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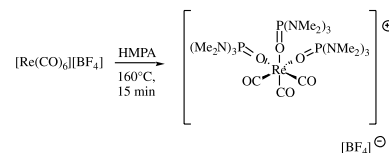
Short communication

**Stéphane Masi, Siden Top, Samuel Dagorne,
Richard Welter, Gérard Jaouen**

J. Organomet. Chem. 689 (2004) 273

Isolation of *fac*-[Re(CO)₃(HMPA)₃][BF₄]. Structural characterization of a key cationic intermediate in the exchange reaction between [Re(CO)₆][BF₄] and acetylferrocene. Implications in radiopharmaceutical chemistry

[Re(CO)₆][BF₄] reacts with HMPA to form [Re(CO)₃(HMPA)₃][BF₄], whose structure was determined by X-ray crystallography and proves to be a key intermediate in the ligand exchange reaction between three CO and Cp.



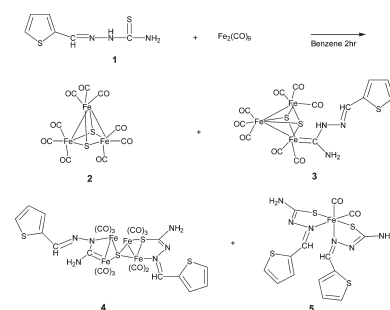
Regular papers

**Wen-Shyan Hong, Chih-Yu Wu,
Chen-Shiang Lee, Wen-Shu Hwang,
Michael Y. Chiang**

J. Organomet. Chem. 689 (2004) 277

Novel iron carbonyl complexes from thiophene-2-carboxaldehyde thiosemicarbazone

Mono-, tri-, and tetranuclear iron carbonyl complexes derived from thiophene-2-carboxaldehyde thiosemicarbazone were synthesized and fully characterized spectrally, and their structures were confirmed by means of single-crystal X-ray diffraction.

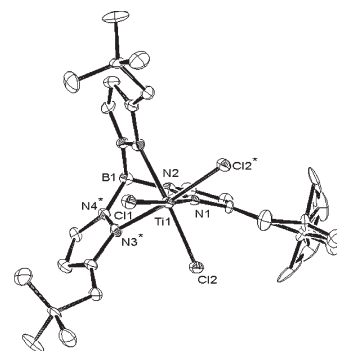


Marcelo P. Gil, Osvaldo L. Casagrande Jr.

J. Organomet. Chem. 689 (2004) 286

Titanium and zirconium complexes containing sterically hindered hydrotris(pyrazolyl)borate ligands: synthesis, structural characterization, and ethylene polymerization studies

The synthesis, characterization and ethylene polymerization behavior of a set of TpMCl₃ complexes (M=Ti, Zr; Tp=HB(3-neopentylpyrazolyl)₃⁻ (Tp^{Np}), HB(3-*tert*-butylpyrazolyl)₃⁻ (Tp^{tBu}), HB(3-phenylpyrazolyl)₃⁻ (Tp^{Ph})) is described. Treatment of these tris(pyrazolyl)borate Group IV compounds with methylalumoxane (MAO) generates active catalysts for ethylene polymerization.

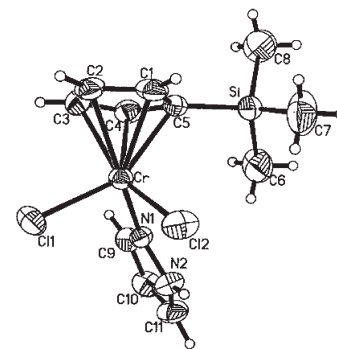


**René Rojas, Mauricio Valderrama,
María Teresa Garland**

J. Organomet. Chem. 689 (2004) 293

Substituted cyclopentadienylchromium(III) complexes containing neutral donor ligands. Synthesis, crystal structures and reactivity in ethylene polymerization

