

BIWIC 2026 — 31st International Workshop on Industrial Crystallization

Day 1 — Wednesday, 2 September 2025

Time	Title	Speaker	Affiliation
09:00 – 10:00	Registration, Coffee		
Session 1 — Industrial crystallization and process design			
10:00 – 10:15	Opening speach		
10:15 – 10:55	CODA - An alternative process for carbon-negative and sustainable production of soda ash	Heike Lorenz	Max Planck Institute for Dynamics of Complex Technical Systems
10:55 – 11:20	Aramazing – Chemical Recycling of Aromatic Polyamides: Solubility measurements and MSMR crystallization of recycled p-phenylenediamine	Niels Hakkert	University of Twente
11:20 – 12:50	Poster session		
Session 2 — Advanced recycling of spent materials and critical materials			
12:50 – 13:50	Lunch		
13:50 – 14:15	Continuous Depolymerization and Reactive Crystallization of PET Monomers from Textiles	Vico Tenberg	Otto von Guericke University, Magdeburg
14:15 – 14:40	Selective Crystallization of Samarium, Cobalt and Iron from SmCo Magnet Leachates via Applying Eutectic Freeze Crystallization	Mert Sarıkaya	Istanbul Technical University
14:40 – 15:05	Selective Recovery of Nickel and Lithium Sulfates in Battery Recycling by Integrated Crystallization Methods	Mohammadreza Akbarkermani	KTH Royal Institute of Technology
15:05 – 15:35	Coffee break		
Session 3 — Industrial crystallization and process design			
15:35 – 16:35	Panel discussion		
16:35 – 17:00	Freeze Crystallization for the Treatment of Wastewater: Technical Challenges and Opportunities	Daniel Biri	Sulzer Chemtech
17:00 – 17:25	Eutectic Freeze Crystallization for Recycling the Waste Solutions from Sodium Borohydride Hydrolysis	Mehmet Emre Kenar	Istanbul Technical Universityn
17:25 – 17:50	Freeze crystallization via high-pressure adiabatic expansion	Bernadeth Amano	Aalto University
18:15 – 19:15	Welcome apero		

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Day 2 — Thursday, 3 September 2025

Time	Title	Speaker	Affiliation
08:30 – 09:00	Arrival, Coffee		
Session 4 — Kinetics			
09:00 – 09:25	In situ measurements of solute clustering in the crystal-solution boundary layer	Lorijn De Vrieze	KU Leuven
09:25 – 09:50	Isolating single enantiomers of APIs in minutes via ultra-fast deracemizations	Susanna Bertuletti	AMOLF
09:50 – 10:15	Visualization of crystal nucleation by dual-State emission mechanism	Hui Yu	Tianjin University
10:15 – 10:45	Coffee break		
Session 5 — Crystal structure and morphology			
10:45 – 11:25	Purification of Xanthine by Crystallization and Investigations on its Solid State	G�rard Coquerel	Laboratoire SMS UR3233- Universit� de Rouen Normandie
11:25 – 11:50	Exploring spinodal decomposition to explain polymer particle formation in flash nanoprecipitation	Sulalit Bandyopadhyay	Norwegian University of Science and Technology (NTNU), Norway
11:50 – 12:15	Particle Engineering in a Continuous Crystallizer Cascade	Torsten Stelzer	University of Puerto Rico
12:15 – 13:15	Lunch break		
Session 6 — Pharmaceuticals			
13:15 – 13:40	Continuous Downstream Crystallization and Purification of APIs : Case Studies with Timolol and Indomethacin	Rajan R Bhawnani	Massachusetts Institute of Technology
13:40 – 14:05	Crystalline Form Control in Antisolvent-Mediated Drug Impregnation	Nicole Torres Col�n	University of Puerto Rico
14:05 – 14:30	Predictive Digital Design of Pharmaceutical Crystal Habit Driven by Solvent and Crystallisation Conditions	Muhammad Asfand Yar Awan	University of Strathclyde
15:00 – 18:00	BIWIC Soccer Event + Technorama visit		
19:00 – 22:00	Conference Dinner, Casino Theater Winterthur		

BIWIC 2026 — 31st International Workshop on Industrial Crystallization

Day 3 — Friday, 4 September 2025

Time	Title	Speaker	Affiliation
08:30 – 09:00	Arrival, Coffee		
Session 7 — Industrial crystallization and process design			
09:00 – 09:25	Application of Predictive Solubility Modeling and Automated DILC Monitoring for Sustainable Crystallization Design	Tony Tian	AstraZeneca
09:25 – 09:50	Dehydration mechanism of hydrated salts	Anne Claude	Universiteit van Amsterdam
09:50 – 10:15	The Governing Mechanism of Solvent Effect on the Polymorphic Transformation from ε- to γ-CL-20	Hui Wang	Tianjin University
10:15 – 10:40	Solvate Crystallization for Industrial Separation of Organic Solvents	Adrian Flood	Vidyasirimedhi Institute of Science and Technology
10:40 – 11:10	Coffee break		
Session 8 — Novel technolgy concepts			
11:10 – 11:35	Chemical Reaction Engineering Approaches to Coprecipitation for Cathode Active Materials for Next Generation Sodium-Ion Batteries	Manishkumar Yadav	Institute of Chemical Technology Mumbai
11:35 – 12:00	The Gas Blow Coating: a Novel Crystallization Method to Produce Crystals with Selected Morphology and Polymorphism onto a Surface	Yasoda Abeykoon	University of Manchester
11:35 – 12:00	Reimagining crystallisation High Purity LiCl Production Without Chemical Additives	Fabian Gstrein	K-UTEC AG Salt Technologies
12:00 – 12:25	Validation of a Control Model for a Mechanical Wash Column in Suspension Melt Crystallization	Jonas Brodmann	FHNW, MuttENZ
12:25 – 12:40	Closing, Awards		



