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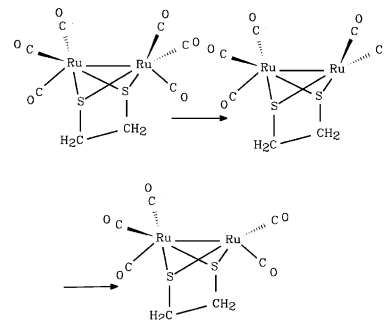
Communication

Thomas E. Bitterwolf, Javier A. Cabeza

J. Organomet. Chem. 689 (2004) 2947

Photolysis of diruthenium hexacarbonyl tetrahedrane compounds in Nujol glass matrices

Photolysis of diruthenium tetrahedrane complexes results in initial loss of CO from an axial position followed by rearrangement to give the equatorial loss species.



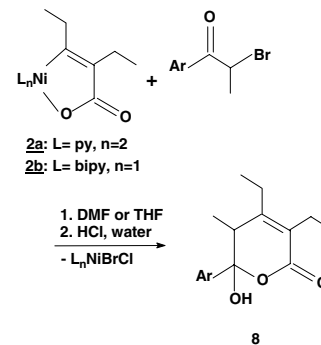
Regular papers

Jens Langer, Reinald Fischer, Helmar Görls, Dirk Walther

J. Organomet. Chem. 689 (2004) 2952

A new set of nickelacyclic carboxylates ("nickelalactones") containing pyridine as supporting ligand: synthesis, structures and application in C–C– and C–S– linkage reactions

Nickelacycles of the type [(py)₂Ni(CH₂CH₂COO)] (**1a**), [(py)₂Ni(C(Et)C(Et)COO)] (**2a**), and [(py)Ni(CH₂–C(CH₃)–C(CH₃)–CH₂–COO)] (**3a**) were synthesized and structurally investigated by NMR, IR spectroscopy and in case of **1a** and **2a** by X-ray diffraction analysis.

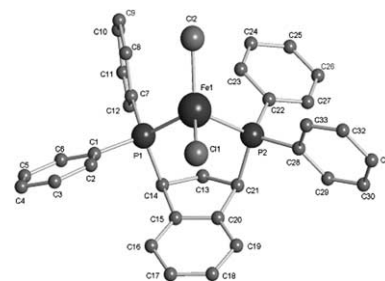


Lee J. Higham, Ann J. Middleton, Katie Heslop, Paul G. Pringle, Angharad Barber, A. Guy Orpen

J. Organomet. Chem. 689 (2004) 2963

Chelates formed by a constrained bis(diphenylphosphino)xylene; the crystal structures of [FeCl₂(anphos)] and [RhCl(CO)(anphos-monoxide)]

Anphos is synthesised by the addition of 2Ph₂P(BH₃)Li to *cis*-1,3-dibromoindan followed by deprotection. [RhCl(CO)(anphos)], [PtCl₂(anphos)], [PtCl(Me)(anphos)] and [FeCl₂(anphos)] are reported and the hydroformylation of 1-hexene catalysed by Rh-anphos complexes is discussed.

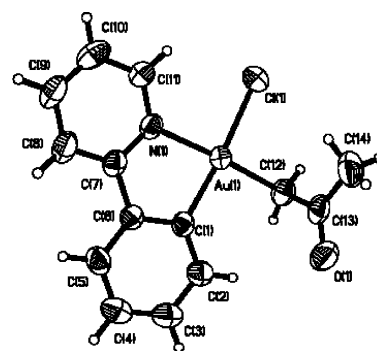


**Daming Fan, Enrique Meléndez,
John D. Ranford, Peng Foo Lee,
Jagadees J. Vittal**

J. Organomet. Chem. 689 (2004) 2969

Study on carbon–hydrogen activation of ketones by Gold(III) complexes and the synthesis and characterization of two ketonylgold(III) complexes

The acetonoylgold(III) compound $[\text{Au}(\text{ppy})(\text{CH}_2\text{COCH}_3)\text{Cl}]$ (**1**) (ppy = 2-phenylpyridine) was unexpectedly obtained during the crystallization process of Au(III) lactate complex $[\text{Au}(\text{ppy})(\text{CH}_3\text{CHOHCOO}^-)\text{Cl}]$. This new structure prompted us to further study the role of Au(III) complexes on the carbon–hydrogen activation of ketones.

