

7th DGIST-Waseda Workshop on Electrochemistry 2019

Nov. 18-19, 2019 at Waseda University



Sponsored by

Unit for Energy and Nanomaterials,

Top Global University Project, Waseda University

Co-sponsored by

Department of Energy Science & Engineering

Daegu Gyeongbuk Institute of Science and Technology

Workshop Timetable (Nov. 18, 2019)

Place: Conference room (1F) in #55-N building (Nishi-Waseda Campus of Waseda Univ.)

9:00-9:30	Preparation & Registration	
	Session Chair: Prof. Toshiyuki Momma	
9:30-9:45	Prof. Tetsuya Osaka	Welcome address
	Prof. Hasuck Kim	Opening remarks
9:45-10:15	D-1: Prof. Sangaraju Shanmugam	Polymer electrolyte membranes for low humidity operating fuel cells and redox flow batteries
10:15-10:45	W-1 Dr. Kan Hatakeyama-Sato	Redox-active Polymer Nanoparticles for Aqueous Redox Flow Batteries
	Session Chair: Prof. Sangaraju Shanmugam	
10:45-11:15	D-2 : Prof. Hochun Lee	Determination of hydration numbers of ionic species using dielectric relaxation spectroscopy: its implication in thermocells and aqueous LIBs
11:15-11:45	W-2 : Dr. Seongki Ahn	Si- and Sn-based anode materials for energy storage devices
11:45-12:15	D-3 : Prof. Hongkyung Lee	Improving Li metal battery performance through interface engineering and cell designs
12:15-13:15	Lunch Break	
	Session Chair: Dr. Masahiro Kunimoto	
13:15-13:45	W-3 : Prof. Toshiyuki Momma	Consideration of Charge Transportation in Electrochemical Devices
13:45-14:15	D-4 : Prof. Seung-Tae Hong	New intercalation host materials for magnesium- and calcium-ion batteries
14:15-14:45	W-4 : Prof. Keishi Ohashi	Internal Environment Sensing for Human Centric IoT
14:45-15:15	D-5 : Prof. Youngu Lee	Novel conductive fillers for high-performance piezoresistive pressure sensors
15:15-15:30	W-5 : Prof. Takayuki Homma	Introduction of Power Energy Professionals Waseda Univ. Graduate Program (WISE Program, MEXT)
15:30-15:40	Break	
	Session Chair: Prof. Hongkyung Lee and Dr. Seongki Ahn	
15:40-16:50	2 min. Short Talk by Students	
17:00-18:20	Poster Presentation (1F, #63 Building)	
18:20-18:25	Prof. Youngu Lee	Closing remarks
18:25-18:30	Photo Time	
18:30-20:00	Reception (1F, #63 Building)	
	Closing	

Schedule of Lab. Tour (Nov. 19, 2019)

10:00 Meeting place: 1F in #55-N building

10:00-10:45 Lab. Tour in #65 building and Materials Characterization Center in Nishiwaseda Campus

10:45-11:00 Transfer to Waseda Campus by University Shuttle Bus.

11:00-12:00 Tour in 120 building

List of Poster Presentations

Place: 1F in #63 building (Nishi-Waseda Campus of Waseda Univ.)

■ DGIST

- D-1 **Syed Zahid Hassan**, Hyung Jin Cheon, Changwon Choi, Seongwon Yoon, Mingyun Kang, Jangwhan Cho, Yun Hee Jang, Yun-Hi Kim, Dae Sung Chung
Donor-acceptor approach to realize a low bandgap copolymer toward red-selective thin film organic photodiode
- D-2 **Sukhyung Lee**, Kisung Park, Hochun Lee
Designed room temperature ionic liquids (RTILs) electrolyte for Improved performance of Li metal batteries
- D-3 **Hyejin Lee**, Sunwook Hwang, Jeong Hee Shin, Kyoung Ho Ahn, Chulhaeng Lee, Hochun Lee
Associative Li-salt promotes Li-ion hopping conduction in acetonitrile solutions
- D-4 **Md. Abdul Aziz**, Sangaraju Shanmugam
Hierarchical oxygen rich-carbon nanorods electrode for high-performance all-vanadium redox flow batteries
- D-5 **Youngjoon Roh**, Hyunkyu Jeon, Dahee Jin, Myung-Hyun Ryou, Yong-Cheol Jeong, Yong Min Lee
Development of Flame Retarding Separator for Lithium Ion Battery by Crosslinkable Binder Coating
- D-6 **Dedy Setiawan**, Munseok S. Chae, Seung-Tae Hong
Intercalation Mechanism in Vanadium Dioxide as Cathode Material for Nonaqueous Magnesium Ion Batteries
- D-7 **Meladia Elok P**, Jooeun Hyoung, Seung-Tae Hong
The Electrochemical Performance of Potassium Vanadate as A New Cathode Material for Calcium-Ion Batteries
- D-8 **Boosik jeon**, Jongwook W. Heo, Jooeun Hyoung, Hunho Kwak, Dongmin Lee, and Seung-Tae Hong
Investigation of calcium intercalation into the NASICON-structured sodium vanadium phosphate for calcium-ion batteries
- D-9 **Tsipoaka Maxwell**, Dabin Han, and Sangaraju Shanmugam
Advanced Membrane Electrode Assembly for high current density PEFC comprised of Pyrochlore Nanorods

■ Waseda University

Choitsu Go, Tomoki Akahane, Kan Hatakeyama-Sato, Kenichi Oyaizu

- W-1 Synthesis of Phenothiazine Polymers and Application to Organic-Inorganic Hybrid Electrodes for Lithium Secondary Batteries

