Oral Presentations

Saturday, November 2

A1-I: Advanced Mesurements Ⅰ
(10:00-12:00, IB015)

Chair: Shunsuke MUTO (Nagoya Univ.

A1-I-1 (1200) **Invite**
Vortices and Spatial Modes in Electron and X-ray Beams

Benjamin J. McMorran[1], Jordan S. Pierce[1], Spencer Alexander[1], Cameron Johnson[1], James Lee[2], Sujoy Roy[2] and Andrew Forbes[3]

[1]Department of Physics, University of Oregon
[2]Advanced Light Source, Lawrence Berkeley National Laboratory
[3]School of Physics, University of the Witwatersrand, Johannesburg

A1-I-2 (1047)
Performance of orbital-angular-momentum measurements using forked gratings

Koh Saitoh[1], Yuuki Noguchi[1] , Wei Li[1,2] and Masaya Uchida[1,3]

[1]Institute of Materials and Systems for Sustainability, Nagoya University,
[2]Dalian Polytechnic University
[3]Advanced Science Research Laboratory, Saitama Institute of Technology

A1-I-3 (1207) **Invite**
Structured Light Beams from Synchrotron

Masahiro Katoh[1, 2]

[1]Hiroshima Synchrotron Radiation Center, Hiroshima University,
[2]Institute for Molecular Science, National Institutes of Natural Sciences

A1-I-4 (1031)
Visualization of Vortex Beam Phases by Electron Holography

Ken Harada

CEMS, RIKEN (The Institute of Physical and Chemical Research)

A1-I-5 (1204)
Optical Anomaly of GaN and SiC Crystals As Observed by New Optical Main Axis Mapping

Katsuo Tsukamoto[1, 2] , Masayuki Imanishi[1], Yusuke Mori[1]and Haruhiko Koizumi[3]

[1]Grad. School of Engineering, Osaka University,

[2] Grad. School of Science, Tohoku University

[3]Strategic Planning Office for Regional Revitalization, Mie University

A1-Ⅱ: Advanced Mesurements Ⅱ
(14:00-17:00, IB015)

Chair: Shinya YAGI (Nagoya Univ.)

A1-Ⅱ-1 **Invite**
I08-SXM: A multimodal scanning X-ray microscopy facility at the Diamond Light Source

Tohru Araki

Physical Science, Diamond Light Source

A1-Ⅱ-3 (1104)
Direct observation of fatigue crack t ips in a single crystalline Ni based s uperalloy

Yoshimasa Takahashi[1 3], Daisuke Kobayashi[2], Masaki Kashihara[1], Tomohiro Kozawa[1] and Shigeo Arai[3]

[1]Department of Mechanical Engineering, Kansai University
[2]Chubu Electric Power Co., Inc.,
[3]Institute of Materials and Systems for Sustainability IMaSS), Nagoya University

A1-Ⅱ-4 (1116)
Relationship between Active Slip Systems and Dislocation Walls during Cyclic Deformation in an Fe - 3 mass% Si A lloy

H.Shuto[1, 2] Y Tanaka[2] , T Miyazawa[2] , S Arai[3] and T Fujii[2]
[1]Steel Research Laboratories, Nippon Steel Corporation,
[2]Tokyo Institute o f Technology
[3]Nagoya University

A1-Ⅱ-5 (1150) Visualization of the Electric Potential in a Liionic Space charge Layer

Y-Nomura[1, 2] , K Yamamoto[3] , T Hirayama[3] E Igaki and K Saitoh[2]

[1]Technology Innovation Division, Panasonic Corporation
[2]Department of Crystalline Materials Science, Nagoya Unive rsity
[3]Nanostructures Research Laboratory, Japan Fine Ceramics Center,
4Institute of Materials and Systems for Sustainability, Nagoya University

A1-Ⅱ-6 **Invite** Theory of Atomic-scale Magnetic Signals in Transmission Electron Microscopy

J. Rusz[1], D. Negi[1,2], P. Zeiger[1], A. Edström[3], A. Lubk[4], L. Jones[5,6], J.-C. Idrobo[7]

[1]Dept. of Physics and Astronomy, Uppsala University
[2]Stuttgart Center for Electron Microscopy, Max Planck Institute, Stuttgart
[3]Materials Theory, ETH Zurich
[4]Institute for Solid State and Materials Physics, TU Dresden
[5]Advanced Microscopy Laboratory, CRANN, Dublin
[6]School of Physics, Trinity College Dublin
[7]Center for Nanophase Materials Science, Oak Ridge National Laboratory