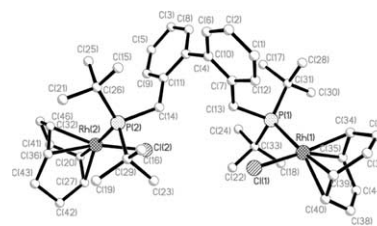


**Lee J. Higham, Katie Heslop,
Paul G. Pringle, A. Guy Orpen**

J. Organomet. Chem. 689 (2004) 2975

2,2'-Bis((di-*tert*-butylphosphino)methyl)-1,1'-biphenyl (ditbi): a bulky analogue of bisbi. The crystal structure of $[\text{Rh}_2\text{Cl}_2(1,5\text{-cod})_2(\mu\text{-ditbi})]$

Addition of 2 $\text{Bu}_2\text{P}(\text{BH}_3)\text{Li}$ to 2,2'-bis-(bromomethyl)-1,1'-biphenyl generates, after deprotection, 2,2'-bis(di-*tert*-butylphosphino)methyl)-1,1'-biphenyl (ditbi). $[\text{Rh}_2\text{Cl}_2(1,5\text{-cod})_2]$ reacts with ditbi to give $[\text{Rh}_2\text{Cl}_2(1,5\text{-cod})_2(\mu\text{-ditbi})]$. Hydroformylation of 1-hexene using $[\text{Rh}(\text{acac})(\text{CO})_2]/\text{ditbi}$ as catalyst gave *n*- and iso-heptanal in a ratio of 1:1.

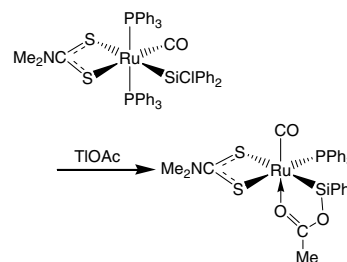


**Wai-Him Kwok, Guo-Liang Lu,
Clifton E.F. Rickard, Warren R. Roper,
L. James Wright**

J. Organomet. Chem. 689 (2004) 2979

Tethered silyl complexes from nucleophilic substitution reactions at the Si–Cl bond of the chloro(diphenyl)silyl ligand in $\text{Ru}(\text{SiClPh}_2)(\kappa^2\text{-S}_2\text{CNMe}_2)(\text{CO})(\text{PPh}_3)_2$

The chloro(diphenyl)silyl ligand in $\text{Ru}(\text{SiClPh}_2)(\kappa^2\text{-sS}_2\text{CNMe}_2)(\text{CO})(\text{PPh}_3)_2$ undergoes nucleophilic substitution reactions with 2-hydroxypyridine, 2-aminopyridine, and thallium acetate to give six-coordinate, mono-triphenylphosphine, complexes containing tethered silyl ligands.

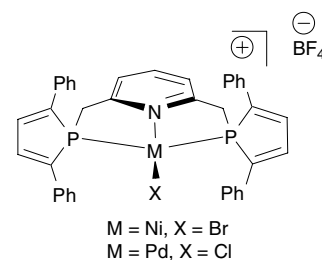


**Mohand Melaimi, Claire Thoumazet,
Louis Ricard, Pascal Le Floch**

J. Organomet. Chem. 689 (2004) 2988

Syntheses of a 2,6-bis-(methylphospholyl)-pyridine ligand and its cationic Pd(II) and Ni(II) complexes – application in the palladium-catalyzed synthesis of arylboronic esters

