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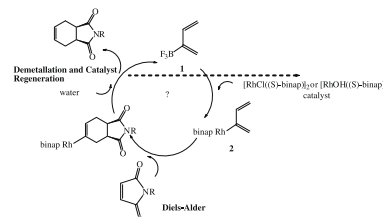
Communication

**Subhasis De, John M. Solano,
Liqiong Wang, Mark E. Welker**

J. Organomet. Chem. 694 (2009) 2295

Rhodium catalyzed tandem Diels-Alder/hydrolysis reactions of 2-boron-substituted 1,3-dienes

2-Boron substituted 1,3-dienes have been prepared and used in preliminary experiments to demonstrate that it is possible to effect rhodium catalyzed Diels-Alder/hydrolysis tandem reactions.



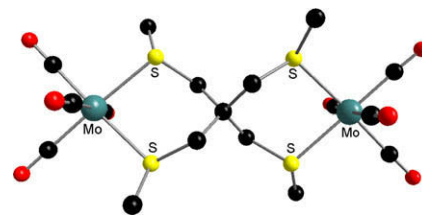
Regular Papers

**William Levason, Luke P. Ollivere,
Gillian Reid, Nikolaos Tsoureas,
Michael Webster**

J. Organomet. Chem. 694 (2009) 2299

Synthesis, spectroscopic and structural characterisation of molybdenum, tungsten and manganese carbonyl complexes of tetrathio- and tetraseleno-ether ligands

Complexes of the binucleating tetrathio- and tetraseleno-ether ligands, 1,2,4,5-C₆H₂(CH₂EMe)₄ (E = S or Se) or C(CH₂EMe)₄ with molybdenum and tungsten carbonyls and manganese carbonyl chloride are described.

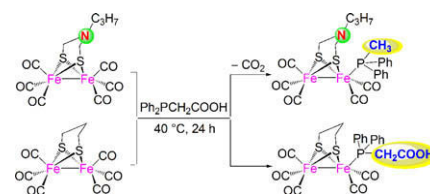


**Zhenbo Zhao, Mei Wang, Weibing Dong,
Ping Li, Ze Yu, Licheng Sun**

J. Organomet. Chem. 694 (2009) 2309

Synthesis and characterization of carboxy-functionalized diiron model complexes of [FeFe]-hydrogenases: Decarboxylation of Ph₂PCH₂COOH promoted by a diiron azadithiolate complex

The adt- (2-aza-1,3-propanedithiolato) and the pdt- (1,3-propanedithiolato) bridged diiron complexes display contrastive reactivities toward Ph₂PCH₂COOH. The former gave a decarboxylated Ph₂PCH₃-coordinate complex, while the latter afforded the carboxy-functionalized complex by usual CO-replacement.

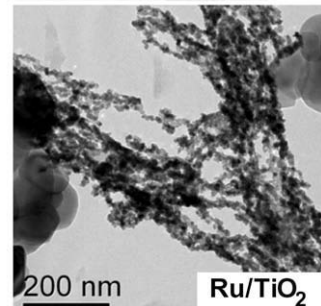
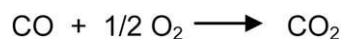


**Chunxiang Li, Weng Kee Leong,
Ziyi Zhong**

J. Organomet. Chem. 694 (2009) 2315

Metallic osmium and ruthenium nanoparticles for CO oxidation

A metallic ruthenium catalyst, supported on TiO₂, prepared from the organometallic precursor [Ru(CO)₄]_n exhibits activity for CO oxidation at ~150 °C lower operating temperature than a supported catalyst prepared from RuCl₃.

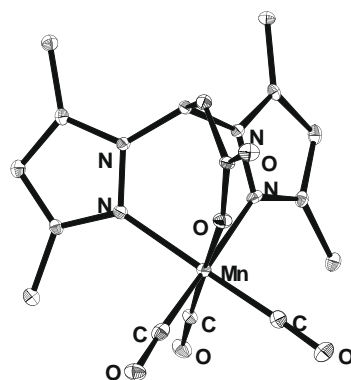


**Liv Peters, Eike Hübner, Thomas Haas,
Frank W. Heinemann, Nicolai Burzlaff**

J. Organomet. Chem. 694 (2009) 2319

3,3-Bis(3,5-dimethylpyrazol-1-yl)propionic acid: A tripodal *N,N,O* ligand for manganese and rhenium complexes – Syntheses and structures

The *N,N,O* ligand 3,3-bis(3,5-dimethylpyrazol-1-yl)propionic acid forms the “missing link” between the well-known bis(pyrazol-1-yl)acetic acids and related ligands with a longer “carboxylate arm”. New manganese and rhenium complexes bearing this ligand were synthesised to elucidate the reactivity of this ligand. Its coordination properties are discussed by means of spectroscopic and structural data and by DFT calculations.

