

ISIC 2026 Tentative program *					
6 September / Sunday					
12:00	Conference office / Registration opens				
	Helia	Panorama	Mercure		
14:00-15:45	Workshop & Tutorial: Crystallization process monitoring and control	Workshop & Tutorial: Industrial crystallization fundamentals	Workshop & Tutorial: Aspects of industrial crystallization		
15:45-16:15	Coffee break for workshop attendees				
	Helia	Panorama	Mercure		
16:15- 17:45	Workshop & Tutorial: Crystallization process monitoring and control	Workshop & Tutorial: Industrial crystallization fundamentals	Workshop & Tutorial: Aspects of industrial crystallization		
	Helia				
18:00-18:15	Welcome note				
18:15-19:00	Plenary lecture / Zoltán Nagy (Purdue University, United States): Uncertainty-aware digital design and quality-by-control for intensified crystallization systems: from mechanistic models to AI across scales and industries				
19:00-21:00	Welcome reception / Gallery				
7 September / Monday					
8:00	Conference office / Registration opens				
	Helia				
8:30-8:45	Welcome session				
	Session chair:				
8:45-9:30	Plenary lecture / Michael F. Doherty (University Of California, United States): Modeling crystal growth for molecular crystals – from the academy to the workplace				
9:30-10:15	Plenary lecture / Elena Simone (Politecnico di Torino, Italy): Engineering crystalline formulations for pharmaceutical and food applications: an experimental and multi-scale modelling approach				
10:15-10:45	Coffee break / Gallery				
	1. Fundamentals of crystallization (thermodynamics, kinetics, polymorphism, etc.)	2. Crystallization in fine chemicals, specialty & life-science industries	3. Developments in large-scale industrial crystallization		
	Helia	Panorama	Mercure		
	Session chair:	Session chair:	Session chair:		
10:45-11:05	Keynote lecture / Christos Xiouras (Johnson & Johnson Innovative Medicine, Belgium): Supersaturation in Crystallization: Implications for Kinetics and Solid-State Outcomes	Keynote lecture / Filipa Castro (University of Minho, Portugal): Workflow for whey proteins crystallization process design	Keynote lecture / Katalin Kátainé Fadgyas (EGIS Pharmaceuticals Plc., Hungary): Crystallization scale up challenges in DS development		
11:05-11:25	Arthur Salmon (CentraleSupélec, France): Cold plasma induced the nucleation of supersaturated aqueous glycine	Carlos A. Pons Siepermann (Merck Sharp & Dohme, United States): Commercial scale process development for the crystallization, isolation, and drying of novel macrocyclic peptide intermediates of enlclotide decanoate	Bilal Ahmed (University of Strathclyde, United Kingdom): Scale-up framework for spherical agglomeration: process development and performance from lab to industrial manufacturing scale		
11:25-11:45	Melinda Majerová (Slovak Academy of Sciences, Slovakia): Influence of particles size on thermal behavior and crystallization kinetics of gehlenite glasses	Vivek Verma (University College Cork, Ireland): Engineering crystallisation for biopharmaceutical purification	Bart Rimez (Secoya Technologies SRL, Belgium): Upscaling continuous flow nucleation of pharmaceutical processes		
11:45-12:05	Lorijn De Vrieze (KU Leuven, Belgium): Why the notion of a complex crystal-solution boundary layer might be unnecessary to explain secondary nucleation	Lek Wantha (Suranaree University of Technology, Thailand): Crystallization of polymorphs and hydrates of L-lysine hydrochloride	Athanasios Arampatzis (National Technical University of Athens, Greece): Upscaling microwave assisted crystallization designs: from batch proof-of-concept to continuous operation		
12:05-13:05	Lunch break / Episode restaurant				
13:05-14:35	Poster session 1 / Uranus				
	1. Fundamentals of crystallization (thermodynamics, kinetics, polymorphism, etc.)	2. Crystallization in fine chemicals, specialty & life-science industries	4. Crystallization for sustainability		
	Helia	Panorama	Mercure		
	Session chair:	Session chair:	Session chair:		
