

ABSTRACT

This bachelor thesis is focused on finding optimal reaction conditions (solvent, grade of used magnesium, pH, reaction time) for ultrasound cleavage of tosyl group in the reaction of tosyl derivatives of levoglucosan with magnesium in alcohols. Grade of used magnesium has substantial effect on reaction yields. No detosylation was detected in the presence of HCl or upon the catalysis with copper ions. The substitution of the levoglucosan skeleton with the functional groups, which are reducible more easily than tosyl group, lead to the zero yield of detosylation. Under optimal reaction conditions, isolated yields were up to 26 %.