

## ABSTRACT

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Title of Thesis: Use of the NMR spectroscopy for structural analysis of the plant metabolites

This diploma thesis is based on the structure determination of unknown compounds.

These compounds, plant alkaloids, have been carried out of *Fumaria officinalis* L. (Fumariaceae) and *Nerine bowdenii* (Amaryllidaceae) at the Department of Pharmaceutical Botany and Ecology of the Faculty of Pharmacy in Hradec Králové. After that, some of them were passed to the NMR laboratory, requesting a structure determination. The goal of this diploma thesis was the sample identification of three unknown substances by NMR analysis.

The unknown compounds were identified on the basis of the NMR experiments ( $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR, gHSQC, gHMBC, gCOSY, NOESY). Then the structures were compared with the data provided in the subject publications.