NANO KOREA 2026 Conference Best Poster Awards Winners

Presentation Code	Name of Awards	Prize	TITLE	AFFILIATION	AUTHOR
TS01T_BP_4	Best Poster Awards **Grand** Prize	KRW 1,000,000	Three-Dimensional Monolithic Integration of Nanowire-Based Polymer Transistors in Logic Circuits	Korea Maritime and Ocean University	Sang Hwa Song, U Seong Jin, Jin Seok Yoon, Won Bae Cho, and Young Tea Chun
TS06W_BP_4	Best Poster Awards **Gold** Prize	KRW 500,000	A Scalable Photonic Nose based on DNA/Carbon Nanotube Corona Interfaces	Sungkyunkwan University	Minyeong Yoon, Jeonghyeon Cho, and Sooyeon Cho
TS09W_BP_4	Best Poster Awards **Gold** Prize	KRW 500,000	Cascade Digital Microfluidic System with Exosome Separation, Lysis, and PCR for Cancer Early Diagnosis	Sogang University	Yong Ho Kwon, Tae Hyeon Kim, and Bong Geun Chung
TS11W_BP_6	Best Poster Awards **Gold** Prize	KRW 500,000	Wireless, Battery-Free Multi-Axial Sensing Platform for Pressure Injury Prevention	Korea Advanced Institute of Science and Technology	Jiwon Moon, Hyeonseok Han, Seokjoo Cho, and Inkyu Park
TS02W_BP_2	Best Poster Awards **Silver** Prize	KRW 300,000	Squid-Inspired Conformable Microneedle SERS Sensor Platform for Minimally Disruptive Food Quality Monitoring	Korea University	Yeojin Kang and Junseong Ahn
TS03T_BP_4	Best Poster Awards **Silver** Prize	KRW 300,000	Enhanced Properties of ZnO Thin Films and TFTs by Two-Step Oxidation in ALD	Hanbat National University	Ahyun Park, Seung-Hun Lee, Jihun Ha, Jae Woong Lee, and Jeong Hwan Kim
TS07W_BP_3	Best Poster Awards **Silver** Prize	KRW 300,000	Charge–Discharge Asymmetry in NCM811 Cathodes Driven by FastCharge-Induced Inter-Particle SOC Heterogeneity	Inha University	Hyeon Gyu Song and Minkyu Kim
TS08W_BP_4	Best Poster Awards **Silver** Prize	KRW 300,000	Droplet Electricity Generator for High-Output Direct Current Energy Harvesting	Seoul National University of Science and Technology	Se-Jin Kim, Geon-Ju Choi, Sang-Hyun Sohn, and Il-Kyu Park
TS10T_BP_11	Best Poster Awards **Silver** Prize	KRW 300,000	Integrated RPA–RCA–CRISPR-Cas12a Hydrogel Biosensing Platform for Ultrasensitive Malaria Detection	Gyeongsang National University	Jun ho Yang, Ha Neul Lee, and Yoo Kyung Kang
TS12T_BP_10	Best Poster Awards **Silver** Prize	KRW 300,000	Electrochemical Direct Methylation of Imines	Korea University	Eunji Baek and Kyoungsuk Jin

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TS01W_BP_1	Best Poster Awards		Hydroxyl-Defect-Induced Charge Trapping in IGZO Synaptic Transistors for Physical Reservoir Computing	Chungbuk National University	Minyoung Choi and Byungjin Cho
TS01W_BP_5	Best Poster Awards		Contact Engineering via a MoxTey Interfacial Layer in MoS_2 Transistors for High Performance Capacitorless DRAM	Chungbuk National University	Yedam Kim and Byungjin Cho
TS01W_BP_8	Best Poster Awards		III-V-Derived Van der Waals Memtransistor Enabled by Cation-Eutaxy	Yonsei University	Jihong Bae and Wooyoung Shim
