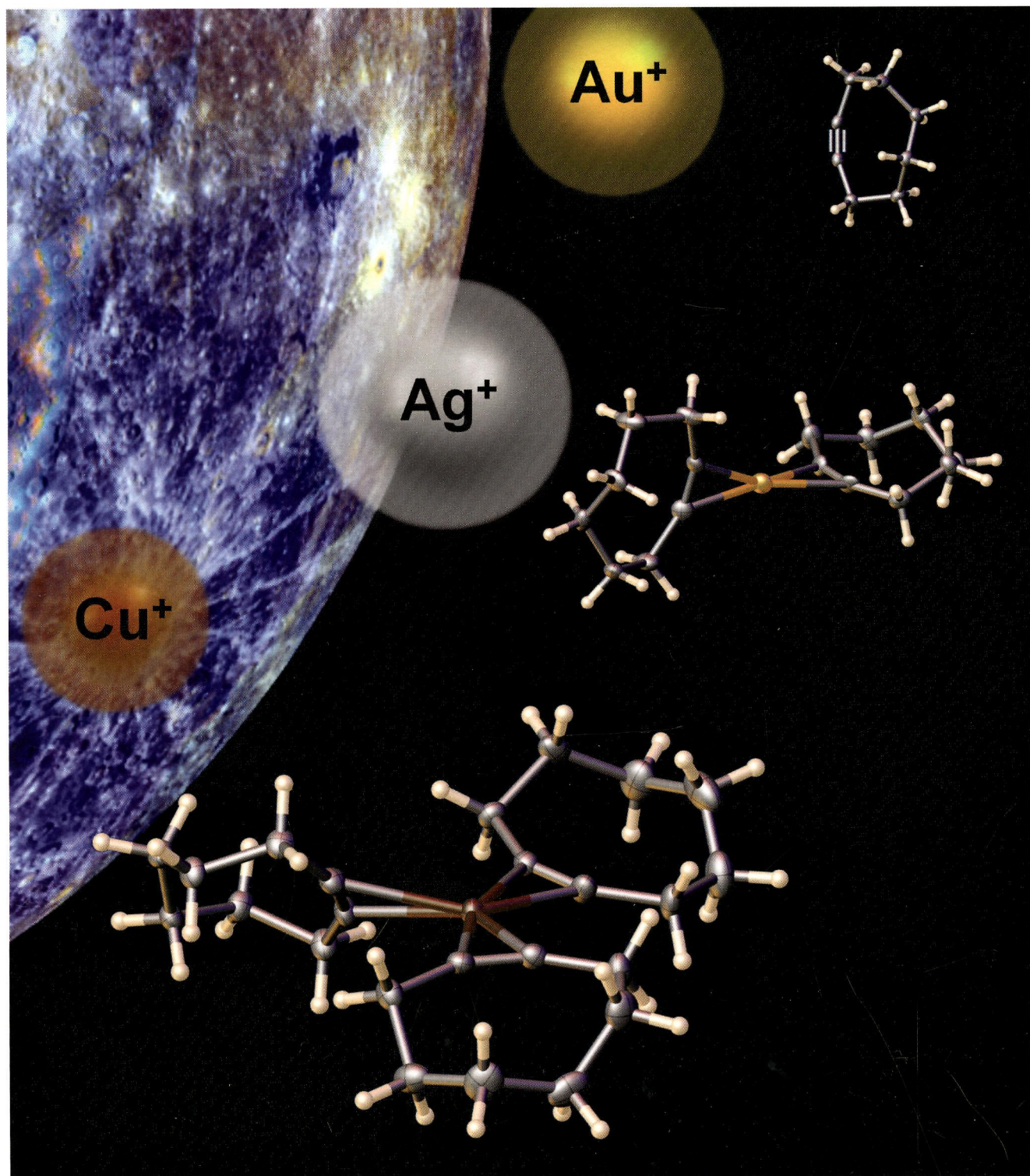


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JUNE 10, 2013 VOL. 32 • ISSUE 11

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ON THE COVER: Gold and the lighter members of the coinage metal family, silver and copper, are used widely in various processes involving alkynes. However, isolable adducts involving more than one simple alkyne on Au, Ag, and Cu are rare. The cover picture highlights the isolation of the three-coordinate, tris(cyclooctyne) adduct of copper(I) and the related silver and gold analogues. These tris(alkyne) coinage metal complexes show interesting spoke-wheel structures. Structural data on the first two-coordinate bis(alkyne) complexes, which involve gold(I), have also been obtained. Computational studies of mono-, bis-, and tris(cyclooctyne) complexes of coinage metals have also been carried out and help to confirm group trends. See the paper by Dias et al. on pages 3135–3144.

