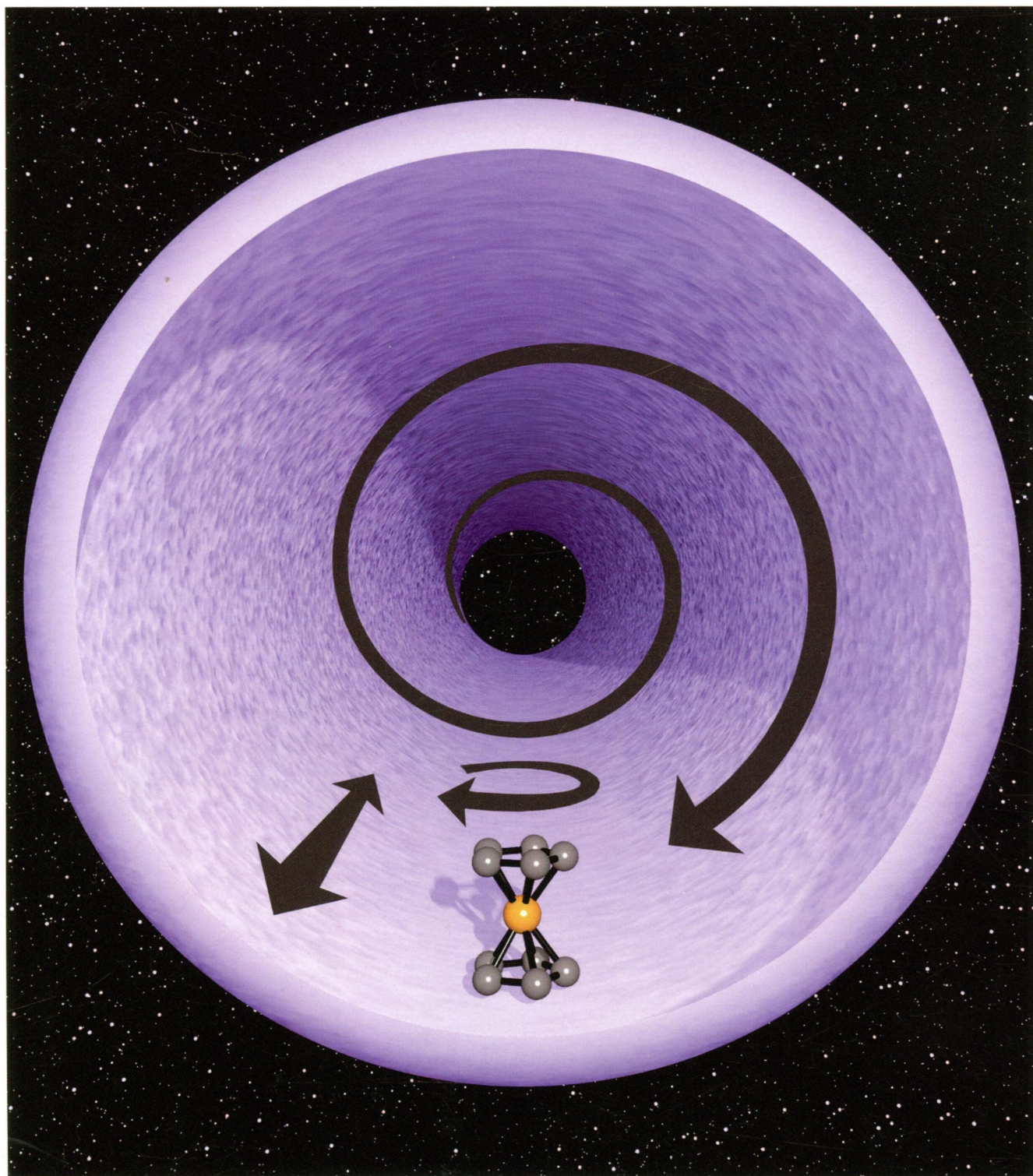


ORGANOMETALLICS



ON THE COVER: The cover depicts a metallocene adsorbed on the surface of silica within an idealized pore. Adsorbed metallocenes such as ferrocene, ruthenocene, or bis(indenyl)ruthenocene are very mobile on the silica surface even at room temperature. As the arrows indicate, besides rotating around the ligand–metal–ligand axis, the metallocene cruises back and forth in the pore. This translational mobility is the reason why metallocenes can be adsorbed within minutes on the silica surface by grinding the dry powders of the components. Most importantly, a metallocene can undergo full reorientation by “spiraling” along the walls of the pores. This mode of mobility results in fast quasi-isotropic reorientation on a nanosecond timescale. Therefore, the solid-state NMR signals of adsorbed metallocenes lose their line broadening anisotropic features, such as chemical shift anisotropy and Pake pattern, and become very narrow. A powder of ferrocene adsorbed on silica can even be measured with a conventional liquids NMR spectrometer! Find details in the article by Cluff, Bhuvanesh, and Blümel on pages 2671–2680.

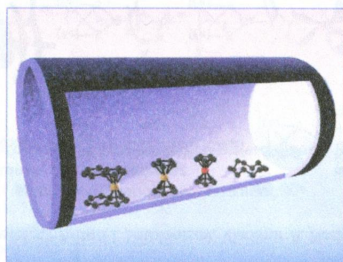
Articles

Cover Paper

2671 **S**[dx.doi.org/10.1021/om500254w](https://doi.org/10.1021/om500254w)

