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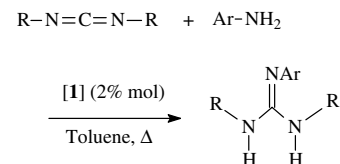
Communication

Francisco Montilla, Antonio Pastor,
Agustín Galindo

J. Organomet. Chem. 689 (2004) 993

Guanylation of aromatic amines catalyzed
by vanadium imido complexes

Imido complex $V(N-2,6\text{-}i\text{Pr}_2\text{C}_6\text{H}_3)Cl_3$ (**1**) is an effective catalyst for the reaction of formation of guanidines by coupling of carbodiimides and aromatic amines.



R = *i*Pr, Ar = 2,4,6-Me₃C₆H₂, **2**

R = *i*Pr, Ar = 2-ClC₆H₄, **3**

R = Cy, Ar = 2,4,6-Me₃C₆H₂, **4**

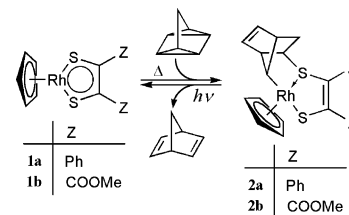
Regular papers

Mitsushiro Nomura, Hiroshi Hatano,
Tetsuji Fujita, Yutaka Eguchi, Ryuuko Abe,
Mikako Yokoyama, Chikako Takayama,
Takeo Akiyama, Akira Sugimori,
Masatsugu Kajitani

J. Organomet. Chem. 689 (2004) 997

Formation, structure, and reactivities of 1:1
adducts between quadricyclane and (η^5 -
cyclopentadienyl)(1,2-diphenyl- or -dimethoxy-
carbonyl-1,2-ethenedithiolato) rhodium(III)

The rhodiadithiolene complexes [Rh(Cp)-(S₂C₂Z₂)] (Z = Ph (**1a**) and COOMe (**1b**)) reacted with quadricyclane (Q) to give 1:1 adducts [Rh(Cp)(S₂C₂Z₂)(C₇H₈)] (Z = Ph (**2a**) and COOMe (**2b**)). The rhodiadithiolene complexes and those adducts showed the catalytic activities for the thermal isomerization from Q to norbornadiene (NBD). The adduct **2a** photochemically dissociated to give the original complex **1a** and NBD upon irradiation. Skeletal rearrangements of the hydrocarbon moiety were confirmed in the formation of these adducts and in their photo-dissociation.



Matthew J. Hesford, Nicholas J. Hill,
William Levason, Gillian Reid

J. Organomet. Chem. 689 (2004) 1006

Synthesis and properties of the ditelluroethers *m*- and *p*-C₆H₄(CH₂TeMe)₂ and their Te(IV) derivatives: crystal structures of PhTeI₂(CH₂)₃TeI₂Ph, *m*-C₆H₄(CH₂TeI₂Me)₂ and *p*-C₆H₄(CH₂TeI₂Me)₂

The preparations of two new ditelluroethers involving xylyl-based linkages between the Te atoms are reported; *m*-C₆H₄(CH₂TeMe)₂ and *p*-C₆H₄(CH₂TeMe)₂, together with their Te(IV) triorganotellurium iodides and diorganotellurium di-iodide derivatives. The crystal structures of *m*-C₆H₄(CH₂TeI₂Me)₂ and *p*-C₆H₄(CH₂TeI₂Me)₂ and the related PhTeI₂(CH₂)₃TeI₂Ph exhibit extended networks with significant Te...I secondary bonding interactions.

m- or *p*-C₆H₄(CH₂TeI₂Me)₂

↑ I₂/thf

m- or *p*-C₆H₄(CH₂TeMe)₂

↓ MeI/CH₂Cl₂

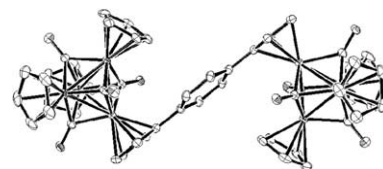
m- or *p*-C₆H₄(CH₂TeMe₂I)₂

Wen-Yann Yeh, Yen-Chung Liu,
Shie-Ming Peng, Gene-Hsiang Lee

J. Organomet. Chem. 689 (2004) 1014

Synthesis and crystal structure of the double cluster $[\text{Cp}_3\text{Fe}_4(\text{CO})_4(\text{C}_5\text{H}_4)]_2(p\text{-C}_6\text{H}_4)$

The title compound has been prepared by treatment of $[\text{Cp}_4\text{Fe}_4(\text{CO})_4]$ with $p\text{-C}_6\text{H}_4\text{Li}_2$ and MeOH in sequence; the crystal structure of which shows that the bridging benzene group is not coplanar with the adjacent cyclopentadienyl ligands.

