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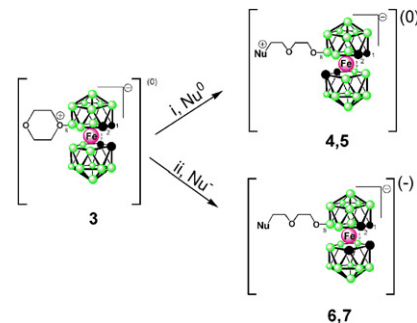
Communications

Jaromír Plešek, Bohumír Grüner,
Jan Macháček, Ivana Císařová,
Josef Čáslavský

J. Organomet. Chem. 692 (2007) 4801

8-Dioxane ferra(III) bis(dicarbollide): A paramagnetic functional molecule as versatile building block for introduction of a Fe(III) centre into organic molecules

Cluster substitution of the ferra(III) bis(dicarbollide)(1-) ion by dioxane followed by ring opening generates conveniently a new series of compounds in which an organic group is attached to the boron cluster *via* diethyleneglycol spacer. This opens up new synthetic strategies for the preparation of paramagnetic, Fe(III)-labelled compounds which are not accessible by other synthetic methods.

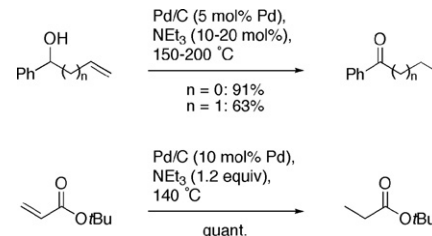


Yoann Coquerel, Paul Brémond,
Jean Rodriguez

J. Organomet. Chem. 692 (2007) 4805

Pd-H from Pd/C and triethylamine: Implications in palladium catalysed reactions involving amines

The palladium hydride-iminium complex generated from Pd/C and triethylamine catalyses the isomerisation of allylic alcohols into carbonyl compounds, and Pd/C catalyses the conjugate reduction of activated double bonds using triethylamine as the source of the two newly incorporated hydrogen atoms via the same complex.



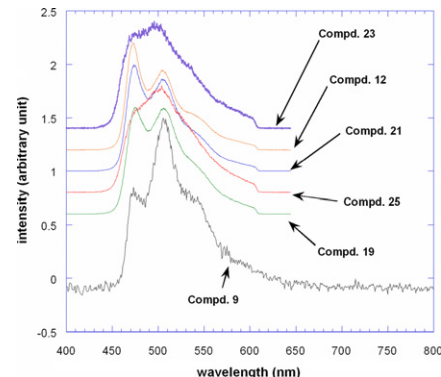
Regular Papers

Alex S. Ionkin, Ying Wang,
William J. Marshall, Viacheslav A. Petrov

J. Organomet. Chem. 692 (2007) 4809

Synthesis, structural characterization, and initial electroluminescent properties of bis-cycloiridiated complexes of 2-(3,5-bis(trifluoromethyl)phenyl)-4-methylpyridine

A series of bis-cyclometalated Ir(III) complexes (**8–10**, **12**, **15**, **17**, **19**, **21**, **23**, **25**, **28**, **29** and **33**) bearing 2-(3,5-bis(trifluoromethyl)phenyl)-4-methyl-pyridine (**1**) as the same N⁺C cyclometalated ligand and the second non-chromophoric auxiliary ligands was synthesized. Preliminary OLED devices were fabricated from above complexes. The variation of the third ligand did not change the peak position of the spectra but has some effect on the spectral shape due to change in inter-molecular packing.

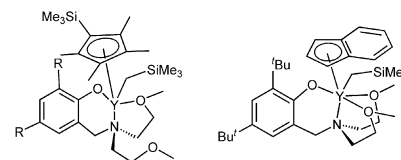


**Wei Miao, Shihui Li, Hongxia Zhang,
Dongmei Cui, Yurong Wang, Baotong Huang**

J. Organomet. Chem. 692 (2007) 4828

Mixed ligands supported yttrium alkyl complexes: Synthesis, characterization and catalysis toward lactide polymerization

Yttrium alkyl complexes bearing mixed Cp'(or indene)/O,N,O,O-multidentate ligands have been synthesized via sequential alkane elimination reactions among $Y(CH_2SiMe_3)_3$ -(THF)₂ and cyclopentadiene (or indene) and methoxyamino phenols. The molecular structure and catalytic performance for the polymerization of lactide of the resulting complexes depend strongly on the electronic and steric nature of the ligands.

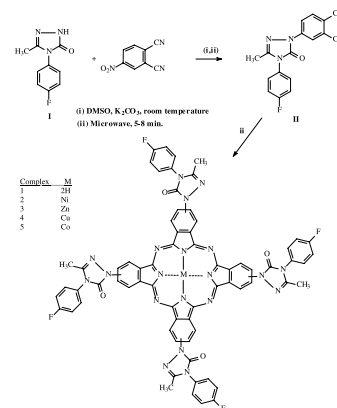


**Bahittin Kahveci, Musa Özil, Cihan Kantar,
Selami Şaşmaz, Şamil Işık, Yavuz Köysal**

J. Organomet. Chem. 692 (2007) 4835

Microwave-assisted and conventional synthesis of new phthalocyanines containing 4-(p-fluorophenyl)-3-methyl-4,5-dihydro-1H-1,2,4-triazol-5-one moieties

In the present study, of starting compound (II), metal-free and metal (Zn, Ni, Cu and Co) phthalocyanines containing four 4-(p-fluorophenyl)-3-methyl-4,5-dihydro-1H-1,2,4-triazol-5-one moieties by using microwave irradiation and conventional method were compared for yields and reaction time.

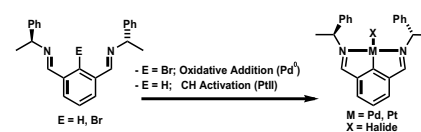


**John S. Fossey, Mark L. Russell,
K.M. Abdul Malik, Christopher J. Richards**

J. Organomet. Chem. 692 (2007) 4843

Synthesis and crystal structures of the first C₂-symmetric bis-aldimine NCN-pincer complexes of platinum and palladium

C₂-symmetric (S)-α-methylbenzylamine derived bis-aldimine pincer complexes of platinum(II) and palladium(II) were synthesised and fully characterised. X-ray diffraction crystallographic structures and computational analysis were correlated to the stereochemical outcome of a pincer catalysed reaction of Michael reaction between methyl 2-cyanopropanoate and methyl vinyl ketone.

