University of Yamanashi International Symposium UYIS 2012

質量分析における先端技術
Symposium on Advanced Technologies in Mass Spectrometry

Organized by University of Yamanashi

Supported by MEXT

December 3, 2012

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

9:30– 9:45 Opening Session *Chair: Hirokazu Hori (Committee Chair)*

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

9:45–11:15 Session 1 *Chair: Satoshi Ninomiya**

9:45–10:30【***Invited***】An East-West Side Story of Electrospray Mass Spectrometry
Masamichi Yamashita *(Institute of Space and Astronautical Science, Japan)*

10:30–11:15【***Invited***】Secondary Ion Emission with Cluster Ion Beam: Toward Molecular Imaging of Biological Samples
Jiro Matsuo *(Kyoto University, Japan)*

11:15–11:30 Group photo
11:30–13:00 Lunch time

13:00–14:30 Session 2 *Chair: Lee Chuin Chen**

13:00–13:45【***Invited***】Development of Mass Spectrometry Analysis Systems for In-Situ Chemical and Biological Analysis
Zheng Ouyang *(Purdue University, USA)*

13:45–14:30【***Invited***】Mass spectrometric profiling of biological tissues – a comprehensive tool for Histopathology
Zoltán Takáts *(Imperial College London, United Kingdom)*

14:30–14:45 Coffee break

14:45–16:05 Session 3 *Chair: Hisayoshi Matsushima**

14:45–15:15【***Special***】New Approaches to the Cancer Diagnosis - Combination of Probe Electrospray Ionization and Machine Learning -
Sen Takeda *(University of Yamanashi, Japan)*

15:15–15:40 High Pressure Ion Sources with Operating Pressure Higher Than Atmospheric Pressure
Lee Chuin Chen*

15:40–16:05 Development of a High Intensity Charged Droplet Beam Source Using Electrospray in Vacuum
Satoshi Ninomiya*

16:15–17:30 Poster Session

Interdisciplinary study of medicine and engineering

- High Pressure Ion Sources with Operating Pressure Higher Than Atmospheric Pressure
  Lee Chuin Chen*
- Development of a High Intensity Charged Droplet Beam Source Using Electrospray in Vacuum
  Satoshi Ninomiya*

Clean energy

- In-situ Soft Probe Observation of Electrochemical Interfacial Phenomena
  Hisayoshi Matsushima*

Creation of nano-photoelectron functions

- Nonequilibrium Kubo-Martin-Schwinger relation in semiconductor electron-hole systems
  Akira Ishikawa*
- Whispering Gallery Mode Lasing from GaN Hexagonal Microdisk
  Masaru Sakai*
- Diffraction light phase shift by external magnetic field utilizing transparent magnetic diffraction gratings
  Atsushi Syouji*

Integrated river basin management in Asian region

- Temperature and humidity observation over Jakarta, Indonesia from dry to pre-monsoon season
  Kazuyoshi Souma*
- Plant growth-promoting rhizobacteria (PGPR): potential contribution to wastewater treatment and biomass production by using duckweed
  Tadashi Toyama*

Ubiquitous nanomaterials for functional devices

- Formation of Various Metal-Oxide Nanocoating Layers on ZnO Electrodes in Dye-Sensitized Solar Cells
  Shintaro Ueno*

Development of solar-to-chemical energy conversion materials

- Design of Efficient Water Oxidation Catalysts Using Abundant Metal Oxide Based on the Control of Electronic Configurations
  Toshihiro Takashima*

17:30–17:45 Closing Remarks *Chair: Hirokazu Hori (Committee Chair)*

Kiyoshi Kobayashi *(Organizing Committee)*

18:15–20:15 Banquet [T1-8F Science Café]

* Tenure-track assistant professor at the University of Yamanashi