



ELSEVIER

Available online at www.sciencedirect.com

SCIENCE @ DIRECT®

Volume 688, Number 1–2, 15 December 2003

Journal
of Organometallic
Chemistry

www.elsevier.com/locate/jorgchem

Contents

Short communication

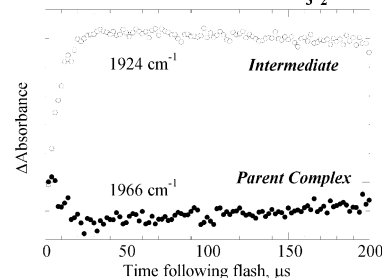
Richard H. Schultz

J. Organomet. Chem. 688 (2003) 1

Unusual behavior in the 308 nm flash photolysis of Vaska's complex

The transient intermediate produced by 308 nm flash photolysis of Vaska's Complex is observed by time-resolved IR absorption spectroscopy. This intermediate reacts to regenerate the parent complex. Most unusually, bleaching of the C–O stretching absorption of Vaska's complex does not occur at the photolysis pulse, but rather occurs over the course of tens of microseconds.

Flash photolysis of $\text{IrCl}(\text{PPh}_3)_2(\text{CO})$



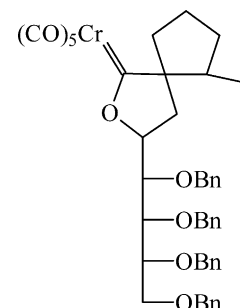
Regular papers

Karl Heinz Dötz, Edite Gomes da Silva

J. Organomet. Chem. 688 (2003) 5

Organotransition metal modified sugars
Part 27. Stereoselective radical spiro-cycloaddition reactions of Fischer carbene complexes

Carbohydrate-functionalised spiroheterocyclic carbene complexes are accessible from a reaction sequence based on the radical addition of 1,1 dichlorovinylcyclopropane to sugar derived *exo*-methylene chromium oxacuclopentylidenes.

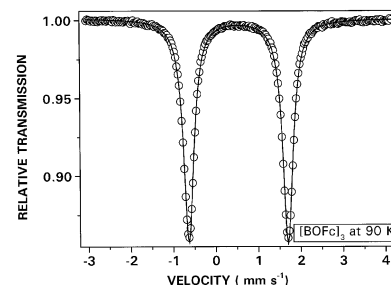


Israel Nowik, Matthias Wagner, Rolfe H. Herber

J. Organomet. Chem. 688 (2003) 11

Bonding, motional anisotropy, and metal atom dynamics of iron in two ferrocene substituted boron ring compounds

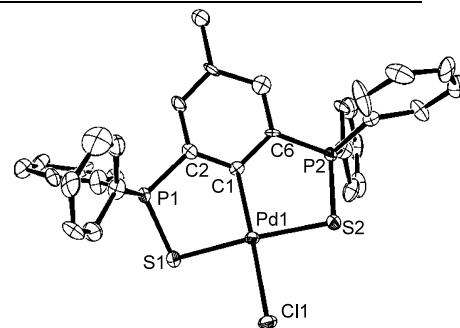
Temperature-dependent ^{57}Fe Mössbauer spectroscopy over the range $90 \leq T \leq 360$ K has been used to elucidate the hyperfine interactions and dynamical behavior of the iron atom in two ferrocene substituted six-membered ring compounds.



Takaki Kanbara, Takakazu Yamamoto*J. Organomet. Chem.* 688 (2003) 15

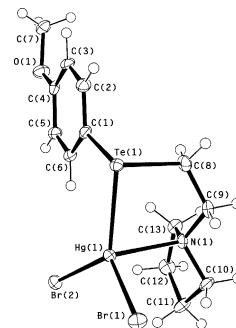
Synthesis, molecular structure, and photoluminescence properties of palladium and platinum complexes containing phosphine sulfide-based SCS pincer ligand

Cyclometalation of 3,5-bis(diphenylphosphinothioyl)toluene with K_2MCl_4 ($M = Pd, Pt$) occurred at the C-4 position of the central toluene ring and afforded new pincer complexes. The platinum complex exhibits strong emission in the glassy frozen state as well as in the solid state.

**Garima Singh, Ajai K. Singh, Pankaj Sharma, John E. Drake, Michael B. Hursthouse, Mark E. Light***J. Organomet. Chem.* 688 (2003) 20

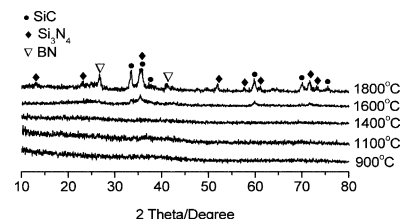
Hybrid (Te, N) and (N, Te, N) ligands having pyrrolidine ring and their palladium(II) and mercury(II) complexes: synthesis and crystal structures

Reactions of (2-chloroethyl)pyrrolidine hydrochloride with $ArTe^-$ or Te^{2-} generated in situ by borohydride reduction of Ar_2Te_2 or elemental tellurium give *N*-{2-(4-methoxyphenyltelluro)ethyl}pyrrolidine (L^1) or bis{2-(pyrrolidine-*N*-yl)ethyl}telluride (L^2), respectively, as viscous liquids, which are characterized by 1H - and $^{13}C\{^1H\}$ -NMR spectroscopy.

