



## Contents

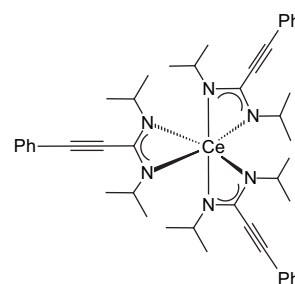
### COMMUNICATION

**Peter Dröse, Cristian G. Hrib, Frank T. Edelmann**

*J. Organomet. Chem.* 695 (2010) 1953

The first potassium salt of a propiolamidinate ligand,  $K[PhC\equiv C(N^iPr)_2]$  (**1**), was obtained by addition of  $PhC\equiv CK$  to *N,N'*-diisopropylcarbodiimide. Reaction of **1** with anhydrous cerium(III) trichloride in a molar ratio of 3:1 in THF afforded the first homoleptic lanthanide tris

(propiolamidinate) derivative,  $[PhC\equiv C(N^iPr)_2]_3Ce$  (**2**), in the form of bright yellow crystals in 71% yield.

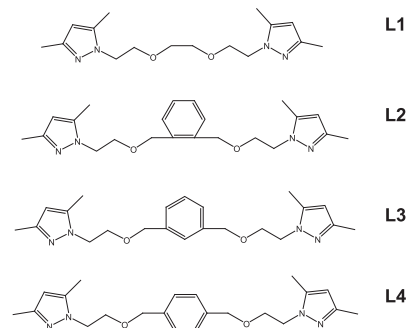


### REGULAR PAPERS

**Miguel Guerrero, Josefina Pons, Josep Ros**

*J. Organomet. Chem.* 695 (2010) 1957

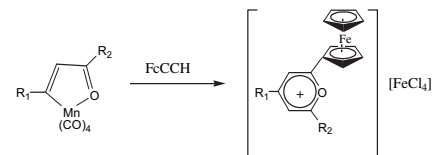
Several  $Pd^{II}$  complexes with dimethylpyrazolic hybrid ligands efficiently catalyze the Heck olefination and provide good yields under phosphine-free conditions even for aryl chlorides.



**Narendra Prasad, Lyndsay Main, Brian K. Nicholson, C. John McAdam**

*J. Organomet. Chem.* 695 (2010) 1961

2-Ferrocenyl pyrylium salts have been prepared from cyclomanganated chalcones and ferrocenylethyne.

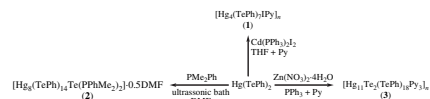


**Ernesto Schulz Lang, Davi Fernando Back, Gelson Manzoni de Oliveira**

*J. Organomet. Chem.* 695 (2010) 1966

The reaction of  $\text{Hg}(\text{TePh})_2 \cdot \text{CdI}_2(\text{PPh}_3)_2$ ,  $\text{PPhMe}_2$  and  $\text{PPh}_3/\text{Zn}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O}$  gives

$[\text{Hg}_4(\text{TePh})_7\text{IPy}]_n$  (Py = pyridine) (**1**),  $[\text{Hg}_8\text{Te}(\text{TePh})_{14}(\text{PPhMe}_2)_2] \cdot 0.5\text{DMF}$  (**2**) and  $[\text{Hg}_{11}(\text{TePh})_{18}\text{Te}_2\text{Py}_3]_n$  (**3**). While **2** is better described as a super tetrahedron with a  $\text{Te}^{2-}$  ion located in the center, the core of cluster **3** seems to be achieved by the fusion of clusters **1** and **2**.

