

Tuesday, 9th August

ORAL SESSION 4 (9:00-10:15)

Presentation time: 8 min + Q&A: 3 min

Room A: W934 Lecture Room (3rd Floor) Transdisciplinary Science and Engineering

- A4-1 9:00-9:11 Dynamic Channel Modeling through Ray Trace Simulation for 45 GHz band High-Speed Vehicular Communication System**
Kinh Hung Pham, Kentaro Saito, Junichi Takada
Department of Transdisciplinary Science and Engineering
- A4-2 9:12-9:23 Study of Propagation Mechanism for Future Heterogenous Network**
Deepak Gautam, Kentaro Saito, Jun-ichi Takada
Department of Transdisciplinary Science and Engineering
- A4-3 9:24-9:35 Initial parameters setting in the propagation estimation based on EM/SAGE algorithm**
Tokio MIYAKE*, Kentaro SAITO, Jun-ichi TAKADA
Department of Transdisciplinary Science and Engineering
- A4-4 9:36-9:47 Measurement Method of Diffuse Scattering on Periodicity Building Surface**
Hao Liu, Co Paul Jason, Yo Yamaguchi, Kentaro Saito and Jun-ichi Takada
Department of Transdisciplinary Science and Engineering
- A4-5 9:48-9:59 Radio Channel Parameter Estimation Using Non- Linear Conjugate Gradient Method**
Yunyi Yao, Saito Kentaro and Jun-ich Takada
Department of Transdisciplinary Science and Engineering

Room B: W935 Lecture Room (3rd Floor) Chemical and Materials Science

- B4-1 9:00-9:11 Graphoepitaxy of In₂O₃ microcrystals by quasi-VLS method**
Tokohei Go, Kohei Yoshimatsu, Akira Ohtomo
Department of Chemical Science and Engineering
- B4-2 9:12-9:23 Catalyst material using Hyperbranched aromatic poly(ether ketone)**
Yamamoto Kenta, Ying Shi, Yuta Nabae, Teruaki Hayakawa and Masa-aki Kakimoto
Department of Materials Science and Engineering

- B4-3 9:24-9:35 Synthesis of carbazoledioxazine derivatives and their application to thin film transistors**
Hiroki Tatsumi, Tsuyoshi Michinobu
Department of Materials Science and Engineering
- B4-4 9:36-9:47 Effect of cyclic operation on plasma catalytic epoxidation of ethylene**
Nahoko Yahagi, Satoshi Kodama, Hidetoshi Sekiguchi
Department of Materials Science and Engineering
- B4-5 9:48-9:59 Electrochemical properties of Li₂FeP₂O₇/C composite prepared by spray pyrolysis and ball mill treatment.**
Heechan Jang, Izumi Taniguchi
Department of Materials Science and Engineering
- B4-6 10:00-10:11 Directed Self-Assembling Lithography Materials in Next Generation Microelectornics**
Ryuichi Nakatani, Teruaki Hayakawa
Department of Chemical Science and Engineering

Break (10:15-10:30)

ORAL SESSION 5 (10:30-11:45)

Presentation time: 8 min + Q&A: 3 min

Room A: W934 Lecture Room (3rd Floor) Mechanical and Transdisciplinary Engineering

- A5-1 10:30-10:41 Numerical and Experimental Investigation on the Effect of Thermo-Fluid Distribution on Gas Species Transport Characteristics in a PEMFC Membrane**
Sabrine Yousfi, Shun Ito, H.D. Doan and Kazuyoshi Fushinobu
Department of Mechanical Engineering
- A5-2 10:42-10:53 DNS of a two-dimensional cylinder combustor using immersed boundary method**
SHI Tuo, Yuki Minamoto, Mamoru Tanahashi
Department of Mechanical Engineering
- A5-3 10:54-11:05 Oxygen Transport Analysis of Microstructure-Designed PEFC Cathode Catalyst Layer**
Rinako Nakano and Kazuyoshi Fushinobu
Department of Mechanical Engineering