14:35-14:55	Keynote lecture / Sven L. M. Schroeder (University of Leeds, United Kingdom): Prediction of homogeneous crystal nucleation rates from solubility through Eyring-Polanyi Rate Theory: protic vs non-protic solvents	Keynote lecture / Henrik Julian Felix Bettin (Heinrich-Heine-Universität Düsseldorf, Germany): Small-scale antisolvent nucleation for high-quality products in an Archimedes Tube Crystallizer	Keynote lecture / Marco Mazzotti (ETH Zurich, Switzerland): Solid-state deracemization processes for conglomerate-forming chiral compounds: theory, modelling, and experiments		
14:55-15:15	Shuntaro Amari (Tokyo University of Agriculture and Technology, Japan): Inducing nucleation in cooling crystallization using a temperature-responsive polymer	Il Won Kim (Soongsil University, South Korea): Cocrystallization of APIs to improve their hygroscopic stability	Yusuf Sadat Hasan Khan (ETH Zurich, United Kingdom): Enhancing product yield, purity and sustainability by API and solvent recycling in pharmaceutical cooling crystallisation		
15:15-15:35	Lucas M. Nahas (University of Strathclyde, United Kingdom): In situ generation of seed populations by partial dissolution: effects of seed surface area and supersaturation on secondary nucleation rate	Hanan Elhadjaji (Sanofi / Centralesupelec, France): Cold plasma-induced nucleation of paracetamol in a 1L stirred tank reactor	Ren Tao (KTH Royal Institute of Technology, Sweden): Selective recovery of rare Earth elements using tunable deep eutectic solvents and antisolvent crystallization		
15:35-15:55	Mae Macleod (University of Strathclyde, United Kingdom): Exploring interfacial effects on heterogeneous nucleation using molecular dynamics	Leon Yoon Ho (Singapore-MIT Alliance for Research and Technology, Singapore): Bottom-up production of crystalline suspensions of small-molecule actives and optimising filtration as concentration step	Ivan Červeňanský (Slovak University of Technology, Slovakia): Exploring the potential of hollow fibre anion exchange membrane modules for reactive membrane crystallization of magnesium hydroxide		
15:55- 16:25	Coffee break / Gallery				
	6. Crystal engineering (polymorphism prediction, crystal habit control)	7. Data-driven modeling, data science for design, control and technology transfer	9. Mechanistic modeling and numerical/analytical solution methods		
	Helia	Panorama	Mercure		
	Session chair:	Session chair:	Session chair:		
16:25-16:45	Keynote lecture / Rajan R. Bhawnani (Massachusetts Institute of Technology, United States): Polymorph control of indomethacin in continuous crystallization	Keynote lecture / Antonello Raponi (Ecole des Mines de Saint Etienne, France): Multivariate optimization and inverse design of multiphase reactive systems via deep learning and 3D CFD-PBM simulations	Keynote lecture / Arne Bringewatt (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany): Inverse design of nanocrystal shapes in the kinetic regime		
16:45-17:05	Hui Wang (Tianjin University, China): The governing mechanism of solvent effect on the polymorphic transformation from ε- to γ-CL-20	Mohammed Alsubeihi (The University of Manchester, United Kingdom): Hybrid SciML for population balance equations: insights, limitations, and future directions	Ferdinando D. Miciletta (Università degli Studi di Palermo, Italy): Numerical modeling of the Mg(OH)2 precipitation process in Double Feed Semi-Batch Reactors		
17:05-17:25	Giulia Del Duca (Politecnico di Torino, Italy): Investigating the influence of polymorphism in the stabilization of Pickering formulations for encapsulation and controlled release of active ingredients	Joseph F. McHale (University of Leeds, United Kingdom): An adaptive neural ODE-based model predictive control for batch cooling crystallisation	Katherine Young (Purdue University, United States): Population balance modeling of crystallization systems with kinetic-controlled incorporation of structurally similar impurities		
