

## Poster Presentation (PP)

**PP-01:** *Preferential sites for adsorption of CO on Au<sub>6</sub> clusters using DFT based reactivity descriptors*  
Ajanta Deka (Girijananda Chowdhury Institute of Management and Technology, India)

**PP-02:** *Mesoporous Carbon Nitride Materials for CO<sub>2</sub> Capture*  
Dae-Hwan Park (Kyungnam University, Republic of Korea)

**PP-03:** *Efficient Micro and Nano Patterning of SWCNTs via Discontinuous Dewetting and Liquid-Bridge-Mediated Nanotransfer, and Application in CNT/Silicon Heterojunction Solar Cells*  
Alexander Corletto (The University of Queensland, Australia)

**PP-04:** *Highly Active Nanostructured NiSDC Catalyst for Methane Partial Oxidation at a Reduced Temperature*  
AbdAlwadood H. Elbadawi (The University of Queensland, Australia)

**PP-05:** *Synthesis of zeolite-cryogel composite*  
Bolorjargal Gantumur (National University of Mongolia, Mongolia)

**PP-06:** *Coupling metal-organic frameworks and g-C<sub>3</sub>N<sub>4</sub> to derive Fe@N-doped graphene-like carbon for peroxymonosulfate activation: Upgrading framework stability and performance*  
Chao Liu (Beijing Forestry University, China)

**PP-07:** *Physical mixing of Cu<sub>2</sub>O with UiO-66-NH<sub>2</sub> For Enhanced Photocatalytic Hydrogen Production*  
Ching-Ping Chang (National Chiao Tung University, Taiwan)

**PP-08:** *Mesoporous Gold Films on Flexible Nanopaper for High Performance SERS Sensors*  
Dabum Kim (Kyung Hee University, Republic of Korea)

**PP-09:** *Tailored synthesis of Zn-N co-doped porous MoC nanosheets towards efficient hydrogen evolution*  
Dehua Zheng (Qingdao University of Science and Technology, China)

**PP-10:** *Stability Enhancement via Low Temperature Atomic Layer Deposition for Perovskite Solar Cells*  
Ekyu Han (Korea Electronic Technology Institute, Republic of Korea)

**PP-11:** *Textile Sensor Consists of 2D Materials*  
G M Nazmul Islam (University of Otago, New Zealand)

**PP-12:** *Nanosponges of High Surface Area Amorphous Zeolites as Heterogeneous Catalysts*  
Ayan Maity (Tata Institute of Fundamental Research, India)

**PP-13:** *Synergistic effect of ZnO- ZnFe<sub>2</sub>O<sub>4</sub> and UV activated peroxymonosulfate for degradation of Levofloxacin*  
Diyun Chen (Guangzhou University, China)

**PP-14:** *Perovskite Supported Nickel Catalyst for Carbon Monoxide Methanation*  
Hamidreza Arandiya (The University of Sydney, Australia)

**PP-15:** *Ru@MIL-53-NH<sub>2</sub>-derived C-Al<sub>2</sub>O<sub>3</sub> as highly active catalyst for levulinic acid hydrogenation into  $\gamma$ -valerolactone under ambient condition*

Hsi-Yen Wu (National Taiwan University, Taiwan)

**PP-16:** *Designed patterning of mesoporous metal films based on electrochemical micelle assembly combined with lithographical techniques*

Hyunsoo Lim (The University of Queensland, Australia)

**PP-17:** *Hollow TiO<sub>2</sub> Submicrospheres Assembled by Tiny Nanocrystals as Superior Anode for Lithium Ion Battery*

Jianjian Lin (Qingdao University of Science and Technology, China)

**PP-18:** *Rationally Designed Three-dimensional Si/SiO<sub>x</sub>/C Nanoarchitecture for Enhancing Electrochemical/Mechanical/Thermal Properties of Lithium-ion Battery Anodes*

Jung Ho Kim (University of Wollongong, Australia)

**PP-19:** *Multifunctional TiO<sub>2</sub>@SiO<sub>2</sub>@Fe<sub>3</sub>O<sub>4</sub> Photocatalyst for Efficient Photodegradation on Pharmaceutical Emerging Contaminants*

Jia-Xuan Tan (National Taiwan University, Taiwan)

**PP-20:** *Mechanical Properties of 2D Ti<sub>3</sub>C<sub>2</sub> Synthesised by Chemical Vapour Deposition*

Joel E. von Treifeldt (Queensland University of Technology (QUT), Australia)

**PP-21:** *Facile fabrication of Cu<sub>x</sub>S<sub>y</sub>/Carbon Composites using Lignosulfonate for Efficient Palladium Recovery under Strong Acidic Conditions*

Hao Liu (Dalian Polytechnic University, China)

**PP-22:** *Influence of alumina binder on supporting Pt catalyst onto mesoporous MFI zeolite extrudates*

John Lee (Institute for Basic Science (IBS), Republic of Korea)

**PP-23:** *High-performance Nanomaterials for Rechargeable Batteries: Beyond 2D Structures*

Jun Mei (Queensland University of Technology, Australia)