Adsorption of Ruthenium and Iron Metallocenes on Silica: A Solid-State NMR Study

Kyle J. Cluff, Nattamai Bhuvanesh, and Janet Blümel*

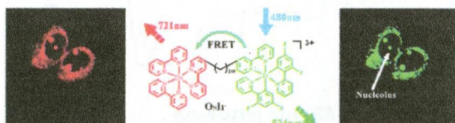


Communications

2681 **S**[dx.doi.org/10.1021/om500357x](https://doi.org/10.1021/om500357x)

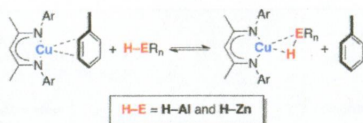
A Heterodinuclear Complex OsIr Exhibiting Near-Infrared Dual Luminescence Lights Up the Nucleoli of Living Cells

Jitao Wang, Shiguo Sun,* Daozhou Mu, Jingyun Wang, Wei Sun, Xiaoqing Xiong, Bo Qiao, and Xiaojun Peng*



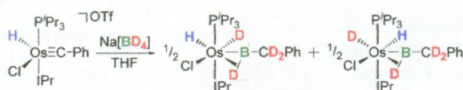
Weakly Coordinated Zinc and Aluminum σ -Complexes of Copper(I)

Adi E. Nako, Qian Wen Tan, Andrew J. P. White, and Mark R. Crimmin*



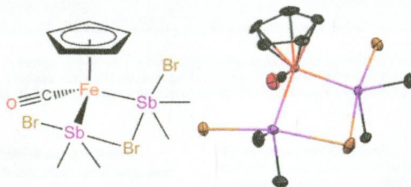
Unprecedented Addition of Tetrahydroborate to an Osmium–Carbon Triple Bond

María L. Buil, Juan J. F. Cardo, Miguel A. Esteruelas,* Israel Fernández, and Enrique Oñate



Bromostibine Complexes of Iron(II): Hypervalency and Reactivity

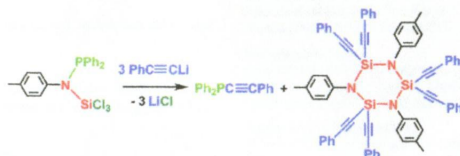
Sophie L. Benjamin, William Levason, Mark E. Light, Gillian Reid,* and Scott M. Rogers



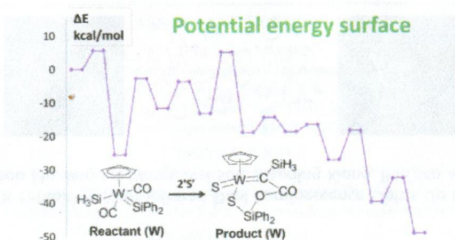
Articles

N–P Bond Cleavage Induced Ring Formation of Cyclosilazanes from Reactions of Aryl(phosphanyl)aminotrichlorosilanes with Lithium Alkynyls

