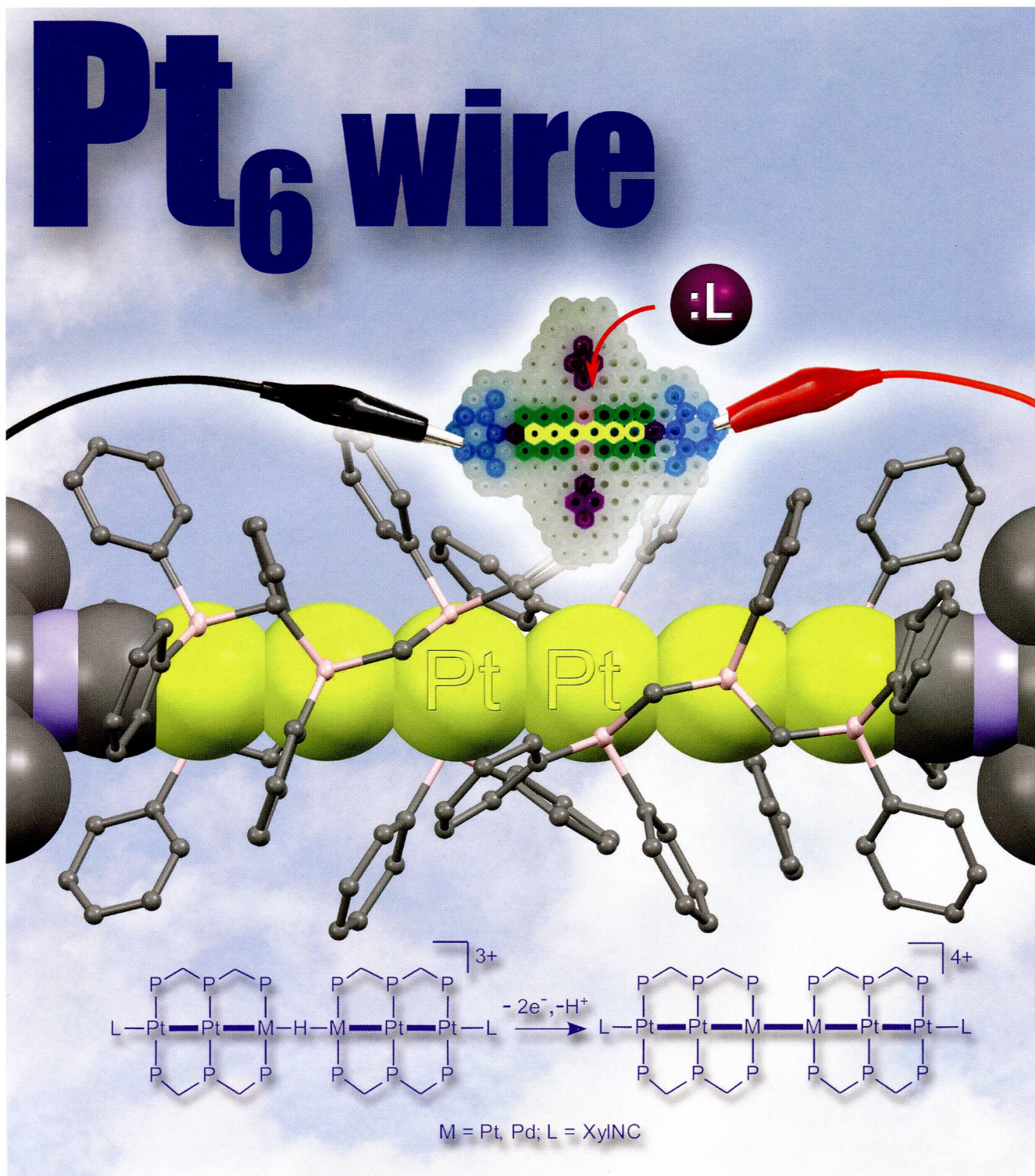


ORGANOMETALLICS



ON THE COVER: The cover page shows a linear alignment of six low-valent platinum atoms supported by triphosphine ligands synthesized by the Tanase Group. The $\text{Pt}_2\text{M}_2\text{Pt}_2$ metal wire ($\text{M} = \text{Pt}, \text{Pd}$) was derived from a hydride-bridged $\text{Pt}_2\text{M}-\text{H}-\text{M}\text{Pt}_2$ hexanuclear chain by two-electron oxidation and possesses electron-deficient character in the central part. The metallic wire could be a new building block for constructing true single molecular devices as conceptualized by a toy block illustrated in the background. The synthesis, characterization, electronic structures, and reactions of the electron-deficient $\text{Pt}_2\text{M}_2\text{Pt}_2$ metal strings are reported in this issue. See the paper by Tanase et al. on pages 1893–1904.