Shinya Haruyama, Toshiyuki Momma, Tetsuya Osaka

- W-2 Fabrication Method of Slurryless Li₂S Cathode for Li-S Battery by Chemical Lithiation with Li Naphthalenide

Yusuke Kohase, Keisuke Hori, Hisashi Sugime, Suguru Noda, Nobuko Hanada

- W-3 Electrolysis of ammonia in aqueous solution by platinum nanoparticle-supported carbon nanotube film electrode

Minori Fukushima, Toshiyuki Momma, Tetsuya Osaka

- W-4 Analysis of Effect Fluoroethylene Carbonate Additive of Lithium Ion Capacitor Using Graphite Anodes

Shuei Watanuki, Yasuhiro Fukunaka, Takayuki Homma

- W-5 Pulsed electrodeposition of Si under light illumination in ionic liquid

Kae Miyashiro, Toshiyuki Momma, Tetsuya Osaka

- W-6 Immobilization of TEMPO to Carbon Paper Cathode for Li-O₂ battery

Natsuho Akagi, Keisuke Hori, Hisashi Sugime, Suguru Noda, Nobuko Hanada

- W-7 Investigation of anode catalyst on liquid ammonia electrolysis for hydrogen production

Munenori Hirata, Toshiyuki Momma

- W-8 Numerical Analysis of Chronoamperogram in an Electrochemical System with a Small Distance between Working Electrode and Counter Electrode

Satoshi Matsumoto, Kan Hatakeyama-Sato, Kenichi Oyaizu

- W-9 Synthesis of Imidazolium-substituted Polyethers and Their Application to Solid-state, Organic Polymer Batteries

Ryo Toyama, Toshiyuki Momma, Tetsuya Osaka

- W-10 Sensitive Detection of Uncharged Stress Hormone Using Aptamer-Immobilized FET Biosensors Fabricated by Target-Aptamer Complex

Kentaro Kaneko, Keisuke Hori, Suguru Noda

- W-11 Highly heat-resistant battery separator based on boron nitride nanotube

Naoki Sakamoto, Toshiyuki Momma, Tetsuya Osaka

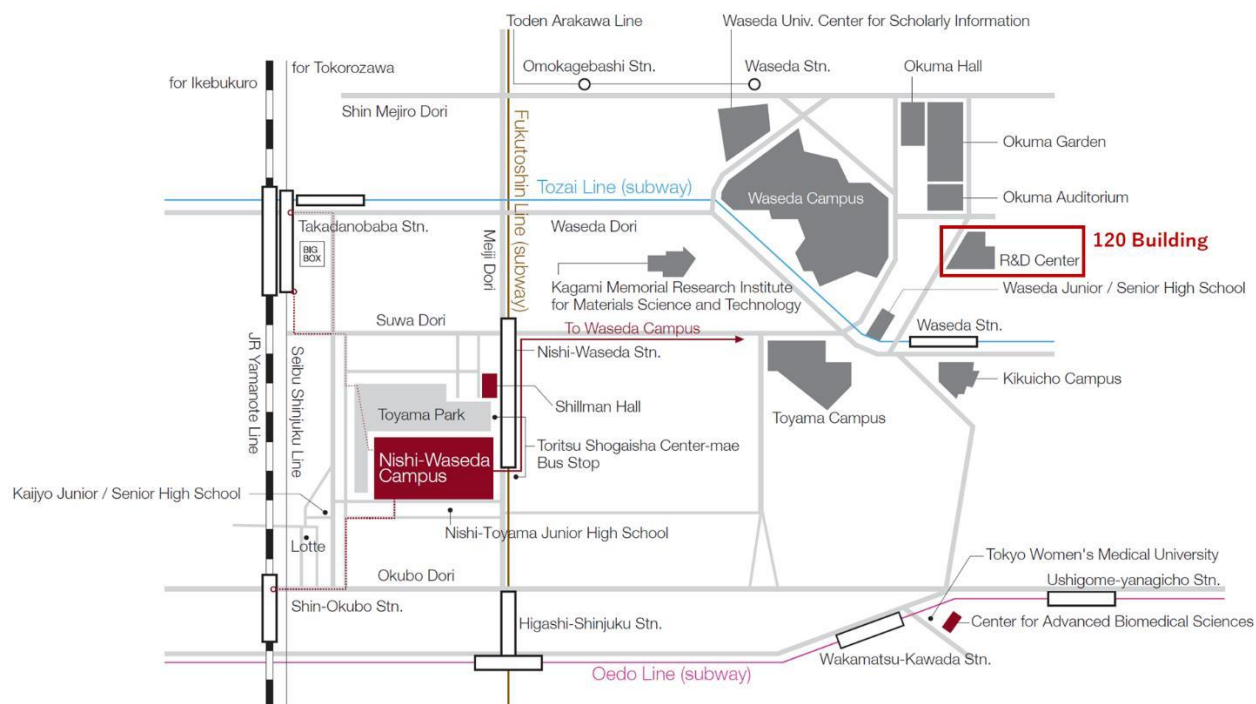
- W-12 Electrochemical Sensing of Stress Biomarker by Field Effect Transistor Biosensor Using Jacalin as a Small Receptor

Chuyi Chen, Mikiko Saito, Takayuki Homma

- W-13 Morphology control of electrodeposited Cu doped p-type Bi-Sb-Te thermoelectric film

MAP

· Vicinity Map



· Campus Map (Nishi-Waseda Campus)

Okubo 3-4-1, Shinjuku, Tokyo 169-8555, Japan