Jinjin Wang, Rui Liu, Wenqing Ruan, Yan Li, Kartik Chandra Mondal, Herbert W. Roesky, and Hongping Zhu*

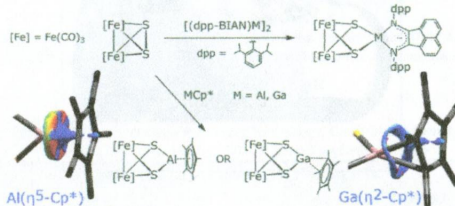


Theoretical Study for the Reactions of (Silyl)(silylene)tungsten and -molybdenum Complexes with Ethylene Sulfide
Yoshitomo Ishiguro, Takako Kudo,* Takako Muraoka, and Keiji Ueno



Metal- and Ligand-Supported Reduction of the $\{Fe_2S_2\}$ Cluster as a Path to Formation of Molecular Group 13 Element Complexes $\{Fe_2S_2M\}$ ($M = Al, Ga$)

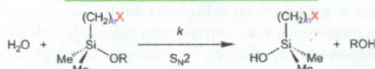
Mikhail A. Ogienko, Nikolay A. Pushkarevsky,* Anton I. Smolentsev, Vladimir A. Nadolinny, Sergey Yu. Ketkov, and Sergey N. Konchenko



Silicon α -Effect: A Systematic Experimental and Computational Study of the Hydrolysis of C_{α} - and C_{β} -Functionalized Alkoxytriorganylsilanes of the Formula Type $ROSiMe_2(CH_2)_nX$ ($R = Me, Et; n = 1, 3; X = \text{Functional Group}$)

André Berkefeld, Célia Fonseca Guerra, Rüdiger Bertermann, Dennis Troegel, Jürgen O. Daïß, Jürgen Stohrer, F. Matthias Bickelhaupt,* and Reinhold Taçke*

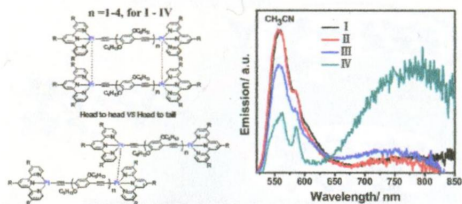
Silicon α -Effect



$X = H, Cl, OR, OAc, NMe_2, N(R)COOMe, NMe_3, N(H)Ph; n = 1, 3$

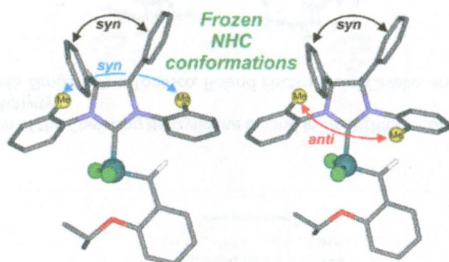
Linear Bimetallic Alkynylplatinum(II) Terpyridyl Complexes Bearing *p*-Phenylene Ethynylene Oligomers: Synthesis, Characterization, Aggregation, and Photophysical Properties

Peng Xu, Haotian Wu, Hongxing Jia, Shifan Ye, and Pingwu Du*



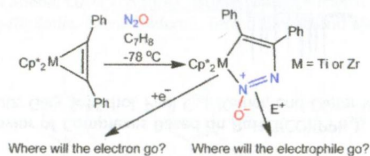
Ruthenium Olefin Metathesis Catalysts with Frozen NHC Ligand Conformations

Alessandra Perfetto, Chiara Costabile, Pasquale Longo, and Fabia Grisi*



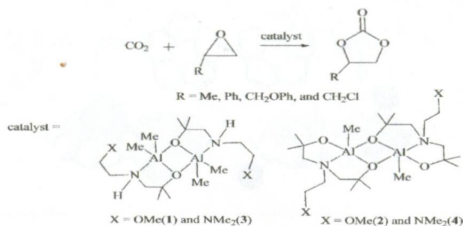
Functionalization of Complexed N₂O in Bis(pentamethylcyclopentadienyl) Systems of Zirconium and Titanium

