

Abstract

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Title of Thesis: Particulate medicated systems

This diploma thesis was focused on experimental study of influence of technological parameters on the characteristics of nanoparticles made of terpolymer of aliphatic hydroxy acids with tripentaerythritol. In the theoretical part of this thesis nanoparticles as a system for targeted drug distribution were described. Methods of preparation of these nanoparticles, microencapsulation techniques, targeting, basic parameters of the nanoparticles, their size and zeta potential were mentioned in the theoretical part. The experiments were focused on influence of formulation factors, as detergent, concentration of the drug and polymer device on polydispersity of the nanoparticles, their zeta potential and encapsulation effectivity. The influence of detergent formulation on formation and parameters of the nanoparticles was proved. Methylsulfonylmethane was proved for the next experimental procedure as a suitable non-toxic solvent in compositions of biodegradable polymers.