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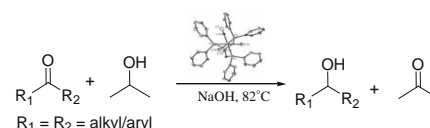
Communication

**Bhaskar Jyoti Sarmah,
Dipak Kumar Dutta**

J. Organomet. Chem. 695 (2010) 781

Chlorocarbonyl ruthenium(II) complexes of tripodal triphos {MeC(CH₂PPh₂)₃}: Synthesis, characterization and catalytic applications in transfer hydrogenation of carbonyl compounds

[Ru(CO)₂Cl₂]_n reacts with the tridentate tripodal phosphine ligand {MeC(CH₂PPh₂)₃} to afford the complexes [Ru(CO)₂(triphos-κ²P)Cl₂] (**1**) and [Ru(CO)(triphos-κ³P)Cl₂] (**2**). The Single Crystal X-ray structure of **2** showed a slightly distorted metal centred complex. The complex [Ru(CO)(triphos-κ³P)Cl₂] is an efficient catalyst in transfer hydrogenation of aromatic carbonyl compounds in the presence of isopropanol/NaOH.



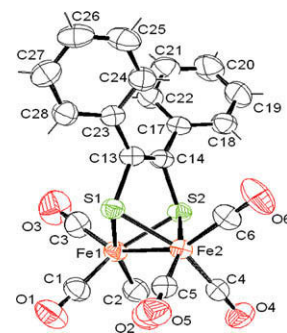
Review

**Hénia Mousser, André Darchen,
Abdelhamid Mousser**

J. Organomet. Chem. 695 (2010) 786

Unexpected fragmentation of phenyldithiobenzoate, formation and X-ray structure of [μ,η²(S,S)-1,2-(dithio)-1,2-(diphenylethylene)] diiron hexacarbonyl complex

The reaction of Fe₂(CO)₉ with PhCS₂Ph led to four compounds: [(μ-η³(C,S,S)PhCS₂Ph)]-Fe₂(CO)₆, (μ-S)Fe₃(CO)₉, (μ-SPh)₂Fe₂(CO)₆ and [μ-η²(S,S)][PhC(S)=C(S)Ph]Fe₂(CO)₆. This last complex was characterized by X-ray crystallography and its formation is discussed.



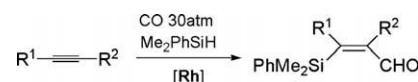
Regular Papers

**Andrea Biffles, Luca Conte,
Cristina Tubaro, Marino Basato,
Laura Antonella Aronica, Angela Cuzzola,
Anna Maria Caporusso**

J. Organomet. Chem. 695 (2010) 792

Highly selective silylformylation of internal and functionalised alkynes with a cationic dirhodium(II) complex catalyst

The tetracationic dirhodium(II) complex catalyst [Rh₂(MeCN)₂(Naft)₄](BF₄)₄ (Naft = μ-1,8-naphthyridine) exhibits an unprecedented chemoselectivity towards the silylformylation of internal and functionalised alkynes. On the contrary, investigations on the standard silylformylation catalyst Rh₄(CO)₁₂ indicate that this complex is poorly chemoselective, although it evolves with ageing generating other catalytically active species with enhanced chemoselectivity.

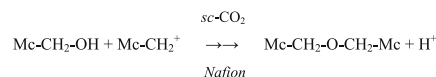


Viatcheslav I. Sokolov, Lev N. Nikitin, Ludmila A. Bulygina, Victor N. Khrustalev, Zoya A. Starikova, Alexei R. Khokhlov

J. Organomet. Chem. 695 (2010) 799

Supercritical carbon dioxide in organometallic synthesis: Combination of *sc*-CO₂ with Na on Im as a novel reagent in the synthesis of ethers from hydroxymethylmetallocenes

Metallocenyl carbinols FcCH₂OH (1a) and R_cCH₂OH (1b) dissolved in *sc*-CO₂ in the presence of acidic Na on Im under 20 MPa after removal of pressure and leaving at room temperature afforded the crystals rapidly formed on the surface of the Im identified as ethers McCH₂OCH₂Mc, Mc = Fc or R_c by X-ray study. Mechanism of their formation is discussed.

