

ABSTRACT

The main topic of the bachelor thesis is compounds isolated from natural sources, which contribute significantly to the discovery of new therapeutic methods in many medical problems. The aim of the work, was to focus specifically on those compounds that showed significant antimycobacterial activity against pathogens of the genus *Mycobacterium*, especially against *M. tuberculosis*.

The theoretical part focuses on the genus *Mycobacterium* itself and its basic characteristics. In addition, the work also focused on the specific species causing the non-tuberculous forms of the disease and those behind the outbreak of tuberculosis in the human body. The last chapter of the theoretical part deals with tuberculosis and its brief description, together with the treatment and the issues related to development of drug resistance during treatment. In the following section, specific compounds that exhibit antimycobacterial activity and have the potential to be developed as new drugs are described.

Keywords: aldehydes, alkaloids, antituberculotics, compounds of natural origin, cyanobacteria, essential oils, *Mycobacterium tuberculosis*, mycobacteria, naphthoquinones, resistance, steroid hormones, terpenes, triterpenes, tuberculosis