On behalf of the Asian Ferroelectric Association (AFA) and the Organizing Committee, we are pleased to announce and cordially invite you to THE 8TH ASIAN MEETING ON FERROELECTRICS (AMF-8), WHICH WILL BE HELD ON DECEMBER 9-14, 2012 AT AMARI ORCHID HOTEL, PATTAYA, THAILAND.

This conference is the follow up of the successful bi-annual AMF meeting series, most recently held at Jeju island, Korea in 2010 (AMF-7).

The aim of this conference is to promote international exchanges of discussion through plenary and invited lectures, oral and poster presentations, as well as workshop symposia & special sessions, on the progress in various fronts of ferroelectric and multi-functional materials related science and technology, including fundamental physics and materials science issues, and advanced applications in multi-functional devices.

# TOPICS TO BE INCLUDED (BUT NOT LIMITED TO)

# **1. BASIC PRINCIPLES**

a. Ferroelectric, piezoelectric, relaxor materials: Phase Transitions & Critical Phenomena

- b. Theories: First Principles Calculations, Monte-Carlo Simulations, Phase-Field Simulations, etc
- c. Domains and switching dynamics
- d. Phase diagram and crystal chemistry of functional ceramics
- e. Metamaterials and multi-functional features
- f. Multiferroic, magnetic ceramics: magnetoelectric couplings
- g. Conductive, superconducting, transparent conducting oxides

# 2. PROCESS AND CHARACTERIZATION

a. Single crystal growth, ceramic processing, microstructures, thin/thick films, multilayer electronic ceramics

b. Novel phenomena in oxide interfaces and heterostructures

c. Composites, multiphase, and nanostructured ceramics

d. Smart/intelligent materials and nanotechnology

e. Advances in characterization methods: Synchrotron X-ray, UV, IR, micro&nanoprobes AFM, PFM, etc.

### 3. APPLICATIONS

a. Energy-related applications: Capacitor, Battery, LED, SOFC, Solar Cells, Energy Harvesting Devices

b. Microwave dielectrics and their applications

- c. Lead-free piezoelectrics and applications: Actuators, MEMS, NEMS, etc.
- d. Memory applications: High-k dielectrics, FeRAM, RRAM, Read/Write technology, etc.
- e. Electroceramic sensors: RF MMIC, NTC & PTC Varistors, etc.
- f. Electronic and optical packaging

4. OTHER RELATED MATERIALS AND TECHNOLOGIES (biomaterials and polymers) SPECIAL WORKSHOP AND SPECIAL SESSIONS

The conference will feature a two-day SPECIAL WORKSHOP SYMPOSIUM ON EMERGING FRONTIERS IN MULTIFERROICS AND ELECTRONIC METAMATERIALS organized by the INTERNATIONAL NETWORK FOR ADVANCED AND MULTIFERROIC MATERIALS

(INAMM) during DECEMBER 9 - 10, 2012. More details will be provided in the later announcement.

In addition, several special sessions, emphasizing their respective importance, are also planned for this meeting; namely,

"Lead-free piezo-ceramics" to cerebrate the retirement of Prof. Tadashi Takenaka

"SMART/INTELLIGENT MATERIALS AND NANOTECHNOLOGY" follow up of SmartMat-2004 and SmartMat-2008, Thailand

"APPLICATIONS OF SYNCHROTRON LIGHT ON MATERIALS CHARACTERIZATIONS"

"MULTI-FUNCTIONAL MATERIALS & THEIR IMPACTS IN THAI INDUSTRIAL SECTORS".

### IMPORTANT DATES

ABSTRACT SUBMISSION DEADLINE - JULY 31, 2012 ABSTRACT ACCEPTANCE NOTICE - SEPTEMBER 1, 2012 EARLY REGISTRATION DEADLINE - OCTOBER 15, 2012 ACCOMMODATION RESERVATION DEADLINE - NOVEMBER 15, 2012 MANUSCRIPT SUBMISSION DEADLINE - DECEMBER 11, 2012 CONFERENCE DATE - DECEMBER 9-14, 2012

More information and on-line abstract submission will be available at (NOTE: OFFICIAL WEBSITE AND ABSTRACT SUBMISSION WILL START ON MAY 1, 2012)

After a peer-review process, Proceedings papers will be published in the special volumes of Ferroelectrics (published by Taylor & Francis Group). Should you have any inquiries, please feel free to contact the AMF-8 Secretariat at

We look forward to welcoming you to the beautiful beach city of Pattaya with your active participation. Please circulate this mail to your colleagues and appropriate groups that might be interested in AMF-8.

Sincerely Yours, Prof. Sukit Limpijumnong, Chairperson of the Organizing Committee of AMF-8 Suranaree University of Technology, Thailand AMF-8 Secretariat (Rattikorn Yimnirun) School of Physics, Institute of Science Suranaree University of Technology Nakhon Ratchasima 30000 THAILAND Tel: +66-44-224-197 [1] Fax:+66-44-224-185 [2] E-mail: amf8.thailand@gmail.com [3] (Alternative contact e-mails) amf8.thailand@yahoo.com [4] amf8@slri.or.th [5]