

Program of Session A

Fundamentals of Nucleation and Crystal Growth

A1: August 4 (Monday), 14:00-15:00

Room: International Reporting Hall (Third Floor)

Chair: Alexander E.S. Van Driessche (IACT-CSIC)

14:00-14:20	A01 (Oral) Chiral crystallization directed by superchiral near-field Hiromasa Niinomi, Tohoku University, JAPAN
14:20-14:40	A02 (Oral) The effect of solvents on crystallization process studied by single crystal nucleation spectroscopy (SCNS): the case of 4-hydroxybenzoic acid Hozumi Takahashi, The University of Osaka, JAPAN
14:00-15:00	A03 (Oral) Advances in Heteroepitaxial Nucleation and Growth of Single-Crystalline Diamond Bing Dai, Harbin Institute of Technology, CHINA

A2: August 4 (Monday), 16:00-17:30

Room: International Reporting Hall (Third Floor)

Chair: Ken-ichiro Iurata, Hokkaido University

16:00-16:30	A04 (Invited) Beyond Bimodal: Rethinking Heterogeneous vs. Homogeneous Nucleation Alexander E.S. Van Driessche, IACT-CSIC, SPAIN
16:30-16:50	A05 (Oral) The Seed of Order: Amorphous Aggregates as cradle of Crystal Nucleation Zhiyu Liao, University of Glasgow, UNITED KINGDOM
16:50-17:10	A06 (Oral) Effect of Deuteration on Glycine Crystallization: In Situ Raman Spectroscopy Insights into Non-Classical Nucleation and Polymorph Stability Zihan Li, University of Geneva, SWITZERLAND
17:10-17:30	A07 (Oral) Beauty and complexity of calcium carbonate precipitation: optical microscopy and in situ Raman microspectroscopy characterization Natercia Barbosa, University of Geneva, SWITZERLAND

A3: August 5 (Tuesday), 11:00-12:30

Room: International Reporting Hall (Third Floor)

Chair: Takayuki Nakamuro (The University of Tokyo)

11:00-11:30	A08 (Invited) Precision Synthesis of Nanocrystals and their Structure-Activity Relation Investigations using in situ Liquid Phase Transmission Electron Microscopy Wenhui Wang, Beihang University, CHINA
11:30-11:50	A09 (Oral) Non-equilibrium Polymorphic Fluctuation in Al ₂ O ₃ Crystal Nucleation Masaya Sakakibara, Institute of Low Temperature Science, Hokkaido University, JAPAN
11:50-12:10	A10 (Oral) Crystallization of DNA-functionalized nanoparticles in microdroplets Saki Kozawa, Nagoya University, Nagoya, JAPAN
12:10-12:30	A11 (Oral) Search for plastic phase of ice in 1D confined spaces Pablo Francisco Ibáñez Ibáñez, Zhejiang University, CHINA

A4: August 5 (Tuesday), 14:00-15:40

Room: International Reporting Hall (Third Floor)

Chair: Wenhui Wang (Beihang University)

14:00-14:30	A12 (Invited) On the growth mechanism of Al ₂ O ₃ crystal spheres prepared by flame fusion method based on visualization of polycrystalline structure by network graph Noritaka Usami, Nagoya University, JAPAN
14:30-15:00	A13 (Invited) Characterization of Acentric Barium Chalcogenides for Mid-IR Nonlinear Frequency Conversion Valentin Petrov, Max Born Institute, GERMANY
15:00-15:20	A14 (Oral) Compositional effects on the engulfment of particles during crystal growth Jeffrey Jay Derby, University of Minnesota, USA
15:20-15:40	A15 (Oral) Exploration of Molecular Science Using Transmission Electron Microscopy Takayuki Nakamuro, The University of Tokyo, JAPAN

A5: August 5 (Tuesday), 16:00-17:20

Room: International Reporting Hall (Third Floor)

Chair: Kenji Mochizuki (Zhejiang University)