The synthesis and X-ray crystal structures of mono and dinuclear chromium(III) complexes: $[(\eta^5\text{-Me}_3\text{SiCp})\text{CrCl}_2(\text{pyrazole})]$ (**3**), $[\text{Cp}^*\text{CrCl}_2(\text{pyrazole})]$ (**4**) and $\{[(\eta^5\text{-CH}_2\text{C}(\text{Me})\text{CH}_2\text{Cp})\text{CrCl}_2(\mu\text{-L-L})]\}$ [$\text{L-L}=\text{Ph}_2\text{PCH}_2\text{-CH}_2\text{PPh}_2$ (**5**), *trans*- $\text{Ph}_2\text{P}(\text{O})\text{CH}=\text{CHP}(\text{O})\text{Ph}_2$ (**6**)] are described. After reaction with methylaluminumoxane, all complexes are active in the ethylene polymerization reaction. The dinuclear complexes are found to be three times more active than the mononuclear compound.

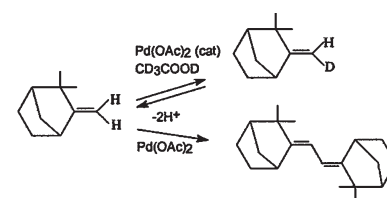


**Márcio José da Silva, José Ailton Gonçalves,
Rosemeire Brondi Alves,
Oliver W. Howarth, Elena V. Gusevskaya**

J. Organomet. Chem. 689 (2004) 302

Palladium catalyzed transformations of monoterpenes: stereoselective deuteration and oxidative dimerization of camphene

Camphene undergoes a highly regio and stereoselective palladium catalyzed deuteration and an oxidative coupling giving mainly (E,E)-diene in CD_3COOD solutions of $\text{Pd}(\text{Oac})_2$. An outward oriented vinylic hydrogen is selectively exchanged for ^2H . Results of the NMR study support a mechanism involving the formation of σ -vinyl palladium hydride intermediates for both reactions.

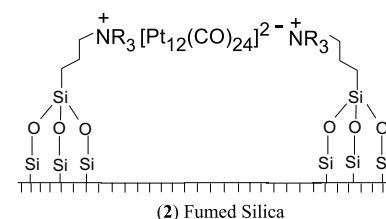


**Himadri Paul, Susmit Basu, Sumit Bhaduri,
Goutam Kumar Lahiri**

J. Organomet. Chem. 689 (2004) 309

Platinum carbonyl derived catalysts on inorganic and organic supports: a comparative study

In the hydrogenation of a variety of unsaturated substrates, **2** is found to be the most effective catalyst in comparison to similar cluster derived catalysts using other inorganic and organic polymer supports.

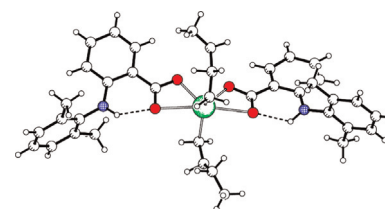


**Vaso Dokorou, Mavroudis A. Demertzis,
Jerry P. Jasinski,
Dimitra Kovala-Demertzi**

J. Organomet. Chem. 689 (2004) 317

Synthesis and spectroscopic studies of diorganotin derivatives with 2-[(2,6-dimethylphenyl)amino] benzoic acid. Crystal and molecular structure of the first complexes of 2-[(2,6-dimethylphenyl)amino] benzoic acid. Crystal and molecular structures of 1,2:3,4-di- μ_2 -2-[(2,6-dimethylphenyl)amino]benzoato-*O*,*O*-1,3-bis-2-[(2,6-dimethylphenyl)amino]benzoato-*O*-1,2,4:2,3,4-di- μ_3 -oxo-tetrakis[di-butyltin(IV)] and bis-2-[(2,6-dimethylphenyl)amino] benzoato-di-*n*-butyltin (IV)

The complexes $[\text{Bu}_2(\text{DMPA})\text{SnOSn}(\text{DMPA})\text{-Bu}_2]$ (**2**) and $[\text{Bu}_2\text{Sn}(\text{DMPA})_2]$ (**3**), where HDMPA is 2-[(2,6-dimethylphenyl) amino] benzoic acid, have been prepared and structurally characterized by means of, vibrational, ultra-violet and ^1H and ^{13}C NMR spectroscopies. The crystal structure of complexes **2** and **3** have been determined by X-ray crystallography. Complexes **2** and **3** are self-assembled via $\pi \rightarrow \pi$ and C-H- π stacking interactions.

