

## *Program*

# University of Yamanashi International Symposium UYIS 2015 “Advanced Materials for Sustainable Future”

September 8, 2015

Multi-media bldg. 5F Multi-purpose hall, University of Yamanashi

Organized by University of Yamanashi

Supported by MEXT

14:00–14:10      **Opening Remarks**      *Chair: Satoshi Wada (Committee)*

**Shinji Shimada** (*President of the University of Yamanashi*)

**Hiroyasu Toyoki** (*Dean of the Faculty of Engineering, University of Yamanashi*)

14:10–15:35      **Session 1**      *Chair: Toshihiro Takashima and Shintaro Ueno\**

*Page*

14:10–15:10      **【Invited】** “High Performance Piezoelectric Ceramics and Crystals:  
Recent Developments and Application Specifications”      1  
**Thomas R. Shrout** (*The Pennsylvania State University*)

15:10–15:35      “Microstructures and Dielectric Properties of Conductor/Insulator  
Nanocomposite Materials”      3  
**Shintaro Ueno\***  
Development of Systems and Technology for Ubiquitous Elements-Based Nanomaterials

**15:35–15:55    Coffee break and poster presentation**

15:55–17:20      **Session 2**      *Chair: Toshihiro Takashima and Shintaro Ueno\**

*Page*

15:55–16:55      **【Invited】** “Tuning Catalysts for Light Induced Reactions:  
Nanometer and Sub-Nanometer Particles and  
Their Interactions with Support, Reactants and Light”      5  
**Alexander Orlov** (*Stony Brook University*)

16:55–17:20      “Development of Oxygen Evolution Catalysts for Solar Water Splitting”      7  
**Toshihiro Takashima\***  
Development of Solar-to-Chemical Energy Conversion materials

17:20–17:30      **Closing Remarks**

**Hiroyuki Uchida** (*Committee Chair*)

**17:30–17:40    Group photo**

18:00–20:00 Information exchange meeting

[T1-8F Science Café]

15:35–15:55 Parallel session Poster presentation

[Coffee break room]

	<i>Page</i>
“Microstructures and Dielectric Properties of Conductor/Insulator Nanocomposite Materials” <b>Shintaro Ueno*</b> Development of Systems and Technology for Ubiquitous Elements-Based Nanomaterials	3
“Development of Oxygen Evolution Catalysts for Solar Water Splitting” <b>Toshihiro Takashima*</b> Development of Solar-to-Chemical Energy Conversion materials	7
“Perceptive-Cognitive Computing” <b>Masahiro Morise*</b> Perceptive-Cognitive Computing	9
“Development of a Mini-Centrifuge Driven Centrifugal Microfluidic Device” <b>Yoshiaki Ukita*</b> State-of-the-Art Mechanical Engineering	11
“Exploration of BaSi <sub>2</sub> Ionic-Bond Semiconductor for Solar Cell Applications” <b>Kosuke O. Hara*</b> Crystal Bond Engineering	13

\* Tenure-track assistant professor in University of Yamanashi