

INFRARED & RAMAN USERS GROUP 14TH CONFERENCE (IRUG14)
Cultural Heritage Agency of the Netherlands
2-4 June 2021

IRUG14 Conference Committee

- Suzan de Groot, Committee Chair, Cultural Heritage Agency of the Netherlands, Amsterdam, NL
- Letty Spieker, Cultural Heritage Agency of the Netherlands, Amsterdam, NL
- Alie van Veenendaal, Cultural Heritage Agency of the Netherlands, Amsterdam, NL
- Karen te Brake-Baldock, Cultural Heritage Agency of the Netherlands, Amsterdam, NL
- Suzanne Quillen Lomax, National Gallery of Art, Washington, US
- Marcello Picollo, Institute of Applied Physics “Nello Carrara”, Sesto Fiorentino, IT
- Boris Pretzel, Victoria and Albert Museum, London, UK
- Beth Price, Philadelphia Museum of Art, Philadelphia, US

IRUG14 Scientific Committee

- Suzan de Groot, Committee Chair, Cultural Heritage Agency of the Netherlands, Amsterdam, NL
- Kate Helwig, Canadian Conservation Institute, Ottawa, CA
- Suzanne Quillen Lomax, National Gallery of Art, Washington, US
- Richard Newman, Museum of Fine Arts Boston, Boston, US
- Marcello Picollo, Institute of Applied Physics “Nello Carrara”, Sesto Fiorentino, IT
- Boris Pretzel, Victoria and Albert Museum, London, UK
- Beth Price, Philadelphia Museum of Art, Philadelphia, US
- Manfred R. Schreiner, Academy of Fine Arts Vienna, Vienna, AT
- Gregory Dale Smith, Indianapolis Museum of Art, Indianapolis, US
- David Thickett, English Heritage, London, UK
- Masahiko Tsukada, Tokyo University of the Arts, Tokyo, JP
- Thea van Oosten, Conservation Scientist, Amsterdam, NL

Provisional Program

Day 1

Wednesday, June 2, 2021

14.00 **Welcome**

Susan Lammers, Director Cultural Heritage Agency of the Netherlands (RCE)

Boris Pretzel, IRUG Regional Chair Europe, IRUG Board Member

Suzan de Groot (RCE), Conference Committee Chair, IRUG Board Member

Keynote speaker

John Delaney, National Gallery of Art, Washington

(5 min break)

15.00 **A technical study of Chagall's painting materials: the synergistic use of Raman and FTIR spectroscopy**

Inez van der Werf, Suzan de Groot, Henk van Keulen, Madeleine Bisschoff, Meta Chavannes, Klaas Jan van den Berg

Comprehensive IR data analysis methods for the study of paint degradation processes

Joen Hermans

16.00 15 min break

16.15 **Characterisation of lime-based paints by micro-Raman and external reflection FTIR spectroscopies**

Simi Mangani, Gianluca Pastorelli

Non-invasive spectro-analytical characterization of silicate-based wall paintings

P. Moretti, Y. Ma, F. Piqué

Perkin Elmer TBD

(5 min break)

17.30 **The hidden secrets beyond a box. ARCAer PROJECT - Conservation and analytical study of antique ensembles of reliquaries**

C. Barata, A. Pais, N. Camarneiro, D. Cunha, T. Ferreira, M. Nunes, A. Cardoso, Cristina Dias, A. Manhita

Raman, FTIR and SEM mapping of Paul Gauguin's Poèmes Barbares

K. Eremin, G. Rayner, A. McClelland, T. Cavanaugh, K. Smith, M. Walton

18.30 End day 1

Day 2

Thursday, June 3, 2021

14.00 **The use of polyethylene in conservation and object storage: A spectroscopic investigation into the chemistry of polymer additives**

B.H. Stuart, P.S. Thomas, H. Jones-Amin, S. Wong, P. Nel

In situ identification of plastics: Evaluation, comparison and application of external and diffuse reflectance FTIR accessories