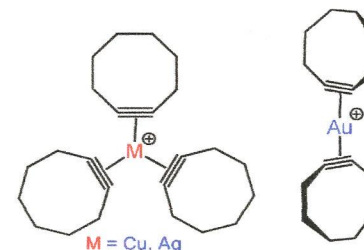
Articles

3135 

[dx.doi.org/10.1021/om400073a](https://doi.org/10.1021/om400073a)

Tris(alkyne) and Bis(alkyne) Complexes of Coinage Metals: Synthesis and Characterization of (cyclooctyne)₃M⁺ (M = Cu, Ag) and (cyclooctyne)₂Au⁺ and Coinage Metal (M = Cu, Ag, Au) Family Group Trends

Animesh Das, Chandrakanta Dash, Mehmet Ali Celik, Muhammed Yousufuddin, Gernot Frenking,* and H. V. Rasika Dias*



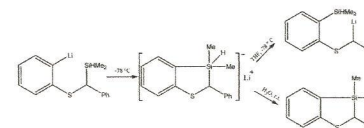
Communications

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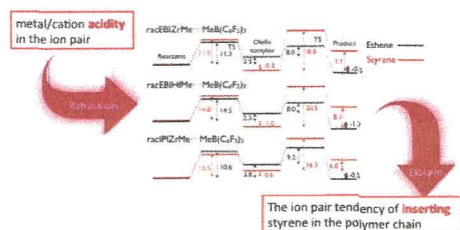
[dx.doi.org/10.1021/om400236x](https://doi.org/10.1021/om400236x)

Influence of the Silyl Group on the Reactivity of Some Ortho-Lithiated Aryl Alkyl Sulfides

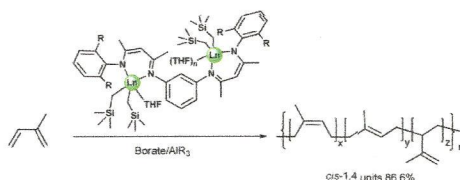
Krzysztof Durka, Tomasz Kliś,* Janusz Serwatowski, and Krzysztof Woźniak



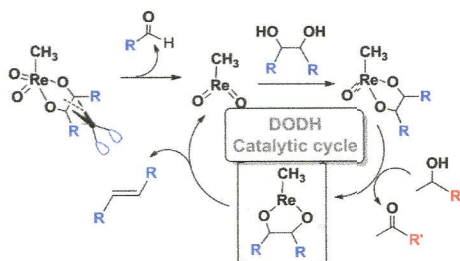
- 3192 **S** dx.doi.org/10.1021/om400076k
Interpreting "Acidity" as a Global Property Controlling Comonomer Reactivity in Olefin Polymerization
 Lorella Izzo* and Massimo Mella*



- 3203 **S** dx.doi.org/10.1021/om400105t
Binuclear Rare-Earth-Metal Alkyl Complexes Ligated by Phenylene-Bridged β -Diketiminato Ligands: Synthesis, Characterization, and Catalysis toward Isoprene Polymerization
 Lei Li, Chunji Wu, Dongtao Liu, Shihui Li,* and Dongmei Cui*



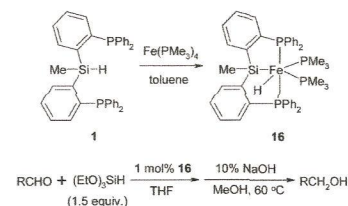
- 3210 **S** dx.doi.org/10.1021/om400127z
Mechanism of MTO-Catalyzed Deoxydehydration of Diols to Alkenes Using Sacrificial Alcohols
 Shuo Liu, Aysegul Senocak, Jessica L. Smeltz, Linan Yang, Benjamin Wegenhart, Jing Yi, Hilkka I. Kenttämä, Elon A. Ison, and Mahdi M. Abu-Omar*



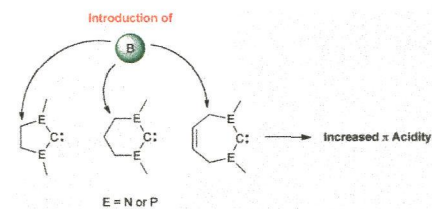
- 3220 **S** dx.doi.org/10.1021/om400144s
A Chiral Bis(arsine) Ligand: Synthesis and Applications in Palladium-Catalyzed Asymmetric Allylic Alkylations
 Paula M. Uberman, Mino R. Caira,* and Sandra E. Martín*



