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Publisher's note 1

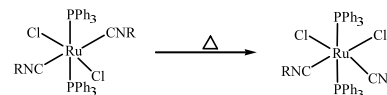
Regular Papers

**Florence M. Nareetsile,
Owen P.M. Horwood, David G. Billing,
Demetrius C. Levendis, Neil J. Coville**

J. Organomet. Chem. 682 (2003) 2

Solid state isomerisation reactions of some ruthenium complexes

The isomerisation of *ttt*-RuCl₂(RNC)₂(PPh₃)₂ (R = 2,6-xylyl, ^tBu, ⁱPr, benzyl, 2-OMe-4-Clphenyl) to *cct*-RuCl₂(RNC)₂(PPh₃)₂ has been carried out in the solid state. Kinetic studies of these isomerisation reactions have been followed by NMR spectroscopy and a mechanism involving rotation of Cl and RNC is proposed.

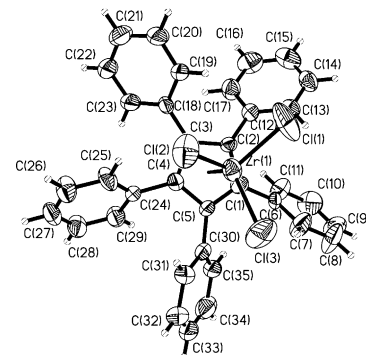


**Deborah L. Greene, Alex Chau,
Marisa Monreal, Carmen Mendez, Iris Cruz,
Tambi Wenj, Wayne Tikkanen,
Brian Schick, Katherine Kantardjieff**

J. Organomet. Chem. 682 (2003) 8

Synthesis, characterization and structures of zirconocene complexes of sterically demanding pentaphenylcyclopentadienyl and tetraphenyl-*m*-tolyl cyclopentadienyl ligands

The piano stool complexes pentaphenylcyclopentadienyltrichlorozirconium(IV) (**I**) and *m*-tolyltetraphenylcyclopentadienyltrichlorozirconium(IV) (**II**) show rapid phenyl ring flipping even at -90°C . Both **I** and **II** are active catalysts for [4+2] cycloaddition reactions of methyl acrylate and acrolein with cyclopentadiene whereas the bent sandwich Cp(C₅Ph₅)ZrCl₂ (**III**) does not display appreciable acceleration of these cycloaddition reactions.

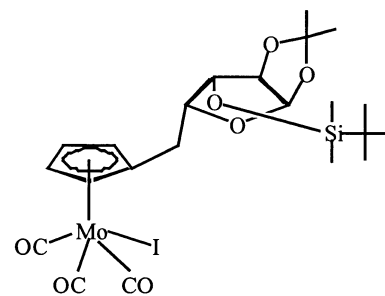


**Ana C. Fernandes, Carlos C. Romão,
Beatriz Royo**

J. Organomet. Chem. 682 (2003) 14

Novel carbohydrate-substituted cyclopentadienyls of titanium, molybdenum, manganese and iron

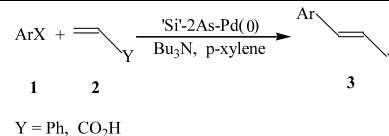
A novel carbohydrate-substituted cyclopentadiene and its transformation into the thallium, iron, titanium, manganese and molybdenum derivatives have been synthesised and characterised by elemental analysis, IR and ¹H- and ¹³C-NMR spectroscopy.



Mingzhong Cai, Yizheng Huang, Hong Zhao, Caisheng Song
J. of Organomet. Chem. 682 (2003) 20

Silica-supported bidentate arsine palladium(0) complex: a highly active and stereoselective catalyst for arylation of conjugated alkenes

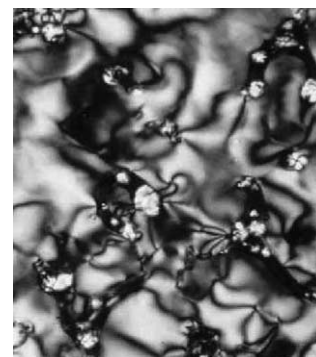
The silica-supported bidentate arsine palladium(0) complex ($^{\text{Si}}\text{-2As-Pd(0)}$) is a highly active and stereoselective catalyst for arylation of styrene and acrylic acid with aryl halides affording a variety of *trans*-stilbenes and substituted *trans*-cinnamic acids in high yields.


M.C. Torralba, M. Cano, S. Gómez, J.A. Campo, J.V. Heras, J. Perles, C. Ruiz-Valero
J. Organomet. Chem. 682 (2003) 26

Bridged 3,5-disubstituted pyrazolate ligands as support of metallomesogens containing $[\text{Pd}(\eta^3\text{-C}_3\text{H}_5)]^+$ fragments
X-ray crystal structure of $[\text{Pd}(\eta^3\text{-C}_3\text{H}_5)(\mu\text{-pz}^{\text{R}^2})_2] \cdot \text{CH}_2\text{Cl}_2$ ($\text{R} = \text{C}_6\text{H}_4\text{OC}_{12}\text{H}_{25}$). Part III

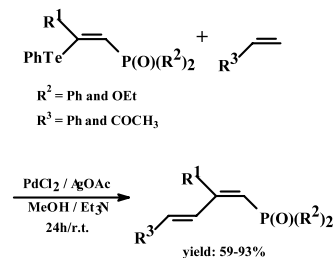
Two new long-chain 3,5-disubstituted pyrazoles Hpz^{R^2} ($\text{R} = \text{C}_6\text{H}_4\text{OC}_n\text{H}_{2n+1}$, $n = 16, 18$) have been proved to be mesogenic com-

pounds as the related ligands with shorter chains. Pd(II) complexes of the type $[\text{Pd}(\eta^3\text{-C}_3\text{H}_5)(\mu\text{-pz}^{\text{R}^2})_2]$ ($\text{R} = \text{C}_6\text{H}_4\text{OC}_n\text{H}_{2n+1}$, $n = 8, 10, 12, 14, 16, 18$) (**1–6**) containing the mesomorphic ligands as pyrazolate-bridging groups have been prepared and their thermal behaviour studied. The structure of the Pd-compound with $n = 12$ (**3**) was solved evidencing a bowl-like core. The Pd-complexes **2–6** were found to have enantiotropic smectic phases (see figure) which could be related with the molecular rod-like type by considering the molecular dimensionality (47.80 Å in length \times 4.75 Å in wide). The tendency to a molecular ordering of layer-like type is observed in the packing of **3** as well as on the smectic mesophases.


