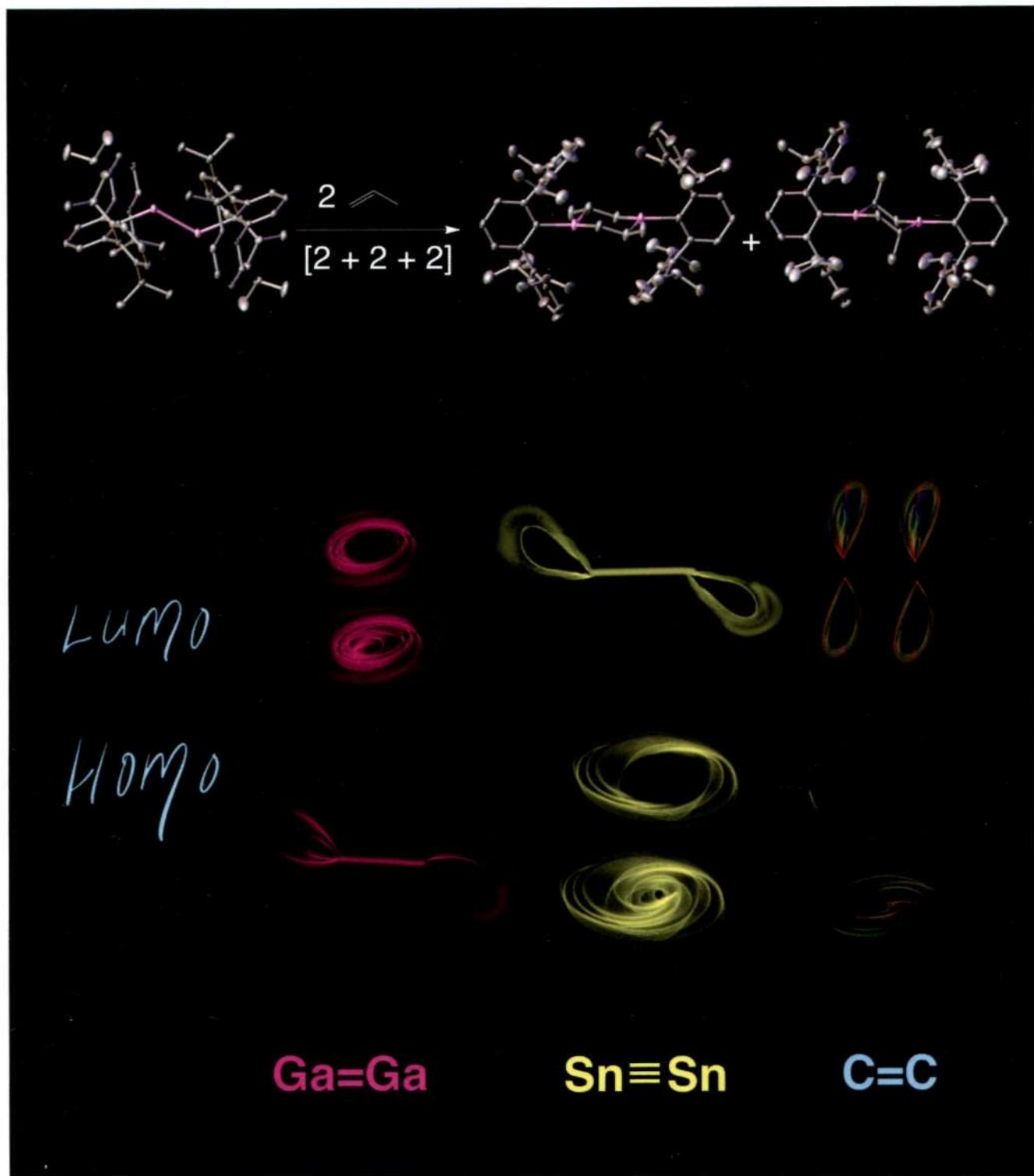


# ORGANOMETALLICS



**ON THE COVER:** Molecular structures of digallene cycloadditions and frontier molecular orbital drawings. See the paper by Caputo and Power on pages 2278–2286.

