



제주대학교
JEJU NATIONAL UNIVERSITY

JSSST 2026

The 17th Joint Symposium of
Nagasaki University and Jeju National University
on Science and Technology

October 3 (Sat) – 5 (Mon), 2026
Large Auditorium, 3F, General Education and Research Building
Nagasaki University, Nagasaki, Japan

HOST Graduate School of Integrated Science and Technology, Nagasaki University

ORGANIZER Graduate School of Integrated Science and Technology, Nagasaki University



*The 17th Joint Symposium of
Nagasaki University and Jeju National University
on Science and Technology*

JSST2026

Nagasaki University, Nagasaki, Japan
October 3-5, 2026

Co-organized by



Welcome Address

On behalf of the Graduate School of Integrated Science and Technology at Nagasaki University, it is my great pleasure to welcome all participants in the 17th Joint Symposium on Science and Technology between Jeju National University and Nagasaki University. We are delighted to welcome faculty members, researchers, and students from Jeju National University to Nagasaki on October 3 and 4, 2026.



Over the years, this symposium has become a valuable forum for researchers and students from both universities to present their findings and exchange knowledge and ideas in science and technology. Following the interruption caused by the COVID-19 pandemic, the symposium resumed with its 16th meeting and now continues with the 17th. This continuity reflects the trust and cooperation cultivated between our universities over many years and makes this occasion particularly meaningful.

The challenges facing us today—including climate change, natural disasters, energy, environmental conservation, marine resources, population decline, and digital transformation—are increasingly complex and diverse. Addressing them requires collaboration beyond any single discipline, country, or region. It is therefore more important than ever to bring together our knowledge, technologies, and experience across disciplinary and national boundaries.

Jeju and Nagasaki are both surrounded by rich marine environments and share many characteristics and challenges as island and coastal regions. By deepening academic exchange across a broad range of scientific and technological fields, our universities can create and share new knowledge and value from our regions with the wider world.

I sincerely hope that this symposium will enable participants not only to share research findings but also to gain new perspectives and inspiration. I particularly encourage students and early-career researchers to engage actively in discussions, learn from one another, and explore new possibilities for academic exchange and collaborative research.

I would like to express my sincere gratitude to Professor Sang-Jae Kim, Dean of the College of Engineering and Chair of the Organizing Committee at Jeju National University; Professor Kyungnam Ko, the faculty representative of Jeju National University; and Professor Hiroto Murakami, Chair of the Organizing Committee at Nagasaki University, for their invaluable contributions. I also extend my deepest appreciation to the organizing committees of both universities and to all faculty members, staff, and students whose dedicated efforts have made this symposium possible.

In closing, I sincerely hope that this symposium will be highly productive, deepen academic exchange and friendship among its participants, and further strengthen cooperation between Jeju National University and Nagasaki University.

Prof. Dr. Kazuaki Kawamoto

***Dean of Graduate School of
Integrated Science and Technology,
Nagasaki University***

Welcome Address

On behalf of the Graduate School of Engineering, Nagasaki University, it is my great pleasure to welcome all of you to JSST 2026, the Joint Symposium on Science and Technology between Jeju National University and Nagasaki University, held here in Nagasaki.

Since our two universities established an academic exchange agreement in 1991, this symposium has grown into one of the most enduring and productive frameworks for collaboration between us. Over more than three decades, it has brought together researchers and students from engineering, marine science, and natural science to share their latest work, forge lasting friendships, and lay the groundwork for joint research projects and dual-degree education programs that continue to this day.

I am delighted that JSST returns to Nagasaki this year to renew that legacy in the city where our exchange first began. Nagasaki, itself a historic gateway between Japan and the wider world, offers a fitting setting for a symposium that has, over the years, opened as many doors between our two universities as this port city once opened between nations.

This volume of proceedings gathers the results of that continued collaboration: the latest research from colleagues and students of both Jeju National University and Nagasaki University across engineering and related fields. I hope these pages spark new questions, new collaborations, and new friendships, just as earlier editions of this symposium have done.