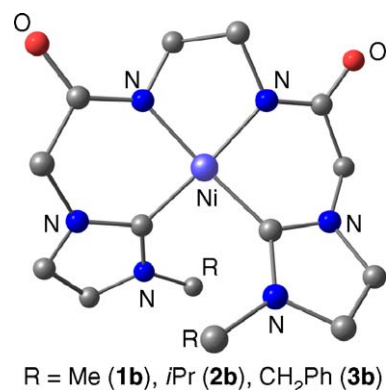


**Sriparna Ray, Jayant Asthana,
Joseph M. Tanski, Mobin M. Shaikh,
Dulal Panda, Prasenjit Ghosh**

J. Organomet. Chem. 694 (2009) 2328

Design of nickel chelates of tetradentate *N*-heterocyclic carbenes with subdued cytotoxicity

A series of tetradentate *N*-heterocyclic carbene (NHC) encapsulated nickel complexes exhibiting subdued cytotoxicity have been designed with the intent of their use as agents for inducing acquired cellular tolerance towards harmful cytotoxic metals.

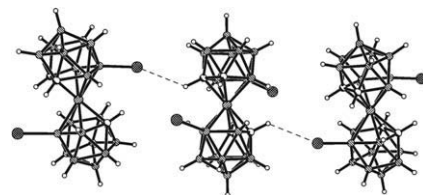


**Olga N. Kazheva, Grigorii G. Alexandrov,
Andrey V. Kravchenko,
Vladimir A. Starodub, Irina A. Lobanova,
Igor B. Sivaev, Vladimir I. Bregadze,
Lev V. Titov, Lev I. Buravov,
Oleg A. Dyachenko**

J. Organomet. Chem. 694 (2009) 2336

Molecular conductors with 8,8'-diiodo cobalt bis(dicarbollide) anion

New molecular conductors (TTF)[8,8'-I₂-3,3'-Co(1,2-C₂B₉H₁₀)₂] (1), (BMDT-TTF)₄[8,8'-I₂-3,3'-Co(1,2-C₂B₉H₁₀)₂] (2) and (BEDT-TTF)₂[8,8'-I₂-3,3'-Co(1,2-C₂B₉H₁₀)₂] (3) were synthesized and their crystal structures and electrical conductivities were determined. Some regularities in the crystal structures of the TTF-based radical cation salts with bis(dicarbollide) complexes of transition metals are discussed.

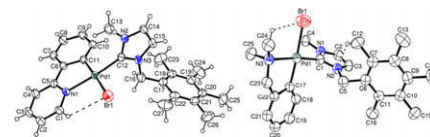


M. Emin Günay, Rukiye Gümüşada, Namık Özdemir, Muharrem Dinçer, Bekir Çetinkaya

J. Organomet. Chem. 694 (2009) 2343

Synthesis, X-ray structures, and catalytic activities of (κ^2 -C,N)-palladacycles bearing imidazol-2-ylidenes

Quaternisation of methylimidazole by methyl substituted benzyl bromides afforded imidazolium salts which were converted to (κ^2 -C,N)-palladacycles bearing imidazol-2-ylidenes, by either *in situ* deprotonation or *via* Ag–NHC intermediate, using the bridged palladacycles.

