Posters for all sessions

Posters of Session A

Fundamentals of nucleation and crystal growth

AP01
Preparation of high-quality lithium niobate crystals and nondestructive testing characterization of large-size wafers
Shubo Sun
Jinan Institute of Quantum Technology, CHINA

AP02
Universality of hydrogen-bonded linear networks formation in amino acids crystallization
Xicheng Yuan, Tetiana Khakhula, Johanna Brazard, Takuji Adachi
University of Geneva, Switzerland

AP03
The effect of salt additives on the glycine crystallization pathway revealed by studying one crystal nucleation at a time
Gabriel Cotting, Oscar Urquidi, Céline Besnard, Johanna Brazard, Takuji Adachi
Department of Physical Chemistry, University of Geneva, Switzerland

AP04
The dynamic evolution of oxide precipitates into three stages in silicon wafers
Wuli Miao, Qiming Zhao
Shanghai Institute of IC Materials Co., Ltd. CHINA

AP05
Regulation of GaN Crystal Growth Habits by Na-Flux Method on Patterned Substrates
Gemeng Huang, Zhenrong Li
Xi'an Jiaotong University, CHINA

AP06
Research on Industrial Crystallization Process and Nonlinear Optical Properties of Struvite
Liangcheng Song
Harbin Institute of Technology, CHINA

AP07
Revealing and visualizing the microscopic solution chemical molecular mechanism of β-HMX solubility in binary mixed solvents
Shifan Xu, Hongtu Zhao, Hui Wang, Wenbo Wu, Na Wang, Ting Wang, Xin Huang, Hongxun Hao
Tianjin University, CHINA

AP08
Co_3O_4 coated-Carbon Nanotubes for Enhanced Oxygen Evolution Reaction for Alkaline Water Splitting
Sungwook Mhin, Kang Min Kim, Hayun Jeon
Dongguk University, CHINA

AP09
On the formation of early graphene nuclei on Cu(111) during CVD of graphene using benzene and toluene as C-precursors
Onofrio Tau, Paola Prete, Nico Lovergine
University of Salento, CHINA

Posters of Session B

Bulk crystal growth

BP01
The Effect of Air Annealing on the Optical and Luminescence Properties of Bi-Doped β-Ga_2O_3 Single Crystal
Peng Sun
Tongji University, CHINA

BP02
Morphological Changes in AlN Single Crystal Growth by VPE Method with Variable Temperature, Inlet Gases and Growth Time
Gyong-Phil Yin, Kim Jung-Hwa, Hong Chang-Ui, Kang Seung-Min,
Hanseo University, KOREA (SOUTH)

BP03
Batch Growth of Large LiB_3O_5 Crystals with High Quality at 4-kg Level
Yi Gong, Tingting Jia, Hubei University, CHINA
Yangyang Zhu, Yinchao Yue, Henan Yue Neng Photoelectric Technology Co., Ltd., CHINA

BP04
Control of growth rate and crystal quality in 6-inch SiC top-seeded solution growth
Gangqiang Liang, Yuan Liu
Tsinghua University, CHINA

BP05
Substrate-Engineered Self-Separation of Freestanding GaN Crystal Growth via Synergistic Electrochemical-Molten Alkali Etching
Sun Lan Jing
Xi'an Jiaotong University, CHINA

BP06
Effects of Constant Crucible Rotation on Interface Morphology and Crystal Properties of CdZnTe Crystal Grown by the Traveling Heater Method
Jijun Zhang, Kun Liu, Yingdong Huang, Chaohui Gu, Bo Zhang, Kexin Zhang, Chen Xie, Wanping Liu, Xuan Zhu, Xiaoyan Liang
Shanghai University, CHINA

BP07
Ground and Microgravity Growth of Thallium-doped Sodium Iodide Single Crystal
Qitian Zhang, Zhenqi Li, Shengnan Jiang, Weiyi He, Hengduo Wu, Weijie Deng, Meibo Tang, Xiuhong Pan, Xuechao Liu
Shanghai Institute of Ceramics, CAS, CHINA

BP08
Growth and luminescence properties of $Cs_5Cu_3Cl_4Br_2I_2$ single crystals by the Bridgman method
Jianguo Pan
Ningbo University, CHINA

BP09
Study on the Growth of Large-size Sapphire Plate by EFG Method
Peng Zhao
Research Institute of Synthetic Crystals, CHINA

BP10
In-situ observation of solid-liquid interface in GaSb directional growth
Kotaro Hirose, Kensaku Maeda, Yukio Ishikawa, Kazuaki Konoike, Lu-chung Chuang, Keisuke Ohdaira, Kozo Fujiwara
Sumitomo Electric Industries, Ltd. JAPAN