TS01T_BP_8	Best Poster Awards		Semiconducting Janus Monolayers as a Platform for Ultrafast Switching and High-Endurance Nonvolatile Memory	Sungkyunkwan University	Swathi Krishna, Ngoc Thanh Duong, Seong Chu Lim, and Ki Kang Kim
TS02W_BP_1	Best Poster Awards		Misalignment-Tolerant Cascaded Plasmonic Janus Metasurfaces for Direction-Dependent Wavefront Control	Kyungpook National University	Eui-Soo Cho, Gyeongsu Jin, Hee-Dong Jeong, and Seung-Yeol Lee
TS02W_BP_3	Best Poster Awards		Optimization of Hollow Silica Nanoparticles for Efficient UV Diffuser Films	Korea Advanced Institute of Science and Technology	Sunhyoung Koo, Jinhyeong Kim, Jaehyeok Park, and Seunghyup Yoo
TS02T_BP_3	Best Poster Awards		Water-Floating Nanotransfer of SERS Substrates for Pesticide Detection	1Korea Advanced Institute of Science and Technology, 2Korea Institute of Machinery & Materials, 3Korea University	Byung-Ho Kang1,2, Ji-Hwan Ha1,2, Byeongmin Kang1,2, Sohee Jeon2, Soon Hyoung Hwang2, Junseong Ahn3, Inkyu Park1, and Jun-Ho Jeong2
TS03W_BP_1	Best Poster Awards		Deep Learning Hidden-State Analysis for Explainable Anomaly Detection in Semiconductor Manufacturing Process Monitoring	1Korea Electronics Technology Institute, 2Sungkyunkwan University	Byeong Jun Song1,2, Jihun Kim1,2, Sung Kyu Jang1, Jihye Seo1, Mincheol Kim1,2, Ji Won Suk2, Hyeongkeun Kim1, and Jong Hyun Choi1
TS03W_BP_5	Best Poster Awards		Resolution Enhancement in EUV Ptychography via Optimized Probe Overlap Ratio for Diffraction Diversity	Hanyang University	Hosun Kwak, Junho Hong, Seungchan Moon, and Jinho Ahn

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TS03T_BP_5	Best Poster Awards		Effect of Oxygen Partial Pressure on the Electrical, Structural, and Adhesion Properties of a-IGZO Films Using Sputtering	Hanbat National University	Jae Woong Lee, Seung-Hun Lee, Ahyun Park, Jihun Ha, Jun Yeong Jang, Sera Choi, and Jeong Hwan Kim
TS04W_BP_1	Best Poster Awards		Self-Aligned Nanopatterning of Solution Materials via an Antifouling Agent/NOA Bilayer Template	Dong-A University	Sungyun Kim, TaeHyeon kim, Duri Kim, Donghwan Hwang, and Hanul Moon
TS04W_BP_2	Best Poster Awards		Sub-1 V Object Visibility Modulation with Electrically Reconfigurable Nanofilter	Gwangju Institute of Science and Technology	Juhwan Kim, Hanyi Kim, Gyurin Kim, Jinkyeong Lee, and Hyeon-Ho Jeong
TS04W_BP_3	Best Poster Awards		Analysis of Surface Plasmon Polaritons in Al–Si_3N_4 Slit Structures for SWIR-to-NIR Conversion	1Cheongju University, 2National NanoFab Center	Choung Hyeon Lee1, Joo Wan Kim1, Il Suk Kang2, and Jong-Kwon Lee1
TS04T_BP_2	Best Poster Awards		3D Heterogeneous Interconnect Using Through-InP Via for RF Applications	Chungnam National University	Minsik Park, Jonghyun Song, Won-Chul Lee, Hyoungho Ko, and Jongwon Lee
TS05W_BP_17	Best Poster Awards		Oxidation-Mediated Van der Waals Interface Engineering for High-Performance p-Type WSe_2 FETs	1Seoul National University, 2Ulsan National Institute of Science and Technology	Hyun-Young Choi1, Yeon Ho Kim1, Youngdeuk Youn1, Hyeongjun Jang2, Changwook Jeong2, Chul-Ho Lee1, and Gwan-Hyoung Lee1
