

# ICMR2017AKITA

## Conference Program (tentative)

**October 25 (Wednesday)**

**Main Room**

**8:30— Registration(Conference Lobby)**

**9:30–9:45 Opning Ceremoney**

Time	Pro.No.	Name	Affiliation	Country	Title
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**Plenary Session**

**9:45–14:45 Chairpersons: Masafumi Odaka, Mitsutoshi Jikei**

9:45 – 10:25	PL-1	Robert M. Corn	University of California–Irvine	America	Single Nanoparticle SPR Imaging Biosensing
10:25 – 11:05	PL-2	Christopher J. Schofield	Oxford University	United Kingdom	From penicillins to oxygen sensing in humans
11:05 – 11:45	PL-3	Kouhei Tsumoto	The University of Tokyo	Japan	Thermodynamics for drug discovery and antibody engineering

**Lunch Break (11:45–12:45)**

12:45 – 13:25	PL-4	Hiroyuki Nishide	Waseda University	Japan	Redox Polymers for Energy Devices
13:25 – 14:05	PL-5	Sivaperuman Kalainathan	VIT University	India	Growth and Characterization of Scintillator Organic Single Crystal for Fast Neutron Detection
14:05 – 14:45	PL-6	Zhan Chen	Auckland University of Technology	New Zealand	Solidification of CoCrMo alloy during selective laser melting

**Coffee Break (14:45–14:55)**

**Room A Keynote Session**

**Session A1:**

**14:55–17:00 Chairpersons: Kazuya Matsumoto, Yukihiro Inoue**

14:55 – 15:20	A1-1	Brigitte Voit	Leibniz Institute of Polymer Research Dresden (IPF)	Germany	Highly aromatic polymer architectures designed for optoelectronic applications
15:20 – 15:45	A1-2	Masa-aki Kakimoto	Tokyo Institute of Technology	Japan	New Materials for Cell Sheet Recovery using Hyperbranched Polymers
15:45 – 16:10	A1-3	Sang Youl Kim	Korea Advanced Institute of Science and Technology (KAIST)	Korea	Soluble Polyimides and Polyamides Containing Trifluoromethyl Groups
16:10 – 16:35	A1-4	Masaya Mitsuishi	Tohoku University	Japan	Cyclosiloxane Materials for Bottom-up Assemblies
16:35 – 17:00	A1-5	Kazuya Matsumoto	Akita University	Japan	Synthesis and Properties of Dendritic Aromatic Polyamides

**Room B Keynote Session**

**Session A2:**

**14:55–17:00 Chairpersons: Yoichi Kageyama, Hidenobu Tokushige**

14:55 – 15:20	A2-1	Esteve Amat	Barcelona Microelectronic Institute – National Microelectronic Center (IMB–CNM)	Spain	New paradigm over the eDRAM configuration for new nanometric electronics era
15:20 – 15:45	A2-2	Anh Tuan Le	Vietnam National University – Ho Chi Minh City–University of Technology	Vietnam	The Application of Fly Ash from Thermal Power Plant on Geopolymer Materials
15:45 – 16:10	A2-3	Thomas A. Bier	TU Bergakademie Freiberg	Germany	Use of functionalized building materials for sustainable construction and repair – Overview and examples for various applications

16:10	-	16:35	A2-4	Kozo Onoue	Kumamoto University	Japan	Compressive strength and iron-supply capacity of porous-type steel-making slag concrete
16:35	-	17:00	A2-5	Keisuke Takahashi	UBE INDUSTRIES, LTD.	Japan	Application of Cement-based Sealing Materials for Prevention and Remediation of Environmental Impact of Mining Development of Submarine Deposits

**17:15-17:45 Attractions – KANTO – (beside the hotel)**

**18:00-20:00 Conference Party**

**October 26 (Thursday)**

**Room A Keynote Session**

**Session A3:**

**9:30-10:45 Chairpersons: Osamu Kamiya, Kazutaka Mitobe**

9:30	-	9:55	A3-1	Timotius Pasang	Auckland University of Technology	New Zealand	Welding of Titanium: comparison between CP Ti, alpha/beta alloy and beta alloy
9:55	-	10:20	A3-2	Ramanujam Sarathi	Indian Institute of Technology Madras,	India	Epoxy nanocomposites for power applications
10:20	-	10:45	A3-3	Noritaka Saito	Kyushu University	Japan	Evaluation of Oxide Melt Crystallization Characterized by Capacitance Measurement

