

Program of Session G

Characterization of Crystal Structure, Defects, Impurities and Physical Properties

G1: August 4 (Monday), 14:00-15:33

Room: 303

Chair: Chengtian Lin

14:00-14:25	G01 (Invited) A Pyroxene-based Quantum Magnet with Multiple Magnetization Plateaus Lun Jin, Southeast University, CHINA
14:25-14:42	G02 (Oral) Unravelling ferroelastic domains in CsPbBr ₃ single crystal Xinlei Zhang, Shaanxi Normal University, CHINA
14:42-14:59	G03 (Oral) Growth and characterization of Ce ³⁺ doped Al ₂ O ₃ -YAG binary and Al ₂ O ₃ -YAG-ZrO ₂ ternary eutectics Peng Chen, Kheirreddine Lebbou, Université Claude Bernard Lyon 1, FRANCE
14:59-15:16	G04 (Oral) Phase discovery and selected synthesis transition metal chalcogenides using a polychalcogenide flux method Zhongnan Guo, Fan Sun, Haoyu Yue, Wenxia Yuan, University of Science and Technology Beijing, CHINA
15:16-15:33	G05 (Oral) Copper Precipitation for Microdefect Characterization in 300 mm Near-Perfect Czochralski Silicon Fei Zhou, Zhongshi Lou, Ruixiu Li, Shuai Yuan, Deren Yang, State Key Laboratory of Silicon and Advanced Semiconductor Materials, School of Materials Science and Engineering, Zhejiang University, CHINA

G2: August 4 (Monday), 16:00-17:41

Room: 303

Chair: Jiangang Guo

16:00-16:25	G06 (Invited) In-Situ Characterization of Crystals Growing in Microgravity and in Normal Gravity Katsuo Tsukamoto, Tohoku University/Nagoya University, JAPAN
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16:25-16:50	G07 (Invited) Disordered structure in kagome antiferromagnet FeGe with a charge density wave order Chenfei Shi, Sander van Smaalen, Shixun Cao, Jinke Bao, Shanghai University, CHINA
16:50-17:07	G08 (Oral) Non-Destructive X-ray Topography for Dislocation Characterization in Silicon Carbide Crystals Yang Shan, Shandong University, CHINA
17:07-17:24	G09 (Oral) Tailoring the Mechanical Properties of CaF ₂ Single Crystals by Rare Earth Ion Doping Yeqi Zhuo, Liangbi Su, Shukuan Guo, Bo Zhang, Shanghai Institute of Ceramics, Chinese Academy of Sciences, CHINA
17:24-17:41	G10 (Oral) Mechanism of impurity content on the degradation and damage characteristics of calcium fluoride crystals by X-ray and deep-ultraviolet laser irradiation Ping Han, Liangbi Su, Huamin Kou, Chong Shan, Dapeng Jiang, State Key Laboratory of Functional Crystals and Devices, Shanghai Institute of Ceramics, Chinese Academy of Sciences, CHINA

G3: August 5 (Tuesday), 11:00-11:59

Room: 303

Chair: Dharmalingam Prabhakaran

11:00-11:25	G11 (Invited) Interface superconductivity in antiferromagnetic regime of Co-doped CaFe ₂ As ₂ Yanfeng Lyu, Nanjing University of Posts and Telecommunications, CHINA
11:25-11:42	G12 (Oral) Atomic DFT simulation and experimental TEM APT observations on the distribution of modifying solutes within eutectic Si in Al-Si based alloys Jiehua Li, Montanuniversität Leoben, AUSTRIA
11:42-11:59	G13 (Oral) Evolution of potential density-wave-like transition and superconductivity under pressure in Re ₃ Ge ₇ single crystals Li Chenglin, Ruan BinBin, Dong Qingxin, Yang Pengtao, Sun Jianping, Chen Genfu, Wang Gang, Ren Zhian, Wang Boson, Cheng Jinguang, Institute of physics, Chinese Academy of Sciences, CHINA