TS05W_BP_18	Best Poster Awards		Boltzmann Switching MoS_2 Metal–Semiconductor Field-Effect Transistors Enabled by Monolithic-Oxide-Gapped Metal Gates at the Schottky–Mott Limit	1Seoul National University, 2University of Minnesota	Yeon Ho Kim1, Wei Jiang2, Donghoon Moon1, Gwan-Hyoung Lee1, Tony Low2, and Chul-Ho Lee1
TS05W_BP_24	Best Poster Awards		High-Entropy-Stabilized 1T Transition Metal Dichalcogenides for Efficient and Durable Photoelectrochemical Hydrogen Production	Seoul National University	Jin Ho Seo and Ho Won Jang

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TS06W_BP_1	Best Poster Awards		Pyramidal Quantum Dot Arrays for Angle-Selective Light Absorption	Pusan National University	Jisoo Seo and Tae Won Nam
TS06W_BP_15	Best Poster Awards		Interconnected CFA-1/MWCNT Composites via Morphology Control for Electrochemical Heavy Metal Ion Sensing	Hanyang University	Yeon-Joo Kim, Jae-Woo Seo, Dong-Hee Lee, and Seon-Jin Choi
TS06W_BP_21	Best Poster Awards		Processing Optimization of Smart Biopolyol-Based Polyurethane	1Seoul National University, 2Dankook University	Wonjin Lee1, James Sangmin Choo1, Goum Min1, Siheon Lee1, Jeong-Yun Sun1, Young Seok Song2, and Juhyuk Park1
TS06W_BP_28	Best Poster Awards		CMOS-Integrated Platform for Spatially Addressable Enzymatic DNA Synthesis	Pohang University of Science and Technology	Wonjoon Choi
TS07W_BP_8	Best Poster Awards		Electrospun Aluminum–Iridium Nanofibers with Oxide–Metal Synergy for Efficient Overall Alkaline Water Splitting	1Ewha Womans University, 2Jeonbuk National University	Yeongeun Lee1, Dasol Jin2, and Youngmi Lee1
TS07W_BP_10	Best Poster Awards		Anion-Specific Effects in Pre-Lithiated PAA Binders for High-Performance Silicon Anodes	1Chungnam National University, 2Hanyang University	Minju Song1, Junsu Son2, Minji Park1, Gyuri Kim2, Tae Kyung Lee2, Seulki Song1, and Woo-Jin Song1
TS07T_BP_9	Best Poster Awards		Site-Dependent Doping Effects on the Structural Stability of Single-Body Mid-Ni NCM Cathodes under High-Voltage Operation	Dong-A University	Min-Beom Kim, Jun-Hyeog Ko, Jong-Heon Lim, and Jeom-Soo Kim
TS07T_BP_10	Best Poster Awards		Structural Stabilization of O3-Type $NaNi_{1/3}Fe_{1/3}Mn_{1/3}O_2$ Cathode Material via Ta Doping for Sodium-Ion Batteries	Dong-A University	Min-Jeong Jo, Yu-Jin Son, Hyo-Bin Ryu, and Jeom-Soo Kim

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TS08W_BP_3	Best Poster Awards		Design Strategies to Transfrom Spent Ternary Battery Cathodes to Electrocatalysts for Water Electrolysis	Seoul National University	Taeyeon Cho, Jinwook Jung, and Jin Soo Kang
TS08T_BP_1	Best Poster Awards		4D, 5D Metals Mediated Nickel Phosphide Nanoparticles Phase Transformation Toward Phosphorus-Rich Phases for Hydrogen Evolution Reaction	Chung-Ang University	Eunsu Noh and Don-Hyung Ha
