



# BIWIC 2023

Stockholm - Sweden  
30<sup>th</sup> August – 1<sup>st</sup> September



## PROGRAM\*

### Wednesday, August 30<sup>th</sup>

12:00-13:00h – Registration

13:00-13:15h – Opening speech (Kerstin Forsberg)

#### **SESSION 1 - Fundamentals of crystallization (nucleation and growth, thermodynamics)**

13:15-13:45h – Burak Eral (Delft University of Technology) Laser-Induced Cavitation for Controlling Crystallization from Solution

13:45-14:15h – Zhichun Lin (Loughborough University) Influence of molecular interactions between inorganic compounds and protein on their crystallization processes

14:15-14:45h – Xiaojun Lai (University of Leeds) Influence of Solution Boundary Layer Structure on Growth and Dissolution

14:45-15:15h – Seniz Ucar (Norwegian University of Science and Technology) Morphology Development of Hierarchical Vaterite Structures

15:15-15:45h – Fika (Coffee-break) + Poster session

#### **SESSION 2 - Fundamentals of crystallization (nucleation and growth, thermodynamics)**

15:45-16:15h – Hugo Meekes (Radbou University) The limits and potentials of heat batteries based on salt hydrates

16:15-16:45h – Mariana Oliveira Diniz (Synthesis and Solid State Pharmaceutical Centre – University of Limerick) Kinetics of primary nucleation of various solid forms of griseofulvin

16:45-17:15h – Ruel Cedeno (Center for Interdisciplinary Nanoscience of Marseille) Quantifying the kinetics of competitive polymorphic nucleation via microdroplet approach

17:30-20:30h – Welcome gathering

### Thursday, August 31<sup>st</sup>

08:30-09:00 – Arrival

#### **SESSION 3 – Process design, monitoring, modelling and control**

09:00-09:30h – Xiongtao Ji (Tianjin University) Stabilization and coagulation of colloidal suspensions during crystallization

09:30-10:00h – Cássia Ribeiro Souza (Federal University of Minas Gerais) Precipitation of hydrated niobium oxide (niobic acid) from potassium niobate and sulfuric acid solutions

10:00-10:30h – Thomas Hazlehurst (University of Leeds) Machine Learning Based Automatic Crystal Measurement and Growth Analysis

10:30-11:00h – Fika (Coffee-break) + Poster session

#### **SESSION 4 - Industrial crystallization**

11:00-11:30h – Kirstie Milne (AstraZeneca) Technologies for the Delivery of the Right Particle in Late-Stage Pharmaceutical Development





# BIWIC 2023

Stockholm - Sweden

30<sup>th</sup> August – 1<sup>st</sup> September



11:30-12:00h – Laureline Marc (Sulzer Chemtech AG) Towards a solution to prevent encrustation in Couette-Taylor continuous crystallizer set-up

12:00-12:30h – Jonathan Gänsch (Max Planck Institute for Dynamics Complex Technical Systems) Optimization potential of the seeding strategy for continuous enantioselective fluidized bed crystallization

12:30-14:00h – Lunch

## SESSION 5 - Product design, characterisation and control

14:00-14:30h – Min Li (Tianjin University) Fabrication of Spherulitic Hierarchical Energetic Materials via Noncrystallographic Branching Induced by Polymer Additives: A Case Study of 2,2',4,4',6,6'-Hexanitrostilbene (HNS)

14:30-15:00h – Yan Wang (Qilu University of Technology) Polymer-mediated and ultrasound-assisted crystallization of ropivacaine: crystal growth and morphology modulation

15:00-15:30h – Mahmoud Ranjbar (University of Limerick) Pat assisted estimation of the kinetic parameters during the crystal growth of paracetamol in isopropanol

15:30-16:00h – Fika (Coffee-break) + Poster session

16:00-18:00h – Social activities (KTH Guided Tour / Football tournament)

19:00-23:00h – Conference Dinner at the Vasa Museet

## **Friday, September 1<sup>st</sup>**

09:00-09:30h – Arrival

## SESSION 6 – Industrial Crystallization

09:30-10:00h – Robert Kiefel (Aachen University) Feasibility assessment of a three-phase reactive crystallizer for pH swing carbon capture processes

10:00-10:30h – Joshi Bhaskar (Norwegian Institute of Science and Technology) Recovering Lithium Carbonate Using Gas -- Liquid Reactive Crystallization Of Lithium Hydroxide And Carbon Di-Oxide

10:30-11:00h – F.E. Genceli Güner (Istanbul Technical University) Eutectic Freeze Crystallization Investigations on NiSO<sub>4</sub>-CoSO<sub>4</sub>-H<sub>2</sub>O System

11:00-11:30h – Fika (Coffee-break) + Poster session

## SESSION 7 – Industrial Crystallization

11:30-12:00h – Alice Jarošíková (Ben Gurion University of the Negev) Crystallization of vivianite for phosphorus recovery from wastewater

12:00-12:30h – Cledwyn Mangunda (KTH Royal Institute of Technology) Vanadium Crystallization from High Tenor Bayer Liquor

12:30-13:00h – Awards + Closing words