17:25-17:45	Yashoda Abeykoon (University of Manchester, United Kingdom): Simple and low-cost crystallization of elusive form II paracetamol onto edible substrates for tablet-free drug delivery	Martin Prostredny (CMAC / University of Strathclyde, United Kingdom): Crystallisation screening data factory: a cyber-physical system for data-driven QbDD	Abdul Samad Rana (University of Leeds, United Kingdom): Well-mixed and segregated feed population balance modelling of semi-batch precipitation for calcium oxalate		
		Panorama			
17:50-18:50	EFCE WP meeting (by invitation only)				
18:30-20:30	City center walking tour				
20:30-22:00	Wine tasting / Domus Vinorum				
8 September / Tuesday					
8:30	Conference office / Registration opens				
	Helia				
	Session chair:				
08:45-09:30	Plenary lecture / Hiroshi Takiyama (Tokyo University of Agriculture and Technology (TUAT), Japan): Operation design of pH modulation for controlling internal seeding in reactive crystallization				
09:30-10:15	Plenary lecture / Kerstin Forsberg (KTH - Royal Institute of Technology, Sweden): Crystallization challenges and opportunities in critical raw materials processing				
10:15-10:40	Coffee break / Gallery				
	6. Crystal engineering (polymorphism prediction, crystal habit control)			2. Crystallization in fine chemicals, specialty & life-science industries	1. Fundamentals of crystallization (thermodynamics, kinetics, polymorphism, etc.)
	Helia	Panorama	Mercure		
	Session chair:	Session chair:	Session chair:		
10:40-11:00	Keynote lecture / Muhammad Asfand Yar Awan (University of Strathclyde, United Kingdom): Digital design of pharmaceutical crystal habit: coupling bayesian-optimized high-throughput screening with physics-based modelling	Keynote lecture / Muvhulawa Mulaudzi (University of Cape Town, South Africa): In-situ precipitation of M(OH)3 nanoparticles for removal of contaminants of emerging concern from potable water	Zhaopeng Wang (Delft University of Technology, Netherlands): Improving accuracy in polythermal solubility measurements: challenges, error sources, and practical remedies		
11:00-11:20	Lily M. Hunnisset (The Cambridge Crystallographic Data Centre, United Kingdom): A digital approach to assessing polymorphic risk using CSD informatics and energetics methods	Jiaqi Wang (Aalto University, Finland): Separation of Nb and Ni from dissolved NMC cathode active materials via hydroxide precipitation	Farha Kamaal (CMAC / University of Strathclyde, United Kingdom): Comparative analysis of antisolvent crystallisation routes: assessing the impact of thermal and solvent-addition pathways on solubility and kinetic measurements		
11:20-11:40	Zoé Delabaudiere-Le Meur (Université de Rouen, France): Spherical agglomeration of benzoic acid using a taylor vortex flow for the maturation step	Marco Mazzotti (ETH Zurich, Switzerland): Batch heterogeneity in lyophilization: the interplay between stochastic freezing and drying kinetics	Jenna Johnston (University of Strathclyde, United Kingdom): The effect of PSD on dissolution rates and clear point detection for dynamic solubility measurements		
11:40-12:00	Jiaxuan Zhu (Tianjin University, China): Engineering polymorphism through crystallization for predictable light-induced actuation in organic crystals	Maristella Roberto (Politecnico di Torino, Italy): Design of crystalline oleogels using insect fats for food applications	Lukas D. Shelton (Rowan University, United States): Pharmaceutical crystal growth in the presence of impurities: linking transport phenomena to composition anisotropy		
12:00-12:20	Yevhenii Vaksler (Janssen Pharmaceutical Companies of Johnson & Johnson, Belgium): Crystal habit modelling: from proof of concept to simulation methods				
12:20-13:20	Lunch break / Episode restaurant				
13:20-14:50	Poster session 2 / Uranus				
	3. Developments in large-scale industrial crystallization	4. Crystallization for sustainability	8. Advances in process monitoring		
	Helia	Panorama	Mercure		
	Session chair:	Session chair:	Session chair:		