Articles

Cover Paper

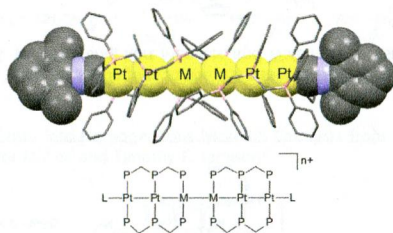
1893

S

[dx.doi.org/10.1021/om401211d](https://doi.org/10.1021/om401211d)

Electron-Deficient $\text{Pt}_2\text{M}_2\text{Pt}_2$ Hexanuclear Metal Strings ($\text{M} = \text{Pt}, \text{Pd}$) Supported by Triphosphine Ligands

Eri Goto, Rowshan Ara Begum, Chiaki Ueno, Aya Hosokawa, Chie Yamamoto, Kanako Nakamae, Bunsho Kure, Takayuki Nakajima, Takashi Kajiwarra, and Tomoaki Tanase*



7: $\text{M} = \text{Pt}$, $\text{L} = \text{XylNC}$, $n = 4$; 8: $\text{M} = \text{Pd}$, $\text{L} = \text{XylNC}$, $n = 4$; 9: $\text{M} = \text{Pt}$, $\text{L} = \text{I}$, $n = 2$

Communications

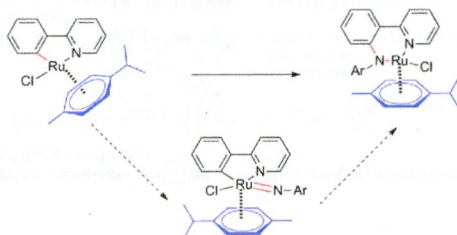
1905

S

[dx.doi.org/10.1021/om500080z](https://doi.org/10.1021/om500080z)

Ruthenium-Catalyzed Direct C–H Amidation of Arenes: A Mechanistic Study

Lu–Lu Zhang, Lian-Hua Li, Yu-Qi Wang, Yan-Fang Yang, Xue-Yuan Liu, and Yong-Min Liang*

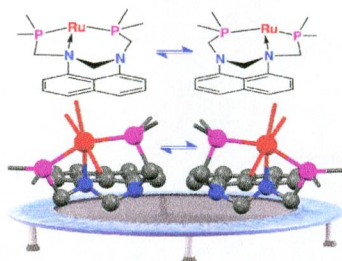


1909 **5**

dx.doi.org/10.1021/om5000985

Dihydroperimidine-Derived PNP Pincer Complexes as Intermediates en Route to N-Heterocyclic Carbene Pincer Complexes

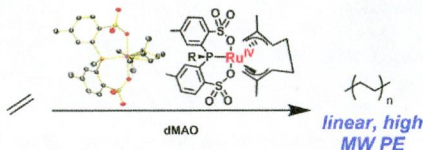
Anthony F. Hill* and Caitlin M. A. McQueen

1913 **5**

dx.doi.org/10.1021/om5001343

Ruthenium(IV) Complexes for Ethylene Insertion Polymerization

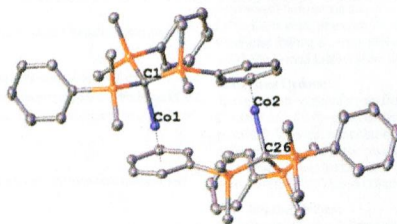
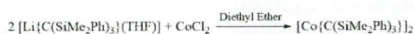
Tobias Friedberger, Joseph W. Ziller, and Zhibin Guan*

1917 **5**

dx.doi.org/10.1021/om500180u

Synthesis and Structural Characterization of a Dimeric Cobalt(I) Homoleptic Alkyl and an Iron(II) Alkyl Halide Complex

