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Contents

Regular Papers

Michael Muehlhofer, Thomas Strassner, Eberhardt Herdtweck, Wolfgang A. Herrmann

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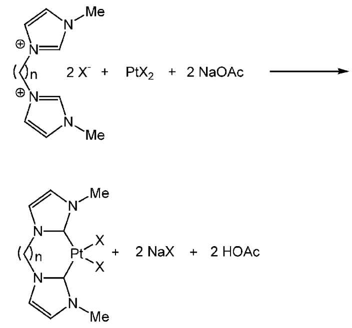
Synthesis and structural characterization of novel bridged platinum(II) biscarbene complexes

Novel bridged platinum(II) biscarbene complexes have been synthesized starting from simple metal halides. The first X-ray structure of this class of compounds is reported.



Chao-Wan Chang, Ying-Chih Lin, Gene-Hsiang Lee, Yu Wang

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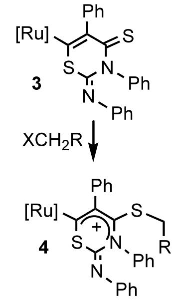
Reaction of ruthenium complexes containing heterocyclic thiazine–thione ligand

Treatment of [Ru]–C=C(Ph)C(=S)N-(Ph)C(=NPh)S (**3**, [Ru] = Cp(dppe)Ru) containing a [1,3]-thiazine-4-thione ligand with organic halides results in alkylation at the thione sulfur terminus yielding [Ru]–C=C(Ph)C(SCH$_2$R)N(Ph)C(=NPh)S][X] (**4**). The reaction of **3** with HgCl$_2$ affords [Ru]–C=C(Ph)C(SHgCl)N(Ph)C(=NPh)S][Cl] (**5**), with readily transforms to {[Ru]=C=C(Ph)C(O)NHPh}$_2$[Hg$_2$Cl$_6$] (**6**) in the air. The structures of **4c** and **6** are determined by single crystal X-ray diffraction analysis.



Zbigniew Grobelny, Andrzej Stolarzewicz, Adalbert Maercker, Stanisław Krompiec, Tadeusz Bieg

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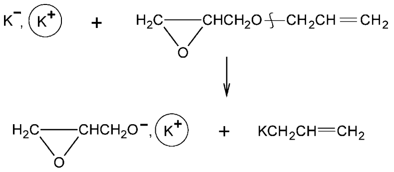
Cleavage of different ether bonds in butyl glycidyl ether and allyl glycidyl ether by K$^-$, K$^+$(15-crown-5)$_2$

The oxirane ring is exclusively cleaved by K$^-$, K$^+$(15-crown-5)$_2$ in the case of butyl glycidyl ether whereas the presence of the unsaturated allyl group in the glycidyl ether molecule prefers the scission of the linear ether bond. In both the systems organometallic intermediates are formed.



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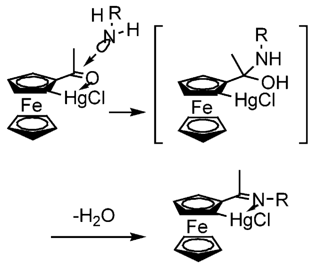
Kunhua Lin, Maoping Song, Yu Zhu, Yangjie Wu

J. Organomet. Chem. 660 (2002) 139

Studies on the synthesis and structural characterization of cyclomercurated ferrocenylimines containing heterocyclic ring

A series of cyclomercurated ferro-cenylimines containing heterocyclic ring were synthesized by a new method and characterized. The X-ray crystal structure of [HgCl(η^5-$C_5H_3C(CH_3)$=N-2-C_5H_3N-6-CH_3) Fe (η^5-C_5H_5)] (**3d**) was determined and the reaction mechanism was proposed.



Kouki Matsubara, Jun-ichi Terasawa, Hideo Nagashima

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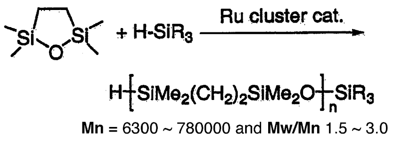
Silane-induced ring-opening polymerization of 1,1,3,3-tetramethyl-2-oxa-1,3-disilacyclopentane catalyzed by a triruthenium cluster

The silane-induced ring-opening polymerization of a cyclic siloxane, 1,1,3,3-tetramethyl-2-oxa-1,3-disilacyclopentane (**2**), is catalyzed by a ruthenium cluster, (μ_3,η^2:η^3:η^5-acenapthylene)$Ru_3(CO)_7$ (**1**), to give poly(tetramethylsilethylenesiloxane) with $M_n = 6300-780,000$ and $M_w/M_n = 1.5-3.0$. The molecular weight of the polymer can be controlled by changing the concentration of the monomer solution. Addition of acetone results in formation of the polymer with $M_n = 4400$, spectroscopic analysis of which reveals existence of a siloxy and an isopropoxy moieties at the end group.