Daniel J. Mindiola,* Lori A. Watson, Karsten Meyer, and Gregory L. Hillhouse*

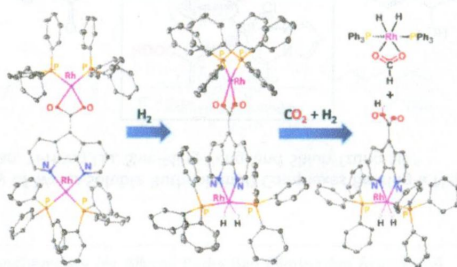


Dinuclear Aluminum Complexes as Catalysts for Cycloaddition of CO₂ to Epoxides

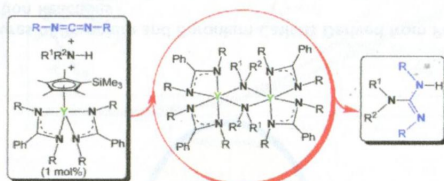
So Han Kim, Duseong Ahn, Min Jeong Go, Myung Hwan Park, Min Kim, Junseong Lee,* and Youngjo Kim*

**Reaction of Dinuclear Rhodium 4,5-Diazafluorenyl-9-Carboxylate Complexes with H₂ and CO₂**

Vincent T. Annibale and Datong Song*

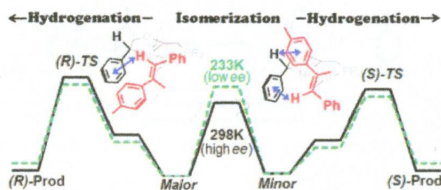
**Cyclopentadienyl-Like Ligand as a Reactive Site in Half-Sandwich Bis(amidinato) Rare-Earth-Metal Complexes: An Efficient Application in Catalytic Addition of Amines to Carbodiimides**

Peng-Hui Wei, Ling Xu, Li-Cheng Song,* Wen-Xiong Zhang,* and Zhenfeng Xi*



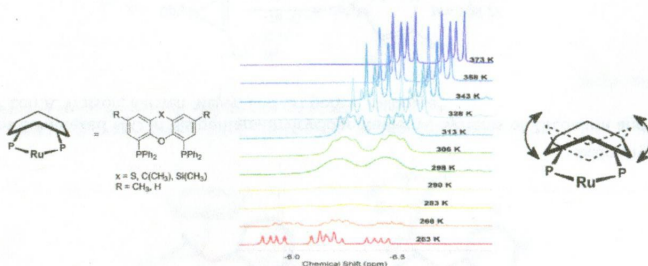
Iridium-PHOX-Mediated Alkene Hydrogenation: Isomerization Influences the Stereochemical Outcome

Kathrin H. Hopmann,* Luca Frediani, and Annette Bayer



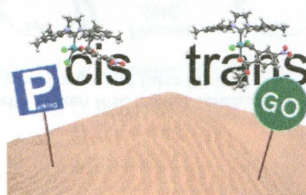
Catalytic Activity and Fluxional Behavior of Complexes Based on $\text{RuCl}(\text{CO})(\text{PPh}_3)_3$ and Xantphos-Type Ligands

Dennis Pingen, Tomas Lebl, Martin Lutz, Gary S. Nichol, Paul C. J. Kamer, and Dieter Vogt*



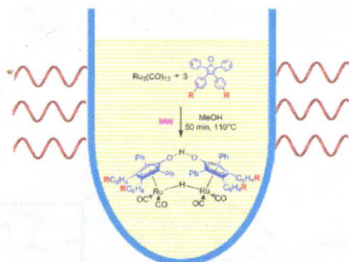
Impact of Electronic Modification of the Chelating Benzylidene Ligand in *cis*-Dichloro-Configured Second-Generation Olefin Metathesis Catalysts on Their Activity

Eva Pump, Albert Poater, Michaela Zirngast, Ana Torvisco, Roland Fischer, Luigi Cavallo, and Christian Slugovc*



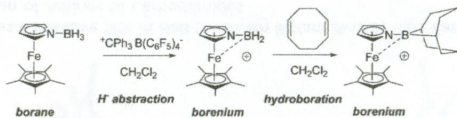
Microwave-Assisted Synthesis of Functionalized Shvo-Type Complexes

