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Type: **Poster**

P38 - Micro_PIXE and SEM-EDX Studies for Archaeological Metal Findings Characterization

Friday, 11 July 2014 13:00 (1 hour)

For the analysis of cultural heritage materials Proton Induced X-ray Emission (PIXE) spectroscopy and Scanning Electron Microscopy with Energy dispersive X Ray spectrometry (SEM –EDS) hold an important position in the field of non destructive techniques. The chemical characterization of the material composition facilitate the determination of their provenance, age, technology of production, intended purpose and, therefore, their authenticity.

For metal objects the concentration levels of the basic constituents can be used for drawing conclusion concerning the economic situation of an area or a period.

The present study concerns the investigation of two different archaeological metal findings, probably dated to the Iron Age period and found on the Piedmont region in northern Italy, in order to ascertain the types of alloys used and whether there is a differentiation in composition depending on the type of object.

Preliminary SEM-EDX assays and subsequent macro and micro PIXE experiments were conducted on the same tiny fragments detached from the finding internal and external surfaces.

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Session Classification: Poster Session with Cheese and Wine