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# Journal of Organometallic Chemistry

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# **Contents**

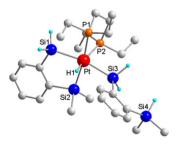
#### COMMUNICATION

## Yong-Hua Li, Yuan Zhang, Shigeru Shimada

J. Organomet. Chem. 695 (2010) 2057

Reaction of two equivalents of  $1,2-C_6H_4(Si-Me_2H)(SiH_3)$  with  $Pt(depe)(PEt_3)_2$  (depe =  $Et_2PCH_2CH_2PEt_2$ ) in toluene at room temperature afforded two novel isomeric  $1,2-C_6H_4-(SiMe_2H)(SiH_2)\}\{1,2-C_6H_4(SiMe_2)(SiH_2)\}\{H)Pt^{IV}(depe)$  complexes **1** and **2** in

5:1 ratio among eight possible isomers. Complex **1** is one of the few examples of tris (silyl)(hydrido)platinum(IV) complexes structurally characterized by single crystal X-ray analysis.



#### **REGULAR PAPERS**

## Camilla D. Buarque, Vagner D. Pinho, Boniek Gontijo Vaz, Marcos N. Eberlin, Alcides J.M. da Silva, Paulo R.R. Costa

J. Organomet. Chem. 695 (2010) 2062

Pd-catalyzed oxyarylation of **8** by **3a** leading to  $(\pm)$ -**9a** was investigated by ESI-MM. The key intermediate **15b** was intercepted and

characterized. The scope of this synthetically useful reaction was studied using other olefins (**10** and **12**) and *ortho*-iodophenols (**3b,c,d**). A similar cationic intermediate was intercepted in the reaction of **12** with **3a**. Competitive experiments show that reactivity order toward **3a** is **8** > **12** > **10**.

## Sumon Nag, Judith A.K. Howard, Hazel A. Sparkes, Samaresh Bhattacharya

J. Organomet. Chem. 695 (2010) 2068

 $\begin{array}{llll} Reaction & of & N-(2'-hydroxyphenyl)-4-R-\\ benzaldimines & (\textbf{L-R}) & with & [Os(PPh_3)_3Br_2]\\ affords & two & families & of & organoosmium \end{array}$ 

complexes (**1-R** and **2-R**), in each of which a benzaldimine ligand is coordinated, via C—H activation, as a C,N,O-donor. Another benzaldimine undergoes C=N bond cleavage, providing the iminosemiquinonate ligand in **1-R** and carbonyl, via decarbonylation of benzaldehyde, in **2-R**.

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## Linda Schweda, Andreas Nader, Roberto Menzel, Tobias Biletzki, Christopher Johne, Helmar Görls, Wolfgang Imhof

J. Organomet. Chem. 695 (2010) 2076

[(COD)Ru(2-methylallyl)<sub>2</sub>] acts as a substrate for the synthesis of the first structurally characterized mononuclear

ruthenium complexes of the general formula [(COD)Ru([RN=C(H)-C(H)=C (Ph)]<sub>2</sub> in which the imines coordinate as enyl-imino ligands. In addition, [(COD)Ru (2-methylallyl)<sub>2</sub>] turns out to be a highly effective precatalyst in catalytic C–H activation/C–C coupling reactions of the same imines.

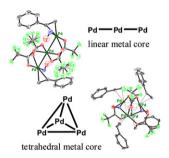


### Roman E. Podobedov, Tatiana A. Stromnova, Andrei V. Churakov, Lyudmila G. Kuzmina, Inessa A. Efimenko

J. Organomet. Chem. 695 (2010) 2083

The substitution of arene molecules by alkenes in trinuclear  $Pd_3(NO)_2(\mu-CF_3CO_2)_4(\eta^2-C_6H_5Me)_2$  was investigated. The process results in a formation of linear complexes  $Pd_3(NO)_2(\mu-CF_3CO_2)_4(\eta^2-L)_2$ 

(L=trans-stylbene, neohexene, styrene) and tetrahedral clusters  $Pd_4$  ( $\mu$ -NO) $_2$ ( $\mu$ -CF $_3$ CO $_2$ ) $_4$ ( $\eta^2$ -L) $_4$  (L= styrene). The latter is a first example of nitrosyl carboxylate complex with tetrahedral metal core.

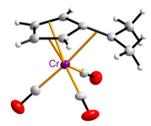


## Stefan Konietzny, Maik Finze, Guido J. Reiß

I. Organomet. Chem. 695 (2010) 2089

The structural study of tricarbonyl-6,6'-dimethylfulvene chromium(0) by single-crystal X-ray diffraction and quantum chemical calculations reveals that the coordination of the 6,6'-dimethylfulvene

ligand to Cr(0) is best described as a  $\pi - \eta^2 : \pi - \eta^2 : \pi - \eta^2$  coordination mode.