BP11
Research on Nd^{3+}/Gd^{3+} co-doped CaF_2 crystal growth and fluorescent branch ratio regulation performance
Youchen Zhou
Tongji University, CHINA

BP12
Red-emitting Li_2MnCl_4 for neutron detection: crystal growth and new doping strategies
Katerina Krehlikova, Vojtech Vanecek, Robert Kral, Petr Prusa, Romana Kucerkova, Vladimir Babin, Petra Zemenova, Jan Rohlicek, Katerina Rubesova, Martin Nikl
Institute of Physics of the Czech Academy of Sciences, Cukrovarnicka 10/112, 162 00 Prague, Czechia

BP13
Application of Traveling Magnetic Field in the InP Crystal Growth by VGF
Zaoyang Li, Ruijing Shi, Xingyu Xu, Junlan Wang, Jinping Luo, Lijun Liu
Xi'an Jiaotong University, CHINA

BP14
Optimization of Thermal Field on PVT Method of 8-inch SiC Crystal Growth by Numerical Simulation
Zhu Yunjie
Kyushu University, JAPAN

BP15
Dynamic Argon Pressure Control for Stable Na-flux GaN Growth
Xiujin Wang, Mingbin Zhou
Jiangxi Science and Technology Normal University, CHINA

BP16
A Modified Purification with Zone-Refined and Bridgman-Grown $CsPbBr_3$ Crystals for Improved Material Properties
Mert Turfanda
Queen's University, CANADA

BP17
Horizontal Bridgman methods assisted optical homogeneous $PbIn_6Te_{10}$ crystal growth.
Xiangran Kong, Jingdong Yan, Hongwei Leng, Zuotao Lei, Chunhui Yang
Harbin Institute of technology, CHINA

BP18
Floating zone growth and thermal neutron-gamma dual mode detection of $LiSr_4(BO_3)_3$:Ce scintillation crystals
Xunsheng Zhou, Lu Yao, Cailin Wang
Songshan Lake Materials Laboratory, CHINA

BP19
Development of four GaN crystal sheets grown simultaneously using the Na-flux liquid phase epitaxial growth method
Ronglin Pan, Zhenrong Li
Xi'an Jiaotong University, CHINA

BP20
Growth and property characterization of large-size Nd:CNGG crystal for high-energy chirped pulse amplification system
Liu Shuqi, Wu Kui
Shandong University, CHINA

BP21
In-situ Visualization of Interface Fluctuations during Czochralski Crystal Growth Using GEMF
Yixiao Xie, Yunzhong Zhu
Sun Yat-sen University, CHINA

BP22
In-situ Diagnosis of Interface Flipping Phenomenon during Czochralski Crystal Growth
Jingyu YAN, Yunzhong ZHU
Sun Yat-sen University (SYSU), CHINA

BP23
Interface Diagnostics: Equivalent Circuit Characterization for a Growing Bulk Single Crystal
Si Jin Li, Yunzhong Zhu
Sun Yat-sen University, CHINA

BP24
Improving the Scintillation Performance of PEA_2PbBr_4 Through Zn^{2+} and Sb^{3+} Interstitial Doping Strategy
Xin Chen, Yunzhong Zhu
Sun Yat-sen University, CHINA

BP25
The B-site synergistic metal ion co-doping strategy for enhancing the scintillation performance of two-dimensional perovskite single crystals
Zehui Xiang, Yunzhong Zhu
Sun Yat-sen University, CHINA

BP26
Striation in strontium tetraborate crystals grown by the micro-pulling-down method
Harutoshi Asakawa, Ryuichi Komatsu
Yamaguchi University, JAPAN

BP27
Numerical Study of Heat and Mass Transfer Effects inside the Source Rod during the PVT Growth Process of SiC Crystal
Jyh-Chen Chen, Tan-Duc Le, Thi-Hoai-Thu Nguyen,

National Central University, CHINESE TAIBEI

BP28
Numerical simulation – based optimization of 2-inch langasite Crystals
Yvtong Fan, Nanjing Tech University, CHINA

Posters of Session C

Advances in Modelling Crystal Growth Processes Including AI

CP01
Numerical simulation of mass Transfer and hydrodynamics in Confined Growth of KDP Crystals
Cao Zhongjun, Bai Jianyu, Hao Guokai, Li Yang, Lei Guodong, Zhang Lisong, Xu Mingxia, Ren Hongkai, Liu Baoan*, Sun Xun*
Shandong University, CHINA

CP02
Implementing FAIR Principles: The NOMAD Measurement Plugin for Experimental Data Management
Sebastian Brueckner[1,2], Andrea Albino[2], Hampus Näsström[2], Sarthak Kapoor[2], José A. Márquez[2], Rubel Mozumder[2], Sandor Brockhauser[2], Markus Scheidgen[2], Martin Albrecht[1], Holger von Wenckstern[3], Natasha Dropka*[1], Jonathan Noky[4], Tamás Haraszti[5], Claudia Draxl[2]
[1]Leibniz-Institut für Kristallzüchtung,[2]Humboldt-Universität zu Berlin, [3]Universität Leipzig, [4]Max-Planck-Institut CPfS [5]Leibniz Institute for Interactive Materials, GERMANY