Antonio L. Braga, Cristiano R.B. Rhoden, Gilson Zeni, Claudio C. Silveira, Leandro H. Andrade
J. of Organomet. Chem. 682 (2003) 35

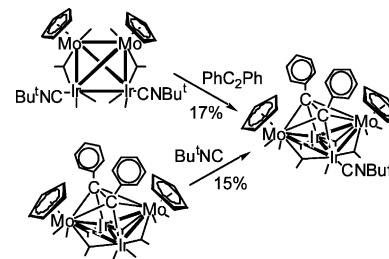
Stereospecific synthesis of phosphono-(*1Z,3E*)-dienyl compounds from β -phenyltelluro-vinylphosphonates and -vinylphosphine oxides

Phosphono-1,3-dienyl compounds **2** can be prepared by palladium cross-coupling reaction of β -phenyltelluro-vinylphosphonates or -vinylphosphine oxides **1** with alkenes in the presence of a catalytic amount of PdCl_2 and AcOAg as reoxidant at room temperature. The coupling reaction is stereospecific and the compounds **2** were obtained in good yields with total retention of configuration.


Alistair J. Usher, Mark G. Humphrey, Anthony C. Willis
J. Organomet. Chem. 682 (2003) 41

Mixed-metal cluster chemistry 25
Mixed ligand derivatives of $\text{MoIr}_3(\mu\text{-CO})_3(\text{CO})_8(\eta\text{-C}_5\text{Me}_5)$ ($\text{R} = \text{H, Me}$) and $\text{Mo}_2\text{Ir}_2(\mu\text{-CO})_3(\text{CO})_7(\eta\text{-C}_5\text{H}_5)_2$; X-ray crystal structures of $\text{MoIr}_3(\mu\text{-CO})_3(\text{CO})_6(\text{PPh}_3)_2(\eta\text{-C}_5\text{Me}_5)$ and $\text{Mo}_2\text{Ir}_2(\mu_4\text{-}\eta^2\text{-PhC}_2\text{Ph})(\mu\text{-CO})_4(\text{CNBu}^t)(\text{CO})_3(\eta\text{-C}_5\text{H}_5)_2$

Reactions of $\text{MoIr}_3(\mu\text{-CO})_3(\text{CO})_8(\eta\text{-C}_5\text{Me}_5)$ (**1**) with Bu^tNC afford $\text{MoIr}_3(\mu\text{-CO})_3(\text{CNBu}^t)_n(\text{CO})_{8-n}(\eta\text{-C}_5\text{Me}_5)$ ($n = 1-3$); surprisingly, **1** reacts with PPh_3 to afford the bis-product $\text{MoIr}_3(\mu\text{-CO})_3(\text{CO})_6(\text{PPh}_3)_2(\eta\text{-C}_5\text{Me}_5)$ (**5**) only. Reactions of $\text{Mo}_2\text{Ir}_2(\mu\text{-CO})_2(\text{CNBu}^t)_2(\text{CO})_6(\eta\text{-C}_5\text{H}_5)_2$ with diphenylacetylene or $\text{Mo}_2\text{Ir}_2(\mu_4\text{-}\eta^2\text{-PhC}_2\text{Ph})(\mu\text{-CO})_4(\text{CO})_4(\eta\text{-C}_5\text{H}_5)_2$ with Bu^tNC result in complex mixtures of products from which $\text{Mo}_2\text{Ir}_2(\mu_4\text{-}\eta^2\text{-PhC}_2\text{Ph})(\mu\text{-CO})_4(\text{CNBu}^t)(\text{CO})_3(\eta\text{-C}_5\text{H}_5)_2$ (**9**) can be isolated in low yield. Compounds **5** and **9** have been X-ray crystallographically characterized.

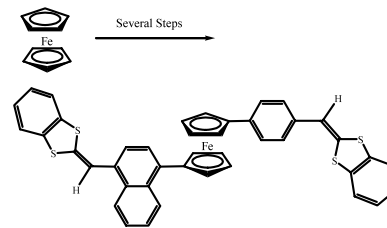


Abd El-Wareth Sarhan, Tatsuro Kijima, Taeko Izumi

J. Organomet. Chem. 682 (2003) 49

Synthesis and electrochemical properties of 1,1'-bis(benzo-1,3-dithiol-2-ylidene)ferrocene derivatives as novel electron donor compounds

A number of 1,1'-bis(benzo-1,3-dithiol-2-ylidene)ferrocene derivatives were synthesized as new π -donors. These new classes of donor compounds were obtained in very high yields based on modification of the Wittig–Horner reaction and the 1,3-dithiole rings were separated by conjugated spacers including aryl-ferrocenyl-aryl. The electrochemical properties of the new compounds have been studied in comparison to DB-TTF analogues, and the parent ferrocene donor by cyclic voltammetry (CV).



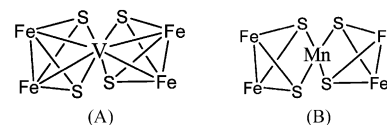
Abd El-Wareth Sarhan, Tatsuro Kijima and Taeko Izumi

Botao Zhuang, Jun Chen, Lingjie He, Haofeng Sun, Zhangfeng Zhou, Chensheng Lin, Kechen Wu, Zixiang Huang

J. Organomet. Chem. 682 (2003) 59

Mixed metal pentanuclear clusters $[\text{MFe}_4\text{S}_4(\text{CO})_{12}]^{z-}$ ($\text{M} = \text{V}, \text{Mn}$ and Cr ; $z = 0, 2$) and X-ray crystal structures of $[\text{VFe}_4\text{S}_4(\text{CO})_{12}]$ and $[\text{MnFe}_4\text{S}_4(\text{CO})_{12}]^{2-}$