**Coffee Break (10:45-10:55)**

**Session A4:**

**10:55-12:35 Chairpersons: Hitoshi Saito, Satoru Yoshimura**

10:55	-	11:20	A4-1	An-Pang Tsai	Tohoku University	Japan	A paradigm shift in solid structure "Quasicrystal"
11:20	-	11:45	A4-2	Pratyay Basak	CSIR-Indian Institute of Chemical Technology	India	Fused Pyrrole Core: A New Class of Quadropolar Organic Moieties as Potential Resistive Memory Elements
11:45	-	12:10	A4-3	Jong-Ching Wu	National Changhua University of Education	Taiwan	Nanofabrication and Application of Magnetic Tunnel Junctions
12:10	-	12:35	A4-4	Wenli Pei	Northeastern University	China	Controllable magnetic nanomaterials synthesized by chemical method

**Lunch Break (12:35-13:35)**

**Session A5:**

**Strategy of Life Science for Sustainable Development (1)**

**13:35-15:05 Chairperson:**

13:35	-	14:15	A5-1	William E. Bentley	University of Maryland	America	Enabling molecular communication by Integrating Nature's Materials and Synthetic Biology
14:15	-	14:40	A5-2	Hyung Joon Cha	POSTECH University	Korea	Mussel glue proteins for innovative biomedical applications
14:40	-	15:05	A5-3	Naoyuki Miyata	Akita Prefectural University	Japan	Bioproduction of iron oxide minerals by acidophilic iron oxidizer

**Coffee Break (15:05-15:15)**

**Session A6:**

**Strategy of Life Science for Sustainable Development (2)**

**15:15-17:10 Chairpersons:**

15:15	-	15:40	A6-1	Jin-Min Lin	Tsinghua University	China	Controlled Assembly of Heterotypic Cells in a Core-Shell Scaffold: Organ in a Droplet
15:40	-	16:05	A6-2	Yuta Mutaguchi	Akita Prefectural University	Japan	D-Amino acid productions and a novel amino acid racemase in lactic acid bacteria
16:05	-	16:30	A6-3	Hiroshi Nakayama	Biomolecular Characterization Unit, RIKEN CSRS	Japan	Mass spectrometry of RNA toward direct analysis of epitranscriptome
16:30	-	16:50	A6-4	Hideyuki Miyatake	Nanomomedical Engineering Laboratory, RIKEN	Japan	Preparation of adhesive growth factor IGF-1 by bioorthogonal chemistry
16:50	-	17:10	A6-5	Ewa Grave	Akita University	Japan	Effects of antiulcer drug GGA on human and H.pylori molecular chaperone HSP70

## Room B Keynote Session(Special Session of Akita University Leading Program)

### Session B1 : Earth Science and Resource Development Technology (1)

9:15–10:45 Chairperson: **Tokiyuki Sato**

9:15	-	9:45	B1-1	Eko Widiyanto	Universitas Trisakti	Indonesia	The Future of Indonesia Fossil Energy (Technology Challenges)
9:45	-	10:15	B1-2	Muhammad Burhannudinnur	Universitas Trisakti	Indonesia	The Role of Mud Volcano System in East Java Basin Petroleum Play: Example from Kradenan Area
10:15	-	10:45	B1-3	Antonio Arribas	Akita University	Japan	2020: The exploration potential of Japan and Eastern Asia

Coffee Break (10:45–11:00)

### Session B2 : Earth Science and Resource Development Technology (2)

11:00–12:00 Chairperson: **Youhei Kawamura**

11:00	-	11:30	B2-1	William X. Chavez, Jr.	New Mexico Institute of Mining and Technology	America	Supergene Processes and Weathering-Related Mobility of Metals.
11:30	-	12:00	B2-2	Murat Karakus	The University of Adelaide	Australia	Advances in Numerical Methods for Rock Burst Modelling

