

# 2<sup>ND</sup> YNU-ACES WORKSHOP ON ENERGY RELATED MATERIALS AND DEVICES

Date: March 11<sup>th</sup>, 2017

Workshop venue: Kanagawa Kenmin Hall (Kanagawa Prefectural Hall), Conference Room

( <http://www.kanagawa-kenminhall.com/access> )

## [ PROGRAMME (TENTATIVE) ]

09:00-  
09:05

### ***Opening remarks***

Yokohama National University Prof. Masa Watanabe

09:05-  
09:20

### **Contributed talk:** *“Mixed salt systems for safe and stable Li and Na batteries”*

Deakin University Prof. Maria Forsyth

09:20-  
09:35

### **Contributed talk:** *“Prototyping of beyond Li-ion battery technologies”*

BatTRI-Hub, Deakin University Dr. Rob Kerr

09:35-  
09:50

### **Contributed talk:** *“Binary mixtures of pressurised CO<sub>2</sub> and solvate ionic liquids (Li<sup>+</sup>-concentrated solutions) as unconventional electrolytes: Properties and Li battery applications”*

Yokohama National University Dr. Morgan L. Thomas

09:50-  
10:25

### **Invited talk:** *“Research Strategy for Next Generation Batteries in ALCA-SPRING Project in Japan”*

Tokyo Metropolitan University Prof. Kiyoshi Kanamura

10:25-  
10:40

— ***Coffee Break*** —

10:40-  
10:55

### **Contributed talk:** *“Anodic C-C Bond Forming Reactions Using Parallel Laminar Flow Mode in a Flow Electrochemical Microreactor”*

Yokohama National University Prof. Mahito Atobe

10:55-11:10

### **Contributed talk:** *“Highly reversible oxygen to superoxide redox reaction in a sodium containing ionic liquid”*

Deakin University Dr. Cristina Pozo-Gonzalo

11:10-11:25

### **Contributed talk:** *“Solid electrolytes for devices”*

Deakin University Prof. Pat Howlett

11:25-11:40

### **Contributed talk:** *“Homogeneous Tetra-PEG Network Containing Ionic Liquid Synthesized via Michael Addition Reaction and Its Application to Polymer Actuator”*

Yokohama National University Dr. Hisashi Kokubo

11:40-11:55

### **Contributed talk:** *“TBA”*

University of Wollongong Dr. Jun Chen

11:55-13:00

— ***Lunch*** —

13:00-

### ***“Student flash presentations (5min/person)”***

13:25

- (1) “Oxygen Reduction Reaction in Highly Concentrated Electrolyte Solutions of Lithium Bis(trifluoromethanesulfonyl)amide/Dimethyl Sulfoxide”, YNU, [Ryoichi Tatara](#)
- (2) “3D air Carbon based cathode for rechargeable sodium-air battery”, Deakin U, [Yafei Zhang](#)
- (3) “Zn Electrochemistry in Ionic-Liquids based Electrolytes under Flow Environment for Redox Flow Battery Applications”, Deakin U, [Kalani Periyapperuma](#)
- (4) “Physicochemical Properties of Glyme-Na Salt Complex / Hydrofluoroether mixtures and Battery Application”, YNU, [Shoshi Terada](#)
- (5) “Electrolytes for Magnesium batteries”, Monash U, [Zheng Ma](#)

13:25-  
13:35

**“Q & A for talks (1) – (5)”**

13:35-  
14:00

**“Student flash presentations (5min/person)”**

- (6) “Electrochemical synthesis of poly(3-hexylthiophene) in a flow microreactor”, YNU, [Masatsugu Mizuno](#)
- (7) “Protic ionic salt derived mesoporous iron doped carbons as an efficient electrocatalyst for oxygen reduction reaction”, YNU, [Mahfuzul Hoque](#)
- (8) “Mesoporous Materials for Electrochemical Energy Storage”, Monash U, [Changlong Xiao](#)
- (9) “Electrochemical method to separate double layer capacitance, pseudocapitance, and Faradic process on Pt/C”, YNU, [Yun Bao](#)
- (10) “Photostimulated Hydrogen generation on black silicon photocathodes”, Monash U, [Ahmed Halima](#)

14:00-  
14:10

**“Q & A for talks (6) – (10)”**

14:10-  
14:25

**Contributed talk: “Biocompatible Batteries”**

University of Wollongong

Dr. Caiyun Wang

14:25-  
14:40

**Contributed talk: “Solar Fuels: From Hydrogen to Ammonia”**

Monash University

Prof. Doug MacFarlane

14:40-  
15:00

**— Coffee Break —**

15:00-  
15:35

**Invited talk: “Hydrogen Energy: A Japanese Perspective”**

Kyushu University

Prof. Kazunari Sasaki

15:35-  
15:50

**Contributed talk: “Group 4 and 5 metal oxides as precious-metal- and carbon-free cathodes for polymer electrolyte fuel cells”**

Yokohama National University

Prof. Akimitsu Ishihara

15:50-  
16:05

**Contributed talk: “Advances in water splitting catalysts”**

Monash University

Dr. Sasha Simonov

16:05-  
16:20

**Contributed talk: “Photoreduction Catalysts for hydrogen production”**

		University of Wollongong	Dr. Pawel Wagner
16:20- 16:35	<b>Contributed talk:</b> “ <i>Solar Hydrogen Energy Storage Systems</i> ”		
		Applied Nano-Technologies	Dr. Noel Dunlop
16:35- 16:50	<b>Contributed talk:</b> “ <i>TBA</i> ”		
		University of Wollongong	Dr. Attila Moser
16:50- 16:55	<b>Closing address</b>		
		Monash University	Prof. Doug MacFarlane