

# ABSTRACT

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Title of Thesis      **Degradation of polyester carriers in aqueous medium**

In the theoretical part of this thesis there is presented an overview concerning synthesis of polyesters aliphatic hydroxy acids, their properties and degradation. Review about modern methods of microparticles preparation is included. The experimental part is targeted towards to the new information about behavior of the copolymer PLGA in aqueous medium of low temperature. At these temperatures the tested oligoester bodies are not deformed. Evaluated parameters are swelling degree, erosion degree and concentration of carboxyl groups. Various weights of tested bodies and modifications of their surfaces were tested during two weeks period of the aqueous medium. Pulsation process of the swelling degree and end-carboxyl groups concentration were proved. Their comparable time profile is basic argument for explanation of observed and described phenomenon based on obstruction effect or changing concentration gradient of soluble fraction of the molecule and also functional groups embedded in gel structure.