**Quoc Dat Nghiem, Jong-Kyu Jeon, Lan-Young Hong, Dong-Pyo Kim***J. Organomet. Chem.* 688 (2003) 27

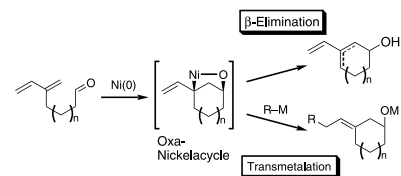
Polymer derived Si-C-B-N ceramics via hydroboration from borazine derivatives and trivinylcyclotrisilazane

2,4,6-Trimethyl-2,4,6-trivinylcyclotrisilazane (VSZ) and borazine ($B_3N_3H_6$) were used as starting materials to synthesize a preceramic polymer for a Si-C-B-N ceramic.

**Yoshihiro Sato, Tetsuya Takanashi, Megumi Hoshiba, Miwako Mori***J. Organomet. Chem.* 688 (2003) 36

Further studies on Ni(0)-catalyzed cyclization of a branched 1,3-diene and tethered aldehyde via oxa-nickelacycle intermediate

The reactivity of oxa-nickelacycles, generated from a branched 1,3-diene and a Ni(0) complex, was investigated in detail. It was found that β -hydride elimination occurred from the nickelacycle, producing the cyclized products. Transmetalation of the nickelacycle with various organometallic reagents was also investigated.

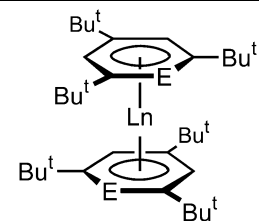


Polly L. Arnold, Marina A. Petrukhina, Vladimir E. Bochenkov, Tatyana I. Shabatina, Vyacheslav V. Zagorskii, Gleb B. Sergeev, F. Geoffrey N. Cloke

J. Organomet. Chem. 688 (2003) 49

Arene complexation of Sm, Eu, Tm and Yb atoms: a variable temperature spectroscopic investigation

Thermally unstable zerovalent lanthanide complexes $[\text{Ln}(\eta^6\text{-C}_6\text{H}_3\text{-}^t\text{Bu}_3\text{-}1,3,5)_2]$ (Sm, Eu, Tm or Yb) have been studied in frozen matrices at and above 77 K. Analogous N- and P-substituted arene sandwiches have also been made. The matrix experiments allow a detailed study of thermally unstable members of the series that were previously not possible in macroscale metal vapour synthesis (MVS) experiments.



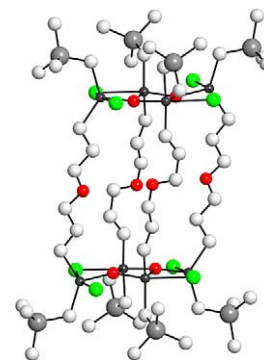
Ln = La, Sm, Eu, Tb, Yb
E = CH, N, P

Jens Beckmann, Dainis Dakternieks, Andrew Duthie, Fong Sheen Kuan, Edward R.T. Tiekink

J. Organomet. Chem. 688 (2003) 56

Synthesis and structure of an ether-bridged double ladder compound: potential in host-guest chemistry

In the solid-state, the first organotin double ladder having an ether group within the spacer shows an interlaminar cavity whose size and shape suggest the possibility of host-guest chemistry. However, due to extensive dissociation in solution only minimal interactions are observed with added Li^+ , Na^+ , Mg^{2+} or Cu^{2+} cations.

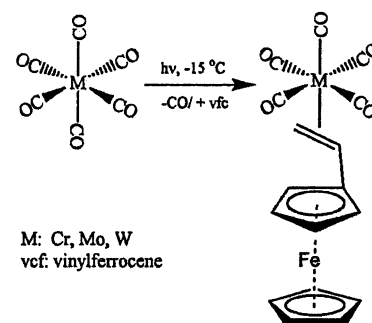


Saim Özkar, Ceyhan Kayran, Nazlan Demir

J. Organomet. Chem. 688 (2003) 62

Pentacarbonyl(η^2 -vinylferrocene)metal(0) complexes of Group 6 elements: synthesis and characterization

Photolysis of $\text{M}(\text{CO})_6$ ($\text{M} = \text{Cr}, \text{Mo}, \text{W}$) in the presence of vinylferrocene in an *n*-hexane solution at -15°C yields $\text{M}(\text{CO})_5(\eta^2\text{-vinylferrocene})\text{metal}(0)$ complexes as the sole product, which could be isolated and characterized by spectroscopic techniques. The complexes were found to be not very stable and their stability increases in the order $\text{Cr} < \text{Mo} < \text{W}$. The relatively stable $\text{W}(\text{CO})_5(\eta^2\text{-vinylferrocene})$ could be isolated as a pure solid and characterized by elemental analysis, MS, IR and NMR spectroscopy.