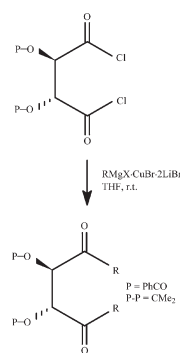


**Francesco Babudri, Vito Fiandanese,
Giuseppe Marchese, Angela Punzi**

J. Organomet. Chem. 689 (2004) 326

Synthesis of C_2 -symmetric 1,4-diketones from tartaric acid dichloride

C_2 -symmetric 1,4-diketones have been synthesized by reactions of tartaric acid dichloride with organocopper reagents.

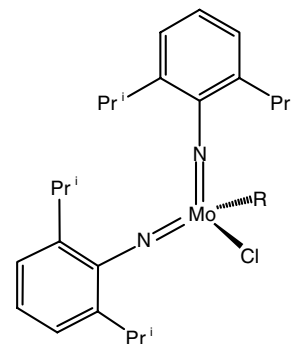


**Vernon C. Gibson, Carl Redshaw,
Gary L.P. Walker, William Clegg,
Mark R.J. Elsegood**

J. Organomet. Chem. 689 (2004) 332

Synthesis, characterization and reactivity of the molybdenum(VI) complex $[MoCl(NAr)_2(R)]$ ($R = CH_2CMe_2Ph$ (**1**), CH_2CMe_3 (**2**); $Ar = 2,6-Pr^i_2C_6H_3$)

The monoalkyl complexes $[MoCl(NAr)_2(R)]$ ($R = CH_2CMe_2Ph$ (**1**), CH_2CMe_3 (**2**); $Ar = 2,6-Pr^i_2C_6H_3$) are readily prepared from $[MoCl_2(NAr)_2(dme)]$ and one equivalent of the appropriate Grignard reagent $RMgCl$. Substitution of the chloride of **1** with carbon, oxygen or nitrogen ligands is readily accomplished using lithium reagents. Crystal structure analyses indicate the presence of α -agostic interactions.

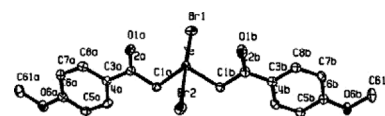


**Ashok K.S. Chauhan, Arun Kumar,
Ramesh C. Srivastava, Jens Beckmann,
Andrew Duthie, Ray J. Butcher**

J. Organomet. Chem. 689 (2004) 345

Synthesis and reactivity of *para*-substituted benzoylmethyltellurium(II and IV) compounds: observation of intermolecular C–H–O hydrogen bonding in the crystal structure of $(p\text{-MeOC}_6\text{H}_4\text{COCH}_2)_2\text{TeBr}_2$

Oxidative addition of SO_2Cl_2 , Br_2 and I_2 to $(p\text{-YC}_6\text{H}_4\text{COCH}_2)_2\text{Te}$ affords the corresponding bis(*p*-substituted benzoylmethyl) tellurium(IV) dihalides. Addition of allyl bromide results in the formation of $(p\text{-YC}_6\text{H}_4\text{COCH}_2)_2\text{TeBr}_2$ which can also be prepared by the direct reaction of elemental Te with $p\text{-YC}_6\text{H}_4\text{COCH}_2\text{Br}$. Single crystal X-ray structure of $(p\text{-MeOC}_6\text{H}_4\text{COCH}_2)_2\text{TeBr}_2$ consists of only one crystallographically independent molecule which is consistent with the single resonance found in the ^{125}Te MAS NMR spectrum. In addition intermolecular C–H–O hydrogen bonds appear to be the non-covalent associative force that dominate the crystal packing.

