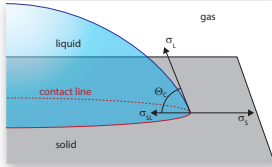


Modern Measurement Techniques for Surface Chemistry

In our seminar you will learn both fundamental basics and practical aspects regarding different measurement techniques.

→ Drop shape analysis and contact angle measurement

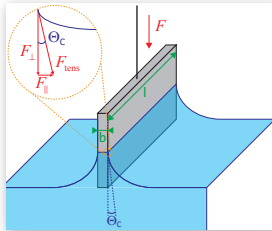
The optical shape analysis of liquid drops yields surface and interfacial tensions. Moreover static and dynamic contact angles can be determined and used to calculate the surface energy of solids.



Modern, automatic measuring instruments enable time, temperature and humidity controlled measuring processes and innovative microdosing systems allow studying even smallest surface areas and single fibres.

→ Tensiometry, spinning drop tensiometry and dispersion stability analysis

Surface and interfacial tensions as well as dynamic contact angles can also be measured using a force-based tensiometer. For these purposes there are various probes and different measurement methods available. Using appropriate sample holders one can study the wetting behaviour of powders, single fibres, fibre bundles and fabric.



Spinning drop tensiometry is the technology of choice for measuring extremely small interfacial tensions. With this technique the shape of a drop in a rotating capillary is evaluated optically. Oscillation experiments with varying rotational velocity furthermore yield information about the rheological properties of the drop interface.

The stability and aging of liquid dispersions, in particular suspensions and emulsions, can be automatically determined using optical dispersion stability analysis. Separation processes like sedimentation, agglomeration, etc. can be identified objectively within shortest time periods.

Applied Seminar



Modern Measurement Techniques for Surface Chemistry

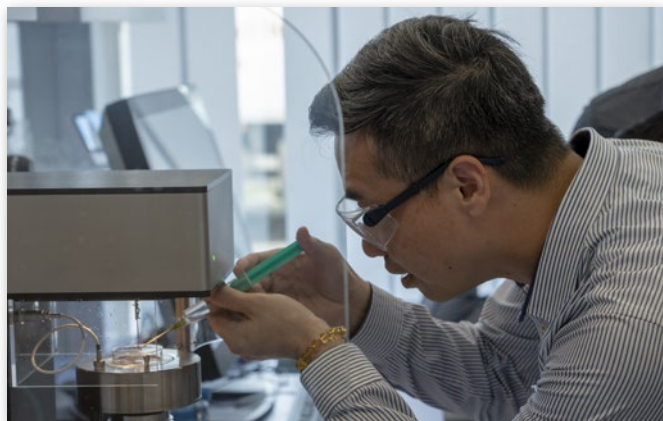
Seminar contents

- Drop shape analysis
- Contact angle measurement
- Tensiometry
- Spinning drop tensiometry
- Dispersion stability analysis

Seminar schedule

In our practice oriented seminar “Modern Measurement Techniques for Surface Chemistry” we provide you compactly, within two days, with an overview of different methods and measurement techniques used to analyse surfaces and interfaces.

- The first day of the seminar is dedicated to the **optical drop shape analysis and contact angle measurement** which is used to determine interfacial tension and surface energy. After a basic introduction and a company tour a mix of interesting lectures and **practice phases in the laboratory** ensure an inspiring and entertaining learning atmosphere.
- On the second seminar day we focus on **tensiometry and spinning drop tensiometry**. With a varied program of lectures and practical demonstrations we give you a thorough understanding of the measuring techniques. Finally, a session on the MultiScan technique for the **stability analysis of dispersions** completes the seminar.



Characteristic for all our seminars is an **informal, open atmosphere** with lots of room for **discussions**. Thus, you have the opportunity to **exchange experiences** with other seminar participants and our proven experts give you **advice on your personal questions**.

During our **practice phases** you can work with our measuring instruments in person and can gather some **first-hand experience** with the various measuring techniques.

Target group

Our seminar is aimed at everybody who wants to get an overview of the state-of-the-art measurement techniques for surface analysis.

No matter if you are already working in the field and want to discuss your methods with our experts, or if you are interested in how your surface chemistry questions could be approached – in our seminar you benefit by extending your fundamental knowledge and by learning how to practically deal with applied experimental aspects.



Key information

Location: DataPhysics Instruments GmbH in Filderstadt near Stuttgart, Germany.

Time: 9:15 - 16:30 (day 1) and 9:00 - 16:00 (day 2).

Number of participants: max. 16.

Seminar fee: 250,- €* plus VAT, for students reduced to 190,- € plus VAT, covering seminar documentation, snacks and drinks during breaks, lunch and the seminar dinner on the evening of the first seminar day.

* As an early bird you can book the seminar for the students fee if you register until 2 months before the seminar.



Dates

→ **28th – 29th April 2020**
in German

→ **7th – 8th October 2020**
in English

We hold our seminars in German and in English. All talks and the seminar documentation are in the corresponding language. In addition to these dates, we are glad to offer tailor-made seminars for you and your colleagues on request.



Registration & additional information

We will gladly accept your seminar registration via online form, e-mail or phone. On our website www.dataphysics-instruments.com you can find information on our other advanced trainings.

For further questions feel free to contact us at any time.

Contact

Dr. Michaela Laupheimer — *Seminar management*
m.laupheimer@dataphysics-instruments.com
phone: +49 (0)711 77 05 56 57

Julia Urban — *Administration*
j.urban@dataphysics-instruments.com
phone: +49 (0)711 77 05 56 12

Application centre
application@dataphysics-instruments.com
phone: +49 (0)711 77 05 56 66

Annotation

In case you are unable to attend a seminar, you can cancel your registration or change to another date without any fees up until 3 weeks before the booked date. For a later cancellation we are charging the whole seminar fee. Of course you can name a surrogate without additional costs at any time. We reserve the right to cancel the seminar in case the required minimum number of participants is not met. In this case we will notify you not later than 2 weeks before the seminar date. Naturally the whole seminar fee will be refunded in such a case. Please note that we are unable to compensate you for any other incurred expenses.