

IRUG6 CONFERENCE SCIENTIFIC PROGRAM

Florence, Italy, 29 March – 1 April 2004

PALAZZO INCONTRI - SALA VERDE AUDITORIUM Via de' Pucci 1

Monday, 29 March

09:00-10:00 **REGISTRATION** at location **Palazzo Incontri**

10:00-10:20 **WELCOME**, Marcello Picollo, Meeting Organizer and Host, Scientist, IFAC

10:20-10:50 COFFEE BREAK

ORAL presentations

Moderator: Boris Pretzel (Victoria and Albert Museum, UK)

10:50-11:10 B. Price (Philadelphia Museum of Art, USA), K. Ehrman (Digital Bridgeway Inc., USA)
Promoting Global Access to the Infrared and Raman Users Group Spectral Database

11:10-11:30 Y. Matsuda (Tohoku University of Art & Design, Japan)
Development of the in-house database system for artistic materials linked with FT-IR spectral library and its application to the conservation education

11:30-11:50 S. Pierce (Department of Chemistry, Duke University, USA)
FTIR Methodologies for the Analysis of Contaminants Removed from Polychrome Statues with an Erbium:YAG Laser at 2.94 microns

11:50-12:10 A. Vila (Facultat de Belles Arts, Universitat de Barcelona, Spain)
A fast procedure for fake Euro notes identification based on FTIR (ATR) technique. An example of prints characterization

12:10-12:30 Discussion

12:30-14:00 LUNCH BREAK

Moderator: Janice Carlson (Philadelphia Museum of Art, USA)

14:00-14:20 S. Lake (Hirshhorn Museum and Sculpture Garden, Smithsonian Institution, USA)
Paul Thek's Fishman: IR spectroscopy of degraded latex

14:20-14:40 M. Favaro (ICIS – CNR, Padua, Italy)
Identification of unknown acrylic resin applied on stone sculptures of Porta della Carta, Ducal Palace, Venice

14:40-15:00 R.E. Ploeger (Department of Art, Queen's University, Canada)
Infrared analysis of material leached by water from acrylic paint films

15:00-15:20 D. Scalalone (Department of Chemistry IPM, University of Turin, Italy)

Infrared spectroscopy monitoring of surfactant phase-separation and stability in waterborne organic coatings and acrylic artists' paints

15:20-15:50 COFFEE BREAK

Moderator: Scott Williams (Canadian Conservation Institute, Canada)

15:50-16:10 J. Jonsson (Tate Gallery, UK)

Separation of acrylic paint components and their identification with FTIR spectroscopy

16:10-16:30 J. Boon (FOM Institute AMOLF, The Netherlands)

Imaging microspectroscopy studies of paint cross sections

16:30-16:50 M. Cotte (Centre de Recherche et de Restauration des Musées de France, Paris, France)

Synchrotron infrared microscopy of ancient biological and cosmetics material

16:50-17:10 K. Helwig (Canadian Conservation Institute, Canada)

Analysis of the Materials of Several Canadian Artists Using Fourier Transform Infrared Spectroscopy

18:00-19:30 *Welcome cocktail at Kent State University in Florence – Vicolo dei Cerchi 1*

Tuesday, 30 March

Moderator: Francesca Casadio (Art Institute of Chicago, USA)

09:00-09:20 A. Schoenemann (The Getty Conservation Institute, USA)

The application of Raman and FTIR micro spectroscopy for the study of drying oils

09:20-09:40 D. Thickett (Birkbeck College, University of London, UK)

The Analysis of Iron Corrosion Products with FTIR and Raman Spectroscopies

09:40-10:00 K. Trentelman (Detroit Institute of Arts, Center for Conservation, USA)

Building a multi-dimensional Raman database: the effect of excitation wavelength and binding media on Raman spectra of artists' pigments.

10:00-10:20 A. Zoppi (LENS, University of Florence, Italy)

Micro-Raman imaging of ceramics components

10:20-10:50 COFFEE BREAK

Moderator: Karen Trentelman (Detroit Institute of Arts, Center for Conservation, USA)

10:50-11:10 M. Leona (Metropolitan Museum of Art, USA)

Sub-nanogram level identification by Surface Enhanced Raman Scattering of alizarin from madder lakes found in works of art

11:10-11:30 D. de Faria (Laboratório de Espectroscopia Molecular University of São Paulo, Brazil)

