Enantioselective Arylations Catalyzed by Carbohydrate-Based Chiral Amino Alcohols

Abstract
The application of carbohydrate-derived amino alcohols in the asymmetric arylation of aldehydes by using arylboronic acids as the source of transferable aryl groups is described. The best ligand is derived from the readily available sugar D-xylose and it mediates the addition of a range of arylboronic acids to various aromatic aldehydes in excellent yields and high enantiomeric excesses. (AU)