

Title: Trinuclear palladium and silver NHC complexes and study of Suzuki-Miyaura reaction in green solvents.

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In this work, four precursors derivatives of imidazole and benzimidazole have been synthesized improving their yields and their corresponding ligands, N-Heterocyclic Carbenes, have been obtained and characterized by ^1H – NMR and ^{13}C – NMR. The prepared ligands are:

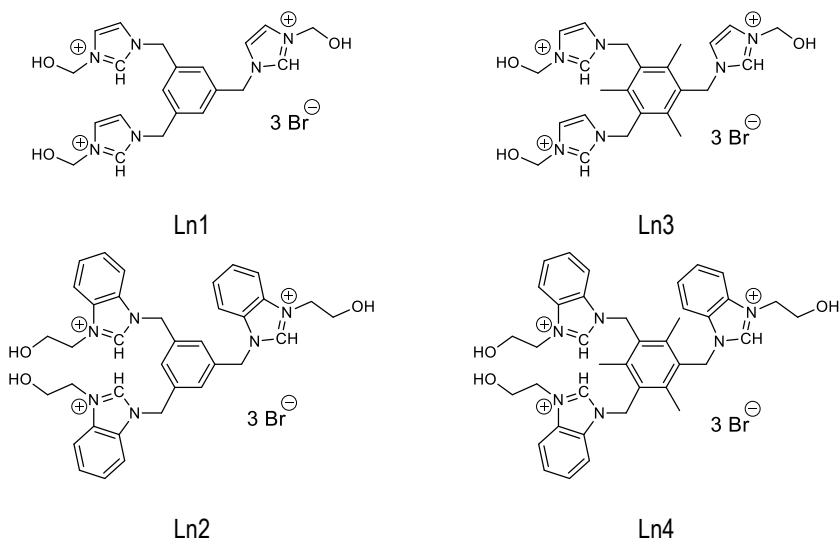


Figure 1. N-Heterocyclic Carbene ligands

The isolation of silver and palladium NHC Complexes is another goal to gain.

The effectivity as catalysts of the NHC ligands with a palladium complex has been studied on Suzuki-Miyaura Cross Coupling reaction.

NADES have been prepared and have been used as solvents on the catalysis to make the process green.

Keywords: N-Heterocyclic Carbene, NADES, Suzuki-Miyaura Cross Coupling, homogeneous catalysis, palladium complexes.