16:00-16:30	A16 (Invited) Dynamics of homoimmiscible water at the interface between water and ice Hiromasa Niinomi, Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, JAPAN
16:30-17:00	A17 (Invited) Deliquescence revisited: a link between wetting transitions and the thermodynamic stability of deliquescent films Ken-ichiro Murata, Institute of Low Temperature Science, Hokkaido University, JAPAN

17:00-17:20 **A18 (Oral)**
Effects of ambient nitrogen gas on the growth kinetics of elementary spiral steps on ice crystal surfaces
Yuheng Zhao, Institute of Low Temperature Science, Hokkaido University, JAPAN

A6: August 6 (Wednesday), 9:00-10:30

Room: International Reporting Hall (Third Floor)

Chair: Hiromasa Niinomi (Tohoku University)

9:00-9:30	A19 (Invited) Hot-pressing growth of perovskite single crystal films and photoresponse performance Gang Lian, Shandong University, CHINA
9:30-9:50	A20 (Oral) Surface melting of biphenyl crystals observed by advanced optical microscopy Harutoshi Asakawa, Yamaguchi University, JAPAN
9:50-10:10	A21(Oral) Picosecond-scale water rotation in C ₂ hydrate achieved through a continuous change Qianli Xue, Zhejiang University, CHINA
10:10-10:30	A22 (Oral) Crystallization of Ice Ic from Ice XVII Kenji Mochizuki, Zhejiang University, CHINA

A7: August 6 (Wednesday), 11:00-12:10

Room: International Reporting Hall (Third Floor)

Chair: Gen Sazaki (Hokkaido University)

11:00-11:30	A23(Invited) High Temperature Material Racks and Microgravity Crystal Growth in China Space Station Xuechao Liu, Shanghai Institute of Ceramics, CAS, CHINA
11:30-11:50	A24 (Oral) HCl droplets induced bunched steps on ice crystal surfaces under atmospheric-concentration HCl gas Ken Nagashima, Hokkaido University, JAPAN
11:50-12:10	A25 (Oral) Unreported ice crystals accessible from the compression of hydrogen-ordered ice Ic Xuan Zhang, Zhejiang University, CHINA

A8: August 7 (Thursday), 11:00-12:30

Room: International Reporting Hall (Third Floor)

Chair: Harutoshi Asakawa (Yamaguchi University)

11:00-11:30	A26 (Invited) Crystal growth of high quality lithium niobate and its optical device Yuanhua Sang, Shandong University, CHINA
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11:30-11:50	A27 (Oral) Flexible optoelectronic devices of nitride by using van der Waals epitaxy Yang Chen, Jilin University of Finance and Economics, CHINA
11:50-12:10	A28 (Oral) Anisotropic interfacial energy and equilibrium morphology of crystals grown from room and high temperature solutions Alexandra Peña Revellez, Institut Néel, FRANCE
12:10-12:30	A29 (Oral) Potassium vacancy influences on periodic ferroelectric domain nucleation and growth of KTiOPO_4 crystal Yukun Song, State Key Laboratory of Crystal Materials, Shandong University, CHINA
A9: August 7 (Thursday), 14:00-15:50 Room: International Reporting Hall (Third Floor) Chair: Alexandra Peña Revellez (Institut Néel)	
14:00-14:30	A30 (Invited) Exploring melt/crystal interface dynamics in multicrystalline silicon ingot growth with varying germanium co-dopant concentrations Srinivasan Manickam, Sri Sivasubramaniya Nadar College of Engineering, INDIA
14:30-14:50	A31(Oral) Numerical simulation of dissolution and growth process of InGaSb crystal growth under different gravity conditions Xin Jin, Tsinghua University, CHINA
14:50-15:10	A32 (Oral) Analysis of Axial Resistivity During SiC Crystal Growth by PVT Method Lingling Xuan, Zhejiang University, CHINA
15:10-15:30	A33 (Oral) Growth kinetics of biphenyl crystals grown from vapor Harutoshi Asakawa, Yamaguchi University, JAPAN
15:30-15:50	A34 (Oral) A deep-ultraviolet nonlinear-optical material with a wide bandgap and large static dielectric polarizability coefficient: $\text{Na}_6\text{Si}_3\text{F}_{18}$ Changcheng Tang, Wu Yi University, CHINA