WP CAPE

WP Thermodynamics and Transport Properties

WP Crystallization

Special Session
The Pharma Challenge: a cross-cutting perspective

IUT: Industrial Use of Thermodynamics Session
CAPE Identity Workshop (CAPE IW)

Room M5, Wednesday, September 20th 9:50-13:15

The pharmaceutical industry poses serious challenges to chemical engineers, from modelling and measuring the thermodynamics and kinetics of processes to selecting appropriate models for describing the behavior of complex molecules. Three EFCE working parties join forces in this session, aimed at identifying key developments responding to the rising needs of the health industry.

9:50-10:40: Panel discussion with all speakers

Moderator Dr. A. **ten Kate** (Nouryon)

- **From the molecule to its physical state**: what are the challenges?
- **Product design**: what properties are essential, and how to define the adequate formulation?
- **Process design**: what are the specific needs of pharma processes?

10:40-13:15: Talks

10:40-11:05: Dr. F. **Artusio**: *On the use of self-assembled monolayers as supports for pharmaceutical crystallization*
11:05-11:35: Break
11:35- 12:00: Prof. G. **Sadowski**: *Thermodynamics of Pharmaceutical Formulations*
12:00-12:25: Prof. G. **Kontogeorgis**: *Thermodynamics – a frontier for biotechnology*
12:25-12:50: Dr. G. **Vilé:** *Integration of flow chemistry and twin-column continuous chromatography for enhanced manufacturing of small molecules*
12:50-13:15: Dr. D. **Gerogiorgis:** *Process Design and Optimisation: The Critical Role of Property Prediction in Advanced (Bio) Pharmaceutical Manufacturing*