Lunch Break (12:00–13:00)

### Session B3 : Strategy of Environment, Resource and Energy for Sustainable, Development of New Recycling System for Rare Metals (1), Earth Science and Resource Development Technology (3)

13:00–15:00 Chairperson: **Ryo Inoue**

13:00	-	13:30	B3-1	Brajendra Mishra	Worcester Polytechnic Institute	America	Recovery and Recycling of Valuable Metals from Fine Industrial Waste Materials
13:30	-	14:00	B3-2	Corby Anderson	Colorado School of Mines	America	The Key Aspects of Critical Metals
14:00	-	14:30	B3-3	Hsin Huang	Montana Tech	America	Stability Diagrams for Metal-Sulfur Systems Applied to Extractive Metallurgical Processes
14:30	-	15:00	B3-4	Bo Björkman	Lulea University of Technology	Sweden	Plastic containing shredder residues as reductant in base metals extraction

Coffee Break (15:00–15:15)

### Session B4 : Development of New Recycling System for Rare Metals (2), Earth Science and Resource Development Technology (4)

15:15–17:15 Chairperson: **Atsushi Shibayama**

15:15	-	15:45	B4-1	Mikiya Tanaka	National Institute of Advanced Industrial Science and Technology	Japan	Application of Solvent Extraction to the Recycling Process of Electroless Nickel Plating Baths
15:45	-	16:15	B4-2	Keisuke Ohto	Saga University	Japan	Extractive Separation of Rare Earth Metals with Trident Phosphonic Acid Derivatives
16:15	-	16:45	B4-3	Himawan Tri Bayu Murti Petrus ST	Gajah Mada University	Indonesia	Sumbawa Gold Ore Liberation Study; Ensuring the Success of Borax Method through Liberation Modelling
16:45	-	17:15	B4-4	Bambang Retnoaji, M.Sc	Gajah Mada University	Indonesia	Implementation Morphometric and Histological study on Fish At Lebo Lake for initial Screening of Mercury Contamination in Small Scale Artisanal Gold Mining at Sumbawa Barat, Indonesia

October 27(Friday)

## Room A Poster Session

Session A Chairperson:

9:30 - 12:00 (3-Minute-Lecture) AP1-AP35

## Room B Poster Session

### Session B

Chairperson:

9:30 - 12:00 (3-Minute-Lecture) BP1-BP35

Lunch Break (12:00-13:00)

## Room A Poster Session

### Session A

13:00 - 15:00 (Poster Site Discussion) AP1-AP38

## Room B Poster Session

### Session B

13:00 - 15:00 (Poster Site Discussion) BP1-BP38

## Main Room

15:10-15:30 Closing Ceremony

## ICMR2017 AKITA Poster Session Program (tentative)

October 27(Friday)	Poster Session	9:30–12:00 (3–Minutes Lecture) 12:00–15:00 (Poster Site Discussion)
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### Room A Session A