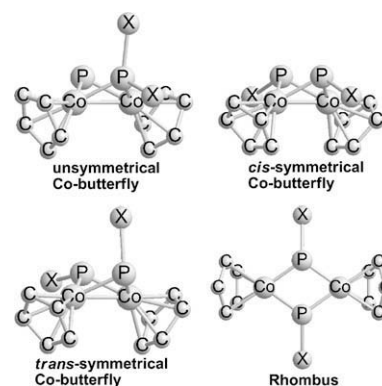


Guoliang Li, Qian-Shu Li, Ioan Silaghi-Dumitrescu, R. Bruce King, Henry F. Schaefer III

J. Organomet. Chem. 695 (2010) 804

Binuclear cyclopentadienylcobalt sulfur and phosphinidene complexes Cp₂Co₂E₂ (E = S, PX): Comparison with their Iron carbonyl analogues

Studies on a series of Cp₂Co₂E₂ derivatives (E = S and PX; X = H, Cl, OH, OMe, NH₂, NMe₂) predict butterfly structures with a Co-Co bond for the body to be the lowest energy structures in all cases. Such butterfly structures for Cp₂Co₂(PX)₂ can either be symmetrical singlet diradicals with one X group and a single electron on each phosphorus, or unsymmetrical structures with both X groups on one phosphorus and a lone pair on the other phosphorus. Tetrahedrane and rhombus structures have significantly higher energies than any of the butterfly structures.

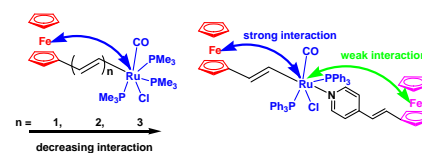


Fang Liu, Xiang Hua Wu, Jian-Long Xia, Shan Jin, Guang-Ao Yu, Sheng Hua Liu

J. Organomet. Chem. 695 (2010) 809

Synthesis and characterization of (CH=CH)_n-bridged (n = 1, 2, 3) heterobimetallic and trimetallic ferrocene ruthenium complexes

A series of heterobimetallic and trimetallic ferrocene ruthenium complexes have been prepared. Electrochemical studies have revealed that intermetallic electronic communication between the two endgroups is attenuated with the increase of the length of the conjugated bridge. The electrochemical behavior of trimetallic complex reveals that strong electronic communication between ruthenium and ferrocene transmitted through the ethenyl bridge, however very weak interaction between ruthenium and ferrocene transmitted through the (E) CH=CH Py bridge.

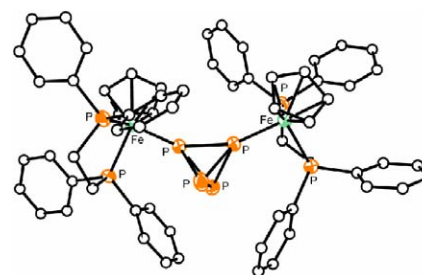


Massimo Di Vaira, Maurizio Peruzzini, Stefano Seniori Costantini, Piero Stoppioni

J. Organomet. Chem. 695 (2010) 816

Coordination and reactivity of white phosphorus and tetraphosphorus trisulphide in the presence of the fragment CpFe(dppe) [dppe = 1,2-bis(diphenylphosphino)ethane]

The monometallic [CpFe(dppe)(η¹-P₄)]PF₆, [CpFe(dppe)(η¹-P_{basal}-P₄S₃)]OTf, and the bimetallic compounds {[CpFe(dppe)]₂(μ,η^{1:1}-P₄)}(PF₆)₂ and {[CpFe(dppe)]₂(μ,η^{1:1}-P_{apical}-P_{basal}-P₄S₃)}(OTf)₂, containing the P₄ or the P₄S₃ molecules bound to one or two CpFe(dppe) fragments through phosphorus atom(s), have been synthesized and characterized. The coordinated molecules easily react with water at room temperature and the reaction products have been identified.

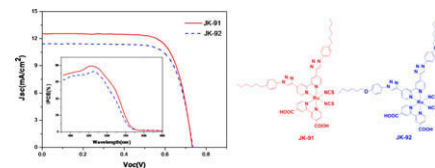


Sanghyun Paek, Chul Baik, Moon-sung Kang, Hongsuk Kang, Jaejung Ko

J. Organomet. Chem. 695 (2010) 821

New type of ruthenium sensitizers with a triazole moiety as a bridging group

A new type of ruthenium sensitizers **JK-91** and **JK-92** with a triazole moiety as a bridging group were designed and synthesized in an attempt to increase the π -conjugated system. Under standard AM 1.5 sunlight, the sensitizer **JK-91** yielded a short-circuit photocurrent density of 12.55 mA/cm², an open-circuit voltage of 0.73 V, and a fill factor of 0.73, corresponding to an overall conversion efficiency of 6.75%.

