The First Workshop of A3 Foresight Program

Junctioned Composite Photocatalytic Systems for Efficient Overall Water Splitting

January 9-12, 2011, Dalian, China

January 10 (Monday)	
Session 1 chairpersons: Can Li and Jun Kubota	
08:30-09:00	Opening ceremony
09:00-09:30	**Taking photos & Coffee break**
09:30-10:00	**Can Li** (Professor, China) Introduction of the A3 Foresight Program "Junctioned composite photocatalytic systems for efficient overall water splitting"
10:00-10:30 (J1)	**Jun Kubota** (Associate Professor, Japan) Infrared study on photocatalysis for water splitting
10:30-11:00 (K1)	**Kanak P.S. Parma** (Research Professor, Korea) Artificial photosynthesis and energy production using selective semiconductors materials
11:00-11:30 (C1)	**Hongxian Han** (Associate Professor, China) Synergistic effect of co-catalyst loading on photocatalytic water splitting
11:30-12:00 (J2)	**Tsutomu Minegishi** (Assistant Professor, Japan) Chalcogenide thin film based photocathodes for water splitting
12:00-14:00	**Lunch time**
Session 2 chairpersons: Hongxian Han and Kanak P.S. Parma	
14:00-14:20 (K2)	**Suk Joon Hong** (PhD student, Korea) Composite electrode of $BiVO_4/WO_3$ for enhanced photoactivity of water oxidation
14:20-14:40 (C2)	**Lei Huang** (Postdoc, China) Effects of surface modification of CdS quantum dots on photocatalytic H_2 production activity
14:40-15:00 (J3)	**Jae Hong Kim** (PhD student, Japan) Investigation of photoelectrochemical properties of copper gallium selenide thin film for water splitting: hydrogen generation under the visible light
15:00-15:20 (K3)	**Jae Young Kim** (PhD student, Korea) Iron oxide electrode modified with multi wall carbon nanotube for photoelectrochemical water oxidation
15:20-15:40	**Coffee break**
Session 3 chairpersons: Lei Huang and Tsutomu Minegishi	
15:40-16:00 (C3)	**Donge Wang** (PhD student, China) Crystal facet dependence of water oxidation on $BiVO_4$ sheets under visible light irradiation

16:00-16:20 (J4)	**Xuwang Lu** (PhD student, Japan) Surface modification of p-type Si photoelectrodes with oxide materials for hydrogen evolution
16:20-16:40 (K4)	**Won Yong Kim** (MS student, Korea) Combined steam and carbon dioxide reforming of methane as application for steel industry
16:40-17:00 (C4)	**Xiuli Wang** (Assistant professor, China) Correlation between trap states and carrier dynamics of TiO_2 in photocatalysis
17:00-17:20 (J5)	**Takahiro Ishihara** (PhD student, Japan) Preparation of Rh:$SrTiO_3$/Nb:$SrTiO_3$ photoelectrode for overall water splitting
17:20-17:40 (K5)	**Seung Hoon Han** (PhD student, Korea) Bimetallic tungstencarbide for PEMFC anode catalyst
17:40-18:00 (J6)	**Naoyuki Nishimura** (PhD student, Japan) Photoelectrochemical properties of porous $LaTiO_2N$ electrodes under visible-light irradiation
January 11 (Tuesday)	
Session 4 chairpersons: Jingying Shi and Yosuke Moriya	
08:30-09:00 (J7)	**Tsuyoshi Takata** (Lecturer, Japan) Effect of aliovalent doping on the enhancement of photocatalytic activity
09:00-09:20 (C5)	**Fuyu Wen** (PhD student, China) Photocatalytic H_2 production on hybrid catalyst system composed of inorganic semiconductor and biomimetic hydrogenase
09:20-09:40 (J8)	**Su Su Khine Ma** (PhD student, Japan) Modification of TaON photocatalysts for H_2 evolution in a two-step water splitting system
9:40 – 10:00 (C6)	**Xiang Wang** (PhD student, China) UV Raman spectroscopic study of the TiO_2 surface-phase junctions
10:00-10:20	**Coffee Break**
Session 5 chairpersons: Donge Wang and Suk Joon Hong	
10:20-10:40 (J9)	**Mengkui Tian** (Visiting Scientist, Japan) Visible light driven tin oxide and its photoelectrochemical water splitting properties
10:40-11:00 (K6)	**Hwichan Jun** (PhD student, Korea) Vertically oriented nanoporous iron oxide structure for photoelectrochemical hydrogen production
11:00-11:20 (J10)	**Ryohji Ohnishi** (PhD student, Japan) Non-Pt metal nitride electocatalysts for cathode of PEFC

11:20-11:40 (C7)	**Wenhua Zhang** (Professor, China) Solution-phase synthesis of single-crystalline SnSe nanowires
11:40-12:00 (K7)	**Duck Hyun Youn** (PhD student, Korea) Transition metal nitrides for oxygen reduction reaction in fuel cells
12:00-14:00	**Lunch time**
Session 6 chairpersons: Fuyu Wen and Tsuyoshi Takata	
14:00-14:20 (C8)	**Yi Ma** (PhD student, China) Enhancing hydrogen production activity and suppressing CO formation in photocatalytic biomass reforming on Pt/TiO_2 through optimization of anatase-rutile phase structure
14:20-14:40 (J11)	**Yosuke Moriya** (Postdoc, Japan) Synthesis of $La_2Ti_2O_7$ and $LaTiO_2N$ using alkali metal salts as flux
14:40-15:00 (K8)	**Ji Wook Jang** (PhD student, Korea) New synthesis method for water soluble graphene
15:00-15:20	**Coffee break**
Session 7 chairpersons: Xiuli Wang and Mengkui Tian	
15:20-15:40 (C9)	**Jiao Zhao** (PhD student, China) Synthesis of photoluminescent metal-organic coordination polymers with bithiophenedicarboxylic acid
15:40-16:00 (K9)	**Badro Im** (PhD student, Korea) 1-D perovskite nanoarray film by hydrothermal synthesis
16:00-16:20 (J12)	**Anke Xiong (Ph D student, Japan)** Enhanced photocatalytic activity of GaN-ZnO solid solution for overall water splitting by co-loading O_2 and H_2 evolution cocatalyst
16:20-16:40 (C10)	**Jingying Shi** (Associate Professor, China) Sulfide co-catalysts for photocatalytic hydrogen production
End of the program	