ABSTRACT

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Title of Thesis: NMR analysis of the substances isolated from a Corydalis Cava plant (Fumariaceae) and from an Eschscholtzia Californica plant (Papaveraceae)

This Rigorous work is dedicated to the determination of the structure of unknown substances.

The isolation of alkaloids from a Corydalis Cava plant (Fumariaceae) and from an Eschscholtzia Californica plant (Papaveraceae) is carried out successfully at the Departement of Pharmaceutical Botanic and Ecology of the Pharmaceutical Faculty in Hradec Králové. A large number of alkaloids of several structural types was isolated there. Some of them were passed to the Laboratory of the structure and interaction of the biological aktive molecules along with the request for the structure analysis. The main object of this Rigorous work was the identification of three of unknown subjects by the help of NMR analysis.

The structures of unknown substances were identified on the basis of the NMR experiments (^{1}H - NMR, ^{13}C - NMR, DEPT, ghmbc, ghsqc, ghmqfcops a dpfgnoe). One structure was confirmed based on the comparison with the data provided in the subject publications. The remaining compounds haven´t been described in the literature yet. Now identified substances belong to isochinoline alkaloids. Namely, it is *3-(1-(6,7-dimethoxy-3,4-dihydroisoqinolin-1-yl)ethyl)-2,6-dimethoxyphenole*, *4-hydroxy-3,6--methoxy-N-methylmorphinan-7-one* (alkaloid OR1) and *3-(6,7-dimethoxyisoqinolin-1-yl)--6,7-dimethoxy-3-methylisobenzofuran-1(3H)-one*.