**PP-24:** *Layer-by-Layer Motif Heteroarchitecturing of N, S-Co-doped Reduced Graphene Oxide Wrapped Ni/NiS towards Water Splitting*

Mohamed Barakat Zakaria (Tanta University, Egypt)

**PP-25:** *Enhanced removal for H<sub>2</sub>S by Cu-ordered mesoporous carbon foam*

Junwen Qi (Nanjing University of Science and Technology, China)

**PP-26:** *Application of Graphene Oxide with Energetic Materials*

Kay Chen (The University of Queensland, Australia)

**PP-27:** *In-situ transformation of metal-organic framework supported multimetallic species to highly efficient electrocatalysts for oxygen evolution reaction*

Jun-Hong Li (National Cheng Kung University (NCKU), Taiwan)

**PP-28:** *Electrochemical Soft-templating Synthesis of Mesoporous Ru Film and its Electrochemical Surface Modification to RuO<sub>x</sub> towards Supercapacitor Electrode*

Kenya Kani (The University of Queensland, Australia)

**PP-29:** *Defined mechanofluorescent Hydrogels composed of DNA modules and 4arm starPEG Polymers*

Ricarda Schmidt (Albert-Ludwigs-University, Germany)

**PP-30:** *Comparative Analysis of Electrochemical Properties of CeO<sub>2</sub>/rGO and CeO<sub>2</sub>/MoS<sub>2</sub> Nanocomposites for Supercapacitor Applications*

M. Mohamed Ismail (Anna University, India)

**PP-31:** *Effect of Na addition and cooling rate on activation of Mg-Ni alloys for hydrogen storage*

Manjin Kim (The University of Queensland, Australia)

**PP-32:** *Coordination Polymers for Nanoglue and Seawater Battery*

Ming Hu (East China Normal University, China)

**PP-33:** *Investigating the surface area and pore structure of graphitic supercapacitor electrodes*

Michael Horn (Queensland University of Technology (QUT), Australia)

**PP-34:** *Cobalt nanoparticle supported on carbon cloth as non-PGM catalyst for Direct Hydrazine Fuel Cell*

Minho Son (Daegu Gyeongbuk Institute of Science & Technology (DGIST), Republic of Korea)

**PP-35:** *Sn<sub>4</sub>P<sub>3</sub> nanoparticles embedded in nanofiber as a free-standing anode for sodium*

Lingbing (The University of Queensland, Australia)

**PP-36:** *Utilizing mining waste minerals as catalysts for fuel production*

Mohamed Hassan Mohamed (The University of Queensland, Australia)

**PP-37:** *A simple and inexpensive device for sensitive and selective quantification of Xanthomonas albilineans in sugarcane (Saccharum hybrid)*

Muhammad Umer (Griffith University, Australia)

**PP-38:** *Effect of particle size distribution on As(V) removal performance*

Mukter Zaman (Multimedia University, Malaysia)

**PP-39:** *Electrochemical Nitrogen Reduction Reaction on Two-Dimensional Antimonene Nanosheets for Ammonia Synthesis*

Munkhjargal Bat-Erdene (The University of Queensland, Australia)

**PP-40:** *A Novel Approach for the Development of Moisture Encapsulation for Perovskite Solar Cells*

Nochang Park (Korea Electronics Technology Institute (KETI), Republic of Korea)

**PP-41:** *Effect of Platinum Atom Nano-catalytic on Hydrogen Storage*

Po-Cheng Kang (National Chiao Tung University, Taiwan)

**PP-42:** *Degradation of Lignin to Aromatic Monomers over Sulfated Metal-Organic Framework (MOF-808)*

Po- Chun Han (National Taiwan University, Taiwan)

**PP-43:** *Engineered mesoporous silica-based nanoreactors for chemodynamic therapy*

Ranjith Kumar Kankala (Huaqiao University, China)

**PP-44:** *A machine learning approach to embryo selection in the context of In Vitro Fertilization (IVF)*

Rex Parsons (City Fertility (Global CHA IVF Partners), Australia)

**PP-45:** *Multi-color Fluorescence Nanoprobe Activated by Lysosomal Hydrogen Peroxide for Light-controlled "Double-Check" Bioimaging*

Run Zhang (The University of Queensland, Australia)

**PP-46:** *Neem leaves derived activated carbon based all solid-state symmetrical supercapacitor for high energy density*

Shashank Sundriyal (CSIR-Central Scientific Instrument Organisation (CSIR-CSIO), India)

**PP-47:** *Layered Double Hydroxide as A New Class of Gas Releasing Materials: Solid Materials that Release H<sub>2</sub>S and NO in Response to Air*

Shinsuke Ishihara (National Institute for Materials Science (NIMS), Japan)

**PP-48:** *Synergy effect of spongy-like Sn<sub>2</sub>Ta<sub>2</sub>O<sub>7</sub>/SnO<sub>2</sub> and modified carbon dots for excellent adsorption and strong full spectrum photocatalytic activity*

Shukun Le (Inner Mongolia University, Mongolia)

**PP-49:** *Synergy Between Metal and Oxide in Pt-WO<sub>x</sub>/Al<sub>2</sub>O<sub>3</sub> and Cu-WO<sub>x</sub>/Al<sub>2</sub>O<sub>3</sub> Catalysts for Green Diesel Production*

