

## **Abstract**

The rigorosum thesis is focused on the study of influence on the composition of the system to the size of the nanoparticles from aliphatic polyesters with linear and branched molecules constitution. The emulsion method for distributing of solvent was chosen for preparation of nanoparticles. The theoretical part describes the nanoparticles. Their origin, types and application. The following part is applying preparation of nanoparticles. There is also a mention influence of parameters to their toxicity.

In the experimental part of rigorosum was worked with two polymers of lactid and glycolic acid. It is possible that will be sign a patent of these polymers in the future. In the thesis were testing different composition of samples. A main emphasis is focus on the choice of polymer solvent and emulsifier. There were also applied mixtures of solvents and emulsifiers. There was also applied Terbinafine as model drug.