I would like to express my sincere gratitude to the organizing committee, to our colleagues at Jeju National University, and to everyone who contributed their research to this symposium. I wish you all a fruitful symposium and a memorable stay in Nagasaki.



Prof. Dr. Daisaku Sakaguchi

***Dean of Graduate School of
Engineering,
Nagasaki University***

Opening Remarks

It is my great pleasure to invite us to JSST 2026, jointly organized by Jeju National University and Nagasaki University.

Our two universities have shared a strong partnership for more than 30 years. Since our first academic agreement in 1991, we have continued to build close ties through education, research, and student exchange. In particular, the engineering symposium, which began in 1992, has become an important tradition connecting our faculty members and students.



Following the successful JSST 2024 in Jeju, we are very pleased to continue this tradition in Nagasaki. JSST 2026 provides a valuable opportunity for faculty members and students from both universities to share their research, exchange ideas, and explore new possibilities for collaboration.

Today, many engineering challenges, including energy transition, climate change, artificial intelligence, advanced materials, and future mobility, require cooperation across disciplines and countries. I believe JSST can play an important role in bringing our researchers and students together to address these challenges.

I sincerely hope that JSST 2026 will lead to new joint research, stronger student exchange, and closer cooperation between our two universities. I also hope that our students will build new friendships and gain valuable international experience through this symposium.

On behalf of the College of Engineering in Jeju National University, I would like to thank Nagasaki University for its warm hospitality and excellent preparation. I also thank all faculty members, students, and staff who have contributed to JSST 2026.

I am confident that JSST 2026 will be another important milestone in the long-standing partnership between Jeju and Nagasaki and a new step toward our shared future.

A handwritten signature in purple ink, appearing to read 'Sang-Jae Kim'.

Sang-Jae Kim, Ph.D.

***Dean, College of Engineering,
Jeju National University***

Organizing Committee

Symposium Leadership

Hiroto Murakami (NU, Vice Dean of the Graduate School of Engineering), Chair, JSST2026

Toshihiro Okumatsu (NU, Vice Dean of the Graduate School of Engineering), Vice-Chair, JSST2026

Sang-Jae Kim (JNU, Dean of the Faculty of Engineering), JNU Representative

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Kazuaki Kawamoto (NU, Dean of the Graduate School of Integrated Science and Technology)

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Ji Hyun Jeong (JNU, Mechanical System Engineering)

Hee-Jung Im (JNU, Chemistry)

Taeseok Kim (JNU, Nuclear Engineering)

Hae-Won Lee (JNU, Food Engineering)

Jae Young Hur (JNU, Electronic Engineering)