Srinivas Darbha (CSIR-National Chemical Laboratory, India)

**PP-50:** *Carbon-coated Pd/Co(OH)<sub>2</sub> hybrids for efficient bifunctional oxygen electrocatalysts and rechargeable Zn-air batteries*

Suyeon Hyun (Daegu Gyeongbuk Institute of Science & Technology (DGIST), Republic of Korea)

**PP-51:** *Synthesis of trimetallic mesoporous nanoparticles of PtPdRh and its electrocatalytic study*

Tomota Nagaura (JX Nippon Mining and Metals Corp., Japan)

**PP-52:** *Design of nanocarrier: Targeted drug delivery for evaluation of mitochondrial dynamics*

A.Vijaya Lakshmi (CSIR-Centre for Cellular and Molecular Biology, India)

**PP-53:** *Electric Alignment of Niobate-Clay Binary Nanosheet Colloids*

Wataru Ishitobi (Kyushu Institute of Technology, Japan)

**PP-54:** *Synthesis of MCP-1 Functionalized, Pd-embedded Metal-Organic Frameworks (MCP-1/Pd@MIL-100) for Monocytes-Targeting and Potential Photothermal Therapy)*

Wei- Cheng Chien (National Taiwan University, Taiwan)

**PP-55:** *Functional Porous 3D Graphene Monolith: Synthesis and Electrode Application for Supercapacitor*

*and Electrocatalysis*

Xiangfen Jiang (City University of Hong Kong, China)

**PP-56:** *The effects of trace additions of Sb and Zn on Cu<sub>6</sub>Sn<sub>5</sub> lithium-ion battery anodes*

Xin Fu Tan (The University of Queensland, Australia)

**PP-57:** *Glycolysis of Poly(ethylene terephthalate) Highly Catalyzed by Nanoporous Zeolitic Metal Azolate Framework (MAF) Catalysts*

Yen-Tsz Bieh (National Taiwan University, Taiwan)

**PP-58:** *Synthesis of Continuous UiO-66-NH<sub>2</sub> on Anodic Aluminum Oxide Substrates for Salinity Gradient Power Generation*

Yi-Cheng Liu (National Taiwan University, Taiwan)

**PP-59:** *Niobium Oxyfluoride/Carbon Nanobelts as Anode for Sodium Ion Storage*

Yilan Wu (The University of Queensland, Australia)

**PP-60:** *Effect of Reduced Graphene Oxide Nanosheets on the Electrochemical Behavior of Bismuth Sulfide Nanorods for Supercapacitor Applications*

Muhammad Faisal Iqbal (Lahore Garrison University, Pakistan)

**PP-61:** *Metal–organic framework-based nanocomposites composed of dimensionally distinct graphene-based materials for electrochemical applications*

Yi-Sen Wang (National Cheng Kung University (NCKU), Taiwan)

**PP-62:** *Influence of O<sub>2</sub> Annealing on Resistive Switching Behavior of MoS<sub>2</sub>-Based ReRAM*

Young-Woong Song (Yonsei University, Republic of Korea)

**PP-63:** *Impregnation of Graphene Quantum Dots into a Metal–Organic Framework to Render Increased Electrical Conductivity and Activity for Electrochemical Sensing*

Yu-Chuan Chen (National Cheng Kung University, Taiwan)

**PP-64:** *Series of metal complexes of N-benzyl HMTA: synthesis and absorption property for water purification*

Yunyin Niu (Zhengzhou University, China)

**PP-65:** *Material Biology: Study on Enzyme@Metal-Organic Frameworks Composites*

Yu-Shen Hsu (National Taiwan University, Taiwan)

**PP-66:** *Liquid exchange method to fabricate permanently microporous gels based on metal-organic polyhedral*

Zaoming Wang (Kyoto University, Japan)

**PP-67:** *A Surface Structure Tailored 3D Perovskite Inverse Opals for Efficient and Durable Water Splitting*

Yuan Wang (The University of New South Wales, Australia)

**PP-68:** *Lipid-Assisted Synthesis of Mg-Containing Calcium-Phosphate with Various Crystalline Phases*

Yu- Sheng Yu (National Taiwan University, Taiwan)

**PP-69:** *Metal Free Catalysis for CO<sub>2</sub> Conversion using Dendritic Fibrous Nanosilica*

Vivek Polshettiwar (Tata Institute of Fundamental Research (TIFR), India)

**PP-70:** *A simple and convenient method to fabricate the fuel cell membrane electrode assembly based on decal transfer*

Yuwei Liu (Beihang University, China)

**PP-71:** *2D-2D heterostructured TiO<sub>2</sub>/g-C<sub>3</sub>N<sub>4</sub> nanocomposites for enhanced photocatalytic performance under visible irradiation*

Yuanwen Zhang (Queensland University of Technology, Australia)

**PP-72:** *Non-Noble Metal Mo Cocatalyst for Full-Spectrum-Driven Photocatalytic CO<sub>2</sub> Reforming to CH<sub>4</sub>*

Shaolong Huang (Shenzhen University, China)