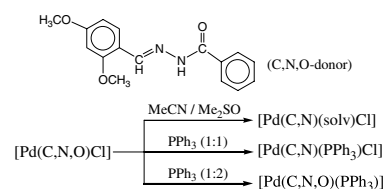


Sunirban Das, Samudranil Pal

J. Organomet. Chem. 689 (2004) 352

Cyclopalladated complexes with *N*-(benzoyl)-*N'*-(2,4-dimethoxybenzylidene)hydrazine: syntheses, characterization and structural studies

Five new cyclopalladated complexes with the Schiff base *N*-(benzoyl)-*N'*-(2,4-dimethoxybenzylidene)hydrazine (H_2L) have been described. The complexes have been characterized by analytical, spectroscopic and X-ray crystallographic methods. The monoanionic ligand (HL^-) behaves as C,N- as well as C,N,O-donor and the dianionic ligand (L^{2-}) acts as C,N,O-donor.

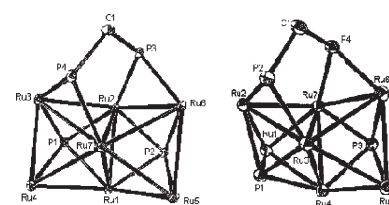


**Xinhua Zhong, Siau-Gek Ang,
How-Ghee Ang**

J. Organomet. Chem. 689 (2004) 361

Synthesis and structural studies of polynuclear ruthenium clusters derived from reactions of 1,2,3,4-tetraphenyl-1,2,3,4-tetra-phospholane with $[\text{Ru}_3(\text{CO})_{12}]$

The reactions of 1,2,3,4-tetraphenyl-1,2,3,4-tetra-phospholane $[(\text{PPh})_4\text{CH}_2]$ with $[\text{Ru}_3(\text{CO})_{12}]$ result in the cleavage of P–P bonds and even P–C bond(s) in the ligands to yield a series of polynuclear ruthenium cluster derivatives with unusual structures.

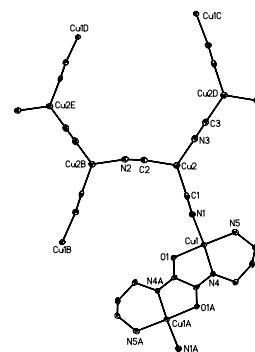


**Hui-Zhong Kou, Bei Chuan Zhou,
Ru-Ji Wang**

J. Organomet. Chem. 689 (2004) 369

Assembly of an interpenetrating three-dimensional mixed-valence $\text{Cu}^{\text{II}}/\text{Cu}^{\text{I}}$ coordination polymer

A novel cyano-bridged three-dimensional mixed-valence $\text{Cu}^{\text{II}}/\text{Cu}^{\text{I}}$ compound $[\text{Cu}_2(\text{oxpn})][\text{Cu}(\text{CN})_2]_2$ (oxpn^{2-} = dianion of *N,N'*-bis(3-aminopropyl)oxamide) has been synthesized and structurally characterized.

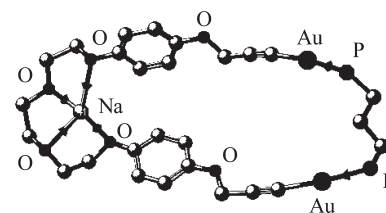


Fabian Mohr, Richard J. Puddephatt

J. Organomet. Chem. 689 (2004) 374

Golden crowns: cation binding by macrocyclic gold(I) crown ether derivatives

Macrocyclic gold(I) crown ether derivatives of the type $[\text{Au}_2(\mu\text{-CC})(\mu\text{-PP})]$, where PP is a diphosphine ligand and CC a polyether containing diacetylide ligand are reported. The ability of these complexes to bind cations was studied by electrospray mass spectrometry.