Technical Advisory Committee

Jeju Global University Project

Timetable

October 3rd, 2026 (Saturday)				
18:00 -	Welcome Reception			St. PRIÈRE
October 4th, 2026 (Sunday)				
9:00 - 10:00	Registration			Gen. Ed. & Res. Bld., 1F
10:00 - 10:05	Opening Remarks 1 [H. Murakami, NU] Prof. K. Kawamoto (Dean of Grad. Sch. Integ. Sci. & Tech., NU)			Large Auditorium, 3F
10:05 - 10:10	Opening Remarks 2 [H. Murakami, NU] Prof. Daisaku Sakaguchi (Dean of Grad. Sch. Eng., NU)			Large Auditorium, 3F
10:10 - 10:15	Opening Remarks 3 [H. Murakami, NU] Prof. Sang-Jae Kim (Dean of Sch. Eng., JNU)			Large Auditorium, 3F
10:15 - 10:30	Group Photo Session and Coffee Break			
10:30 - 11:10	Plenary Talk 1 [K. Ko, JNU] Prof. Yung-Cheol Byun (Department of Computer Eng., JNU)			Large Auditorium, 3F
11:10 - 11:50	Plenary Talk 2 [T. Okumatsu, NU] Prof. Masanari Kimura (Dean of Inst. Integ. Sci. & Tech., NU)			Large Auditorium, 3F
11:50 - 13:10	Lunch Break (Lunch Box)			Large Meeting Room, Fac. of Eng. Bld. 2F
13:10 - 14:10	Poster Session [Y. Arikawa & T. Ueda]			Multipurpose Hall, 2F
14:10 - 14:20	Coffee Break			
14:20 - 15:20	Session 1a (Large Auditorium) [K. Ko & A. Saimoto]	Session 2a (Room 209) [D.H. Kim & M. Nakano]	Session 3a (Room 31) [H.J. Im & A.T.N. Dao]	Large Auditorium, 3F Audit. Room 209, 2F Audit. Room 31, 3F
	Environmental Science & Applied Mechanics	Electric Engineering & Materials Science	Chemistry & Applied Science	
15:20 - 15:30	Coffee Break			
15:30 - 16:30 (- 16:50*) *Session 2b	Session 1b (Large Auditorium) [K. Ko & A. Saimoto]	Session 2b (Room 209) [D.H. Kim & M. Nakano]	Session 3b (Room 31) [H.J. Im & A.T.N. Dao]	Large Auditorium, 3F Audit. Room 209, 2F Audit. Room 31, 3F
	Environmental Science & Applied Mechanics	Electric Engineering & Materials Science	Chemistry & Applied Science	
17:00 - 17:30	Awards Ceremony and Closing Remarks [H. Murakami, NU]			Large Auditorium, 3F
18:30 - 20:30	Banquet (Student Banquet)			Saint Hill Nagasaki (Hasshu)
October 5th, 2026 (Monday)				
9:00 - 10:00	Labo Tour			Bunkyo Campus Bd., Nagasaki Univ.

Session Plan

Session	Time	Presentation Contents
Plenary Talks	10:30 - 11:10	Yung-Cheol Byun (Jeju National University) From Answers to Questions - Redefining University Education and Research in the AI Era -
	11:10 - 11:50	Masanari Kimura (Nagasaki University) Science and Technology for a Sustainable Future: From Molecules to Planetary Health
Poster Session	13:10~14:10	Poster Presentations
Technical Session 1 Environmental Science & Applied Mechanics	14:20 - 14:40	Kyungnam Ko (Jeju National University) Impact of Data Recovery Rates and Terrain Complexity on the Uncertainty of Annual Energy Production Estimates
	14:40 - 15:00	Sunhee Suk (Nagasaki University) Can Carbon Market Linkage Reduce the Cost of Achieving Carbon Neutrality in China, Japan, and Korea?
	15:00 - 15:20	Dongwon Jung (Jeju National University) Enabling Higher Geometric Accuracy in Single-Point Incremental Forming: Zone-Resolved AI Modeling and Multi-Objective Optimization
	15:30 - 15:50	Takafumi Nishikawa (Nagasaki University) Smart Infrastructure in Practice: Collaborative Development and Implementation of a Bridge Inspection Robot in Nagasaki
	15:50 - 16:10	Taeseok Kim (Jeju National University) Thermodynamic Evaluation of PCHE Operating Strategies: From Subcooled Liquid to Superheated Vapor for Compact SMRs
	16:10 - 16:30	Patxi Garcia Novo (Nagasaki University) Farm Layout Multi-Objective Optimization for the Sustainable Development of Tidal Stream Energy
Technical Session 2 Electric Engineering & Materials Science	14:20 - 14:40	Jongmin Choi (Jeju National University) Prediction of a Multi-Bed Active Magnetic Refrigeration System Using a Multilayer Perceptron Artificial Neural Network Model
	14:40 - 15:00	Takeshi Yanai (Nagasaki University) Wet-Process Fabrication of Magnetic Materials
	15:00 - 15:20	Jungkil Kim (Jeju National University) Dual Optoelectronic Modulation of Percolation Paths in a Single Si Nanowire for Neuromorphic Memory
	15:30 - 15:50	Taro Ueda (Nagasaki University) Development of Porous Metal-Oxide Gas Sensors for VOC Detection
	15:50 - 16:10	Myeongkyu Lee (Jeju National University) Reinterpretation of Damage Profiles in High-Dose Helium-Irradiated Ferritic/Martensitic Steel via Density-Corrected SRIM Modeling
	16:10 - 16:30	Itsuki Fukuda (Nagasaki University) Laser Induced Forward Transfer (LIFT)-Made Nd-Fe-B Micromagnets
	16:30 - 16:50	Bibi Misbah (Jeju National University) Hierarchical Decentralized Federated Learning Based on Anchor and Coordinator
Technical Session 3 Chemistry & Applied Science	14:20 - 14:40	Hee-Jung Im (Jeju National University) Quantitative and Qualitative Analysis of Chelating Agents using high-performance liquid chromatography and its applications
	14:40 - 15:00	Yasuhiro Arikawa (Nagasaki University) Reductive Conversion of Small Molecules on Transition Metal Complexes
	15:00 - 15:20	Joung Sook Hong (Jeju National University) Study on Sustainable Plastic Upcycling Process Development
	15:30 - 15:50	Hee-Jin Kim (Nagasaki University) Development of an Eco-Friendly Antifouling System Based on the Light-Sensing Mechanisms of Marine Sessile Organisms
	15:50 - 16:10	Iyoti Prakash Das (Jeju National University) High-Entropy Layered Double Hydroxide as a Durable Bifunctional Electrocatalyst for Chloride-Tolerant Seawater Splitting
	16:10 - 16:30	Ying Shi Chang (Nagasaki University) Multiple Nutrient Recovery from Aquaculture Wastewater Through Membrane Separation Processes