CP03
Modeling of basal and prismatic slip in 4H-SiC grown by PVT method
Sheng'ou Lu, Binjie Xu, Lingling Xuan, Anqi Wang, Xiaodong Pi, Deren Yang, Xuefeng Han*
Zhejiang University, CHINA

CP04
A Multiphysics-Coupled Model for Grain Refinement in Wire Arc Additive Manufacturing of Ti-6Al-4V Alloy
Ji Zhongao, Cui Yinan*
Tsinghua University, CHINA

CP05
Argon film shielding for parasitic deposition control in a horizontal hot-wall SiC epitaxial reactor
Lu Runlin[1], Zhang Hui[1], Zheng Lili*[1], Wang Rensong[2], Hu Dongli[2]
[1]Tsinghua University, [2]Linko Advanced Technologies Co., Ltd., CHINA

CP06
Optimization of the interface shape for the 8-inch SiC crystal growth by PVT method with induction heating
Zhong Zeqi, Wang Quanzhi, Li Zaoyang, Liu Lijun*
Xi'an Jiaotong University, CHINA

CP07
Thermal Field Structure Optimization for Czochralski Growth of 4-inch β-Ga_2O_3 Single Crystals
Wang Junlan, Li Zaoyang *, Lin zhenlong, Liu Lijun
Xi'an Jiaotong University, CHINA

CP08
Effect of the Structure of Suspended Inner Crucible on Oxygen Transport in Continuous Czochralski Silicon Growth
Li Dengnian, Liu Lijun*
Xi'an Jiaotong University, CHINA

CP09
Effect of coil movement on the growth of silicon carbide by top-seeded solution growth
Dongsheng Zhao, Wancheng Yu*, Jianfei Wang, Xiufang Chen, Xiaobo Hu, Xiangang Xu
Shandong University, CHINA

CP10
Effect of the heater electrode structure on heat and mass transfer in Czochralski silicon crystal growth based on global 3D numerical simulation
Qi Chao, Li Zaoyang, Liu Lijun*
Xi'an Jiaotong University, CHINA

CP11
Numerical study of three-dimensional anisotropic thermal stress in β-Ga_2O_3 single crystal grown by vertical Bridgman method
Zhao Qi, Liu Yihao, Qi Xiaofang, Xu Yongkuan, Hu Zhanggui, Ma Wencheng*
Tianjin University of Technology, CHINA

CP12
Modeling of convection in the melt during the growth of YAG crystals by the horizontal directional crystallization method
Baranov Viacheslav*, Nizhankovskyi Sergii
Institute of Single Crystals, UKTAINE

CP13
Thermal and Flow Field Design for 4-Inch AlN Crystal Growth
Qianling Liu, Honglei Wu
Shenzhen University, CHINA

CP14
Some particularities of Oxygen and Thermal Transport in Czochralski Silicon Growth for Photovoltaic Applications
Popescu Alexandra, Vizman Daniel*
West University of Timisoara, ROMANIA

CP15
Numerical modeling of the step bunching formation in SiC solution growth for different flow conditions
Guan Zhicheng, Liu Xin, Kutsukake Kentaro, Harada Shunta, Ujihara Toru*
Nagoya University, JAPAN

Posters of Session D

Thin Films and Epitaxial Growth

DP01
Liquid-phase Growth of Petal-like h-BN and GaN/BN heterojunctions
Jiafan Chen, Zongliang Liu, Zhiwei Si, Xujun Su, Ke Xu
University of Science and Technology of China, CHINA

DP02
Controlling site-preferred occupation in garnet film through liquid phase epitaxy
Han Li, Qinghui Yang*, Zhuo Li,
University of Electronic Science and Technology of China, CHINA

DP03
Performance Investigation of TiON-Based Resistive Random-Access Memory
Pusheng Guo
Xidian University, CHINA

DP04
Suppression of semipolar faceted epitaxial growth of self-exfoliated gallium nitride crystals
Baoguo Zhang, Yongzhong Wu, Xiaopeng Hao, Yongliang Shao, Fusheng Zhang, Haixiao Hu, Dong Shi
Qilu University of Technology, CHINA

DP05
The influence of precursor partial pressure on low-temperature GaAs-on-Si(111) nucleation layers in MOVPE
Strube, Jannik, Revuelta Ibañez, Andrea, van Veldhoven, René, Dowling, Karen M, Delft University of Technology, the Netherlands