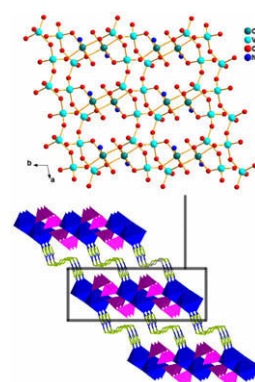


Xiu-Li Wang, Bao-Kuan Chen, Guo-Cheng Liu, Hong-Yan Lin, Hai-Liang Hu

J. Organomet. Chem. 695 (2010) 827

Three new 3-D inorganic organic coordination polymers constructed from polyoxovanadate-based heterometallic network and exible bis(imidazole) ligand: Syntheses, structures and properties

Three new 3-D inorganic organic polyoxovanadate-based coordination polymers [M₂(bbi)(V₂O₆)₂(H₂O)₂] [M = Co (**1**), Mn (**2**) and [Ni₂(bbi)₃V₄O₁₂]-4H₂O (**3**) (bbi = 1,1-(1,4-butanediyl)bis(imidazole)) have been synthesized under hydrothermal condition and characterized by elemental analyses, IR, TG and single crystal X-ray diffraction. The electrochemical behaviors of **1-3** modified carbon paste electrodes have been studied.

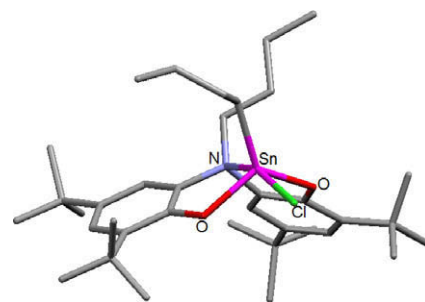


Carlos Camacho-Camacho, Edgar Mijangos, Maria E. Castillo-Ramos, Adriana Esparza-Ruiz, Aurora Vásquez-Badillo, Heinrich Nöth, Angelina Flores-Parra, Rosalinda Contreras

J. Organomet. Chem. 695 (2010) 833

Synthesis of aromatic tetracyclic tin compounds by template and transmetallation reactions: Alkyl vs aryl migration from tin to nitrogen

SnPh₂ (**1**) and SnCl₂Ph stannate (**2**) derived from tetraalkyl diphenolamine were prepared by template reactions using 3,5-di-*tert*-butylcatechol, NH₄OH and SnPh₂Cl₂. Compounds **2** and SnCl₃ stannate (**4**), SnClMe (**5**), SnCl(*n*Bu) (**6**) and SnCl₂(*n*Bu) stannate (**7**), were prepared by transmetallation of a Zn complex with PhSnCl₃, Ph₂SnCl₂, SnCl₄, SnMe₂Cl₂, Sn(*n*Bu)₂Cl₂ and Sn(*n*Bu)Cl₃. X-ray diffraction analyses of **1**, **2**, **4** and **6** are reported. Transmetallation reactions from Sn to N occurs only for alkyl and not for phenyl groups.

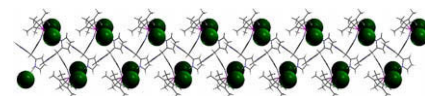


Mahendra Yadav, Ashish Kumar Singh, Rampal Pandey, Daya Shankar Pandey

J. Organomet. Chem. 695 (2010) 841

Synthesis and characterization of complexes imparting *N*-pyridyl bonded meso-pyridyl substituted dipyrrromethanes

Present work deals with the synthesis, spectral and structural characterization of a series of mononuclear complexes imparting (η^6 -arene)Ru- and (η^5 -C₅Me₅)Rh/Ir-moiety and meso-pyridyl substituted dipyrrromethane ligands. Crystal structure of the representative complex [(η^6 -C₅Me₅)-RuCl₂(4-dpmane)] [(η^5 -C₅Me₅)IrCl₂(3-dpmane)] has been determined crystallographically. Complexes are good transfer hydrogenation catalyst for some aromatic aldehydes.

