

## List of Poster Presentations

### PS-1

○Takashi Mihogi<sup>1</sup>, Yuki Fujie<sup>1</sup>, Yasutaka Kuwahara<sup>1,2</sup>, Hiromi Yamashita<sup>1,2</sup>

(<sup>1</sup>Graduate School of Engineering, Osaka University, <sup>2</sup>ESICB Kyoto University)

“PdAg nanoparticles and poly(ethylenimine) encapsulated catalyst for carbon dioxide hydrogenation to formic acid”

### PS-2

○Shimpei Naniwa<sup>1</sup>, Akira Yamamoto<sup>1,2</sup>, Hisao Yoshida<sup>1,2</sup>

(<sup>1</sup> Graduate School of Human and Environmental Studies, Kyoto University, <sup>2</sup>ESICB Kyoto University)

“Visible-light driven Minisci type reaction via photoexcitation of surface peroxide species on TiO<sub>2</sub>”

### PS-3

○Shuying Wang<sup>1</sup>, Kentaro Teramura<sup>1,2</sup>, Hiroyuki Asakura<sup>1,2</sup>, Saburo Hosokawa<sup>1,2</sup>, Tsunehiro Tanaka<sup>1,2</sup>

(<sup>1</sup>Graduate School of Engineering, Kyoto University, <sup>2</sup>ESICB Kyoto University)

“Tuning the selectivity toward CO evolution in the photocatalytic conversion of CO<sub>2</sub> by H<sub>2</sub>O through the modification of Ag-loaded ZnTa<sub>2</sub>O<sub>6</sub> with Zn species”

### PS-4

○Daichi Odagiri<sup>1</sup>, Kojiro Fuku<sup>2</sup>, Naoki Ikenaga<sup>2</sup>

(<sup>1</sup>Graduate School of Science and Engineering, Kansai University, <sup>2</sup>Department of Chemical, Energy and Environmental Engineering, Faculty of Environmental and Urban Engineering, Kansai University)

“Styrene oxidation on core-shell typed Au-BiVO<sub>4</sub>@SiO<sub>2</sub> using hydrogen peroxide”

### PS-5

○Masato Akatsuka, Yu Kawaguchi, Tetsuo Tanabe, Tomoko Yoshida

(Osaka City University)

“The low crystalline Ga<sub>2</sub>O<sub>3</sub> photocatalyst for CO production from CO<sub>2</sub> with water”

### PS-6

○Daiki Umemoto<sup>1</sup>, Takeharu Yoshii<sup>1</sup>, Yasutaka Kuwahara<sup>1,2</sup>, Kohsuke Mori<sup>1,2,3</sup>, Hiromi Yamashita<sup>1,2</sup>

(<sup>1</sup>Graduate School of Engineering, Osaka University, <sup>2</sup>ESICB, Kyoto University, <sup>3</sup>JST PRESTO)

“Preparation of pyrene-functionalized Pd nanocatalysts and enhancement of selectivity in semi-hydrogenation of alkynes”

**PS-7**

○Naoto Kaminade, Shinya Higashimoto

(*Faculty of Engineering, Osaka Institute of Technology*)

“CuInS<sub>2</sub> quantum dots solar cell using ionic liquid: An improvement of life-span of solar cell”

**PS-8**

○Naoki Tsuchiya<sup>1</sup>, Akira Yamamoto<sup>1,2</sup>, Hisao Yoshida<sup>1,2</sup>

(<sup>1</sup>*Graduate School of Human and Environmental Studies, Kyoto University*, <sup>2</sup>*ESICB Kyoto University*)

“Infrared spectroscopy investigation of the adsorption and desorption behavior of hydrogen over supported platinum catalysts”

**PS-9**

○Taisei Akagi<sup>1</sup>, Kojiro Fuku<sup>2</sup>, Naoki Ikenaga<sup>2</sup>

(<sup>1</sup>*Graduate School of Science and Engineering, Kansai University*, <sup>2</sup>*Department of Chemical, Energy and Environmental Engineering, Kansai University*)