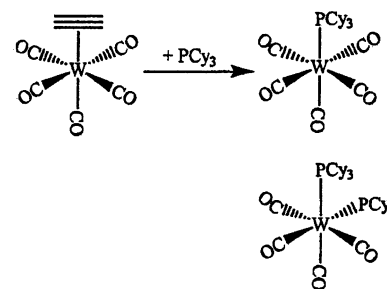


Oktay Demircan, Saim Özkar, Dinçer Ülkü, Leyla Tatar Yildirim

J. Organomet. Chem. 688 (2003) 68

Reaction of pentacarbonyl(η^2 -bis(trimethylsilyl)ethyne)tungsten(0) with tricyclohexylphosphine: X-ray structure of pentacarbonyltricyclohexylphosphinetungsten(0)

The pentacarbonyl(η^2 -bis(trimethylsilyl)ethyne)tungsten(0), $\text{W}(\text{CO})_5(\eta^2\text{-btmse})$, reacts with tricyclohexylphosphine, PCy_3 , to yield $\text{W}(\text{CO})_5(\text{PCy}_3)$ and *trans*- $\text{W}(\text{CO})_4(\text{PCy}_3)_2$. The former complex is the alkyne substitution product, while the latter one is formed from the conversion of its labile *cis*-isomer, which is generated by further reaction of the CO substitution product, *cis*- $\text{W}(\text{CO})_4(\eta^2\text{-btmse})(\text{PCy}_3)$, with a second PCy_3 molecule.

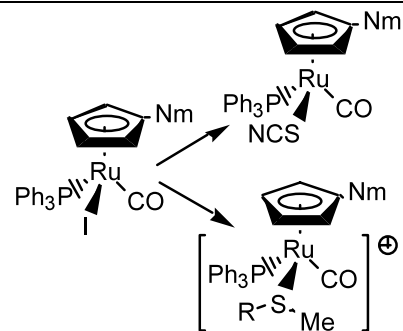


Khalil Tabatabaiean, Paul Downing, Harry Adams, Brian E. Mann, Colin White

J. Organomet. Chem. 688 (2003) 75

Chiral ruthenium complexes with sulfur ligands; X-ray structure of (*R*)_{Ru}-Ru(NmCp)(CO)(PPh₃)SCN (NmCp = neomenthylcyclopentadienyl)

(*S*)_{Ru}-Ru(NmCp)(CO)(PPh₃)I (NmCp = neomenthylcyclopentadienyl) reacts with AgSCN with retention of configuration at the ruthenium to give Ru(NmCp)(CO)(PPh₃)SCN whereas reaction with AgBF₄ followed by MeSR gives (*RS*)_{Ru}-[Ru(NmCp)(CO)(PPh₃){S(Me)R}]BF₄. For R = Ph and ^tBu the chiral ruthenium centre shows a ≥99% preference for binding to one enantiomer of the sulfide ligand.



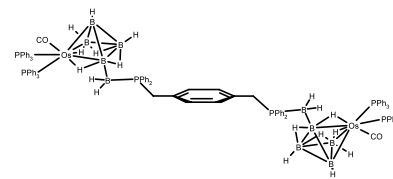
Paul McQuade, Rudolph E.K. Winter, Lawrence Barton

J. Organomet. Chem. 688 (2003) 82

Degradation and modification of metallaboranes

Part 3. Reactions of the hexaborane(10) analogue *nido*-(PPh₃)₂(CO)OsB₅H₉ with bidentate phosphines containing a rigid backbone: formation of linked cluster systems

Reaction between the osmahexaborane, *nido*-(PPh₃)₂(CO)OsB₅H₉, with bidentate phosphines containing a rigid backbone PPh₂XPPH₂ (X=Fe(C₅H₄)₂, C₆H₄ and CH₂C₆H₄CH₂) affords hybrid systems of the type [2,2,2-(PPh₃)₂(CO)-*nido*-2-OsB₄H₇-3-BH₂·PPh₂XPPH₂], [{"2,2,2-(PPh₃)₂(CO)-*nido*-2-OsB₄H₇-3-BH₂·PPh₂]₂X] and [2,2,2-(PPh₃)₂(CO)-*nido*-2-OsB₄H₇-3-BH₂·PPh₂XPPH₂·BH₃].

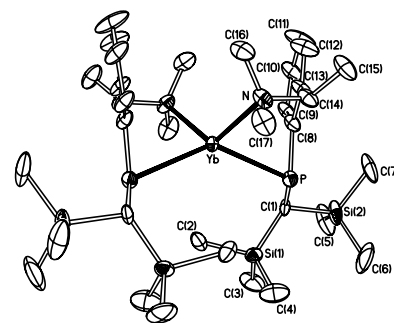


Stuart Blair, Keith Izod, William Clegg

J. Organomet. Chem. 688 (2003) 92

C₂-Symmetric ytterbium(II) complexes with a novel, chiral *P,N*-donor ligand

The ytterbium(II) phosphanide (**7**) may be synthesised in enantiomerically pure form as either the *C_R* or *C_S* enantiomers.