Raman spectroscopy of Brazilian archaeological and ethnographic resins

- 11:30-11:50 H.G.M. Edwards (Dept of Chemical and Forensic Sciences, University of Bradford, UK)
Raman Spectroscopy Applied to Biomaterials in Art History and the Preservation of Cultural Heritage
- 11:50-12:10 P. Vandenaabeele (Ghent University, Laboratory of Analytical Chemistry, Belgium)
The use of a Mobile Raman spectrometer for the in situ analysis of objects of art
- 12:10-12:30 Discussion
- 12:30-14:00 LUNCH BREAK
- Moderator:** Beth Price (Philadelphia Museum of Art, USA)
- 14:00-14:20 A. van Loon (FOM Institute AMOLF, The Netherlands)
Identification and localization of proteinaceous compounds in paint samples with infrared spectroscopic techniques - scope and limitations
- 14:20-14:40 R. Mazzeo (University of Bologna, Chemistry Department, Italy)
Examination of fresh and aged Chinese organic binding media using FTIR spectroscopy
- 14:40-15:00 M. Sato (Nara National Research Institute for Cultural Properties, Japan)
Microscopic FT-IR identification of ancient textile fibers, natural dyestuffs and Japanese lacquers
- 15:00-15:20 N. Vrinceanu ("Gh. Asachi" Technical University, Faculty Of Chemistry, Romania)
Stabilization and protection of cellulosic supports with a photosensitive polymeric system
- 15:20-16:00 COFFEE BREAK
- 16:00-18:00 **Business Meeting**
- 18:00-19:30 *Tour Museum of San Marco*

Wednesday, 31 March

- Moderator:** Jaap Boon (FOM Institute AMOLF, The Netherlands)
- 09:00-09:20 S. de Groot (Netherlands Institute for Cultural Heritage, The Netherlands)
FTIR analysis of 4 paintings by Pierre-Auguste Renoir'
- 09:20-09:40 J.F. García-Martínez (Facultat de Belles Arts, Universitat de Barcelona, Spain)
Discrimination of contemporary artistic prints based on the FTIR analysis
- 09:40-10:00 H. Khanjian (The Getty Conservation Institute, USA)
The Study of Photographic Coatings Using Angle Resolved ATR-FTIR Spectrometry
- 10:00-10:20 T. van Oosten (Netherlands Institute for Cultural Heritage, The Netherlands)
The use of FTIR spectroscopy for the study of the influence of Impranil DLV and Plectol B, as impregnating agents, on the ageing of polyurethane (PUR) foams

10:20-10:50 COFFEE BREAK

Moderator: Oscar Chiantore (Department of Chemistry IPM, University of Turin, Italy)

10:50-11:10 D. Stulik (The Getty Conservation Institute, USA)
Identification of Natural and Synthetic Dyes and Colorants in Tinted Photographs

11:10-11:30 L. Balcerzak (IFAC – CNR, Florence, ITALY)
Non-invasive Fibers Optic Reflectance MIR spectroscopic analysis of white painted layers

11:30-11:50 C. Miliani (ISTM – CNR, Perugia, Italy)
Reflectance FTIR study of altered calcium carbonate surface

11:50-12:10 S. Williams (Canadian Conservation Institute, Canada)
In-situ, mid-IR spectroscopic analysis of objects at museums using portable IR spectrometers

12:10-12:30 Discussion

12:30-14:00 LUNCH BREAK

Moderator: Marco Leona (Metropolitan Museum of Art, USA)

14:00-14:20 F. Casadio (Art Institute of Chicago, USA)
Decoration of Meissen Porcelain: Raman microscopy as an aid for authentication and dating

14:20-14:40 A. Cavicchioli (Laboratório de Espectroscopia Molecular-Instituto de Química-University of São Paulo, Brazil)
FT-Raman studies of thin films of natural varnishes

14:40-15:00 D. Bersani (Physics Department - University of Parma, Italy)
Raman and GC/MS investigation of Parmigianino's wall paintings in Santa Maria della Steccata church in Parma (Italy)

15:00-15:20 K. Smith (McCrone Associates, USA)
Raman Analysis of Native American Dyed Artifacts

15:20-15:50 COFFEE BREAK

Moderator: Francesca Piqué (GCI, Los Angeles, USA)

15:50-16:10 P.S. Middleton (Peterborough Regional College, UK)
Painters and Decorators in Roman Britain: Raman studies of Romano-British wall painting pigments and techniques

16:10-16:30 S. Denoël (European Center of Archaeometry, University of Liège, Belgium)
Comparative study of the pigments found in illuminated manuscripts of the 16th century in Belgium: study of a particular case the Gerard van der Stappen Book's of Hours

