

Abstract:

Title of diploma thesis: Synthesis of pyrazincarboxylic acid derivatives as potential antituberculars

Tuberculosis is a disease with about 9 million new cases every year, about 1,7 million people are dying yearly. For several decades the same antituberculars are used for treatment, but new strains of tuberculosis are appearing and resistance is growing. The old antituberculars become to be ineffective. There is need to be new ones researched. Review of tuberculosis therapy and modern research were presented in this thesis. Nine novel derivatives of acylamine pyrazinic acid and its esters were synthesized. Novel structures were characterized by melting points, TLC, IR,  $^1\text{H}$  and  $^{13}\text{C}$  NMR. This set was put through *in vitro* biological evaluation.  $\text{Log } P$  and  $\text{Clog } P$  were also calculated and were compared with novel synthesized structures.