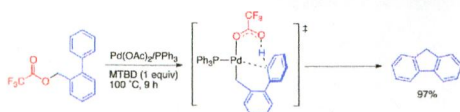
Pei Zhao, Zachary Brown, James C. Fettinger, Fernande Grandjean, Gary J. Long, and Philip P. Power*

1921 **5**

dx.doi.org/10.1021/om5001869

Direct Access to Fluorene by Successive C–O–C–H Bond Activations of 2-Phenylbenzyl Ester

Masafumi Hirano,* Sosuke Kawazu, and Nobuyuki Komine



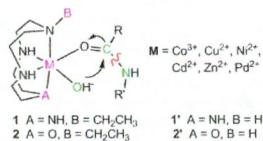
Articles

1925 **S**

dx.doi.org/10.1021/om400903r

Peptide Hydrolysis by Metal-Cyclen Complexes and Their Analogues: Insights from Theoretical Studies

Tingting Zhang, Xiaoxia Zhu, and Rajeev Prabhakar*

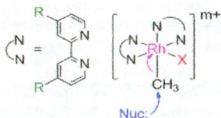


1936 **S**

dx.doi.org/10.1021/om4010093

Theoretical Study of Reductive Functionalization of Methyl Ligands of Group 9 Complexes Supported by Two Bipyridyl Ligands: A Key Step in Catalytic Hydrocarbon Functionalization

Dale R. Pahls, John T. Groves, T. Brent Gunnoe, and Thomas R. Cundari*

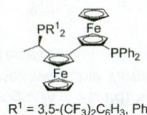


1945 **S**

dx.doi.org/10.1021/om401074a

Walphos versus Biferrocene-Based Walphos Analogues in the Asymmetric Hydrogenation of Alkenes and Ketones

Afroz Zirakzadeh, Manuela A. Groß, Yaping Wang, Kurt Mereiter, and Walter Weissensteiner*

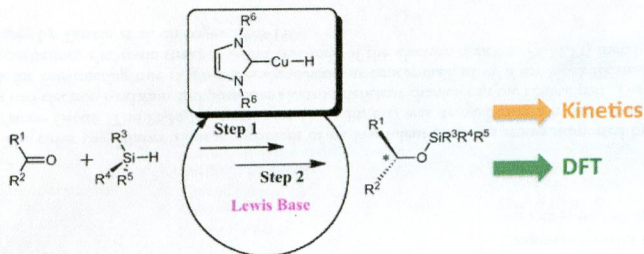


1953 **S**

dx.doi.org/10.1021/om401097q

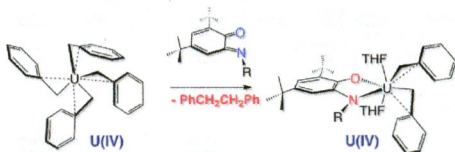
Mechanistic Insight into the (NHC)copper(I)-Catalyzed Hydrosilylation of Ketones

Thomas Vergote, Fady Nahra, Alain Merschaert, Olivier Riant, Daniel Peeters, and Tom Leyskens*



Radical Reductive Elimination from Tetrabenzyluranium Mediated by an Iminoquinone Ligand

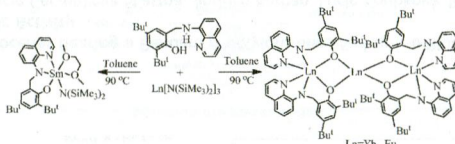
Ellen M. Matson, Sebastian M. Franke, Nickolas H. Anderson, Timothy D. Cook, Phillip E. Fanwick, and Suzanne C. Bart*

Ligand Assisted "Reductive" Elimination

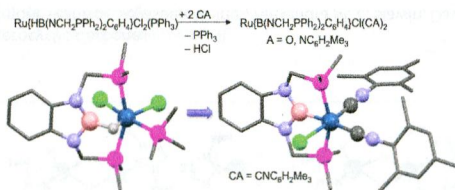
Proceeds via Radical Mechanism

Synthesis and Structural Characterization of Mixed-Valent Ytterbium and Europium Complexes Supported by a Phenoxy(quinolinyl)amide Ligand

