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Gerard Parkin

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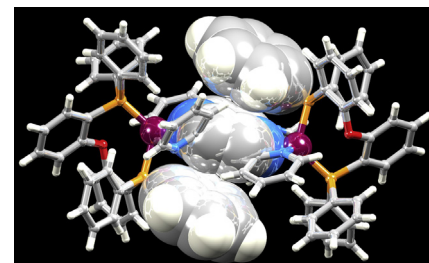
Special Issue in Honour of Professor Malcolm L.H. Green on the Occasion of his 80th Birthday

Sarah Keller, Alessandro Prescimone, Edwin C. Constable and Catherine E. Housecroft

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Dinuclear $[\text{Cu}_2(\text{N}^{\wedge}\text{N})(\text{P}^{\wedge}\text{P})_2][\text{PF}_6]_2$ complexes containing bridging 2,3,5,6-tetra(pyridin-2-yl)pyrazine or 2,4,6-tri(pyridin-2-yl)-1,3,5-triazine ligands

Dinuclear copper(I) complexes $[\text{Cu}_2(\mathbf{1})(\text{POP})_2][\text{PF}_6]_2$, $[\text{Cu}_2(\mathbf{2})(\text{POP})_2][\text{PF}_6]_2$, $[\text{Cu}_2(\mathbf{1})(\text{xantphos})_2][\text{PF}_6]_2$ and $[\text{Cu}_2(\mathbf{2})(\text{xantphos})_2][\text{PF}_6]_2$ containing bridging 2,3,5,6-tetra(pyridin-2-yl)pyrazine (**1**) or 2,4,6-tri(pyridin-2-yl)-1,3,5-triazine (**2**) ligands and the $\text{P}^{\wedge}\text{P}$ ligands bis(2-(diphenylphosphino)phenyl)ether (POP) or 4,5-bis(diphenylphosphino)-9,9-dimethylxanthene (xantphos) are reported.

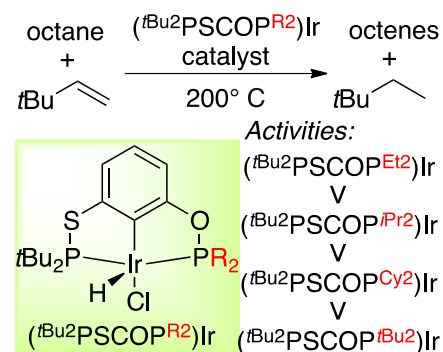


Wubing Yao, Xiangqing Jia, Xuebing Leng, Alan S. Goldman, Maurice Brookhart and Zheng Huang

Polyhedron 116 (2016) 12

Catalytic alkane transfer-dehydrogenation by PSCOP iridium pincer complexes

New $(\text{tBu}_2\text{PSCOP}^{\text{R}2})\text{IrHCl}$ iridium complexes ligated by hybrid phosphinothioisphosphinite PSCOP ligands have been synthesized and characterized. The steric properties of the pincer ligands prove to have a marked impact on catalytic activities of these complexes in transfer-dehydrogenation of cyclic and linear alkanes.

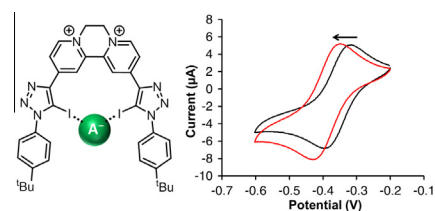


**Benjamin R. Mullaney,
Matthew J. Cunningham, Jason J. Davis
and Paul D. Beer**

Polyhedron 116 (2016) 20

Acyclic halogen and hydrogen bonding diquat-containing receptors for the electrochemical sensing of anions

The first examples of halogen and hydrogen bonding anion receptors containing the redox-active diquat motif, and their anion recognition and electrochemical sensing properties are described. The halogen bonding host displayed the strongest halide binding affinities in competitive solvents, and the redox-active diquat group is shown to be an effective electrochemical sensing probe for halides.

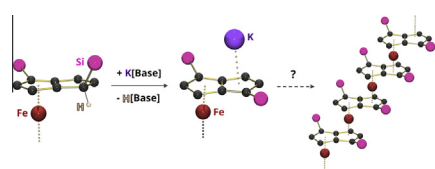


**Alexander F.R. Kilpatrick,
David R. Johnston, Jennifer C. Green,
Nikolaos Tsoureas, Martyn P. Coles and
F. Geoffrey N. Cloke**

Polyhedron 116 (2016) 26

Complexes of iron(II) with silylated pentalene ligands; building blocks for homo- and hetero-bimetallics

A range of iron(II) complexes incorporating the silylated pentalene ligands ($\text{Pn}^{\dagger}\text{H} = 1,4\text{-}\{\text{Si}^i\text{Pr}_3\}_2\text{C}_8\text{H}_5$ and $\text{Pn}^{\dagger} = 1,4\text{-}\{\text{Si}^i\text{Pr}_3\}_2\text{C}_8\text{H}_4$) have been prepared and investigated as building blocks for metallocene-based polymers. DFT calculations reveal the charge densities on the pentalene ligand, and hence the potential for incorporating these units into heteronuclear bimetallic complexes.

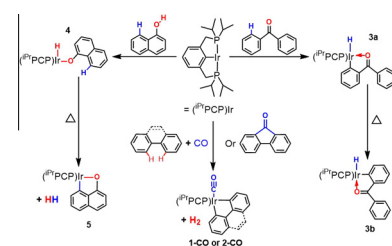


**Miles Wilklow-Marnell,
William W. Brennessel and
William D. Jones**

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Formation of 5-membered metallacycles at $i^{\text{Pr}}\text{PCP}^{\text{Ir}}$ by C–H, O–H, and C–CO bond cleavage

Cyclometalation of the 16 electron $i^{\text{Pr}}\text{PCP}^{\text{Ir}}$ fragment ($i^{\text{Pr}}\text{PCP} = \kappa^3\text{-}2,6\text{-C}_6\text{H}_3(\text{CH}_2\text{P}(i^{\text{Pr}})_2)_2$) by biphenyl, phenanthrene, fluoronone, benzophenone, and 1-naphthol leads to double C–H activation, decarbonylation, and cyclometallation to form metallacycles.

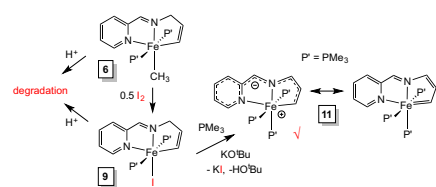


**Brian P. Jacobs, Rishi G. Agarwal,
Peter T. Wolczanski, Thomas R. Cundari
and Samantha N. MacMillan**

Polyhedron 116 (2016) 47

Fe(IV) alkylidenes are actually Fe(II), and a related octahedral Fe(II) “alkylidene” is a conjugated vinyl complex

Calculations on previously synthesized “Fe(IV) alkylidenes” are more consistent with Fe(II) centers bound to carbenium and oxidized chelate ligands. Attempts to prepare $L_{\eta}\text{Fe}=\text{CHR}$ species failed due to unsuccessful protonation of precursor vinyl complexes, but the approach did yield an unusual “Fe(II) alkylidene” that was shown to be a delocalized vinyl complex.



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