Invited Presentations

Technical Session 1: Environmental Science & Applied Mechanics

- S1-1 Impact of Data Recovery Rates and Terrain Complexity on the Uncertainty of Annual Energy Production Estimates
Buyankhishig Amarzaya and Kyungnam Ko (JNU)
- S1-2 Can Carbon Market Linkage Reduce the Cost of Achieving Carbon Neutrality in China, Japan, and Korea?
Sunhee Suk¹, Marton Simo², Áron Hartvig², István Heilmann² and Pim Vercoulen² (1: NU, 2: Cambridge Econometrics)
- S1-3 Enabling Higher Geometric Accuracy in Single-Point Incremental Forming: Zone-Resolved AI Modeling and Multi-Objective Optimization
Osama Salem, Ting Ai, Lin Hang Li, Karki Anisha, Osama Ali, Atif Niaz and Dongwon Jung (JNU)
- S1-4 Smart Infrastructure in Practice: Collaborative Development and Implementation of a Bridge Inspection Robot in Nagasaki
Takafumi Nishikawa (NU)
- S1-5 Thermodynamic Evaluation of PCHE Operating Strategies: From Subcooled Liquid to Superheated Vapor for Compact SMRs
Taeseok Kim (JNU)
- S1-6 Farm Layout Multi-Objective Optimization for the Sustainable Development of Tidal Stream Energy
Patxi Garcia Novo and Daisaku Sakaguchi (NU)

