

## **ABSTRACT**

The aim of theoretical part of this thesis is focused on the review of relevant properties of aliphatic hydroxyacids polyesters. The main emphasis was paid to hydrolytic degradation. In the second deals with the exploitation of the material for wounds healing process. In the experimental part are results of study of interaction of biodegradable oligomer of lactic acid and glycolic acid branched on mannitol with aqueous medium. This medium was represented by the range of phosphate buffers solutions with various concentrations of electrolyte. Swelling and erosion as two main processes connected with the kinetics of drug release from matrix systems were measured. These matrices were defined by their initial shape and size. Swelling and erosion were evaluated at 37 °C and pH 7,0. Relatively small variables of buffer concentration dramatically influence the swelling course. In the comparison of swelling with erosion course was correlation established only in some cases concerning influence of autocatalytic hydrolysis on the swelling degree.