

BRAZILIAN MEETING ON ORGANIC SYNTHESIS BENTO GONÇALVES, RS - BRAZIL

Synthesis of enantioenriched helical complexes

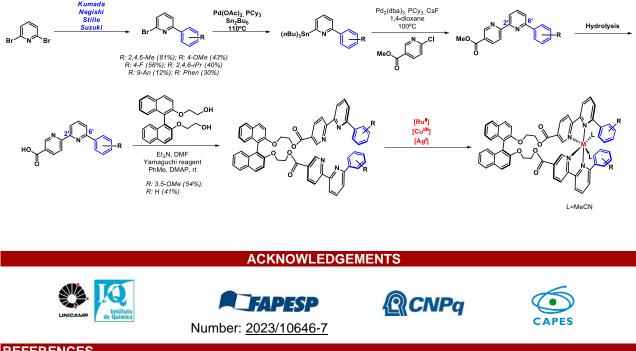
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ABSTRACT

Bipyridines and their derivatives are commonly used in the synthesis of metal complexes catalysts. This work focuses on the synthesis of their derivatives, by introducing chiral backbones linkers to yield enantioenriched helical complexes. The synthesis of the bipyridines moieties was achieved by cross-coupling reactions such as Negishi, Suzuki, Stille and Kumada as well deprotonative-metalation reactions. Finally, the diol linker backbone was attached by Yamaguchi reaction. These bisbypiridine ligands were applied in the synthesis of ruthenium, copper and silver complexes. Their use in catalytic reactions is ongoing.



REFERENCES

- A. F. Littke, L. Schwarz, G. C. Fu. J. Am. Chem. Soc. 2002, 124, 6343.
- D. Prajapati, C. Schulzke, M. K. Kindermann. A. R. Kapdi, RSC Adv. 2015, 5, 53073.
- H. Mürner, P. Belser, A. Von Zelewsky. J. Am. Chem. Soc. 1996, 118, 7989.
- A. F. Littke, L. Schwarz, G. C. Fu. J. Am. Chem. Soc. 2002, 124, 6343.
- E. C. Constable, C. E. Housecroft. Molecules. 2019, 24, 3951.