Cristiana Cesari, Letizia Sambri, Stefano Zacchini, Valerio Zanotti, and Rita Mazzoni*



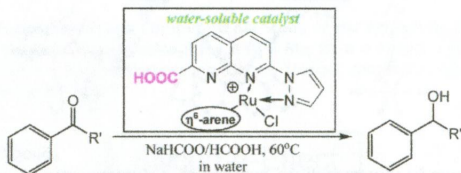
Formation, Stability, and Structures of Borenium and Boronium Cations Derived from Pentamethylazaferrocene–Boranes by Hydride or Chloride Abstraction Reactions

BriAnne Bentivegna, Christine I. Mariani, Jason R. Smith, Shuhua Ma, Arnold L. Rheingold, and Tim J. Brunker*

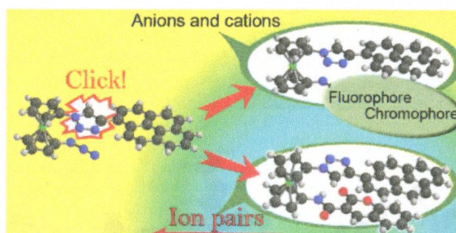


Synthesis and Catalytic Activity of Water-Soluble Ruthenium(II) Complexes Bearing a Naphthyridine–Carboxylate Ligand

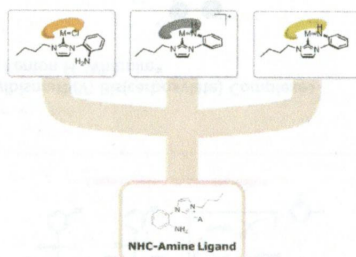
Chang-Yao Huang, Kai-Yuan Kuan, Yi-Hong Liu, Shie-Ming Peng, and Shih-Tzung Liu*



Ferrocene–Triazole–Pyrene Triads as Multichannel Heteroditopic Recognition Receptors for Anions, Cations and Ion Pairs
 María del Carmen González, Francisco Otón, Raúl A. Orenes, Arturo Espinosa, Alberto Tárraga,* and Pedro Molina*

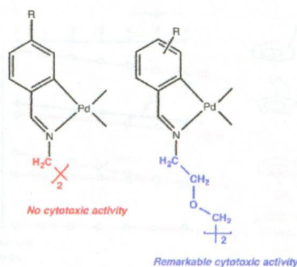


Charge-Delocalized κ^2C,N -NHC-Amine Complexes of Rhodium, Iridium, and Ruthenium
 Eveline Jansen, Martin Lutz, Bas de Bruin,* and Cornelis J. Elsevier*



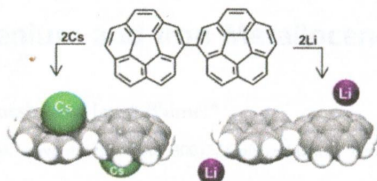
A New Family of Doubly Cyclopalladated Diimines. A Remarkable Effect of the Linker between the Metalated Units on Their Cytotoxicity

Joan Albert,* Ramon Bosque, Magali Cadena, Lucía D'Andrea, Jaume Granel,* Asensio González, Josefina Quirante, Carmen Calvis, Ramon Messeguer, Josefa Badía, Laura Baldomà, Teresa Calvet, and Mercè Font-Bardia



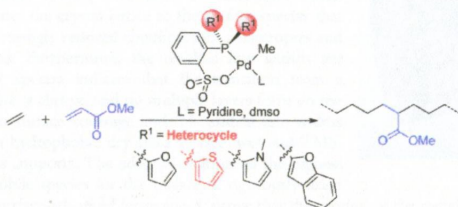
Double-Concave Binding of Bicorannulenyl Dianion: Cesium vs Lithium Salts

Natalie J. Sumner, Sarah N. Spisak, Alexander S. Filatov, Andrey Yu. Rogachev, Alexander V. Zabula, and Marina A. Petrukhina*