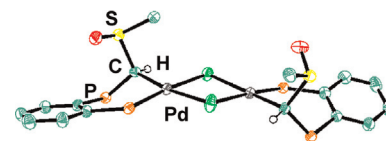


**Remigiusz Zurawinski, Bruno Donnadieu,
Marian Mikołajczyk, Remi Chauvin**

J. Organomet. Chem. 689 (2004) 380

Palladium complexes of a chiral P,C-chelating phosphino-(sulfinylmethyl) phosphonium ylide ligand

A chiral palladium(II) complex with a resolved η^1 asymmetric ylidic carbon atom is described.

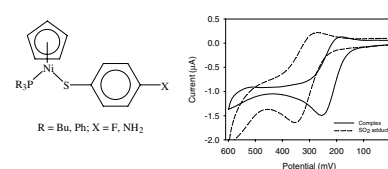


**Makwena J. Moloto, Simphiwe M. Nelana,
Richard M. Moutloali, Ilia A. Guzei,
James Darkwa**

J. Organomet. Chem. 689 (2004) 387

Cyclopentadienylnickel thiolate complexes: synthesis, molecular structures and electrochemical detection of sulfur dioxide adducts

Cyclopentadienylnickel thiolates with phosphine ancillary ligands react with sulfur dioxide to form SO₂ adducts that can be detected electrochemically. The difference in oxidation potentials between the pre- and post-SO₂ compounds indicate that these nickel thiolates could be used as potentiometric SO₂ sensors.

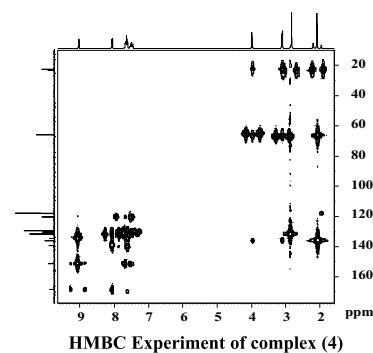


**Raúl Contreras, Bárbara Loeb,
Mauricio Valderrama, Mario Lagos,
Francisco Burgos,
Paola Ramírez, Javier Concepción**

J. Organomet. Chem. 689 (2004) 395

Synthesis and reactivity of new methylallylpalladium(II) complexes with bidentate 2-(methylthio-*N*-benzylidene)anilines

The synthesis and reactivity of the cationic compounds [(η³-Me-allyl)Pd(BS)]BF₄ (1–6) (BS=2-(methylthio-*N*-benzylidene)anilines) is reported. The complexes have been characterised by elemental analysis, mass spectrometry, FT-IR and NMR spectroscopies. The ¹³C chemical shifts of complexes 1–6 were mainly assigned by means of HSQC and HMBC experiments.

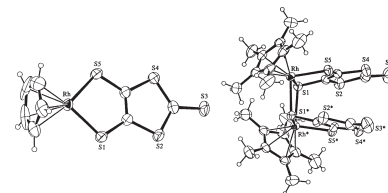


**Kazuhiro Kawabata, Motohiro Nakano,
Hatsue Tamura, Gen-etsu Matsubayashi**

J. Organomet. Chem. 689 (2004) 405

Crystal structures of [Rh(η⁵-C₅H₅)(C₃S₅)] and [Rh(η⁵-C₅Me₅)(C₃S₅)₂] and properties of their oxidized species

[Rh(η⁵-C₅H₅)(C₃S₅)] and [Rh(η⁵-C₅Me₅)(C₃S₅)₂][C₃S₅²⁻=4,5-disulfanyl-1,3-dithiole-2-thionate(2-)] were prepared by reactions of [NMe₄]₂[C₃S₅] with [Rh(η⁵-C₅H₅)Cl₂]₂ and [Rh(η⁵-C₅Me₅)Cl₂]₂, respectively. Their X-ray crystal structural analyses revealed a monomeric form for the former complex and a dimeric geometry containing bridging S–Rh–S bonds for the latter in the solid state. Reactions of them with bromine afforded [RhBr(L)(C₃S₅)] (L = η⁵-C₅H₅ and η⁵-C₅Me₅) with the Rh–Br bond and one electron-oxidation on the C₃S₅ ligand. ESR spectra of these oxidized species are discussed.