New mixed metal penta-nuclear clusters $[\text{VFe}_4\text{S}_4(\text{CO})_{12}]$ (**1**), $[\text{Et}_4\text{N}]_2[\text{MnFe}_4\text{S}_4(\text{CO})_{12}]$ (**2**) and $[\text{Et}_4\text{N}]_2[\text{CrFe}_4\text{S}_4(\text{CO})_{12}]$ (**3**) have been synthesized by the reaction of $[\text{Fe}_2\text{S}_2(\text{CO})_6]^{2-}$ with VCl_3 , MnCl_2 and $\text{CrCl}_3 + \text{Zn}$, respectively. Compound **1** contains a $[\text{VFe}_4\text{S}_4]$ core with V–Fe bonds (A) and **2** possesses a $[\text{MnFe}_4\text{S}_4]^{2-}$ core without any Mn···Fe interaction (B). The $[\text{Fe}_2\text{S}_2]$ -units in both **1** and **2** are in butterfly type. IR spectra studies imply that **3** probably possess the same structure as complex **2** does. The reaction pathway of the complexes have been figured out and discussed.

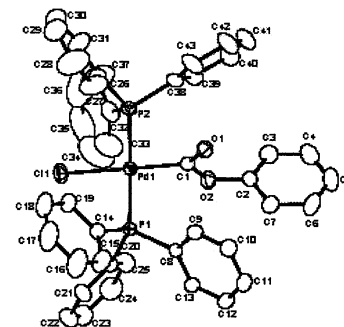


Hiroyuki Yasuda, Noriko Maki, Jun-Chul Choi, Toshiyasu Sakakura

J. Organomet. Chem. 682 (2003) 66

Synthesis and reactivity of phenoxy carbonyl palladium complex: relevant to the mechanism of oxidative carbonylation of phenol

The phenoxy carbonyl palladium complex $\text{PdCl}(\text{CO}_2\text{Ph})(\text{PPh}_3)_2$ was synthesized and characterized by X-ray crystallography. The diphenyl carbonate formation was confirmed by the simple thermolysis of the complex or the reaction with phenoxide.

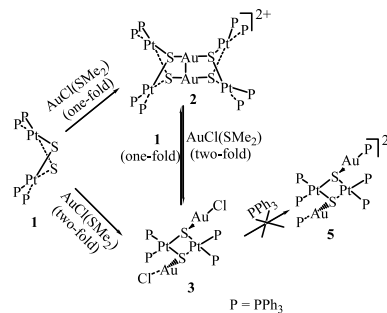


Zhaohui Li, K.F. Mok, T.S. Andy Hor

J. Organomet. Chem. 682 (2003) 73

Heterometallic multinuclear Pt–M ($\text{M} = \text{Au}, \text{Ag}$) structural assemblies from dinuclear $[\text{Pt}_2(\text{P}-\text{P})_2(\mu-\text{S})_2]$ ($\text{P}-\text{P} = 2\text{PPh}_3, \text{dppf}$)

Three heterometallic Pt–M ($\text{M} = \text{Ag}, \text{Au}$) complexes, viz. $[\text{Au}_2\{\text{Pt}_2(\text{PPh}_3)_4(\mu_3-\text{S})_2\}_2]\text{Cl}_2$ (**2**), $\text{Au}_2\text{Pt}_2\text{Cl}_2(\text{PPh}_3)_4(\mu_3-\text{S})_2$ (**3**) and $\text{Ag}_2\text{Pt}_2\text{Cl}_2(\text{dppf})_2(\mu_3-\text{S})_2$ (**4**) ($\text{dppf} = 1,1'$ -bis(diphenylphosphino)ferrocene) were prepared from $\text{Pt}_2(\text{P}-\text{P})_2(\mu_3-\text{S})_2$ ($\text{P}-\text{P} = 2\text{PPh}_3$ (**1a**), dppf (**1b**)). The structural features of these polymetallic complexes and the synthetic and structural relationships between **2** and **3** are described.

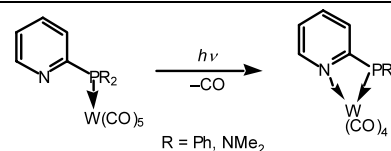


P = PPh_3

Katsunori Nishide, Shigekazu Ito, Masaaki Yoshifuji
J. Organomet. Chem. 682 (2003) 79

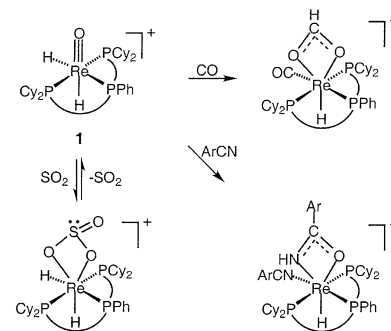
Preparation of carbonyltungsten(0) complexes of 2-pyridylphosphines showing a stepwise coordination pattern by way of monodentate to chelate mode

2-Pyridylphosphines, R_2PyP ($R = Ph, NMe_2$; $Py = 2$ -pyridyl), were allowed to react with $W(CO)_5(thf)$ to afford the mono-coordinated tungsten(0) complexes on the phosphorus $[R_2PyP][W(CO)_5]$ and their structures were confirmed by X-ray crystallography. The monocoordinated complexes were irradiated with light to afford the chelate complexes $[R_2PyP][W(CO)_4]$ by loss of one CO from the pentacarbonyls.

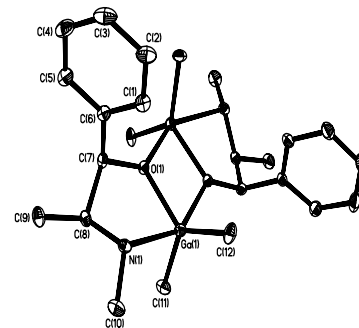

Youhyuk Kim, Dean E. Rende, Judith C. Gallucci, Andrew Wojcicki
J. Organomet. Chem. 682 (2003) 85

Transfer of hydrogen, oxygen, or both hydrogen and oxygen to unsaturated substrates from $[ReH_2(O)(Cytpp)]^+$ ($Cytpp = PhP(CH_2CH_2CH_2PCy_2)_2$)

The dihydrido-oxo complex $[ReH_2(O)(Cytpp)]X$ (**1**: $X = SbF_6, OTf$) reacts with CO, RNC, SO_2 , $P(OMe)_3$, alkenes, $PhC\equiv CH$, and RCN to transfer hydrogen, oxygen, and/or both hydrogen and oxygen to the unsaturated compound. Complex **1**(OTf) catalyzes partial hydration of nitriles to amides.

