Method for preparing amines from carbonyl compounds by transaminase reaction under salt precipitation

Enzymicals and Institute of Chemistry of University of Rostock have filed a patent application for preparing amines in transaminase-catalyzed reactions of carbonyl compounds by a novel process for in situ product crystallization (European Patent Application 17202282.4, filed on November 17th, 2017). The procedure was presented by Dr. Jan v. Langermann at the Amin-Biocat 3.0 in Manchester on December 11th.

The presented European Patent Application describes a method to overcome the unfavorable equilibrium of transaminase-catalyzed reactions by an in situ-product crystallization (ISPC). A specific carboxylic acid is added to the aqueous reaction mixture to form a barely soluble salt with the targeted product amine, which pushes the reaction to the product side. The targeted amine is eventually obtained from the salt by a simple extraction and the added carboxylic acid can also be recycled.