

Program of Session B

Bulk Crystal Growth

B1: August 4 (Monday), 14:00-15:15

Room: 313

Chair: Liangbi Su

14:00-14:30	B01 (Invited) Sapphire shaped crystal growth under stationary stable regime and the ways to overcome defects propagation Kheirreddine Lebbou, Institut Lumière Matière, Université de Lyon, FRANCE
14:30-14:45	B02 (Oral) Growth of rare earth orthochromites single crystals and properties study Roman Lanovsky, Institute of Solid State and Semiconductor Physics, Belarus National Academy of Sciences, BELARUS
14:45-15:00	B03 (Oral) Bubbles defects in sapphire single crystals grown by the Kyropoulos Technique under a reducing gas atmosphere Nicolas Pruneau, Institut Lumière Matière, FRANCE
15:00-15:15	B04 (Oral) Study on step growth of 3C-SiC based on lattice kinetic Monte Carlo method Wensen Ai, School of Energy and Power Engineering, Xi'an Jiaotong University, CHINA

B2: August 4 (Monday), 16:00-17:15

Room: 313

Chair: Kheirreddine Lebbou

16:00-16:30	B05 (Invited) Achieving orientated crystal growth by self-seeding Bridgman method Hongsheng Shi, Zhejiang University of Science & Technology, CHINA
16:30-16:45	B06 (Oral) Challenges of energy consumption and crucible materials in bulk crystal growth from melt Kaspars Dadzis, Leibniz-Institut für Kristallzüchtung (IKZ), GERMANY
16:45-17:00	B07 (Oral) Single crystal growth and properties of complex oxyborates Sergei Barilo, Institute of Solid State and Semiconductor Physics, Belarus National Academy of Sciences, BELARUS

17:00-17:15 **B08 (Oral)**
Numerical study of heater length and crucible position in Continuous Czochralski Silicon
Wenjia Su, Jiangsu University, CHINA

B3: August 5 (Tuesday), 11:00-12:15

Room: 313

Chair: Hongsheng Shi

11:00-11:30	B09 (Invited) Modified Bridgman growth and laser output properties of mid-infrared nonlinear optical crystal LiInX_2 ($X=\text{S}, \text{Se}$) Shanpeng Wang, Shandong University, CHINA
11:30-11:45	B10 (Oral) In-situ monitoring of the interface flipping phenomenon during the growth of lithium niobate crystals Zhang Danyi, Sun Yat-sen University, CHINA
11:45-12:00	B11 (Oral) Temperature-dependent stability of SiC polytypes from DFT calculations Zahra Rajabzadeh, Montanuniversität Leoben, AUSTRIA
12:00-12:15	B12 (Oral) Growth and magneto-optical properties of rare earth iron garnet and perovskite single crystals Hui Shen, Shanghai Institute of Technology, CHINA

B4: August 5 (Tuesday), 14:00-15:30

Room: 313

Chair: Kozo Fujimara

14:00-14:30	B13 (Invited) Czochralski-growth and efficient laser operation of rare-earth-doped YScO_3 crystals Christian Kränkel, Leibniz-Institut für Kristallzüchtung (IKZ), GERMANY
14:30-15:00	B14 (Invited) Crucible free bulk crystal growth of $\text{Ce}:(\text{Lu}, \text{Y})_2\text{SiO}_5$ scintillator Kei Kamada, Tohoku University, JAPAN
15:00-15:15	B15 (Oral) Experimental and numerical analysis of the heat transfer processes during the Czochralski growth of $\text{Li}_2\text{B}_4\text{O}_7$ single crystals as a function of the solid-liquid interface gradient Jose Luis Plaza, Universidad Autonoma de Madrid, SPAIN
15:15-15:30	B16 (Oral) Crystal growth of LiTaO_3 from the melt without precious metal crucibles Taketoshi Tomida, C&A Corporation, JAPAN