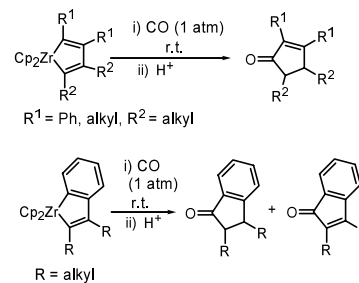

Fang Yuan, Chengjian Zhu, Jiangtao Sun, Yongjiang Liu, Yi Pan
J. Organomet. Chem. 682 (2003) 102

Synthesis and asymmetric catalytic activities of chiral organogallium and indium complexes with ephedrine derivatives as ligands. The crystal structure of $[(1R, 2S)-(Me_2E-\mu-OCH(C_6H_5)CH(CH_3)-\mu-NRCH_3)]_2$ [$E = Ga, R = H$ (**1**), CH_3 (**2**), CH_2Ph (**3**); $E = In, R = H$ (**4**), CH_3 (**5**), CH_2Ph (**6**)] in high yields. Structure of the compound **1** determined by single-crystal X-ray analysis shows a dimeric feature containing a standard parallelogram Ga_2O_2 core bridging through the oxygen atom of ephedrine group. The catalytic asymmetric isocyanosilylation of cyclohexene oxide with trimethylsilyl cyanide has been examined with complexes **1–6** as catalysts.


Zhenfeng Xi, Hong-Tao Fan, Shizue Mito, Tamotsu Takahashi
J. Organomet. Chem. 682 (2003) 108

CO insertion reaction of zirconacyclopentadienes

Alkyl-substituted zirconacyclopentadienes reacted with CO directly at room temperature to give cyclopentenone derivatives. Zirconainene derivatives afforded a mixture of indanone and indenone derivatives.

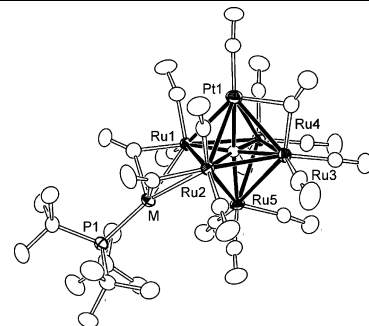


Richard D. Adams, Burjor Captain, Wei Fu, Mark D. Smith

J. Organomet. Chem. 682 (2003) 113

Metallation of $\text{PtRu}_5(\text{CO})_{16}(\mu_6\text{-C})$ by using bis(tri-*t*-butyl-phosphine) complexes of platinum and palladium

$\text{Pt}(\text{PBu}_3)_2$ and $\text{Pd}(\text{PBu}_3)_2$ react with $\text{PtRu}_5(\text{CO})_{16}(\mu_6\text{-C})$ to yield the new complexes, $\text{PtRu}_5(\text{CO})_{16}(\mu_6\text{-C})[\text{Pt}(\text{PBu}_3)]$ (**5**); $\text{PtRu}_5(\text{CO})_{16}(\mu_6\text{-C})[\text{Pt}(\text{PBu}_3)]_2$ (**6**) and $\text{PtRu}_5(\text{CO})_{16}(\mu_6\text{-C})[\text{Pd}(\text{PBu}_3)]$ (**7**); $\text{PtRu}_5(\text{CO})_{16}(\mu_6\text{-C})[\text{Pd}(\text{PBu}_3)]_2$ (**8**). Compounds **5** and **7** contain a $\text{M}(\text{PBu}_3)$ group bridging an Ru–Ru edge of the cluster. Compounds **6** and **8** contain one $\text{M}(\text{PBu}_3)$ group bridging an Ru–Ru edge of the cluster. The other $\text{M}(\text{PBu}_3)$ group bridges one of the Pt–Ru edges.

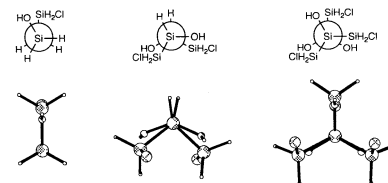


Shigenori Ohashi, Yuji Naruse, Satoshi Inagaki

J. Organomet. Chem. 682 (2003) 119

Eclipsed conformers of oligosilane derivatives by intramolecular hypercoordination

The eclipsed conformers of $\text{ClSiH}_2\text{SiH}_2\text{SiH}_2\text{OH}$ (**1**) and $\text{DL-ClSiH}_2(\text{OH})\text{SiHSiH}(\text{OH})\text{SiH}_2\text{Cl}$ (**2**) are the most stable due to the attractive 1,4-hypercoordination by the n_{O} and σ^*_{SiCl} orbital interaction. The eclipsed rotamer of $\text{ClSiH}_2(\text{OH})_2\text{Si-Si}(\text{OH})(\text{SiH}_2\text{Cl})_2$ (**3**) is the exclusive conformer stabilized by the threefold 1,4-hypercoordination.



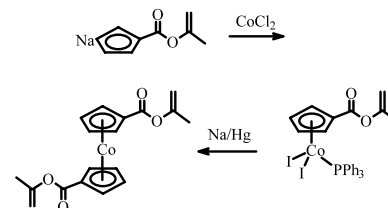
Relatively or exclusively stable eclipsed conformers.

Chong-Zhi Tang, You-Feng Xu, Zhen Pang, Xiu-Feng Hou

J. Organomet. Chem. 682 (2003) 123

Synthesis and reactivity impact from electron-withdrawing substituent on the cyclopentadienyl ligand of cobalt(I)–(III) complexes

Cobaltocene with electron-withdrawing substituent of allyloxycarbonyl were synthesized either from corresponding cyclopentadienide with cobalt dichloride or from corresponding cyclopentadienyl cobalt iodide with sodium amalgam in quantitative yield.