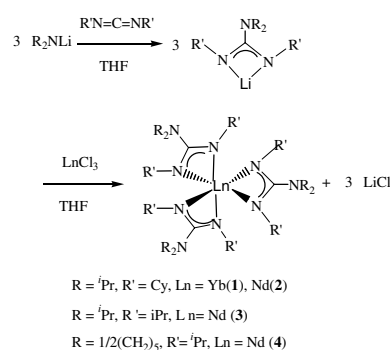


Chen Jing-Lei, Yao Ying-Ming, Luo Yun-Jie,
Zhou Li-Ying, Zhang Yong, Shen Qi

J. Organomet. Chem. 689 (2004) 1019

Synthesis, characterization of homoleptic guanidino lanthanide complexes and their catalytic activity for the ring-opening polymerization of ϵ -caprolactone

A series of homoleptic lanthanide guanidinate $(\text{guan})_3\text{Ln} \cdot ((\text{C}_2\text{H}_5)_2\text{O})_n$ ($\text{Ln} = \text{Yb}$, $n = 1$ $\text{guan} = (\text{CyN})_2\text{CN}^i\text{Pr}_2$, (**1**); $\text{Ln} = \text{Nd}$, $n = 0$, $\text{guan} = (\text{CyN})_2\text{CN}^i\text{Pr}_2$, (**2**); $(^i\text{PrN})_2\text{CN}^i\text{Pr}_2$, (**3**); $(^i\text{PrN})_2\text{CN}(\text{CH}_2)_5$, (**4**); ($^i\text{Pr} = \text{isopropyl}$, $\text{Cy} = \text{Cyclohexyl}$) were synthesized by the reaction of THF solution of lithium guanidinate with anhydrous lanthanide trichlorides in THF in 3:1 molar ratio.

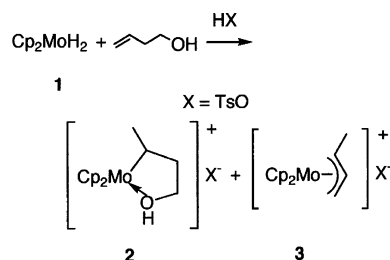


Makoto Minato, Susumu Hiratsuka,
Ryoko Sekimizu, Takashi Ito,
Kohtaro Osakada

J. Organomet. Chem. 689 (2004) 1025

Formation of an η^3 -allyl and a cyclic γ -hydroxyalkyl complex of molybdenum from reaction of $\text{MoH}_2(\eta^5\text{-cyclopentadienyl})_2$ with homoallyl alcohol

The reaction of Cp_2MoH_2 ($\text{Cp} = \eta^5\text{-C}_5\text{H}_5$) with homoallyl alcohol in the presence of a protonic acid afforded a cationic η^3 -crotyl molybdenum complex and a cyclic α -methyl- γ -hydroxypropyl molybdenum complex. This reaction proceeds via the stepwise formation of the cyclic complex, followed by formation of the η^3 -crotyl complex.

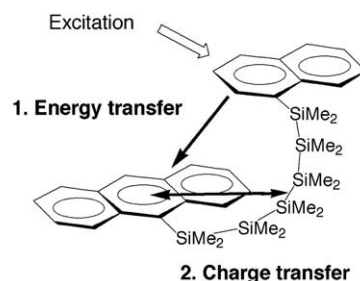


Takashi Karatsu, Masato Terasawa,
Shiki Yagai, Akihide Kitamura,
Takashi Nakamura, Yoshinobu Nishimura,
Iwao Yamazaki

J. Organomet. Chem. 689 (2004) 1029

Time-resolved fluorescence of α -(9-anthryl)- ω -(1-naphthyl)-oligosilanes: intramolecular electronic energy and charge transfer through π - π and σ - π interactions

The energy transfer is faster than the charge transfer, therefore charge transfer between anthryl group and silane linker unit occurs after the efficient energy transfer from the naphthyl to anthryl moieties by excitation of the naphthyl moiety of 1-(9-anthryl)-6-(1-naphthyl)dodecamethylhexasilane in acetonitrile.