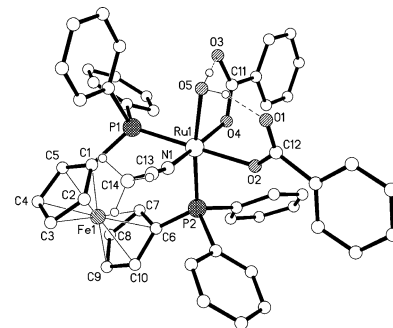
Xiu Lian Lu, Sin Yee Ng, Jagadese J. Vittal, Geok Kheng Tan, Lai Yoong Goh, T.S. Andy Hor

J. Organomet. Chem. 688 (2003) 100

Structural dynamics and ligand mobility in carboxylate and dithiocarbamate complexes of Ru(II) containing 1,1'-bis(diphenylphosphino)ferrocene (dppf)

A series of octahedrally-distorted tris(chelate) complexes Ru(RCOO)₂(dppf) (**1a**: R = Me, **1b**: R = Et, **1c**: R = Ph) and Ru(SC(S)-NEt₂)₂(dppf) (**3**) were synthesized and crys-

tallographically characterized. Complexes **1** contain two highly-strained carboxylates that are coordinatively mobile. Accordingly, **1c** in CH₃CN readily converts to the asymmetric Ru(PhCOO)₂(dppf)(CH₃CN)(H₂O) (**2**), which is stabilized by inter-ligand and intramolecular H-bonding between the aqua and the pendant oxygen of the carboxylates. VT-NMR spectral studies demonstrated concerted Cp ring twisting in **1a–b**, together with uni- and bi-dentate exchange behaviour of the carboxylate/dithiocarbamate ligands in **1b–c** and **3**. Molecular structure of Ru(PhCOO)₂(CH₃CN)(H₂O)-(dppf) (**2**)

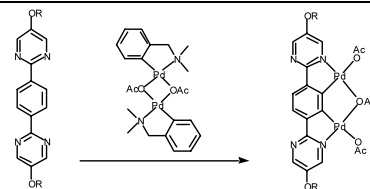


Jonathan W. Slater, Jonathan P. Rourke

J. Organomet. Chem. 688 (2003) 112

Cyclometallated nitrogen heterocycles

The multiple cyclometallation of 4 different classes of nitrogen heterocycle by palladium and platinum has been studied.

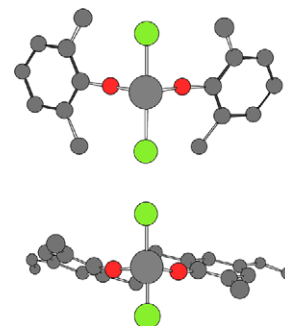


Jeffrey W. Anthis, Andrew O. Larsen, Peter S. White, Michel R. Gagné

J. Organomet. Chem. 688 (2003) 121

Ethylene-linked bis(phenol) ligands: efficient synthesis, Ti(IV) coordination chemistry, and Lewis acid catalysis

We report an efficient synthesis of a series of chelating bis(aryloxy) ligands that can be diverged at a late stage to generate a variety of structures. Based on structural differences between linked and unlinked analogs of six-coordinate acid–base adducts of $(\text{ArO})_2\text{TiCl}_2(\text{dmpe})$, a hypothesis predicted that a difference between the two structure types would be apparent when the compounds shuttled between four- and six-coordinate structures. Comparing their efficiencies in the Lewis acid accelerated Diels–Alder reaction, however, did not support this notion.

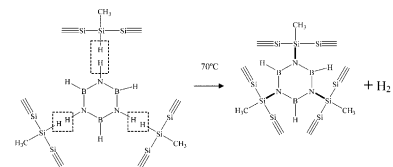


Feng Cao, Xiao-dong Li, Dong-pyo Kim

J. Organomet. Chem. 688 (2003) 125

Efficient curing of polymethylsilane by borazine and reaction mechanism study

An efficient way to improve the low ceramic yield and poor processability of PMS as a SiC precursor utilizing high levels of Is–H, was developed by simply modifying at 70 °C for 1 to ~3 h in presence of 1 wt.% borazine.

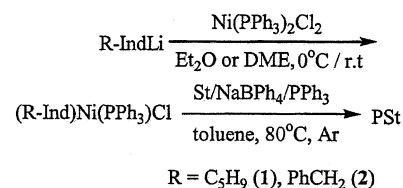


Hongmei Sun, Wanfei Li, Xiaoyan Han, Qi Shen, Yong Zhang

J. Organomet. Chem. 688 (2003) 132

Indenyl nickel complexes: synthesis, characterization and styrene polymerization catalysis

Neutral indenyl nickel complexes $(\eta\text{-}1\text{-R-Ind})\text{Ni}(\text{PPh}_3)\text{Cl}$ (R = cyclopentyl (1), benzyl (2)) have been synthesized and characterized by single-crystal X-ray analysis. When combined with NaBPh_4 and PPh_3 , both of them are able to catalyze the polymerization of styrene effectively to give syndio-rich (rr) atactic poly(styrene) with M_w values in the range of 10^4 .