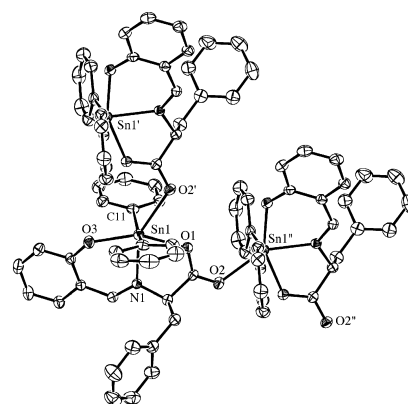


**Tushar S. Basu Baul, Cheerfulman Masharing,
Giuseppe Ruisi, Robert Jirásko,
Michal Holčápek, Dick de Vos,
David Wolstenholme, Anthony Linden**

J. Organomet. Chem. 692 (2007) 4849

Self-assembly of extended Schiff base amino acetate skeletons, 2-[(2Z)-(3-hydroxy-1-methyl-2-butenylidene)amino}phenylpropionate and 2-[(E)-1-(2-hydroxyaryl)alkylidene]amino}phenylpropionate incorporating organotin(IV) moieties: Synthesis, spectroscopic characterization, crystal structures, and *in vitro* cytotoxic activity

The organotin(IV) compounds, $[Ph_3SnL^1H]_n \cdot nCl_4$ (1), $[Me_2SnL^2(OH_2)]$ (2), $[^tBu_2SnL^3]$ (3), $[Ph_2SnL^2]_n$ (4), $[Ph_3SnL^2H]_n$ (5), $[Ph_3SnL^3H]_n$ (7) ($L^1 = 2\text{-}\{[(2Z)\text{-}(3\text{-hydroxy-1-methyl-2-butenylidene)amino}\}phenylpropionate$ and $L^{2-3} = 2\text{-}\{[(E)\text{-}1\text{-}(2\text{-hydroxyaryl)alkylidene}]\text{amino}\}phenylpropionate$), and $[^tBu_2SnL^3(OH_2)]$ (6) were synthesized. These complexes have been characterized by ¹H, ¹³C, ¹¹⁹Sn NMR, ESI-MS, IR and ¹¹⁹Sn Mössbauer spectroscopic techniques in combination with elemental analyses. The crystal structures of complexes 1, 4–7 were determined. The *in vitro* cytotoxic activity of triphenyltin(IV) compounds, viz., 1, 5 and 7 against WIDR, M19 MEL, A498, IGROV, H226, MCF7 and EVSA-T human tumor cell lines are also reported.

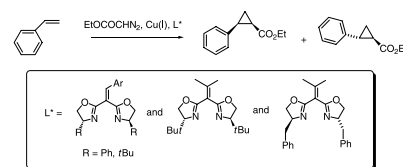


Anthony J. Burke,
Elisabete da Palma Carreiro,
Serghei Chercheja, Nuno M.M. Moura,
J.P. Prates Ramalho, Ana Isabel Rodrigues,
Carla I.M. dos Santos

J. Organomet. Chem. 692 (2007) 4863

Cu(I) catalysed cyclopropanation of olefins:
 Stereoselectivity studies with Arylid-Box and
 Isbut-Box ligands

Our second generation Arylid-Box ligand family with an unusual arylidene back-bone, was tested in the Cu(I) catalysed asymmetric cyclopropanation of styrene using various Cu(I) pre-catalysts. These ligands were compared with the first generation Isbut-Box ligand family in the same reaction.

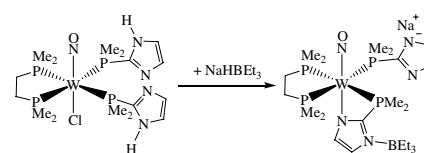


Zilu Chen, Helmut W. Schmale, Thomas Fox,
Olivier Blacque, Heinz Berke

J. Organomet. Chem. 692 (2007) 4875

NH-functionalized tungsten complexes of 2-
 (dimethylphosphino)imidazole

A new type of NH-functionalized ligand 2-
 (dimethylphosphino)imidazole (dmipi) was
 prepared and probed to synthetically access
 tungsten complexes.

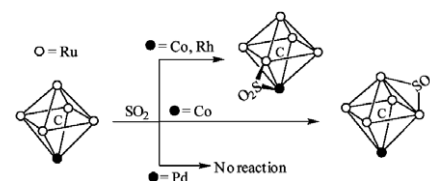


Takayuki Nakajima, Hiromi Konomoto,
Haruo Ogawa, Yasuo Wakatsuki

J. Organomet. Chem. 692 (2007) 4886

Reactivities governed by a single metal atom
 M in mixed-metal highnuclearity clusters
 having [Ru₅M(C)] core (M = Co, Rh, Pd):
 Site-nonspecific, site-selective, and chemo-
 selective variations in the SO₂-trapping
 reactions

Depending on the kind of M in mixed-metal
 carbonyl clusters with [Ru₅M(C)] core, the
 attacking SO₂ behaves in totally different way,
 suggesting critical importance of the single
 hetero atom.

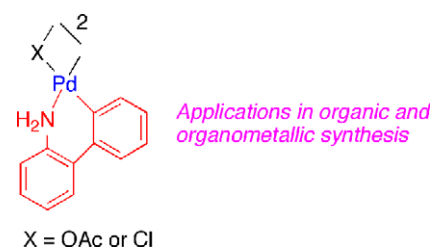


Joan Albert, Lucía D'Andrea, Jaume Granell,
Javier Zafrilla, Mercè Font-Bardia,
Xavier Solans

J. Organomet. Chem. 692 (2007) 4895

Reactivity of cyclopalladated compounds
 derived from biphenyl-2-ylamine towards
 carbon monoxide, ^tbutyl isocyanide and
 alkynes

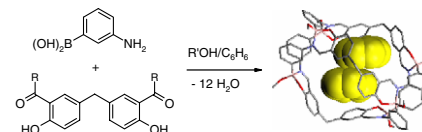
The reactivity of a cyclopalladated primary
 amine towards carbon monoxide, ^tbutyl iso-
 cyanide, diphenylacetylene and 3-hexyne is
 reported.



