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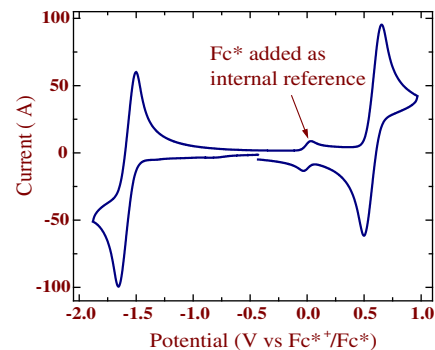
Regular Papers

Avelina Arnanz, María-Luisa Marcos, Salomé Delgado, Jaime González-Velasco, Consuelo Moreno

J. Organomet. Chem. 693 (2008) 3457

The effect of thiophene ring substitution position on the properties and electrochemical behaviour of alkyne-dicobaltcarbonylthiophene complexes

We report a comparative electrochemical study of 2,5-, 2,4-, 3,4- and 2,3-bis(trimethylsilylethynyl)thiophene $\text{Co}_2(\text{CO})_6^-$ and $\text{Co}_2(\text{CO})_4(\text{L-L})$ -substituted alkyne complexes (L-L = dppa and dmpm), in order to evaluate the extent of the electronic interaction between the “ Co_2C_2 ” redox centres depending on the position of the alkynyl substituent on the thiophene ring.

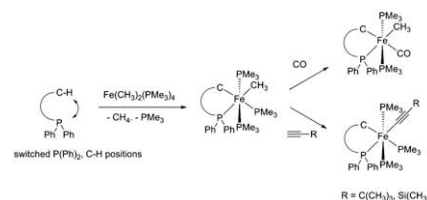


Robert Beck, Tingting Zheng, Hongjian Sun, Xiaoyan Li, Ulrich Flörke, Hans-Friedrich Klein

J. Organomet. Chem. 693 (2008) 3471

C-H activation of diphenylphosphinoaryl-derivatives with dimethyltetrakis(trimethylphosphine)iron(II)

Cyclometalation throughout C-H activation is observed under mild conditions when $\text{Fe}(\text{CH}_3)_2(\text{PMe}_3)_4$ reacts with diphenylphosphinoaryl-derivatives. Carbon monoxide smoothly substitutes selectively one trimethylphosphine and the attached methyl group in the cyclometallated complex can be easily substituted by an acidic alkyne.

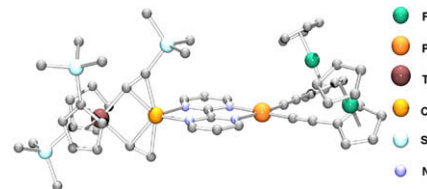


Alexander Jakob, Petra Ecorchard, Katrin Köhler, Heinrich Lang

J. Organomet. Chem. 693 (2008) 3479

2,2'-Bipyrimidine transition metal complexes: Synthesis, reaction chemistry and solid state structures

The synthesis, characterization and electrochemical behavior of diverse transition metal complexes with the 2,2'-bipyrimidine connecting unit is discussed.

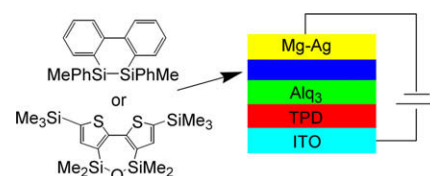


Hiroyuki Kai, Joji Ohshita, Sayaka Ohara, Naohiro Nakayama, Atsutaka Kunai, In-Sook Lee, Young-Woo Kwak

J. Organomet. Chem. 693 (2008) 3490

Disilane- and siloxane-bridged biphenyl and bithiophene derivatives as electron-transporting materials in OLEDs

Electron transporting properties of Si-bridged biphenyl and bithiophene were evaluated by the performance of triple-layered OLEDs. The device with a disilane-bridged biphenyl exhibited the high performance with the maximum luminance of 22 000 cd/m² at the bias voltage of 13 V.

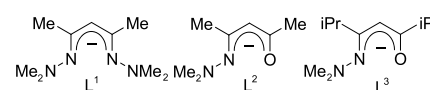


Baburam Sedai, Mary Jane Heeg, Charles H. Winter

J. Organomet. Chem. 693 (2008) 3495

Magnesium complexes containing β -ketiminate and β -diketiminato ligands with dimethylamino substituents on the ligand core nitrogen atoms

The synthesis, structure, and properties of Mg(L¹)₂, Mg(L²)₂(4-tBupy)₂, Mg(L³)₂(4-tBupy)₂, [Mg(L²)₂]₂, Mg(L³)₂, MgCp(L¹)(4-tBupy), [MgCp(L²)]₂, and [MgCp(L³)]₂ are described. Many of the complexes sublime without decomposition at moderate temperatures and low pressures, and thus represent new potential precursors for thin film growth using chemical vapor deposition and related techniques.



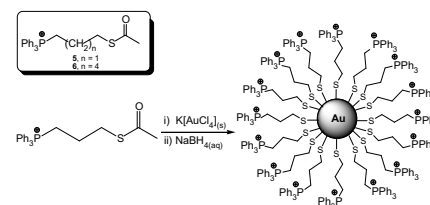
Yon Ju-Nam, David W Allen, Philip H.E. Gardiner, Neil Bricklebank

J. Organomet. Chem. 693 (2008) 3504

ω -Thioacetylalkylphosphonium salts: Precursors for the preparation of phosphonium-functionalised gold nanoparticles

The synthesis and characterisation of two new ω -thioacetylalkylphosphonium salts, (3-thioacetylpropyl)triphenylphosphonium bromide **5**, and (6-thioacetylhexyl)triphe-

nylphosphonium bromide **6** is reported. Both compounds act as 'masked thiolate' ligands which readily lose the acetyl group forming triphenylphosphonioalkylthiolate anions which are able to stabilise gold nanoparticles forming cationic monolayer-protected gold clusters. Thus, when compounds **5** and **6** are treated with gold(III) salts under reductive conditions, water-soluble gold nanoparticles of ca. 5–10 nm in size that are stable for up to six months are formed. The related (3-thioacetylpropyl)diphenylphosphine oxide has also prepared but is not effective at stabilising gold nanoparticles.