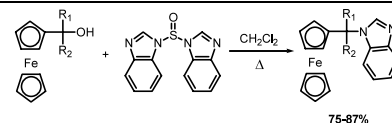


Alexander A. Simenel, Yulia V. Kuzmenko, Elena A. Morozova, Mikhail M. Ilyin, Irina F. Gun'ko, Lubov' V. Snegur

J. Organomet. Chem. 688 (2003) 138

Synthesis and enantiomeric resolution of ferrocenyl(alkyl)azoles

A series of ferrocenyl(alkyl) azoles, potential biologically active compounds, were synthesized in high yields by interaction of α -ferrocenylcarbinols with azoles in aqueous-organic in the presence of HBF_4 or by interaction of α -ferrocenylcarbinols with azoles with N,N' -carbonyldiimidazole (CDI). The thionyl containing analogs of CDI were used in the reaction with ferrocenyl alcohols for the first time. The resulting enantiomers of ferrocenyl(alkyl)azoles and some carbinols were separated using HPLC.

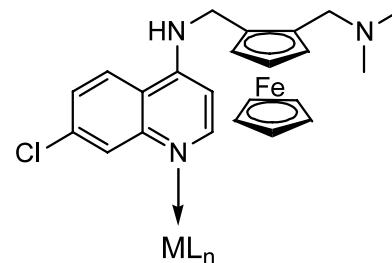


Margaret A.L. Blackie, Paul Beagley, Kelly Chibale, Cailean Clarkson, John R. Moss, Peter J. Smith

J. Organomet. Chem. 688 (2003) 144

Synthesis and antimalarial activity in vitro of new heterobimetallic complexes: Rh and Au derivatives of chloroquine and a series of ferrocenyl-4-amino-7-chloroquinolines

The reactions of chloroquine and ferrocenyl derivatives of chloroquine with gold and rhodium complexes yield heterobimetallic derivatives.

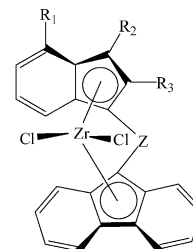


John J. Esteb, James C.W. Chien, Marvin D. Rausch

J. Organomet. Chem. 688 (2003) 153

Novel C_1 symmetric zirconocenes containing substituted indenyl moieties for the stereoregular polymerization of propylene

Four new asymmetric *ansa*-metallocenes containing a fluorenyl moiety and a substituted indenyl have been synthesized and evaluated as catalyst precursors for the polymerization of ethylene and propylene when activated with methylaluminumoxanes. In the case of propylene, stereoregular polymer was obtained.



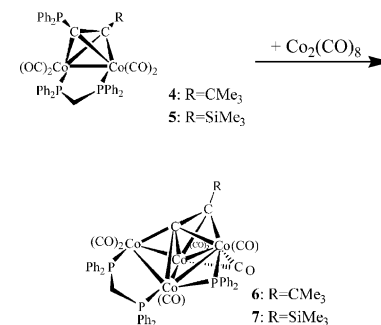
Z = Ph_2Si , R₁ = Ph, R₂ = H, R₃ = CH_3
 Z = Me_2Si , R₁, R₃ = H, R₂ = *t*-Bu
 Z = CH_2CH_2 , R₁, R₃ = H, R₂ = *t*-Bu
 Z = Ph_2Si , R₁, R₃ = H, R₂ = *t*-Bu

Fung-E Hong, Yi-Chun Lai, Yi-Jung Ho, Yu-Chang Chang

J. Organomet. Chem. 688 (2003) 161

Preparations of cobalt-containing phosphines and reactions toward dicobalt octacarbonyl

Treatments of cobalt-containing monodentate phosphines $[(\mu\text{-Ph}_2\text{PCH}_2\text{PPh}_2)\text{-Co}_2(\text{CO})_4][(\mu\text{-Ph}_2\text{PC}\equiv\text{CR})]$ (**4**: R = CMe_3 ; **5**: R = SiMe_3) with $\text{Co}_2(\text{CO})_8$ gave unexpected tetra-cobalt clusters, $[(\mu\text{-Ph}_2\text{PCH}_2\text{PPh}_2)(\mu\text{-PPh}_2)\text{Co}_4(\text{CO})_7(\mu_4, \mu_2\text{-CCR})]$ (**6**: R = CMe_3 ; **7**: R = SiMe_3). Compound **6** (or **7**) can be looked as a tetra-cobalt *arachno* cluster being coordinated with phosphine ligands and linked by organic moiety.



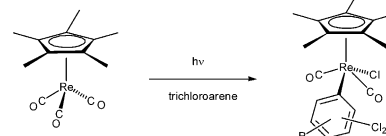
6: R = CMe_3
7: R = SiMe_3

Alvaro Aballay, Fernando Godoy, Gonzalo E. Buono-Core, A. Hugo Klahn, Beatriz Oelckers, María Teresa Garland, Juan Carlos Muñoz

J. Organomet. Chem. 688 (2003) 168

Photochemical C–Cl bond activation of trichloroarenes by the rhenium complex $(\eta^5\text{-C}_5\text{Me}_5)\text{Re}(\text{CO})_3$. X-ray structure of *trans*-($\eta^5\text{-C}_5\text{Me}_5$)Re(CO)₂(2-methoxy-4,5-dichlorophenyl)chloride

Photochemical reaction of $(\eta^5\text{-C}_5\text{Me}_5)\text{Re}(\text{CO})_3$ with 2,4,5-trichloroanisole and 3,4,5-trichlorotrifluoromethylbenzene yields *trans*-($\eta^5\text{-C}_5\text{Me}_5$)Re(CO)₂(C₆H₂Cl₂(MeO))Cl and *cis*- and *trans*-($\eta^5\text{-C}_5\text{Me}_5$)Re(CO)₂(C₆H₂Cl₂(CF₃))Cl. The C–Cl bond activation of trichloroanisole occurs at the chlorine *ortho* respect to the methoxy group, while for C₆H₂Cl₃(CF₃) only the C–Cl bond *meta* respect to CF₃ group is cleaved.

