

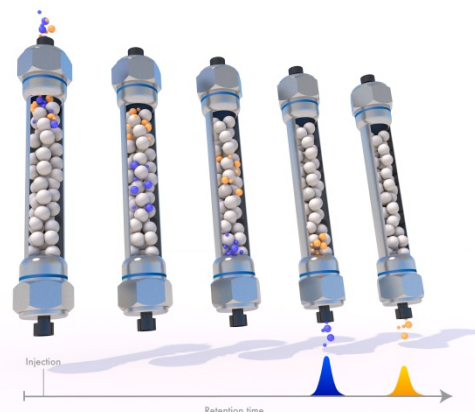
## Principles of Interaction Chromatography of Polymers

### Course Aim

The macroscopic properties of modern high-performance polymers can not be assessed by the molar mass distribution alone. Many products are copolymers, which, in addition to the molar mass distribution, also comprise a composition distribution. Furthermore, branching and end groups are often introduced in order to create high quality products.

Chemists are facing the challenge of selecting the appropriate characterization techniques for such complex polymer mixtures. With separation only based on the molecular size, it is impossible to obtain the required detailed information about the sample composition, even if high-cost advanced detection techniques are applied. Separation techniques based on composition complement and add value to the existing method tool set.

This course is aimed at all scientists who are looking for complementary characterization methods and want to learn more about the composition of complex polymer systems. It provides the theoretical background for different interaction chromatography methods for polymers and presents the achievable information based on the applied technique.



### Program

<b>07.50 CET</b>	<b>Login and Communication's Check</b>
<b>08.00</b>	<b>Welcome, speaker introduction, explanation of training tools</b>
<b>08.15</b>	<b>Introduction &amp; Basics</b> Principles of polymerization, Molar mass averages and distributions Copolymers, compositional distributions Principles of liquid chromatography of polymers Differences between GPC/SEC and interaction chromatography
<b>09. 15</b>	<b>Principles of Interaction Chromatography of Polymers</b> Isocratic Adsorption Chromatography Critical Chromatography Gradient chromatography Interaction chromatography and solution / precipitation chromatography Barrier methods and SEC gradients {Time for breaks: upon voting}
<b>approx. 12.00</b>	<b>End of first day</b>
<b>07.50 CET</b>	<b>Login and Communication's Check</b>
<b>08.00</b>	<b>Experimental Setup and Parameters</b> LC components and Instrumentation, Detection techniques Sample Preparation Solvent selection
<b>09.00</b>	<b>How do I separate...?</b> Strategies for the selection of the appropriate separation technique Choice of stationary and mobile phase Method development and method optimization

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- 10.45 2-dimensional Chromatography**  
 Limitations of one-dimensional separation methods  
 Advantages 2D separations  
 2D separation techniques  
 Practical considerations when implementing 2D
- 11.30 Practical example**  
 Interpretation contour plot  
 How to learn more about a graft-copolymer
- approx. 12.00 End of training course**

### Registration and organization

PSS Polymer Standards Service GmbH - Training Academy  
 POB 3368, 55023 Mainz, Gemany  
 Phone: 0049- 6131-96239-30; Fax: 0049- 6131-96239-11  
[info@pss-polymer.com](mailto:info@pss-polymer.com)  
<https://pss-polymer.com/training-events/event-list.html>

### How does it work?

- After receiving your registration, we will send you the registration confirmation.
- We will contact you to get to know you and to identify your course goals. We would be happy to help you check the suitability of your PC/laptop.
- Approx. one week before the course, you will receive a package from PSS with the printed course documents.
- One day before the event you will receive an e-mail with the access link.
- The training itself is interactive, you have time and opportunity to ask questions during the presentations and practical sessions. Please make sure that you have a microphone so that you can talk to us.
- You will receive your certificate of attendance one day after the training.

### Conditions of participation

To participate you need a PC/laptop with keyboard and mouse, internet access and audio functions. A headset is recommended. We recommend a quiet room for attendance. Attendance from home office is possible.

The course is conducted using a software training tool.

[Test the suitability of your system here](#)

Please note:

- The training will NOT be recorded by PSS to ensure that discussions and questions from the participants remain confidential. Recording of this event is strictly prohibited.
- All contents of the training slides are protected by copyright. If required, we will be happy to provide additional material for personal use. Please do not hesitate to contact us.

### Participation fee

EURO 1040,- ; for universities and institutes: EURO 840,-

Includes participation (lectures and practical session), training documents and technical setup. Training documents are sent in printed form in advance. Your certificate of participation will be sent electronically.

### Cancellation policy

We ask for your understanding that if you cancel up to 2 weeks before the start of the course, a cancellation fee of 50% of the participation fee will be due. If you cancel at a later date, the participation fee can no longer be reimbursed, but a substitute participant can be provided.

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