



Synchrotron Based FTIR Imaging Workshop

AGENDA

Basics of Fourier Transform Infrared Spectroscopy

Tuesday, October 5, 2010

PSL Conference Room at Kegonsa Research Campus

- 7:30am** Shuttle* departs from UW Campus for SRC
- 8:00–8:30am Registration and Breakfast KRC Meeting Room
- 8:30–10:00am Basics of FTIR Spectroscopy
Carol Hirschmugl, University of Wisconsin-Milwaukee
- 10:00–10:20am Break KRC Meeting Room
- 10:20–12:00pm Basics of IR Spectroscopy Interpretation
Bob Julian, Synchrotron Radiation Center
- 12:00–1:00pm Lunch KRC Meeting Room
- 1:00–3:00pm FTIR Microscopy and Imaging
Carol Hirschmugl, University of Wisconsin-Milwaukee
- 3:00–3:20pm Break KRC Meeting Room
- 3:20–5:00pm Overview of the Beamline and Tour
Carol Hirschmugl, University of Wisconsin-Milwaukee
- 5:30pm** Shuttle* departs from SRC for UW Campus

*Please see the shuttle schedule for pickup and drop off locations.

Advanced Imaging and Applications with Hands-on Access to IRENI
Wednesday, October 6, 2010
Kegonsa Research Campus

7:30am Shuttle* departs from UW Campus for SRC

8:00–8:30am Registration and Breakfast KRC Meeting Room

Three Parallel Sessions – Attendees will be split into three groups

Hands On:** *Measuring Samples at IRENI (Michael Nasse, Claudia Gohr, Eric Mattson and Margaret Rak)*

Analysis: *Introduction to OPUS for Data Collection (Bob Julian) and IGOR PRO for Analysis (Carol Hirschmugl)*

Data Manipulation: *Introduction to Data Manipulation for Scattering (Paul Bassan), and Chemometrics (Frank Vogt)*

8:30–10:00am ... Group 1 – Hands On** IRENI Beamline
Michael Nasse and Claudia Gohr, University of Wisconsin-Milwaukee

Group 2 and 3 – Analysis OPUS SRC Conference Room
Bob Julian, Synchrotron Radiation Center

10:00–10:15am Break KRC Meeting Room

10:20–11:30am Group 1 – Hands On** (Cont.) IRENI Beamline
Michael Nasse and Claudia Gohr, University of Wisconsin-Milwaukee

Group 2 and 3 – Analysis IGOR Pro SRC Conference Room
Carol Hirschmugl, University of Wisconsin-Milwaukee

11:30–12:30pm Lunch KRC Meeting Room

12:30–2:00pm Group 2 – Hands On** IRENI Beamline
Michael Nasse, Claudia Gohr, and Eric Mattson, University of Wisconsin-Milwaukee

Group 1 and 3 – Spectrochemical Sample Characterizations – a Primer in Chemometrics SRC Conference Room
Frank Vogt, University of Tennessee-Knoxville

2:00–2:15pm Break KRC Meeting Room

2:15–3:30pm Group 2 – Hands On** (Cont.) IRENI Beamline
Michael Nasse, Claudia Gohr, and Eric Mattson, University of Wisconsin-Milwaukee

Group 1 and 3 – Data Manipulation Mie Scattering SRC Conference Room
Paul Bassan, University of Manchester

3:30–4:00pm	Break KRC Meeting Room
4:00–5:30pm	Group 3 – Hands On** IRENI Beamline <i>Michael Nasse, Eric Mattson, and Margaret Rak, University of Wisconsin-Milwaukee</i>
	Group 1 – Analysis OPUS PSL Conference Room <i>Bob Julian, Synchrotron Radiation Center</i>
	Group 2 – Spectrochemical Sample Characterizations – a Primer in Chemometrics SRC Conference Room <i>Frank Vogt, University of Tennessee-Knoxville</i>
5:30–5:45pm	Break KRC Meeting Room
5:45–7:00pm	Group 3 – Hands On** IRENI Beamline <i>Michael Nasse and Claudia Gohr, University of Wisconsin-Milwaukee</i>
	Group 1 – Analysis IGOR..... PSL Conference Room <i>Carol Hirschmugl, University of Wisconsin-Milwaukee</i>
	Group 2 – Data Manipulation Mie Scattering SRC Conference Room <i>Paul Bassan, University of Manchester</i>
7:00–8:30pm	Reception and Poster Session*** KRC Meeting Room
8:30pm	Shuttle* departs from SRC for UW Campus

**Samples Measured at the IRENI must be explained in a [Rapid Request Form](#) at least two weeks prior to October 6. First-come, first-served. If you have questions about sample preparation, please contact the organizers.

***Poster Session and Reception are for both Wednesday and Thursday Attendees.

Status and Future of Synchrotron Based FTIR-FPA Imaging

Thursday, October 7, 2010

John D. Wiley Conference Center at Waisman Center on UW Campus

- 7:30am Shuttle* departs from SRC for Waisman Center on UW Campus**
- 8:00–8:45am Registration and Breakfast Conference Center Lounge
- 8:45–9:00am Overview of Synchrotron Based FTIR-FPA Imaging
Carol Hirschmugl, University of Wisconsin-Milwaukee
- 9:00–9:15am Biospectroscopy to Characterise the Stem Cell Lineage within Complex Tissue Architectures *
Dr Francis L Martin, Centre for Biophotonics, Lancaster Environment Centre, UK
- 9:15–10:00am New Opportunities in Infrared Microspectroscopy
Rohit Bhargava, Beckman Institute, University of Illinois at Urbana-Champaign
- 10:00–10:30am Break and Vendors Conference Center Lounge
- 10:30–11:00am Does Synchrotron Infrared Microspectroscopy Significantly Contribute to New Knowledge in Biology and Biomedicine?
Paul Dumas, SOLEIL Synchrotron
- 11:00–11:30am High Definition Imaging with IRENI – Discoveries Enabled by the New Technology
Kathy Gough, University of Manitoba
- 11:30–12:00pm Discussions
- 12:00–1:30pm Lunch and Vendors Conference Center Lounge
- 1:30–2:00pm Evaluating High-fidelity Spectroscopic Image Cubes – Planned Chemometrics at SRC
Frank Vogt, University of Tennessee-Knoxville
- 2:00–2:30pm Real-time Monitoring of Chemistry in Living Cells during Stress-adaptive Response
Hoi-Ying Holman, Lawrence Berkeley National Laboratory
- 2:30–3:00pm Break and Vendors Conference Center Lounge
- 3:00–3:30pm Use of FTIR Spectroscopy and FTIR Imaging in Cultural Heritage Research
Catherine Patterson, Getty Conservation Institute
- 3:30–4:00pm FPA-Based Infrared Microspectroscopic Imaging at the NSLS
Larry Carr, Brookhaven National Laboratory
- 4:00–5:30pm Roundtable Discussion
- 5:30–7:00pm Vendor Sponsored Wine and Cheese Reception (Conference Center Lounge)
- 9:00pm Shuttle* departs from Waisman Center on UW Campus for SRC**

* Contribution given by C.J.H due to a family emergency of the speaker.