Posters of Session E

2D materials and technologies

EP01
Bandgap-Tuned $SnS_{1-x}Se_x$ Nanosheets Arrays films grown by Vacuum Thermal Evaporation
Yongzhao Feng, Jikang Jian
Guangdong University of Technology, CHINA

EP02
Defect Engineering via Vacuum Annealing: Precise Selenium Vacancy Control for High-Performance InSe Photodetectors
Yi Liu, Tao Wang, Qinghua Zhao
Northwestern Polytechnical University, CHINA

EP03
Kinetic Monte Carlo Study on Morphology Control Mechanism of Fractal Growth in WSe_2
Xuejiang Chen, WenSwn Ai, Yishan Lin
School of Energy and Power Engineering, Xi'an Jiaotong University, CHINA

Posters of Session F

Growth at the nanoscale: nanocrystals, nanowires, nanomaterials

FP01
Experimental Validation of Computational Insights: Silver-Doped Silica Nanocomposites as a Delivery Vehicle for Hydroxychloroquine.
NIVETHA G. F., Prasath M.,

Periyar University Centre for Post Graduate and Research Studies.

Posters of Session G

Characterization of crystal structure, defects, impurities and physical properties

GP01
Electron beam irradiation modulated vacancy point defect structure transformation in zinc germanium diphosphide crystals
Cheng shichao
Midea Corporate Research Center, Midea Group, CHINA

GP02
Surface p-n Type Conversion in Te-Doped p-Type GaSb via Shallow N Ion Implantation Enabled by Magnetron Sputtering
Zhentao Qin, Lingyan Xu
Northwestern Polytechnical University. CHINA

GP03
Microscopic Mechanisms of Spectroscopic Properties in Ti:Sapphire Laser Crystals
Guoliang Deng, Qiaorui Gong, Min Xu, Qiannan Fang, Chengchun Zhao, Yin Hang,
Shanghai Institute of Optics and Fine Mechanics, CAS, CHINA

GP04
Investigation of the properties of 4H-SiC with different Al-N co-doping levels
Jianfei Wang, Wancheng Yu, Dongsheng Zhao, Xiufang Chen, Xiaobo Hu, Xiangang Xu
Shandong University, CHINA

GP05
Morphotropism, Superstructures and Group-subgroup relation in $K_3RE_3(BO_3)_4$
Pengyun Chen, Yuqiao Zhou, Litian Lin, Mingming Yang, Haiyong Ni
Institute of Resources Utilization and Rare Earth Development, Guangdong Academy of Sciences, CHINA

GP06
Explore the physical properties characterizing AlN by laser processing
Jiangan Zeng, Honglei Wu
Shenzhen University, CHINA

GP07
Study on the Influence of Point Defects on the Optical Properties of AlN
Guohao Tan, Honglei Wu
Shenzhen University, CHINA

GP08
Mechanical Properties of Sapphire Crystals Grown by Kyropoulos Method
Hao Ling,
Sinoma Synthetic Crystals Co., Ltd. CHINA

GP09
Effect of Oxygen-Related Defects on Electrical Properties of $Cd_{0.9}Zn_{0.1}Te$ Semiconductor
Haiwen Yu, Fan Yang, Wanqi Jie, Tao Wang
Northwestern Polytechnical University, CHINA

GP10
Characterization and Analysis of High-quality "Multiple-Epitaxy" SiC Material Suitable for the Super-junction Device
Haobo Kang
Xidian University, CHINA

GP11
Unraveling the stress evolution behavior induced by impurity incorporation in Ge-doped GaN bulk single crystals grown by Na-flux method
Zhiwei Si, Zongliang Liu, Mengya Li, Xiaoming Dong, Xiaohui Peng, Tao Zhang, Jiafan Chen, Ning Tang, Ke Xu
Suzhou Laboratory, CHINA

GP12
Diffusion of magnesium and silicon in AlGaInN layers grown on different substrates by MOVPE
Mikolaj Grabowski, Ewa Grzanka, Pawel Michalowski, Rafal Jakiela, Robert Czernecki, Andrzej Turos, Mike Leszczynski, Institute of High Pressure Physics "Unipress", PAS.