## Editor's Page

2277

[dx.doi.org/10.1021/om4002044](https://doi.org/10.1021/om4002044)**Award-Winning Organometallic Chemistry: The 2012 ACS Award in Organometallic Chemistry**

John A. Gladysz

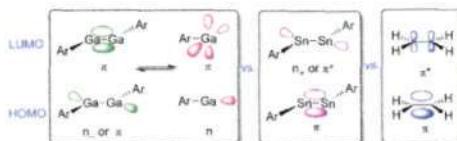


## Reviews

2278

[dx.doi.org/10.1021/om4000049](https://doi.org/10.1021/om4000049)**Heavier Main Group Dimetallene Reactivity: Effects of Frontier Orbital Symmetry**

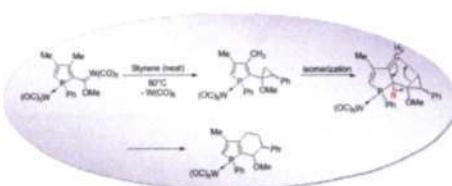
Christine A. Caputo and Philip P. Power\*



2287

**The Original Reactivity of a Phosphole-Substituted Fischer Carbene Complex**  
Kim Hong Ng, Yongxin Li, Rakesh Ganguly, and Francois Mathey\*

dx.doi.org/10.1021/om400109h

**Articles**

2291

**Nickel(II) Complexes with Three-Dimensional Geometry  $\alpha$ -Diimine Ligands: Synthesis and Catalytic Activity toward Copolymerization of Norbornene**

Ping Huo, Wanyun Liu, Xiaohui He,\* Hongming Wang, and Yiwang Chen\*

dx.doi.org/10.1021/om300883h

2300

**$\beta$ -Diketiminato Nickel Imides in Catalytic Nitrene Transfer to Isocyanides**  
Stefan Wiese, Mae Joanne B. Aguila, Elzbieta Kogut, and Timothy H. Warren\*

dx.doi.org/10.1021/om300909n

2309

**Probing the Characteristics of Mono- or Bimetallic (Iron or Cobalt) Complexes Bearing 2,4-Bis(6-iminopyridin-2-yl)-3H-benzazepines: Synthesis, Characterization, and Ethylene Reactivity**

Wen-Hua Sun,\* Qifeng Xing, Jiangang Yu, Elena Novikova, Weizhen Zhao, Xiubo Tang, Tongling Liang, and Carl Redshaw\*

Mono-metallic or bi-metallic complex precatalysts  
Activated by MAO or MMAO  
Activity up to  $10^7$  g mol<sup>-1</sup> (Fe) h<sup>-1</sup>  
Highly linear products (main oligomers with 99%  $\alpha$ -olefins)

2319

**Gas-Phase Formation and Fragmentation Reactions of the Organomagnesates  $[RMgX_2]^-$**

George N. Khairallah, Charlene C. L. Thum, Denis Lesage, Jean-Claude Tabet, and Richard A. J. O'Hair\*

2329

**Heterometallic Aluminum–Chromium Phenazine and Thiophenazine Complexes. Formation of a Tetranuclear Chromium(I) Sandwich Complex**

Vladimir Shuster, Sandro Gambarotta,\* Grigory B. Nikiforov, and Peter H. M. Budzelaar\*

2300

dx.doi.org/10.1021/om3012097

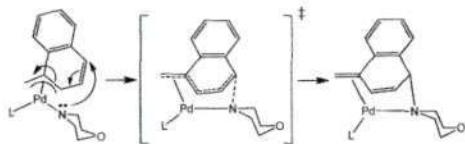
Organometallics, Volume 32, Issue 8

6A

7A

Organometallics, Volume 32, Issue 8

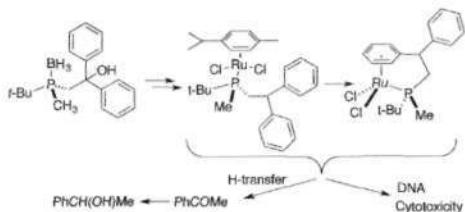
**DFT Studies on the Palladium-Catalyzed Dearomatization Reaction between Chloromethylnaphthalene and the Cyclic Amine Morpholine**  
Hujun Xie, Hong Zhang, and Zhenyang Lin\*



dx.doi.org/10.1021/om301215a

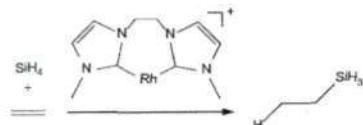
**[RuCl<sub>2</sub>(*η*<sup>6</sup>-*p*-cymene)(P\*)] and [RuCl<sub>2</sub>(*x*-P\*-*η*<sup>6</sup>-arene)] Complexes Containing *P*-Stereogenic Phosphines. Activity in Transfer Hydrogenation and Interactions with DNA**

