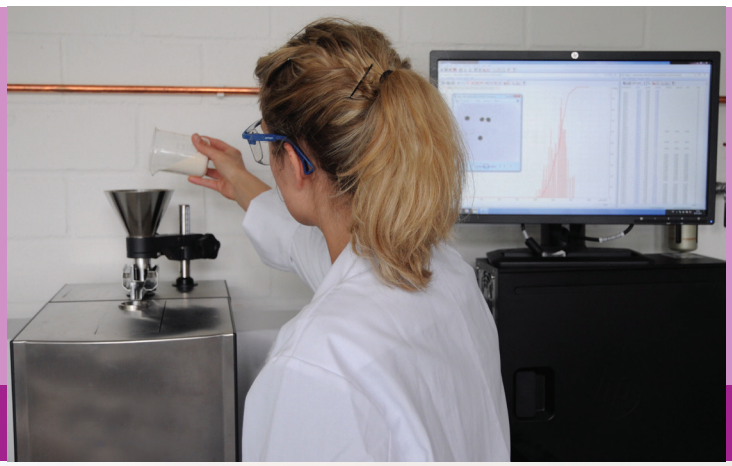
Powder Flow in Pharmaceutics - Fundamentals and Applications



virtual meeting

07 - 08 May 2024
Online Seminar

Course no. 7055

ONLINE SEMINAR

Research an Development

Zielgruppe

The course is designed for all scientists involved in the development and manufacture of solid dosage forms.

APV
MAKING SCIENCE WORK

A seminar organised by the focus group Solid dosage forms

Objectives

The two day course will provide profound and essential Knowledge on particle powder flow with special focus on fundamentals and applications necessary for daily work in development and manufacture of solid dosage forms. Day one gives an overview about fundamentals and analytical methods. In addition equipment manufacturers will present in the market place hands-on Information on measurements and sample preparation. In an evaluation workshop the participants will work together in small groups on upfront provided tasks to use the theoretical knowledge on tasks from daily life. The second day is focused on apllications of powder flow knowledge, e.g. tanletting, capsule filling and hooper discharge.

Moderator

Markus Thommes, PhD, Professor
Technical University Dortmund, Germany

Mr. Thommes studied pharmacy at the Martin-Luther University in Halle. There he started his PhD studies and moved subsequently to Düsseldorf to finish these at Heinrich-Heine University. Afterwards he worked as a research assistant in the Department of Industrial and Physical Pharmacy at the renowned Purdue University in West Lafayette, USA. Then he returned to Heinrich-Heine University, setting up his own research group and habilitating in the field of pharmaceutical technology and biopharmacy. Since 2014 he is head of the chair "Process Solids Engineering" at the Department of Biochemical and Chemical Engineering at TU Dortmund University. His research focuses on the development of formulations and processes for new solid dosage forms. Mr. Thommes is an expert pharmacist in pharmaceutical analytics and pharmaceutical technology. Furthermore he is appointed member in committees of the International Association for Pharmaceutical Technology (APV), the "Gesellschaft für Chemische Technik und Biotechnologie" (DECHEMA) and the European Directorate for the Quality of Medicine & Health Care (EDQM).

Programme

Wednesday, 07 May 2025 13:00 - 18:00 h (CET)

Welcome
Markus Thommes

Fundamentals of Particle Interaction
- particle boundary conditions
- fundamentals
- segregation of powders

Michael Bradley or Richard Farnish, University of Greenwich, Wolfson Centre, UK

Stresses in Powders
- normal and shear stresses
- powders at rest vs. Newtonian liquids at rest
- influence of shear rate
- Mohr's stress circle
- consequences on the behaviour of powders

Dietmar Schulze, Ostfalia University of Applied Sciences, Institute for Recycling, Germany

>>Break<<

Definition and determination of powder flow characteristics and their application for designing pharmaceutical processes
- different particle and powder characterization methods and related powder flow parameters
- application of powder flow characteristic values for process design and quality assurance
- use of powder element tests for calibration of DEM simulations

Arno Kwade, iPAT - Institut für Partikeltechnik, TU Braunschweig, Germany

Market Place I
- Shear Cell
  Dietmar Schulze
- Granudrum
  Benoit Delisse

>>Break<<

Exercise Breakout Rooms
- Shear Cell
  Dietmar Schulze
- Granudrum
  Benoit Delisse

Powder Flow in Pharmaceutics - Fundamentals and Applications

Thursday, 08 May 2025 13:00 - 18:00 h (CET)

Welcome
Markus Thommes

Discharge from Hoppers
- Discharge flow regimes
- Addressing common flow issues
- Using powder flow measurements for hopper design

James K. Prescott, Jenike & Johanson, United States

Tricks for Handling Challenging Powders
Greg Mehos, Department of Chemical,
University of Rhode Island, USA

>>Break<<

Powder flow in Tabletting and Encapsulation
- die filling, feeder design
- teamping pin, dosator technology
- drum dosing

Thomas Brinz, Department of Pharma Services,
Syntegon Technology, Germany

Market Place II
- Multitester Hosokawa
  (NN)
- Freemann
  (NN)

>>Break<<

Exercise Breakout Rooms
- Multitester Hosokawa
  (NN)
- Freemann
  (NN)

Closing remarks
Markus Thommes

Programme subject to changes.

In vitro performance testing of topically applied and topically acting substances

Online Seminar

Course no:
7055

Date
From 07 May 2025 13:00 - 18:00h CET
until 08 May 2025 13:00 - 18:00h CET

Registration fee

Industry	800,00 EUR
Authority/University	400,00 EUR
Students*	100,00 EUR

(free of VAT according to § 4,22 UStG)

* Limited places for full time students available; written evidence must be submitted. .

Registration
If you have decided to attend the APV seminar, you can easily register online. We will process your registration immediately and will be happy to advise you on any questions you may have.

You will receive an invoice/registration confirmation by email after successfully registering online.

Seminarregistration:
apv-mainz.de/en/events/seminars/details/seminar/7055

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Arbeitsgemeinschaft für Pharmazeutische Verfahrenstechnik e.V.
Gemeinnütziger wissenschaftlicher Verein
International Association for Pharmaceutical Technology and Industrial Pharmacy

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