- 16:30-16:50 C. Ricci (Chemistry Department, University of Perugia, Italy)
Original and fake blue pigments from the church of S. Francesco in Montefalco painted by Benozzo Gozzoli: a spectroscopic approach
- 16:50-17:10 S. Pagès-Camagna (Centre de Recherche et de Restauration des Musées de France, France)
Synthesis and weathering process of Egyptian green :Structural characterisation by Raman microspectrometry of a synthetic copper silicate used as pigment
- 17:10-17:30 *Final remarks on oral presentations*

OPIFICIO delle PIETRE DURE – Biblioteca, Via Alfani 78

Thursday, 1 April

09:30-12:00 *POSTER Session*

- K. Andrikopoulos (Art Diagnosis Centre, Greece)
Vibrational Spectroscopy reveals the techniques implemented for the production of Hadra hydriai by the Rhodian laboratory (3rd –2nd century B.C.)
- L. Appolonia (Soprintendenza Beni e Attività Culturali Val d'Aosta, Italy)
Use of Infrared Photoacoustic system in Cultural Heritage Analysis
- P. Baraldi (Dipartimento di Chimica, Università di Modena e Reggio Emilia, Italy)
Characterization of Roman wall paintings from Regium Lepidi (Aemilia) using different analytical techniques
- E. Carretti (Consortium CSGI, Department of Chemistry, University of Florence, Italy)
FTIR spectroscopy to monitor selective cleaning on wall painting surfaces
- F. Casadio (Art Institute of Chicago, USA)
A novel approach to an old problem: application of TG/FTIR for evaluating materials for storage and display cases
- E.M.Castellucci (LENS, University of Florence, Italy)
Evaluation of the analytical potential of Raman microscopy combined with elemental techniques
- A. Cosentino (University of Catania, Italy)
ColoRaman project: characterization of oil, tempera and fresco colors using Raman and Fluorescence Spectroscopies
- N. Ferrer (Serveis Científicotècnics.Universitat de Barcelona, Spain)
Characterization of ink components in ancient manuscripts by FTIR spectroscopy
- G. Giachi (Soprintendenza per i Beni Archeologici della Toscana, Florence, Italy)
Resin and pitch of Pinaceae wood in the findings of the ancient harbor of Pisa

V. Hayez (Vrije Universiteit Brussel, Belgium)

Micro-Raman spectroscopy used for the study of corrosion products on copper alloys

C. Herm (Dresden Academy of Fine Arts, Germany)

Infrared spectroscopic study of some more metal soaps

D. Jembrih-Simburger (Sciences and Technologies in Art, Academy of Fine Arts, Austria)

FTIR-spectra of iridescent Art Nouveau Glass Artifacts

D. Jones (Chemistry and Biochemistry Department, Cal Poly State University, USA)

Spectroscopic Analysis of a 4th-Century A.D. Roman Sarcophagus

M. Maier (Departamento de Química Orgánica, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Argentina)

Applications of Fourier-Transform Infrared Spectroscopy (FTIR) to the study of pastes from an Argentinean Septentrional Patagonian archaeological site

M. Milosevich (Harrick Scientific Corporation, USA)

Video Barrelineo

J. Mass (Conservation Department, Winterthur Museum, Garden, and Library, USA)

Reflectance FTIR and Raman Microspectroscopy Studies of 19th Century Chinese Export Pith Paintings

A. Miquel (Departament de Pintura-Facultat de Belles Arts-Universitat de Barcelona, Spain)

A systematic study of red paint layers degradation in artworks based on spectrophotometrical information

B. Pretzel (Victoria and Albert Museum, UK)

Infrared and Raman Users Group - Past Present, and Future

N. Salvadó (Dpt. d'Enginyeria Química. Universitat Politècnica de Catalunya, Spain)

The nature of medieval synthetic pigments

A. Schaening (Sciences and Technologies in Art, Academy of Fine Arts, Austria)

Identification and Classification of synthetic organic pigments of a collection of 19th and 20th cent. by FTIR

M. Schreiner (Sciences and technologies in Art, Academy of Fine Arts, Austria)

A database of inorganic historical pigments

M. Tsukada (National Museum of Western Art, Japan)

Effect of formalin on animal glue – Preliminary study on the materials and techniques used in paintings of “Panreal Art Group”

12:00-12:30 *Final remarks on poster presentations*

12:30 **End of IRUG6**