GP13
Insights into the Rare-Earth doping influence on fluoride MF_2 (M=Ca or Ba) single crystals
Maria Poienar, Gabriel Buse, Matthias Gutmann, Philippe Veber, Daniel Vizman, Marius Stef, Carla Zeicu, Marius Stef, Philippe Veber, ICAM, West University of Timisoara, Bvd. V.Parvan, No.4, Timisoara, ROMANIA

GP14
Unveiling the mechanisms of defects and impurities influencing on the crystal quality of GaN in Na-flux method
Zhitao Yang, Mingbin Zhou
Jiangxi Science & Technology Normal University, CHINA

GP15
The effect of Mg elemental doping on the optical properties of $ZnGeP_2$ crystal
Zuotao Lei, Shichao Ceng, Xiangran Kong, Chunhui Yan
Harbin Institute of Technology, CHINA

GP16
Study on Raman scattering spectroscopy of Mn-doped GaN grown by the ammonothermal method
Wenhao Lu
Suzhou Institute of Nano-Tech and Nano-Bionics, CAS, CHINA

GP17
Fabrication of High-Quality Single Crystals with Low Impurities through Powder Pre-Treatment
Su Jong Jeon, Won Bae Sohn, Joon Hyuk Kang, Doo Gun Kim, Jung Hwan In, Karam Han, Ju Hyeon Choi, Soyoung Kim, Kim Jin Hyeok, Seon Hoon Kim
Korea Photonics Technology Institute, KOREA, SOUTH

GP18
On correlation between A356 alloys' structural characteristics and their tensile properties.

SERSOUR Zakia
Boumerdes University UMBB

GP19
Optical properties of TmF_3 –doped CaF_2 and BaF_2 X-ray irradiated crystals
Gabriel Buse, Maria Poienar, Philippe Veber, Daniel Vizman, Carla Zeicu and Marius Stef
West University of Timisoara, Bvd. V. Parvan, ROMANIA
West University of Timisoara, ROMANIA

Posters of Session H

Semiconductors

HP01
Impact of Tungsten Doping on the Physicochemical Properties of Boron-Doped Diamond Electrodes
Jiaqi Xia, Shulong Zhang, Lin Li, Chengchun Zhao, Yin Hang
Shanghai Institute of Optics and Fine Mechanics, CAS, CHINA

HP02
AlGaN Deep-Ultraviolet Laser Diode with Integrated Grating Structure for Single-Mode Emission at 267 nm
Haider Syed Kashan
Zhengzhou University, CHINA

HP03
Direct Growth of Petal-like h-BN Nanosheets and GaN/BN heterojunctions via liquid method
Jiafan Chen[1], Zongliang Liu[2], Zhiwei Si[3], Xujun Su[4], Ke Xu[1],
1 School of Nano-Tech and Nano-Bionics, University of Science and Technology of China, CHINA
2 Shenyang National Laboratory for Materials Science, Jiangsu Institute of Advanced Semiconductors, CHINA
3 Information Materials Research Department, Suzhou Laboratory, CHINA
4 Suzhou Institute of Nano-tech and Nano-bionics, CAS, CHINA

HP04
Optical characterization of GaN: Eu microcrystals grown by the ammonothermal method
Kaihe Xie[1], Tengkun Li[2], Guoqiang Ren[2], Luhua Wang[2], Wenhao Lu[2], Langkun Shen[2], Hu Zhou[2], Xu Ke[1],
1 University of Science and Technology of China, CHINA
2 Suzhou Institute of Nano-tech and Nano-bionics, CAS, CHINA

HP05
Homoepitaxial Growth of High-Quality and Hillock-Free N-Polar GaN on bulk GaN Substrate via MOCVD
Xuguang Luo[1], Zhifeng Yang[1], Xiong Zhang[2], Guobin Wang[3], Yumin Zhang[4], Jianfeng Wang[4], Ke Xu[1],
1 Suzhou Lab, CHINA
2 Southeast University, CHINA
3 Jiangsu Inst Adv Semicond Ltd, 4 Suzhou Nanowin Science and Technology Co., Ltd., CHINA

HP06
Growth of single-crystalline GaN films on novel langasite family crystals by metal-organic chemical vapor deposition
Shuai Wang[1], Zhengqian Lu[2], Zhiqiao Li[2], Ke Xu[2], Yanqing Zheng[1]
1 Ningbo University, CHINA
2 Suzhou Institute of Nano-Tech and Nano-Bionics, CAS，CHINA

HP07
Influence of Surface Treatments on the Ohmic Contact Performance on the N-Face of Iron-Doped Semi-Insulating Freestanding GaN
Sun Yuanhang
School of Nano-Tech and Nano-Bionics, University of Science and Technology of China， CHINA

HP08
Growth of GaN single crystals by pressure-loss parameter control technique in Na flux method
Xi Wu, Jinchao Rao, Xiuming Li, Kaigiang Que
Nanning Normal University, CHINA

HP09
Effects of Heating Power on SiC Crystal Growth by TSSG Method
Zaoyang Li, Chongchong Qi, Yao Yang, Junlan Wang, Jinping Luo, Lijun Liu
Xi'an Jiaotong University, CHINA

HP10
Study of SiO_2/Al_2O_3 Anti-Reflection Coatings on Silicon Carbide Optical Crystal
Li Zhenqi, Jiang Shengnan, He Weiyi, Wu Hengduo, Zhang Tianqi, Liu Tao, Tang Meibo, Pan Xiuhong, Liu Xuechao
Shanghai Institute of Ceramics, CAS, CHINA

