

The use of carbohydrates as building blocks for bioactive substances

Abstract:

The aim of this work is to synthesize new branched chiral building blocks based on 1,6-anhydrosugar. Especially the synthesis of Triads is important, which are ingredients of certain macrolides. The important combinations of structural elements such as hydroxyl-methyl-deoxy-, methyl-deoxy-methyl or hydroxy-methyl-methyl have often been seen in macrolides, which are difficult to access by other ways. The synthesis should be performed stereoselectively in order to afford only diastereomers.

In the second part of this work, the synthesis of certain tetrahydropyran derivatives was described. These natural products were isolated from the water fungal *Ophioceras venezuelense*.