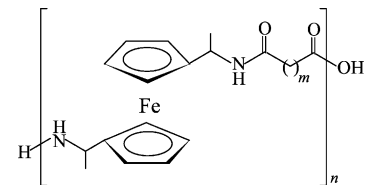


L. Barišić, V. Rapić, H. Pritzkow, G. Pavlović, I. Nemet

J. Organomet. Chem. 682 (2003) 131

Ferrocene compounds
Part XXXIII. Synthesis and characterization of amino acids containing skeletal 1,1'-ferrocenylene unit

The multistep syntheses of *N*- and *C*-protected ferrocene amino acids **7** ($m = 3, n = 0, \text{R} = \text{H}, \text{X} = \text{NH}_2$) and **14** ($m = 0, n = 3, \text{R} = \text{H}, \text{X} = \text{NH}_2$) are described. Curtius rearrangement of crucial intermediates **4** and **11** ($\text{X} = \text{CON}_3, \text{R} = \text{Me}$) in Ac_2O , with subsequent hydrolysis gave **6/13** ($\text{X} = \text{NHAc}$). Further, **4/11** were converted by heating in *t*-BuOH into **8/15** ($\text{X} = \text{NHBoc}$).



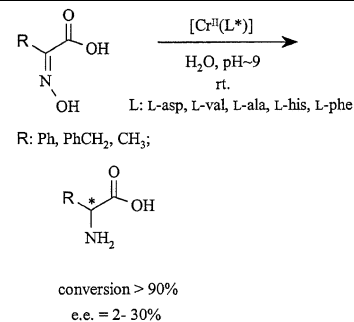
I, $m = 0\text{-}3; n = 1\text{-}6$;

Károly Micskei, Orsolya Holczknecht, Csongor Hajdu, Tamás Patonay, Valér Marchis, Milena Meo, Claudia Zucchi, Gyula Pályi

J. Organomet. Chem. 682 (2003) 143

Asymmetric synthesis of amino acids by Cr(II) complexes of natural amino acids

Stoichiometric reduction of the C,N double bond of oxime precursors of α -amino acids was performed in aqueous media by Cr(II) complexes of natural amino acids.

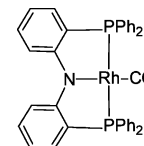


Angelika M. Winter, Klaus Eichele, Hans-Georg Mack, Suzan Potuznik, Hermann A. Mayer, William C. Kaska

J. Organomet. Chem. 682 (2003) 149

Rhodium pincer complexes of 2,2'-bis(diphenylphosphino)diphenylamine

The novel PNP pincer ligand 2,2'-bis(diphenylphosphino)diphenylamine has been synthesized. Its reaction with various precursors to form the corresponding rhodium complexes is described, including a rare example of the oxidative addition of an NH bond to a late transition metal.

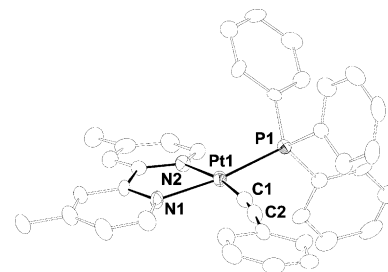


H. Lang, A. del Villar, B. Walfort, G. Rheinwald

J. Organomet. Chem. 682 (2003) 155

Synthese von $[cis-(bipy)Pt(C\equiv CPh)_2]AgFBF_3$ und dessen Reaktionsverhalten gegenüber Lewis-Basen; die Festkörperstruktur von $cis-(bipy)Pt(C\equiv CPh)_2$ und $[(bipy)Pt(C\equiv CPh)(PPh_3)]BF_4$

The synthesis of the heterobimetallic transition metal complex $\{cis-[Pt](C\equiv CPh)_2\}AgFBF_3$ and its reaction behaviour towards different Lewis-bases L (L = Thf, NR₃, PPh₃) is discussed. The X-ray structure of $cis-[Pt](C\equiv CPh)_2$ and $\{[Pt](C\equiv CPh)(PPh_3)\}BF_4$ is reported.

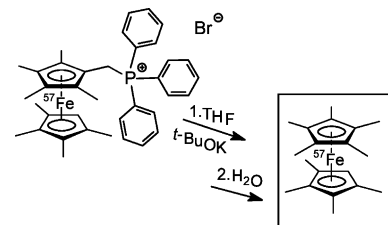


Rolfe H. Herber, Israel Nowik, Herwig Schottenberger, Klaus Wurst, Norbert Schuler, Adrian Gallus Mueller

J. Organomet. Chem. 682 (2003) 163

Effects of metal atom motion and ring rotation in iron organometallics. Synthesis of isotopically labelled nonamethyl $[^{57}Fe]$ ferrocene.

Temperature dependent (90–290 K) Mössbauer studies on nonamethyl $[^{57}Fe]$ ferrocene (NMF) have been carried out in order to elucidate the dynamical behaviour of the iron atom and the onset of ring rotation and libration. A novel small scale preparation of isotopically labelled $[^{57}Fe]$ NMF is presented. X-ray structure determinations of all intermediates and by-products are reported.

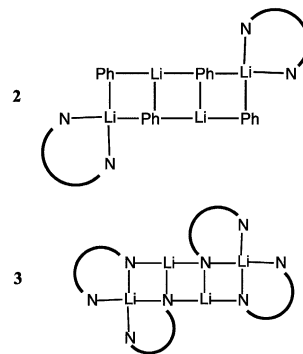


Marcus Vestergren, Johan Eriksson, Göran Hilmersson, Mikael Håkansson

J. Organomet. Chem. 682 (2003) 172

Giving phenyllithium a right-handed double-helical twist. Syntheses and crystal structures of enantiopure alkyl-, aryl-, and amidolithium aggregates

The 2:1 complex between phenyllithium and (–)-sparteine, $[\text{Li}_4\text{Ph}_4(\text{spa})_2]$ (**2**), as well as homoleptic $[\text{Li}(\text{pymp})]_4$ (**3**), $\text{pymp} = (S)$ -2-(1-pyrrolidinylmethyl)pyrrolidido, exhibit laddered tetranuclear cores which may be perceived as fragmented right-handed double-helices.