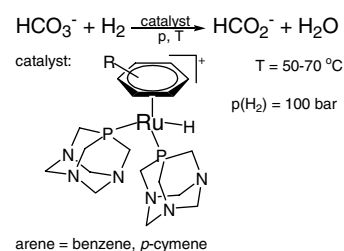


**Henrietta Horváth, Gábor Laurenczy,
Á. Kathó**

J. Organomet. Chem. 689 (2004) 1036

Water-soluble (η^6 -arene)ruthenium(II)-phosphine complexes and their catalytic activity in the hydrogenation of bicarbonate in aqueous solution

The reactions of $[(\eta^6\text{-arene})\text{RuCl}_2]_2$ with hydrogen in the presence of the water-soluble phosphines ($L = \text{tppts, pta}$) afforded as the main species $[(\eta^6\text{-arene})\text{RuH}(\text{L})_2]^+$. These complexes catalyze the hydrogenation of bicarbonate to formate in aqueous solutions at $p(\text{H}_2) = 100 \text{ bar}$, $T = 50\text{--}70 \text{ }^\circ\text{C}$.

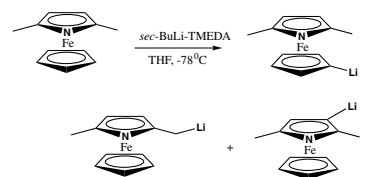


Konrad Kowalski, Janusz Zakrzewski

J. Organomet. Chem. 689 (2004) 1046

Lithiation of 2,5-dimethylazaferrocene

Reaction of 2,5-dimethylazaferrocene with *sec*-BuLi/TMEDA in THF at $-78 \text{ }^\circ\text{C}$, followed by quenching with D_2O brought about incorporation of deuterium into the Cp ring (54%), methyl groups (38%) and the pyrrolyl β -position (8%).

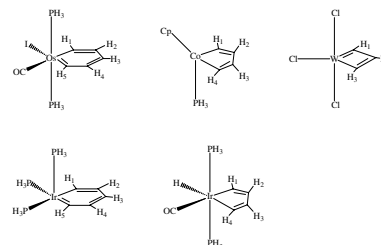


**Yi-Zhi Huang, Sheng-Yong Yang,
Xiang-Yuan Li**

J. Organomet. Chem. 689 (2004) 1050

An investigation of the aromaticity of transition metal heterocyclic complexes by conventional criteria and indices of aromaticity

The aromaticities of five typical transition metal heterocyclic compounds have been examined by the conventional criteria and indices of aromaticity, including electronic, geometric, energetic and magnetic aspects. The results show that they are all aromatic, but different aromaticity indices give inconsistent relative sequences of aromaticity.

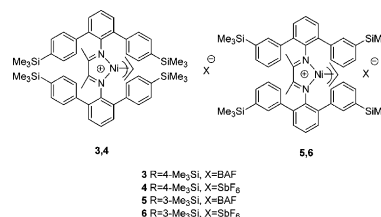


Alex S. Ionkin, William J. Marshall

J. Organomet. Chem. 689 (2004) 1057

Synthesis and structural characterization of η^3 -allyl(α -diimine)nickel(II) complexes bearing trimethylsilyl groups

Two sets of isomeric η^3 -allyl(α -diimine)Ni complexes bearing 2,6-di(4-trimethylsilylphenyl)aniline fragments (**3**), (**4**) and 2,6-di(3-trimethylsilylphenyl)aniline fragments (**5**), (**6**) have been prepared. The steric repulsion of closely positioned trimethylsilyl groups in **4** caused the distortion of the nickel square planar geometry by 17.6° according to X-ray analysis. The distortion of the nickel square planar geometry for **6** was found to be 11.3° .

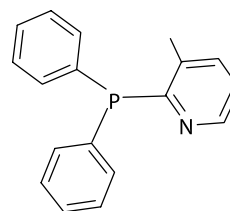


**Sirpa Jääskeläinen, Matti Haukka,
Helena Riihimäki, Jouni T. Pursiainen,
Tapani A. Pakkanen**

J. Organomet. Chem. 689 (2004) 1064

Synthesis and structures of (3-methyl-2-pyridyl)diphenylphosphane derivatives of metal clusters

The coordination of (3-methyl-2-pyridyl)diphenylphosphane in the homo- and heterometal transition metal clusters $\text{HRuCo}_3(\text{CO})_{12}$, $\text{HRuRh}_3(\text{CO})_{12}$, $\text{Rh}_4(\text{CO})_{12}$ and in dinuclear $\text{Rh}_2(\text{CO})_4\text{Cl}_2$ was investigated. The ligand has various coordination modes, and rearrangement of the metal core and the ligand itself are also common.