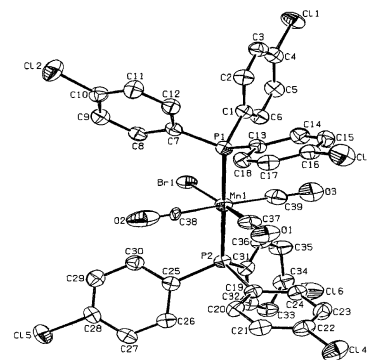


Michael A. Beckett, David S. Brassington, Simon J. Coles, Thomas Gelbrich, Mark E. Light, Michael B. Hursthouse

J. Organomet. Chem. 688 (2003) 174

A crystallographic and spectroscopic investigation of the stereochemistry of [MBr(CO)₃L₂] (M = Mn, Re) complexes: crystal and molecular structures of [MBr(CO)₃L₂] {M = Mn, L = P(C₆H₄Cl-4)₃, 1/2dppe, 1/2dppf; M = Re, L = P(C₆H₄OMe-4)₃, 1/2dppf}

Twelve [MBr(CO)₃L₂] complexes (M = Mn, Re) were synthesised and characterised by elemental analysis, m.p., IR and ³¹P-NMR spectroscopy. Five examples {M = Mn, L = P(C₆H₄Cl-4)₃, 1/2dppe, 1/2dppf; M = Re, L = P(C₆H₄OMe-4)₃, 1/2dppf} were characterised by single-crystal XRD studies. These studies confirmed *fac,cis* geometries for Re(I) derivatives and all complexes with bidentate ligands; the remaining Mn(I) derivatives had *mer,trans* geometries.

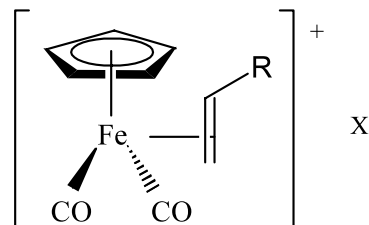


Hadley S. Clayton, John R. Moss, Mark E. Dry

J. Organomet. Chem. 688 (2003) 181

Synthesis, characterization and reactivity of iron–olefin complexes of the type [CpFe(CO)₂($\eta^2\text{-CH}_2\text{=CHR}$)]⁺X[−] (Cp = $\eta^5\text{-C}_5\text{H}_5$; R = CH₃ to *n*-C₁₄H₂₉; X = PF₆ or BF₄)

Iron–olefin complexes have been synthesised by various routes and some of their reactivity explored. New complexes have been fully characterised by analytical and spectroscopic methods.

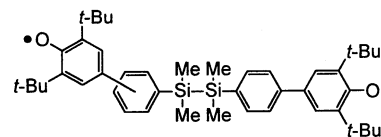


Toshiyuki Iida, Joji Ohshita, Nobuaki Ohta, Kenji Komaguchi, Yoshiteru Itagaki, Masaru Shiotani, Atsutaka Kunai

J. Organomet. Chem. 688 (2003) 192

Spin–spin interaction between phenoxy radicals through $\sigma\text{-}\pi$ system

Compounds having two *p*-phenoxy radicals bridged by a 1,2-diphenylenedisilanylene unit were synthesized and the intramolecular spin–spin interaction was examined by Curie plots of ESR signal intensities due to the $\Delta M_S = \pm 2$ transition at low temperature.

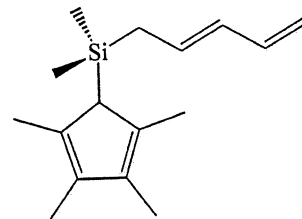


**William J. Evans, Dimitrios G. Giarikos,
Joseph W. Ziller**

J. Organomet. Chem. 688 (2003) 200

Synthesis and reactivity of a tethered diene cyclopentadiene, $(C_5Me_4H)SiMe_2(CH_2CH=CHCH=CH_2)$, and its alkali metal salts

$(C_5Me_4H)SiMe_2Cl$ reacts with $(THF)-KCH_2CH=CHCH=CH_2$ to form the title compound shown here, which can be deprotonated with KH . Reactions with K and $TiCl_4$ involved C-Si cleavage and isolation of $[(C_5Me_4H)K(DME)]_x$ and $(C_5Me_4H)TiCl_3$.