プログラム ムNo	Name	Affiliation	Title
AP-01	Takaaki Wajima	Graduate School of Engineering, Chiba University	Alkali conversion of waste clay into zeolitic materials using NaOH and KOH solution
AP-02	Takayasu Ishida	Chiba University	Removal of hydrogen sulfide gas using various adsorbents for methane utilization in hot spring gas
AP-03	Kazutoshi Haga	Graduate School of Engineering Science, Akita University	Selective Recovery of Palladium from PGM Containing Hydrochloric Acid Solution Using Thiocarbamoyl-substituted adsorbents
AP-04	Manabu Yamada	Graduate School of Engineering Science, Akita University	Calix[4]arene-Based n-Dialkylamino Extractants for Platinum Group Metal Separation from Leach liquors of Automotive Catalysts
AP-05	Muniyappan Rajiv Gandhi	Graduate School of International Resource Sciences, Akita University	Synthesis of SCS type Pincer Extractants for Selective Extraction of Pd(II) from Platinum Group Metals: An Improved Approach to Current Refining Process
AP-06	Refilwe Sandra Magwaneng	Graduate School of International Resource Sciences, Akita University	Investigation of Copper and Iron Recovery from Copper Ore by High Pressure Leaching
AP-07	Ariuntuya Battseengel	Graduate School of Engineering and Resource Science, Akita University	Magnetic separation and leaching study of rare earth elements from apatite-iron ore
AP-08	G. Dodbiba	Graduate School of Engineering, The University of Tokyo	Microwave irradiation of copper ores for improving the degree of liberation
AP-09	Yonggu Kim	Graduate School of Engineering, The University of Tokyo	Recovery of gold and copper in chips with resin mold for recycling
AP-10	Mauricio Córdova Udaeta	Graduate School of Engineering, The University of Tokyo	Recovery of phosphorus from sewage sludge ash by heat treatment followed by liquid-Liquid separation
AP-11	T. Fujita	Graduate School of Engineering, The University of Tokyo	Nano Bubble and Emulsion Size Distribution Measurement by Interactive Force Apparatus
AP-12	Batnasan Altansukh	Graduate School of International Resource Sciences, Akita University	Formation of nano- and micro-gold particles from gold-iodide solution at pH 8–13
AP-13	Muhammad Tahir	Graduate School of International Resource Sciences, Akita University	Carbonate Hosted Talc Deposits in Spinghar Fault Block, Nangarhar Province, Afghanistan
AP-14	Pearlyn Manalo	Graduate School of International Resource Sciences, Akita University	Geological features of Quartz-Pyrite-Gold (QPG) veins in Lepanto Mine, Mankayan District, northern Luzon, Philippines
AP-15	Nergui Sarangua	Faculty of International Resource Sciences, Akita University	Rare metal mineralization of the Khaldzan Burgedei peralkaline complex, Western Mongolia
AP-16	Shota Satori	Graduate School of International Resource Sciences, Akita University	Bismuth and tellurium minerals of the Arakawa deposit in the Northeast Japan arc

AP-17	Patchawee Nualkhao	Graduate School of International Resource Sciences, Akita University	Petrography and Geochemistry of Plutonic Rocks along Loei Fold Belt, Northeastern Thailand
AP-18	Ma. Lourdes Stephanie V. Leido	Graduate School of International Resource Sciences, Akita University	Ore and Alteration Mineralogy of the Runruno Mineral Resource Area, Municipality of Quezon, Nueva Vizcaya, Philippines
AP-19	Sofia Marah Frias	Graduate School of International Resource Sciences, Akita University	Preliminary Results on the Study of the Mineralization of the Kay Tanda Epithermal Gold Deposit, Batangas, Philippines
AP-20	Amogelang Kooganne	Graduate School of International Resource Sciences, Akita University	Petrological and Geochemical characteristics of the Selibe-Phikwe Cu-Ni deposit; Northeast Botswana
AP-21	Mukuka Simusokwe	Graduate School of International Resource Sciences, Akita University	Field Characterization of Lithology at Target H area, Mumbwa Iron Oxide Copper Gold (IOCG) district, Northwest Zambia.
AP-22	Mocharnmad Aziz	Graduate School of International Resource Sciences, Akita University	Epithermal Gold Mineralization in the Bodi Area, North Arm Sulawesi, Indonesia
AP-23	Zarina Akhmetvaliyeva	Faculty of Earth Sciences, East Kazakhstan State Technical University	To the Question of the Effective Electronic Waste Management in Kazakhstan
AP-24	Phan Thanh Chien	Graduate School of Environmental Studies, Tohoku University	Study on Strength Characteristics of Sludge Reinforced by Rice Straw Fiber and Cement
AP-25	Vu Minh Chien	Graduate School of Environmental Studies, Tohoku University	Study on Weak Soil Improvement by Using Geopolymer and Paper Fragments
AP-26	Milkos Borges Cabrera	Graduate School of Environmental Studies, Tohoku University	Study on Reducing the Soil Content in Grizzly-under-Materials Discharged from Recycling Plant of Waste Asphalt Blocks
AP-27	Yusuke Abe	Graduate School of Engineering Science, Akita University	Capacity design of cathode and anode in lithium ion battery
AP-28	Masaki Hatomi	Graduate School of Engineering Science, Akita University	Electric double-layer capacitors using different types of ionic liquid electrolytes
AP-29	Seiji Kumagai	Graduate School of Engineering Science, Akita University	Lithium-ion capacitor using active materials produced from rice husk
AP-30	Tomoaki Saito	Graduate School of Engineering Science, Akita University	Anode active material of lithium-ion battery prepared from phenolic resin and rice husk
AP-31	Hiroaki Fujiwara	Graduate School of Engineering Science, Akita University	Rice husk-derived anode material of lithium-ion capacitor
AP-32	Chenglin Li	Graduate School of Engineering Science, Akita University	A Study of Utilizing Natural Daylight for Interior Illumination System by Using Monte Carlo Simulation Method
AP-33	Masaya Endo	Graduate School of Engineering Science, Akita University	Cell Fraction and Extraction of Protein by Using Ferrite Particles' Motion Controlling System
AP-34	Kento Honma	National Institute of Technology, Tsuruoka College	Tribology Property in Oil-Impregnated Porous Carbon Materials made from Rice Hull
AP-35	Yohei Tanaka	National Institute of Technology, Tsuruoka College	Fatigue Strength Simulation of Natural Porous Structure

