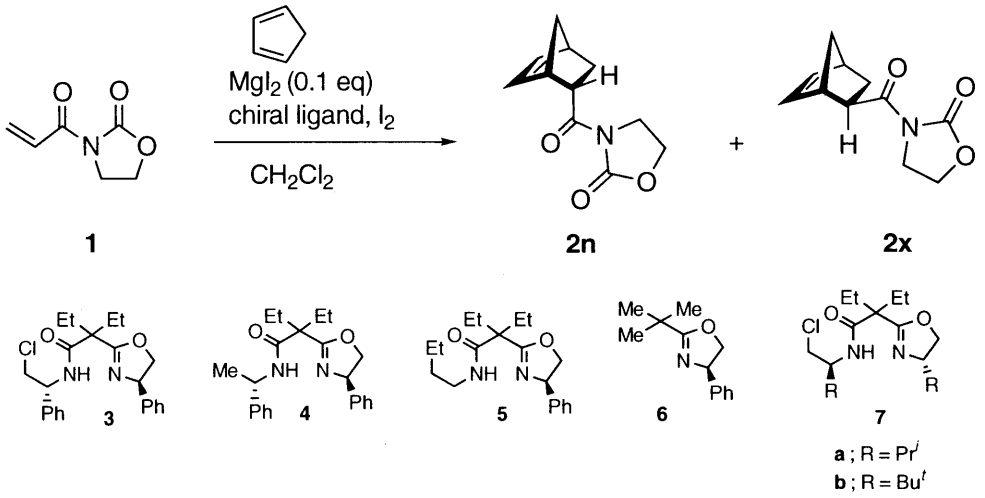
Chem. Pharm. Bull. **50** 1255 - 1257 (2002).

The Influence of Ligand Side Chain on the Enantioselectivity of Lewis Acid Catalyzed Diels-Alder Reactions

Masashige Yamauchi（山内昌茂）*, Kazuhiro Itai (板井和広) and Yuko Honda（本田裕子）

Faculty of Pharmaceutical Sciences, Josai University, Keyakidai, Sakado, Saitama 350-0295, Japan.

The enantioselective Lewis acid-catalyzed Diels-Alder reaction of 3-(2-propenoyl)-1,3-oxazolidin-2-one **1** with cyclopentadiene was examined using a series of chiral mox ligands **3** - **7**, deferring in the side chain at 2-position of the chiral oxazoline and in the nature of the substituent at the chiral center (4-position) of the oxazoline ring and a combination of *N*-[(1*R*)-2-chloro-1-phenylethyl]-2-[(4*R*)-4-phenyl-4,5-dihydrooxazol-2-yl]butyramide **3** – MgI_2 – I_2 was the most efficient catalyst.