



Online Course: **Emulsion Formulation Technology**

20 Oct, 27 Oct and 3 Nov 2020

This 3-day course covers fundamental and practical aspects of the formulation of emulsions with surfactants, macromolecules and particles. The course, now held online for the first time, aims at providing an overview of the combined effect of physicochemistry, composition and emulsification protocol on the stability and properties of emulsified systems.

Quotes from participants 2016 and 2018

"Very knowledgeable and inspiring lecturers!"

"A great journey through a broad range of formulation topics that inspires new ideas!"

Overall rating by participants of the course 2018:

Excellent: 75% of course participants, Good: 25% of course participants.

Overall rating of the performance of the lecturers in 2018

Excellent: 75% of course participants, Good: 25% of course.

Who is this course intended for?

The course is primarily intended for people with a technical background working in research, development, formulation and characterisation of emulsions, be it for paint, food, pharmaceutical, nutraceutical, coatings, agrochemical or other engineering applications. It also encourages researchers and academics interested in how the current knowledge in surface science can be translated into formulation engineering know-how.

What will this course give me?

Having completed the course, participants will have gained an understanding of:

- * The principles of surfactant physical chemistry and the interplay of surfactants in aqueous as well as oil phases.
- * Emulsions and their most relevant features/properties
- * The most relevant physicochemical principles and technological aspects of the formulation of emulsions
- * Formulation engineering concepts/shorcuts to attain stability in surfactant stabilised emulsions
- * Phenomenology of emulsions stabilised by particles, macromolecules and mixtures of emulsions and suspensions
- * How to apply this knowledge when formulating emulsions.

Lectures

- * Dispersed systems: Properties and stabilisation strategies
- * Surfactants and polymers in solution
- * Emulsions and their properties
- * Types of colloidal instability in emulsions and how to deal with them: Ostwald ripening
- * Types of colloidal instability in emulsions and how to deal with them: Drop coalescence
- * Emulsions stabilised with proteins and polysaccharides
- * Suspoemulsions and particle-stabilised emulsions
- * Practical aspects around emulsion characterization
- * Generalized Formulation Concepts and Composition Effects
- * Emulsification Processes
- * Emulsion Inversion Phenomenology and Formulation Engineering

Lecturers

Prof. Bengt Kronberg, Senior Research Fellow, RISE (Retired 2017)
Dr. Isabel Mira, researcher at RISE (formerly YKI and SP) from 2007
Dr. Martin Andersson, researcher at RISE (formerly YKI and SP) from 2001

The lecturers have extensive experience with industrial research projects involving formulation of emulsions, dispersions and foams in the context of a variety of applications including paper coatings, pharma, food, cleaning and diverse engineering applications. Dr. Isabel Mira has organized and lectured in nearly a dozen industrial courses in the area of emulsion formulation and, together with Dr. Martin Andersson and Prof. Bengt Kronberg, have held several custom-made, in-house courses in emulsion formulation technology.

Documentation

Participants receive electronic copies of all presentation material.

Fee

SEK 13 000 (ca. 1240 EUR 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 including a copy of the course book, lunches, buffet dinner on the first day 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.

Time

Tuesday 20 Oct, 9:30-15:00 CET

Tuesday 27 Oct, 9:30-16:00 CET

Tuesday 1 Nov, 9:30-15:00 CET

Language

English

Venue

The course will be held online, in real time, using the video conferencing and online meeting platform Zoom. To join there is no need to have any specific software or login. Participants will only need a link and a password that will be provided after registration.

Final date for registration

29 September

Registration

[Register here.](#)

Questions about the scientific content or the opportunity to arrange in-house courses at your company:

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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.