Title: **P-Stereogenic ligands. Bibliographic and experimental studies.**

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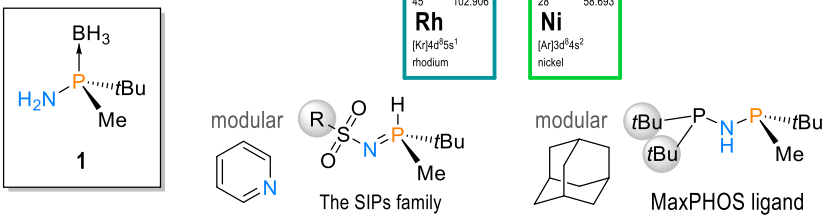
The synthesis of chiral compounds has long been a primary goal in the field of catalytic asymmetric synthesis. The breakthrough of chiral ligands, able to induce excellent enantioselectivities in many processes, is in line with the measures taken to minimize the environmental risks in organic synthesis. Among them, P*-stereogenic phosphine ligands are proficient in inducing chirality to produce optically active compounds in a straightforward and atom-economic pathway.

On this matter, our group has synthesized building block **1**. This P-stereogenic aminophosphane is prone to providing air-stable chiral ligands by means of a NH/PH tautomeric equilibrium. The MaxPHOS ligand and the Secondary Iminophosphorane family of ligands (SIPs) are great examples of its versatility.

In this work, novel ligands for asymmetric catalysis have been developed starting from privileged intermediate **1**. The inspection of the recent literature assisted on the election of the appropriate modulation while conceiving these ligands.

Afterwards, the scope of application has been considered in the design of the respective catalysts. Thereby, their rhodium complexes have been prepared, whereas the incorporation of an inexpensive transition-metal, nickel, has been assessed.



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