

IPS-24/ICARP2024 Young, 27-28th July 2024, Hiroshima, Japan

Time table

Saturday, July 27, 2024		
12:00	13:00	Registration, Refreshments
13:00	13:10	Opening Remarks
Session I (Chair: Kei Murata/Kosei Yamauchi)		
13:10	13:40	Invited Lecture 1: Yuki Nagashima / Tokyo Institute of Technology Development of photoinduced reactions utilizing the characteristics of diverse elements
13:40	14:00	Oral 1: Shozo Yanagida / Osaka University How can perovskite solar cells achieve long-term durability? Prediction and verification using density functional theory-based molecular modeling (DFT/MM)
14:00	14:20	Oral 2: Hiromu Kumagai / The University of Tokyo Introduction of Renewable Fuels to Japan: Concept and Current Situation
14:20	14:35	Coffee Break
Session II (Chair: Yosuke Kageshima)		
14:35	14:50	Student Oral 1: Xinyang Huang / Niigata University Ligand-assisted fabrication of Transparent Mesoporous FeNiOx Films for Efficient Electrocatalytic Water Oxidation
14:50	15:05	Student Oral 2: Tomohiro Katsuki / Niigata University Efficient visible-light-driven water oxidation on a Fe-doping SnOx layer deposited on a CuWO4 photoanode
15:05	15:20	Student Oral 3: Fan Feng / Johannes Gutenberg University Mainz High-Performance BiVO4 Photoanodes: Elucidating the Combined Effects of Mo-Doping and Modification with Cobalt Polyoxometalate
15:20	15:35	Student Oral 4: Shinichi Fujiwara / Chuo University Convolutional Neural Network Prediction of the Photocurrent–Voltage Curve directly from Scanning Electron Microscopic Image for Hematite
15:35	15:50	Coffee Break
Session III (Chair: Yuta Tsubonouchi)		
15:50	16:05	Student Oral 5: Philip Petzoldt / Technical University of Munich The Benefits of Employing Surface Science in Photocatalysis
16:05	16:20	Student Oral 6: Makoto Ogawa / Kyoto University Flux-Assisted Synthesis of Layered Perovskite Oxyiodide for Improved Photocatalytic Water Oxidation under Visible Light
16:20	16:35	Student Oral 7: Ren Itagaki / Kyoto University Utilizing Water as an Electron Source for Organic Photoredox Catalysis with Phase-Migrating Electron Mediators in a Biphasic Solution
16:35	16:50	Coffee Break
Session IV (Chair: Yasuomi Yamazaki)		
16:50	17:05	Student Oral 8: Dongseob Lee / Kyushu University Improved Formate Selectivity and Reduced Hydrogen Evolution in Rhodium-Based Photocatalytic CO2 Reduction using Hydroxyl-Functionalized bpy Ligands
17:05	17:20	Student Oral 9: Su Shu Zhang / Huazhong University of Science and Technology Identifying and eliminating the interference of surface carbon residues with CO2 conversion on photocatalyst
17:20	17:35	Student Oral 10: Kengo Nagatsuka / Tokyo University of Science Photoelectrochemical Green Raw Materials Production from H2O and CO2 under Visible Light Irradiation Using Conductive Polymer/Metal Sulfide-Composited Photocathodes
17:35	17:50	Photo Session
17:50	20:00	Poster Session
Sunday, July 28, 2024		
9:30	9:40	Announcement of Award Winner and Celemony
Session V (Chair: Takashi Nakazono)		
9:40	10:00	Oral 3: Mitsuo Shoji / University of Tsukuba O-O bond formation promoted by a phenol radical in a ruthenium complex
10:00	10:20	Oral 4: Yuta Tsubonouchi / Niigata University Efficient intramolecular O-O bond formation promoted by diruthenium water oxidation catalysts with vicinal aquo and hydroxo groups
10:20	10:40	Oral 5: Kiyoshi Miyata / Kyushu University Ultrafast spectroscopy of Photoexcitation and One-Electron Reduction Processes of a CO2 Photoreduction Dyad Catalyst Having a Zinc(II) Porphyrin Photosensitizer
10:40	11:00	Coffee Break
Session VI (Chair: Akinobu Nakada / Kiyoshi Miyata)		
11:00	11:30	Invited Lecture 2: Charles McCrory / University of Michigan Electrochemical CO2 Reduction with Polymer-Catalyst Composites: Translating Polymer-Effects from Aqueous-Phase Batch Cells to Gas-Fed Flow Electrolyzers
11:30	12:00	Invited Lecture 3: Haiming Zhu / Zhejiang University Singlet Fission Enhanced Photocharge Generation at Organic/Inorganic Interface
12:00		Closing Remarks

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List of Poster Presentation (Persons with * symbol will be screened for Student Poster Award)