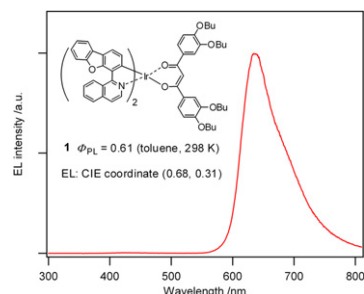


**Hidetaka Tsujimoto, Shigeyuki Yagi, Hotaka Asuka, Yuji Inui, Shigeru Ikawa, Takeshi Maeda, Hiroyuki Nakazumi, Yoshiaki Sakurai**

*J. Organomet. Chem.* 695 (2010) 1972

A highly emissive red phosphorescent bis-cyclometalated iridium(III) complex, bis[1-(dibenzo[*b,d*]furan-4-yl)isoquinolinato-*N*,  $\text{C}^3$ ]iridium(III) [1,3-bis(3,4-dibutoxyphenyl)propane-1,3-dionate-*O,O*] **1** was

developed. It exhibits red photoluminescence with  $\Phi_{\text{PL}}$  of 0.61 (toluene, 298 K). The electrophosphorescence from the polymer light-emitting diode containing **1** affords a CIE chromaticity coordinate of (0.68, 0.31) shifting to pure red over the NTSC standard.

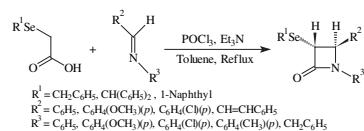


**S.S. Bari, Aman Bhalla, Yogesh Nagpal, S.K. Mehta, K.K. Bhasin**

*J. Organomet. Chem.* 695 (2010) 1979

Several novel *trans*-3-benzyl/(diphenyl)methyl/naphthylselenosubstituted monocyclic  $\beta$ -lactams have been synthesized through Staudinger reaction between

substituted imines and 2-benzyl/(diphenyl)methyl/naphthylselenoethanoic acids using  $\text{POCl}_3$  and triethylamine in refluxing toluene. The molecular structure of *trans*-1-(4'-methoxyphenyl)-3-(diphenyl)methylseleno-4-(4'-methoxyphenyl) azetidin-2-one (**6b**) has also been established with the help of single crystal X-ray analysis.

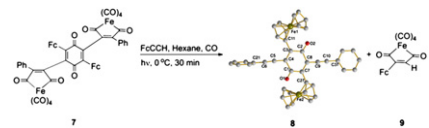


**Pradeep Mathur, Radhe Shyam Ji, Sathyanarayana Boodida, Amrendra K. Singh, Shaikh M. Mobin**

*J. Organomet. Chem.* 695 (2010) 1986

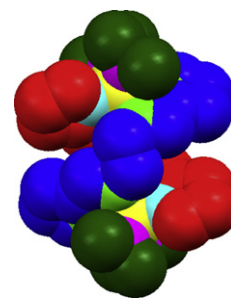
Photolysis of a hexane solution containing  $\text{Fe}(\text{CO})_5$ ,  $\text{FcC}_2\text{Ph}$  at low temperature yields six new products  $[\text{Fe}(\text{CO})_2\{\eta^2:\eta^2\text{-PhC}\equiv\text{CC}(\text{Fc})\text{C}(\text{C}\equiv\text{CPh})\text{C}(\text{Fc})\text{Fe}(\text{CO})_3\}\mu\text{-CO}]$

(**1**),  $[\text{Fe}(\text{CO})_6\{\mu\text{-}\eta^1:\eta^1:\eta^2:\eta^2\text{-R}^1\text{CC}(\text{R}^2)\text{-C}(\text{O})\text{-C}(\text{R}^3)\text{CR}^4\}]$  (**2-4**),  $[\text{Fe}(\text{CO})_3\{\mu\text{-}\eta^2:\eta^2\text{-}[\text{R}^1\text{CC}(\text{R}^2)\text{C}(\text{R}^3)\text{C}(\text{R}^4)]\text{CO}\}]$  (**5, 6**). In presence of CO, 2,5-bis(ferrocenyl)-3,6-bis(tetracarbonylphenylmaleoyliron)quinone (**7**) forms which on reaction with  $\text{FcC}_2\text{H}$  gave the quinone, 2,5-bis(ferrocenyl)-3,6-bis(ethylphenyl)quinone (**8**).