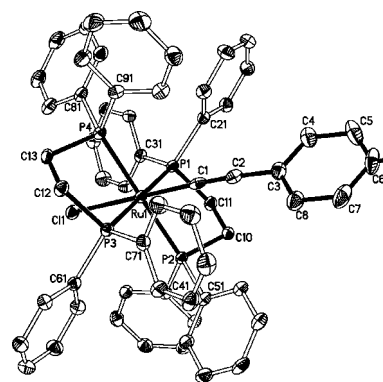


Mark A. Fox, Jonathan E. Harris, Silvio Heider, Victor Pérez-Gregorio, Małgorzata E. Zakrzewska, Julian D. Farmer, Dmitry S. Yufit, Judith A.K. Howard, Paul J. Low

J. Organomet. Chem. 694 (2009) 2350

A simple synthesis of *trans*-RuCl(C≡CR)(dppe)₂ complexes and representative molecular structures

Details of the conversion of *trans*-RuCl₂(dppe)₂ to the acetylide complexes *trans*-RuCl(C≡CC₆H₄R-4)(dppe)₂ (R = H, OMe, Me, C₅H₁₁, CO₂Me, NO₂) via the five-coordinate complex salt [RuCl(dppe)₂]OTf are given, together with representative molecular structures.

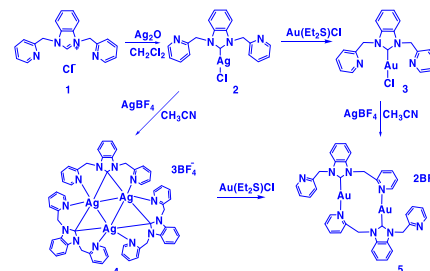


Xiaoming Zhang, Shaojin Gu, Qinqin Xia, Wanzhi Chen

J. Organomet. Chem. 694 (2009) 2359

New structural motifs of silver and gold complexes of pyridine-functionalized benzimidazolylidene ligands

A few mono-, di-, trinuclear, and polymeric silver and gold complexes containing pyridine-functionalized N-heterocyclic carbenes have been obtained from the reactions of the corresponding imidazolium salts and Ag₂O or the carbene transfer reactions for gold complexes. The complexes are intensely luminescent upon irradiation of UV light.

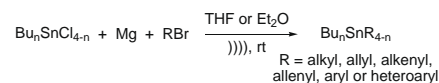


Sandrine Lamandé-Langle, Mohamed Abarbri, Jérôme Thibonnet, Alain Duchêne

J. Organomet. Chem. 694 (2009) 2368

A novel mode of access to polyfunctional organotin compounds and their reactivity in Stille cross-coupling reaction

Mono-, di-, tri- and tetra-functional organotin compounds were easily prepared in a sonicated Barbier reaction using ultrasound technology via coupling reaction of organo halides with tin halides (Bu₃SnCl, Bu₂SnCl₂, BuSnCl₃, SnCl₄) mediated by magnesium metal. The di- and tri-functional organotin compounds were tested in a Stille cross-coupling reaction in order to ascertain how many groups were transferred.



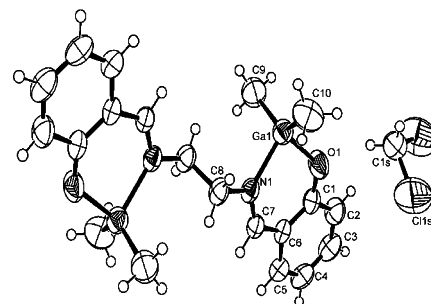
**Nisha P. Kushwah, Manoj K. Pal,
Amey P. Wadawale, Vimal K. Jain**

J. Organomet. Chem. 694 (2009) 2375

Diorgano-gallium and -indium complexes with salen ligands: Synthesis, characterization, crystal structure and C–C coupling reactions

The reactions of triorgano-gallium and -indium etherate with salen ligands in benzene afforded complexes of the type $[R_2MOC_6H_4CR'NCH_2-]_2$, ($R/M/R' = Me/Ga/H$ (**1**), $Et/Ga/H$ (**2**), $Me/In/H$ (**3**), $Et/Ga/Me$ (**4**)) in nearly quantitative yields.

These complexes have been characterized by elemental analysis, IR, UV-Vis, NMR (1H and $^{13}C\{^1H\}$) and mass spectral data. The organo-gallium complexes showed photoluminescence in blue-green region. The complex, $[(Me_2Ga)_2(O-(C_6H_4)CH=N-CH_2-)_2]$ on recrystallization from benzene-hexane and dichloromethane gave orthorhombic and monoclinic forms, respectively. Both the forms are dimeric with gallium atoms acquiring a distorted tetrahedral configuration defined by two methyl groups, phenolate oxygen and azomethene nitrogen. The complexes $[(Me_2Ga)_2(O-(C_6H_4)CH=N-CH_2-)_2]$ and $[(Me_2In)_2(O-(C_6H_4)CH=N-CH_2-)_2]$ have been employed as alkylating agent for C–C coupling reaction of 1-bromonaphthalene in presence of $PdCl_2(PPh_3)_2$.

