



JGP-Chem International Student Research Workshop

Date : 11/24/2016-11/25/2016

Location : A2-306, Katsura Campus, Kyoto University
Presentation : 20 min (Oral presentation + Discussion)

Program (Day 1, 11/24/2016)

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|------------------------------|-------------|--------------------------|--|--|
| Prg. # | Time | Presenter | Title | |
| | 10:00-10:10 | Prof. Abe | Opening Remarks -Kyoto University- | |
| | 10:10-10:20 | Prof. Shao-Horn | Opening Remarks -MIT- | |
| | | 1st Session (Chair: Yu I | Katayama. Chris Bachman) | |
| 1-01 | 10:20-10:40 | Yu Katayama | In Situ Observation of Surface Adsorbed Intermediate during CO ₂ Reduction Reaction | |
| 1-02 | 10:40-11:00 | Reshma Rao | The Role of Ru-redox in pH-dependent Oxygen Evolution on \mbox{RuO}_2 | |
| 1-03 | 11:00-11:20 | Yuto Miyahara | Oxygen Electrochemical Properties of Perovskite-Type Oxides in Alkaline Media | |
| | | E | Break | |
| 1-04 | 11:30-11:50 | Kelsey Stoerzinger | Molecular Insight into Oxygen Electrocatalysis on Transition Metal Oxides | |
| 1-05 | 11:50-12:10 | Hajime Suzuki | Z-scheme Water Splitting Using Tungstic Acid as an Oxygen- evolving Photocatalyst under Visible Light Irradiation | |
| 1-06 | 12:10-12:30 | Jonathan Hwang | A SrTiO ₃ -GaAs photocathode for solar water-splitting | |
| | | L | unch | |
| Lab Tour | 13:30-14:30 | Eguchi Lab | Catalysis, Solid oxide fuel cell, Polymer electrolyte fuel cell | |
| | | Abe (Ryu) Lab | Photocatalysis, Z-scheme water splitting, Photosynthesis | |
| | | Abe (Takeshi) Lab | Electrochemistry, Li-ion battery, Aqueous electrochemistry | |
| | | Sakka Lab | Analytical chemistry, Interfacial chemistry | |
| | | Kageyama Lab | Solid state chemistry, low temperature synthesis, Complex anion chemistry, High temperature superconductivity | |
| | | E | Break | |
| Lecture (A2-304) | 14:45-16:15 | – Prof. Shao-Horn | Fundamentals for the kinetics of chemical and electrochemical reactions | |
| | 16:30-18:00 | | Physical origin of surface reactivity and binding, and implications in (electro)catalysis | |









Program (Day 2, 11/25/2016)

| Prg. # | Time | Presenter | Title | |
|--|-------------|-------------------|---|--|
| 1st Session (Chair: Kelsey Stoerzinger, Yu Katayama) | | | | |
| 2-01 | 10:00-10:20 | Nir Pour | Vanadium Redox on Carbon Electrodes | |
| 2-02 | 10:20-10:40 | Seiji Katakura | Double-layer Capacitance and Interfacial Structure at Ionic Liquid Electrode Interface Studied by Molecular Dynamics Simulation | |
| 2-03 | 10:40-11:00 | Sokseiha Muy | Influence of Lattice Dynamics on Ionic Conductivity of Solid- State Li-Ion Conductors | |
| 2-04 | 11:00-11:20 | Tang Ya | The Kissinger Method to Determine Hydride Lability in Oxyhydrides: Energy Barrier for H/D Exchange | |
| 2-05 | 11:20-11:40 | John Bachman | Lattice Dynamics and Conductivity in Doped Lithium Phosphate | |
| Lunch | | | | |
| | 13:20-14:30 | Eguchi Lab | Catalysis, Solid oxide fuel cell, Polymer electrolyte fuel cell | |
| | | Abe (Ryu) Lab | Photocatalysis, Z-scheme water splitting, Photosynthesis | |
| Lab Tour | | Abe (Takeshi) Lab | Electrochemistry, Li-ion battery, Aqueous electrochemistry | |
| TOUI | | Sakka Lab | Analytical chemistry, Interfacial chemistry | |
| | | Kageyama Lab | Solid state chemistry, low temperature synthesis, Complex anion chemistry, High temperature superconductivity | |
| Break | | | | |
| Lecture | 14:45-16:15 | Prof. Shao-Horn | Examples of electrocatalysis such as hydrogen evolution kinetics and oxygen reduction | |
| (A2-304) | 16:30-18:00 | | Chemical physics of oxides and applications in water splitting and lithium ion storage | |
| | 18:00-18:10 | Prof. Abe | Closing Remarks | |
| | | Post-works | shop discussion | |



