Workshop:
Surface Analysis and Characterization - an Instrument Workshop

16 September 2020
RISE Bioeconomy and Health, Drottning Kristinas väg 45, Stockholm, Sweden

A one-day workshop on surface analysis and characterization instruments. During the day you will have the opportunity to get acquainted with ten different techniques. During 25 min stops in the Stockholm laboratories of RISE's unit for Bioscience and Materials you will get concise information from our specialists and see the instruments. At the end of the day you will have acquired a better understanding of how results from these techniques can be used by your company/organization in research, product and process development and troubleshooting.

Zeta potential - interfacial tension - contact angle - interfacial rheology - wettability - adsorption - desorption - topography - QCM - AFM - ellipsometry - XPS - ESCA - Confocal Raman Microscopy - chemical composition - imaging - surface structure - electron microscopy - tactile friction- Force Board

Quotes from participants from previous courses

”” I got a good overview of the different available techniques. The information was presented in a way that made it easy to assess if the technique could be useful in my work.”
“The hand-out material is very well-prepared. I specially appreciate that it contains many good application examples! "

Overall rating by participants of the course 2018:
Excellent: 38% of course participants, Good: 62% of course participants
Overall rating of the performance of the lecturers in 2018:
Excellent: 54% of course participants, Good: 46% of course participants

Who is this workshop intended for?
This workshop is intended for engineers, laboratory personnel and scientists working with research, development or quality control of products for which surface or interfacial properties have a major impact on product performance.

What will this workshop give me?
This workshop will provide an overview of the principle of operation, possibilities and limitations of a wide variety of analytical instruments intended for the characterization of surface and interfacial properties.

Analytical techniques covered
- Zeta potential of particles/drops - Dynamic Light Scattering (DLS)
- Zeta potential of macroscopic solids - streaming potential and streaming current measurements
- Interfacial tension and interfacial rheology - Pendant drop
- Wettability of fibers/powders/surfaces - Contact angle instrument
- Surface Topography- Stylus Profilometer
- Adsorption/Desorption - Quartz Crystal Microbalance-Dissipative (QCM-D)

- Surface topography/imaging and interactions between surfaces - Atomic Force Microscopy (AFM)
- Chemical composition/Surface structure - Scanning Electron Microscopy (SEM) with Energy-dispersive X-ray analysis (EDX/EDS/EDAX). Environmental Scanning Electron Microscopy (ESEM)
- Chemical composition - X-ray Photoelecton Spectroscopy/Electron Spectroscopy for Chemical Analysis (XPS/ESCA)
- Chemical composition and imaging - Confocal Raman Microscopy
- Tactile Friction – Force Board

Time
08:45-16:30. Registration and coffee from 08:15. There will be opportunities for separate face to face discussions with instrument specialists during lunch and afternoon coffee break (1 hr and 30 min, respectively). These can be agreed on with specialists at the end of each session.

Fee
SEK 6 800 (ca. EUR 650 according to the exchange rate in February 18, 2020) excl VAT. 10% discount available for two or more enrolments from the same company/organisation

The fee covers all tuition costs, course documentation, lunch and coffee break refreshments. Accommodation is not included in the fee.

Cancellation up to 14 Days before the event 100% refund, cancellation 14-7 days before the event 50% refund. No refund if you cancel later than 7 Days before the event. After informing the organizers a colleague can take your place if you cannot participate.

Documentation
Hand-out material with basics and application examples of the different techniques.

Language
English. Depending on the number of people who sign up and their preferred language it may be possible to have a group which gets to hear most of the stations in Swedish. If this is important for you, indicate this under "Other" when registering.

Venue
RISE Bioeconomy and Health, Drottning Kristinas väg 45, Stockholm, Sweden.
500 m from the subway station Tekniska Högskolan. Map and transportation details.

Accommodation
We kindly ask participants to book their own hotel. List of recommended hotels with discount codes.

Final date of registration
27 August 2020

Registration
Please, register here.

Questions about the workshop program and content:
Contact Isabel Mira, RISE
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Practical questions regarding registration:
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This course is organized by RISE Research Institutes of Sweden within the framework of PERFORM- a competence platform in formulation science.