

## **Abstract**

With the growing resistance of bacteria to antibiotics, it is crucial to search for other ways to treat and prevent bacterial infections. Bacteria attached to the surface of medical implants can form a so-called biofilm, which is able to potentially cause the infection and subsequent health issues. The aim of this thesis was to prepare ligand capable of complexation of hydrolytically active metal ions, which would be able to cleave nucleic acids of bacteria. The selected ligand was 1,4,7-triazacyclononane derivative linked to thiazole side group for anchoring to polymeric materials. With these antibacterial polymeric substances it would be possible to coat the surfaces of the implants and therefore prevent developing of infections.