Rosario Aznar, Arnald Grabulosa, Alberto Mannu, Guillermo Muller,\* Daniel Sainz, Virtudes Moreno, Mercè Font-Bardia, Teresa Calvet, and Julia Lorenzo



dx.doi.org/10.1021/om3012294

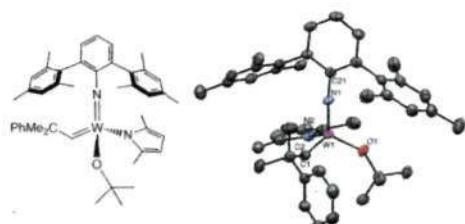
**Olefin Hydrosylation Catalyzed by a Bis-N-Heterocyclic Carbene Rhodium Complex. A Density Functional Theory Study**  
Yin Wu, Virve A. Karttunen, Shane Parker, Alexander Genest, and Notker Rösch\*



dx.doi.org/10.1021/om301236n

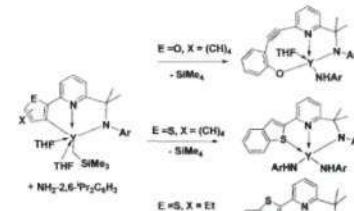
**Molybdenum and Tungsten Monoalkoxide Pyrrolide (MAP) Alkylidene Complexes That Contain a 2,6-Dimesitylphenylimido Ligand**

Laura C. H. Gerber, Richard R. Schrock,\* and Peter Müller



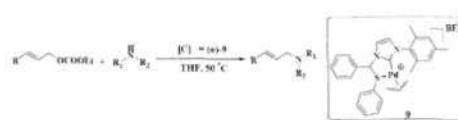
dx.doi.org/10.1021/om4000693

**Yttrium Complexes Featuring Different Y–C Bonds. Comparative Reactivity Studies: Toward Terminal Imido Complexes**  
Alexander A. Karpov, Anton V. Cherkasov, Georgy K. Fukin, Andrei S. Shavyrin, Lapo Luconi, Giuliano Giambastiani, and Alexander A. Trifonov\*



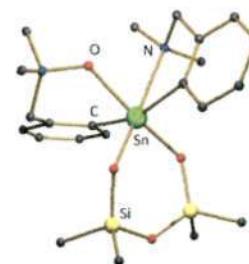
dx.doi.org/10.1021/om400099z

**N-Heterocyclic Carbene C,S Palladium(II)  $\alpha$ -Allyl Complexes: Synthesis, Characterization, and Catalytic Application In Allylic Amination Reactions**  
Deepa Krishnan, Meiyi Wu, Minyi Chiang, Yongxin Li, Pak-Hing Leung,\* and Sumod A. Pullarkat\*

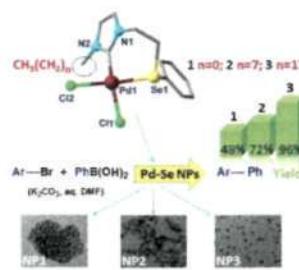
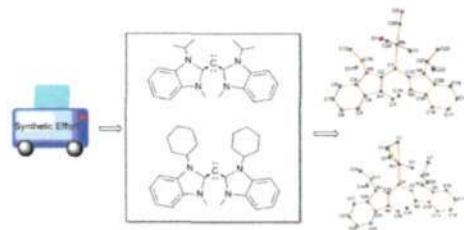
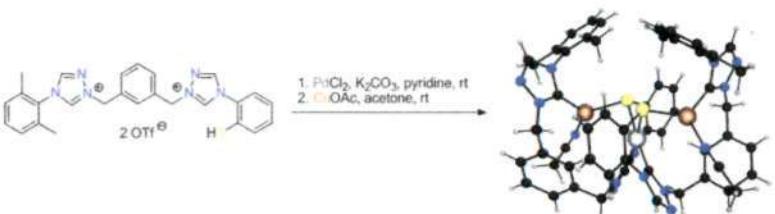
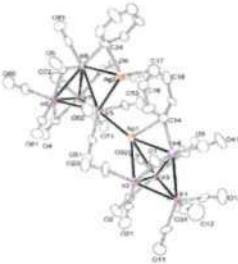
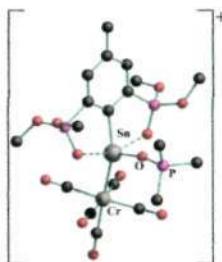


dx.doi.org/10.1021/om400110t

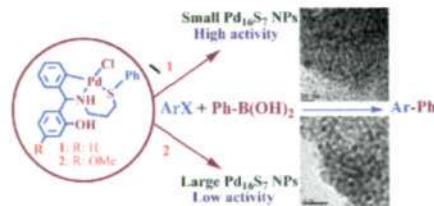
**Unusual Reactivity of a C,N-Chelated Stannylenes with Siloxanes and Silanols**  
Zdeňka Padělková,\* Petr Švec, Hana Kampová, Jan Sýkora, Miloslav Semler, Petr Štěpnička, Snejana Bakardjieva, Rudolph Willem, and Aleš Růžička



dx.doi.org/10.1021/om400123y



Please provide a synopsis



**Copper-Catalyzed Hydroboration of Carbon Dioxide**

Ryo Shintani\* and Kyoko Nozaki\*