G4: August 5 (Tuesday), 14:00-15:24

Room: 303

Chair: Alexandra Peña Revellez

14:00-14:25	G14 (Invited) Theoretical Design of magnetoelectric coupling in 2D structures Cheng Tang, Wei Ren, Shanghai University, CHINA
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14:25-14:50	G15 (Invited) Wafer-scale cubic SiC single crystals with high hardness and excellent electrical conductivity Yunfan Yang, Zhaolong Liu, Da Sheng, Guobin Wang, Hui Li, Zesheng Zhang, Wenjun Wang, Xiaolong Chen, Institute of Physics, CAS, CHINA
14:50-15:07	G16 (Oral) Polytype Identification in Layered Boron Nitride via Impurity-Related UV Photoluminescence Jakub Iwański, Krzysztof Piotr Korona, Mateusz Tokarczyk, Grzegorz Kowalski, Aleksandra Krystyna Dąbrowska, Piotr Tatarczak, Izabela Rogala, Marta Bilska, Maciej Wójcik, Sławomir Kret, Anna Reszka, Bogdan J. Kowalski, Song Li, Anton Pershin, Adam Gali, Johannes Binder, Andrzej Wyszomolek, University of Warsaw, POLAND
15:07-15:24	G17 (Oral) Impact of ultra-thin oxide shells on structural and optical properties of GaN Marta Sobanska, Radosław Szymon, Eunika Zielony, Tomasz Stachurski, Anna Reszka, Aleksandra Wierzbicka, Sylwia Gieraltowska, Zbigniew R. Zytewicz, Institute of Physics, Polish Academy of Sciences, POLAND
G5: August 5 (Tuesday), 16:00-17:24 Room: 303 Chair: Jesper Wallentin	
16:00-16:25	G18 (Invited) Growth conditions and structural characterization of $\text{NaBa}_{1-x}\text{Sr}_x\text{Cr}_2(\text{PO}_4)_3$ crystals Mathis Gandin, Julien Zaccaro, Pierre Bouvier, Isabelle Gautier-Luneau, Bertrand Ménaert, Olivier Perez, Yohann Bréard, Olivier Toulemonde, Alexandra Peña Revellez, Institut Néel, FRANCE
16:25-16:50	G19 (Invited) Growth of triangular lattice single crystals and its defect studies Dharmalingam Prabhakaran, Matthias Gutmann, University of Oxford, UNITED KINGDOM
16:50-17:07	G20(Oral) Studies on Single-Crystal Growth, Structure, Point Defects and Property Characteristics of $\text{Cd}_{0.9}\text{Mn}_{0.1}\text{Te}$ Shixu Zhang, Lijun Luan, Guohai Li, Bingjie Yang, Yiming Cheng, Shuang Ding, Chang'an University, CHINA
17:07-17:24	G21 (Oral) Microstructure evolution of CdZnTe crystal irradiated by heavy ions and its effect on electrical and carrier transport properties Lu Liang, Northwestern Polytechnical University, CHINA

G6: August 6 (Wednesday), 9:00-10:59
Room:303
Chair: Katsuo Tsukamoto

9:00-9:25	G22 (Invited) How ordered are crystals formed from solution really? Alexander E.S. Van Driessche, Tomasz M. Stawski, Instituto Andaluz de Ciencias de la Tierra (IACT), CSIC, Granada, SPAIN
9:25-09:42	G23 (Oral) Recent research progress on uranium doped lithium niobate series single crystals Tian Tian, Tingfeng Wu, Chenkai Fang, Dahuai Zheng, Hongde Liu, Hui Shen, Yaoqing Chu, Jia Xu, Shanghai Institute of Technology, CHINA
09:42-10:59	G24(Oral) Visualization of the Indium concentration fluctuations in InGa _N /Ga _N and their relationship with QWs thermal robustness Ewa Grzanka, Pawel Michalowski, Roman Hrytsak, Robert Czernecki, Szymon Grzanka, Artur Lachowski, Mikolaj Grabowski, Julita Smalc-Koziorowska, Mikchal Leszczynski, Instiute of High Pressure Physics, Polish Academy of Sciences, POLAND

G7: August 6 (Wednesday), 11:00-11:59

Room: 303

Chair: Binay Kumar

11:00-11:25	G25 (Invited) Imaging ferroic domain dynamics with nanoscale X-ray diffraction Jesper Wallentin, Lund University, SWEDEN
11:25-11:42	G26 (Oral) Discovery of a Polar Polymorph of MAPbI ₃ via SHG Microscopy Giorgia Rizzi, Stijn Van Cleuvenbergen, KU Leuven, BELGIUM
11:42-11:59	G27 (Oral) Growth and Properties of K _x (NH ₄) _{1-x} H ₂ PO ₄ Mixed Crystals Xianghui Li, Mingxia Xu, Yafei Lian, Baoan Liu, Lisong Zhang, Hongkai Ren, Yang Li, Xinguang Xu, Xun Sun, Yuanan Zhao, Jianda Shao, State Key Laboratory of Crystal Materials, Shandong University, CHINA

G8: August 7 (Thursday), 11:00-11:59

Room: 303

Chair: Yanfeng Lyu

11:00-11:25	G28 (Invited) Interface diagnostics: Equivalent Circuit Characterization for a Growing Bulk Single Crystal Yunzhong Zhu, Sun Yat-sen University, CHINA
11:25-11:42	G29 (Oral) Mechanisms of crystal structural instability and optimal control strategy during growth of monocrystalline silicon by Cz method Tai Li, Peilin He, Qitao Zhang, Jun Xiao, Kaifeng Liao, Yuwei Wang, Guoqiang Lv, Wenhui Ma, Kunming University of Science and Technology, CHINA

11:42-11:59

G30 (Oral)Synthesis, X-ray and thermally stimulated luminescence properties of Li(Gd,Tb)F₄ crystals**Joseph Daniel Devasirvatham, H. J. Kim, Sunghwan Kim, Center for High Energy Physics, Kyungpook National University, Daegu 41566, REPUBLIC OF KOREA**