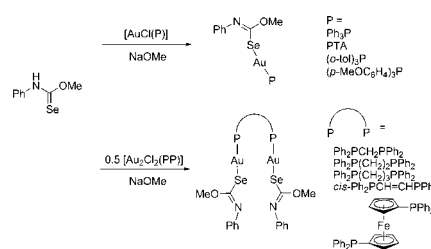


**Daniel Gallenkamp, Timo Porsch,
Anja Molter, Edward R.T. Tiekink,
Fabian Mohr**

J. Organomet. Chem. 694 (2009) 2380

Synthesis and structures of gold(I) phosphine complexes containing monoanionic selenocarbamate ester ligands

A series of mono- and dinuclear gold(I) phosphine complexes of the type $[Au\{SeC(OMe)=NPh\}(P)]$ [$P = PPh_3$, PTA, $P(o-tolyl)_3$, $P(p-MeOC_6H_4)_3$] and $[Au_2\{SeC(OMe)=NPh\}_2(\mu-PP)]$ ($PP = dpmp$, $dppe$, $dppp$, $dppf$, $dppee$) were prepared from the reaction of the appropriate chlorogold(I) phosphine complexes with *N*-phenyl-*O*-methylselenocarbamate in the presence of base. These new complexes were fully characterised by spectroscopic techniques and, in several cases, by X-ray crystallography.

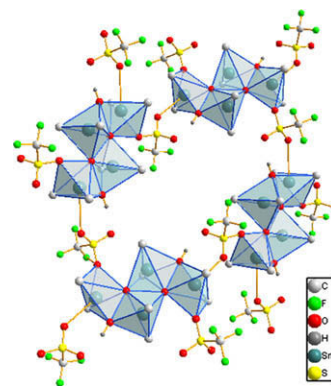


**Laurent Plasseraud, Hélène Cattey,
Philippe Richard,
Danielle Ballivet-Tkatchenko**

J. Organomet. Chem. 694 (2009) 2386

A novel two-dimensional organostannoxane coordination network promoted by phenazine: Synthesis, characterization and X-ray structure of $^2_{\infty}\{[n-Bu_2(\mu-OH)SnOSn(\mu-\eta^2-O_3SCF_3)n-Bu_2]_2[n-Bu_2(\eta^1-O_3SCF_3)SnOSn(\mu-OH)n-Bu_2]_2\}$

The title compound consists of an infinite one-dimensional chain composed of tetrameric hydroxo tetra-*n*-butyldistannoxane units bridged by bidentate trifluoromethanesulfonate ligands, $(\mu-\eta^2-O_3SCF_3)$. The formation of intermolecular hydrogen bonding and long Sn–O distance interactions between nearest-neighbour chains through *pseudo*-terminal trifluoromethanesulfonate ligands ($\eta^1-O_3SCF_3$) gives rise to the expansion of a novel and unexpected two-dimensional supramolecular network.



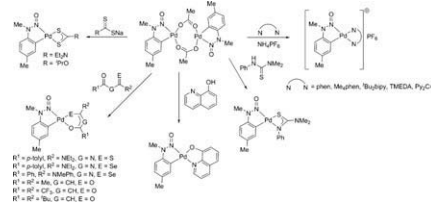
**Felix Fuge, Christian W. Lehmann,
Jörg Rust, Fabian Mohr**

J. Organomet. Chem. 694 (2009) 2395

Bridge cleavage reactions of cyclopalladated nitrosamines with thioamides and related compounds

The palladacycle $[Pd(\mu-O_2CMe)\{\kappa^2C,N-4-MeC_6H_3N(Me)NO\}]_2$ undergoes bridge cleavage reactions with a variety of compounds containing donor functionalities