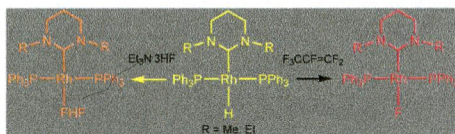
Yinyin Jiang, Xi Zhu, Muzi Chen, Yaorong Wang,* Yingming Yao,* Bing Wu, and Qi Shen

**Arrested B–H Activation en Route to Installation of a PBP Pincer Ligand on Ruthenium and Osmium**

Anthony F. Hill* and Caitlin M. A. McQueen

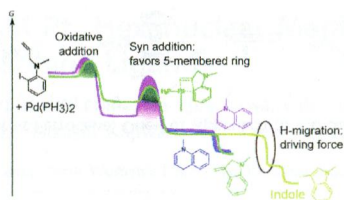
**Rh–FHF and Rh–F Complexes Containing Small *N*-Alkyl Substituted Six-Membered Ring *N*-Heterocyclic Carbenes**

Nicola Bramanathan, María Carmona, John P. Lowe, Mary F. Mahon, Rebecca C. Poulten, and Michael K. Whittlesey*



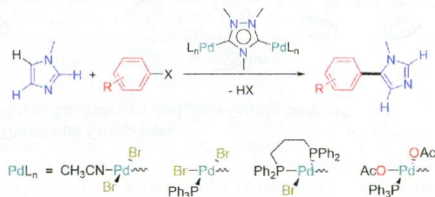
Density Functional Study of Indole Formation by an Intramolecular Heck Reaction

Raymond Grüber and Paul Fleurat-Lessard*



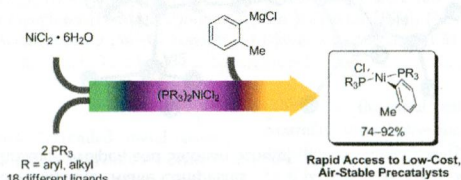
Dinuclear Triazole-Derived Janus-Type N-Heterocyclic Carbene Complexes of Palladium: Syntheses, Isomerizations, and Catalytic Studies toward Direct C5-Arylation of Imidazoles

Shuai Guo and Han Vinh Huynh*



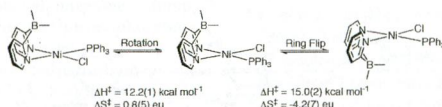
A Broadly Applicable Strategy for Entry into Homogeneous Nickel(0) Catalysts from Air-Stable Nickel(II) Complexes

Eric A. Standley, Stacey J. Smith, Peter Müller, and Timothy F. Jamison*



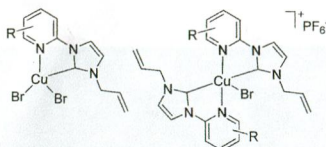
Synthesis and Characterization of Dimethylbis(2-pyridyl)borate Nickel(II) Complexes: Unimolecular Square-Planar to Square-Planar Rotation around Nickel(II)

Jeff A. Celaje, Megan K. Pennington-Boggio, Robinson W. Flaig, Michael G. Richmond, and Travis J. Williams*



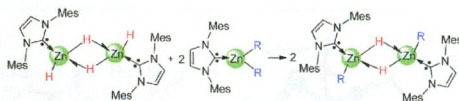
Remarkable Stability of Copper(II)–*N*-Heterocyclic Carbene Complexes Void of an Anionic Tether

Benjamin R. M. Lake and Charlotte E. Willans*



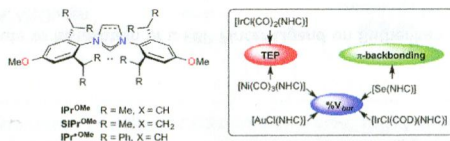
Mixed Alkyl Hydrido Complexes of Zinc: Synthesis, Structure, and Reactivity

Arnab Rit, Thomas P. Spaniol, Laurent Maron,* and Jun Okuda*



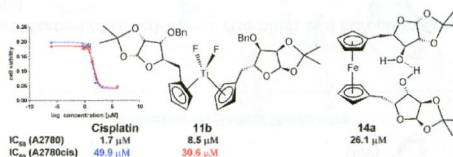
Methoxy-Functionalized *N*-Heterocyclic Carbenes

David J. Nelson, Alba Collado, Simone Manzini, Sebastien Meiries, Alexandra M. Z. Slawin, David B. Cordes, and Steven P. Nolan*