- 3227 **S** dx.doi.org/10.1021/om400047j
Synthesis and Reactivity of Silyl Iron, Cobalt, and Nickel Complexes Bearing a [PSiP]-Pincer Ligand via Si-H Bond Activation
 Siqian Wu, Xiaoyan Li, Zichang Xiong, Wengang Xu, Yunqiang Lu, and Hongjian Sun*



- 3238 **S** dx.doi.org/10.1021/om400162a
Ligand Properties of Boron-Substituted Five-, Six-, and Seven-Membered Heterocyclic Carbenes: A Theoretical Study
 Ashwini K. Phukan,* Ankur Kanti Guha, and Satyajit Sarmah



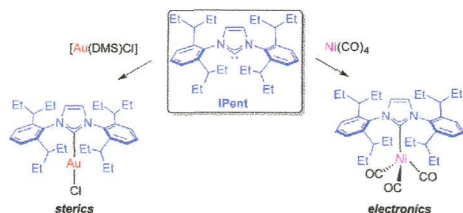
3249

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dx.doi.org/10.1021/om400168b

Steric and Electronic Parameters of a Bulky yet Flexible N-Heterocyclic Carbene: 1,3-Bis(2,6-bis(1-ethylpropyl)phenyl)imidazol-2-ylidene (IPent)

Alba Collado, János Balogh, Sebastien Meiries, Alexandra M. Z. Slawin, Laura Falivene, Luigi Cavallo, and Steven P. Nolan*



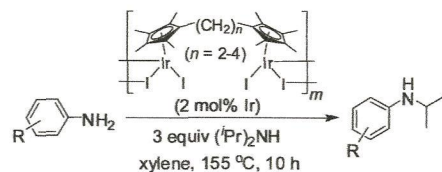
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dx.doi.org/10.1021/om4001742

Synthesis, Reactivities, and Catalytic Properties of Iodo-Bridged Polymeric Iridium Complexes with Flexible Carbon Chain-Bridged Bis(tetramethylcyclopentadienyl) Ligands

Xing Tan, Bin Li, Shansheng Xu, Haibin Song, and Baiquan Wang*



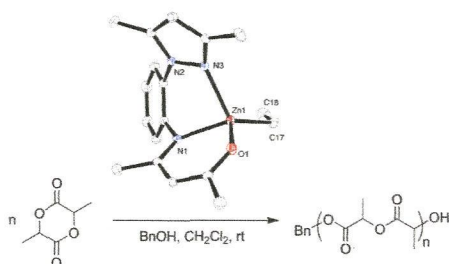
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dx.doi.org/10.1021/om400193z

Rapid and Controlled Polymerization of *rac*-Lactide Using N,N,O-Chelate Zinc Enolate Catalysts

Xiao-Feng Yu, Cheng Zhang, and Zhong-Xia Wang*



10A

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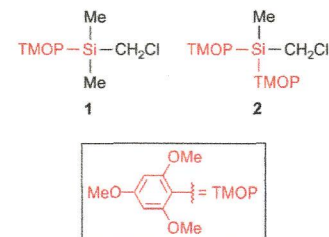
3269

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dx.doi.org/10.1021/om400190q

Synthesis of Silicon-Functionalized (Silylmethyl)silanes and α,ω -Dichlorocarbosilanes Using the TMOP (2,4,6-Trimethoxyphenyl) Protecting Group: (TMOP)Me₂SiCH₂Cl and (TMOP)₂MeSiCH₂Cl as Reagents To Introduce the ClMe₂SiCH₂, MeOMe₂SiCH₂, or Cl₂MeSiCH₂ Group by Nucleophilic Substitution at Silicon

Nadine Laskowski, Eva-Maria Reis, Lisa Kötzner, Johannes A. Baus, Christian Burschka, and Reinhold Tacke*



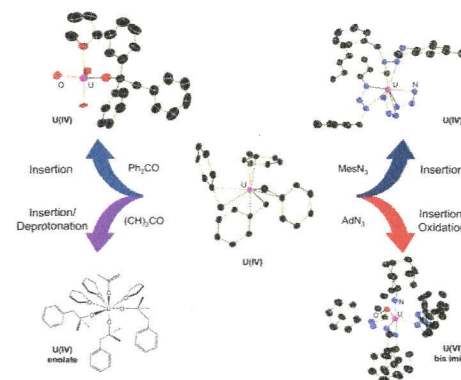
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dx.doi.org/10.1021/om400197j