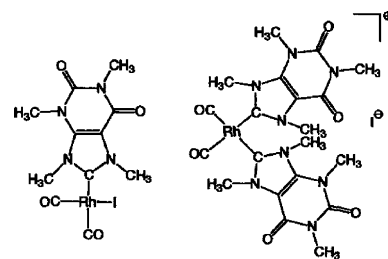
The synthesis of a new PNP pincer ligand featuring a central pyridine unit and two ancillary 2,5-diphenylphospholyl ligands is reported. Its cationic Pd–Cl complex catalyzes the coupling between iodo and bromo arenes with pinacolborane to afford the corresponding boronic esters with high TON.



Jan Schütz, Wolfgang A. Herrmann*J. Organomet. Chem.* 689 (2004) 2995

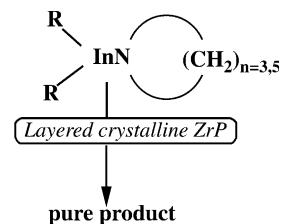
Purine-based carbenes at rhodium and iridium

Carbenes derived from methyl-caffeine and 7,9-dimethylhypoxanthine are attached to catalysis-related metals like rhodium and iridium. Several mono- and bis-carbene complexes of the type $[M(L)(L_{\text{Carbene}})_2]I$ and $M(L)(L_{\text{Carbene}})(I)$ ($M = \text{Rh, Ir}$, $L_{\text{Carbene}} = 1,3,7,9\text{-tetramethylxanthine-8-ylidene}$, $7,9\text{-dimethylhypoxanthine-8-ylidene}$, $L = \eta^4\text{-1,5-COD}$, CO) ($\text{COD} = 1,5\text{-cyclooctadiene}$) are characterized and their analytical data compared.

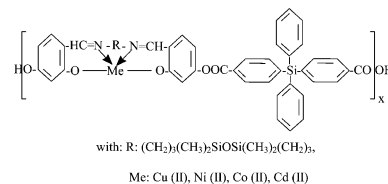
**Iryna Grafova, Riccardo Vivani, Andrei Grafov, Franco Benetollo***J. Organomet. Chem.* 689 (2004) 3000

Cyclic dialkylindium amides: new structural information and ultra-purification using inorganic and inorgano-organic layered materials

Cyclic dimethyl- and diethylindium amides were synthesised, characterised, and ultra-purified by an original sorption treatment using advanced inorganic and inorgano-organic crystalline layered materials. X-ray structure of pyrrolidinodimethylindium was determined.

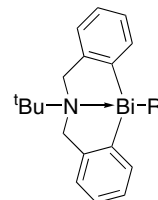
**Maria Cazacu, Mihai Marcu, Angelica Vlad, Gheorghe I. Rusu, Mihaela Avadanei***J. Organomet. Chem.* 689 (2004) 3005Chelate polymers. VI. New copolymers of the some siloxane containing bis(2,4-dihydroxybenzaldehyd-imine) Me^{2+} with bis(*p*-carboxyphenyl)diphenylsilane

New complex polymeric structures containing metal chelate sequences alternating with silane units of the type: have been synthesized and characterized by IR, UV, ^1H NMR, TGA, DSC, GPC, and elemental analysis. The siloxane and silane presences in such structures confer a good solubility. The electrical conductivity of both chelate monomers and their polymers are investigated, all compounds showing typical semiconducting behaviors.

**Shigeru Shimada, Osamu Yamazaki, Toshifumi Tanaka, Yohichi Suzuki, Masato Tanaka***J. Organomet. Chem.* 689 (2004) 3012

Synthesis and structure of 5,6,7,12-tetrahydrodibenz[c,f][1,5]azabismocines

Hypervalent organobismuth compounds with 13 different substituents have been synthesized, among which molecular structures have been determined for 12 compounds by X-ray diffraction.



