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Title:	Magnetic Nano Fe <sub>3</sub> O <sub>4</sub> Catalyzed Solvent-Free Stereo- and Regioselective Aminolysis of Epoxides by Amines; a Green Method for the Synthesis of $\beta$ -Amino Alcohols
Authors:	Kumar, Amit (/jspui/browse?type=author&value=Kumar%2C+Amit) Parella, R. (/jspui/browse?type=author&value=Parella%2C+R.) Babu, S.A. (/jspui/browse?type=author&value=Babu%2C+S.A.)
Keywords:	Amino alcohols Epoxides Green chemistry Nano magnetite Regioselectivity Stereoselective synthesis
Issue Date:	2014
Publisher:	Georg Thieme Verlag
Citation:	Synlett, 25(6), pp. 835-842.
Abstract:	We report the use of magnetic nano Fe <sub>3</sub> O <sub>4</sub> as a mild heterogeneous catalyst for the aminolysis of epoxides with amines. The approach constitutes a green method for the formation of a variety of $\beta$ -amino alcohols with very high stereo- and regioselectivity under solvent-free and ambient reaction conditions. The aminolysis of chiral epoxides with amines gave the corresponding chiral $\beta$ -amino alcohols with complete inversion of stereochemistry. The magnetic nano Fe <sub>3</sub> O <sub>4</sub> catalyst can be easily recovered and recycled.
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