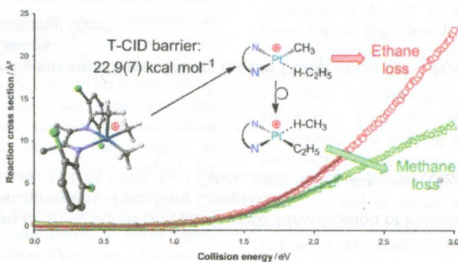
Heterocycle-Substituted Phosphinesulfonato Palladium(II) Complexes for Insertion Copolymerization of Methyl Acrylate

Zhongbao Jian, Philipp Wucher, and Stefan Mecking*



Experimental Gas-Phase Thermochemistry for Alkane Reductive Elimination from Pt(IV)

Erik P. A. Couzijn, Ilia J. Kobylanski, Marc-Etienne Moret, and Peter Chen*



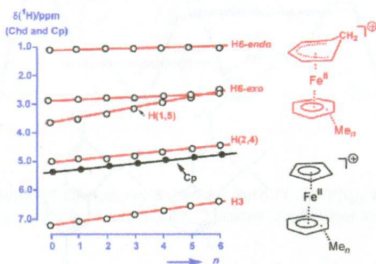
Notes

2898 **S**

dx.doi.org/10.1021/om500165w

Additivity of Interligand Substituent Effects for the Isoelectronic $[(\eta^5\text{-C}_6\text{H}_7)_2\text{Fe}(\eta^6\text{-Me}_n\text{C}_6\text{H}_{6-n})]^+$ and $[(\eta^5\text{-C}_5\text{H}_5)_2\text{Fe}(\eta^6\text{-Me}_n\text{C}_6\text{H}_{6-n})]^+$ Sandwich Cations

Jan Turek, Roman Olejnik, and Bohumil Štíbr*

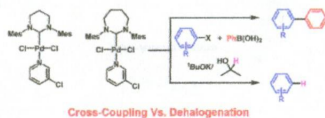


2902 **S**

dx.doi.org/10.1021/om5003107

Pd-PEPSI-Type Expanded Ring N-Heterocyclic Carbene Complexes: Synthesis, Characterization, and Catalytic Activity in Suzuki-Miyaura Cross Coupling

Jay J. Dunsford* and Kingsley J. Cavell*

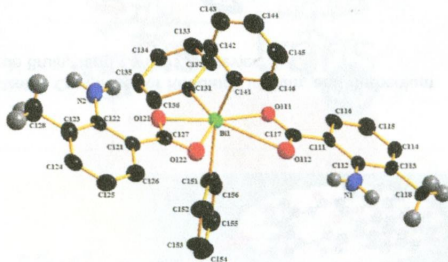


2906 **S**

dx.doi.org/10.1021/om500337z

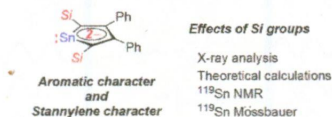
Facile One-Pot Synthesis of Triphenylbismuth(V) Bis(carboxylate) Complexes

Ish Kumar, Prateek Bhattacharya, and Kenton H. Whitmire*



Enhancement of Stannylene Character in Stannole Dianion Equivalents Evidenced by NMR and Mössbauer Spectroscopy and Theoretical Studies of Newly Synthesized Silyl-Substituted Dilithiostannoles

Takuya Kuwabara, Jing-Dong Guo, Shigeru Nagase, Mao Minoura, Rolfe H. Herber, and Masaichi Saito*



Additions and Corrections

Correction to Oxidative Addition of Sn–C Bonds on Palladium(0): Identification of Palladium–Stannyl Species and a Facile Synthetic Route to Diphosphinostannylene–Palladium Complexes

Eric J. Derrah, Stefan Warsink, Jeroen J. M. de Pater, Yves Cabon, Irena Reboule, Martin Lutz, Robertus J. M. Klein Gebbink, and Berth-Jan Deelman*

Correction to Additivity of Interligand Substituent Effects for the Isoelectronic $[(\eta^5\text{-C}_6\text{H}_7)\text{Fe}(\eta^6\text{-Me}_n\text{C}_6\text{H}_{6-n})]^+$ and $[(\eta^5\text{-C}_5\text{H}_5)\text{Fe}(\eta^6\text{-Me}_n\text{C}_6\text{H}_{6-n})]^+$ Sandwich Cations

Jan Turek, Roman Olejnik, and Bohumil Štibr*