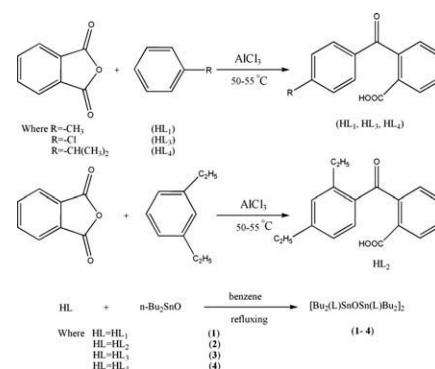
including thioamides, 8-hydroxyquinoline, thioureas, selenoureas, acetylacetone derivatives, dithiocarbamates, xanthates, as well as bidentate N-donors to afford either monomeric, neutral Pd(II) complexes or monocationic complexes in high yields. A series of 15 different complexes was prepared and fully characterised spectroscopically and, in some cases, by X-ray diffraction. It was also found that in solution the dithiocarbamate complex undergoes a disproportionation reaction to give a bis(cyclometallated) complex.



Wanli Kang, Xiaoyan Wu, Jianbin Huang*J. Organomet. Chem.* 694 (2009) 2402

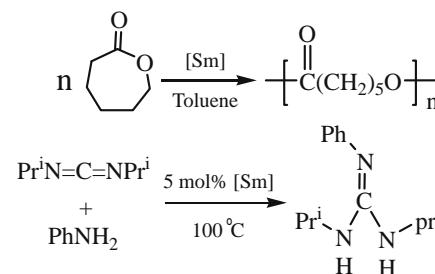
Synthesis, crystal structure and biological activities of four novel tetranuclear di-organotin(IV) carboxylates

Four tetranuclear di-organotin complexes **1–4** have been synthesized by the reaction of four substituted benzoic acids and di-*n*-butyltin oxide with azeotropic dehydration in the solvent of absolute benzene, respectively. The crystal structures of all complexes have been determined by X-ray crystallography.

**Bangyu Li, Yaorong Wang, Yingming Yao, Yong Zhang, Qi Shen***J. Organomet. Chem.* 694 (2009) 2409

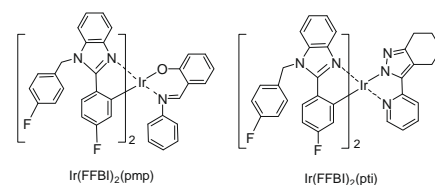
Synthesis, structure and reactivity of samarium complexes supported by Schiff-base ligands

Three of homoleptic Schiff-base samarium complexes $[3,5\text{-Bu}_2\text{-2-(O)C}_6\text{H}_2\text{CH=NAr}']_3\text{-Sm(THF)}_n$ [$\text{Ar}' = 4\text{-ClC}_6\text{H}_4$ (**1**), $4\text{-CH}_3\text{C}_6\text{H}_4$ (**2**), $8\text{-C}_9\text{H}_6\text{N}$ (quinoline) (**3**)] were prepared and structurally characterized. Complexes **1** and **2** showed moderate activity for the ring-opening polymerization of ϵ -caprolactone, as well as guanylation of aniline with *N,N*-diisopropylcarbodiimide, whereas complex **3** was almost inactive under the same reaction conditions.

**Chunxiang Li, Guanghui Zhang, Hung-Hsin Shih, Xiaoqing Jiang, Peipei Sun, Yi Pan, Chien-Hong Cheng***J. Organomet. Chem.* 694 (2009) 2415

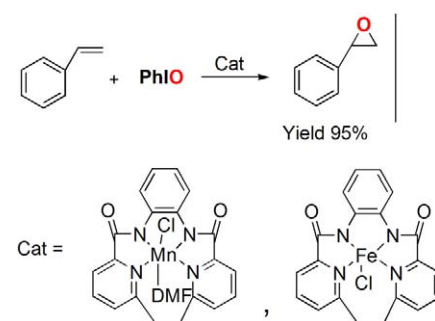
High-efficient phosphorescent iridium(III) complexes with benzimidazole ligand for organic light-emitting diodes: Synthesis, electrochemistry and electroluminescent properties

Two phosphorescent complexes $\text{Ir(FFBI)}_2\text{(pmp)}$ and $\text{Ir(FFBI)}_2\text{(pti)}$ were designed and conveniently synthesized. The single crystal of $\text{Ir(FFBI)}_2\text{(pmp)}$ was obtained. The light emitting and electrochemical properties of these complexes were studied. The electroluminescent devices based on these two complexes emitted cyan color, with high brightness and efficiencies. The maximum external quantum efficiencies reached to 6.8% and 11.6%, respectively.