Technical Session 2: Electric Engineering & Materials Science

- S2-1 Prediction of a Multi-Bed Active Magnetic Refrigeration System Using a Multilayer Perceptron Artificial Neural Network Model
Jongmin Choi (JNU)
- S2-2 Wet-Process Fabrication of Magnetic Materials
Takeshi Yanai (NU)
- S2-3 Dual Optoelectronic Modulation of Percolation Paths in a Single Si Nanowire for Neuromorphic Memory
Jungkil Kim (JNU)
- S2-4 Development of Porous Metal-Oxide Gas Sensors for VOC Detection
Taro Ueda and Takeo Hyodo (NU)
- S2-5 Reinterpretation of Damage Profiles in High-Dose Helium-Irradiated Ferritic/Martensitic Steel via Density-Corrected SRIM Modeling
Seongyu Han, Myeongkyu Lee and Sangjoon Ahn (JNU)
- S2-6 Laser Induced Forward Transfer (LIFT)-made Nd-Fe-B Micromagnets
Itsuki Fukuda¹, Taiga Kitahara¹, Hiroto Ono¹, Akihiro Yamashita¹, Takeshi Yanai¹, Masaki Nakano¹, Hiroto Fukunaga¹, Kunihiro Koike² (1: NU, 2: Yamagata Univ.)
- S2-7 Hierarchical Decentralized Federated Learning Based on Anchor and Coordinator
Bibi Misbah and Do Hyeun Kim (JNU)

Technical Session 3: Chemistry & Applied Science

- S3-1 Quantitative and Qualitative Analysis of Chelating Agents Using High-Performance Liquid Chromatography and its Applications
Jin Young Yang, Chang Hyuk Kang and Hee-Jung Im (JNU)
- S3-2 Reductive Conversion of Small Molecules on Transition Metal Complexes
Yasuhiro Arikawa (NU)
- S3-3 Study on Sustainable Plastic Upcycling Process Development
Joung Sook Hong (JNU)
- S3-4 Development of an Eco-Friendly Antifouling System Based on the Light-Sensing Mechanisms of Marine Sessile Organisms
Hee-Jin Kim (NU)
- S3-5 High-Entropy Layered Double Hydroxide as a Durable Bifunctional Electrocatalyst for Chloride-Tolerant Seawater Splitting
Jyoti Prakash Das and Sang-Jae Kim (JNU)
- S3-6 Multiple Nutrient Recovery from Aquaculture Wastewater Through Membrane Separation Processes
Ying Shi Chang (NU)
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Poster Presentations

