Pyridine derivatives

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Stereocontrolled Access to Orthogonally Protected anti,anti-4-Aminopiperidine--3,5-diols Through Chemoselective Reduction of Enantiopure β-Lactam Cyanohydrins. — In the presence of Na_2CO_3, aldehydes of type (I) undergo diastereoselective cyanosilylation. Reduction of the products with $NaBH_4$ leads to chiral amines of type (IV), whereas in the presence of $LiBH_4$, acyclic amino alcohols like (V) are obtained. Treatment with NaOMe yields acyclic amino esters which smoothly undergo cyclization to piperidines. This procedure offers a novel route to the title compounds which are of synthetic and biological interest. — (ALCAIDE*, B.; ALMENDROS, P.; CABRERO, G.; PILAR RUIZ, M.; J. Org. Chem. 72 (2007) 21, 7980-7991; Dep. Quim. Org., Fac. Quim., Univ. Complutense, E-28040 Madrid, Spain; Eng.) — Jannicke