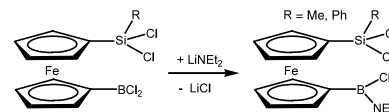
Bernd Wrackmeyer, Anahid Ayazi, Wolfgang Milius, Max Herberhold

J. Organomet. Chem. 682 (2003) 180

1-Sila-[1]ferrocenophanes, structure and reactivity

Ring-opening by reactions with boron halides

1-Sila-[1]ferrocenophanes were studied with respect to the coupling constants involving the carbon atom C(1) [$^1J(^{13}\text{C}(1), ^{13}\text{C}(2,5))$, $^1J(^{29}\text{Si}, ^{13}\text{C}(1))$ and $^1J(^{57}\text{Fe}, ^{13}\text{C})$]. The disiloxane, containing two 1-methyl-1-sila-[1]ferrocenophane units, possesses a linear Si–O–Si group, in contrast to the bent structure of the same compound that has been reported in the literature. Ring-opening reactions of the 1-sila-[1]ferrocenophanes with some boron halides (PhBCl_2 , BCl_3 , BBr_3 and BI_3) gave 1-silyl-1'-boryl-substituted ferrocenes, in which one B–Cl function could be substituted selectively by a B–NEt₂ function.

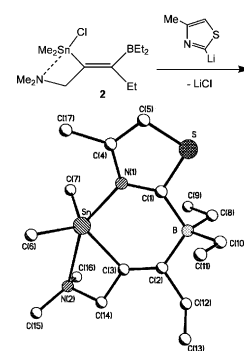


Bernd Wrackmeyer, Wolfgang Milius, Saqib Ali

J. Organomet. Chem. 682 (2003) 188

Novel zwitterionic heterocycles containing hypervalent tin

Weak and strong coordinative N–Sn interactions are detected by multinuclear magnetic resonance if the chloro function at the penta-coordinate tin atom in (*E*)-2-chloro(dimethyl)stannyl-3-diethylboryl-*N,N*-dimethyl-2-pentenylamine is replaced by various other groups. The strongest coordinative N–Sn bond are found for fused heterocycles when *N*- or *C*-lithiated azoles are used. With *C*-lithiated thiazoles a zwitterionic complex containing hypervalent tin was isolated and structurally characterised.

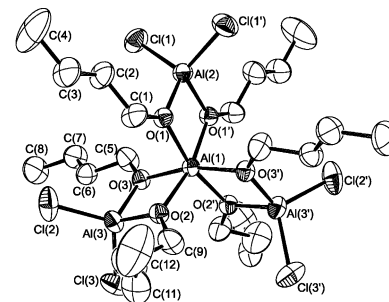


Sławomir Szumacher, Antoni R. Kunicki, Izabela Madura, Janusz Zachara

J. Organomet. Chem. 682 (2003) 196

The products formed in the reaction of MeAlCl_2 with alcohols (1:1)

The products formed in the reaction (1:1) of MeAlCl_2 with alcohols ROH, where $\text{R} = \text{Et}$, ^iPr , ^nBu , ^iBu , ^sBu , ^tBu , $^t\text{BuCH}_2$ were investigated. Depends on the alcohol used the formation of $[\text{Cl}_2\text{Al}(\mu\text{-OR})_2]\text{AlCl}$ or/and $[\text{Cl}_2\text{Al}(\mu\text{-OR})_2]_3\text{Al}$ except dimeric or/and trimeric ROAlCl_2 were found.

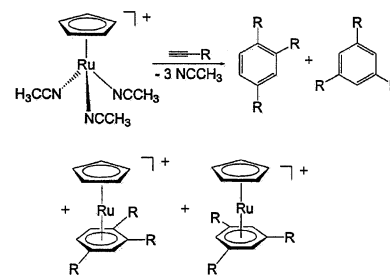


Eva Rüba, Roland Schmid, Karl Kirchner, Maria José Calhorda

J. Organomet. Chem. 682 (2003) 204

Ruthenium-mediated cyclotrimerization of alkynes utilizing the cationic complex $[\text{RuCp}(\text{CH}_3\text{CN})_3]^+$

The substitutionally labile cationic complex $[\text{RuCp}(\text{CH}_3\text{CN})_3]^+$ (as the PF_6^- salt) was tested with respect to its ability to catalyze the cyclotrimerization of terminal alkynes and diynes to afford benzene derivatives.

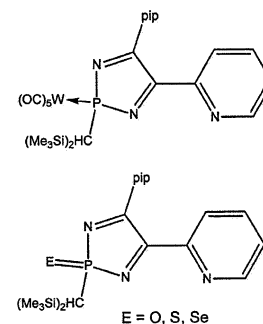


Arif Ali Khan, Christoph Neumann, Cathleen Wismach, Peter G. Jones, Rainer Streubel

J. Organomet. Chem. 682 (2003) 212

Synthesis of a *C*-pyridine-substituted 2*H*-1,3,2-diazaphosphole complex and subsequent oxidation to its P^{V} -sulfide and P^{V} -selenide derivatives

Thermal ring opening of 2*H*-azaphosphirane tungsten complex in the presence of 2-piperidino carbonitrile and 2-cyanopyridine furnished selectively the 2*H*-1,3,2-diazaphosphole tungsten complex. Liberation of the diazaphosphole ligand by applying various decomplexation reagents failed. However, the corresponding P^{V} -sulfide and P^{V} -selenide were obtained by oxidative decomplexation using elemental sulfur and selenium; the P^{V} -oxide was detected only spectroscopically.

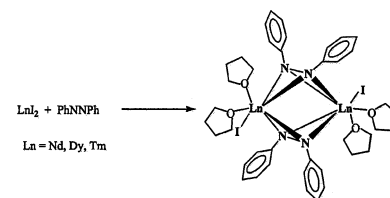


Marina A. Katkova, Georgy K. Fukin, Anatolii A. Fagin, Mikhail N. Bochkarev

J. Organomet. Chem. 682 (2003) 218

Reduction of azobenzene by neodymium(II), dysprosium(II), and thulium(II) diiodides

The diiodides of divalent neodymium, dysprosium, and thulium LnI_2 readily reduce azobenzene under ambient conditions to give binuclear complexes $[\text{LnI}(\text{THF})_2]_2(\text{N}_2\text{Ph}_2)_2$ ($\text{Ln} = \text{Nd}, \text{Dy}, \text{Tm}$). Magnetic measurements and X-ray structural analyses of dysprosium and thulium derivatives revealed that the bridging N_2Ph_2 ligands are dianions bounded to the trivalent lanthanoid. The complexes displayed photochromic properties. Ytterbium iodide $\text{YbI}_2(\text{THF})_2$ reacts with N_2Ph_2 at 80 °C yielding the known $[\text{YbI}(\text{THF})_3]_2(\text{N}_2\text{Ph}_2)_2$.

