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Contents

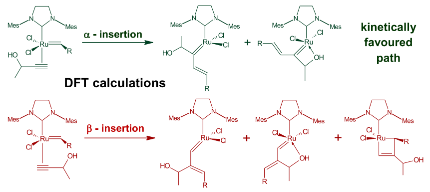
Regular Papers

Paweł Śliwa, Jarosław Handzlik, Izabela Czeluśniak

J. Organomet. Chem. 767 (2014) 6

Alkynol polymerization catalysed by Grubbs-type and Hoveyda–Grubbs ruthenium alkylidene complexes: A computational study

DFT studies of alkynol polymerization by Grubbs-type and Hoveyda–Grubbs catalysts indicate that the α-insertion path is kinetically preferred over β-insertion. Besides typical linear products that can immediately undergo the next insertion step, cyclic products can be also formed, by oxygen-chelation to the ruthenium centre or as less stable rutenacyclobutene species.

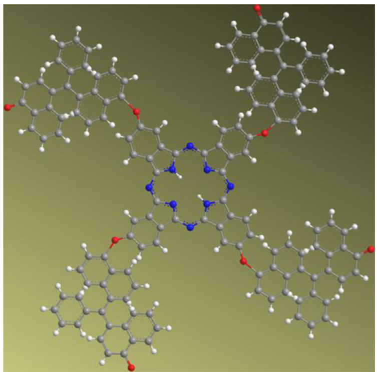


Mukaddes Özçeşmeci

J. Organomet. Chem. 767 (2014) 16

Synthesis, photophysical and photochemical properties of metal-free and zinc(II) phthalocyanines bearing α-naphtholbenzein units

The synthesis, characterization, photophysical and photochemical properties of phthalocyanines bearing α-naphtholbenzein units were described. The effect of the concentration on the aggregation and solvent effects on the absorption spectra of phthalocyanines were investigated. The fluorescence of the phthalocyanines was effectively quenched by 1,4-benzoquinone (BQ) in tetrahydrofuran.

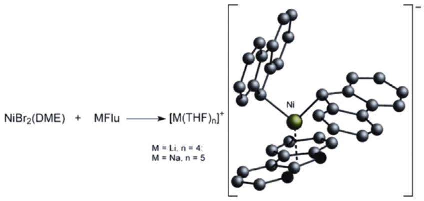


Andrzej Kozioł, Lucjan B. Jerzykiewicz, Iwona Justyniak, Tadeusz Lis, Stanisław Pasynkiewicz, Antoni Pietrzykowski

J. Organomet. Chem. 767 (2014) 22

New ionic fluorenylnickel complexes: Synthesis and solid state structure

Two new, the first structurally characterized nickel complexes with fluorenyl ligands, $[M(THF)_n]^+[Ni(\eta^5\text{-Flu})(\eta^1\text{-Flu})_2]^-$ (M = Li, and Na) have been obtained in the reaction of nickel bromide with fluorenyllithium and -sodium.



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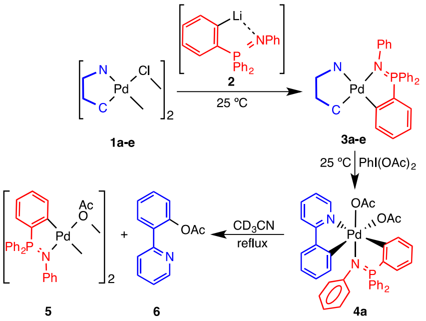
David Aguilar, Greco González,
Pedro Villuendas,
Esteban P. Urriolabeitia

J. Organomet. Chem. 767 (2014) 27

Bis-cyclometalated complexes of Pd(II) and Pd(IV) from iminophosphoranes: Synthesis, structure and reactivity

Transmetallation of iminophosphoranes from $[Li\{C_6H_4(PPh_2{=}NPh)\text{-}2\}]_2$ to chloride-bridge dimers $[Pd(\mu\text{-}Cl)(C^{\wedge}N)]_2$ affords mixed bis-cyclopalladated complexes, which were obtained regioselectively as cis(C,C)-isomers. Complex $[Pd\{C_6H_4(PPh_2{=}NPh)\text{-}2\}(C_6H_4\text{-}(2'\text{-}NC_5H_4)\text{-}2)]$ is regioselectively oxidized to the stable Pd(IV) derivative $[Pd(OAc)_2\{C_6H_4(PPh_2{=}NPh)\text{-}2\}(C_6H_4\text{-}(2'\text{-}NC_5H_4)\text{-}2)]$ by treatment with $PhI(OAc)_2$. This compound undergoes reductive elimination, releasing the acetoxylated phenylpyridine and keeping the orthopalladated iminophosphorane.

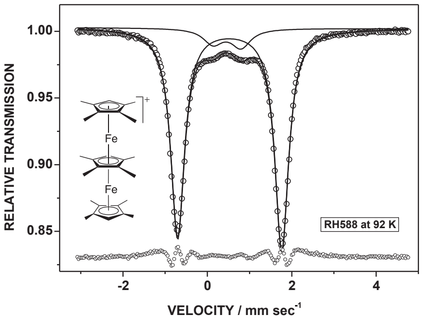


Erin N. Fagnan, Eric J. Watson,
Israel Nowik, Rolfe H. Herber

J. Organomet. Chem. 767 (2014) 35

Metal–ligand bonding and metal atom dynamics in Fe–Fe and Ru–Fe triple-decker sandwich complexes

The ^{57}Fe Mössbauer effect spectrum of $[Cp'FeCp'FeCp']BF_4$ ($Cp' = C_5(CH_3)_4H$ (**1**) at 92 K shows the presence of a major quadrupole-split doublet as well as the presence of a small paramagnetic resonance ascribed to a decomposition (oxidation) impurity. The bottom trace is the difference between the theoretical fit values and the experimental data.

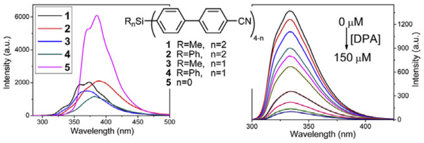


Linlin Wang, Dengxu Wang, Hua Wang,
Shengyu Feng

J. Organomet. Chem. 767 (2014) 40

New cyano functionalized silanes: Synthesis, characterization and diphenylamine detection

A series of novel tetrahedral silicon-centered cyano functionalized silanes have been synthesized and well characterized. They all display strong violet-to-blue emission and exhibit obvious fluorescent quenching response to diphenylamine, indicating the excellent candidates for blue emitter materials in OLEDs and for diphenylamine detection.



Hong-Hua Cui, Nan-Nan Wu,
Jin-Yun Wang, Ming-Qiang Hu,
Hui-Min Wen, Chang-Neng Chen

J. Organomet. Chem. 767 (2014) 46

Pyridyl- and pyrimidyl-phosphine-substituted [FeFe]-hydrogenase mimics: Synthesis, charaterization and properties

The contributions to the LUMO of **3** are comparable from the two $[Fe_2S_2]$ centres and the ligated PNNP, which is different from other $[Fe_2S_2]$ mimics, such as complex **2**.