B5: August 5 (Tuesday), 16:00-17:15

Room: 313

Chair: Christian Kränkel

16:00-16:30	B17 (Invited) Growth of ultra-high temperature oxide crystals by Skull melting method Jiayue Xu, Shanghai Institute of Technology, CHINA
16:30-16:45	B18 (Oral) Magnetic spin textures in intercalated transition metal dichalcogenides Daniel Mayoh, University of Warwick, UNITED KINGDOM
16:45-17:00	B19 (Oral) Unlocking the hidden transition: Exploring non-polar to ferroelectric phase evolution in HfO ₂ -based bulk crystals Yihao Shen, Shandong University, CHINA
17:00-17:15	B20 (Oral) Computational analysis of radiation coefficient and axial position of the heat shield for Czochralski method β -Ga ₂ O ₃ Wenjia Su, Jiangsu University, CHINA

B6: August 6 (Wednesday), 9:00-10:30

Room: 313

Chair: Jiayue Xu

09:00-09:30	B21 (Invited) Facet kinetics in silicon growth from the melt: experiments and hypotheses Thierry Duffar, Grenoble Institute of Technology, FRANCE
09:30-10:00	B22 (Invited) Rare earth doped alkaline earth fluoride mid-infrared laser crystals Zhen Zhang, Shanghai Institute of Ceramics, Chinese Academy of Sciences, CHINA
10:00-10:15	B23 (Oral) Numerical simulation of Sb-doped CZ-Si crystal growth for HV-IGBT Shin-ichi Nishizawa, Kyushu University, JAPAN
10:15-10:30	B24 (Oral) Influence of transverse magnetic field (TMF) coil geometry on oxygen transport during Czochralski silicon crystal growth Wenkai Liu, Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, CHINA

B7: August 6 (Wednesday), 11:00-12:00

Room: 313

Chair: Thierry Duffar

11:00-11:30	B25 (Invited) The engulfment of bubbles during bulk crystal growth Jeffrey J. Derby, University of Minnesota, UNITED STATES
11:30-11:45	B26 (Oral) Electric resistivity adjustment in Czochralski grown silicon crystals by combined control of doping species Xiaomin Han, Suzhou STR Software Technology Co.,Ltd., CHINA

11:45-12:00 **B27 (Oral)**
Batch growth of large LiB_3O_5 crystals with high quality at 4-kg level
Yinchao Yue, Henan Yueneng Photoelectric Technology Co., Ltd., Hebi, CHINA

B8: August 7 (Thursday), 11:00-12:00

Room: 313

Chair: Monica Ciomaga Hatnean

11:00-11:30 **B28 (Invited)**
Czochralski growth of large radiopure Li_2MoO_4 single crystals for heat-scintillation cryogenic bolometers
Matias Velazquez, Univ. Grenoble Alpes, CNRS, Grenoble INP, SIMAP, FRANCE

11:30-11:45 **B29 (Oral)**
Investigations of the formation of the superconducting $\text{La}_3\text{Ni}_2\text{O}_7$ single crystals under different growth conditions
Daniel Mayoh, University of Warwick, UNITED KINGDOM

11:45-12:00 **B30 (Oral)**
In-situ observation and numerical investigation of the solid-liquid interface in VB growth of fluoride crystals
Yang Liu, Shanghai Institute of Ceramics, Chinese Academy of Sciences, CHINA

B9: August 7 (Thursday), 14:00-15:15

Room: 313

Chair: Jeffrey J. Derby

14:00-14:30 **B31 (Invited)**
Crystal growth of rare earth silicates using a laser-diode-heated floating zone furnace
Monica Ciomaga Hatnean, Paul Scherrer Institute, SWITZERLAND

14:30-14:45 **B32 (Oral)**
Exploration of growth and doping in $\beta\text{-Ga}_2\text{O}_3$ crystals via the micro-pulling down method
Chaoyi Zhang, Tongji University, CHINA

14:45-15:00 **B33 (Oral)**
Precursor engineering and liquid inclusions in solution-grown CsPbBr_3 bulk crystal for radiation detection
Ruichen Bai, Northwestern Polytechnical University, CHINA

15:00-15:15 **B34 (Oral)**
Bulk crystals of $\text{Y:Zn}_{1-x}\text{Mg}_x\text{Te}$ ($x=0.05\sim0.18$) ($\text{Y}=\text{Cr, Fe, P}$) were grown by travelling Te solution method
Xiaoxiao Wei, Northwestern Polytechnical University, CHINA