“NiCuAl complex oxide catalysts derived from layered double hydroxide for hydrogen production from steam reforming of methanol”

**PS-10**

○Soichi Kikkawa<sup>1</sup>, Kentaro Teramura<sup>1,2</sup>, Hiroyuki Asakura<sup>1,2</sup>, Tsunehiro Tanaka<sup>1,2</sup>

(<sup>1</sup>*Graduate School of Engineering, Kyoto University*, <sup>2</sup>*ESICB Kyoto University*)

“CO<sub>2</sub> hydrogenation over isolated Pt atoms of Ni-Pt alloy”

**PS-11**

○Kazuki Hayami<sup>1</sup>, Atsuhiko Tanaka<sup>2,3</sup>, Hiroshi Kominami<sup>2</sup>

(<sup>1</sup>*Graduate School of Science and Engineering, Kindai University*, <sup>2</sup>*Faculty of Science and Engineering, Kindai University*, <sup>3</sup>*JST PRESTO*)

“Hydrogen formation over copper species modified tungsten(VI) oxide under visible light irradiation”

**PS-12**

○Noriaki Endo, Osamu Tomita, Akinobu Nakada, Masanobu Higashi, Ryu Abe

(*Graduate School of Engineering, Kyoto University*)

“Water oxidation to hydrogen peroxide on bismuth oxyhalide photoelectrode under visible light”

**PS-13**

○Hirotaka Jida<sup>1</sup>, Kohsuke Mori<sup>1,2,3</sup>, Yasutaka Kuwahara<sup>1,2</sup>, Hiromi Yamashita<sup>1,2</sup>

(<sup>1</sup>*Graduate School of Engineering, Osaka University*, <sup>2</sup>*ESICB Kyoto University*, <sup>3</sup>*JST PRESTO*)

“Effect of the shape control of CoO<sub>x</sub>/CeO<sub>2</sub> on PM combustion activity”

**PS-14**

○Taizo Kiyohiro<sup>1</sup>, Akihiko Anzai<sup>1</sup>, Akira Yamamoto<sup>1,2</sup>, Hisao Yoshida<sup>1,2</sup>

(<sup>1</sup>*Graduate School of Human and Environmental Studies, Kyoto University*, <sup>2</sup>*ESICB Kyoto University*)

“Photocatalytic reduction of carbon dioxide with water over cation-doped calcium titanate”

**PS-15**

○Kazushi Iwamura<sup>1</sup>, Kojiro Fuku<sup>2</sup>, Naoki Ikenaga<sup>2</sup>

(<sup>1</sup>*Graduate School of Science and Engineering, Kansai University*, <sup>2</sup>*Department of Chemical, Energy and Environmental Engineering, Faculty of Environmental and Urban Engineering, Kansai University*)

“Hydrogen peroxide production from water and oxygen using Au-supported BiVO<sub>4</sub> photocatalyst”

**PS-16**

Cheng-Wei Chang<sup>1</sup>, ○Zi-Jie Gong<sup>2,3</sup>, Nai-Chieh Huang<sup>2,3</sup>, Cheng-Yu Wang<sup>1</sup>, and Wen-Yueh Yu<sup>2,3</sup>

(<sup>1</sup>*Department of Materials Science and Engineering, National Chiao Tung University*, <sup>2</sup>*Department of Chemical Engineering, National Taiwan University*, <sup>3</sup>*Advanced Research Center for Green Materials Science and Technology*)

“Production of glycerol carbonate from transesterification of glycerol and dimethyl carbonate using MgO supported on ZIF-8 as acid-base catalysts.”