Exploring the Insertion Chemistry of Tetrabenzyluranium Using Carbonyls and Organoazides

Steven J. Kraft, Phillip E. Fanwick, and Suzanne C. Bart*



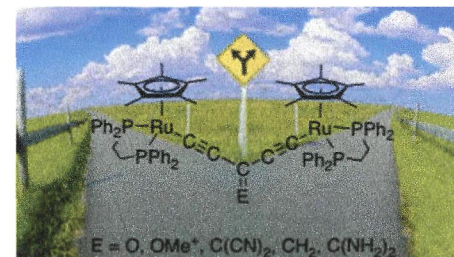
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dx.doi.org/10.1021/om400208q

Some Ruthenium Derivatives of Penta-1,4-dien-3-one

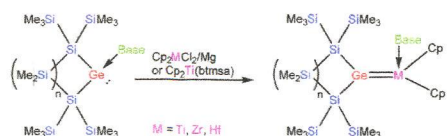
Michael I. Bruce,* Alexandre Burgun, Mark A. Fox, Martyn Jevric, Paul J. Low,* Brian K. Nicholson, Christian R. Parker, Brian W. Skelton, Allan H. White, and Natasha N. Zaitseva



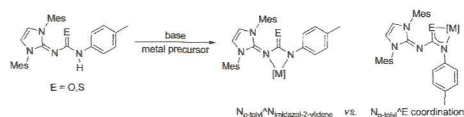
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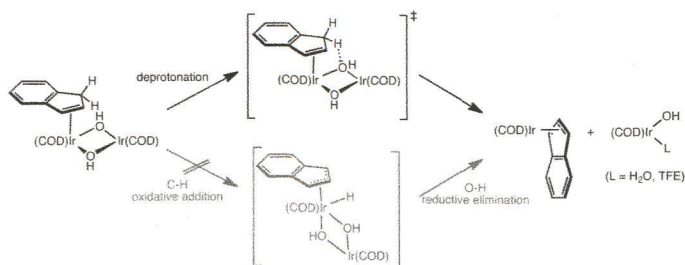
- 3300 **5** dx.doi.org/10.1021/om400215v
Coordination Chemistry of Disilylated Germynes with Group 4 Metallocenes
 Johann Hlina, Judith Baumgartner,* Christoph Marschner,* Patrick Zark, and Thomas Müller*



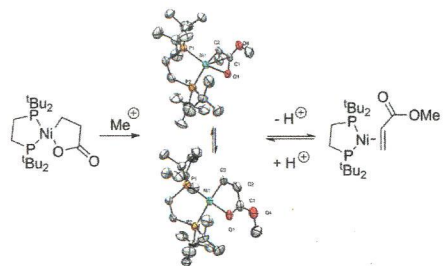
- 3309 **5** dx.doi.org/10.1021/om400220v
Coordination and Reactivity Study of Group 4 and 10 Transition Metal Complexes of *N*-Imidazol-2-ylidene-*N'*-*p*-tolylureate and Thioureate Ligands
 Michael B. Harkness, Edwin Alvarado, Anna C. Badaj, Barbara C. Skrela, Louie Fan, and Gino G. Lavoie*



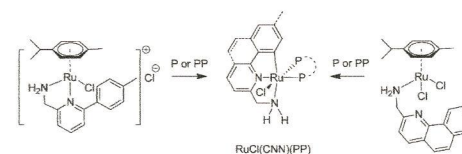
- 3322 **5** dx.doi.org/10.1021/om400230j
Kinetics and Mechanism of Indene C–H Bond Activation by [(COD)Ir(μ_2 -OH)]₂
 Tonia S. Ahmed, Ian A. Tonks, Jay A. Labinger,* and John E. Bercaw*



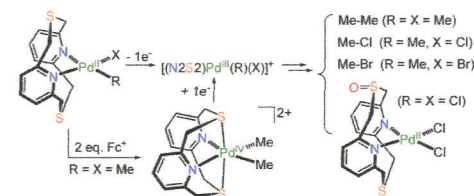
- 3327 **5** dx.doi.org/10.1021/om400262b
Mechanistic Details of the Nickel-Mediated Formation of Acrylates from CO₂, Ethylene and Methyl Iodide
 Philipp N. Plessow, Laura Weigel, Ronald Lindner, Ansgar Schäfer, Frank Rominger, Michael Limbach,* and Peter Hofmann*