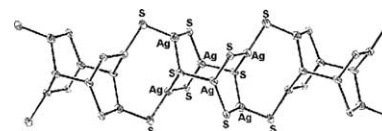


**Jin-Xiang Chen, Qing-Feng Xu, Yong Zhang,
Zhong-Ning Chen, Jian-Ping Lang**

J. Organomet. Chem. 689 (2004) 1071

Isolation, structure and spectroscopic characterization of silver complexes of the zwitterionic thiolate Tab: $[\text{Ag}(\text{Tab})_2](\text{PF}_6)$, $\{[\text{Ag}_3(\text{Tab})_4](\text{PF}_6)_3 \cdot 2\text{DMF}\}_n$, and $[\text{Ag}_{14}(\mu_6\text{-S})(\text{Tab})_{12}(\text{PPh}_3)_8](\text{PF}_6)_{12}$ (Tab = 4-(trimethylammonio)benzenethiolate)

A new mononuclear complex $[\text{Ag}(\text{tab})_2](\text{PF}_6)$ (**1**) was prepared by reactions of $[\text{Ag}(\text{PPh}_3)_2\text{Cl}]$ with TabH PF_6 (TabH = 4-(trimethylammonio)benzenethiol) and Et_3N in $\text{CH}_3\text{OH}/\text{CH}_2\text{Cl}_2$. Treatment of **1** with Na_2S in $\text{CH}_3\text{CN}/\text{DMF}$ gave rise to a unique 1D polymer $\{[\text{Ag}_3(\text{tab})_4](\text{PF}_6)_3 \cdot 2\text{DMF}\}_n$ (**2**) and a tetradecanuclear cage-like cluster $[\text{Ag}_{14}(\mu_6\text{-S})(\text{Tab})_{12}(\text{PPh}_3)_8](\text{PF}_6)_{12}$ (**3**). The crystal structures of **1**, **2**, and **3** have been characterized by X-ray crystallography.

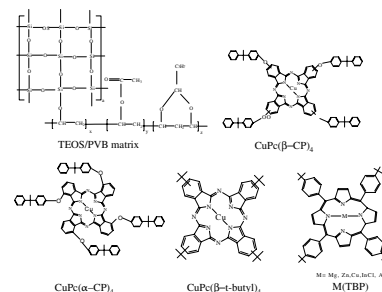


**Mark O. Liu, Chia-Hon Tai, Wei-Ya Wang,
Jun-Rong Chen, Andrew Teh Hu,
Tai-Huei Wei**

J. Organomet. Chem. 689 (2004) 1078

Microwave-assisted synthesis and reverse saturable absorption of phthalocyanines and porphyrins

Soluble phthalocyanines as $(\text{CuPc}(\beta\text{-CP})_4)$, $(\text{CuPc}(\alpha\text{-CP})_4)$ as well as $(\text{CuPc}(\beta\text{-}t\text{-butyl})_4)$ and porphyrins (M(TBP)) have been rapidly prepared by microwave irradiation. Their RSA properties in solvent and organic-inorganic TEOS/PVB hybrid films have also been investigated by Z-scan technique with picosecond laser pulse at 532 nm. The hybrid films doped with phthalocyanines and porphyrins are potential optical-limiting materials.

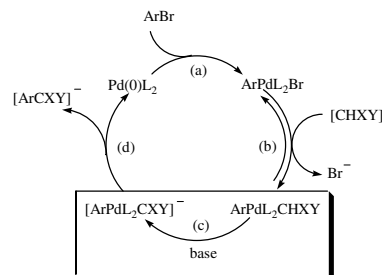


**Anton V. Mitin, Alexander N. Kashin,
Irina P. Beletskaya**

J. Organomet. Chem. 689 (2004) 1085

Role of base in palladium-catalyzed arylation of carbanions

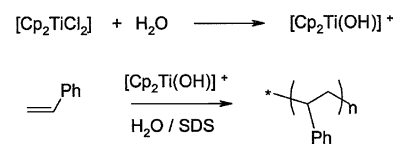
The palladium-catalyzed arylation reaction of carbanions preformed from certain sulfones, cyanoacetic ester and malononitrile, with aryl bromides proceeds smoothly provided that the base which stronger than the initial carbanion is present in the reaction mixture. In the absence of the above type of base the reaction does not proceed at all. A novel mechanism for palladium-catalyzed arylation of CH-acids has been proposed. The main feature of this mechanism is the acceleration of the reductive elimination due to the deprotonation of the intermediate $\text{ArPdL}_2\text{CHXY}$.



Note**Manish Bhattacharjee, Braja N. Patra***J. Organomet. Chem.* 689 (2004) 1091

[Cp₂TiCl₂] as polymerization catalyst in aqueous medium: polymerization of styrene in water

For the first time the oxophilicity of an early transition metal compound has been advantageously used for generating an active catalyst for polymerization.



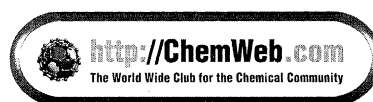
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