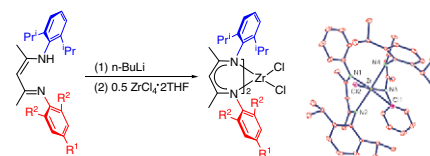


Shaogang Gong, Haiyan Ma, Jiling Huang

J. Organomet. Chem. 693 (2008) 3509

Zirconium complexes with versatile β -diketiminato ligands: Synthesis, structure, and ethylene polymerization

Zirconium complexes bearing symmetrical or unsymmetrical β -diketiminato ligand were synthesized, which could produce polyethylenes with ultra-high molecular weight or broad molecular weight distribution by varying the substituents of β -diketiminato ligand as well as polymerization conditions. It is the first time that the unsymmetrical β -diketiminato ligands were introduced to the zirconium complexes.

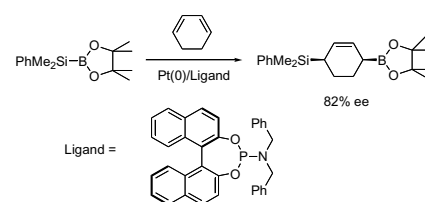


**Martin Gerdin, Maël Penhoat,
Raivis Zalubovskis, Claire Pétermann,
Christina Moberg**

J. Organomet. Chem. 693 (2008) 3519

Enantioselective silicon–boron additions to cyclic 1,3-dienes catalyzed by the platinum group metal complexes

Enantioselective 1,4-silaborations of 1,3-cyclohexadiene and 1,3-cycloheptadiene were achieved using chiral catalysts. For 1,3-cyclohexadiene up to 82% ee was observed. The resulting 1,4-adduct was successfully used in microwave assisted allylboration reactions that proceeded with good to moderate diastereoselectivity.

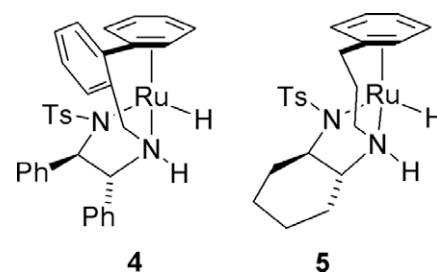


**Jose E.D. Martins, David J. Morris,
Bhavana Tripathi, Martin Wills**

J. Organomet. Chem. 693 (2008) 3527

Further ‘tethered’ Ru(II) catalysts for asymmetric transfer hydrogenation (ATH) of ketones; the use of a benzylic linker and a cyclohexyldiamine ligand

The synthesis, characterisation and application to the asymmetric transfer hydrogenation (ATH) of ketones, of two new Ru(II) catalysts, **4** and **5**, is described.

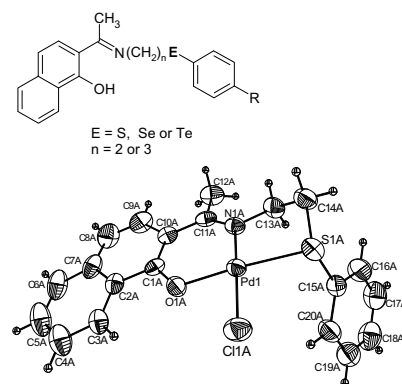


**Arun Kumar, Monika Agarwal,
Ajai K. Singh**

J. Organomet. Chem. 693 (2008) 3533

Schiff bases of 1'-hydroxy-2'-acetonaphthone containing chalcogen functionalities and their complexes with and (*p*-cymene)Ru(II), Pd(II), Pt(II) and Hg(II): Synthesis, structures and applications in C–C coupling reactions

Schiff bases 1-HO–C₁₀H₆–2-(CH₃)C=N–(CH₂)_n–EC₆H₄–4-R (R = H or OMe; n = 2 or 3; E = S (L¹–L²), Se (L³–L⁴) or Te (L⁵–L⁶)) and their complexes with Pd(II), Pt(II), Hg(II) and Ru(II) have been synthesized. The single-crystal structures of ligands L¹, L³ and L⁶ and complexes of Pd(II) with L¹, L², L³ and L⁵ have been determined. The ligands coordinate in a uni-negative tridentate mode with Pd(II). The bond lengths are Pd–N 1.996(7) to 2.019(5) Å; Pd–Se 2.3600(5) Å; Pd–Te 2.5025(7) Å. The Pd(II) complexes have been used for Heck and Suzuki reactions (Yields ~85%).



**Yoshikazu Yamamoto, Hiroshi Danjo,
Kentaro Yamaguchi, Tsuneo Imamoto**

J. Organomet. Chem. 693 (2008) 3546

Formation of 1,4-diphosphenobenzenes via *tele*-substitution on fluorobenzenechromium complexes

The *meta*-*tele*-substitution of 2-(boranato-phosphino)fluorobenzenechromium complexes took place with various lithiated secondary phosphine–boranes as nucleophiles to give *para*-substituted bis(boranatophosphino)benzenechromiums as shown below.