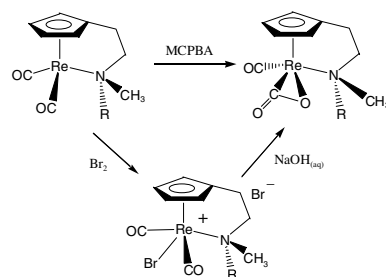


**Tein-Fu Wang, Chong-Chen Hwu,
Yuh-Sheng Wen**

J. Organomet. Chem. 689 (2004) 411

Aminorhenium carbon dioxide complexes: formal oxidation of a carbon monoxide ligand with peroxy-acids or bromine/hydroxide

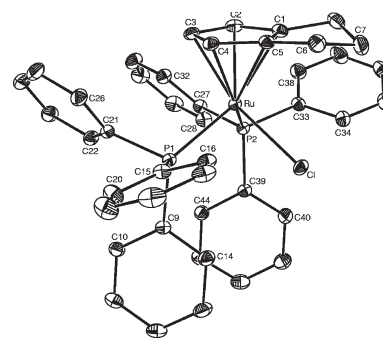
Aminorhenium η²-CO₂ complex could be obtained by oxidation of the corresponding dicarbonyl complex with peroxy-acids and/or by bromination followed by base treatment.



Rein U. Kirss, Richard D. Ernst, Atta M. Arif
J. Organomet. Chem. 689 (2004) 419

Chloro(η^5 -dihydropentalenyl)bis(triphenylphosphine)ruthenium(II): synthesis, structural characterization and catalytic activity in the dimerization of phenylacetylene

Reaction between $\text{HRuCl}(\text{PPh}_3)_3$ and 1,3- or 1,5-cyclooctadiene yields $(\eta^5\text{-C}_8\text{H}_9)\text{Ru}(\text{PPh}_3)_2\text{Cl}$ through a series of steps including olefin insertion and electrocyclization. $(\eta^5\text{-C}_8\text{H}_9)\text{Ru}(\text{PPh}_3)_2\text{Cl}$ catalyzes the dimerization of phenylacetylene to a $\approx 2:1$ mixture of *Z:E* 1,4-diphenyl-1-buten-3-yne.

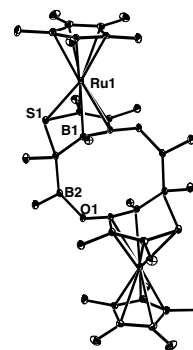


Bettina Bach, Yong Nie, Hans Pritzkow, Walter Siebert

J. Organomet. Chem. 689 (2004) 429

Reactivity of electron-poor decamethyl-1,3-diboraruthenocene with sulfur and phosphorus compounds

Decamethyl-1,3-diboraruthenocene **1** reacts with sulfur and hydrogen sulfide to give the corresponding ruthena-sulfide sandwich **3** and a ruthenathiacarboranyl complex, respectively. **3** loses sulfur and unexpectedly a *closo*-diruthenacarborane is formed. COS and CS_2 are incorporated into **1** to yield dinuclear ruthenium compounds **7** (see pictogram) and **8**. On heating **1** and P_4 in toluene, a sandwich is obtained by formal insertion of a PH group into the diborolyl ring of **1**.

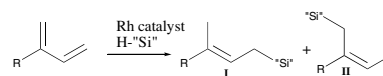


Magnus Gustafsson, Torbjörn Frejd

J. Organomet. Chem. 689 (2004) 438

Regioselectivity in the rhodium catalysed 1,4-hydrosilylation of isoprene. Aspects on reaction conditions and ligands

The effects of reaction conditions and choice of ligands on the regioselectivity were studied. The **I:II** ratio varied between 15:85 and 86:14 (yields were >90%). Different temperatures and solvents did not significantly affect the ratio of isomers. The choice of ligand had the greater influence.