Victor Barba, Isabel Betanzos*J. Organomet. Chem.* 692 (2007) 4903

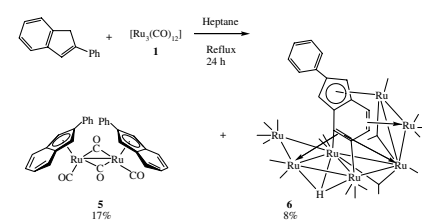
Direct synthesis of polymacrocyclic boron compounds. A convenient method for the synthesis of hemicarcerands

The condensation reaction of 3-aminophenylboronic acid with 5,5'-methylene bis(2-hydroxy-carbonyl) derivatives constitutes an interesting approach to design hemicarcerand-like compounds by direct synthesis. The strategy involves a self-assembly process through the formation of N–B coordinative bonds and offers a convenient method for the construction of molecular containers in one pot-synthesis.

**Venugopal Shanmugham Sridevi, Weng Kee Leong***J. Organomet. Chem.* 692 (2007) 4909

The synthesis and reactivity of some indenyl and bis-indenyl ruthenium carbonyl complexes

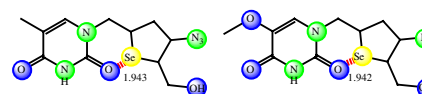
The reaction of $[\text{Ru}_3(\text{CO})_{12}]$ with indene in refluxing xylene afforded dinuclear $[\{(\eta^5\text{-C}_9\text{H}_7)\text{Ru}(\text{CO})_2\}_2]$ in high yield. The analogous reaction with 1-phenylindene afforded $[\{(\eta^5\text{-C}_9\text{H}_6\text{Ph})\text{Ru}(\text{CO})_2\}_2]$ and the heptaruthenium cluster $[(\text{C}_9\text{H}_4\text{Ph})\text{Ru}_7(\mu\text{-H})(\mu\text{-CO})(\text{CO})_{17}]$; the indenyl ligand in the latter exhibits a novel $\mu_4, \eta^1: \eta^1: \eta^2: \eta^2$ bonding mode for the benzene ring. The bis-indenyl methane dinuclear complex $[\text{Ru}_2(\text{CO})_4\{\mu\text{-}(\eta^5\text{-C}_9\text{H}_6)_2\text{CH}_2\}]$ was also obtained, which reacted with iodine via Ru–Ru bond cleavage to give $[\text{Ru}_2\text{I}_2(\text{CO})_4\{\mu\text{-}(\eta^5\text{-C}_9\text{H}_6)_2\text{CH}_2\}]$.

**Ali Hashem Essa***J. Organomet. Chem.* 692 (2007) 4917

Novel application of quantum chemical investigation in terms of substituent parameters: Statistical comparison of dual and single substituent parameter treatments

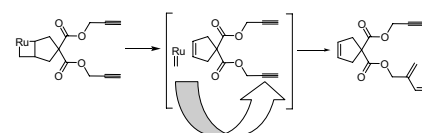
The correlation analysis of Mulliken charge (Q_M) calculated by using density functional theory (B3LYP/STO-3G) calculations of 1-(4-azido-5-hydroxymethyl-tetrahydro-selenophen-

2-ylmethyl)-5-substituted-1H-pyrimidine-2,4-dione, were done by using mono substituent parameter (Hammett's model), and dual substituent parameter (Taft's, Reynolds', and Swain's models). The dual substituent parameter correlations of the Q_M data gave no significant improvement over single parameter correlations, the best correlation observed with the Taft's Model as compared with the Swain's and Reynolds' Models, respectively. The correlation analysis of Mulliken charge can be used successfully to demonstrate the existence or absence of the interaction between the oxygen of the carbonyl group and selenium atom.

**Sambasivarao Kotha, Kalyaneswar Mandal***J. Organomet. Chem.* 692 (2007) 4921

Metathesis of a novel dienediynes system: A unique example involving the usage of in situ generated ethylene as cross-enyne metathesis partner

A unique example of sequential ring-closing metathesis and cross-enyne metathesis is reported. Here, the in situ generated ethylene by product from ring-closing metathesis is trapped by alkyne moiety. No metathesis product formation was observed with more reactive second generation catalyst in the absence of ethylene. Differential chemoselectivity with the first and second generation Grubbs' catalyst has been observed when the reaction was performed in presence of the external source of ethylene.

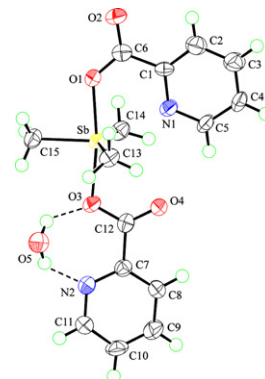


**Kamal R. Chaudhari, Vimal K. Jain,
V.S. Sagoria, Edward R.T. Tiekink**

J. Organomet. Chem. 692 (2007) 4928

Triorganoantimony(V) carboxylates: Synthesis, characterization and crystal structure of $[\text{Me}_3\text{Sb}(\text{O}_2\text{C}-\text{C}_5\text{H}_4\text{N})_2] \cdot \text{H}_2\text{O}$

Triorganoantimony carboxylates of the type $[\text{R}_3\text{Sb}(\text{O}_2\text{C}-\text{Ar})_2]$ (**1**) ($\text{R} = \text{Me}, \text{Et}, \text{Pr}^i, \text{Ph}$; $\text{Ar} = 2-\text{C}_5\text{H}_4\text{N}, 2-\text{C}_9\text{H}_6\text{N}$) have been obtained by the reactions of $[\text{R}_3\text{Sb}(\text{OPr}^i)_2]$ with *N*-heterocyclic carboxylic acids. The mono-bromo compound $[\text{Me}_3\text{Sb}(\text{Br})(\text{O}_2\text{C}-\text{C}_5\text{H}_4\text{N})]$ (**2**) exists in equilibrium with $[\text{Me}_3\text{Sb}(\text{O}_2\text{C}-\text{C}_5\text{H}_4\text{N})_2]$ and $[\text{Me}_3\text{SbBr}_2]$. These compounds have been characterized by IR and NMR (^1H and $^{13}\text{C}\{^1\text{H}\}$) spectral data. X-ray structural analysis of one example, $[\text{Me}_3\text{Sb}(\text{O}_2\text{C}-\text{C}_5\text{H}_4\text{N})_2]$, isolated as its monohydrate, revealed an essentially trigonal bipyramidal geometry for the antimony atom.