HP11
Epitaxy growth and characterization of Be-doped InSb thin films
Sachie Fujikawa, Hiroyuki Yaguchi
Saitama University, JAPAN

HP12
Structural and electrical properties of high-performance CZT thick films grown on CdZnTe single crystal substrates
Hengzhi Xing, Haofei Huang, Ke Tang, Linjun Wang, Jian Huang
Shanghai University, CHINA

HP13
Numerical investigation of oxygen concentration and v/G distribution in 300 mm Czochralski silicon
AnChen Tang[1], Xuefeng Han[1], Yuan Shuai[1], Yu Gao[2], Jianwei Cao[2], Xiangyang Ma[1], Deren Yang[1]
1 Zhejiang University, CHINA
2 Zhejiang Jingsheng Mechanical & Electrical Co., Ltd. CHINA

HP14
TiN-Interlayer Engineering Enables Low-resistance Ohmic Contact in CdZnTe Film Devices
Lulu Wang, Jian Huang, Ke Tang, Haofei Huang, Linjun Wang,
Shanghai University, CHINA

HP15
High-quality CdZnTe thick films prepared by introducing a seed layer on sapphire substrate
Lei Wu, Jian Huang, Ke Tang, Haofei Huang, Linjun Wang
Shanghai University, CHINA

Posters of Session I

Optical and Laser Crystals

IP01
Spectroscopic characteristics of Pr^{3+}-doped crystal fibers grown by LHPG method
Jiawei Zhang, Zhengyuan Jiang, Longxin Liu, Jian Liu, Xiaodong Xu, Jun Xu
Jiangsu Normal University, CHINA

IP02
Component Design and Kerr-lens mode-locked of the Disorder Middle Entropy Yb:$CaSrBaF_6$ Single Crystal
Junyao Guo
Tongji University, CHINA

IP03
Er^{3+}-doped $(Lu,Y,Sc)_2O_3$ mixed sesquioxide crystal fiber: Fabrication and spectroscopic characterization
Zhengyuan Jiang, XiaoDong Xu
Jiangsu Normal University, CHINA

IP04
Spectroscopic characterization and efficient tunable laser of Ho:BaF_2 single crystal
Xinyu Qian
Tongji University, CHINA

IP05
Dy,Tb:$LiYF_4$ crystal: a novel yellow laser crystal
Xingkun Liu, Yin Hang
Shanghai Institute of Optics and Fine Mechanics, CAS, CHINA

IP06
The effect of trace doping of Bi^{3+} on the growth and properties of tellurium dioxide crystals
Yun Lei, Cheng Yi Wu, Gui Zhang Hu, Bo Teng Chen, Gui Rong Zhang, Chao Lai Li,
Tianjin University of Technology, CHINA

IP07
Growth and characterization of Ho^{3+} doped YAG Crystal
Zebin Wang, Kheirreddine LEBBOU
Université Claude Bernard Lyon 1, FRANCE

IP08
Growth and Stimulated Raman scattering properties of large size barium nitrate Raman crystals
Xiaojing Lin, Xun Sun
Shandong University, CHINA

IP09
Cascade energy-transfer pathways in Er,Dy co-doped $GdScO_3$ crystal
Fan Zhang, Xiao Cao, Wentao Hou, Huili Tang, Qingguo Wang, Jun Xu, School of Physics Science and Engineering, Tongji University, CHINA

IP10
Optical and dielectric characterization of CaF_2:TmF_3 crystals grown by Bridgman technique
Marius Stef, Carla Schornig, Philippe Veber, Gabriel Buse, Maria Poienar, Daniel Vizman, West

University of Timisoara, ROMANIA

IP11
$Sr_2HgGe_2OS_6$ and $Eu_2ZnGe_2OS_6$: two phase-matching infrared nonlinear optical materials with mixed-anion [$GeOS_3$] units
Guili Wang, Jiyong Yao, Beijing Center for Crystal Research and Development, Technical Institute of Physics and Chemistry, CAS, CHINA

IP12
Progress in crystal growth and nonlinear optical properties of $La_3Ga_{5.5}Nb_{0.5}O_{14}$
Xuhong Gu, Zhida Lu, Haihao Yu, Jinhuai Zhang, Shandong University, CHINA

IP13
Synthesis, Structural Characterization, and Multifunctional Properties of Bismuth-Rare Earth Co-Doped Yttrium Iron Garnet (YIG)
Zhao Yanyan, Lijun Luan, Shixu Zhang, Chang'an University, CHINA