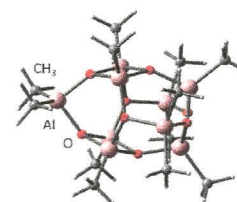
- 3339 **5** dx.doi.org/10.1021/om400280m
Synthesis of Pincer Ruthenium RuCl(CNN)(PP) Catalysts from [RuCl(μ -Cl)(η^6 -*p*-cymene)]₂
 Shuanming Zhang and Walter Baratta*



- 3343 **5** dx.doi.org/10.1021/om400286j
Oxidative Reactivity of (N2S2)PdRX Complexes (R = Me, Cl; X = Me, Cl, Br): Involvement of Palladium(III) and Palladium(IV) Intermediates
 Jia Luo, Nigam P. Rath, and Liviu M. Mirica*



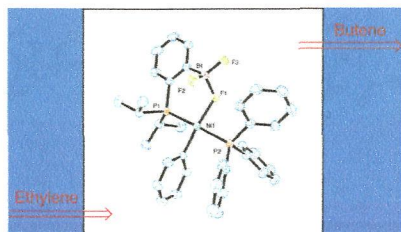
- 3354 **5** dx.doi.org/10.1021/om4002878
Probing the Structure of Methylalumoxane (MAO) by a Combined Chemical, Spectroscopic, Neutron Scattering, and Computational Approach
 Fabio Ghiotto, Chrysoula Pateraki, Jukka Tanskanen, John R. Severn, Nicole Luehmann, André Kusmin, Jörg Stellbrink,* Mikko Linnolahti,* and Manfred Bochmann*



3363 **Dimerization of Ethylene by Nickel Phosphino–Borate Complexes**

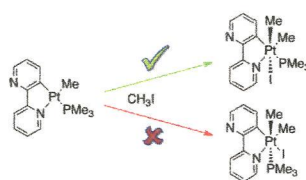
Dmitry V. Gutsulyak, Andrew L. Gott, Warren E. Piers,* and Masood Parvez

dx.doi.org/10.1021/om400288u

3371 **Oxidative Addition of MeI to a Rollover Complex of Platinum(II): Isolation of the Kinetic Product**

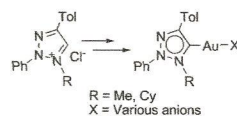
Luca Maidich,* Antonio Zucca, Guy J. Clarkson, and Jonathan P. Rourke*

dx.doi.org/10.1021/om400300n

3376 **Gold(I) Complexes with “Normal” 1,2,3-Triazolylidene Ligands: Synthesis and Catalytic Properties**

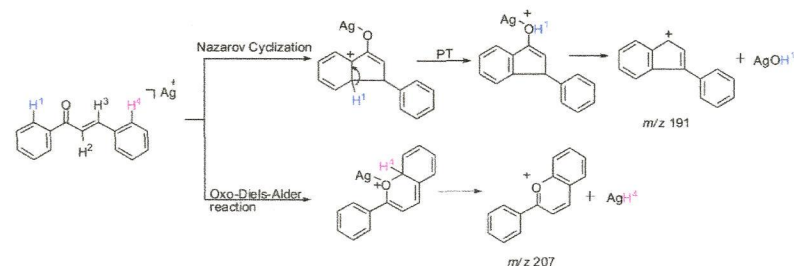
Lars-Arne Schaper, Xuhui Wei, Sebastian J. Hock, Alexander Pöthig, Karl Öfele, Mirza Cokoja, Wolfgang A. Herrmann,* and Fritz E. Kühn*

dx.doi.org/10.1021/om400318p

3385 **Nazarov Cyclization and Oxo-Diels–Alder Reaction of Chalcones Induced by the Naked Silver Cation in Gas Phase**

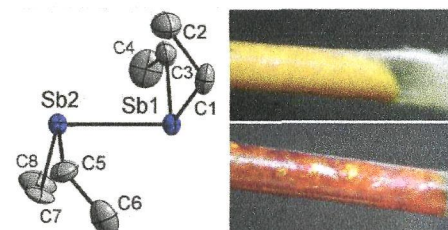
Hezhi Sun, Yunfeng Chai, Lin Wang, Kezhi Jiang, and Yuanjiang Pan*

dx.doi.org/10.1021/om4003285

3391 **The Origin of Thermochromic Behavior in Distibines: Still an Open Question**