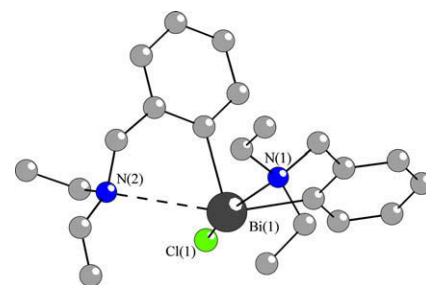


**Albert Soran, Hans J. Breunig,
Vito Lippolis, Massimiliano Arca,
Cristian Silvestru**

J. Organomet. Chem. 695 (2010) 850

Syntheses, solid-state structures, solution behavior of hypervalent organobismuth(III) compounds $[2-(Et_2NCH_2)C_6H_4]_nBiX_{3-n}$ and DFT characterization of $[2-(Me_2NCH_2)-C_6H_4]_nBiX_{3-n}$ [X = Cl, Br, I; n = 1–3]

The pendant arm aryl bismuth(III) compounds $[2-(Et_2NCH_2)C_6H_4]_nBiX_{3-n}$ (n = 1–3, X = Cl, Br, I) were synthesized and characterized both in solid state and in solution. The solid-state structures resemble those of the analogous compounds with methyl groups at the nitrogen atom of the pendant arm. NMR spectra revealed the presence of internal nitrogen-bismuth coordination in solution. DFT calculations allowed to investigate the nature of the chemical bond in the title systems and their vibrational properties.



**M. Rajeswara Rao, K.V. Pavan Kumar,
M. Ravikanth**

J. Organomet. Chem. 695 (2010) 863

Synthesis of boron-dipyrrromethene ferrocene conjugates

Synthesis of four boron-dipyrrromethene ferrocene conjugates and their spectral, electrochemical and photophysical properties are described.

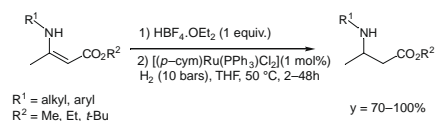


**Hania Hebbache, Thomas Jerphagnon,
Zakia Hank, Christian Bruneau, Jean-Luc Renaud**

J. Organomet. Chem. 695 (2010) 870

Hydrogenation of β -N-substituted enaminoesters in the presence of ruthenium catalysts

A new general procedure has been developed for the synthesis of a range of β -N-substituted aminoesters via catalytic hydrogenation of β -N-substituted enaminoesters in acidic conditions in the presence of ruthenium complexes.

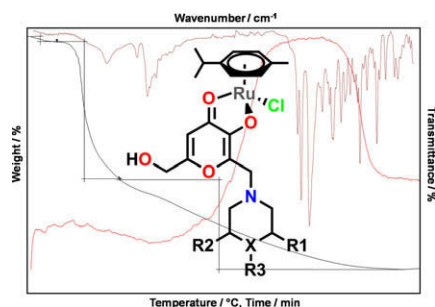


**Johanna H. Kasser, Wolfgang Kandioller,
Christian G. Hartinger, Alexey A. Nazarov,
Vladimir B. Arion, Paul J. Dyson,
Bernhard K. Keppler**

J. Organomet. Chem. 695 (2010) 875

Mannich products of kojic acid and N-heterocycles and their Ru(II) arene complexes: Synthesis, characterization and stability

The Mannich reaction of kojic acid with piperidine and related analogues yields a series of pyrone-derived ligands which were transformed into the respective $[Ru^{II}Cl(cymene)]$ complexes. Aquation of the complex and related formation of dinuclear Ru species can be inhibited by in situ replacement of the chlorido ligand by imidazole.

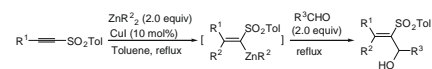


Meihua Xie, Gaofeng Lin, Jinhua Zhang, Ming Li, Chengyou Feng

J. Organomet. Chem. 695 (2010) 882

Regio- and stereoselective synthesis of tetrasubstituted allylic alcohols by three-component reaction of acetylenic sulfone, dialkylzinc, and aldehyde

(Z)-Tetrasubstituted allylic alcohols bearing sulfonyl group were synthesized regio- and stereoselectively by alkylzincation of acetylenic sulfone followed by addition to aldehyde.