14:50-15:10	Keynote lecture / Brahim Benyahia (Loughborough University, United Kingdom): A systematic uncertainty-resolved framework for reliable process design in industrial crystallization	Keynote lecture / H. Burak Eral (TU Delft, Netherlands): Engineering thermocavitation bubble interactions for nucleation control	Keynote lecture / Swathi Ganesh (Massachusetts Institute of Technology, United States): Soft sensor for particle size monitoring in LNP manufacturing		
15:10-15:30	Andrea Adamo (Zaiput Flow Technologies, United States): Benchmark study of tower crystallization – leveraging plug-flow characteristics	Xin Su (Tianjin University, China): Unlocking efficient spontaneous deracemization: a MOF-mediated heterogeneous system overcomes catalytic incompatibility in cocrystallization	Hari Priya Ravindran (Paul Scherrer Institute, Switzerland): Investigation of additives in early-stage solid formation via in-situ monitoring – A potentiometric and optical approach		
15:30-15:50	Zoran Bjelobrk (DSM-Firmenich, Switzerland): Importance of understanding crystallization mechanisms for rational design of robust and efficient industrial crystallization processes	Karina Olinnyk (Max Planck Institute for Dynamics of Complex Technical Systems, Germany): Adapting a continuous chiral inversion process from L-/D-Asparagine to the diastereomeric L-/D-allo-Threonine system	György N. Stöffán (Budapest University of Technology and Economics, Hungary): Development and application of a machine vision technology for the online monitoring and controlling of API polymorphism during crystallisation		
15:50-16:10	Sophie Janbon (AstraZeneca, United Kingdom): From amorphous to manufacturable: precipitation and continuous processing	Clément Lemonnier (IFP Energies Nouvelles, France): Impact of hydrodynamics on coprecipitation of precursors to lithium-ion batteries cathode active materials	Mauro Davanzo (University of Padova, Italy): Calibrating API crystallization models with limited industrial datasets: feasibility and impact		
16:10-16:15	Break				
	1. Fundamentals of crystallization (thermodynamics, kinetics, polymorphism, etc.)	6. Crystal engineering (polymorphism prediction, crystal habit control)	4. Crystallization for sustainability		
	Helia	Panorama	Mercure		
	Session chair:	Session chair:	Session chair:		
16:15-16:35	Keynote lecture / Hui Yu (Tianjin University, China): Visualize the process of crystal nucleation and growth in solution through fluorescence changes	Keynote lecture / Agustinus Rio Sunardi (University of Manchester, United Kingdom): Size and shape manipulation via antisolvent crystallisation: an experimental approach to transform elongated crystals to equant ones	Keynote lecture / Jaime Gómez Morales (Andalusian Institute of Earth Sciences, Spain): Sustainable low-temperature approach for nano-hydroxyapatite crystallization from clam and scallop shells waste		
16:35-16:55	Katharina Edkins (University of Strathclyde, United Kingdom): The influence of trace water on the solution aggregation of drug molecules towards crystallisation	Huiqi Wang (Tianjin University, China): Controllable synthesis of spherical FePO4·2H2O: formation mechanisms and key influencing factors	Martina G. Baeli (Politecnico di Torino, Italy): Design and optimization of crystallization processes for well water purification		
16:55-17:15	Céline Huat (Aix-Marseille Université, France): Structured glycine aggregates in saturated solution as the source of "memory effect" in crystal nucleation: a microfluidic / LF-NMR study	Dave F. Collins (University of Leeds, United Kingdom): Translating angle resolved polarised raman spectroscopy (ARPRS) to molecular orientation on individual facets of organic crystalline materials	Arulselvan Ponnudurai (Max Planck Institute for Dynamics of Complex Technical Systems, Germany): Precipitation and fractionation of lignins from organic solvents and pulping liquors		
