



Nuclear techniques for Archaeology and Cultural Heritage

SEMINAR PRESENTED BY THE CENTRE FOR ARCHAEOLOGICAL SCIENCE (CAS)

DATE: FRIDAY 3RD MARCH
TIME: 3:30-4:30PM
VENUE: 41.G03A, UOW
PRESENTER: DR FLORIANA SALVEMINI



Floriana Salvemini is coordinator of the Cultural Heritage Project at ANSTO and co-instrument scientist on the neutron imaging beamline DINGO at the Australian Centre of Neutron Scattering. Her expertise is in the area of Material Science and Archaeometry. In addition she has a strong interest in the application of non-invasive techniques for the study of works of art.

SEMINAR OVERVIEW: NUCLEAR TECHNIQUES FOR ARCHAEOLOGY AND CULTURAL HERITAGE

Over the last decades, neutron, photon, and ion beams have been established as an innovative and attractive investigative approach to characterise Heritage materials. Nuclear methods provide a powerful and versatile way to look at the structure and dynamics of materials at the atomic level, providing complementary information. This makes them superb probes to use in tandem with traditional methods to extract maximum information from an object without the need for sampling or invasive procedures.

In Australia and the Southeast Asia basin, the ANSTO facility offers a wide range of unique nuclear-beam techniques for cultural heritage research. The suite of world-class neutron-beam instruments operated by the Australian Centre for Neutron Scattering, the availability of neutron activation analysis at the OPAL research reactor, the new Centre for Accelerator Science, the recently assumed responsibility for operation of the Australian Synchrotron, along with state-of-the-art laboratories, offices, and computing facilities constitute an invaluable and powerful research platform. Recently, the Cultural Heritage project has been started at ANSTO in order to interface and synergize the suite of appropriate internal technical and analytical-support capabilities available across site in touch with the needs of the Archaeology and Cultural Heritage communities. In this presentation, the application of nuclear techniques for Archaeology and Cultural Heritage research will be introduced and recent projects will be featured.



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