A1-Ⅱ-7 (1283) X-ray Magnetic Circular Dichroism Studies on Ion Irradiated MnGa Films

Takeshi Kato[1], Daiki Oshima[2] and Satoshi Iwata[2]

[1]Department of Electronics, Nagoya University,
[2] Institute of Materials and Systems for Sustainability, Nagoya University

A1-Ⅱ-8 (1003) Recent Progress in Energy-Loss Magnetic Chiral Dichroism by Transmission Electron Microscopy

Shunsuke Muto

Institute of Materials and Systems for Sustainability, Nagoya University,

A1-Ⅱ-9 (1293) Development of New Cryo-Electron Microscope for Simultaneous STEM, SEM Imaging and its Application to Biological Samples

Jiro Usukura[1], Akihiro Narita[2], Tomoharu Matsumoto[2], Eiji Usukura[1], Takeshi Sunaoshi[3], Syunya Watanabe[3], Yusuke Tamba[3], Yasuhira Nagakubo[3], Junzo Azuma[3], Takashi Mizuo[3], Kazutaka Nimura[3], Masako Osumi[4], Ryuichiro Tamochi[3] and Yoichi Ose[3]

[1]Institute of Materials and Systems for Sustainability, Nagoya Univerrsity
[2]Graduate school of Science, Nagoya University
[3]Hitachi High-Technologies Corporation
[4]Japan Women's University

A2-Ⅰ: Nuclear Emulsion Technology Ⅰ
(10:00-12:15, IB Hall)

Chair: Seigo MIYAMOTO (The Univ. of Tokyo)

A2-I-1 (1353) CosmicRay Imaging with Nuclear Emulsion

Kunihiro Morishima[1, 2, 3, 4], Nobuko Kitagawa[3], Akira Nishio[1], Mitsuaki Kuno1, Yuta Manabe[1], Kotaro Hikata[1] and Ami Sakakibara[1]

[1]D epartment o f Physics, Nagoya University
[2]Institute for Ad van ce d Research, Nagoya Uni versity
[3]IMaSS, Nagoya University
[4]PRESTO Researcher

A2-I-2 (1242) Study of cultural properties by the technique of cosmic ray physics

Katsumi Ishiguro[1,2], Kiyohide Saito[1]

[1]Archaeological institute of Kashihara in Nara prefecture
[2]Nagoya University

A2-I-3 (1220) Steep bedrock topography beneath an active alpine glacier discovered by muon radiography

Akitaka Ariga

on behalf of the Eiger Collaboration
Albert Einstein Center for Fundamental Physics, Laboratory for High Energy Physics, University of Bern

A2-I-4 (1135) Omnidirectional muography for volcanoes the plan for first experimental proof in Omuroyama, Shizuoka, Japan.

S. Miyamoto[1], Nagahara[1], Morishima[2], Nakano[2], Koyama[3], Suzuki[4]

[1]The Univ of Tokyo
[2]Naogya Univ
[3]Shizuoka Univ.
[4]Izu Peninsula Geopark Promotion Council

A2-I-5 (1134) The demonstration of Omni-directional muography and 3 D density structural analysis at Omuro yama, Izu, Japan

Shogo Nagahara[1], Seigo Miyamoto[1], Kunihiro Morishima[2], Toshiyuki Nakano[2], Masato Koyama[3], Yusuke Suzuki[4]

[1]Earthquake Research Institute, The Univ ersity of Tokyo
[2]Nagoya University
[3]Shizuoka University
[4]Izu Peninsula Geopark Promotion Council

A2-I-6 (1287) Cosmic-ray radiography using nuclear emulsion in the great pyramid

Mitsuaki Kuno, Kunihiro Morishima, Akira Nishio, Yuta Manabe, Kotaro Hikata, Ami Sakakibara and Nobuko Kitagawa

Nagoya University

A2-I-7 (1332) Next Generation Nuclear Emulsion Detector with excellent long-term stability

Akira Nishio, Kunihiro Morishima, Ken-ichi Kuwabara, Tetsuo Yoshida, Nobuko Kitagawa, Mitsuaki Kuno,Yuta Manabe, Kotaro Higata, Ami Sakakibara and Mitsuhiro Nakamura

Nagoya University

A2-Ⅱ: Nuclear Emulsion Technology Ⅱ
(14:00-16:45, IB Hall)

Chairs: Koichi KODAMA (Aichi Univ. of Education)
Toshiyuki NAKANO (Nagoya Univ.)