- P-01 On-Site Thermal Performance of a 15-kW Adsorption Chiller Driven by Integrated PEMFC Waste Heat and Solar Energy
Ji Hyun Jeong and Jongmin Choi (JNU)
- P-02 Verification of Pan's Green Function and Its Application to Cavity Problems in a Transversely Isotropic Solid
Hajime Muraoka, Yohei Sonobe and Akihide Saimoto (NU)
- P-03 Body Force Method with Adaptive Basic Density Functions for Cavity Interaction Near a Free Surface
Kanato Miyazaki, Yohei Sonobe and Akihide Saimoto (NU)
- P-04 Data-Efficient Hydrogen Crossover Prediction for PEM Water Electrolysis via Hard-Constraint Physics-Residual Learning
Yong-Woon Kim, Hasnain Hyder and Yung-Cheol Byun (JNU)
- P-05 Thermal Stresses Around a Thermally Permeable Crack in an Anisotropic Plate
Mahiro Nomura, Yohei Sonobe and Akihide Saimoto (NU)
- P-06 Analytical Integration of Resultant Forces in the Three-Dimensional Body Force Method
Koki Fujimatsu, Yohei Sonobe and Akihide Saimoto (NU)
- P-07 Sustainable Brewer's Spent Grain-Derived Fe-NC Electrocatalyst with Hybrid Atomic Fe Sites and Clusters for High-Performance Aluminum-Air Batteries
Arif Khan and Sang-Jae Kim (JNU)
- P-08 Analysis of Crack Problems in an Infinite Piezoelectric Plane of Arbitrary Poling Direction
Zhang Yi, Yohei Sonobe and Akihide Saimoto (NU)
- P-09 Numerical Simulation of Heat and Mass Transfer in Ceramic Kilns During the Firing Process
Ritsuki Yamamoto, Tomohiko Yamaguti, Satoru Momoki (NU)
- P-10 Embedding Crystalline Ion Channels in a Sulfonated Polymer Membrane for Selective K^+ Transport in Aluminium-Iron Aqueous Batteries
Konanchery Muralleedharan Athira and Sang-Jae Kim (JNU)
- P-11 Appearance of the Viscous-Convective Range at Very Low Diffusivity
Ryunosuke Arakawa and Takuya Kitamura (NU)
- P-12 Scale-by-Scale Analysis of Turbulence Dynamics in an Axisymmetric Swirling Jet
Yuta Ura and Takuya Kitamura (NU)
- P-13 Topology Optimization and Numerical Evaluation of an Overhead Crane Girder
Atif Niaz, Osama Ali, Osama Salem, Anisha Karki, Ai Ting and Dong Won Jung (JNU)
- P-14 Structures in MHD Turbulence and Effects of the Lorentz Force
Kotaro Nishi and Takuya Kitamura (NU)
- P-15 Fundamental Study on Steel Joints Using Highly-Expansive Material
Masahiro Fuchi, Iathong Chan, Tetsuto Harada and Daitaro Taniguchi (NU)
- P-16 Intermittency-Resilient Green Hydrogen Production via Coupled Energy Conversion and Storage Using Tri-Functional $NiFe_2O_4$ Nanostructures
Janakiraman Chennakrishnan, Parthiban Pazhamalai and Sang-Jae Kim (JNU)
- P-17 Effects of Nd-Al Grain Boundary Diffusion on the Magnetic Properties of Isotropic Nd-Fe-B Film Magnets Fabricated by Pulsed Laser Deposition
Shogo Mori, Akihiro Yamashita, Takeshi Yanai, Masaki Nakano, Hirotooshi Fukunaga (NU)
- P-18 Effects of Bath Additives on the Properties of Soft Magnetic Ni Films Prepared by Gel Plating
Ryo Kirihara, Mayuri Tashiro, Shota Enokida, Rintaro Takeshita, Akihiro Yamashita, Takeshi Yanai, Masaki Nakano, Hirotooshi Fukunaga (NU)
- P-19 Beyond Energy Generation: Aluminium-Driven Electrochemical Energy Systems for Coupled Power Production and Nitrate Valorization
Alex Joshua and Sang-Jae Kim (JNU)
- P-20 Development of Platinum-Based Micromagnets via Laser-Induced Forward Transfer Technique
Hayato Todoroki, Itsuki Fukuda, Kohei Fujii, Kosei Maki, Akihiro Yamashita, Takeshi Yanai, Masaki Nakano, Hirotooshi Fukunaga (NU), Kunihiro Koike (Yamagata Univ.)

