

Program of Session K

Detector Materials

K1: August 4 (Monday), 14:00-15:30

Room: 208+209

Chair: Dong Wang

14:00-14:30	K01 (Invited) Optimizing ACRT to Reduce Inclusions during VGF Growth of CZT Jeffrey Jay Derby, University of Minnesota, USA
14:30-14:45	K02 (Oral) Growth and characterization of bismuth-based halide perovskite crystals by the vertical Bridgman technique Boru Zhou, Tianjin University of Technology, CHINA
14:45-15:00	K03 (Oral) Vertical Bridgman Growth of Ag ₃ SbS ₃ Crystals: A Preliminary Study Toward Optoelectronic and Radiation Detection Applications Venika Ekanayake, Queen's University, CANADA
15:00-15:15	K04 (Oral) Synergistic Nucleation-Diffusion Engineering for Growing High-Quality Zero-Dimensional Perovskite Scintillator Single Crystals Yunyun Li, Shanghai Institute of Ceramics, Chinese Academy of Science, CHINA
15:15-15:30	K05 (Oral) Engineered Self-Sensitized CsPbBr ₃ Nanocrystal Metaparticle for Enhanced Scintillation Performance Xiaohe Zhou, University of Mila -Bicocca, ITALY

K2: August 4 (Monday), 16:00-17:30

Room: 208+209

Chair: Zhiguo Xia

16:00-16:30	K06 (Invited) Printable PbO-based X-ray detectors Andrea Zappettini, CNR-IMEM, ITALY
16:30-16:45	K07 (Oral) Performance Modulation and Mechanism of Bismuth Germanate Scintillator Crystals for Next-Generation High-Energy Physics Mingxue Deng, Shanghai Institute of Ceramics, CAS, CHINA

16:45-17:00	K08 (Oral) Growth and Luminescence Properties of Large-Size Na ₂ Mo ₂ O ₇ Single Crystal by the Vertical Bridgman Method Shangke Pan, Ningbo University, CHINA
17:00-17:15	K09 (Oral) Scintillation Performance of TlSr ₂ Br ₃ : Eu ²⁺ Single Crystal for Radiation Detection Hong Joo Kim, Kyungpook National University, SOUTH KOREA
17:15-17:30	K10 (Oral) Lu ₂ O ₃ Based Scintillation Single Crystal He Feng, Shanghai University, CHINA

K3: August 5 (Tuesday), 11:00-12:45

Room: 208+209

Chair: Andrea Zappettini

11:00-11:30	K11 (Invited) Hybrid metal halide scintillators for X-ray imaging Zhiguo Xia, South China University of Technology, CHINA
11:30-12:00	K12 (Invited) Growth and Characterization of ¹³⁹ Ce and ⁵⁷ Co doped CeBr ₃ Crystal Scintillators for the Rare Nuclear Decay Searches Hong Joo Kim, Kyungpook National University, SOUTH KOREA
12:00-12:15	K13 (Oral) Electronic and Optical Properties of Bridgman Grown Cs ₂ TeX ₆ (X = Cl, Br) Michael Lewis, Queen's University, CANADA
12:15-12:45	K14 (Invited) Crystal growth, scintillation mechanism, and radiation detection applications of Cs ₃ Cu ₂ I ₅ :Tl single crystals Yuntao Wu, Shanghai Institute of Ceramics, CAS, CHINA

K4: August 5 (Tuesday), 14:00-15:15

Room: 208+209

Chair: Hong Joo Kim

14:00-14:15	K15 (Oral) Ambipolar Charge Transport in Perovskite CsPbBr ₃ γ-Ray Detectors with Superior Uniformity and Spectral Resolution Bao Xiao, Soochow University, CHINA
14:15-14:30	K16 (Oral) Growth of Pure and Doped Bi ₄ Si ₃ O ₁₂ Single Crystals for Optical Applications Hui Shen, Shanghai Institute of Technology, CHINA
14:30-14:45	K17 (Oral) Effect of Cerium Concentration on Particle Discrimination in Tl ₂ LaCl ₅ : Ce ³⁺ Crystals Lam Tan Truc, Kyungpook National University, KOREA, SOUTH

14:45-15:00	K18 (Oral) Small Polaron Dominated Carrier Dynamics in Layered Oxyhalides for Advanced Optoelectronic Applications Shengdi Ta, Nanjing University, CHINA
15:00-15:15	K19 (Oral) Assessment of Carrier Transport Properties of Perovskite CsPbCl ₃ Single Crystal with Time-of-Flight Alpha-Particle Response Qihao Sun, Soochow University, CHINA

