

The Use Of Synchrotron Radiation In Cultural Heritage (Art and Archeology)

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Abstract

X-ray synchrotron techniques play an increasingly important role in the analysis strategy of Cultural Heritage materials, in determining the ancient techniques of preparation and it has tremendous potential to study ultrastructural alteration in ancient human materials. Different Synchrotron techniques needed for restorations and conservations of the cultural heritage are being discussed in this talk. XRF and XRD are used in revealing the recipes of the cosmetics made from synthetic and natural lead compounds to beautify and treat the eye. The analysis showed that the Pharos were the first to use the wet Chemistry Labs. The cotton used by Pharos were compared with the cultivated cotton today. Forgeries in Art are also being discovered using Synchrotron radiation. Some examinations are being also done on ancient Egyptian vitreous materials.