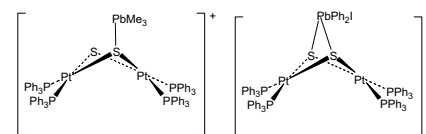


**Kristina Pham, William Henderson,
Brian K. Nicholson, T.S. Andy Hor**

J. Organomet. Chem. 692 (2007) 4933

Tuning the sulfur–heterometal interaction in organolead(IV) complexes of $[\text{Pt}_2(\mu\text{-S})_2(\text{PPh}_3)_4]$

Reactions of $[\text{Pt}_2(\mu\text{-S})_2(\text{PPh}_3)_4]$ with $\text{Me}_3\text{Pb-OAc}$ and Ph_2PbI_2 result in the formation of the cationic adducts $[\text{Pt}_2(\mu\text{-S})_2(\text{PPh}_3)_4\text{PbMe}_3]^+$ and $[\text{Pt}_2(\mu\text{-S})_2(\text{PPh}_3)_4\text{PbPh}_2]^+$, which were found from X-ray structure determinations on their hexafluorophosphate salts to contain four- and five-coordinate lead atoms, respectively. Fragmentation pathways of these and other related adducts are reported.

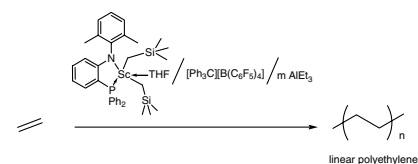


**Shihui Li, Wei Miao, Tao Tang, Dongmei Cui,
Xuesi Chen, Xiabin Jing**

J. Organomet. Chem. 692 (2007) 4943

Rare earth metal bis(alkyl) complexes bearing amino phosphine ligands: Synthesis and catalytic activity toward ethylene polymerization

A series of amido phosphine ligated rare earth metal mono-, bis-(alkyl) and homoleptic complexes have been prepared. The molecular structures and catalytic activity of the resultant complexes have shown significant dependence on rigidity and sterics of the ligand framework. The scandium bis(alkyl) complex upon activation with cocatalyst $[\text{Ph}_3\text{C}][\text{B}(\text{C}_6\text{F}_5)_4]$ /aluminum triethyls, has exhibited various activity toward ethylene polymerization under different polymerization conditions to afford linear polyethylene.

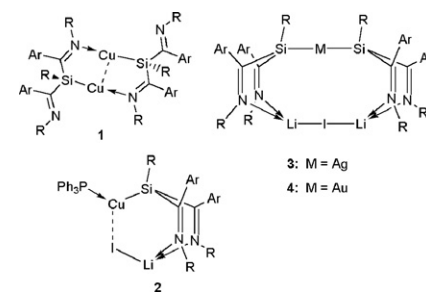


**James D. Farwell, Peter B. Hitchcock,
Michael F. Lappert, Andrey V. Protchenko**

J. Organomet. Chem. 692 (2007) 4953

Synthesis and structures of 3-sila- β -diketiminate complexes of the coinage metals

Reaction of the lithium 3-sila- β -diketiminate $[\text{Li}\{\text{N}(\text{R})\text{C}(\text{Ar})_2\text{SiR}\}(\text{thf})_2]$ with CuI , $[\text{CuI}(\text{PPh}_3)_3]$ or $[\text{MI}(\text{PPh}_3)_n]$ ($\text{M} = \text{Ag}, n = 3$; $\text{M} = \text{Au}, n = 2$) gave the crystalline $[\text{Cu}\{\text{N}(\text{R})\text{C}(\text{Ar})_2\text{SiR}\}_2(\text{thf})]$ (**1**), $[\text{Cu}\{\text{Si}(\text{R})(\text{C}(\text{Ar})\text{N}(\text{R}))_2\text{Li}(\mu\text{-I})\}(\text{PPh}_3)]$ (**2**) or $[\text{M}\{\text{Si}(\text{R})(\text{C}(\text{Ar})\text{N}(\text{R}))_2\text{Li}(\mu\text{-I})\}]$ [$\text{M} = \text{Ag}$ (**3**), Au (**4**)], respectively. In each of **1–4** the ligand is *Si*-centred towards the coinage metal atom with additional $\text{N} \rightarrow \text{Cu}$ (**1**) or $\text{N} \rightarrow \text{Li}$ (**2–4**) coordination.

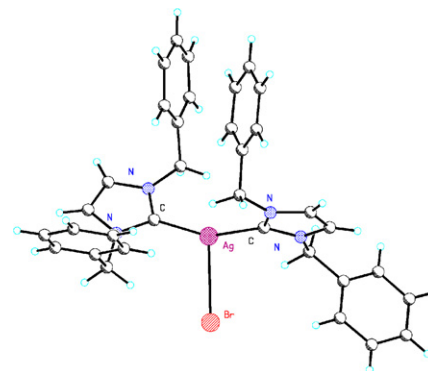


**Christopher P. Newman, Guy J. Clarkson,
Jonathan P. Rourke**

J. Organomet. Chem. 692 (2007) 4962

Silver(I) N-heterocyclic carbene halide complexes: A new bonding motif

A new silver NHC compound has been synthesised and structurally characterised and has an unprecedented 2 NHC:1 Ag:1 halide stoichiometry. It exhibits a planar arrangement of two coordinating NHCs, and a coordinating bromide about the central silver.