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Posters

Title	Speaker	Affiliation
Recovery of Components from Spent Aluminum–Air Battery Materials via Reductive Leaching and Crystallization	Sena Altun	Istanbul Technical University
Modeling Industrial Crystallization with LLM Support: Strengths, Pitfalls, and Practical Insights	Ferdinand Breit	Laboratory of Reaction and Fluid Process Engineering, RPTU University Kaiserslautern-Landau
Usefulness of phase diagrams for selective crystallization of cobalt sulfate or lithium sulfate in water	Nicolas Couvrat	Laboratoire SMS UR3233- Université de Rouen Normandie
Spherical Agglomeration of rac-Ibuprofen Using a Taylor Vortex Flow for the Maturation Step.	Zoé Delabaudiere-Le Meur	Laboratoire SMS UR3233- Université de Rouen Normandie
The effect of polyvinylpyrrolidone (PVP) on the crystallization of cobalt sulfate heptahydrate as lithium-ion battery precursors	Halide Dursun	KTH Royal Institute of Technology
A review with some examples of 40 years experiences of separation plants engineering. Some detailed examples as well as history and outlook of MDI purification.	Peter Faessler	Senior technical consultant
Sustainable Copper Recovery from SmCo Magnet Waste Using H ₂ O ₂ -Assisted Leaching and Eutectic Freeze Crystallization	Fatma Elif Genceli Güner	Istanbul Technical University
Real-Time Image-Based Inline Measurement Technology	Marc Hofmann	Inline Process Solutions
Combined Inline Turbidity and Crystal Morphology Measurements to Monitor Reactive Crystallization	Markus Honkanen	Pixact
High-speed Inline Process Microscopy for Optimization of Mixing during Crystallization	Markus Honkanen	Pixact
Mother Liquor Concentration and Recycling for API and Solvent Recovery in Cooling Crystallisation: Distillation vs Organic Solvent Nanofiltration	Yusuf Khan	University of Strathclyde
Where Crystallization Process Meets Form Phase Map for Crystal Form Control	Shanming Kuang	PharmaBlock Sciences
From Crystal Structure Determination to Morphology Prediction: Insights into Curcuminoid Solvates	Laura Lamkowski	Max Planck Institute for Dynamics of Complex Technical Systems
Application of reactive crystallization in biocatalytic synthesis	Jan von Langermann	Otto-von-Guericke-Universität Magdeburg
Preferential crystallization by chirality transfer using chiral and prochiral molecules for the enantiomer separation	Alexis Leborgne	University of Rouen / VISTEC

Title	Speaker	Affiliation
Understanding Precipitation of Iron Phosphate from Chloride Containing Battery Leachate	Hizbullah Malik	Norwegian University of Science and Technology
Batch Crystallization for Contributing to the Industrial Treatment Process of Nuclear Fuel Waste	Takashi Mikami	Niigata University
Rethinking Crystallization Control through Biomineralization: Lessons from Echinoids	Valentina Perricone	KTH Royal Institute of Technology
On the metathesis–antisolvent crystallization route for Ni–Mn–Co recovery from acidic chloride battery leachates	Erik Prasetyo	Norwegian University of Science and Technology NTNU
Study on Reaction Crystallization Contributing to the Selective Synthesis of Pharmaceutical Active Ingredient Cocrystals	Keita Sato	Niigata University
Evaporative Coupled with Antisolvent Crystallization for Additive Manufacturing of Personalized Solid Dosage Forms	Torsten Stelzer	University of Puerto Rico
Design of a Data-driven Crystallization Process Control Framework: Model Predictive Control Based on Data Augmentation and Multi objective Decision-making	Ying Sun	Tianjin University
Antisolvent Crystallization for the Recovery of Critical Metals from Spent Lithium-Ion Batteries	Samaneh Teimuri	KTH Royal Institute of Technology
Solvent Screening for Recrystallization of 1H-Benzotriazole and the process optimization	Zhenbei Wang	Tianjin University
Co-crystallization of Ascorbic Acid with Sucrose and Erythritol	Lek Wantha	Suranaree University of Technology
Sending Ritonavir to Space and Back – Drug Development Enabled by Specially Designed Hardware to Perform in Microgravity	William Wittbold	Varda Space Industries
Mechanistic Insights into Morphological Control of Energetic Cocrystals Critical Factors and Underlying Mechanisms in CL-20HMX Systems	Shifan Xu	Tianjin University
Crystallization-Controlled Polymorphism Enables Distinct Natural-Light-Driven Actuation in an Organic Crystal	Jiaxuan Zhu	Tianjin University