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- P-21 Development of Fe-Pt Bulk Magnets Using PLD Method
Kohei Fujii, Hayato Todoroki, Akihiro Yamashita, Takeshi Yanai, Masaki Nakano, Hirotoshi Fukunaga (NU)
- P-22 Upcycled Ru-Doped Co₃O₄ from Spent LiCoO₂ Batteries as a Cost-Effective, Industrially Viable Oxygen Evolution Electrocatalyst
Keyru Serbara Bejigo and Sang-Jae Kim (JNU)
- P-23 Increase in Coercivity of LIFT-Fabricated Nd-Fe-B Micromagnets by Controlling Laser Irradiation Conditions
Taiga Kitahara, Hiroto Ono, Itsuki Fukuda, Akihiro Yamashita, Takeshi Yanai, Masaki Nakano, Hirotoshi Fukunaga (NU), Kunihiro Koike (Yamagata Univ.)
- P-24 Room-Temperature Transfer Deposition Technology for Nd-Fe-B Micromagnets
Gaiya Sugimoto, Akihiro Yamashita, Takeshi Yanai, Masaki Nakano, Hirotoshi Fukunaga (NU)
- P-25 Interfacial Reconstruction of Recycled Graphite through Artificial SEI Engineering for Fast-Charging Anodes
Alphonse Raj Ruby and Sang-Jae KIM (JNU)
- P-26 Simultaneous Plating of Different Metal Films Using Gel Electrolytes
Mayuri Tashiro, Ryo Kirihara, Shota Enokida, Rintaro Takeshita, Akihiro Yamashita, Takeshi Yanai, Masaki Nakano, Hirotoshi Fukunaga (NU)
- P-27 Possible Induction of Magnetic Anisotropy in Electroplated Fe-Pt Films by Two-Step Annealing
Akiho Hamakawa, Shinya Koga, Mio Urasato, Akihiro Yamashita, Takeshi Yanai, Masaki Nakano and Hirotoshi Fukunaga (NU)
- P-28 CoFe-PBA Nanocages for Hybrid Seawater Electrolysis: Coupling Value-Added Iodate Formation with Energy-Efficient Hydrogen Production
Mohamed Sadiq, Mohamed Saleem and Sang-Jae Kim (JNU)
- P-29 Comparison of Ni Gel-Plating Characteristics Using Chloride- and Sulfate-Based Electrolytes
Shota Enokida, Mayuri Tashiro, Ryo Kirihara, Rintaro Takeshita, Akihiro Yamashita, Takeshi Yanai, Masaki Nakano, Hirotoshi Fukunaga (NU)
- P-30 Fabrication of Fe-Pt Micromagnets by Laser-Induced Forward Transfer Using Donor Films with Different Thicknesses
Kosei Maki, Hayato Todoroki, Itsuki Fukuda, Kohei Fujii, Akihiro Yamashita, Takeshi Yanai, Masaki Nakano and Hirotoshi Fukunaga (NU)
- P-31 MXene-Anchored Pd-Ru Bimetallene Composite as a Chloride-Tolerant Bifunctional Electrocatalyst for Efficient Seawater Electrolysis
Sanjeev and Sang-Jae Kim (JNU)
- P-32 Proposed Single-Stage Bridgeless PFC Converter Integrating Phase-Shift Full-Bridge Operation
Sena Hirata, Yuichi Ishihama, and Yoichi Ishizuka (NU)
- P-33 Estimation of the Distribution of Subcutaneous Hemorrhage Using a Radio-Wave System
Shunsuke Takahashi, Takafumi Fujimoto, and Chai-Eu Guan (NU)
- P-34 Ionic Polymer-PDMS Based Triboelectric Sensors for Real-Time Sign Language Interpretation and Translation
Thanjan Shaji Bincy and Sang-Jae Kim (JNU)
- P-35 A Study on Spatial Harmonic Filtering Capability of a Wave-Winding Rotor in a 6-Slot 4-Pole Concentrated-Winding Induction Motor
Hiroto Nonaka, Yuichi Yokoi, Taizo Yamamoto, and Takahiro Minari (NU)
- P-36 An Experimental Study on Wave-Winding Rotors with Bar and Wound Conductors for a 12-Slot 10-Pole Concentrated-Winding Induction Motor
Riku Yamashita and Yuichi Yokoi (NU)
- P-37 Solketal Oxidation Reaction Mediated Selective Electrosynthesis of Glyceric Acid in Alkaline Seawater System
Natraj Vishal and Sang-Jae Kim (JNU)