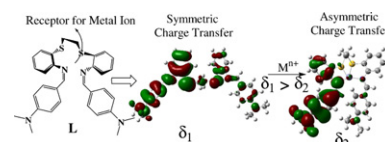


**Sanjib Das, Amit Nag, Kalyan K. Sadhu,
Debabrata Goswami, Parimal K. Bharadwaj**

J. Organomet. Chem. 692 (2007) 4969

Metal induced enhancement of fluorescence and modulation of two-photon absorption cross-section with a donor-acceptor-acceptor-donor receptor

A symmetric D- π - π' - π -D system has been synthesized that shows high two-photon absorption (TPA) cross-section. In presence of metal ions such as Zn(II), Cd(II), Mg(II) and Ca(II), the TPA cross-section goes down to different extents.

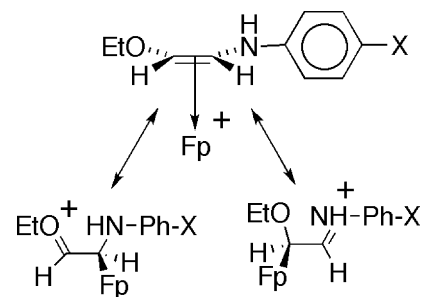


**Stephen A. Matchett, David Frattarelli,
Ryan Hoekstra**

J. Organomet. Chem. 692 (2007) 4978

Electronic control of the competitive π donation in heteroatom substituted CpFe(CO)₂(olefin)BF₄ complexes and the resulting influence on the symmetry of the metal to olefin bond

CpFe(CO)₂(*cis*- η^2 -(EtO)CHCH(OEt))⁺BF₄⁻ was reacted with *p*-substituted anilines to prepare a series of complexes of the general formula, CpFe(CO)₂[*cis*- η^2 -(EtO)CHCHNH-(*p*-C₆H₄X)]BF₄. Correlation of the Hammett σ_{para} parameters for X with the ¹³C NMR shifts of the vinyl carbons demonstrated control of the competing π donation (O vs. N), directly affecting the metal-olefin bond symmetry.

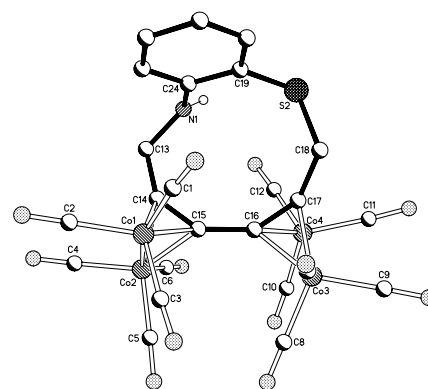


**Vladimir B. Golovko, Martin J. Mays,
Gregory A. Solan**

J. Organomet. Chem. 692 (2007) 4985

From straight chain to macrocyclic complexes containing mixed sulfur/nitrogen donors and coordinated 1,3-diynes

The propensity of aminothiophenols to facilitate the ring closure of propargylic cations derived from bis(propargyl alcohol)-Co₄(CO)₁₂ has been investigated and has revealed that only the 1,2-substitution pattern leads to a macrocyclic complex the result of a dual *N,S*-centered nucleophilic attack; attempts to extend the reactivity to 2-mercaptopyridine gave only straight chain products.

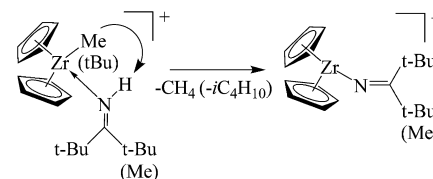


Alexander A. Aksenov, David E. Richardson,
John R. Eyley

J. Organomet. Chem. 692 (2007) 4995

Gas-phase reactions of the bis(η^5 -cyclopentadienyl)methylzirconium cation with imines

The nucleophilic attack on the nitrogen-bound hydrogen of the imine results in elimination of alkane. The attack is preceded by fast migratory insertion equilibrium. Only methane elimination could be observed for the aryl-substituted imines.

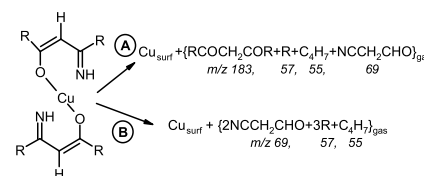


Assia E. Turgambaeva, Vladislav V. Krisyuk,
Pavel A. Stabnikov, Igor K. Igumenov

J. Organomet. Chem. 692 (2007) 5001

Mass spectrometric study of the thermal decomposition mechanism of vapors of 2,2,6,6-tetramethyl-3-iminoheptane-5-one and its copper(II) complex

Thermal conversions of vapors of ketoimine $(\text{CH}_3)_3\text{CC}(\text{NH})\text{CH}_2\text{C}(\text{O})\text{C}(\text{CH}_3)_3$ and its chelate complex with copper is studied by in situ mass spectrometry in a vacuum and in the hydrogen presence in the temperature range 130–500 °C. Based on temperature dependences of the composition of primary gaseous products, the mechanism of thermolysis is proposed. The decomposition of ketoimine begins at 350 ± 10 °C and proceeds by the elimination of terminal groups. Its copper complex decomposes in two directions and yields both molecular and radical products.



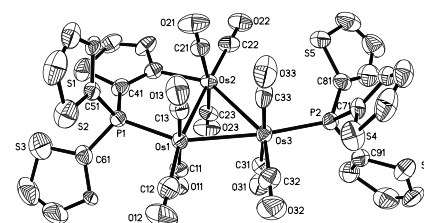
M. Abdul Mottalib, Shariff E. Kabir,
Derek A. Tocher, Antony J. Deeming,
Ebbe Nordlander

J. Organomet. Chem. 692 (2007) 5007

Two modes of C–H bond activation of tris(2-thienyl)phosphine in trinuclear osmium carbonyl clusters

