

**Room G #107** 10:30-12:30**[Tu-G1] Ferro/Piezo IV****Session Chairs:**

Magdalena Owczarek (Northwestern Univ., USA),
Catherine Dubourdieu (HZB, Germany)

Tu-G1-1 [Invited] 10:30-11:00

Science And Technology of Interface-Engineered High-K Dielectric / High Piezoelectricity Multifunctional Nanolaminate-based Oxides / Ultrananocrystalline Diamond Films for New Generation Super-Capacitors, CMOS and MEMS/NEMS Devices

Orlando Auciello¹ and Geunhee Lee²

¹Univ. of Texas-Dallas, USA, ²CVE Technology, USA

Tu-G1-2 [Invited] 11:00-11:30

Piezoresponse Force Microscopy of Emergent Piezoelectric Materials

Andrei Kholkin

Univ. of Aveiro, Portugal

Tu-G1-3 [Invited] 11:30-12:00

Nanoscale Linear Permittivity Imaging based on Scanning Nonlinear Dielectric Microscopy

Yoshiomi Hiranaga and Yasuo Cho

Tohoku Univ., Japan

Tu-G1-4 12:00-12:15

Suppression of Leakage Current of SrTiO₃ as Ultra-High-K Dielectrics using Al Co-Doping Process

Jiye Baek, Minhwan Go, Sang Yeon Lee, Seungik Han, and Hyungtak Seo

Ajou Univ., Korea

Tu-G1-5 12:15-12:30

Functionalization of Wide Band Gap Dielectric Oxides: A Light Element Doping Approach

Daesung Park^{1,2}, Akash Bhatnagar^{1,2}, Haiyuan Wang³, Gregory J. Rees⁴, and Diana Rata²

¹Zentrum für Innovationskompetenz SiLi-nano®, Germany,

²Martin-Luther-Univ. Halle-Wittenberg, Germany, ³Fritz-Haber-Inst. der Max-Planck-Gesellschaft, Germany,

⁴Univ. of Warwick, UK

Room H #108 10:30-12:30**[Tu-H1] Thermoelectric I****Session Chairs:**

SungWng Kim (Sungkyunkwan Univ., Korea),
Takao Mori (NIMS, Japan)

Tu-H1-1 [Invited] 10:30-11:00

Development of Hybrid Effect Nanocomposites and Advanced Thermal and Electrical Nanomeasurements

Takao Mori

NIMS, Japan

Tu-H1-2 [Invited] 11:00-11:30

Design of Multi-Defect Structures in Polycrystalline (Bi,Sb)₂Te₃ Alloys for Thermal Conductivity Reduction

Sang-il Kim

Univ. of Seoul, Korea

Tu-H1-3 [Invited] 11:30-12:00

Phonon Dispersion and Scattering Considerations for Thermoelectrics

Yanzhong Pei

Tongji Univ., China

Tu-H1-4 12:00-12:15

Chemical Potential Tuning and Enhancement of Thermoelectric Properties in the Vicinity of Topological Phase Transition in (Pb_{0.5}Sn_{0.5})_{1-x}K_xTe_{0.95}Se_{0.05} Compounds

Dianta Ginting^{1,2}, Chan-Chieh Lin¹, Ga Reoung Kim¹, Bora Won¹, Hyeon Seob So¹, Jae Hyun Yun¹, Hosun Lee¹, and Jong-Soo Rhyee¹

¹Kyung Hee Univ., Korea, ²Mercuri Buana Univ., Indonesia

Tu-H1-5 12:15-12:30

Influence of RGO on The Thermoelectric Properties of SrTiO₃-RGO Composites

Jamil Ur Rahman^{1,2}, Soonil Lee², Woo Hyun Nam¹, Van Du Nguyen^{1,2}, Gul Rahman³, Altaf Ur Rahman³, Kyu Hyoung Lee⁴, Won Seon Seo¹, Woen Ho Shin¹, and Myong Ho Kim²

¹KICET, Korea, ²Changwon Nat'l Univ., Korea, ³Quaid-i-Azam Univ. Islamabad, Pakistan, ⁴Yonsei Univ., Korea