ABSTRACT

Charles University in Prague, Faculty of Pharmacy in Hradec Králové

Department	Department of inorganic and organic chemistry
Candidate	Daniel Cvejn
Supervisor	Doc. RNDr. Věra Klimešová, CSc.
Supervisor specialist	Doc. Ing. Filip Bureš, Ph.D.
Title of Thesis	Synthesis of imidazole derivatives with potential
	antimycobacterial activity

New substances with potential antimycobacterial activity were predicted on the basis of literature research. The substance library includes 1-[2-(4-nitrophenyl)-1*H*-imidazol-4(5)-yl]alkanamines with or without CBz (benzyloxycarbonyl) protected alifatic amino group. Some of predicted derivatives were synthetized and minimal inhibition concentration (MIC) were then measured for four strains of *Mycobacteria*. Activity of predicted effective substances were compared with measured activity of the 1-[2-phenyl-1*H*-imidazol-4(5)-yl]alkanamines which do not possess nitro group. Structure activity relationships were also discussed.

Keywords: imidazole, amines, antimycobacterial activity, Mycobacterium spp.