A2-Ⅱ-1 (1333) Nuclear emulsion readout system

Toshiyuki Nakano[1, 2], Ryousuke Komatani[1] and Masahiro Yoshimoto[3]

[1]Graduate school of Science, Nagoya University
[2]Kobayashi Masukawa Institute
[3]Physics Department, Gifu University

A2-Ⅱ-2 (1285) Status of Next Generation Nuclear Emulsion Film Facility in Nagoya University

H.Rokujo, T.Fukuda, M.Komatsu, K.Morishima, N.Naganawa, M.Nakamura, T.Nakano, K.Ohzeki and O.Sato

Nagoya University

A2-Ⅱ-3 (1286) GRAINE Project: Balloon-borne Gamma-ray Telescope with Nuclear Emulsion

Shigeki Aoki[1] for GRAINE collaboration[1, 2, 3, 4, 5]

[1]*Kobe University*
[2]*Nagoya University,*
[3]*Okayama University of Science,*
[4]*Aichi University of Education and*
[5]*ISAS/JAXA*

A2-Ⅱ-4 (1049) Measurements of Cosmic Ray Nuclei with Balloon-borne Emulsion Gamma-ray Telescope Experiments (GRAINE) and with HIMAC Heavy Ion Beam experiments

Atsushi Iyono[1], Saya Yamamoto[1], Akine Matsukawa[1], Mitsuhiro Nakamura[2], Osamu Satoh[2], Kunihiro Morishima[2], Satoru Takahashi[3], Shigeki Aoki[3], Hiroki Rokujo[4] and Misato Yabu[3] and GRAINE[1,2,3,4,5,6] collaboration

[1]*Graduate School of Science, Okayama University of Science,*
[2]*Institute of Materials and systems for sustainability, Nagoya University,*
[3]*Graduate School of Human Development and Environment, Kobe University,*
[4]*Graduate School of Science, Nagoya University*
[5]*Aichi University of Education*
[6]*ISAS/JAXA*

A2-Ⅱ-5 (1344) Nuclear emulsion in space - plan for a new experiment on a sounding rocket and the International Space Station

Mugurel Balan[2], Caludiu Cherciu[2], Elena Firu[2], Tsutomu Fukuda[1], Naotaka Naganawa[1], Liviu Petcu[1], Hiroki Rokujo[1], Osamu Sato[1]

[1]*Nagoya Uni versity, Nagoya, Japan*
[2]*Institute of Space Science, Bucharest, Romania*

A2-Ⅱ-6 (1357) NEWSdm experiment ~ Directional Darkmatter search with super-fine grain emulsion detector ~

Atsuhiro Umemoto[1], Tatsuhiro Naka[2], Ryuta Kobayashi[1], Takuya Shiraishi[2]

[1]*Graduate school of science Nagoya University*
[2]*Graduate school of phy sics Toho U niversity*

A2-Ⅱ-7 (1214) Recent results of a double hypernuclear search using nuclear emulsion

Masahiro Yoshimoto, Aung Nay Lin Nyaw Phyo Myat Lin, Ayumi Kasagi and Kazuma Nakazawa

for J PARC E07 Collaboration Physics Department, Gifu University

A2-Ⅱ-8 (1215) Characteristics of Ξ^- capture reaction at rest and Production of S = –2 Hypernuclei

Aung Nay Lin Nyaw[1], Kazuma Nakazawa[1], Masahiro Yoshimoto[1], Ayumi Kasagi[1], Phyo Myat Lin[1] and Junya Yoshida[2]

[1]*Department of Physics, Gifu University*
[2]*ARSC, JAEA*

A2-Ⅱ-9 (1216) Development of Range-Energy Calibration Method with The Range of Alpha Particles for E07 Experiment, JPARC

Phyo Myat Lin[1], Ayumi Kasagi[1], Kazuma Nakazawa[1], Masahiro Yoshimoto[1], Aung Nay Lin Nyaw[1] and Junya Yoshida[2]

[1]*Department of Physics, Gifu University,*
[2]*ARSC, JAEA*

A2-Ⅱ-10 (1217) High-resolution measurement using Spring-8 X-ray microscope for double hypernuclear analysis in J-PARC E07