- A5-4 11:06-11:17 Preliminary Study of Physical Optics for the Prediction of Scattering from Rough Surface in mmWave**
Rieko Tsuji, Kentaro Saito, Jun-ichi Takada
Department of Transdisciplinary Sciences and Engineering
- A5-5 11:18-11:29 Catalytic hydrothermal liquefaction of microalgae for bio-oil production using nanocatalyst**
Mohammad Saber, Fumitake Takahashi, Kunio Yoshikawa
Department of Transdisciplinary Sciences and Engineering

Room B: W935 Lecture Room (3rd Floor) Chemical and Materials Science

- B5-1 10:30-10:41 Microwave frequency effects on oxidation of benzylic alcohols by heteropoly acid**
S. Hayakawa, K. Furusawa, S. Tsubaki, T. Mitani, T. Ueda, S. Fujii, M. Maitani, E. Suzuki, Y. Wada
Department of Chemical Science and Engineering
- B5-2 10:42-10:53 Control of superconducting properties of Cs_xWO₃ films by electrochemical ion intercalation**
T. Soma, K. Yoshimatsu, and A. Ohtomo
Department of Chemical Science and Engineering
- B5-3 10:54-11:05 In situ observation of reduction behavior of sinter ore focusing on wustite diffraction peak using high temperature X-ray diffraction**
Boyuan CAI, Miyuki HAYASHI, Takashi WATANABE and Masahiro SUSA
Department of Materials Sciences and Engineering
- B5-4 11:06-11:17 Synthesis of π -Conjugated hyperbranched polypyridine and its electrochemical properties**
Takashi Koga, Yuta Nabae, Teruaki Hayakawa and Masa-aki Kakimoto
Department of Materials Sciences and Engineering
- B5-5 11:18-11:29 Control of Orientation of Fully Aromatic Polyimides Using Lyotropic Liquid-Crystalline Precursor**
K. Tanaka, R. Ishige and S. Ando
Department of Materials Sciences and Engineering
- B5-6 11:30-11:41 Biomineralization Inspired Hydroxyapatite Coating of Magnetite Nanoparticles**
Irawan Vincent, Ikoma Toshiyuki
Department of Materials Sciences and Engineering

Lunch (11:45-12:45)

ORAL SESSION 6 (13:00-14:15)

Presentation time: 8 min + Q&A: 3 min

Room A: W934 Lecture Room (3rd Floor) *Mechanical Engineering*

- A6-1 13:00-13:11 Towards Designing Touch-based Communication Devices : A survey of Gestures and Emotions**
Lalita Haritaipan and Celine Mougnot
Department of Mechanical Engineering
- A6-2 13:12-13:23 Effect of the cooling method on the heat transfer performance of high-speed rotating heat pipe**
Jingxian Zhang, Yuki Wada, Takayoshi Inoue
Department of Mechanical Engineering
- A6-3 13:24-13:35 Development of evanescent Bessel beam shaping device**
Shotaro Watanabe, Byunggi Kim, Hong Duc Doan, Kazuyoshi Fushinobu
Department of Mechanical Engineering
- A6-4 13:36-13:47 Thermal Conductivity of SiNCs/Polymer Nanocomposite for Thermal Insulating Material**
Firman Bagja Juangsa, Yoshiki Muroya, Meguya Ryu, Junko Morikawa and Tomohiro Nozaki
Department of Mechanical Engineering
- A6-5 13:48-13:59 Friction Factor Analysis for the Low Reynolds Number Flow between Wavy Plate Fins**
Dahm YU
Department of Mechanical Engineering

Room B: W935 Lecture Room (3rd Floor): *Materials Science and Engineering*

- B6-1 13:00-13:11 High-performance Polyimide Films: A Novel Approach to Periodic Nanoporous Structures**
Takahiro Komamura, Ryohei Kikuchi, Teruaki Hayakawa
Department of Materials Science and Engineering
- B6-2 13:12-13:23 Strain-promoted click reaction of electron-deficient dehydrobenzo[12]annulene for the chemical crosslinking of commodity polymers**
Naoki Takeda and Tsuyoshi Michinobu
Department of Materials Science and Engineering