The phosphine-substituted clusters $[\text{Os}_3(\text{CO})_{11}\{\text{P}(\text{C}_4\text{H}_3\text{S})_3\}]$ (**1**), $[\text{Os}_3(\text{CO})_{10}\{\text{P}(\text{C}_4\text{H}_3\text{S})_3\}_2]$ (**2**) and $[\text{Os}_3(\text{CO})_9\{\text{P}(\text{C}_4\text{H}_3\text{S})_3\}_3]$ (**4**) and the C–H activated product $[\text{Os}_3(\mu\text{-H})(\text{CO})_9\{\mu_2\text{-P}(\text{C}_4\text{H}_2\text{S})(\text{C}_4\text{H}_3\text{S})_2\}\{\text{P}(\text{C}_4\text{H}_3\text{S})_3\}]$ (**6**) at ambient temperature whereas at elevated temperature the cyclometallation products $[\text{Os}_3(\mu\text{-H})(\text{CO})_9\{\mu_3\text{-P}(\text{C}_4\text{H}_2\text{S})(\text{C}_4\text{H}_3\text{S})_2\}]$ (**7**) and $[\text{Os}_3(\mu\text{-H})(\text{CO})_8\{\mu_3\text{-P}(\text{C}_4\text{H}_2\text{S})(\text{C}_4\text{H}_3\text{S})_2\}\{\text{P}(\text{C}_4\text{H}_3\text{S})_3\}]$ (**8**) were obtained.

(**3**) were obtained from the reaction of tris(2-thienyl)phosphine with $[\text{Os}_3(\text{CO})_{12}]$ at 110 °C. The bridging phosphothienyl ligand in **3** is equatorially coordinated via both the phosphorus and carbon atom. The unsaturated precursor $[\text{Os}_3(\mu\text{-H})_2(\text{CO})_{10}]$ gave the substitution product $[\text{Os}_3(\mu\text{-H})_2(\text{CO})_9\{\text{P}(\text{C}_4\text{H}_3\text{S})_3\}]$ (**5**) and the addition product $[\text{Os}_3\text{H}(\mu\text{-H})(\text{CO})_{10}\{\text{P}(\text{C}_4\text{H}_3\text{S})_3\}]$ (**6**) at ambient temperature whereas at elevated temperature the cyclometallation products $[\text{Os}_3(\mu\text{-H})(\text{CO})_9\{\mu_3\text{-P}(\text{C}_4\text{H}_2\text{S})(\text{C}_4\text{H}_3\text{S})_2\}]$ (**7**) and $[\text{Os}_3(\mu\text{-H})(\text{CO})_8\{\mu_3\text{-P}(\text{C}_4\text{H}_2\text{S})(\text{C}_4\text{H}_3\text{S})_2\}\{\text{P}(\text{C}_4\text{H}_3\text{S})_3\}]$ (**8**) were obtained.

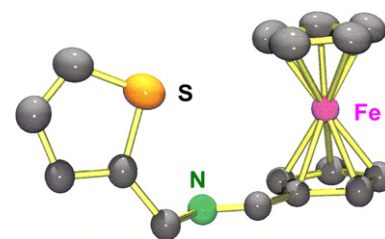


David Pou, Ana E. Platero-Prats, Sonia Pérez,
Concepción López, Xavier Solans,
Mercè Font-Bardía, Piet W.N.M. van Leeuwen,
Gino P.F. van Strijdonck, Zoraida Freixa

J. Organomet. Chem. 692 (2007) 5017

Schiff bases containing ferrocenyl and thienyl units and their utility in the palladium catalyzed allylic alkylation of cinnamyl acetate

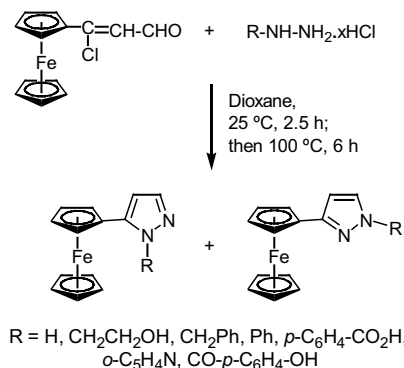
The utility of the novel ferrocenyl Schiff bases $[\text{Fc-CH=N}-(\text{CH}_2)_n-(\text{C}_4\text{H}_3\text{S})]$ (**2**) {Fc represents $(\eta^5\text{-C}_5\text{H}_5)\text{Fe}(\eta^5\text{-C}_5\text{H}_4)$ – and $n = 1$ (**2a**) or 2 (**2b**)} in the palladium catalyzed allylic alkylation of (*E*)-3-phenyl-2-propen-1-yl (*cinnamyl*) acetate using sodium diethyl 2-methylmalonate as nucleophile is described. The study of the solution behaviour of the key intermediates of the process $[\text{Pd}(\eta^3\text{-1-Ph-C}_3\text{H}_4)\text{-}\{\text{Fc-CH=N}-(\text{CH}_2)_n-(\text{C}_4\text{H}_3\text{S})\}][\text{PF}_6]$ ($n = 1$ (**5a**) or 2 (**5b**)) and their reactivity with the nucleophile are also reported.



Metin Zora, Meral Görmen*J. Organomet. Chem.* 692 (2007) 5026

Synthesis of ferrocenyl pyrazoles by the reaction of (2-formyl-1-chlorovinyl)ferrocene with hydrazines

A modified synthesis of ferrocenyl-substituted pyrazoles via the reaction of (2-formyl-1-chlorovinyl)ferrocene with hydrazine derivatives is described.

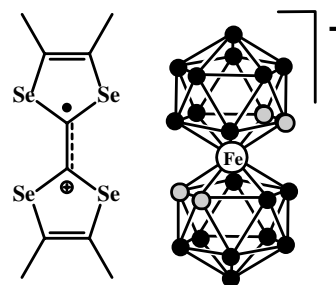


Olga N. Kazheva, Grigorii G. Alexandrov, Andrey V. Kravchenko, Vladimir A. Starodub, Igor B. Sivaev, Irina A. Lobanova, Vladimir I. Bregadze, Lev I. Buravov, Oleg A. Dyachenko

J. Organomet. Chem. 692 (2007) 5033

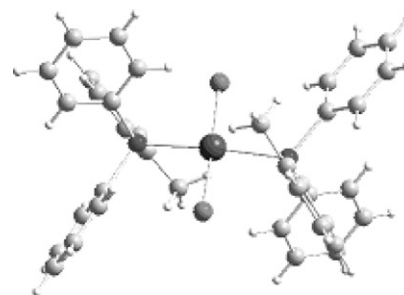
New fulvalenium salts of bis(dicarbollide) cobalt and iron: Synthesis, crystal structure and electrical conductivity

New radical cation salts (BEDT-TTF)₂[3,3'-Co(1,2-C₂B₉H₁₁)₂] (1), (BEDT-TTF)₂[8-1-3,3'-Co(1,2-C₂B₉H₁₀)(1',2'-C₂B₉H₁₁)] (2), (BMDT-TTF)[3,3'-Co(1,2-C₂B₉H₁₁)₂] (3) and (TMTSF)₂[3,3'-Fe(1,2-C₂B₉H₁₁)₂] (4) were synthesized and their crystal structures and electrical conductivities were determined. Compound 4 is isostructural to the earlier reported Co analogue. All the radical cation salts synthesized are semiconductors.