Posters of Session J

Crystals of Piezoelectric, Dielectric, Ferroelectric Materials

JP01
[110]-oriented $Pb(Mg_{1/3}Nb_{2/3})O_3$-0.37$PbTiO_3$ single crystal grown by solid-state crystal growth method
Xueliang Duan, Yuantai Guo, Honghui Wang, Ming Ma, Song Xia, Zhenrong Li
Xi'an Jiaotong University, CHINA

JP02
P-N Co-Doped $Hf_{0.5}Zr_{0.5}O_2$ Ferroelectric Thin Films with High Remanent Polarization
Yi Gong, Tingting Jia
Hubei University, CHINA

JP03
Artificially induced antiferroelectricity in of $Hf_{0.2}Z_{0.8}O_2$/$Bi_5Ti_3FeO_{15}$ and improvement on the energy storage performance
Xinde Wang
Hubei University, CHINA

Posters of Session K

Detector Materials

KP01
Enhanced Au/semi-insulating single-crystal CdTe Schottky-type radiation detectors based on van der Waals contacts
Justine Sonny, Tao Wang
Northwesten Polytechnical University, CHINA

KP02
Effect of Indium Limited-Source Thermal Treatment on Point Defects Regulation and Detection Performance

Improvement of CdZnTe Crystals
Xiaoyan Liang, Bo Zhang, Xuan Zhu, Jijun Zhang, Wenxuan Yang, Chen Xie, Kexin Zhang, Chaohui Gu, Linjun Wang, Jiahua Min,
Shanghai University, CHINA

KP03
Growth of Cesium Lead Bromide single crystals by in-house build transparent Bridgman-Stockbarger technique
Raja Arumugam, Sivasubramani Vediyappan, Ramachandran Kasthuri, Joseph Daniel D, Vijayakumar Paranthaman, Mullai vendhan Selvam, Ramasamy Perumalsamy, Kim H.J.,
Martin Luther University Halle-Wittenberg – 06120, GERMANY

KP04
Properties Research of $LaBr_3$:Ce,Sr Scintillation Crystal
Haili Wang, Jianrong Chen
Sinoma Synthetic Crystal Co., Ltd., CHINA

KP05
CZT strip detector exposed to outer space from the ISS-Alpha
Andrea Zappettini, Manuele Bettelli, Natalia Auricchio, Ezio Caroli, Rui Curado Silva, Claudio Ferrari, Elena Ferrari, Jorge Maia, Alexandra Roque, Monia Vadrucci, Enrico Virgilli, CNR-IMEM, ITALY

KP06
Bridgman-growth of inch-sized $Cs_3Cu_2I_5$:Tl single cyrstals
Qian Wang, Qiang Gao, Yuntao Wu
Shanghai Institute of Ceramics, CAS, CHINA

KP07
Achieving superior n/γ discrimination and luminescent thermal stability in $Cs_2LiLaBr_6$ single crystals by high concentration $^{Ce3+}$ doping
Yufeng Tong[1], Qinhua Wei[*2], Yuntao Wu[*1]
1 State Key Laboratory of Functional Crystals and Devices, Shanghai Institute of Ceramics, Chinese Academy of Sciences, Shanghai, 201899, PR CHINA
2 College of Materials and Chemistry, China Jiliang University, Hangzhou 310018, CHINA

KP08
Highly efficient neutron-gamma dual-mode scintillator based on 0D copper(I) halide single crystal
Zhang Yuhao, Wang Qian, Wang Cheng'er, Tong Yufeng, Yang Junye, Chen Jie, Sun Xilei, Wu Yuntao
State Key Laboratory of Functional Crystals and Devices, Shanghai Institute of Ceramics, CAS, CHINA

KP09
In-Situ Sublimation and Growth of Low-Cost High-Quality $CsPbBr_3$ Single Crystals
David Kunar, Mert Turfanda, Peng Li Wang
Queen's University, CANADA

Posters of Session L

Industrial Crystallization

LP01
Dynamic organic crystals as exceptionally efficient artificial natural light-harvesting actuators
Jiaxuan Zhu, Hongxun Hao

Tianjin University, CHINA

LP02
Cocrystallization Strategy Enabling Azobenzene Derivatives with Excellent Elasticity and Multistimulus-Responses: A Case Study
Shanshan Zhu, Hongxun Hao
Tianjin University, CHINA

LP03
Photoactuators Based on Plastically Flexible α-Cyanostilbene Molecular Crystals Driven by the Solid-State [2+2] Cycloaddition Reaction
Yiwei Wei, Hongxun Hao
Tianjin University, CHINA

LP04
Spongy and anti-pollution MXene/Ag_2S/cellulose acetate membrane for sustainable solar-driven interfacial evaporation and water purification
Hongxun Hao, Xue Bai
Tianjin University, CHINA

