

Abstract

The aim of this diploma thesis is a preparation of disaccharide composed from two glucosamine units with 1,2-*cis*-(1→4)-*O*-glycosidic bond with the attached linker on reducing end, containing an azide functional group.

The first part is focused on synthesis of glycosyl acceptor and glycosyl donor, derived from D-glucosamine, suitable for the construction of 1,2-*cis*-(1→4)-*O*-glycosidic linkage.

The second part of this work describes the optimization of the glycosylation reaction conditions and also subsequent transformation of disaccharide GlcNAc- α -(1→4)-GlcNAc skeleton.