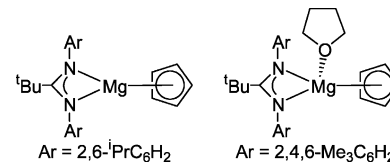


Aibing Xia, Hani M. El-Kaderi, Mary Jane Heeg, Charles H. Winter

J. Organomet. Chem. 682 (2003) 224

Synthesis, structure, and properties of magnesium complexes containing cyclopentadienyl and amidinate ligand sets

Treatment of $[\text{CpMgCH}_3(\text{Et}_2\text{O})_2]$ with two new bulky amidines affords the complexes $[\text{CpMg}(\eta^2\text{-}^i\text{BuC}(\text{N}(2,6\text{-}^i\text{Pr}_2\text{C}_6\text{H}_3)_2)]$ (87%) and $[\text{CpMg}(\eta^2\text{-}^i\text{BuC}(\text{N}(2,4,6\text{-}\text{Me}_3\text{C}_6\text{H}_2)_2)(\text{THF})]$ (76%). $[\text{CpMg}(\eta^2\text{-}^i\text{BuC}(\text{N}(2,6\text{-}^i\text{Pr}_2\text{C}_6\text{H}_3)_2)]$ can be sublimed unchanged with 80% recovery at 180 °C/0.05 torr, while $[\text{CpMg}(\eta^2\text{-}^i\text{BuC}(\text{N}(2,4,6\text{-}\text{Me}_3\text{C}_6\text{H}_2)_2)(\text{THF})]$ decomposes to Cp_2Mg (77%) and $[\text{Mg}(\eta^2\text{-}^i\text{BuC}(\text{N}(2,4,6\text{-}\text{Me}_3\text{C}_6\text{H}_2)_2)]_2$ (83%) under similar conditions. The molecular structures were determined by single crystal X-ray analyses.

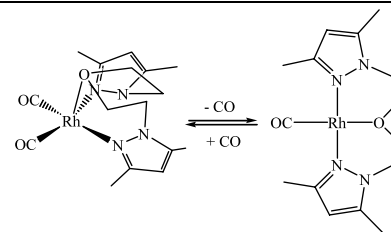


Anna Boixassa, Josefina Pons, Josep Ros, René Mathieu, Noël Luga

J. Organomet. Chem. 682 (2003) 233

Study of the bonding properties of the bis[2-(3,5-dimethyl-1-pyrazolyl)ethyl]ether toward Rh(I): an hemilabile ligand exhibiting κ^3N,N,O meridional or facial coordination mode

The title ligand (L_1) reacts with $[\text{Rh}(\text{COD})(\text{THF})_2][\text{BF}_4]$ to give $[\text{Rh}(\text{COD})(L_1-\kappa^2N,N)][\text{BF}_4]$. The action of carbon monoxide generates $[\text{Rh}(\text{CO})_2(L_1)][\text{BF}_4]$ in which the ligand L_1 adopts a facial κ^3N,N,O bonding mode. This complex easily loses one molecule of carbon monoxide at room temperature leading to $[\text{Rh}(\text{CO})(L_1-\kappa^3N,N,O)][\text{BF}_4]$. Carbon monoxide addition in solution regenerates rapidly the dicarbonyl complex.



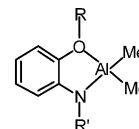
Pierre Haquette, Samuel Dagorne, Richard Welter, Gérard Jaouen

J. Organomet. Chem. 682 (2003) 240

Synthesis and structure of four-coordinate dimethyl aluminium complexes incorporating new N,O-chelating arylamido ligands

A new type of arylamido ligands with an intramolecular coordinating *ortho*-ether-substituent (i.e. a O,N^- chelating ligand) is introduced. The achiral and chiral 4-coordinate dimethyl aluminium complexes [2-

$\text{ROC}_6\text{H}_4\text{NR}'\text{AlMe}_2$ (**4a**: $R = R' = \text{Cy}$; **4b**: $R = (-)$ -menthyl, $R' = \text{Cy}$, **4c**: $R = (-)$ -menthyl, $R' = \text{CPh}_3$) have been prepared by reaction of the appropriate amido Li salt with ClAlMe_2 . Complex **4a** could also be obtained, via methane elimination, by reaction of AlMe_3 with the corresponding ligand. The presence of two rotamers in solution at room temperature for **4b** and for **4c** is most likely due to a restricted rotation of the $(-)$ -menthyl group at this temperature due to severe steric interactions with the rest of the complex.



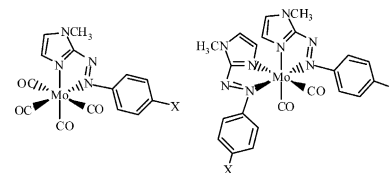
$R = R' = \text{Cy}$
 $R = (-)$ -menthyl, $R' = \text{Cy}$
 $R = (-)$ -menthyl, $R' = \text{CPh}_3$

Martin N. Ackermann, Marisa P. Robinson, Ian A. Maher, Eric B. LeBlanc, Richard V. Raz

J. Organomet. Chem. 682 (2003) 248

Synthesis and characterization of *cis*- $\text{Mo}(\text{CO})_4(\text{L}-\text{L}')$ and *cis*- $\text{Mo}(\text{CO})_2(\text{L}-\text{L}')_2$ complexes of *N*(1)-methyl-2-(arylazido)imidazoles ($\text{L}-\text{L}'$). Correlations of spectroscopic data with substituent effects

N(1)-Methyl-2-(*p*-*X*-phenylazo)imidazoles ($X = \text{CH}_3\text{O}$, CH_3 , H , Br , CF_3 , NO_2) react with *cis*-(norbornadiene) $\text{Mo}(\text{CO})_4$ and $\text{Mo}(\text{CO})_3(\text{CH}_3\text{CN})_3$ to give the complexes *cis*- $\text{Mo}(\text{CO})_4(\text{L}-\text{L}')$ and *cis*- $\text{Mo}(\text{CO})_2(\text{L}-\text{L}')_2$, respectively. Good correlations among the NMR, IR, and electrochemical data and with the Hammett sigma parameter are observed. Comparisons are made with the analogous 2-(phenylazo)pyridine complexes.