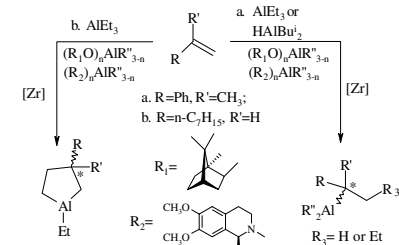


Leonard M. Khalilov, Ludmila V. Parfenova, Svetlana V. Pechatkina, Askhat G. Ibragimov, Jean P. Genet, Usein M. Dzhemilev, Irina P. Beletskaya

J. Organomet. Chem. 689 (2004) 444

An effect of application of chiral aluminium alkoxides and amides as adducts to zirconium catalyzed carbo- and cycloalumination of olefins

The synthesis of the chiral OACs was carried out in the reaction of either natural camphor or salsolidine with both AlEt_3 and $i\text{-Bu}_2\text{AlH}$. The main goal of the research was to investigate the stereodifferentiating activity of the chiral OACs in the olefin carbo- and cycloalumination reactions, catalyzed by Cp_2ZrCl_2 .

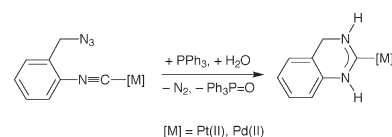


Marino Basato, Franco Benetollo, Giacomo Facchin, Rino A. Michelin, Mirto Mozzon, Sandra Pugliese, Paolo Sgarbossa, Silvia Mazzega Sbovata, Augusto Tassan

J. Organomet. Chem. 689 (2004) 454

The Staudinger reaction of platinum(II)- and palladium(II)-coordinated 2-(azidomethyl)-phenyl isocyanide. X-ray structure of *trans*-[PtCl{CN(H)C₆H₄-2-CH₂N(H)}(PPh₃)₂][BF₄]·CDCl₃·H₂O

2-(Azidomethyl)phenyl isocyanide, 2-(CH₂N₃)C₆H₄N≡C (AziNC), coordinates to some cationic Pt(II) and Pd(II) species to afford isocyanide complexes of the type *trans*-[MCl(AziNC)(PPh₃)₂][Y] (M=Pt, Pd; Y=BF₄, Cl). The coordinated AziNC undergoes the Staudinger reaction with PPh₃ and in the presence of H₂O is converted to the new type of heterocyclic carbene ligand quinazolin-2-ylidene.

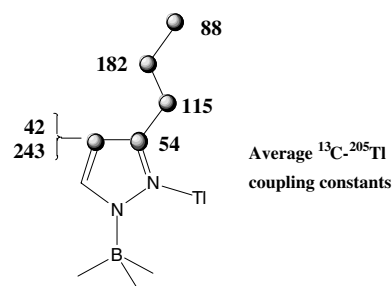


Rosa M. Claramunt, Dionisia Sanz, M. Dolores Santa María, José Elguero, Swiatoslaw Trofimenko

J. Organomet. Chem. 689 (2004) 463

A multinuclear NMR study in the solid state and in solution of thallium(I) tris-(pyrazol-1-yl)borates (thallium scorpionates)

¹H, ¹³C and ¹⁵N NMR spectra of five thallium tris-(pyrazol-1-yl)borates and a tetrakis derivative were recorded in solution and in the solid state. In solid state, a large coupling constant (between 194 and 282 Hz) has been measured on the 4-carbon of the pyrazole ring, assigned to a 4-C-H···Tl interaction.

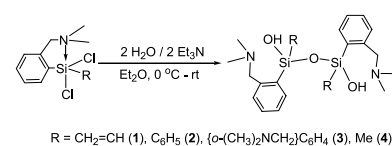


Hyeon Mo Cho, Sea Ho Jeon, Han Kuk Lee, Jung Hoon Kim, Sangwoo Park, Moon-Gun Choi, Myong Euy Lee

J. Organomet. Chem. 689 (2004) 471

Facile syntheses, structural characterizations, and isomerization of disiloxane-1,3-diols

In the hydrolysis reaction of dichlorosilanes having an intramolecular coordinating atom, disiloxane-1,3-diols, [(OH){*o*-(CH₃)₂NCH₂-C₆H₄}RSi]₂O (R = CH₂=CH (1) C₆H₅ (2), {*o*-(CH₃)₂NCH₂}C₆H₄ (3), Me (4)), were obtained in high yields. They showed strong intramolecular hydrogen bondings, and the diastereomeric isomerization of *meso*-2 to *rac*-2 in CDCl₃ solvent containing moisture was observed.