Eva Mariasole Angelin, Susana França de Sá, Marcello Picollo

(5 min break)

Preservation of collections: FTIR for testing suitability of self-sealing polyethylene bags for long-term storage and for damage assessment of objects, in particular archeological bone

M. Odlyha, C. Pearce, A. Fennelly, D. Thickett, P. Higgs

Project plastics: The role of FTIR in the development of the Plastic Identification Tool

Olivia van Rooijen, Carien van Aubel, Suzan de Groot, Henk van Keulen

16.00 15 min break

16.15 Poster session

The identification of organic dyes in painting by μ FTIR and μ Raman- spectroscopies

I.V. Burtseva, I.V. Balahnina

A discovery of methylene blue in a pictorial art: Case study of Portrait of Nicholas Roerich by Svyatoslav Roerich

Ekaterina Morozova, Irina Grigorieva, Irina Kuznetsova

Tracing the line: Investigating Hans Bellmer's white drawings using Raman and transmission FTIR spectroscopies.

Abed Haddad, Chris McGlinchey, Laura Neufeld

Pigment identification in frescoes of the church Santa Maria Maggiore in Sovana

Meropi Katsantoni, Theodore Ganetsos, Tina Romantzi, Carmela Crescenzi, Foteini Stringari

Evaluation of the Condition of Cellulose Nitrate Bookbindings by Spectroscopic Methods

Vítězslav Knotek, Petra Vávrová, Nikola Šipošová, Radka Kalousková, Jitka Neoralová

16.45 **Pigments from the legacy of Arnold Böcklin and Edvard Munch studied by synchrotron far-infrared spectroscopy**

Ljiljana Puskar, Irina Sandu, Ulrich Schade, Hartmut Kutzke

Exploring the colourful avantgarde with micro-Raman spectroscopy

Rika Pause, Klaas Jan van den Berg

(5 min break)

17.45 **Geranium lake pigment: structure and changes during ageing**

Victoria Beltran, Andrea Marchetti, Karolien De Wael

Mansfieldite ($\text{AlAsO}_4 \cdot 2\text{H}_2\text{O}$): A new white pigment in Himalayan artwork

Gregory Smith, Claire Hoevel, Patrick Cavanagh, Gregory Druschel (5 min break)

18.45 End of day 2

Day 3

Friday, June 4, 2021

14.00 **IRUG spectral database: Spectral search feature & tutorial**

Beth A. Price, Suzanne Q. Lomax, Boris Pretzel, Jeff Levi, Charles Davis, Fred Pease, Gabe Richards

Bruker - TBD

Renishaw - TBD

(5 min break)

15.00 **Tibetan book covers: An investigation of the materials and techniques**

T. Allscher, Simon Mindermann

Characterization of materials in manuscripts by ER-FTIR – strengths and weaknesses of the non-invasive technique

W. Vetter, F. Cappa, M. Schreiner

16.00 15 min break

16.15 **Advanced vibrational spectroscopy methods for heritage science**

C. Conti, A. Botteon, C. Colombo, M. Realini, A. Piccirillo, F. Casadio, J. Park, M. Walton, S. Zaleski, P. Matousek

Vibrational spectroscopies for the conservation of silver

David Thickett, Boris Pretzel

(5 min break)

17.15 **From spruce resin to Castoreum: Identification of organic residues on ancient projectile weapons**

Kate Helwig, Jennifer Poulin, Valery Monahan, Christian Thomas

Near infrared-shortwave infrared fiber optic reflectance spectroscopy as an early warning sensor for glass deterioration

Lynn B. Brostoff, Stephanie Zaleski, Carol Lynn Ward-Bamford, Nicholas Kivi, Andrew C. Buechele, Isabelle S. Muller, Murray H. Loew, Fenella G. France

18.15 Closing

18.30 End of conference