The proposed poster gives a clear summary of the results of the material investigation, which forms part of a more widely based project devoted to the historical techniques of medieval painting of Bohemical provenance and the modern microscopic and instrumental methods. It deals with the comparison of the material composition of the tinned relief applied to the surface of two important anonymous panel paintings from the nineties of the fifteenth century linked with painters active for the circle of the Jagellonian Court in Bohemia – Panels with the provincial patrons Saints Wenceslas, Sigmund and Vitus (around 1490, NG in Prague, Fig. 1) and the paintings of the large winged altarpiece, one of the most significant works of Jagellonian court art – the Ark of the Coronation of Our Lady known as the Křivoklát Ark (around 1480-1490, Palace Chapel of Křivoklát Castle). The aim of the investigation was to document the material composition of specific substances of the applied tinned relief, which in Late Medieval workshops formed part of the characteristic, unique and strictly guarded technological workshop signature. The investigation of a representative range of micro-samples utilised the methods of optical microscopy in a polarising microscope, Scanning Electron Microscopy and X-ray Microanalysis, infrared spectroscopy with Fourier transformation and the mapping of layers using the method of Micro-Raman spectroscopy. Thanks to the combined use of microscopic and spectral techniques (Fig. 2, 3) it was possible to evaluate in detail the use of the materials in the individual layers, to evaluate the morphological and structural traits of the pigments and to identify the organic binding agents. Through the scientific investigation of the material base of the decorations it was possible to evaluate the results of the elemental and molecular analyses qualitatively and quantitatively and carry out the appropriate comparison and subsequent analysis of the data acquired. The evaluation of the data on the material composition of the filler substances of the tinned relief showed similarities on parts of the clothing of St Vitus and St Sigmund on the Panel with the provincial patrons to the decoration on parts of the clothing of St Wenceslas and St Vitus on the external sides of the movable wings of the Křivoklát Ark (Fig. 4). In these substances there was shown to be similar use of pigments on the basis of minium, lead white and additional minerals and the connection was also evident in the application of the individual layers in the preparation of the relief. The recognition of the repeated use of the same materials is especially valuable and so fundamental that it is possible to confirm the assumed direct workshop connection between the two historical works.

Acknowledgement: The proposed contribution came into being thanks to the grant support of the Ministry of Culture of the Czech republic (project identification code: DF 13P010V010).
Fig. 1: Panels with the provincial patrons Saints Wenceslas, Sigmund and Vitus, around 1490 (Inv. no. O 1360). Photo © National gallery in Prague 2014.

Fig. 2: BSE image of the tin-relief, robe of St Vitus of the Křivoklát Ark. Photo © Institute of Criminalistics Prague 2014.

Fig. 3: EDS spectrum of material of the relief, robe of St Vitus of the Křivoklát Ark.

Fig. 4: Cross-section of sample from tin-relief: a) robe of St Sigmund, Panels with the provincial patrons Saints Wenceslas, Sigmund and Vitus, b) robe of St Wenceslas, Křivoklát Ark. Photo © National gallery in Prague 2014.