TS08T_BP_2	Best Poster Awards		Structurally Defined Model Catalysts for Understanding Performance and Durability in PEM Fuel Cell Cathodes	1Korea Advanced Institute of Science and Technology, 2Kookmin University, 3Hyundai Motor Group	Soyeong Jo1, Sohee Kim2, Jongmin Lee1, Jungwon An2, Hyein Park1, Jiwoo Lee1, Je Hyeon Yeon3, Segeun Jang2, and Dong Young Chung1
TS08T_BP_6	Best Poster Awards		Understanding Surface Reconstruction of Nickel Sulfide for Anion Exchange Membrane Water Electrolysis	Chung-Ang University	Byeongyeong Kwack, Junbeom Bang, and Sang Hyun Ahn
TS09W_BP_7	Best Poster Awards		Dual Enzymatic Bovine Serum Albumin–Copper Hybrid Nanoflowers for Colorimetric Detection of Ascorbic Acid and Degradation of Phenolic Dyes	Gachon University	Seo Ju Kim, Xuan Ai Le, and Moon Il Kim
TS09W_BP_10	Best Poster Awards		A Microelectrode-Integrated Perfusable Vessel-on-a-Chip Enabling Simultaneous Measurement of Transendothelial Electrical Resistance and Vascular Permeability	1Sungkyunkwan University, 2Gachon University	Sanghyeok Park1, Hyeongjin Ahn1, Jaehong Min2, Wooju Park2, Jihoon Ko2, and Jungho Ahn1
TS09T_BP_4	Best Poster Awards		Inflammation-Targeted Polyphenol-Condensed Antioxidant Nanoparticles for Therapeutic Application	1Korea Institute of Science and Technology, 2Korea Institute of Science and Technology Europe	Dohyub Jang1, Honghwan Choi1, Young Hun Seo2, and Sehoon Kim1
TS09T_BP_8	Best Poster Awards		Polydopamine-Coated Multicomponent ZnO/Ag/CuO Nanocomposite based on Wrinkled Mesoporous Silica for Synergistic Antibacterial Therapy	1Chung-Ang University, 2Nanomedicine Corporation, 3Nanopeutics Inc.	Minje Kim1, Jaehee Jang1, Jiwon Kim1, Jihyuk Yang1, Khongorzul Enkhtaivan1, Seongjoong Lee1, Sohyun Yoon1, Wonju Go1, Sehee Kim1, Naranjargal Batbayar1, Yonghyun Choi1,2, and Jonghoon Choi1,2,3

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TS10T_BP_2	Best Poster Awards		Flexible SERS Platform with Three-Dimensional Hotspot Nanoarchitecture for Ultrasensitive Neurotransmitter Detection	Yonsei University	Ayeong Jeon, Jisoo Park, and Jeonghun Kim
TS10T_BP_4	Best Poster Awards		Targeted and Controlled Carbon Monoxide Delivery Using Nanoparticle Systems for Inflammatory Diseases	Chung-Ang University	Chae Yeon Han, and Jihoon Kim
TS10T_BP_13	Best Poster Awards		Aptamer-Guided Site-Selective Protein Modification for Biotherapeutics	1Pohang University of Science and Technology, 2Northwestern University	Jiyun Beon1, Ewa Pietrasiak1, Hyesung Jo2, and Seung Soo Oh1
TS10T_BP_15	Best Poster Awards		Light-Stimuli-Responsive Liposome Fusion Coupled with RCA-CRISPR for Cancer-Derived Exosomal miRNA Analysis	Incheon National University	Khulan Nyamzaya, Jueun Han, Yejin Song, Jihee Lee, and Eunjung Kim
TS11W_BP_2	Best Poster Awards		Biphasic Nanozyme-Driven ROS Amplification in a Biomimetic Nanoplatform for Photodynamic and Immunomodulatory Cancer Therapy	National Cheng Kung University	Chih-Chia Huang
TS11T_BP_1	Best Poster Awards		Real-Time Decoupling of Normal and Shear Forces Using Tri-Photodiode	Changwon National University	Yoorim Loh and Yong Suk Oh
