

**TUE3F1: Methods for Cultural Heritage and Vacuum Science**

Chaired by E. Cazzanelli, Università della Calabria, Italy

Time: Tuesday 14:40–16:20

Location: Aula 1

**Invited talk** TUE3F1.1 14:40 Aula 1

**The use of Infrastructural Facilities for Cultural Heritage Research** — MARK DOWSETT<sup>1</sup> and ●ANNEMIE ADRIAENS<sup>2</sup> — <sup>1</sup>Analytical Science Projects Group, Department of Physics, University of Warwick, Coventry, CV4 7AL UK — <sup>2</sup>Department of Analytical Chemistry, Universiteit Gent, Krijgslaan 281-S12, B9000 Gent, Belgium

Infrastructural facilities such as synchrotron light sources, neutron sources and particle accelerators are used increasingly for heritage science. We show some of the benefits through examples, and briefly discuss problems in need of solution.

**Invited talk** TUE3F1.2 15:20 Aula 1

**Nanoscience for the Conservation of Cultural Heritage** — ●PIERRO BAGLIONI — University of Florence, Department of Chemistry and CSGI, Florence, Italy

Micelles and microemulsions are the most used systems in

detergency. Their conjugation in a composite system is practically unexplored. Gels are used in several applications but usually are not associated to microemulsions or nanoparticles.

TUE3F1.3 16:00 Aula 1

**Composition of Leonardo da Vinci's sfumato in the Joconda and the Lady with ermine** — ●ELIAS MADY<sup>1,2</sup> and COTTE PASCAL<sup>3</sup> — <sup>1</sup>Institut des NanoSciences de Paris, Université Pierre et Marie Curie, Unité Mixte de Recherche CNRS n° 7588, 140 rue de Lourmel, 75 015 Paris, France — <sup>2</sup>Université d'Evry Val d'Essonne, boulevard François Mitterrand, 91000 Evry, France — <sup>3</sup>Lumière Technology S.A.S., 215 bis Boulevard St Germain, 75 006 Paris, France

The association of a multi-spectral camera and of the modeling using the radiative transfer equation underlines a glaze technique and the pigment composition of both layers used by Leonardo to paint Monna Lisa's face.