

Report on the 22nd Topical Meeting of the International Society of Electrochemistry



The 22nd Topical Meeting of the International Society of Electrochemistry has been held at Waseda University International Conference Center (WUICC) in Shinjuku City, Tokyo from 15 to 18 April, 2018. The main theme of the Meeting was "Materials Engineering and Process, Optimization at Electrified Solid/Liquid Interfaces," and the sponsored divisions were Division 4 (Electrochemical Materials Science) and Division 5 (Electrochemical Process Engineering and Technology). Also following organizations supported the meeting; The Electrochemical Society of Japan (The Committee of Battery Technology, Association of Chemical Sensors, The Committee of Capacitor Technology, Nano and Micro Fabrication Division), The Surface Finishing Society of Japan (Division of Electronics), Tokyo Ohka Foundation for The Promotion of Science and Technology, and Waseda University.

There were 5 Symposiums in the Meeting as follows;

- S1: Materials engineering for energy devices: batteries & capacitors
- S2: Materials engineering for energy devices: fuel cells & energy carriers
- S3: Materials engineering for sensing, electronic and photonic devices
- S4: Fabrication and diagnosis processes including theoretical analyses and modeling
- S5: Development of micro to large scale reactors including process optimization and industrial applications

In these Symposiums, 5 keynote lectures, 15 invited lectures, as well as 155 oral and 141 poster contributions were presented. The keynote and invited lecturers were as follows;

Keynote lectures;

Richard Alkire (Univ. of Illinois, USA), Yue Kuo (Texas A&M Univ., USA), Hiroyuki Nishide (Waseda Univ., Japan), Eiichiro Matsubara (Kyoto Univ., Japan), Ulrich Stimming (Newcastle Univ., UK)

Invited lectures;

Aliaksandr Bandarenka (Germany), Karel Bouzek (Czech Republic), Wei Ping Dow (Taiwan), Bruce Dunn (USA), Mario Ferreira (Portugal), Hasuck Kim (Korea), Luca Magagnin (Italy), Tomokazu Matsue (Japan), Avner Rothschild (Israel), Hiroshi Nishihara (Japan), Stefano Passerini (Germany), Daniel Scherson (USA), Michael Schoening (Germany), Soshi Shiraishi (Japan), Masayoshi Watanabe (Japan).

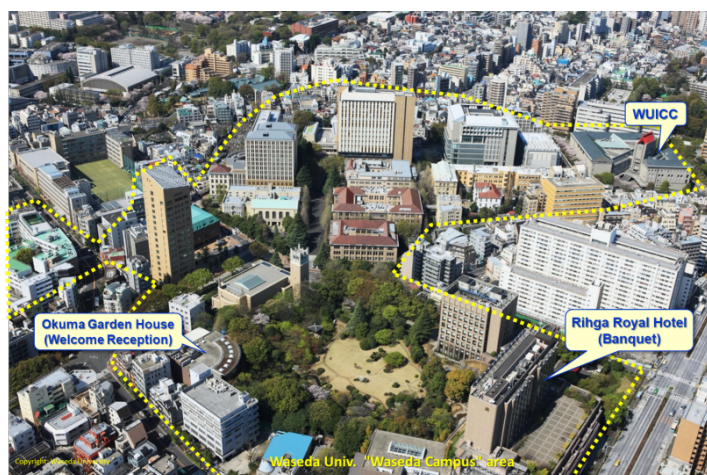
Also, there were 12 exhibitors as follows;

Ivium Technologies, YAMAMOTO-MS, Metrohm Autolab, Tokyo Instruments, Kawaguchi Support, Lasertec Corporation, Yoshino Denka Kogyo, Hokuto Denko, Hohsen Corp, Ametek, Toyo Corp.

The Meeting was held with 362 attendees from 34 countries as follows;

Japan: 175 / Taiwan: 38 / China: 20 / Korea: 19 / Germany: 18 / USA: 15 / France: 13 / Poland: 10 / UK: 8 / Czech Republic: 6 / Estonia : 5 / Lithuania: 4 / Thailand: 3 / Austria, Brazil, Canada, Israel, Netherlands, Singapore, Spain: 2 / Australia, Bangladesh, Colombia, Finland, India, Ireland, Italy, Morocco, Norway, Portugal, Slovakia, Slovenia, South Africa, Sweden: 1

On Sunday 15 April, the registration has started at WUICC, followed by get together reception at Okuma Garden House, which is the University's cafeteria. On the morning of Monday 16, the opening ceremony took place at Ibuka Memorial Auditorium in WUICC, which was named after Dr. Masaru Ibuka, an alumnus and the co-founder of SONY, and keynote session was held with the lectures by Prof. R. Alkire “Making Science Work: The Need for New Electrochemical Engineering Methods,” and by Prof. H. Nishide “Redox Polymers as an Electrode-active Material.” During the lunch time, the poster sessions were held in the 1st and 3rd floors of the WUICC, and in the afternoon, four parallel sessions were held for invited and contributed oral presentations.



Conference venue



Ibuka Memorial Auditorium

On Tuesday 17, the Meeting started with keynote lectures by Prof. U. Stimming “In-situ Studies of Li- and Na- Intercalation Batteries,” and by Prof. E. Matsubara “Efforts to Develop the Innovative Batteries in the NEDO RISING2 Project,” and invited and contributed oral and poster presentations were made. From 18:30, the banquet was held at Rihga Royal Hotel Tokyo, which is an on-campus hotel, started with greetings from Prof. Zhong-Qun Tian (President Elect, ISE), Prof. Yue Kuo (President Elect, ECS), and Prof. Masayoshi Watanabe (President, ECSJ). The attendees enjoyed conversations, dishes and beverages.

On Wednesday 18, the Meeting started with keynote lecture by Prof. Yue Kuo “Electrochemical Reactions in Solid State Device Fabrication - Current and Future,” followed by invited and contributed oral and poster sessions. Then in the afternoon, closing ceremony has been held at Ibuka Memorial Auditorium.

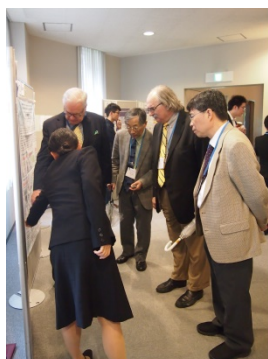
Through these events, the latest information for the materials and their processing for various applications such as energy devices, sensors, electronic and photonic devices, etc., has been presented and very active discussions has been accomplished, and we would like to thank all the attendees and supporting staffs of this Topical Meeting. Finally, the Meeting has been organized and operated by following committee members;

Organizing Committee (from ISE)

Mario Ferreira (Univ. Aveiro, Portugal), Chi Chang Hu (National Tsing Hua Univ., Taiwan), Sudipta Roy (Univ. Strathclyde, UK), Giovanni Zangari (Univ. Virginia, USA), Susumu Kuwabata (Osaka Univ, Japan), Takayuki Homma (Waseda Univ., Japan)

Local Organizing Committee (from Waseda Univ.)

Toshiyuki Momma, Tetsuya Osaka, Masahiro Kunimoto, Takayuki Homma



Poster session and coffee break at WUICC



Banquet at Rihga Royal Hotel Tokyo

Conference co-chair
Susumu Kuwabata & Takayuki Homma