

## **The Interaction of Copper with Pyridylpyrrolides: From Coordination Chemistry with Non-innocent Ligands Towards Catalysis by Atom and Group Transfer**

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Pyridylpyrrolides are proven to be good supporting ligands to form variety of copper(I) and copper(II) complexes yielding interesting and unpredictable structures in the solid state. Measured redox properties of copper(II) compounds as well as DFT calculations suggest pyridylpyrrolides as redox non-innocent ligands. A copper(I)-pyridylpyrrolide which feature a trimer with acidic metal centers is a good catalyst for carbene transfer reactions with ethyl diazoacetate to activate C-H bonds of ethers in good yields.