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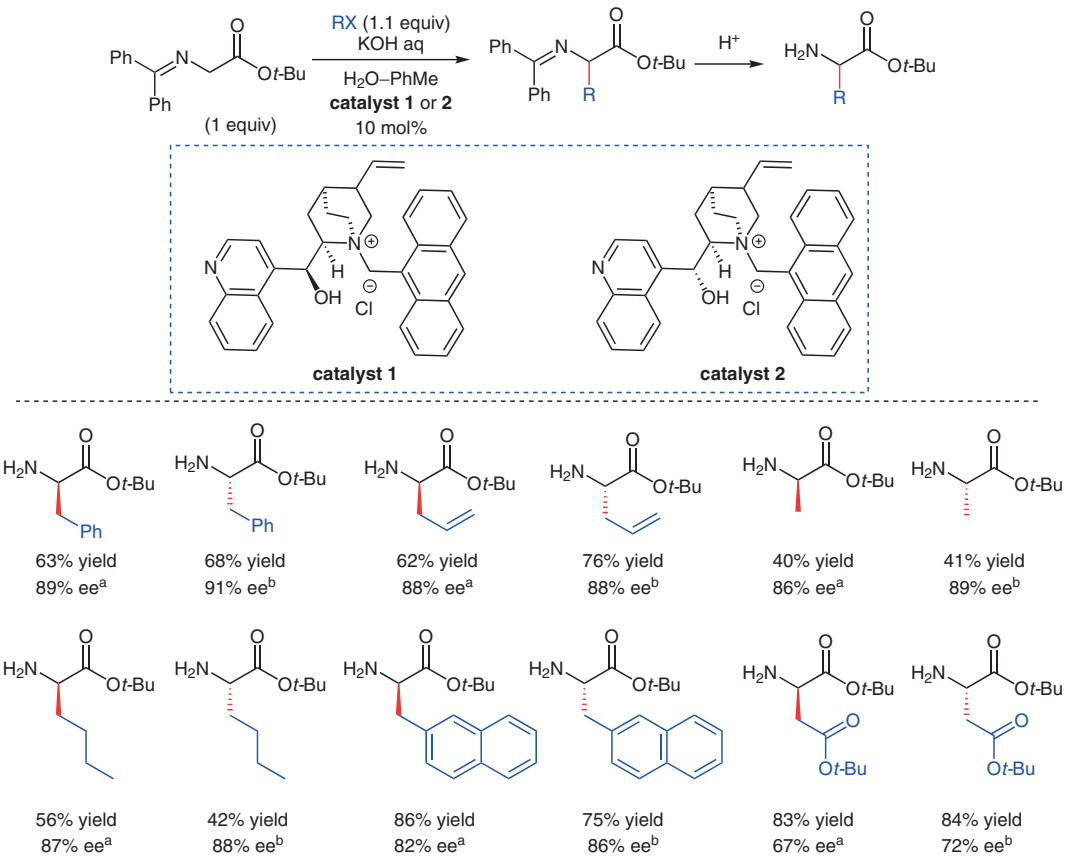
A New Class of Asymmetric Phase-Transfer Catalysts Derived from Cinchona Alkaloids – Application in the Enantioselective Synthesis of α-Amino Acids

Tetrahedron Lett. **1997**, *38*, 8595–8598, DOI: 10.1016/S0040-4039(97)10293-3.

Organocatalyzed Enantioselective Synthesis of α-Amino Acids



[a]Catalyst 1 used for the reaction. [b]Catalyst 2 used for the reaction.

Significance: Unnatural amino acids play a unique role in the peptide drug development arena. Hence, peptide development chemists are highly attracted to the development of new methods for the synthesis of unnatural amino acids. In 1997, the authors developed a new method for the synthesis of optically pure amino acids using a cinchona alkaloid-derived phase-transfer catalyst.

Comment: A series of unnatural α-amino acids were synthesized by asymmetric alkylation of a benzophenone-derived glycine imine with the help of a cinchona alkaloid-derived phase-transfer catalyst. The reaction could produce α-amino acids with moderate to good optical purity.

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