## Habib Firouzabadi, Nasser Iranpoor, Mohammad Gholinejad

J. Organomet. Chem. 695 (2010) 2093

2-Aminophenyl diphenylphosphinite as an easily prepared and cheap ligand has been used for heterogeneous palladium catalyzed Suzuki-Miyaura reaction in water in the absence of any organic co-solvent is described. Structurally different aryl halides were reacted with phenyboronic acid producing biphenyls in good to excellent yields. The heterogeneous catalyst was recycled for several runs.

$$\begin{array}{c} X \\ + \end{array} \begin{array}{c} B(OH)_2 \\ \hline NaOH, H_2O \end{array} \begin{array}{c} Pd(OAc)_2|L \\ R \end{array}$$

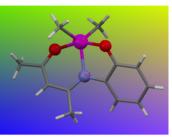
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## Smita Basu, Gajendra Gupta, Babulal Das, Kollipara Mohan Rao

J. Organomet. Chem. 695 (2010) 2098

The one pot reactions carried among *ortho*-aminophenol, diorganotin(IV) oxides and substituted ketones led to six new diorganotin(IV) compounds in good yields. Combination of IR, NMR and X-ray diffraction techniques evidenced the formation of penta-coordinated monomeric species. The

ligand **H2L1** and three diorganotin(IV) complexes are authenticated by single crystal X-ray crystallography.



Complex Me<sub>2</sub>SnL1 (1)

#### James Claffey, Helge Müller-Bunz, Matthias Tacke

J. Organomet. Chem. 695 (2010) 2105

The synthesis of several benzyl-substituted titanocene dichlorides is reported starting from 6-phenyl-substituted fulvenes. This

synthesis has led to the discovery of new water-soluble benzyl-substituted titanocenes. Each compound had MTT based cytotoxicity tests on two renal cancer cell lines completed, which show for some compounds comparable or better cytotoxicites than cisplatin.

## Ashok K.S. Chauhan, Puspendra Singh, Ramesh C. Srivastava, Ray J. Butcher, Andrew Duthie

J. Organomet. Chem. 695 (2010) 2118

 $\alpha\textsc{-Bromo-2,4,6-trimethylacetophenone}$  adds oxidatively to  $\textsc{Te}^0/\textsc{Te}^{II}$  to give the dialkyl- or alkylaryl $\textsc{Te}^{IV}$  species which on reduction afford carbonyl-functionalized telluroethers.

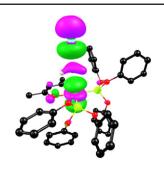
$$(\mathsf{MesCOCH_2})\mathsf{ArTeCl_2} \xrightarrow{\mathsf{ArTeCl_3}} \mathsf{MesCOCH_3} \xrightarrow{\mathsf{Br_2}} \mathsf{MesCOCH_2Br} \xrightarrow{\mathsf{Te^0}} (\mathsf{MesCOCH_2})\mathsf{ArTeBr_2}$$

## Marrigje M. Conradie, Jeanet Conradie

J. Organomet. Chem. 695 (2010) 2126

Density functional theory calculations of the transition state for the oxidative addition reaction  $[Rh(acac)(P(OR)_3)_2] + CH_3I(R = Ph, CH_3 \text{ and } H)$  show that all three

model systems give a good account of the experimental Rh-ligand bond lengths of both the rhodium(I) and rhodium(III)  $\beta$ -diketonatobis(triphenylphosphite) complexes.



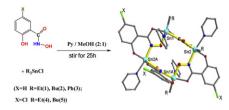
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## Xiao-Juan Zhao, Qing-Fu Zhang, Da-Cheng Li, Jian-Min Dou, Da-Qi Wang

J. Organomet. Chem. 695 (2010) 2134

Five 12-MC-4 organotin(IV) metallacrowns (MCs) with the types of [12-MC<sub>RSn(IV)N(shi)</sub>-4] and [12-MC<sub>RSn(IV)N(Clshi)</sub>-4] have been synthesized and characterized, and X-ray

single-crystal diffraction analyses showed that the substituents on the tin(IV) atom are uninfluential in coordination of organotin(IV) with hydroxamic acid. Fluorescence properties of complexes 1–5 have been investigated, antitumour activities of complexes 4 and 5 have also been tested.

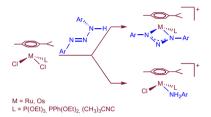


## Gabriele Albertin, Stefano Antoniutti, Jesús Castro, Stefano Paganelli

J. Organomet. Chem. 695 (2010) 2142

The preparation of triazenide complexes of ruthenium and osmium stabilised by the half-sandwich fragment [ $M(\eta^6-p\text{-cymene})$  L]<sup>+</sup> with phosphite or isocyanide is described. The spectroscopic and

crystallographic characterisation of new compounds, as well as their activity as catalysts in hydrogenation reactions, are also discussed.



### Wenjie Li, Dafeng Du, Shuangshuang Liu, Chaoguang Zhu, Adama Moussa Sakho, Dongsheng Zhu, Lin Xu

J. Organomet. Chem. 695 (2010) 2153

Through Sn···O weak intermolecular interaction, the novel macrocyclic tetranuclear diorganotin carboxylate 1 forms

two distinct one-dimensional chains and a 2D polymeric network structure with another type of tetranuclear macrocycle(II) having larger cavity. Further, intermolecular hydrogen bonds of C–H···O interactions stabilize the structure.