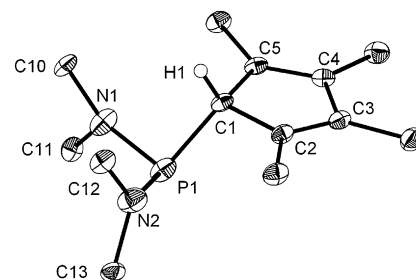
**Furen Zhang, Haibin Song, Guofu Zi***J. Organomet. Chem.* 695 (2010) 1993

A new series of chiral organo-titanium complexes have been prepared. They are active catalysts for the polymerization of *rac*-lactide, leading to the isotactic-rich polylactides.

**Crispin Lichtenberg, Michael Elfferding, Lars Finger, Jörg Sundermeyer***J. Organomet. Chem.* 695 (2010) 2000

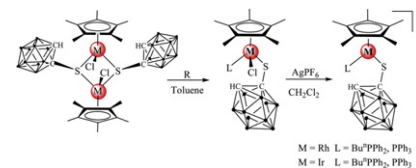
Ring-substituted cyclopentadienyl phosphanes are valuable building blocks for bifunctional P(III) and P(V) ligands. The compounds  $\text{Ph}_2\text{P}(\text{C}_5\text{HMe}_4)$  (**1**),  $(\text{Me}_2\text{N})_2\text{P}(\text{C}_5\text{HMe}_4)$  (**2**),  $\text{Me}_2\text{P}(\text{C}_5\text{H}_4t\text{Bu})$  (**3**), and  $\text{Ph}_2\text{P}(\text{C}_5\text{H}_4t\text{Bu})$  (**4**) have been synthesized and investigated with respect to their [1,5]

sigmatropic rearrangements. Experimental results differ from earlier reports. An isomer of **2**, **2a**, has been characterized by XRD analysis.

**Xian-Kuan Huo, Ge Su, Guo-Xin Jin***J. Organomet. Chem.* 695 (2010) 2007

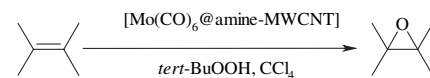
A series of monothiolate *ortho*-carboranyl half-sandwich Rh, Ir complexes have been synthesized and characterized structurally.

Some of these compounds could be expected as candidates for heterolytic dihydrogen activation.

**Majid Moghadam, Shahram Tangestaninejad, Valiollah Mirkhani, Iraj Mohammadpoor-Baltork, Naghmeh Sadat Mirbagheri***J. Organomet. Chem.* 695 (2010) 2014

Highly efficient epoxidation of alkenes catalyzed by  $\text{Mo}(\text{CO})_6$  supported on amines

modified multi-wall carbon nanotubes, MWCNTs, is reported. These new heterogenized catalysts,  $[\text{Mo}(\text{CO})_6@ \text{amine-MWCNT}]$ , were used as highly efficient catalysts for epoxidation of alkenes with *tert*-BuOOH. These robust catalysts could be reused several times without loss of their catalytic activities.

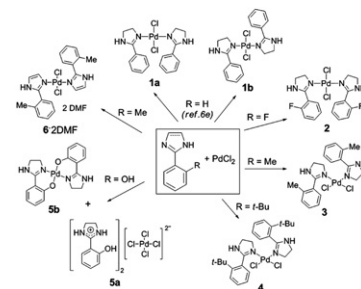


**Zhibin Gan, Kenjiro Kawamura,  
Kazuo Eda, Masahiko Hayashi**

*J. Organomet. Chem.* 695 (2010) 2022

Palladium complexes composed of  $[\text{Pd}(\text{Ln})_2\text{Cl}_2]$  ( $n = 1, 2, 3, 4, 6$ ),  $[\text{L5a}]_2[\text{PdCl}_4]$  and  $[\text{Pd}(\text{L5b})_2]$ , where **L1** = 4,5-dihydro-2-phenyl-1*H*-imidazole (= 2-phenyl-1*H*-imidazoline), **L2** = 2-(*o*-fluorophenyl)-1*H*-imidazoline, **L3** = 2-(*o*-methylphenyl)-1*H*-imidazoline, **L4** = 2-(*o*-*tert*-butylphenyl)-

