Abstract

Title of diploma thesis: **Pyrazine derivatives as potential drugs I.**

Review of actual worldwide problem of tuberculosis and trends in the tuberculosis treatment and chemical recherché were the parts of this work. Novel pyrazine derivatives connected via -CONH- bridge with substituted anilines were synthesized. The synthetic approach, analytical, spectroscopic, lipophilicity and biological data of twelve newly synthesized compounds were presented. All products were characterized and tested against *Mycobacterium tuberculosis* strain $H_{37}Rv$ and against eight fungal pathogen strains. Additionally, the study of inhibition of oxygen evolution rate in spinach chloroplasts and reduction of chlorophyll content in the green algae *Chlorella vulgaris* in the series of prepared compounds were drawn. Structure-activity relationships among the chemical structure, lipophilicity (log *P*), and their biological activity of the evaluated compounds were discussed as well.