



BUILDING BRIDGES TO FUTURE SUCCESS

This workshop is your bridge to forging long-lasting relationships and partnerships that can lead to future success and growth.



CONNECT MINDS, IGNITE IDEAS

Join us to connect with brilliant minds, leading to the ignition of innovative ideas that could reshape your perspective.



EXPAND YOUR KNOWLEDGE HORIZONS WITH EXPERT LECTURES

Gain insights from renowned speakers and researchers through expert lectures, deepening your understanding of the field.

TOP ANALYTICA'S 5TH MICROSCOPY & MICROANALYSIS WORKSHOP

Radisson Blu Marina Palace, Turku, Finland
May 7th—9th 2025

EXPERIMENTAL TECHNIQUES AND APPLICATIONS

*SEM-EDS, X-ray
microscopy, RAMAN,
O-PTIR, ToF-SIMS, μ XRF,
 μ -FTIR, sample
preparation*

TICKETS

3 DAYS 600 € | 2 DAYS 500 € | 1 DAY 350 €
+ VAT

PROGRAM

WEDNESDAY 7.5.2025

8.30–9.30 Registration, coffee & tea

9.00–9.30 Annual Meeting of the Finnish Electron Microscopy Society (SEMS)

9.30–9.35 Welcoming words! *Ville Saarimaa, CEO, Top Analytica*

9.35–9.45 Data Dash: Recap from SEM-EDS round-robin, *Jyrki Juhanaja, Top Analytica*

9.45–9.55 BREAK

9.55–10.25 TOF-SIMS: Latest Innovations and Industrial Applications, *Sven Kayser, IONTOF*

10.25–10.45 Unveiling the Nanoscale Structure of Metal Oxide Thin Films Grown by Atomic Layer Deposition for Photocatalytic Applications, *Daria Jardas Babić, University of Rijeka, Faculty of Physics & Centre for Micro- and Nanosciences and Technologies*

10.45–11.05 In-situ SEM Nano- & Micromechanical Testing,
Gaurav Mohanty, University of Tampere

11.05–11.30 Characterization of fossil-free and high-strength steels,
Jukka Kömi, University of Oulu

11.30–12.30 LUNCH

12.30–13.30 Essentials of Sample Preparation for Microscopy & Spectroscopy
Traditional sample preparation techniques, *Turkka Salminen, Tampere University*
Osmium staining, *Teemu Paunikallio, Top Analytica*
New developments for sample polishing processes, *Tatu Peltola, Turun yliopisto*
Broad ion beam milling, *Markus Virtanen, Top Analytica*
Delicate samples and ion milling, *Sten Sturefelt, Spectral*

13.30–14.00 St4DeM: A software suite for multi-modal 4D-STEM acquisition techniques, *Toni Uusimäki, Stockholm University Department of Materials and Environmental Chemistry*

14.00–14.20 A New Class of Implants and Absorbable Metals: Analytical Problem-Solving in Materials Science, *Timo Lehtonen, Bioretec*

14.20–14.35 COFFEE & TEA BREAK

14.35–16.15 Exhibitor Introductions: *Finfocus, Blue Scientific, Zeiss, Xspect, Spectral, Oxford Instruments, Park Systems Europe, Gammadata, NordicNano Solutions, Triolab*

16.15–17.45 COFFEE & TEA, and hands-on instrumentation at venue site.
Bring your own samples!

18.00 GALA DINNER AT VENUE LOCATION

PROGRAM

THURSDAY 8.5.2025

- 8.00 Registration, coffee & tea
- 9.00—9.30 Plasma-FIB applications in industrial sample preparation, *Supriya Nandy, VTT*
- 9.30—10.00 Infrared nanospectroscopy — Studying chemistry on the nanoscale, *Magnus Johnson, KTH Royal Institute of Technology in Stockholm*
- 10.00—10.20 COFFEE & TEA BREAK
- 10.20—10.40 Exploring Advanced Material Characterization through Confocal Raman Microscopy, *Pia Damlin, University of Turku*
- 10.40—11.00 Unveiling the degradation mechanisms of copper pipes in water supply, *Laura Tiainen, Eurofins*
- 11.00—11.20 Multi-modal structural and chemical characterization of a Thermal Barrier Coating, *Prerna Sudera, Thermo Fisher Scientific*
- 11.20—12.20 LUNCH
- 12.20—12.40 Corrosion Mechanism of Quaternary ZnAlMgSi Coatings for Automotive, *Václav Šefl, University of Chemistry and Technology in Prague*
- 12.40—13.00 Case Study of Material Characterization: Coated Electronic Boxes, *Jussi Jääskeläinen, Nokia*
- 13.00—13.20 A new quantum cascade laser-based infrared microscope for ultrafast chemical imaging in life science, environmental science and pharma, *Juuso Nästi, Blue Scientific*
- 13.20—13.40 COFFEE & TEA BREAK
- 13.40—14.00 Revolutionizing EBSD: Bruker eWarp – The Gamechanger in Electron Backscatter Diffraction, *Laurie Palasse, Bruker*
- 14.00—14.20 Non-destructive microanalytical methods in the study of extraterrestrial materials, *Laura Kotomaa & Evgenia Salin, Åbo Akademi*
- 14.20—14.40 Multimodal Sub-Visible Vibrational Micro-spectroscopy of Biopharma and Environmental Particulates, *Miriam Unger, Photothermal Spectroscopy Corp.*
- 14.40—15.00 High performance micro-Raman spectroscopy wherever you need it!, *Andrew King, Renishaw*
- 15.00—15.20 Investigating Correlative Properties on the Nanoscale using Atomic Force Microscopy, *Alexander Klasen, Park Systems Europe*
- 15.20 Closing remarks
- 16.30 Lab tour at Top Analytica (with snacks & beverages)
- 19.00 Evening social: Sauna & lake at Villa Järvelä. Bring your swimsuits & towels!

PROGRAM

FRIDAY 9.5.2025

Top Analytica Oy Ab
Ruukinkatu 4
20540 Turku, Finland



The equipment demonstrations will run concurrently between 9:00 and 12:00. The demonstration stations are operating simultaneously. Participants will be divided into groups, ensuring that everyone has the opportunity to attend all demonstrations. The OPT-IR demonstration will be presented to all participants simultaneously at 13.

9.00–12.00:

- **IR Microscopy for surface studies**, *Nicodemus Kraufvelin*
- **Unity (BEX) detector demo**
- **Hands-on session: SEM-EDS with standards**, *Jyrki Juhanoja*

12.00–13.00 Light Lunch

13.00 (UTC+03:00)

- **OPT-IR remote demo (1 hour)**, *Photothermal Spectroscopy Corp.*

Enhance your workshop experience by bringing your own samples!

Contact us at info@topanalytica.com for more details or visit

www.topanalytica.com/workshop-2025