

Abstract

Bolm's ligand belongs to the group of 2,2'-bipyridines, which represents a class of C_2 symmetric ligands. These ligands form complexes with Lewis acids, which could be used in asymmetric catalysis, for example in the ring-opening of epoxides.

Bolm's ligand analogue was prepared and the enantioselectivity of the ring-opening reaction of *cis*-stilben oxide with aniline and variety of substituted benzyl alcohols catalyzed by scandium(III) triflate was studied as a part of this bachelor thesis. The enantioselectivity of the reaction using Bolm's ligand analogue was compared to that of Bolm's ligand.

Key words: *synthesis, catalysis, bipyridines*