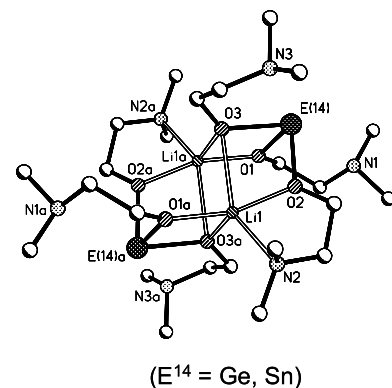


Victor N. Khrustalev, Michael Yu. Antipin, Nikolay N. Zemlyansky, Irina V. Borisova, Yuri A. Ustynyuk, Valery V. Lunin, Jacques Barrau, Ghassoub Rima

J. Organomet. Chem. 689 (2004) 478

Ate complexes of Ge(II) and Sn(II) with bidentate ligands [LiE¹⁴(OCH₂CH₂NMe₂)₃]₂ (E¹⁴ = Ge, Sn): synthesis and structure

The reaction of equimolar quantities of E¹⁴(OCH₂CH₂NMe₂)₂ (E¹⁴ = Ge, Sn) and LiOCH₂CH₂NMe₂ in ether yielded new *ate* complexes [LiE¹⁴(OCH₂CH₂NMe₂)₃]₂ with bidentate ligands. The structures of both compounds are studied by X-ray diffraction analysis.

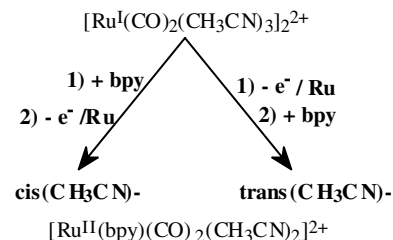


Garth Cripps, Aymeric Pellissier,
Sylvie Chardon-Noblat, Alain Deronzier,
Raymond J. Haines

J. Organomet. Chem. 689 (2004) 484

Selective formation of *trans* and *cis*(CH₃CN) isomers of [Ru(bpy)(CO)₂(CH₃CN)₂]²⁺ (bpy = 2,2'-bipyridine) from [Ru(CO)₂(CH₃CN)₃]₂(PF₆)₂ using an electrochemical oxidation step

Cis and *trans*(CH₃CN)-[Ru(bpy)(CO)₂(CH₃CN)₂]²⁺ monomer complexes are selectively synthesized from [Ru(CO)₂(CH₃CN)₃]₂²⁺ dimer through a combination of two steps: electrochemical oxidation and bpy coordination. Synthetic control over the structural isomer formed is achieved simply by varying the order of these steps.

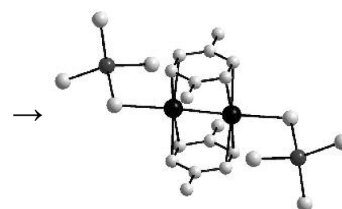


Mikhail Gorlov, Andreas Fischer, Lars Kloo

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Reaction between palladium(II) and gallium(III) halogenides in arenes: influence of halogen nature on the formation of binuclear palladium(I) clusters

Binuclear palladium(I) complexes of the general formula [Pd₂(GaBr₄)₂(arene)₂] (arene = benzene, toluene, *p*-xylene) are products of the reaction between palladium(II) bromide and gallium(III) bromide in arenes. Syntheses and crystal structures of three new complexes of this type are discussed together with the comparison with analogous chloride complexes.



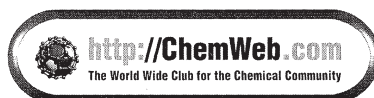
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