## Room B Session B

BP-01	Kenta Endo	Graduate School of Engineering Science, Akita University	Study of the Relation between Growth and Color Information of Fallopia Japonica in a River Bank
BP-02	Chikako Ishizawa	Graduate School of Engineering Science, Akita University	Detection of Text Inserted by Copy-and-Paste Operations to Prevent Reference Omissions
BP-03	Huawei Zhang	Graduate School of Engineering Science, Akita University	Emotion Discrimination of Amusement by Focusing on 3-Dimensional Data on Body Movements
BP-04	Shogo Kitano	Graduate School of Engineering Science, Akita University	Reduction of Flicker while Displaying Images by Switching Two-Colors on a Liquid Crystal Display
BP-05	Masatomo Suzuki	Graduate School of Engineering Science, Akita University	Study to Generate Learning Data Used for Vegetation Classification Method with Support Vector Machine
BP-06	Shota Sato	Graduate School of Engineering Science, Akita University	Development of a 3D hair simulator for supporting hairdressers
BP-07	Tsuyoshi Takahashi	Graduate School of Engineering Science, Akita University	Method for Detecting Slight Physical-Condition Disorders Based on Lip-Motion Changes while Speaking
BP-08	Shota Sato	Graduate School of Engineering Science, Akita University	Person region extraction and background replacement in images for privacy protection
BP-09	Ikumi Fujita	Graduate School of Engineering Science, Akita University	Detection of Second-Harmonic Ultrasonic Components from Micro Cracks Using Lamé mode of Lamb Waves
BP-10	Koyo Yashima	Graduate School of Engineering Science, Akita University	Visualization and quantification of ultrasonic field using the sensitive tint method and the Sénarmont method in the grass
BP-11	Masafumi Akatsuka	Graduate School of Engineering Science, Akita University	Experiments on measurement of ultrasonic field by light deflection method
BP-12	Tatsuma Iida	Graduate School of Engineering Science, Akita University	Method for Detecting of Higher Harmonic Ultrasonic Components from a Micro Crack
BP-13	Shinya Fujino	Graduate School of Systems Science and Technology, Akita Prefectural University	Creation and Evaluation of a Correction Table for Calibration of an RGB-D Sensor
BP-14	Ikumi Kusada	Graduate School of Systems Science and Technology, Akita Prefectural University	Image Correction for Quantitative Evaluation of Proper Time of Harvesting Fruit
BP-15	Katsuya Fujiwara	Graduate School of Engineering Science, Akita University	Proposal of Improvement of Contact Force Visualization in Soldering Training VR System
BP-16	Sawako Nakajima	Graduate School of Engineering Science, Akita University	Preliminary Study on Auditory Perception of Multiple Speech Synthesis with Different Speech Rates to Help Visually Impaired Persons Enjoy Movies
BP-17	Masachika Saito	Graduate School of Engineering Science, Akita University	Development of Learning System for Blood Sampling Technique Using Magnetic Motion Capture and AR Technology
BP-18	Tonthat Loi	Graduate School of Engineering Science, Akita University	Improvement of Heating Efficiency and Magnetization Property of Ferromagnetic Implant with Low Curie Temperature for Hyperthermia using Nano-Magnetic Fluid
BP-19	Akinori Takahashi	Graduate School of Engineering Science, Akita University	Characterization of the Imaged R/S Pox Diagram for Low-rate DoS Attack