K5: August 5 (Tuesday), 16:00-17:30

Room: 208+209

Chair: Yuntao Wu

16:00-16:30	K20 (Invited) Study of Structures, Defects, Performances, and Large Size Preparation of Fast and Bright LYSO and GAGG Scintillation Crystals Dongzhou Ding, Shanghai Institute of Ceramics, CAS, CHINA
16:30-16:45	K21 (Oral) Doping, Structural Modulation, and Luminescence Performance Enhancement Mechanisms of the Scintillator Mg ₄ Ta ₂ O ₉ Yunfeng Ma, Shanghai Institute of Technology, CHINA
16:45-17:00	K22 (Oral) Efficient and Stable Europium (II)-Activated Cs ₃ Cu ₂ I ₅ Single Crystals for High-Resolution and Fast X-ray Imaging Qiang Gao, Shanghai Institute of Ceramics, CAS, CHINA
17:00-17:15	K23 (Oral) Controlled Growth and X-Ray Detection of Ferroelectric NbOCl ₂ Single Crystals Ning Li, National University of Defense Technology, CHINA
17:15-17:30	K24 (Oral) Guidelines of Synthesizing Detector-grade Organic Single Crystalline Semiconductors for Novel Radiation Detection Applications Dou Zhao,^{1,2*}, Yadong Xu¹, WangiJie¹, Tomoyuki Yokota², Takao Someya² 1.Northwestern Polytechnical University, Xi'an, CHINA 2.The University ofTokyo, Tokyo, JAPAN

K6: August 6 (Wednesday), 9:00-10:30

Room: 208+209

Chair: Shunsuke Kurosawa

09:00-09:30	K25 (Invited) Design, Fabrication and Characterization of Unipolar Perovskite Semiconductor for Radiation Detection Yihui He, Soochow University, CHINA
-------------	---

9:30-9:45	K26 (Oral) Regulated Core-Valence Luminescence in Ultrafast Cs ₂ ZnCl ₄ Single Crystal Scintillators by Bandgap Engineering Wu Tong, Shanghai Institute of Ceramics, CAS, CHINA
9:45-10:00	K27 (Oral) Optimization of Low Background LaBr ₃ :Ce ³⁺ Scintillation Crystal for High Temperature Logging Kejing Liu, Northwestern Polytechnical University, CHINA
10:00-10:15	K28 (Oral) Fluorescence Emission Mechanism and High-Temperature Properties of 9,10-DPA Single Crystals for Fast Neutron Detection Yingming Wang, Northwestern Polytechnical University, CHINA
10:15-10:30	K29 (Oral) Crystal Growth and Performance Study of Cs ₂ LiLa(Br,Cl) ₆ :Ce Scintillator for Neutron Detection Zhuochen Cai, Northwestern Polytechnical University, CHINA

K7: August 6 (Wednesday), 11:00-12:15

Room: 208+209

Chair: Dongzhou Ding

11:00-11:30	K30 (Invited) Spectroscopic Performance of CdMgTe Radiation Detector Henry Chen, Brimrose Technology Corporation, USA
11:30-12:00	K31 (Invited) Growth and Optical Properties of Carbazole and p-Terphenyl Crystals Shunsuke Kurosawa, Tohoku University, JAPAN
12:00-12:15	K32 (Oral) Optical and Electronic Properties of Zero-Dimensional Type Lithium Hafnium Iodide Scintillator for Neutron Detection Fujiwara Chihaya, Institute for Materials Research, Tohoku University, JAPAN
12:15-12:30	K33 (Oral) Growth and Stress Control of Large-Aperture Barium Fluoride Crystals with Heavy Yttrium Doping Concentration Jing Zhang, Shanghai Institute of Ceramics, CAS, CHINA

K8: August 7 (Thursday), 11:00-12:30

Room: 208+209

Chair: Yihui He

11:00-11:30	K34 (Invited) Slow Scintillation Component Suppression in Barium Fluoride Crystal by Yttrium Doping: History, Status and Prospect Junfeng Chen, Shanghai Institute of Ceramics, CAS, CHINA
-------------	--

11:30-11:45	K35 (Oral) Growth Regulation and Heterostructure Construction of High-Performance Perovskite Single Crystals Yu Chen, Beijing Institute of Technology, CHINA
11:45-12:00	K36 (Oral) Numerical Study of Temperature and Flow Field Characteristics of CdTe Crystal Growth in Different Gravitational Field Weiyei Hei, Shanghai Institute of Ceramics, CAS, CHINA
12:00-12:15	K37 (Oral) Structural Regulation Elucidates Efficient Fluorescence Emission of Organic-Manganese Halide Crystal Materials Zongyi Zhang, Shandong University, CHINA

K9: August 7 (Thursday), 14:00-14:30

Room: 208+209

Chair: Junfeng Chen

14:00-14:15	K38 (Oral) Growth and Characterization of Pure and Doped P-Terphenyl Organic Scintillator Crystal Joseph Daniel Devasirvatham, Center for High Energy Physics, Kyungpook National University, SOUTH KOREA
14:15-14:30	K39 (Oral) Theoretical Studies on the Structural Stability and Doping Effects of RE ₂ SiO ₅ (RE= Sc, Y, La) Qianye Jiang, Technical Institute of Physics and Chemistry, CAS, CHINA