**PS-17**

○Hiroki Kondo, Takato Mitsudome, Tomoo Mizugaki, Koichiro Jitsukawa

(*Graduate School of Engineering Science, Osaka University*)

“Selective carbon-carbon bond cleavage of primary alcohols using Pd/CeO<sub>2</sub> Catalyst”

**PS-18**

○Shinya Mine<sup>1</sup>, Kenta Tatewaki<sup>1</sup>, Takashi Toyao<sup>2</sup>, Yu Horiuchi<sup>1</sup>, Hidekazu Ikeno<sup>1</sup>, Masaya Matsuoka<sup>1</sup>

(<sup>1</sup>*Graduate School of Engineering, Osaka Prefecture University*, <sup>2</sup>*Hokkaido University*)

“Experimental and theoretical investigation of hydrogen and oxygen evolution reactions on visible-light responsive MOF photocatalysts”

**PS-19**

○Eri Fudo<sup>1</sup>, Atsuhiro Tanaka<sup>2,3</sup>, Hiroshi Kominami<sup>2</sup>

(<sup>1</sup>*Graduate School of Science and Engineering, Kindai University*, <sup>2</sup>*Faculty of Science and Engineering, Kindai University*, <sup>3</sup>*JST PRESTO*)

“Water oxidation over gold plasmonic photocatalyst under visible light irradiation”

**PS-20**

○Takanori Takashima, Masanobu Higashi, Akinobu Nakada, Osamu Tomita, Ryu Abe  
(*Graduate School of Engineering, Kyoto University*)  
“Synthesis of visible-light-responsive photocatalysts  $\text{Bi}_6\text{MWO}_{14}\text{X}$  (M = Nb, Ta; X = Cl, Br) and their application to water”

**PS-21**

○Masaya Morimoto, Shun Watanabe, Keita Taniya, Yuichi Ichihashi, Satoru Nishiyama  
(*Graduate School of Engineering, Kobe University*)  
“Effect of aluminium addition to Cu/HZSM-5 catalyst on selective oxidation of benzene”

**PS-22**

○Yuya Futamura<sup>1</sup>, Kohsuke Mori<sup>1,2,3</sup>, Hiromi Yamashita<sup>1,2</sup>  
(<sup>1</sup>*Graduate School of Engineering, Osaka University*, <sup>2</sup>*ESICB Kyoto University*, <sup>3</sup>*JST PRESTO*)  
“Effect of the surface basicity over the amine-functionalized catalysts for selective synthesis of deuterium gases from formic acid”

**PS-23**

○Daiki Fujimoto<sup>1</sup>, Kojiro Fuku<sup>2</sup>, Naoki Ikenaga<sup>2</sup>  
(<sup>1</sup>*Graduate School of Science and Engineering, Kansai University*, <sup>2</sup>*Department of Chemical, Energy and Environmental Engineering, Faculty of Environmental and Urban Engineering, Kansai University*)  
“Reductive hydrogen peroxide production on metallic co-catalyst supported  $\text{WO}_3$ ”

**PS-24**

○Shun Mukai, Shinya Higashimoto  
(*Faculty of Engineering, Osaka Institute of Technology*)  
“Copper-indium-sulfide colloid-sensitized  $\text{TiO}_2$  solar cell”

**PS-25**

○Ryota Ito<sup>1</sup>, Masato Akatsuka<sup>1</sup>, Akiyo Ozawa<sup>1</sup>, Yuma Kato<sup>1</sup>, Yu Kawaguchi<sup>1</sup>, Muneaki Yamamoto<sup>2</sup>, Tetsuo Tanabe<sup>2</sup>, Tomoko Yoshida<sup>2</sup>  
(<sup>1</sup>*Graduate School of Engineering, Osaka City University*, <sup>2</sup>*Advanced Research Institute for Natural Science, Osaka City University*)  
“ $\text{CO}_2$  reduction with water over metal oxides supported  $\text{Ga}_2\text{O}_3$  photocatalysts”

**PS-26**

○Shota Imai<sup>1</sup>, Kousuke Nakanishi<sup>1</sup>, Atsuhiko Tanaka<sup>2</sup>, Hiroshi Kominami<sup>2</sup>  
(<sup>1</sup>*Graduate School of Science and Engineering, Kindai University*, <sup>2</sup>*Faculty of Science and Engineering, Kindai University*)  
“Effects of structure and electronic state of core-shell cocatalyst on photocatalytic hydrogenation of alkyne”

**PS-27**

○Kazuhiro Takahashi, Miho Kimura, Takato Mitsudome, Tomoo Mizugaki, Koichiro Jitsukawa

*(Graduate School of Engineering Science, Osaka University)*

“Development of the highly efficient bimetallic nanoparticle catalyst for mild hydrogenation of amides to amines.”