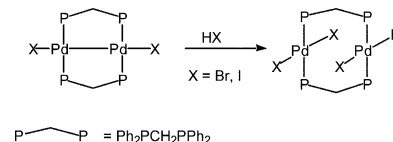


Rein U. Kirss, David A. Forsyth, Marc A. Plante

J. Organomet. Chem. 688 (2003) 206

Synthesis and spectroscopy of binuclear phosphine bridged palladium hydrides: $Pd_2HX_3[dppm]_2$ ($X = Br, I$; $dppm = bis[di-phenylphosphino]methane$)

Bis(diphenylphosphino)methane bridged palladium(I) dimers $Pd_2X_2dppm_2$ ($X = Br, I$; $dppm = bis[di-phenylphosphino]methane$) react with aqueous, concentrated HBr or HI yielding $Pd_2HX_3dppm_2$ (**1a** $X = Br$ and **1b** $X = I$). Dynamic 1H - and ^{31}P -NMR spectra for **1a,b** over a $80^\circ C$ range reveal fluxional processes consistent with rapid exchange between asymmetric and symmetrical structures.

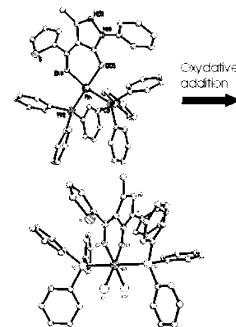


Claudio Pettinari, Fabio Marchetti, Riccardo Pettinari, Adriano Pizzabiocca, Andrei Drozdov, Sergey I. Troyanov, Vyatcheslav Vertlib

J. Organomet. Chem. 688 (2003) 216

Reactivity of rhodium- β -diketonato cyclooctadiene derivatives with mono- and di-phosphines. Synthesis, structural and spectroscopic characterization of $Rh(I)$ and $Rh(III)$ species containing unsymmetrical β -diketonate and P-donor ligands

The reactivity of $[Rh(Q)(1,5-cod)]$ with mono- and bidentate P-donor ligands has been investigated, new $[Rh(Q)(PPh_3)_2]$, $[Rh(Q)(dppp)]$ and $[Rh(dppe)_2]Q$ complexes being formed. The results of the oxidative addition of CH_3I , I_2 , HCl and C_3H_5Br to $[Rh(Q)(1,5-cod)]$ in the presence of PPh_3 have been also reported.

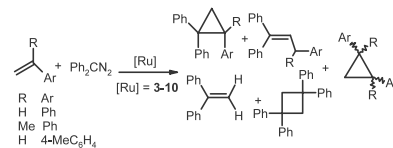


Srinivasan Priya, Maravanji S. Balakrishna, Shaikh M. Mobin, Robert McDonald

J. Organomet. Chem. 688 (2003) 227

Half-sandwich ruthenium(II) complexes of aminophosphines: synthesis, structures and catalytic applications in C-C coupling reactions between styrenes and diphenyldiazomethane

The reactions of aminophosphines and aminobis(phosphines) with $[CpRu(PPh_3)_2Cl]$ afford either neutral or ionic complexes depending on the stoichiometry and the reaction conditions. These complexes catalyze cyclopropanation of styrenes with diphenyldiazomethane.

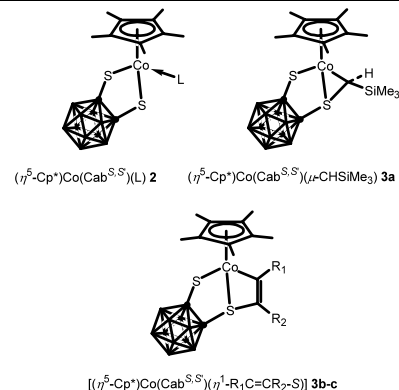


Bo Young Kim, Chongmok Lee, Seung Won Chung, Young-Joo Lee, JaeYoun Pak, Jaejung Ko, Sang Ook Kang

J. Organomet. Chem. 688 (2003) 236

Electrochemical behavior of the Cp*(dithiolato)Co(III) complex $[(\eta^5\text{-Cp}^*)\text{Co}(1,2\text{-S}_2\text{C}_2\text{B}_{10}\text{H}_{10}\text{-S,S'})]$ and its derivatives: the effect of the ligand on half-sandwich cobalt(III) complexes

The reactivity of the 16-electron dithiolato-cobalt with a bulky ancillary Cp* ligand, $[(\eta^5\text{-Cp}^*)\text{Co}(\text{Cab}^{\text{S,S'}})]$ (**1**), toward L (L = CN^tBu, PMe₃, PEt₃, PPh₂), acetylenes, and a diazoalkane has been investigated, leading to the isolation and characterization of the series of the corresponding 18-electron dithiolates. Investigation of the redox process of these dithiolates by cyclic voltammetry reveals a large dependence for the redox potentials on the nature of Cp* and incoming ligand.