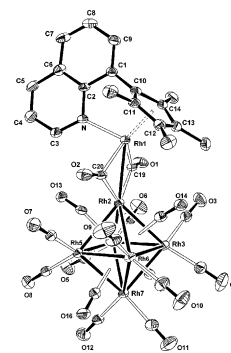
$\text{R} = \text{Alkyl, Aryl, Alkenyl, Alkynyl, Halogens, SPh}$

Markus Enders, Gerald Kohl, Hans Pritzkow

J. Organomet. Chem. 689 (2004) 3024

Rhodium-carbonyl complexes with a quinolyl functionalized Cp-ligand: synthesis and photochemical activation

Photochemical activation of dicarbonyl-(8-quinolylcyclopentadienyl)-rhodium in the presence of $\text{Rh}_6(\text{CO})_{16}$ leads to a new Rh_6 -cluster with a $\text{Cp}^{\text{Q}}\text{Rh}(\text{I})$ -substituent. In this compound, the quinoline nitrogen is coordinated to the rhodium(I) atom.

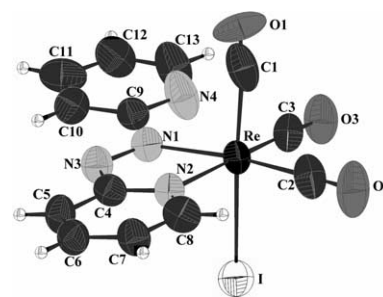


Stéphanie Frantz, Jan Fiedler, Ingo Hartenbach, Thomas Schleid, Wolfgang Kaim

J. Organomet. Chem. 689 (2004) 3031

A complete series of tricarbonylhalido-rhenium(I) complexes $(\text{abpy})\text{Re}(\text{CO})_3(\text{Hal})$, $\text{Hal} = \text{F}, \text{Cl}, \text{Br}, \text{I}$; $\text{abpy} = 2,2'$ -azobispyridine: Structures, spectroelectrochemistry and EPR of reduced forms

The first systematic study of a complete halide series $[(\text{N}'\text{N})\text{Re}(\text{CO})_3(\text{Hal})]^{0/-}$ shows similarities in structures and most spectroscopic properties, however, distinct differences are revealed by EPR which is very sensitive to the electronic structure.

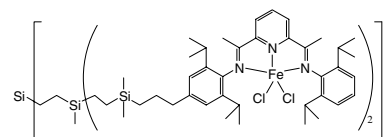


Zhan-Jiang Zheng, Jie Chen, Yue-Sheng Li

J. Organomet. Chem. 689 (2004) 3040

The synthesis and catalytic activity of poly(bis(imino)pyridyl) iron(II) metallo-dendrimer

The first and second generation metallodendrimers were synthesized via hydrosilylation and complexation reactions. These polynuclear iron complexes were used as catalyst precursors, activated by modified methylaluminoxane for ethylene polymerization.

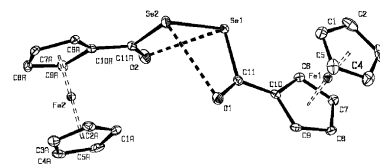


Sangit Kumar, Santosh K. Tripathi, Harkesh B. Singh, Gottfried Wolmershäuser

J. Organomet. Chem. 689 (2004) 3046

Synthesis, reactivity, electrochemical and crystallographic studies of diferrocenoyl diselenide and ferrocenoyl selenides

A series of selenol esters incorporating ferrocene has been synthesized. Their thiol peroxidase-like activity and electrochemistry have been studied. Diferrocenoyl diselenide and a ferrocenoyl selenol ester have also been characterized by single crystal X-ray diffraction.

