

## **ABSTRACT**

The main aim of this bachelor thesis was to prepare polysaccharide binders from the chosen kinds of starch (gained from potatoes, corn, wheat, rice and kuzu), Arabic gum and to pigment them. The created samples of the polysaccharide binders were then prepared for further investigation using liquid chromatography coupled with tandem mass spectrometry (LC-MS/MS) and Fourier transform infrared spectroscopy (FT-IR).

This work is also focused on the history of the production of starch, its origin, contained substances and growing of the specific plants, from which the starch is obtained from. Furthermore, there is also described the technology process of paintings and other polychromatic arts creation. The technical character of paintings is actually determined by the binders, thus apart from the polysaccharide binders there are also described oil, protein and oil-resin binders.

Key words: polysaccharidic binders, starch, Arabic gum, artworks