**PS-28**

○Masahiro Okada<sup>1</sup>, Yasutaka Kuwahara<sup>1,2</sup>, Hiromi Yamashita<sup>1,2</sup>

*(<sup>1</sup>Graduate School of Engineering, Osaka University, <sup>2</sup>ESICB Kyoto University)*

“Deoxygenation of ketones using reduced molybdenum oxide showing surface plasmon resonance and an enhanced catalytic activity under visible light”

**PS-29**

○Yuqiang Dai<sup>1</sup>, Taiki Watanabe<sup>1</sup>, Akira Yamamoto<sup>1,2</sup>, Hisao Yoshida<sup>1,2</sup>

*(<sup>1</sup>Graduate School of Human and Environmental Studies, Kyoto University, <sup>2</sup>ESICB Kyoto University)*

“Support and particle size effect on the catalytic activity in carbon dioxide hydrogenation over supported platinum catalysts”

**PS-30**

○Yuki Okumura<sup>1</sup>, Kojiro Fuku<sup>2</sup>, Naoki Ikenaga<sup>2</sup>

*(<sup>1</sup>Graduate School of Science and Engineering, Kansai University, <sup>2</sup>Department of Chemical, Energy and Environmental Engineering, Kansai University)*

“Synthesis of propylene from ethanol over gallium oxide based-catalyst”

**PS-31**

○Kokoro Yoshioka<sup>1</sup>, Muneaki Yamamoto<sup>2</sup>, Yu Kawaguchi<sup>1</sup>, Akiyo Ozawa<sup>1,3</sup>, Tetsuo Tanabe<sup>2</sup>, Tomoko Yoshida<sup>2</sup>

*(<sup>1</sup>Graduate School of Engineering, Osaka City University, <sup>2</sup>Advanced Research Institute for Natural Science and Technology, Osaka City University, <sup>3</sup>Corporate Research Laboratories, Research & Development Division, Sakai Chemical Industry, Co., Ltd.)*

“Effect of excitation photon energy on Ag loading state and CO<sub>2</sub> reduction activity of Ag/Ga<sub>2</sub>O<sub>3</sub> photocatalyst”

**PS-32**

○Takuma Kimura, Masanobu Higashi, Akinobu Nakada, Osamu Tomita, Ryu Abe

*(Graduate School of Engineering, Kyoto University)*

“Development of efficient oxyhalide Bi<sub>4</sub>NbO<sub>8</sub>Cl photoanodes for water splitting under visible light irradiation”

**PS-33**

○Ziheng Yan, Keita Taniya, Yuichi Ichihashi, Satoru Nishiyama  
(*Graduate School of Engineering, Kobe University*)

“Carbon deposition behavior in dry reforming of methane over alumina-supported Ni catalysts”

**PS-34**

○Yuxiao Zhang<sup>1</sup>, Yasutaka Kuwahara<sup>1,2</sup>, Kohsuke Mori<sup>1,2,3</sup>, Hiromi Yamashita<sup>1,2</sup>

(<sup>1</sup>*Graduate School of Engineering, Osaka University*, <sup>2</sup>*ESICB Kyoto University*, <sup>3</sup>*JST PRESTO*)

“Ru supported on defect-rich 1T/2H MoS<sub>2</sub> as efficient photo-driven ammonia borane dehydrogenation catalyst”

**PS-35**

○Hitomi Imamura<sup>1</sup>, Shimpei Naniwa<sup>1</sup>, Akira Yamamoto<sup>1,2</sup>, Hisao Yoshida<sup>1,2</sup>

(<sup>1</sup>*Graduate School of Human and Environmental Studies, Kyoto University*, <sup>2</sup>*ESICB Kyoto University*)

“Direct amination of benzene with aqueous ammonia using silica-coated TiO<sub>2</sub> photocatalysts”