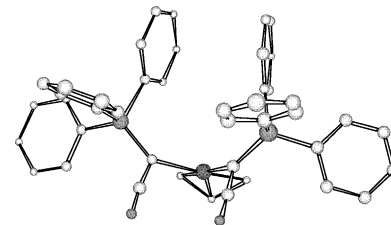


Maurizio Casarin, Luciano Pandolfo

J. Organomet. Chem. 682 (2003) 255

A quasi-relativistic density functional study of structural and electronic properties of the bis-ketene $\text{cis}-[\text{Pt}\{\eta^3\text{-C}_3\text{H}_5\}\{\eta^1\text{-C}(\text{PPh}_3)\text{CO}\}_2]^+$

The structure of the *cis*- $[\text{Pt}(\eta^3\text{-C}_3\text{H}_5)\{\eta^1\text{-C}(\text{PPh}_3)\text{CO}\}_2]^+$ ion has been studied by means of quasi-relativistic density functional calculations. Theoretical outcomes compare well with experiment and ultimately indicate that the high instability of this species is a consequence of the low binding energy between the charged $\text{Pt}(\eta^3\text{-C}_3\text{H}_5)^+$ fragment and the neutral *cis*- $\{\eta^1\text{-C}(\text{PPh}_3)\text{CO}\}_2$ moiety.

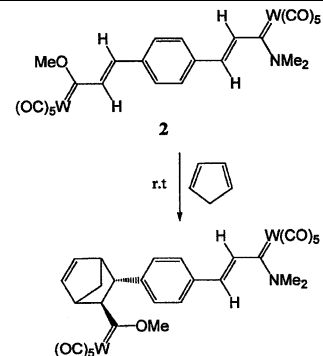


Karine Ulrich, Véronique Guerschais, Karl Heinz Dötz, Hubert Le Bozec

J. Organomet. Chem. 682 (2003) 260

Chemoselective Diels–Alder reactions of a non-symmetrical bis(carbene)-bridged tungsten complex with 1,3-dienes

The non-symmetrical [(dimethylamino)alkenylcarbene-(methoxy)alkenylcarbene] tungsten complex **2** undergoes Diels–Alder reactions with 2,3-dimethyl-1,3-butadiene and cyclopentadiene that proceed selectively at the methoxycarbene ligand.

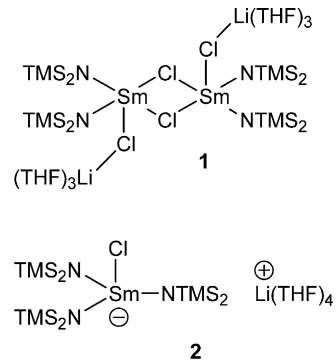


Blanca Martín-Vaca, Anca Dumitrescu, Heinz Gornitzka, Didier Bourissou, Guy Bertrand

J. Organomet. Chem. 682 (2003) 263

Synthesis and structural characterization of unusual amido samarium(III) complexes

Amido samarium complexes $\{(\mu\text{-Cl})\text{Sm}[\text{N}(\text{SiMe}_3)_2]_2(\mu\text{-Cl})\text{Li}(\text{THF})_3\}_2$ (**1**) and $\{\text{Sm}[\text{N}(\text{SiMe}_3)_2]_3(\text{Cl})\}[\text{Li}(\text{THF})_4]$ (**2**) were prepared in good yield by reaction of SmCl_3 with lithium hexamethyl–disilylamide. Single crystal X-ray diffraction studies reveal the covalent dimeric structure of **1** and ion-pair monomeric structure of **2**. The factors that control the coordination number and aggregation state of these complexes are discussed.

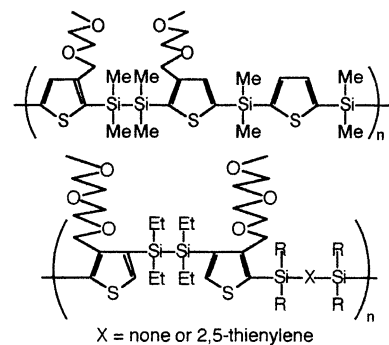


Joji Ohshita, Mimi Hashimoto, Kwang-Hoi Lee, Hiroto Yoshida, Atsutaka Kunai

J. Organomet. Chem. 682 (2003) 267

Synthesis of organosilanylene–thienylene alternating oligomers bearing ether side chains

Organosilanylene–thienylene alternating oligomers bearing ether side chains were synthesized and their optical properties were studied. The oligomers exhibited the emission maxima at 380–400 nm, which were slightly shifted to lower energies as the solvent polarity increased.

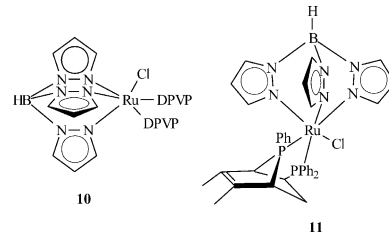


Dee C. Wilson, John H. Nelson

J. Organomet. Chem. 682 (2003) 272

Reactions of ruthenium(II) tris(pyrazolyl)borate and tris(pyrazolyl)methane complexes with diphenylvinylphosphine and 3,4-dimethyl-1-phenylphosphole

The compound $(\text{Tp})\text{Ru}(\text{DPVP})(\text{NCCH}_3)\text{Cl}$ (**9**) does not lose either acetonitrile or chloride to form a phosphaaallyl derivative but does react with DPVP to form **10** and with DMPP to form **11** with very high diastereoselectivity.



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