**Sauli Vuoti, Matti Haukka, Jouni Pursiainen***J. Organomet. Chem.* 692 (2007) 5044

Mono and dinuclear palladium complexes of *o*-alkyl substituted arylphosphane ligands: Solvent-dependent syntheses, NMR-spectroscopic characterization and X-ray crystallographic studies

o-Alkyl substituted phosphane ligands form mono or dinuclear palladium complexes depending on which solvent the reaction is performed in.

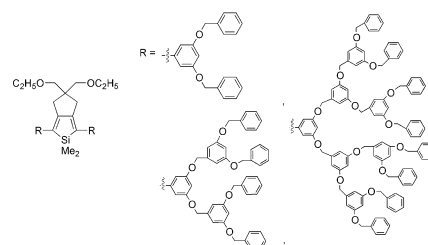


Takanobu Sanji, Tomofumi Kanzawa, Masato Tanaka

J. Organomet. Chem. 692 (2007) 5053

An alternative convergent synthesis of dendrimers with 2,5-diarylsilole at the core

Dendrimers with 2,5-diarylsilole at the core are readily synthesized by the Ni-catalyzed reaction of 1,1,2,2-tetramethyldisilane and 1,6-diynes having poly(benzyl ether)-dendron units.

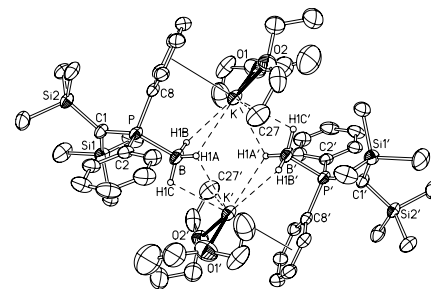


Keith Izod, Corinne Wills, William Clegg, Ross W. Harrington

J. Organomet. Chem. 692 (2007) 5060

Influence of aromatic ring substituents and co-ligand on the binding mode of a phosphine–borane-stabilized carbanion; crystal structures of $[[(\text{Me}_3\text{Si})_2\{\text{Ph}_2\text{P}(\text{BH}_3)\}\text{C}]\text{KL}_n]_2$ [$L_n = (\text{OEt}_2)_2$, pmdeta; pmdeta = *N,N,N',N'',N'''*-penta-methyldiethylenetriamine]

Metalation of $(\text{Me}_3\text{Si})_2\text{CHPPh}_2(\text{BH}_3)$ (**1**) with MeK in diethyl ether gives the dimeric complex $[[(\text{Me}_3\text{Si})_2\{\text{Ph}_2\text{P}(\text{BH}_3)\}\text{C}]\text{K}(\text{OEt}_2)_2]_2$ (**2b**), in which there are $\text{BH}_3 \cdots \text{K}$ and $\text{Ph} \cdots \text{K}$ contacts, but no contact between K and the carbanion center. In the presence of pmdeta the adduct $[[(\text{Me}_3\text{Si})_2\{\text{Ph}_2\text{P}(\text{BH}_3)\}\text{C}]\text{K}(\text{pmdeta})]_2$ (**2a**) is isolated, in which the $\text{Ph} \cdots \text{K}$ contacts are absent.

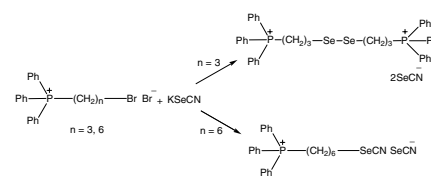


Yon Ju-Nam, David W. Allen, Philip H.E. Gardiner, Mark E. Light, Michael B. Hursthouse, Neil Bricklebank

J. Organomet. Chem. 692 (2007) 5065

The synthesis and characterisation of masked phosphonioalkyl selenoates: Potential ligands for the production of functionalised gold nanoparticles

Two new ligands, bis(3-triphenylphosphonio-propyl)diselenide- and 6-(selenocyno)hexyl-triphenylphosphonium-selenocyanates, which have the potential to act as 'masked selenoates' have been prepared and characterised, including the X-ray crystal structure of bis(3-triphenylphosphonio-propyl)diselenide diselenocyanate. Attempts to prepare phosphonio-alkylselenoate-functionalised gold nanoparticles *in situ* through the NaBH_4 -promoted reduction of tetrachloroaurate salts are also reported.

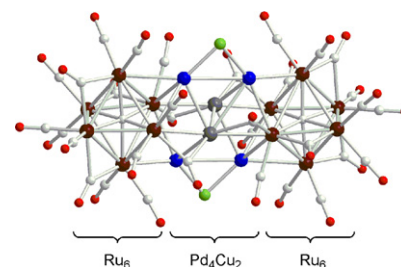


Takayuki Nakajima, Hiromi Konomoto, Haruo Ogawa, Yasuo Wakatsuki

J. Organomet. Chem. 692 (2007) 5071

Synthesis of three-component high nuclearity cluster complexes with ruthenium carbido carbonyl clusters as a building block

New routes to high nuclearity cluster complexes that contain three different metals have been explored. Cluster cores $\{\text{Ag Rh Ru}_5\}$ and $\{\text{Ag Cu Ru}_6\}$ were obtained by the reaction of Ag^+ with $[\text{RhRu}_5\text{C}(\text{CO})_{14}(\text{cod})]^-$ and $[\text{CuRu}_6\text{C}(\text{CO})_{16}\text{Cl}]^-$, respectively. Eighteen nuclearity $\{\text{Cu}_4 \text{Pd}_2 \text{Ru}_{12}\}$ cluster was synthesized by the reaction of $\text{Pd}_2(\text{dba})_3$ with $\{\text{Cu}_4[\text{Ru}_6\text{C}(\text{CO})_{16}]_2\text{Cl}_2\}^{2-}$.



