

# The 4<sup>th</sup> Seminar of A3 Foresight Program

ü ü Junctioned Composite Photocatalytic Systems for Efficient Photocatalysis of Organic Pollutants

Session 3	Chairs: Jingfeng Han and Dr. Duck Hyun Youn
15:40-16:05	J3-Tomohiro Asai Study on Preparation of $(\text{Ga}_{1-x})_2(\text{O}_x\text{N}_{1-x})$ Photocatalysts with Long Absorption Edges for Overall Water Splitting
16:05-16:30	K4-Won Yong Kim Carbon Dioxide Reforming of Methane over Nickel Supported on Alumina Catalyst
16:30-16:55	C4-Chunmei Ding Photoelectrochemical Overall Water Splitting Using Cocatalyst/BiVO <sub>4</sub> Photoanode with Minimized Bias
16:55-17:20	J4-Hiroki Nagase Physical properties and photocatalytic activity of $(\text{Ga}_x\text{Zn}_{1-x})(\text{N}_{1-x}\text{O}_x)$ synthesized using a rotary kiln type furnace
17:20-20:00	Dinner
May 30 (Thursday)	
Session 4	Chairs: Prof. Fuxiang Zhang and Prof. Jun Kubota
8:30-9:10	Keynote talk - Prof. Jae Sung Lee Photoelectrochemical Water Splitting over Bilayer Junction Photocatalytic Electrodes
9:10-9:35	C5- Fengqiang Xiong Enhanced photocatalytic water oxidation on ZnO
9:35-10:00	J5- Li Zhang Photoelectrochemical properties of $\text{Ag}_{1-x}\text{Ga}_x\text{Se}_2$ photocathodes for Solar Hydrogen Production
10:00-10:30	Coffee break & POSTER Session
Session 5	Chairs: Dr. Xiang Wang and Yeilin Ham
10:30-10:55	K5- Suenghoon Han Carbon Supported PdCo Catalyst for Ethanol Oxidation Reaction in Alkaline Electrolyte
10:55-11:20	C6- Jingfeng Han Iron based PEC cell for overall water splitting
11:20-11:45	J6- Toru Takamura Photocatalytic water splitting activity of $\text{LaTiO}_3$ synthesized from $\text{LaTiO}_5$ precursor
11:45-13:30	Lunch & Noon break

Session6	Chairs: Guiji Liu and Jae Young Kim
13:30-13:55	K6- Duck Hyun Youn Facile Synthesis of MoS <sub>2</sub> /Graphene Composite Electrocatalysts for Hydrogen Evolution Reaction
13:55-14:20	C7- Wei Yu Influence of nano aggregation on the performance of all polymer solar cells
14:20-14:45	J7- Jingyuan Liu Development of La <sub>2</sub> Ti <sub>2</sub> Cu(S,Se) <sub>2</sub> O <sub>7</sub> photocatalyst for H <sub>2</sub> evolution
14:45-15:10	K7- Dr. Ji Wook Jang Selfassembled foaml like graphene networks formed through nucleate boiling
15:10-15:40	Coffee break & POSTER Session
Session7	Chairs: Yushuai Jia and Qian Wang
15:40-16:05	C8- Xiaojia Zheng Controlled Growth of HVI semiconductor Films within TiONanotubes for Semiconductor Sensitized Solar Cells
16:05-16:30	J8- Takuya Arashi Development of nonPt electrocatalysts with electroconductive titanium oxides with niobium for oxygen reduction reaction of polymer electrolyte fuel cells
16:30-16:55	K8- Younghye Lee Alkylolation of naphthalene for production of ZON on modified Large pore Zeolite
16:55-17:25	Closing remarks
17:25-20:00	Banquet
May 31 8:30-10:00	Lab tour

## Poster Presentation

(Lobby of the Biotechnology Building)

P1	Shanshan Chen	China	Nitrogen-doped tantalum-based layered oxides with wide visible light absorption for water reduction and oxidation
P2	Yeilin Ham	Japan	Flux-Treated SrTiO <sub>3</sub> as a Highly Active Water Splitting Photocatalyst
P3	Hunmin Park	Korea	Synthesis of hexagonal, cubic phase of molybdenum carbide and its activity for CO hydrogenation
P4	Xiang Wang	China	Effects of Zn <sup>2+</sup> and Pb <sup>2+</sup> modifications on the photocatalytic activity of Ga <sub>2</sub> O <sub>3</sub> for water splitting
P5	Shuai Shen	China	Time-Resolved IR Spectroscopy Studies of the Charge Separation with Size controlled Nanometer Au/TiO <sub>2</sub> Photocatalyst
P6	Hiromu Kumagai	Japan	Cu-Ga-Se photocathodes prepared from powder materials for sunlight driven water splitting
P7	Nan Wang	China	Facile preparation of plate-like assemblies of tungsten oxide for photoelectrochemical water splitting by magnetron sputtering and chemical etching
P8	Jin Hyun Kim	Korea	Assessment of PEC performance for modified metal oxide photocatalyst
P9	Youn Jeong Jang	Korea	Copper Oxide photocathode material for hydrogen evolution
P10	Yo Han Choi	Korea	The effect of Molybdenum carbide for Light Olefin (C <sub>2</sub> -C <sub>3</sub> ) in the CO <sub>2</sub> Hydrogenation
P11	Ruifeng Chong	China	Photocatalytic Conversion of Glycerol-Water Mixture into Ethylene glycol and Ethanol on TiO <sub>2</sub> -based Photocatalysts
P12	Yoon Bin Park	Korea	Preparation of Ag <sub>x</sub> (PO <sub>4</sub> ) <sub>x</sub> (VO <sub>4</sub> ) <sub>1-x</sub> photocatalyst and its Photocatalytic Performance
P13	Vit Kalousek	Japan	The photoelectrochemical system using Pt/C electrode assemblies and Nb:STO for conversion of Toluene to Methylcyclohexane
P14	Ji Zhao	China	Facile synthesis of freestanding Si nanowire arrays by one-step template-free electrochemical oxidation of Si in molten salt