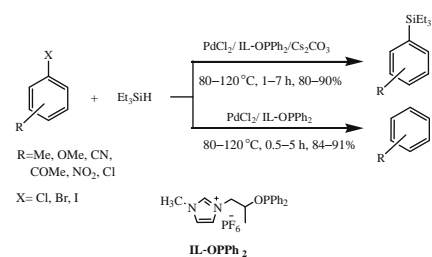


Nasser Iranpoor, Habib Firouzabadi, Roya Azadi

J. Organomet. Chem. 695 (2010) 887

Diphenylphosphinite ionic liquid (IL-OPPh₂): A solvent and ligand for palladium-catalyzed silylation and dehalogenation reaction of aryl halides with triethylsilane

The use of an imidazolium-based phosphinite ionic liquid (IL-OPPh₂) as both solvent and ligand for Pd offers an efficient catalytic system for silylation of aryl iodides, bromides and also chlorides by triethylsilane in the presence of Cs₂CO₃. In the absence of base, this system is also performed for catalytic dehalogenation of aryl halides. The ionic liquid containing its corresponding Pd(0) complex can be easily recovered and reused in several runs without losing its efficiency.

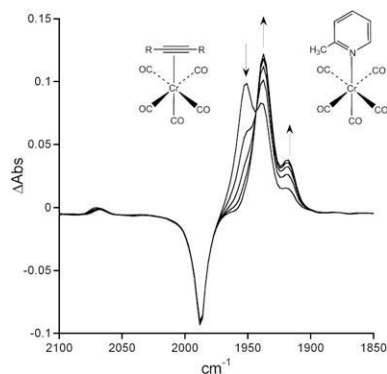


Bert H.G. Swennenhuis, G. Benjamin Cieslinski, Edward N. Brothers, Ashfaq A. Bengali

J. Organomet. Chem. 695 (2010) 891

Reactivity of the M-(η^2 -alkyne) bond [M = Cr, W]: A kinetic and DFT study

The displacement of η^2 -coordinated 1-hexyne and 3-hexyne by 2-picoline from the Cr(CO)₅, BzCr(CO)₂ and W(CO)₅ fragments was studied. The reactions proceed by a dissociative pathway for the Cr systems. Bond dissociation enthalpies obtained from kinetic analysis are in agreement with calculated values using DFT.

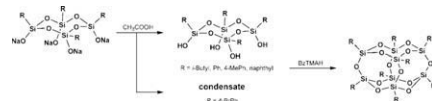


Seiji Tateyama, Yuriko Kakihana, Yusuke Kawakami

J. Organomet. Chem. 695 (2010) 898

Cage octaphenylsilsesquioxane from cyclic tetrasiloxanetetraol and its sodium salt

Cage octasilsesquioxanes were obtained from sodium salt of cyclic tetrasiloxanetetraols.

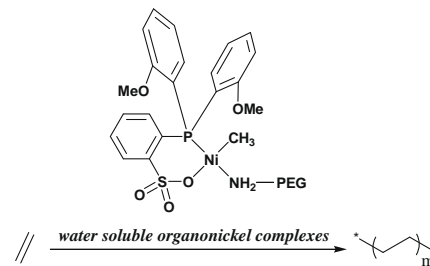


Notes

Dao Zhang, Jinyang Wang, Qin Yue*J. Organomet. Chem.* 695 (2010) 903

Synthesis, characterization and catalytic behaviors of water-soluble phosphine-sulfonato nickel methyl complexes bearing PEG-amine labile ligand

Two novel water-soluble phosphine-sulfonato nickel (II) methyl complexes $[(P^{\wedge}O)NiMeL]$ ($P^{\wedge}O = \kappa^2\text{-}P, O\text{-}2\text{-}(2\text{-MeO-C}_6\text{H}_4)_2\text{PC}_6\text{H}_4\text{SO}_3$, $L = \text{H}_2\text{N}(\text{CH}_2\text{CH}_2\text{O})_n\text{Me}$, $n = ca. 52$, **2a**; $n = ca. 16$, **2b**) have been prepared and characterized by ^1H , ^{31}P NMR and elemental analysis, and their reactivity towards ethylene was studied.

**Wen-Zuo Li, Tao Liu, Jian-Bo Cheng, Qing-Zhong Li, Bao-An Gong***J. Organomet. Chem.* 695 (2010) 909

Theoretical investigation on H_2 elimination reactions of germylenoid H_2GeLiF with RH ($\text{R} = \text{F}, \text{OH}, \text{NH}_2$)

The H_2 elimination reactions of the germylenoid H_2GeLiF with RH ($\text{R} = \text{F}, \text{OH}, \text{NH}_2$) have been studied by using the DFT B3LYP and QCISD methods.