Poster 1	Improving BiVO ₄ as OEP for Z-scheme photocatalyst	Yideng Shen*	The University of Adelaide
Poster 2	A Highly Stable Platinum(II)-Dimer-Based Photo-Hydrogen Evolving Molecular Device Showing Improved Visible Light Photocatalytic Activity	Toma Kunikubo*	Kyushu University
Poster 3	Efficient Visible-Light-Driven Water Oxidation by a Carbon Nitride Modified with Cobalt Molecular Catalyst	Yuki Tomita*	Kyushu University
Poster 4	Metal cation doping and surface treatment of Y ₂ Ti ₂ O ₅ S ₂ photocatalytic particles for improved hydrogen evolution activity	Riku Kumemoto*	Shinshu University
Poster 5	Visible-light-responsive photoanodes consisting of La ₅ Ti ₂ AgO ₇ S ₅ particles doped with aliovalent metal cations for oxygen evolution reaction	Shiino Otsuka*	Shinshu University
Poster 6	Electronic structures and relative stability and in the S ₂ state of the CaMn ₄ O ₅ cluster of the OEC by DFT and CC calculations	Koichi Miyagawa	Osaka University
Poster 7	Redox Property of a New Dinuclear Co-NHC Catalyst for CO ₂ Reduction	Koshiro Chiwata*	Kyushu University
Poster 8	Photo-induced Imine Reduction Catalyzed with an Artificial Photoredox Biocatalyst Constructed by Incorporation of a Xanthene Dye into a Protein Matrix	Ryusei Kano*	Osaka University
Poster 9	Real-time observation of electron transfer in TiO ₂ photoanode modified with molecular ruthenium complexes anchored by pyridine ligands	Masaya Yara*	Kyushu University
Poster 10	Modification of Cobalt-substituted Cytochrome P450 with a Photosensitizer toward Photoinduced Carbon Dioxide Reduction	Taishu Kojima*	Osaka University
Poster 11	Determination of Turnover Frequency in Electrochemical Hydrogen Evolution from Water Catalyzed by a Co-NHC Complex	Masanori Kan*	Kyushu University
Poster 12	Developing a Molecular-Based Photoelectrochemical Cell Consisting of Two Mesoporous TiO ₂ Electrodes for CO ₂ Reduction	Yuki Goya*	Kyushu University
Poster 13	Highly Efficient Visible Light-Driven Photocatalytic CO ₂ -to-HCOOH Conversion Using Earth-Abundant Metal Porphyrin and P10 Conjugated Polymer	Sunghan Choi	Hiroshima University
Poster 14	Particle Morphology Control of a Layered Oxyhalide Photocatalyst Toward Efficient Water Splitting Under Visible Light	Yasutaka Soga*	Kyoto University
Poster 15	Controlling Carrier Dynamics of Bi-based Oxyhalide Photocatalysts via Introduction of Lanthanide Ions	Yudai Furuta*	Kyoto University
Poster 16	Iridium (III) Complexes Introducing Arylborane Units With Aimed at CO ₂ Photoreduction Reaction	Takuya Yokoo*	Nagasaki University
Poster 17	Factors determining quantum yield of photochemical reduced species of complexes	Naoki Hosokawa*	Tokyo Institute of Technology

List of Extended Poster Discussion for Oral Speakers

ExPoster 1	High-Performance BiVO ₄ Photoanodes: Elucidating the Combined Effects of Mo-Doping and Modification with Cobalt Polyoxyometalate	Fan Feng	Johannes Gutenberg University Mainz
ExPoster 2	Utilizing Water as an Electron Source for Organic Photoredox Catalysis with Phase-Migrating Electron Mediators in a Biphasic Solution	Ren Itagaki	Kyoto University
ExPoster 3	Identifying and eliminating the interference of surface carbon residues with CO ₂ conversion on photocatalyst	Su Shu Zhang	Huazhong University of Science and Technology
ExPoster 4	Improved Formate Selectivity and Reduced Hydrogen Evolution in Rhodium-Based Photocatalytic CO ₂ Reduction using Hydroxyl-Functionalized bpy Ligands	Dongseob Lee	Kyushu University
ExPoster 5	Flux-Assisted Synthesis of Layered Perovskite Oxyiodide for Improved Photocatalytic Water Oxidation under Visible Light	Makoto Ogawa	Kyoto University
ExPoster 6	Efficient visible-light-driven water oxidation on a Fe-doping SnO _x layer deposited on a CuWO ₄ photoanode	Tomohiro Katsuki	Niigata university
ExPoster 7	Efficient intramolecular O-O bond formation promoted by diruthenium water oxidation catalysts with vicinal aquo and hydroxo groups	Yuta Tsubonouchi	Niigata University
ExPoster 8	Ligand-assisted fabrication of Transparent Mesoporous FeNiO _x Films for Efficient Electrocatalytic Water Oxidation	Xinyang Huang	Niigata university
ExPoster 9	The Benefits of Employing Surface Science in Photocatalysis	Philip Petzoldt	Technical University of Munich
ExPoster 10	O-O bond formation promoted by a phenol radical in a ruthenium complex	Mitsuo Shoji	University of Tsukuba
ExPoster 11	Ultrafast spectroscopy of Photoexcitation and One-Electron Reduction Processes of a CO ₂ Photoreduction Dyad Catalyst Having a Zinc(II) Porphyrin Photosensitizer	Kiyoshi Miyata	Kyushu University
ExPoster 12	Introduction of Renewable Fuels to Japan: Concept and Current Situation	Hiromu Kumagai	The University of Tokyo
ExPoster 13	How can perovskite solar cells achieve long-term durability? Prediction and verification using density functional theory-based molecular modeling (DFT/MM)	Shozo Yanagida	Osaka University
ExPoster 14	Convolutional Neural Network Prediction of the Photocurrent–Voltage Curve directly from Scanning Electron Microscopic Image for Hematite	Shinichi Fujiwara	Chuo university
ExPoster 15	Photoelectrochemical Green Raw Materials Production from H ₂ O and CO ₂ under Visible Light Irradiation Using Conductive Polymer/Metal Sulfide-Composited Photocathodes	Kengo Nagatsuka	Tokyo University of Science