**Li Yang, Zhiqing Wu, Lei Liang, Xiangge Zhou***J. Organomet. Chem.* 694 (2009) 2421

Synthesis, crystal structures and catalytic abilities of new macrocyclic bis-pyridine-amido Mn^{III} and Fe^{III} complexes

The new macrocyclic bis-pyridine amide Fe(III) and Mn(III) complexes have been synthesized, structurally determined and their applications in epoxidation have been studied with the best yield of 95% for styrene. The mechanism studies suggested the involvement of Mn(V)=O species during catalysis.

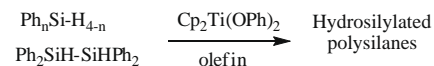


**Julien Garcia, Daniel J.M. Meyer,
Denis Guillaneux, Joël J.E. Moreau,
Michel Wong Chi Man**

J. Organomet. Chem. 694 (2009) 2427

Investigation of titanium-catalysed dehydrogenative coupling and hydrosilylation of phenylhydrogenosilanes in a one-pot process

$\text{Cp}_2\text{Ti}(\text{OPh})_2$ acts as a good catalyst for a one-pot hydrosilylation and dehydrogenative coupling reactions of primary and secondary phenylsilanes. While no reaction was observed from the tertiary silane (Ph_3SiH), the bulkier disilane ($\text{Ph}_2\text{HSi-SiHPh}_2$) undergoes also the hydrosilylation.

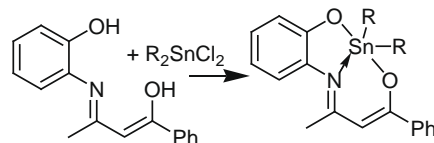


**Dilip Kumar Dey, Sankar Prasad Dey,
Nirmal Kumar Karan, Amitabha Datta,
Antonin Lycka, Georgina M. Rosair**

J. Organomet. Chem. 694 (2009) 2434

Structural and spectral studies of 3-(2-hydroxyphenylimino)-1-phenylbutan-1-one and its diorganotin(IV) complexes

Two diorganotin(IV) complexes of general formula $\text{R}_2\text{Sn}[\text{Ph}(\text{O})\text{C}=\text{CH}-\text{C}(\text{Me})=\text{N}-\text{C}_6\text{H}_4(\text{O})]$ have been synthesized from the corresponding diorganotin(IV) dichlorides and 3-(2-hydroxyphenylimino)-1-phenylbutan-1-one, in methanol. In diphenyltin compound, the central tin atom adopts distorted trigonal-bipyramidal geometry whereas in discrete molecule of dimethyltin compound, the coordination geometry is more square-pyramidal in character.



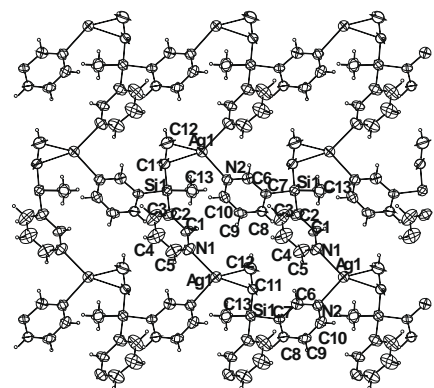
Neetu Rani, G.K. Rao, Ajai K. Singh

J. Organomet. Chem. 694 (2009) 2442

Bis(3-pyridyl)methylvinylsilane (**L1**) and 1,2-di(3-quinolyl) dimethyl disilane (**L2**): Synthesis and complexation reactions. Anion controlled solid state structures of cationic $\text{Ag}(\text{I})-\text{L1}$ complex