1*H*-imidazoline, **L5a** = 2-(*o*-hydroxyphenyl)-1*H*-imidazolinium, **L5b** = 2-(1*H*-imidazolin-2-yl)phenolate, and **L6** = 2-(*o*-methylphenyl)-1*H*-imidazole, were synthesized and characterized by single crystal X-ray diffractometry.

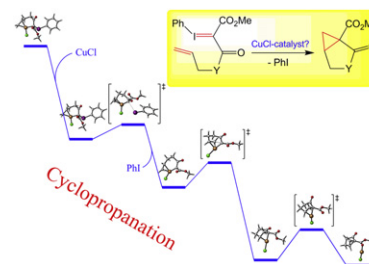


**Christos E. Kefalidis, Argyrios  
A. Kanakis, John K. Gallos, Constantinos  
A. Tsipis**

*J. Organomet. Chem.* 695 (2010) 2030

The mechanism of the Cu(I)-catalyzed and uncatalyzed intramolecular cyclopropanation of ketoesteric and diesteric iodonium ylides has been thoroughly

explored by means of electronic structure calculation methods (DFT).

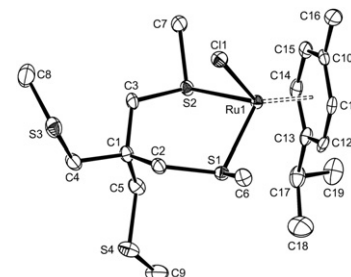


**William Levason, Catherine Marshall,  
Luke P. Ollivere, Gillian Reid,  
Nikolaos Tsoureas, Michael Webster**

*J. Organomet. Chem.* 695 (2010) 2039

The synthesis and properties of homomonometallic and homo- and heterobimetallic complexes based upon tetra-thio- or tetraseleno-ether ligands with  $\{(\text{arene})\text{MCl}\}^+$  units are described, and

crystal structures reported for representative examples.

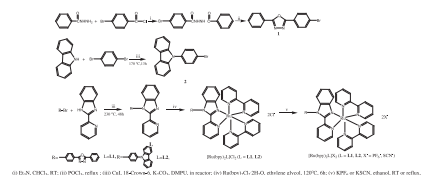


**Jing Wu, Hong-Yan Li, Ling-Chen Kang,  
Dong-Ping Li, Qiu-Lei Xu, Yu-Cheng Zhu,  
Yun-Mei Tao, You-Xuan Zheng,  
Jing-Lin Zuo, Xiao-Zeng You**

*J. Organomet. Chem.* 695 (2010) 2048

The comparisons of PL and quantum efficiency between the  $[\text{Ru}(\text{bpy})_2\text{L}]X_2$  (**L** = **L1** (1-(4-5'-phenyl-1,3,4-oxadiazolylphenyl)-2-pyridinyl-benzimidazole), **L2** (1-(4-carbazolylphenyl)-2-pyridinylbenzimidazole),

**X** =  $\text{Cl}^-$ ,  $\text{PF}_6^-$ ,  $\text{SCN}^-$ ) and  $[\text{Ru}(\text{bpy})_2(\text{Pybm})]X_2$  (**X** =  $\text{Cl}^-$ ,  $\text{PF}_6^-$ ,  $\text{SCN}^-$ ) suggest these ligands containing carrier-transporting groups are more benefit to the luminescence of the ruthenium (II) complexes than the based starting ligand (Pybm) due to the more rigid structure and more efficient shielding of the Ru (II) core towards external quenching.





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