17:15-17:35	Alexandre Courac (IMPMC - Sorbonne Université, France): Phase diagrams at high pressure for single crystal growth of elements: in situ XRD and CALPHAD simulation of Mg-C, Na-Si, B-C and B-Pt systems	Lessona Michele (Politecnico di Torino, Italy): A combined thermodynamic modelling and Bayesian Neural Networks approach for a rational formulation of triacylglycerols mixtures and design of fat-based products	Gerard Capellades (Rowan University, United States): Crystallization archive (CryArc): an open access library for solubility and standardized kinetic constants		
19:00-23:00	Dinner cruise / Europe boat				
9 September / Wednesday					
8:30	Conference office / Registration opens				
	Helia				
	Session chair:				
08:45-09:30	Plenary lecture / Jerry Heng (Imperial College London, United Kingdom): The peptide crystallisation paradox				
09:30-10:15	Plenary lecture / Neda Nazemifard (Takeda Pharmaceuticals, United States): In silico first crystallization: coupling thermodynamics, kinetics, and population balance modeling in an agentic workflow				
10:15-10:40	EFCE Working Party award lecture				
10:40-11:10	Coffee break / Gallery				
	3. Developments in large-scale industrial crystallization	5. Integrated process design: crystallization in the industrial process chain (reaction – work-up – recycle)	7. Data-driven modeling, data science for design, control and technology transfer		
	Helia	Panorama	Mercure		
	Session chair:	Session chair:	Session chair:		
11:10-11:30	Keynote lecture / Huaiyu Yang (Loughborough University, United Kingdom): Protein crystallisation with gas-bubble templates: scale-up and real-time PAT monitoring	Keynote lecture / Zsófia Szalay (Richter Gedeon Nyrt., Hungary): Integrated crystallization – wet milling approach for robust particle size and polymorph control	Keynote lecture / Vinay Kumar Reddy Cheemarla (APC Ltd., Ireland): SoluAI – AI-enabled solubility modelling for crystallisation process design		
11:30-11:50	Veronica Kras (AstraZeneca, United Kingdom): From molecule to manufacture: crystallisation process development to deliver optimal particles for downstream processing	Tyler J. Downard (Purdue University, United States): Integration of wet milling and batch crystallization for size control and physical property improvement of solid rocket propellant ingredient	Huitian Yu (Technical University of Munich, Germany): Robust inline growth-rate sensing for cascaded model-predictive control of crystallization processes		
11:50-12:10	Subhrajit Swain (University of Limerick, Ireland): Enhancing nucleation in antisolvent crystallization using hydrodynamic cavitation: differences and similarities in paracetamol and carbamazepine systems	Nathaniel Michael (Purdue University, United States): Digital design and experimental validation of integrated crystallization and wet milling systems for ammonium perchlorate crystal size control	Josip Budimir Sacher (University of Zagreb, Croatia): External direct nucleation control with an industrially oriented apparatus: from laboratory concept to robust PLC-based implementation		
12:10-12:30	Adam C. Keates (Syngenta, United Kingdom): A modern particle science workflow for industrial crystallisation: bridging fundamental science to final product	Lutz Gerkensteimer (TU Dortmund University, Germany): The role of washing dynamics in the integrated process of suspension melt crystallization	Ziyi Liu (Tianjin University, China): Crystal-engineered degradable MOFs as a dual-confinement platform for supersaturated oral drug delivery		
12:30-12:50	Torsten Stelzer (University of Puerto Rico, Puerto Rico): Bridging chemistry and crystallization science: an integrated process design for API synthesis and purification using bio-derived building blocks and solvents	Marc P. Meier (HHU Düsseldorf, Germany): Flexible and reliable particle isolation for next-generation integrated continuous manufacturing	Anna Jawor-Baczynska (AstraZeneca, United Kingdom): The deployment of 2D population balance modelling to optimise particle processability in pharmaceutical crystallisation processes		
	Helia				
12:50-13:10	Closing				
13:10	Lunch break				

*The organizers reserve the right to make changes in the program!
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