

**Synchrotron-Based X-Ray Fluorescence Analysis of Roman Wall paintings from  
Bayt Ras tomb**

**Dr. Sahar al Khasawneh**

**Department of Conservation and Management of Cultural Resources  
Yarmouk University**

The proposal aims to investigate wall paintings from the Roman painted tomb in Bayt Ras archaeological site (Capitolias), using the XRF beamline for mineral analysis and IR beamline for investigating evidence of binding material.

The analysis was performed to ~10 fragments of different colors: green, red, yellow, black, blue and orange. Synchrotron based X-Ray fluorescence and FTIR and Raman Spectroscopy techniques were used to analyze the fragments.

Data are collected, but time was not enough to do the analysis during the visit in ELETTRA. A brief introduction of how to use Bruker software was made by IR beamline scientist. At the moment data analysis will be carried out in November, and it will be interpreted to understand the types of paintings and application techniques used during the Roman period and compare it with other studies of Roman paintings in Jordan.