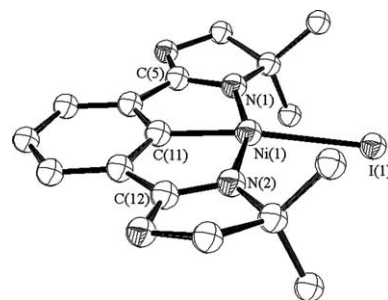


John S. Fossey, Christopher J. Richards

J. Organomet. Chem. 689 (2004) 3056

Synthesis and X-ray crystal structure analysis of the first nickel bisoxazoline pincer complex

The reaction in toluene between 2-iodo-1,3-bis(4',4'-dimethyl-2'-oxazoliny)benzene and Ni(COD)_2 gave [2,6-bis(4',4'-dimethyl-2'-oxazoliny)phenyl-N,C¹,N'¹]iodonickel(II) isolated in 70% yield. The structure of this novel nickel bisoxazoline pincer complex was confirmed by a X-ray crystal structure analysis.

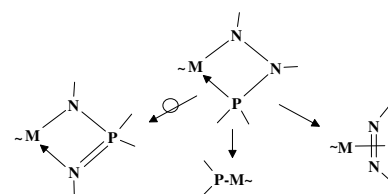


Yana V. Fedotova, Alexander N. Kornev, Vyacheslav V. Sushev, Yurii A. Kursky, Tatiana G. Mushtina, Natalia P. Makarenko, Georgy K. Fukin, Gleb A. Abakumov, Lev N. Zakharov, Arnold L. Rheingold

J. Organomet. Chem. 689 (2004) 3060

Phosphinohydrazines and phosphinohydrazides $\text{M}(\text{N}(\text{R})\text{N}(\text{R})\text{PPh}_2)_n$ of some transition and main group metals: synthesis and characterization

Phosphinohydrazide ligands, possessing relatively weak P–N and N–N bonds undergo rearrangements and transformations in the coordination sphere of late transition metals (Co, Ni, Cu). The products composition is strongly dependent on nature of a metal, its oxidation state and ligand environment. Early and middle transition metals or non-transition metals form stable phosphinohydrazides $\text{M}[\text{N}(\text{Ar})\text{N}(\text{Ar})\text{PPh}_2]_n$ {M = Li, Zn, Ge(II), Mn(II), Cr(III), Fe(II)}.

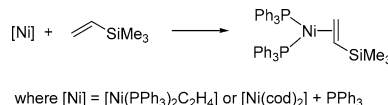


Hieronim Maciejewski, Agnieszka Sydor, Maciej Kubicki

J. Organomet. Chem. 689 (2004) 3075

The synthesis and characterisation of some nickel(0) complexes with π -bonded vinylsilicon ligands; the molecular structure of $[\text{Ni}\{\text{P}(\text{C}_6\text{H}_5)_3\}_2\{\eta^2\text{-CH}_2\text{CHSi}(\text{CH}_3)_3\}]$

A simple one pot synthesis from the readily available starting materials $[\text{Ni(cod)}_2]$ or $[\text{Ni(PPh}_3)_2\text{C}_2\text{H}_4]$ and vinyl derivatives of organosilicon compounds provides an essentially quantitative route to the series of nickel complexes with vinyl-siloxane, -silane and -silazane ligands.



where $[\text{Ni}] = [\text{Ni(PPh}_3)_2\text{C}_2\text{H}_4]$ or $[\text{Ni(cod)}_2] + \text{PPh}_3$

Enrique Meléndez, Vilmarí López, Thomas Concolino, Arnold L. Rheingold

J. Organomet. Chem. 689 (2004) 3082

Structure and redox behavior of Ru(II)-diene complexes

A series of $\text{Ru(acac)}_2(\eta^4\text{-diene})$ complexes containing *cis* and *trans*-diene coordination have been investigated by cyclic voltammetry to correlate structural bonding and conformation patterns of diene ligands with redox behaviors. While the Ru–C(diene) bond distances showed no difference for the $\eta^4\text{-cis}$ - and $\eta^4\text{-trans}$ -diene coordination by X-ray diffraction, electrochemical analysis is able to pinpoint these differences.



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