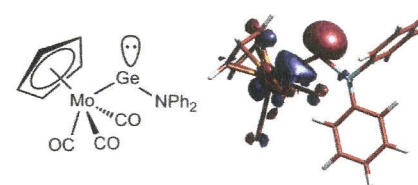
Stephan Schulz,* Stefan Heimann, Andreas Kuczkowski, Dieter Bläser, and Christoph Wölper

dx.doi.org/10.1021/om4003413

3395 **Nature of M–Ge Bonds in the Metallogermylene Complexes of Chromium, Molybdenum, and Tungsten [(η⁵-C₅H₅)(CO)₃M{GeN(SiMe₃)R}] and [(η⁵-C₅H₅)(CO)₃M{GeN(Ph)R}] (R = Ph, Mesityl (Mes)): A Theoretical Study**

Krishna K. Pandey* and Cameron Jones*

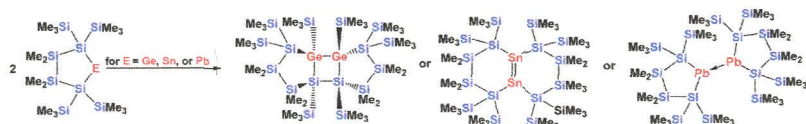
dx.doi.org/10.1021/om400351b



3404  dx.doi.org/10.1021/om400365v

Cyclic Disilylated and Digermylated Germynes

Johann Hlina, Judith Baumgartner,* Christoph Marschner,* Lena Albers, and Thomas Müller*

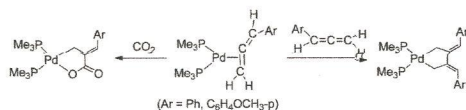


Notes

3411  dx.doi.org/10.1021/om400089n

Synthesis and Reactivity of Five-Membered Palladialactones from Aryllallenes and Carbon Dioxide: Relevance to Catalytic Lactone Synthesis

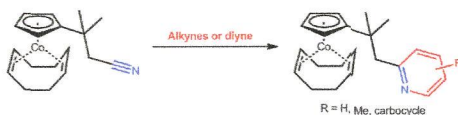
Jun-Chul Choi,* Kouichi Shiraishi, Yasumasa Takenaka, Hiroyuki Yasuda, and Toshiyasu Sakakura*



3415  dx.doi.org/10.1021/om400330x

Synthesis and Catalytic Activity of [Cp'Co(COD)] Complexes Bearing Pendant N-Containing Groups

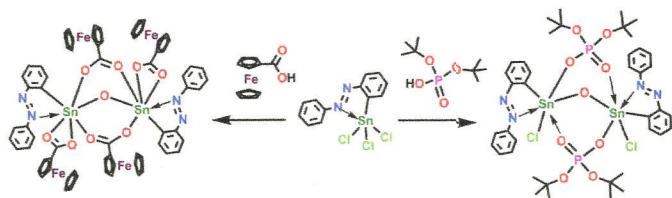
Indre Thiel, Martin Lamač,* Haijun Jiao, Anke Spannenberg, and Marko Hapke*



3419  dx.doi.org/10.1021/om400346b

Stabilizing the [RSn(μ₂-O)SnR] Motif through Intramolecular N→Sn Coordination. Synthesis and Characterization of [(RSn)₂(μ₂-O)(μ₂-FcCOO)₂(η²-FcCOO)₂]-THF and {(RSn)₂(μ₂-O)[(t-BuO)₂PO₂]₂Cl₂}-THF·2H₂O (R = 2-(Phenylazo)phenyl)

Vadapalli Chandrasekhar,* Ramesh K. Metre, and Sourav Biswas



3423  dx.doi.org/10.1021/om400383s

A-Cationic Terminal Methylene Complex of Ir(I) Supported by a Pincer Ligand

Jesus Campos, Riccardo Peloso, Maurice Brookhart, and Ernesto Carmona*



Additions and Corrections

3427 dx.doi.org/10.1021/om400405u

Correction to Synthesis and Structures of Scandium and Lutetium Benzyl Complexes

Nils Meyer, Peter W. Roesky,* Sergio Bambirra, Auke Meetsma, Bart Hessen,* Kuburat Saliu, and Josef Takats*