BP-20	Takuaki Yajima	Graduate School of Engineering Science, Akita University	A Study on Eye Movement in Opinion Test with Food Pictures Combined with Four Dishes
BP-21	Kohki Koiwa	Graduate School of Engineering Science, Akita University	A Study on Feature Extraction of Footsteps and Drum Sound by Time-Frequency Analysis
BP-22	Osamu Kamiya	Graduate School of Engineering Science, Akita University	Application of Steam Pressure Cracking Agent for Treating of Industrial Ceramics Waste
BP-23	Naoya Kotake	Graduate School of Science and engineering, Yamagata University	Effects of poly-sized grinding media and sodium polyacrylate dispersant on the fine grinding of limestone in a bead mill
BP-24	Mamoru Takahashi	Graduate School of Engineering and Science, Akita University	Effect of Nitrogen Addition on Synthesized Diamond Films on Molybdenum Substrate Surface by Flame Combustion Method
BP-25	Yoshiyuki Sato	Graduate School of Engineering Science, Akita University,	Thermogravimetric Study of Concrete Sludge in Gaseous Hydrogen Chloride during Neutralizing Reaction at 773 K
BP-26	Yuya Sudo	Graduate School of Engineering Science, Akita University	Preparation of LaNi 5 Layers by Electrodeposition Using Molten Salt and Anodic Polarization Characteristics after Hydrogen Charge
BP-27	Marina Makarova	Graduate School of Engineering Science, Akita University	Ultra high-resolution imaging of magnetic recording media by alternating magnetic force microscopy with Fe-Co based amorphous tips
BP-28	Hiroki Takahashi	Graduate School of Engineering Science, Akita University	Methanol oxidation activity and CO adsorption/desorption behavior of electrochemically reduced Pt oxide
BP-29	Keisuke Ohkubo	Graduate School of Engineering Science, Akita University	Electrochemical reduction of carbon dioxide and synthesis of methanol on Pt oxide film
BP-30	Takashi Hasegawa	Graduate School of Engineering Science, Akita University	Lateral distribution of irradiated ions in L10 FeMnPt films
BP-31	Hiroto Nakane	Graduate School of Engineering Science, Akita University	Effect of lattice distortion on magnetic anisotropy in Fe films
BP-32	Yasuko Nakamura	Graduate School of Engineering Science, Akita University	Phase change and micropatterning of magnetic thin films caused by ion irradiation
BP-33	Satoru Yoshimura	Graduate School of Engineering Science, Akita University	Fabrication of $\epsilon$ - $\text{Fe}_2\text{O}_3$ multiferroic thin films with high coercivity and magnetization for electric-field writing magnetic recording
BP-34	Yuuki Kobayashi	Graduate School of Engineering Science, Akita University	Synthesis and properties of biodegradable polymers containing hydrophilic groups
BP-35	Saki Yokota	Graduate School of Engineering Science, Akita University	Cloning and Comparison of Aggregation Properties of HbREF Like Proteins from <i>Ficus carica</i>
BP-36	Kano Kasuga	Faculty of Bioresource Sciences, Akita Prefectural University	Heterologous Expression of <i>Streptomyces</i> Cellulase Genes for the Molecular Breeding of Antibiotic Producing Streptomyces from Cellulosic Biomass
BP-37	Kyoko Ishikawa	Faculty of Bioresource Sciences, Akita Prefectural University	Non-destructive measurement of salinity concentration to evaluate suitable food dipping states during salting
BP-38	Ruizhi Ning	Graduate School of Agricultural and Life Sciences, The University of Tokyo	Cellular Biocompatibility of TEMPO-oxidized Cellulose Nanofibers to Human Umbilical Vein Cells with Different Counter-ions

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