- B6-3 13:24-13:35 Strong Perpendicular Magnetic Anisotropy in CoNi/CoNiO Multilayers**
H.X.Gao, T.Harumoto, Y. Nakamura and J.Shi
Department of Materials Science and Engineering
- B6-4 13:36-13:47 The effect of Si coating on high temperature oxidation of steel**
S. Egawa, M. Susa, M. Ueda and R. Endo
Department of Materials Science and Engineering
- B6-5 13:48-13:59 Fabrication of 3D Graphene and 3D Graphene Oxide Devices for Sensing VOCs**
So Matsuyama, Jeffrey S. Cross, Toshiyuki Ikoma
Department of Materials Science and Engineering
- B6-6 14:00-14:11 Poly Latic-co-Glycolic Acid (PLGA) loaded with Superparamagnetic Iron Oxides (SPIOs) for pulmonary drug delivery against Tuberculosis**
Wilson Poh
Department of Materials Science and Engineering

Break (14:15-14:30)

ORAL SESSION 7 (14:30-15:30)

Presentation time: 8 min + Q&A: 3 min

Room A: W934 Lecture Room (3rd Floor) Mechanical Engineering

- A7-1 14:30-14:41 Design of a Mixed Reality system for Co-designing with end-users**
S. Maurya, K. Arai, K. Moriya, P. Arrighi, C. Mougnot
Department of Mechanical Engineering
- A7-2 14:42-14:53 eMotion: Design and Evaluation of an Ambient Device for Emotional Communication**
Robin Garhwal
Department of Mechanical Engineering
- A7-3 14:54-15:05 Assessment of the User Experience in Co-design with a Mixed Reality System**
K. Arai, D. Barreneche Giraldo, S. Maurya, K. Moriya, P. A. Arrighi, C. Mougnot
Department of Mechanical Engineering
- A7-4 15:06-15:17 Living Labs and Co-design for Social Innovation**
Yuki Taoka, Kaho Kagohashi and Celine Mougnot
Department of Mechanical Engineering

A7-5 15:18-15:29 Upgrading Pyrolysis Vapors using Supported Ionic Liquid [bmim][BF₄] Catalyst
Michael A. Behrens, Hiroki Akasaka, Naoto Ohtake and Jeffrey S.
Department of Mechanical Engineering

Room B: W935 Lecture Room (3rd Floor) Materials Science and Engineering

- B7-1 14:30-14:41 Surface quality and microstructure of Al-Mg alloy strips fabricated by vertical-type high-speed twin roll casting**
Daisuke Kikuchi, Yohei Harada, Shinji Muraishi, Shinji Kumai
Department of Materials Science and Engineering
- B7-2 14:42-14:53 Fabrication of PLGA/Tricalcium Phosphate Cement Composite for Generating Pores**
Shota Ishii, Toshiyuki Ikoma *Department of Applied Chemistry*
Department of Materials Science and Engineering
- B7-3 14:54-15:05 Photocatalytic conversion of CO₂ into fuel product by Cu_xO nanocluster loaded SrTiO₃ nanorod thin film**
S.Shoji, G.Yin, D.Atarashi, E.Sakai and M. Miyauchi
Department of Materials Science and Engineering
- B7-4 15:06-15:17 Fabrication of artificial bones using in fused deposition modeling 3D printer**
Tzu Ying, Chuang
Department of Materials Science and Engineering
- B7-5 15:18-15:29 Mechanisms underlying nonfouling behaviors of self-assembled monolayers of oligo(ethylene glycol)-terminated alkanethiols on gold and silver**
Syifa Asatyas, Taito Sekine, Tomohiro Hayashi
Department of Materials Science and Engineering

Break (15:30-15:45)

Plenary Lecture by Prof. Jun Fudano (15:45-17:00)

Digital Multi-Purpose Hall, Tokyo Tech. W9

Move to Cafeteria (17:00-17:30)

Banquet and Award Ceremony (17:30-19:30)

Co-op 1st Cafeteria