

Abstract

This diploma thesis is focused on the preparation of enantiomerically pure compounds based on organocatalytic allylic substitution using Baylis-Hillman carbonates. As selected substrates for the allylic substitution were chosen α -azidoketones such as azidoacetophenone, 2-azido-1-indanone and then heterocyclic compounds (*N*-phenylrhodanine and its derivate) belonging to the pharmaceutical privileged compounds. Other substrate for allylic substitution was allylmalononitrile. In addition, this thesis includes with synthesis of cyclic compounds based on the reaction of products of allylmalononitrile with B-H carbonates using olefin metathesis.