

Analysis of heterogeneous samples and simple stratigraphies using X-Ray Fluorescence

S. Pessanha¹ and J. M. Sampaio²

¹ LIBPhys-UNL, Laboratory for Instrumentation, Biomedical Engineering and Radiation Physics, Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa, Campus Caparica, Portugal;

²LIP –Laboratory for Instrumentation and Experimental Particle Physics, Av. Prof. Gama Pinto, n.2 Complexo Interdisciplinar (3is) 1649-003 Lisboa, Portugal;

E-mail: sofia.pessanha@fct.unl.pt.

X Ray Fluorescence (XRF) spectrometry is one of the most powerful tools in studies of material characterization of Cultural Heritage, due to user friendly features and quick qualitative interpretation of the spectra. Moreover, its non-destructive nature is of paramount importance when dealing with Cultural Heritage objects, due to the availability of portable setups enabling analysis to occur in the controlled Museum environment and avoiding the collection of samples. However, these materials analyzed are seldom homogeneous and are mostly stratigraphies with more or less complexity, so the evaluation of the spectra and the interpretation of the results is not straightforward. In this talk, some case studies will be presented concerning the application of XRF to the study of simple stratigraphies and non-homogeneous samples, namely, the analysis of corroded coins from the Portuguese's first dynasty (13th and 14th centuries) the characterization of gilding and the determination of gold leaf thicknesses in model samples and real artworks.

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