LP05
3D covalent crosslinking enables the dual enhancement of structure and performance of chitosan biomaterials for industrial fluoride wastewater remediation
Fengzhen Liu, Xin Huang
Tianjin University, CHINA

LP06
Photomechanical macroscopic movements driven by photoinduced topochemical [2+2] cycloaddition reaction in tridentate cyanostilbene
Hui Yu
Tianjin University

Posters of Session M

Crystallization of Organic and Biological Materials

MP01
Tartronic Acid as a Potential Inhibitor of Pathological Calcium Oxalate Crystallization
Yuan Su, Ting Cai
China Pharmaceutical University, CHINA

MP02
Single-crystal growth and structural analysis of DNA- functionalized nanoparticles
Lidong Zhang
Nagoya University, JAPAN

MP03
Variation and properties of bundled aragonite rods of heart cockle shells
Seiya Hasegawa [1], Taro Yoshimura [2], Tomohiro Ichizuka [1], Takumi Wakabayashi [1], Yuya Oaki [1], Takaaki Ishigure [1], Takenori Sasaki [2], Hiroaki Imai [1]
[1]School of Integrated Design Engineering, Keio University, JAPAN
[2]The University Museum, The University of Tokyo, JAPAN

Posters of Session N

Crystals for Photovoltaics and New Energy Applications

NP01
Green Etching Technologies: Reducing NO_2 Emissions while enhancing solar cell efficiency in industrial silicon wafer etching
Mariyappan R, Srinivasan M, Sugunraj S, Sri Sivasubramaniya
Nadar College of Engineering, INDIA

NP02
Tri-Functional Palladium's Electrocatalytic Formic Acid Oxidation Reaction by Innovative Self-Caging and Alloying Strategies
Jeong Ho Ryu
Korea National University of Transportation, KOREA, SOUTH

Posters of Session O

Thermoelectric Materials: Design, Synthesis, Growth and Properties

OP01
High-Performance of Photothermpelectric Response in layer Super-lattice $(Bi_2O_2Se)_m(BiOCl)_{n_n}$
Sheng-Di Ta, ShuHua Yao, Yan-Bin Chen, Shi-Ning Zhu, Yan-Feng Chen,
Nanjing University, CHINA

OP02
Grid-plainification enables medium-temperature PbSe thermoelectrics to cool better than Bi_2Te_3
Yongxin Qin
Beihang University, CHINA

OP03
Ab initio Study on a VMnAs Half-Metallic Half-Heusler Alloy for Thermoelectric and Spintronic Applications
Ajisha A,
Sri Sivasubramaniya Nadar College of Engineering, INDIA

OP04
Effect of strain in the ferromagnetic half metal TaPtSi for thermoelectric and spintronics application-Materials Computation
Beenaben S S
Sri Sivasubramniya Nadar College of Engineering, INDIA

OP05
Modelling of Crystal Structure and Experimental Analysis of Se and Sb based Single Crystals for thermoelectric applications
Klinton Brito K, Srinivasan M
Sri Sivasubramaniya Nadar College of Engineering, INDIA

Posters of Session P

New Methods and Techniques for Crystal Growth

PP01
Research on the growth of deep-UV nonlinear optical crystal $KBe_2BO_3F_2$ on the space station
Tong Wu, Tianhong Huang, Shuangyue Shang, Lijuan Liu, Xiaoyang Wang, Technical Institute of Physics and Chemistry CAS, CHINA

Posters of Session Q

Emerging Crystalline Materials

QP01
$Na_3RE(PO_4)_2$ with a Glaserite-Like Structure: The Effect of Cation on Structural Evolution
Qun Jing, Mei Hu, Qun Jing, Zhaohui Chen
Xinjiang University, CHINA

QP02
Structural Innovation in Borate and Organic-Inorganic Hybrid Crystals for Advanced Optical Material
Xuan Pang, Huaiqiang Xun, Chunmei Huang
Chongqing Normal University, CHINA

QP03
Melt-spun Calcium Disilicide and Its Exfoliation Performance
Andrean Liangga, Sheng-min Hu, Ding-he Li, Victor Jr. Lau, Hsiao-ping Hsu, Chung-wen Lan
National Taiwan University, CHINESE TAIBEI

QP04
$Ba_2La_2Sb_4S_{12}$: A Novel Infrared Birefringent Material with Large Optical Anisotropy Induced by Stereochemically Active Lone Pair Effect
Jingdong Yan, Xiangran Kong, Hongwei Leng, Yunfei Shang, Zuotao Lei, Chunhui Yang,
Harbin Institute of Technology, CHINA

QP05
Crystal growth of Ni_3In, a quantum critical and frustration-induced flat band compound
Xinlin Yan, Ha Nguyen, Silke Bühler-Paschen, Andrey Prokofiev
Institute of Solid State Physics, TU Vien, AUSTRIA