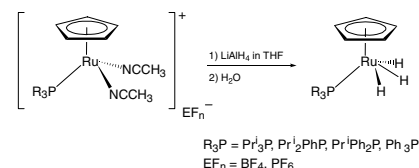
Notes

Alexandr L. Osipov, Dmitry V. Gutsulyak, Lyudmila G. Kuzmina, Judith A.K. Howard, Dmitry A. Lemenovskii, Georg Süss-Fink, Georgii I. Nikonov

J. Organomet. Chem. 692 (2007) 5081

Half-sandwich trihydrido ruthenium complexes

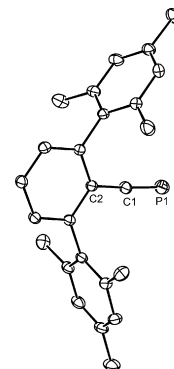
Half-sandwich trihydrido complexes of ruthenium can be easily prepared by the reaction of $[\text{Cp}(\text{R}_3\text{P})\text{Ru}(\text{NCCCH}_3)_2]^+[\text{EF}_n]^-$ ($\text{EF}_n = \text{BF}_4, \text{PF}_6$) with LiAlH_4 .



Cameron Jones, Mark Waugh*J. Organomet. Chem.* 692 (2007) 5086

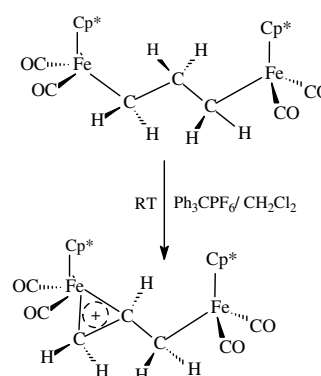
Synthesis and structural characterization of a terphenyl substituted phosphalkyne, $\text{P}\equiv\text{C}\{\text{C}_6\text{H}_3(\text{C}_6\text{H}_2\text{Me}_3-2,4,6)_2-2,6\}$

The reaction of the bulky acid chloride, $\text{Ar}''-\text{C}(\text{O})\text{Cl}$ ($\text{Ar}'' = \text{C}_6\text{H}_3(\text{C}_6\text{H}_2\text{Me}_3-2,4,6)_2-2,6$) with $[\text{LiP}(\text{SiMe}_3)_2]$ has given the first terphenyl substituted phosphalkyne, $\text{P}\equiv\text{C}\text{Ar}''$, as an air stable, crystalline solid. The X-ray crystal structure of this compound was obtained (see picture).

**Evans O. Changamu, Holger B. Friedrich, R. Alan Howie, Melanie Rademeyer***J. Organomet. Chem.* 692 (2007) 5091

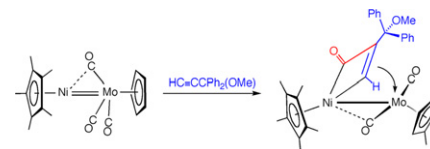
A structural investigation of the carbocation complex $[\{\text{Cp}^*(\text{CO})_2\text{Fe}\}_2\{\mu-(\text{C}_3\text{H}_5)\}]\text{PF}_6$

The Fe(II) carbocation complex $[\{\text{Cp}^*(\text{CO})_2\text{Fe}\}_2\{\mu-(\text{C}_3\text{H}_5)\}]\text{PF}_6$ has been prepared by reacting the neutral bimetallic complex $[\{\text{Cp}^*(\text{CO})_2\text{Fe}\}_2\{\mu-(\text{C}_3\text{H}_6)\}]$ with 1 equiv. of Ph_3CPF_6 in dry CH_2Cl_2 . The NMR data and crystal structure of the carbocation complex are reported and show a metalocyclopropane structure in the solid state and a transition metal-stabilized carbenium ion in solution.

**Eric Brenner, Michael J. Chetcuti, Ibtissem Dridi, Richard Welter***J. Organomet. Chem.* 692 (2007) 5097

Reactions of nickel-group 6 complexes with a bulky terminal alkyne to afford alkyne-carbonyl coupled products: X-ray structure of the heterobimetallic nickelacyclobutenone complex $[(\eta^5-\text{C}_5\text{Me}_5)\text{Ni}\{\mu-\eta^1, \eta^3-\text{C}(\text{H})=\text{C}(\text{CPh}_2(\text{OMe}))-\text{C}(\text{O})\}-\text{Mo}(\text{CO})_2(\eta^5-\text{C}_5\text{H}_4\text{Me})]$ (Ni-Mo)

The bulky terminal alkyne $\text{HC}\equiv\text{CCPh}_2(\text{OMe})$ reacts with the unsaturated heterobimetallic complex $[(\eta^5-\text{C}_5\text{Me}_5)\text{Ni}=\text{Mo}(\text{CO})_3(\eta^5-\text{C}_5\text{H}_4\text{Me})]$, to give, regioselectively and exclusively, the alkyne-carbonyl coupled metallacyclic product shown. The structure of this species was determined by a single crystal X-ray diffraction study. Similar products are obtained with related heterobimetallic Ni=Mo and Ni=W complexes.

**Hanns-Dieter Amberger, Hauke Reddmann***J. Organomet. Chem.* 692 (2007) 5103

Electronic structures of organometallic complexes of *f* elements LXVI. Parametric analysis of the linear dichroism spectrum of an oriented tris(η^5 -tetramethylcyclopentadienyl)-samarium(III) single crystal

Applying the selection rules of forced electric dipole transitions (D_{3h} symmetry) to the absorption spectrum of pseudo trigonal planar $\text{Sm}(\eta^5-\text{C}_5\text{Me}_4\text{H})_3$ in a KBr pellet, and the σ and π absorption spectra of an oriented single crystal, an assigned truncated crystal field splitting pattern could be derived, and simulated by fitting the free parameters of a phenomenological Hamiltonian.