Bis(3-pyridyl)methylvinylsilane (**L1**) and 1,2-di(3-quinolyl)dimethyl disilane (**L2**) and their $\text{Ag}(\text{I})$, $\text{Pd}(\text{II})$ and $\text{Cu}(\text{II})$ complexes have been

synthesized and characterized by ^1H , $^{13}\text{C}\{^1\text{H}\}$ $^{29}\text{Si}\{^1\text{H}\}$ NMR and IR spectra and X-ray diffraction. The complex $[\text{Ag}(\text{L1})]\text{ClO}_4$ (**1**) has 2-D dimensional sheet structure having 25-membered metallamacrocycle. Silver bonded to vinyl group has distorted tetrahedral geometry. In the complex of AgCF_3SO_3 with **L1** vinyl group does not coordinate with silver, resulting in molecular strands in which geometry of silver is distorted trigonal planar. CF_3SO_3^- acts as a bridge between molecular strands through $\text{F}\cdots\text{H}$ (aromatic) and $\text{Ag}\cdots\text{O}$ secondary interactions. The $\text{Ag}-\text{C}$ distances in **1** are 2.309(5) and 2.350(12) Å. The $\text{C}=\text{C}$ bond length does not exhibit significant change on bonding with silver in **1**.

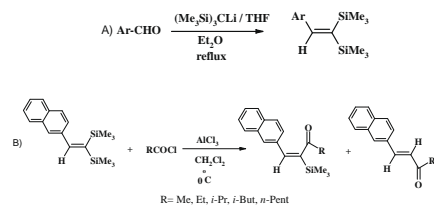


**Kazem D. Safa, Mina Namvari,
Akbar Hassanpour,
Shahin Tofangdarzadeh**

J. Organomet. Chem. 694 (2009) 2448

Synthesis and desilylation of some bis(trimethylsilyl)alkenes and polymers bearing bis(silyl)alkenyl groups

The synthesis of various vinylbis(silanes) from some aryl and heteroaryl aldehydes and $(\text{Me}_3\text{Si})_3\text{ClI}$ in Et_2O is described. Friedel-Crafts reaction of 1,1-bis(trimethylsilyl)-2-(2-naphthyl)ethene with different acyl chlorides (RCOCl , $\text{R} = \text{Me}$, Et , *iso*-Pr, *iso*-Bu, *n*-Pent) gave the corresponding α -silyl- α,β -unsaturated enones. These methodologies can be applied to the formylated poly(styrene).

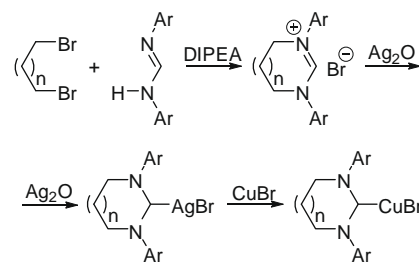


**Eugene L. Kolychev, Ivan A. Portnyagin,
Viacheslav V. Shuntikov,
Victor N. Khrustalev, Mikhail S. Nechaev**

J. Organomet. Chem. 694 (2009) 2454

Six- and seven-membered ring carbenes: Rational synthesis of amidinium salts, generation of carbenes, synthesis of Ag(I) and Cu(I) complexes

A new efficient method of synthesis of six- and seven-membered bulky ring amidinium bromides bearing bulky Mes (mesityl) and Dipp (2,6-(*i*-Pr)-Ph) aryl groups was developed. Deprotonation of these salts with Ag_2O leads to (NHC)AgBr (NHC – N-heterocyclic carbene) complexes. These complexes undergo further transmetalation when treated with CuBr to give (NHC)CuBr.



$n=1, 2$; Ar=Mes, Dipp

Note

**Gelson Manzoni de Oliveira,
Gleison Antônio Casagrande,
Ernesto Schulz Lang,
Rozanna Marques Muzzi,
Sebastião de Souza Lemos**

J. Organomet. Chem. 694 (2009) 2463

New examples of mixed organochalcogene compounds: Synthesis, structural features and spectroscopic data of $[\text{PhSe}(\text{etu})][\text{PhTeX}_4]$ (Ph = phenyl; etu = ethylenethiourea; X = Br, I)

$(\text{PhSe})_2$ reacts with Br_2/I_2 , ethylenethiourea and $\text{PhTeBr}_3/\text{PhTeI}_3$ to give $[\text{PhSe}(\text{etu})][\text{PhTeBr}_4]$ (Ph = phenyl; etu = ethylenethiourea) and $[\text{PhSe}(\text{etu})][\text{PhTeI}_4]$ in very good yields. Both compounds attain a one-dimensional, polymeric assembly; cations and anions are linked through short $\text{Se}\cdots\text{X}$ contacts, suggesting an alternative molecular interpretation.

