S. DAS*, N. MAJUMDAR*, C. K. DE*, D. S. KUNDU*, A. DÖHRING*, A. GARCZYNSKI*, B. LIST* (MAX-PLANCK-INSTITUT FÜR KOHLENFORSCHUNG, MÜLHEIM AN DER RUHR, GERMANY)

Asymmetric Catalysis of the Carbonyl-Amine Condensation: Kinetic Resolution of Primary Amines
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Category

Organo- and Biocatalysis

Key words

phosphoric acid
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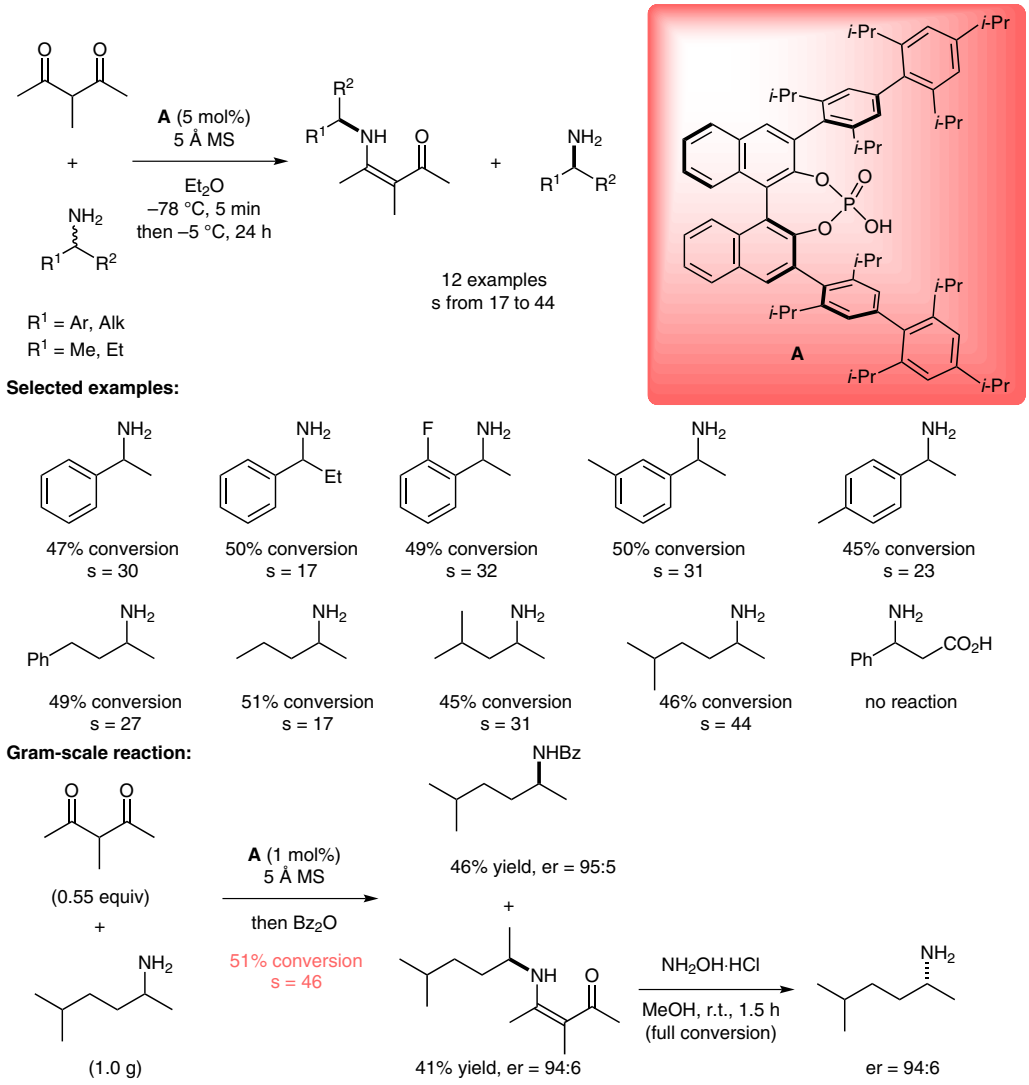
Kinetic Resolution of Primary Amines through Chiral Phosphoric Acid Catalysis



Significance: The List group reports a kinetic resolution of primary amines by selective condensation with a 1,3-diketone. The reaction is catalyzed by a chiral BINOL-derived phosphoric acid. The method is applicable to both benzylamine derivatives and aliphatic substrates.

Comment: The authors demonstrated an acid-catalyzed enantioselective carbonyl–amine condensation through a kinetic resolution of primary amines. There is great potential of the observed reactivity in many other transformations.

SYNFACTS Contributors: Benjamin List, Nobuya Tsuji
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