

## **Abstract**

The first part of this thesis summarizes the available information about flavonoids and gives deeper insight into their classification, biosynthesis, occurrence in human diet and beneficial effects on human health. In the next part, the most widely used analytical approaches for identification and quantification of these compounds are described in detail.

The aim of experimental part of this thesis was to determine the purity of two samples of flavonoid compounds - myricetin and dihydromyricetin. As the first step, ultraviolet-visible spectroscopy was used. The determined wavelengths of absorbance maxima are in accordance with literary data for both compounds. Next, the reversed-phase high-performance liquid chromatography was used for determination of eventual impurities.

The chromatographs obtained with optimized elution protocols are demonstrating the purity of both samples, corresponding to the manufacturers' certificates.