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- P-38 Ultra-High Tensile Strength of Nanocrystalline Fe-Ni Alloy Films Electrodeposited from Acidic Aqueous Solution Containing Sodium Saccharin
Ryota Fukushima, Chisato Goto, Masamitsu Hayashida and Takeshi Ohgai (NU)
- P-39 Effects of Microstructure of Porous In₂O₃ Particles on Acetone-Oxidation Activities and Gas-Sensing Properties
Yutaro Tanimura, Kentaro Kawashima, Taro Ueda, and Takeo Hyodo (NU)
- P-40 Polarization-Driven Optoelectronic Neuromorphic Computing in 0D/2D Heterostructures
Hwaine Choi and Jungkil Kim (JNU)
- P-41 Acetone-Sensing Behavior of SnO₂-Based Semiconductor Gas Sensors under UV Irradiation
Chikara Fujimoto, Taro Ueda, Kentaro Kawashima, Tatsuki Tsugawa (NU), Yusuke Inomata, Tetsuya Kida (Kumamoto Univ.) and Takeo Hyodo (NU)
- P-42 Fabrication of Cu₂O Photoelectrodes via Electrodeposition of Cu-Containing Precursor Layers and Their Photoelectrochemical Properties
Takeharu Masui, Taro Ueda, Kentaro Kawashima, Tatsuki Tsugawa, and Takeo Hyodo (NU)
- P-43 Transient Lumped Parameter Analysis of Space Nuclear Systems under Radiation-Induced Property Degradation
Sinyoung Park and Taeseok Kim (JNU)
- P-44 The Effect of pH on Size Control of Silk Protein Nanoparticles Prepared by the Acetone Precipitation Method
Gia-Huy Hoang Dang, Inoue Sena, Baba Yuji, Hisayuki Nakatani, Anh Thi Ngoc Dao (NU)
- P-45 Fabrication of Camptothecin-Based Nanoparticles Integrated into Silk Protein Films for Local Drug Delivery
Ngoc Lan Chu, Miyamoto Haruto, Hisayuki Nakatani (NU), Keita Tanita, Hitoshi Kasai (Tohoku Univ.), Motokucho Suguru, Anh T.N. DAO (NU)
- P-46 Physics-Informed Solar Energy Forecasting Under Varying Sky Conditions: Probabilistic Gains Across Neural and Tree-Based Models
Raj Kumar, Yong-Woon Kim and Yung-Cheol Byun (JNU)
- P-47 Reductive Activation of Selenite on a Dinuclear Ruthenium Complex
Takayuki Egashira, Motoki Yamada, Kenichiro Omoto, Eri Sakuda, and Yasuhiro Arikawa (NU)
- P-48 Nanofiltration and Anion Exchange Resin for Achieving High Nitrate Ion Removal During Drinking Water Treatment
Mochamad Nur Jalil Aripin, Sandrine Boivin, Osamu Nakagoe and Takahiro Fujioka (NU)
- P-49 Influence of the Correlation between Reanalysis Data and Met Mast Measurements on Long-Term Wind Climate Estimation
Buyankhishig Amarzaya and Kyungnam Ko (JNU)
- P-50 Highly Porous Polyimide Substrates for the Fabrication of Polyamide Forward-Osmosis Membranes
Wang Chenyu and Takahiro Fujioka (NU)
- P-51 Surface-Tuning of Polyamide Nanofiltration Membranes via Controlled Solvent Activation and Graphene Oxide Coating
Kapuge Kaushalya Prabodhani Sisira Kumara and Takahiro Fujioka (NU)
- P-52 Comparative Analysis of Wind Characteristics at Offshore and Coastal Sites on Jeju Island, South Korea
Mirae Kim, Buyankhishig Amarzaya, Keonwoo Lee and Kyungnam Ko (JNU)
- P-53 Assessment of Pilot-Scale Submerged Nanofiltration for Direct River Water Treatment
Son Minh Te, Osamu Nakagoe, Hoa Nhan Vu (NU), Haruka Takeuchi (Kyoto Univ.), Xuan Thanh Le, Hoa Quynh Ngo, Quy Van Cao (Hai Phong Water Joint Stock Co.), Nga Tran Thi Viet (Hanoi Univ. of Civil Eng.) and Takahiro Fujioka (NU)
- P-54 Ammonia Recovery from Aquaculture Wastewater via Membrane Contactor – A Techno-Feasibility Study
Nadratul Naim Jaafar and Ying Shi Chang (NU)
- P-55 Real-Time Chlorine Measurements During Pyrolysis of PVC
Ragyeom Lee, Hanna Joy Mahinay, Jin Young Yang and Hee-Jung Im (JNU)
-