

Poster Presentation

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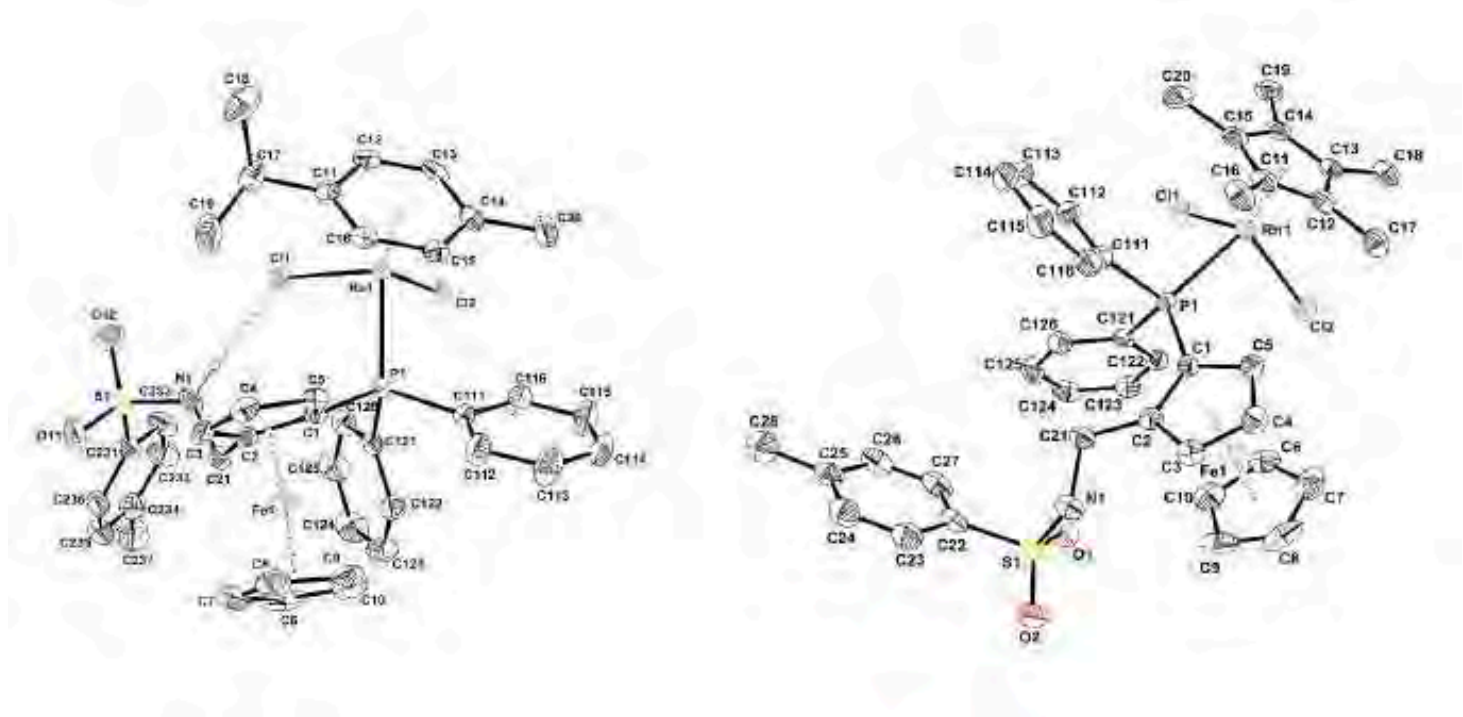
Synthesis, Coordination and Catalytic Tests of New Chiral ferrocenyl P,N ligands

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Many efforts have been devoted to the development of asymmetric catalysis because of the significant use of chiral compounds as intermediates of pharmaceuticals and advanced materials.[1] Amongst many ligands which have been tested, planar chiral ferrocenes ligands constitutes a privileged family of ligands for enantioselective catalysis.[2] We will disclose in this communication the synthesis of a new chiral N-(p-toluenesulfonyl)-containing ferrocenyl ligands and its coordination chemistry with Ru, Ir and Rh precursors yielding in some cases chiral at metal complexes. [3] Moreover, DFT calculations in order to better understand the nature and stabilities of these complexes will be presented. Additionally, preliminary evaluation of the different complexes as catalysts for the asymmetric transfer hydrogenation of ketones will also be disclosed.

[1] H.U. Blaser, E. Schmidt (Eds.), *Large Scale Asymmetric Catalysis*, Wiley-VCH, Weinheim, 2003., [2] (a) T. J. Colacot, *Chem. Rev.*103 (2003), 3101. (b) R. C. J. Atkinson, V. C. Gibson, N. J. Long, *Chem. Soc. Rev.* 33 (2004), 313. (c) "Phosphorus Ligands in Asymmetric Catalysis" Ed. Armin Börner (Wiley-VCH, Weinheim, Germany), 749-784., [3] M.-M. Wei, M. García-Melchor, A. Lledós, C. Audin, J.-C. Daran, R. Poli, E. Deydier, E. Manoury, *Organometallics* 2012, 31, 6669-6680.



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