

SUMMARY

Terpenoic varnishes are used in artworks since 11th century. Their task is to protect the artworks against the adverse effects of the environment and frequently they complete the artistic page. Although synthetic varnishes are currently widely used, especially in the case of modern art, the use of natural materials is still widespread and not only in the restoration of historical paintings and polychromy.

In order to prepare terpenoic varnishes, rich supply of natural resins is used (damare, mastic, copals, colophony etc.). These resins differ in their composition and therefore they have various physical properties such as fragility, solubility, and not least the various darkening of varnish. For these reasons, it is necessary to know their composition, in order to be safely removed during restoration and subsequently replaced by a varnish of the same material composition. Gas chromatography is the most widely used analytical method for determination of natural resins, using a number of derivatizing reagents.

The task of this thesis was to find the best separation conditions for the identification of resins by gas chromatography combined with flame ionization detector (GC-FID).