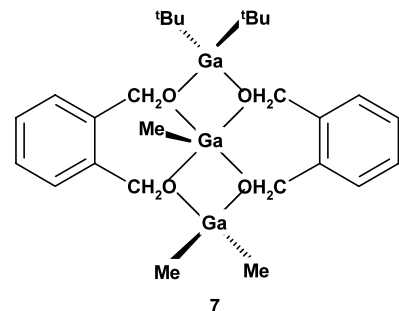


Wanda Ziemkowska, Monika Buzniak, Sylwia Kwasniewska, Kazimierz B. Starowieyski, Romana Anulewicz-Ostrowska

J. Organomet. Chem. 688 (2003) 246

Binuclear alkylmetallane diolates ${}^t\text{Bu}_4\text{M}_2(\text{diol}-(\text{H}))_2$ (M = Al, Ga) and their reactions with aluminium- and gallium trialkyls

Binuclear complexes ${}^t\text{Bu}_4\text{M}_2(\text{OCH}_2\text{C}_6\text{H}_4\text{-CH}_2\text{OH})_2$ [M = Al (**1**); M = Ga (**2**)] possessing two hydroxyl groups, in the interaction with aluminium- and gallium trialkyls yield trinuclear products ${}^t\text{Bu}_5\text{M}_3(\text{OCH}_2\text{C}_6\text{H}_4\text{-CH}_2\text{O})_2$ [M = Al (**3**); M = Ga (**4**)] and ${}^t\text{Bu}_4\text{MeGa}_3(\text{OCH}_2\text{C}_6\text{H}_4\text{CH}_2\text{O})_2$ (**6**). The transmetalation reaction of **6** with Me₃Ga results in the formation of the product ${}^t\text{Bu}_2\text{Me}_3\text{Ga}_3(\text{OCH}_2\text{C}_6\text{H}_4\text{CH}_2\text{O})_2$ (**7**).

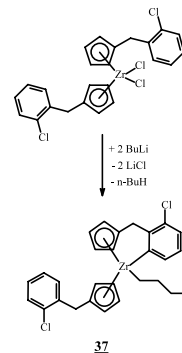


Andrea I. Licht, Katharina J. Schneider, Helmut G. Alt

J. Organomet. Chem. 688 (2003) 254

CH-Aktivierungsreaktionen an unverbrückten und verbrückten Zirconocenkomplexen zur Darstellung von Metallacyclen und deren Verwendung in der katalytischen Ethylenpolymerisation

The reaction of zirconocene dichloride complexes containing alkyl substituents with terminal phenyl groups and two equivalents of nBuLi gives metallacyclic zirconocene complexes via CH activation reactions. After activation with methylalumoxane (MAO), the metallocene complexes can be applied as catalysts for ethylene polymerization. Halogen substituents like fluorine or chlorine on the phenyl ring have a strong influence on the activities of the catalysts and the molecular weights of the produced polyethylenes.

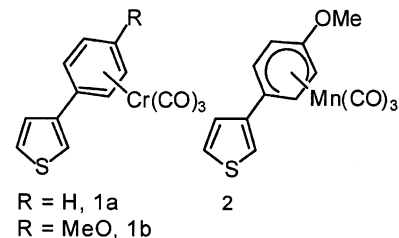


Damien Prim, José Giner Planas, Audrey Auffrant, Françoise Rose-Munch, Eric Rose, Jacqueline Vaissermann

J. Organomet. Chem. 688 (2003) 273

Synthesis of tricarbonyl η^6 - and η^5 -[(3-thiophenyl)organo]chromium and -manganese complexes

The syntheses of complexes **1a**, **1b**, and **2** are reported using a Stille cross-coupling methodology. Their NMR data are compared with the corresponding 2-thiophenyl-substituted derivatives described in the literature. The crystal structure determinations of 3-thiophenyl and 2-thiophenyl- η^6 -(arene)Cr(CO)₃ complexes showing the conformations of the Cr(CO)₃ tripods are also reported.



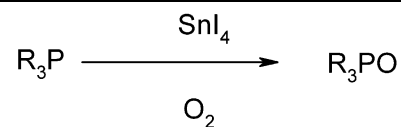
Notes

William Levason, Rina Patel, Gillian Reid

J. Organomet. Chem. 688 (2003) 280

Catalytic air oxidation of tertiary arylphosphines in the presence of tin(IV) iodide

Tin(IV) iodide catalyses the quantitative air-oxidation of arylphosphines to phosphine oxides in anhydrous chlorocarbon solvents.

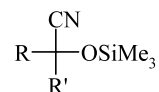


Najmedin Azizi, Mohammad R. Saidi

J. Organomet. Chem. 688 (2003) 283

An improved synthesis of cyanohydrins in the presence of solid LiClO₄ under solvent-free conditions

Solid lithium perchlorate is found to be a mild and efficient Lewis acid for promoting cyanosilylation of aldehydes and ketones under neutral and solvent-free conditions. In addition, the availability of inexpensive starting materials together with simplicity of the reaction and green methodology provide a convenient method for the preparation of cyanohydrins.



R = aryl or alkyl

R' = H or alkyl

Book review	286
Author Index of Volume 688	287
Subject Index of Volume 688	289
Contents of Volume 688	295

The Publisher encourages the submission of articles in electronic form thus saving time and avoiding rekeying errors. Please refer to the online version of the Guide for Authors at <http://www.elsevier.com/locate/jorganchem>



Full text of this journal is available, on-line from **ScienceDirect**. Visit www.sciencedirect.com for more information.

CONTENTS
Direct

This journal is part of **ContentsDirect**, the *free* alerting service which sends tables of contents by e-mail for Elsevier Science books and journals. You can register for **ContentsDirect** online at: www.elsevier.com/locate/contentsdirect



<http://chemweb.com/gateways/elsevier.html>