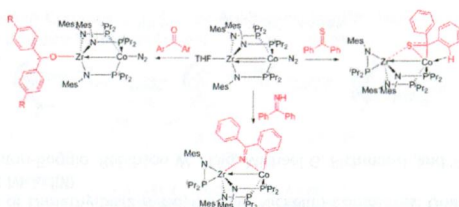
Titanocene Dihalides and Ferrocenes Bearing a Pendant α -D-Xylofuranos-5-yl or α -D-Ribofuranos-5-yl Moiety. Synthesis, Characterization, and Cytotoxic Activity

Tomáš Hodik, Martin Lamač, Lucie Červenková Št'astná, Jindřich Karban, Lucie Koubková, Roman Hrstka, Ivana Císařová, and Jiří Pinkas*

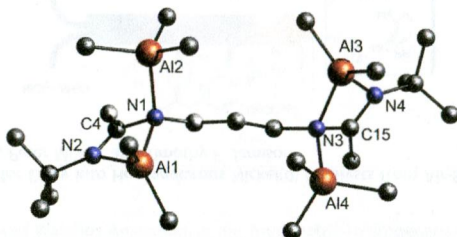


Interaction and Activation of Carbon–Heteroatom π Bonds with a Zr/Co Heterobimetallic Complex

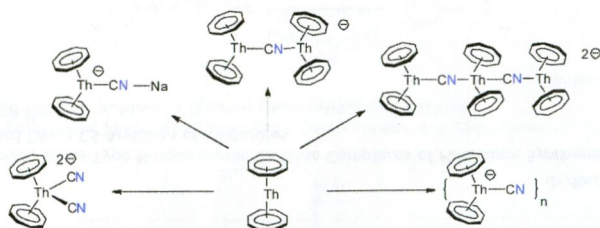
Seth L. Marquard, Mark W. Bezpalko, Bruce M. Foxman, and Christine M. Thomas*

**Syntheses and Structures of Bis-Amidinate–Alane Complexes**

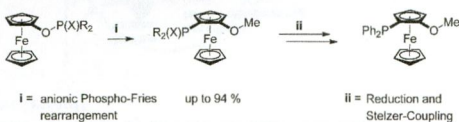
Melike Bayram, Dieter Bläser, Christoph Wölper, and Stephan Schulz*

**Structural Diversity in Cyanido Thorocene Complexes**

Alexandre Hervé, Pierre Thuéry, Michel Ephritikhine, and Jean-Claude Berthet*

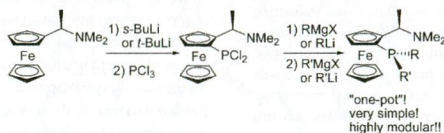
**Anionic Phospho-Fries Rearrangement at Ferrocene: One-Pot Approach to P,O-Substituted Ferrocenes**

Marcus Korb, Dieter Schaarschmidt, and Heinrich Lang*



Very Simple and Highly Modular Synthesis of Ferrocene-Based Chiral Phosphines with a Wide Variety of Substituents at the Phosphorus Atom(s)

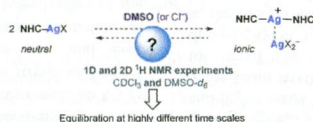
Huifang Nie, Lin Yao, Bing Li, Shengyong Zhang,* and Weiping Chen*



Notes

Structure of Silver–N-Heterocyclic Carbenes in Solution: Evidence of Equilibration in DMSO at Very Different Time Scales by ^1H NMR Experiments

Elsa Caytan and Sylvain Roland*



Additions and Corrections

Correction to Insertion Reactions of Six-Membered Cyclopalladated N,N',N'' -Triarylguanidine, $[\text{Pd}(\kappa^2\text{(C,N)}\text{-C}_6\text{H}_3\text{Me-3}(\text{NHC}(\text{NHR})(=\text{NAr}))\text{-2})(\mu\text{-Br})_2(\text{Ar} = 2\text{-MeC}_6\text{H}_4)]$ with $\text{PhC}\equiv\text{C}-\text{C}(\text{O})\text{R}$ ($\text{R} = \text{Me}$ and Et): A Gateway to Second Orthopalladation through Novel Rearrangements

Priya Saxena, Natesan Thirupathi,* and Munirathinam Nethaji