

**27th International Workshop on Industrial Crystallization  
BIWIC 2022  
31 August – 2 September 2022, Dipoli, Otakaari 24, Espoo****Programme****Wednesday 31 August**

14.00 Otaniemi campus tour, Building of School of Chemical Engineering, main entrance of Kemistintie 1, Espoo  
17-19.30 Get-together party Aalto, Signing-up of registered participants, Dipoli

**Thursday 1 September**

Aalto, Dipoli, Lumituuli hall

8-10 Signing-up of registered participants  
8.30 Opening, Dean Kristiina Kruus, School of Chemical Engineering, Aalto University

**Session 1: Crystal Structure and Morphology**

8.45 Kevin Roberts, University of Leeds, UK: No. 1  
*The Structural Pathway to the Polymorphic Forms of para Amino Benzoic acid: From Solvated Molecule through Solute Clustering and Nucleation to Crystallization*

9.15 Ivo Rietveld, University of Rouen, University Paris Cité, France: No. 2  
*The Relation between Twinning and Disorder in the  $\gamma$  Form of Pyrazinamide*

9.45 Joerg Kressler, Martin Luther University Halle-Wittenberg, Germany: No. 3  
*Characterization of 15N-Labeled Poly(Sulfur Nitride)*

**10.15-11.00 Coffee and electronic poster exhibition****Session 2: Modeling and Simulation**

11.00 Wei Li, Loughborough University, UK: No. 4  
*Model Driven Crystallization Design and Development for Mefenamic Acid*

11.30 Yiming Ma, Tianjin University/China, Loughborough University/UK: No. 5  
*Design of the Cooling Crystallization Process Using the Machine Learning-based Strategy*

12.00 Huaiyu Yang, Loughborough University, UK: No. 6  
*Protein Crystallization with Gas Bubble Templates: Screening and Scaling Up*

12.30-13.30 Lunch and electronic poster exhibition

### **Session 3: Process Monitoring of Kinetic Phenomena**

13.30 Hannu Eloranta, Pixact Ltd., Finland: No. 7  
*Process Measurements Based on Inline Process Microscopy*

14.00 Jianxin Zhang, Aalto University, Finland: No. 8  
*Monitoring of Cobalt Carbonate Precipitation by Raman Spectroscopy*

14.30 Nahla Osmanbegovic, Aalto University, Finland: No. 9  
*Nucleation Kinetics of Ice Crystallization with Various Aqueous Solutions*

15.00-15.20 Coffee and electronic poster exhibition

16.00 Football game (Otaniemi campus)

19.00 Boat cruise from Otaniemi ('Otaniemi' dock), Conference dinner at 20-22.30 at Sipuli Restaurant, Helsinki

## **Friday 2 September**

Aalto University, Dipoli, Lumituuli hall

### **Session 4: Recovery and Recycling of Chemicals and Metals 1**

8.30 Astrid Seifert, TU Dortmund University, Germany: No. 10  
*Inert Crystallization and Crystal Product Separation for Effective Recycling of Homogeneous Catalysts*

9.00 Steffi Wuensche, Max Planck Institute for Dynamics of Complex Technical Systems, Germany: No. 11  
*Purification of the Antimalarial Artemisinin from Crude Plant Extract Using a Combination of Adsorption and Antisolvent Cooling Crystallization*

9.30 Jonathan Gängsch, Max Planck Institute for Dynamics of Complex Technical Systems, Germany: No. 12  
*Applicability of Fluidized Bed Crystallization for Continuous Resolution of Enantiomers Featuring Needle-shaped Crystals*

10.00-10.30 Coffee and electronic poster exhibition

### **Session 5: Crystallization Kinetics**

10.30 Christos Xiouras, Janssen Pharmaceuticals, Belgium: No. 13  
*Influence of Different Supersaturation Representations on Crystallization Kinetic Models*

11.00 Leif-Thore Deck, ETH Zurich, Switzerland: No. 14

*Fundamental Considerations Regarding the Stochastic Nature of Nucleation*

11.30 Charline Gerard, Rouen-Normandie University, France: No. 15

*Multi-scale Nucleation Rate Measurements of Co-crystals: Comparison of Stirred Vials and Microfluidics*

12.00 Ruel Cedeno, CNRS Aix-Marseille University/France, Vidyasirimedhi Institute of Science and Technology/Thailand: No. 16

*Microfluidic Approach for Quantifying Nucleation Kinetics*

12.30-13.30 Lunch and electronic poster exhibition

## Session 6: Recovery and Recycling of Chemicals and Metals 2

13.30 Manfred Stepanski, Sulzer Chemtech Ltd, Switzerland: No. 17

*Crystallization – A Key Technology for Waste Plastics Recycling*

14.00 Kerstin Forsberg, KTH Royal Institute of Technology, Sweden: No. 18

*Crystallization and Precipitation in the Recycling of Lithium-ion Batteries*

14.30 Phuong Nguyen, AbbVie Inc., US: No. 19

*Mother Liquor Recovery: Risk Assessment and Control Strategy Development*

15.00 Pekka Tynjälä, University of Oulu, Kokkola University Consortium Chydenius, Finland: No. 20

*Effect of Process Conditions on the Co-precipitation of Ni(OH)<sub>2</sub> for LNO Battery Chemical*

15.30      Closing



**Aalto University**  
**School of Chemical**  
**Engineering**



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