TS11T_BP_6	Best Poster Awards		Development of Nanostructured PEGDA Hydrogel Biosensor for Pretreatment-Free Multiplexed Stress Monitoring	Dongguk University	Eunseo Cho, Eunyeong Yang, Jaehyeok Choi, Daehwan Ko, and Jinsik Kim
TS12T_BP_9	Best Poster Awards		Sustainable Electrochemical Synthesis of Adipic Acid Using a Bifunctional Catalyst	Korea University	Sojin Kim and Kyoungsuk Jin
TS12T_BP_14	Best Poster Awards		Direct Electrochemical Upgrading of Triethylamine-Captured CO_2 to High-Purity Formic Acid: A Sn–Cu-Catalyzed Reactive Capture and Conversion System	1Korea Institute of Science and Technology, 2Kookmin University	Kezia Langie1, Changsoo Kim1, Chan Woo Lee2, Ung Lee1, and Da Hye Won1
TS12T_BP_18	Best Poster Awards		Surface-State-Driven Selectivity of Electrocatalytic Glucose Oxidation: Metallic Au, Au-OH and CuO	1Korea Institute of Science and Technology, 2Korea University, 3Yonsei University	Myeonghwan Oh1,2, and Dong Ki Lee1,2,3

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TS12T_BP_23	Best Poster Awards		Investigating Electronic Structure Descriptors for Electrochemical CO_2 Reduction Selectivity in Cu-M Binary Alloys	1Korea Advanced Institute of Science and Technology, 2Korea University, 3Pohang University of Science and Technology, 4Kyushu University, 5Yonsei University	Yujin Jung1, Hafiz Ghulam Abbas2, Soeun Kim1, Beomil Kim1, Junsic Cho3, Sunghoon Han3, Hakhyeon Song1, Yuta Takaoka4, Jun Tae Song4, Tatsumi Ishihara4, Chang Hyuck Choi3,5, Stefan Ringe2, and Jihun Oh1
TS13W_BP_5	Best Poster Awards		Hydrogen Penetration into Platinum during Electrochemical Hydrogen Evolution Reaction Revealed by Grand Canonical Machine Learning Molecular Dynamics	Korea University	Dongmin Kim and YongJoo Kim
TS13W_BP_7	Best Poster Awards		Explainable Large Language Model-Driven Framework for the Discovery of Cobalt Spinel Electrocatalysts in Industrial Water Electrolysis	1Seoul National University, 2Institute for Basic Science	Jongyeop Baek1,2, Junseok Moon1,2, and Taeghwan Hyeon1,2
TS13T_BP_6	Best Poster Awards		A Data-Driven Knowledge Graph Framework for Electrolyte Materials in Protonic Ceramic Electrolysis Cell	Pusan National University	Gaheun Shin and Joonhee Kang
TS14T_BP_3	Best Poster Awards		Noncatalytic Mechano-Electrochemical Energy Conversion in Piezoelectric Ceramic Powders under Ultrasonic Cavitation	Hanyang University	Gunn Park and Jae-Woo Park
TS14T_BP_4	Best Poster Awards		Mass Cytometry in Nanomedicine and Nanotoxicology: A Next-Generation Approach for Single-Cell Proteomics Analysis	1Hanyang University, 2Korea Research Institute of Chemical Technology, 3Yoon Idea Lab. Co. Ltd.	Zayakhuu Gerelkhuu1, Sehee Park2, Eunseo Lee1, Hyojoo Bang1, Seung-Geun Park1, Minseop Kim1, Yewon Han1, and Tae Hyun Yoon1,3
TS14T_BP_5	Best Poster Awards		MINTOX: A Computational Framework for Joint Toxicity Assessment of Binary Nanoparticle-Ion Systems	1University of Gdansk, 2University of Gdansk, 3Korea Research Institute of Chemical Technology	Dawid Falkowski1,2, Alicja Mikolajczyk1,2, Jongwoon Kim3, Karolina Jagiello1,2, and Tomasz Puzyn1,2