

## Symposia – B02

### Ferroelectric/Piezoelectric Materials and Their Emerging Applications

Oct 15 (Sunday), 2023

Conference Room: 7102, -1#floor

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**9:00-10:50 Session I**  
**Chair: Jing-Feng Li**

**9:00-9:30 (B02-01)**  
**Assembly of Barium Titanate Nanocubes by Two Liquids Phase Separation Method and Their Dielectric Properties** (Keynote, Online)  
Satoshi Wada, Yamanashi University, Japan

**9:30-10:00 (B02-02)**  
**Flexoelectric engineering of two-dimensional materials and devices** (Keynote, Online)  
Jiangyu Li, Southern University of Science and Technology, China

**10:00-10:25 (B02-03)**  
**Mechanically driven artificial relaxor Pb(Zr,Ti)O<sub>3</sub> for energy storage application** (Invited)  
Dae Yong Jeong, Inha University, Korea

**10:25-10:50 (B02-04)**  
**Study on the energy storage and electrocaloric effect of flexible PVDF-based polymer nanocomposite dielectrics for refrigeration** (Invited)  
Hailong Hu, Central South University, China

**10:50-11:00 Coffee Break**

**11:00-11:50 Session II**  
**Chair: Jun Ouyang**

**11:00-11:30 (B02-05)**  
**Piezoelectric materials for electromechanical applications** (Keynote, Online)  
Shujun Zhang, Wollongong University, Australia

**11:30-12:00 (B02-06)**  
**Enhanced performance of (K,Na)NbO<sub>3</sub> lead-free piezoelectric ceramics by hot pressing** (Keynote)  
Ke Wang, Tsinghua University, China

**12:00-14:00 Lunch**

**14:00-15:45 Session III**  
**Chair: Seungbum Hong**

**14:00-14:25 (B02-07)**  
**Electric field response of strain-induced**

**polarization in SrTiO<sub>3</sub> thin film** (Invited)  
Nobuo Nakajima, Hiroshima University, Japan

**14:25-14:50 (B02-08)**  
**Engineering PZT films on Si for piezo-MEMS applications** (Invited)  
Jun Ouyang, Qilu University of Technology, China

**14:50-15:15 (B02-09)**  
**B-site nanoscale-ordered structure enables ultra-high tunable performance** (Invited)  
Biaolin Peng, Xidian University, China

**15:15-15:40 (B02-10)**  
**No-heating deposition of piezoelectric x%YO<sub>1.5</sub>-(100-x%)(Hf<sub>1-y</sub>Zr<sub>y</sub>)O<sub>2</sub> films** (Invited)  
Takanori Mimura, Gakushuin University, Japan

**15:45-15:55 Coffee break**

**15:55-17:00 Session IV**  
**Chair: Ke Wang**

**15:55-16:20 (B02-11)**  
**Local structure and properties enhancement in relaxor ferroelectrics** (Invited)  
Hui Liu, University of Science and Technology Beijing, China

**16:20-16:45 (B02-12)**  
**Relaxor Ferroelectric Polymer Exhibits Ultrahigh Electromechanical Response at Low Electric Fields** (Invited)  
Xin Chen, Shanghai Jiaotong University, China

**16:45-17:10 (B02-13)**  
**Nonlinear piezoelectric response of Pb(Mg<sub>1/3</sub>Nb<sub>2/3</sub>)O<sub>3</sub>-PbTiO<sub>3</sub> relaxor ferroelectric ceramics** (Invited, Online)  
Tadej Rojac, Institute of Josef Stefan, Slovenia

**17:10-17:25 (B02-14)**  
**The high piezoelectricity and thermal stability of high-temperature piezoelectric ceramics BiFeO<sub>3</sub>-0.25BaTiO<sub>3</sub>-xBi<sub>0.5</sub>K<sub>0.5</sub>TiO<sub>3</sub> near the MPB**  
Yongbao Cui, Nanjing University of Science and Technology, China

**17:50 Dinner**

## Symposia – B02

### Ferroelectric/Piezoelectric Materials and Their Emerging Applications

Oct 16 (Monday), 2023

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**9:00-10:50** Session I

**Chair: Lisha Liu**

**9:00-9:30** (B02-01)

**How can AFM help design and characterize piezoelectric energy harvester?** (Keynote)

Seungbum Hong, Korea Advanced Institute of Science and Technology, Korea

**9:30-10:00** (B02-02)

**Polar Domain walls in nonpolar materials** (Invited)

Nan Zhang, Xi'an Jiaotong University, China

**10:00-10:25** (B02-03)

**HfO<sub>2</sub>-based ferroelectric thin films and memories** (Invited)

Min Liao, Xidian University, China

**10:25-10:50** (B02-04)

**Enhancement of high-temperature energy storage properties in antiferroelectric AgNbO<sub>3</sub> ceramics via multi-scale synergistic design** (Invited)

Jing Wang, Nanjing University of Aeronautics and Astronautics, China

**10:50-11:00** Coffee Break

**11:00-11:50** Session II

**Chair: Nan Zhang**

**11:00-11:25** (B02-05)

**Nanoscale structures in SBT-based relaxor ferroelectric thin films for energy-storage applications** (Invited)

Jin Luo, Nanjing Tech University, China

**11:25-11:50** (B02-06)

**Electrical-mediated piezoelectricity with unraveled coupling mechanism to the domain dynamics at elevated temperatures in polycrystalline BiFeO<sub>3</sub>** (Invited)

Lisha Liu, Nanjing University of Science and Technology, China

**12:00-14:00** Lunch