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ABSTRACTS AND PROGRAMME

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FTIR spectroscopic investigation of Thracian wall paintings from tombs and monumental buildings

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In the field of art and archaeology the multilayered structure of the objects is a complex and complicated issue for analysing. Fourier Transform Infrared (FTIR) spectroscopy is a reliable analytical technique to study both organic and inorganic materials. FTIR spectroscopy has been widely applied in conservation field. The main advantage of this spectral method is the speed, easy access to the analysis and the requirement for very small sample amount which is very important factor when studying artworks and archaeological sites.

In this work, the results of FTIR investigation of samples from Thracian tombs and monumental buildings wall-paintings (4th-3th century BC), located in Bulgaria are presented. The FTIR analyses of the samples were carried out by using both transmittance and reflectance techniques. It was concluded that the main inorganic components of the paint layer (plaster, pigments, binder, etc.) were slaked lime, river sand, natural red and yellow ochre, charcoal black, calcite, etc. The study of organic components in the samples is also an object of this investigation. The presence of beeswax was proven in some case studies. The obtained results give useful information for scientists and conservators.

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