Contribution ID: **232** Type: **Poster**

# Applications of nuclear analytical methods in the historical glass in Thailand

*Tuesday, 20 April 2010 11:45 (20 minutes)*

Cultural heritage objects are highly heterogeneous. Due to the complex nature of materials and objects, their analysis needs to use extremely sensitive, spatialy resolved, multi-elemental and versatile methods that should be as a non invasive as possible and give complementary information at different scales; from the macroscopic to the namometer scales. In this work, XRF, SEM-EDS, PIXE, EPMA and XAS were used to characterize the chemical composition and microstructure of the historical glass in Thailand such as ancient glass beads, ancient decorative glasses and old-styled gold mosaic glass. It can be concluded that these are powerful tools for investigation of heterogeneous glassy materials.

**Primary author:** Dr DARARUTANA, Pisutti (Army Officer)

**Co-authors:** Dr WON-IN, Krit (Lecturer); Dr SIRIKULRAT, Narin (Lecturer); Dr WATHANAKUL, Pornsawat (Lecturer); Mr PONGKRAPAN, Sorapong (Ph.D. Student); Ms THONGKAM, Yatima (Graduated student)

**Presenter:** Dr DARARUTANA, Pisutti (Army Officer)

**Session Classification:** Poster Session - Nuclear Analytical Methods

**Track Classification:** Nuclear Analytical Methods