

## Abstract

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Title of Thesis: **Synthesis and evaluation of novel compounds based on quaternary ammonium salts**

Five homologous series of quaternary ammonium salts were prepared by nucleophile reactions. As a starting material were used 1-(2-hydroxyethyl)pyrrolidine, 1-(2-hydroxyethyl)piperidine and 1-(2-hydroxyethyl)imidazole which reacted with C10-C18 bromalkyl reagents, in monoquaternary salts, and C8-C12 dibromalkyl reagents, in bisquaternary salts, with only even number of carbons. Products were verified by nuclear magnetic resonance (NMR) and high resolution mass spectrometry (HRMS). Critical micellar concentration (CMC) were measured by conductometry. Correlation between prolonging alkyl chain and CMC was confirmed.