Gloria Sánchez-Cabrera, Francisco J. Zuno-Cruz, María J. Rosales-Hoz, Vladimir I. Bakhmutov

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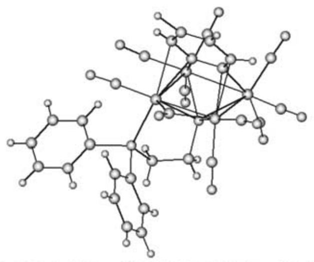
Pyrolysis of [$Ru_3(CO)_{10}$(dppe)]: activation of C–H and P–Ph bonds.
The crystal structure and dynamical behavior of [$Ru_4(CO)_9(\mu$-CO){$\mu_4-\eta^2$-PCH_2CH_2P-$(C_6H_5)_2$}($\mu_4-\eta^4$-C_6H_4)]

The thermolysis reaction of [$Ru_3(CO)_{10}$(dppe)] produces [$Ru_4(CO)_9$ (μ-CO){$\mu_4-\eta^2$-$PCH_2CH_2P(C_6H_5)_2$}($\mu_4-\eta^4$-C_6H_4)] as the main product. This compound was characterized spectrospically and by X-ray diffraction showing a square planar ruthenium geometry with a benzyne ring and a $\mu_4-\eta^2$-P–CH_2–CH_2–PPh_2 group. Variable temperature NMR studies show it to have three independent types of movement within the molecule.



[$Ru_4(CO)_9(\mu$-CO){μ_4-η^2-$PCH_2CH_2P(C_6H_5)_2$}(μ_4-η^4-C_6H_4)]

Bun Yeoul Lee, Young Heui Kim, Young Chul Won, Chang Bo Shim, Dong Mok Shin, Young Keun Chung

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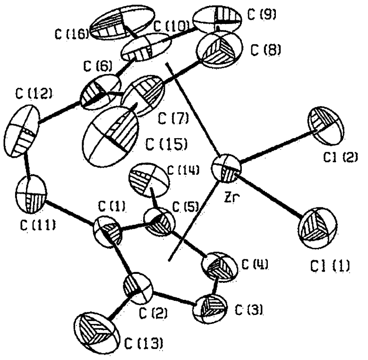
Synthesis, molecular structure, and polymerization reactivity of ethylenebis(1,3-dimethylcyclopentadienyl)zirconium dichloride

An ethylene-bridged zirconocene complex bearing methyl substituents only on the carbons adjacent to bridge point, ethylenebis(1,3-dimethylcyclopentadienyl)zirconium dichloride (**5**) was synthesized. Crystal structure of **5** was determined. The ethylenenorborene copolymerization and ethylene-1-hexene copolymerization were carried out with **5** and the catalytic performances were compared with the well known complexes, [Ph_2C(Fluo)(Cp)]$ZrCl_2$ or *rac*-$Et(Ind)_2ZrCl_2$.



H.J. Breunig, M.E. Ghesner, E. Lork

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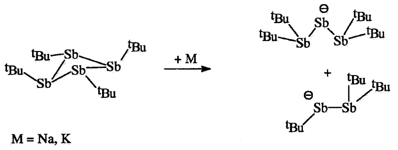
Reactions of *cyclo*-(t-Bu_4Sb_4) with alkali metals; syntheses and crystal structures of $[M(L)_n(t\text{-}Bu_4Sb_3)]$ (M = Na, K; n = 1, 2) and $[K(L)(t\text{-}Bu_3Sb_2)]$ (L = $(Me_2NCH_2CH_2)_2$NMe)

The **1**-modified GF electrode was active for reduction of aldehydes and ketones and led to the corresponding alcohol and pinacol compounds in adequate current effiency, conversion and turnover number of Ni catalyst.



Yasushi Obora, Angelo S. Baleta, Makoto Tokunaga, Yasushi Tsuji

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Platinum complex catalyzed reaction of tributyltin cyanide with alkynes

In the presence of a catalytic amount (5 mol%) of a platinum complex, tributyltin cyanide (**1**) reacts with dimethyl- (**2a**) or diethyl acetylenedicarboxylate (**2b**) to afford cyanostannylation adducts (**3a**, **b**) in excellent yields.