Ayumi Kasagi[1], Kazuma Nakazawa[1], Masahiro Yoshimoto[1], Aung Nay Lin Nyaw[1], Phyo Myat Lin[1] and Junya Yoshida[2]

[1]*Department of Physics, Gifu University,*
[2] *Advanced Science Research Center, JAEA*

A2-Ⅱ-11 (1222) Digital Archives for Nuclear Emulsion Data- Data in past experiments in Cosmic-ray and Accelerator physics

Koichi Kodama[1], Takenori Kamiya[1], Masakatsu Ichimura[2] and Mitsuhiro Nakamura[3]

[1]*Aichi University of Education*
[2]*Hirosaki University*
[3]*Nagoya University*

A3-I: Nanomaterials Ⅰ
(10:00-11:45, ES022)

Chair: Minoru OSADA (Nagoya Univ.)
Chun-Wei CHEN (Nanjing Univ.)

A3-I-1 (1267) **Invite**
Two-dimensional materials with novel functionality for photon-to-energy conversion

Chun-Wei Chen

Department of Materials Science and Engineering, National Taiwan University

A3-I-2 (1295) **Invite**
Resistance Switch as nanoscale element

Kazuhito Tsukagoshi[1], Yukiya Umeta[1,2], Shushu Zheng[1],Yasuhisa Naitoh[3], Hiroshi Suga[2], Xing Xu[4]

[1]*WPI-MANA, NIMS*
[2]*Department of Technology, Chiba Institute of Technology*
[3]*Nanoelectronics Research Institute, Department of Electronics and Manufacturing, National Institute of Advanced Industrial Science and Technology (AIST)*
[4]*School of Materials Science and Engineering, Huazhong University of Science and Technology (HUST)*

A3-I-3 (1011)
2D Oxide Nanosheets for Electronic Applications

Minoru Osada[1,2]

[1]*Institute of Materials and Systems for Sustainability (IMaSS), Nagoya University*
[2]*International Center for Materials Nanoarchitectonics (WPI-MANA), National Institute for Materials Science*

A3-I-4 (1044)
Chemical Vapor Deposition of 2D Transition Metal Dichalcogenides – Just Add Salts

Li Shisheng

National Institute for Materials Science (NIMS)

A3-I-5 (1017)
Controlled Synthesis of 2D Oxide Nanosheets

Yue Shi, Eisuke Yamamoto, Makoto Kobayashi, Minoru Osada

IMaSS, Nagoya University

A3-Ⅱ: Nanomaterials Ⅱ
(14:00-17:00, ES022)

Chair: Kazuhito TSUKAGOSHI (National Institute for Material Science)
Xinran WANG (National Taiwan Univ.)
Nobuyoshi MIYAMOTO (Fukuoka Institute of Technology)

A3-Ⅱ-1 (1033) **Invite**
Two-dimensional Organic-Inorganic Hybrid Systems

Xinran Wang

School of Electronic Science and Engineering, Nanjing University

A3-Ⅱ-2 **Invite**
TBA

B. Ozylimaz

A3-Ⅱ-3 (1034) **Invite**
Interfacial Effects and Physics of Molecular Crystalline Semiconductors under Two-Dimensional Limit

Yun Li

School of Electronic Science and Engineering, Nanjing University

A3-Ⅱ-4 (1305)
Liquid crystalline nanosheet/polymer composites with highly regulated hierarchical structures

Nobuyoshi Miyamoto

Department of Life, Environment and Applied Chemistry, Faculty of Engineering, Fukuoka Institute of Technology

A3-Ⅱ-5 (1290)
Smart Use of Nanoporous Silicas for Photocatalytic Reactions

Yusuke Ide

International Center for Materials Nanoarchitectonics MANA National Institute for Materials Science(NIMS)

A3-Ⅱ-6 (1315)
Aerogels - Transparent, Low-density Solids for Energy Management

Kazuki Nakanishi[1,2], Kazuyoshi Kanamori[2], Ryota Ueoka[2] and Mamoru Aizawa[3]

[1]*Division of Materials Research, Institute of Materials and Systems for Sustainability, Nagoya University*
[2]*Department of Chemistry, Graduate School of Science, Kyoto University*
[3]*Tiem Factory Incorporated*

A3-Ⅱ-7 (1263) Thermal Conduction in Magneli Phase Titanium Oxides with an Ordered Arrangement of Planar Faults in Nanoscale

Shunta Harada[1,2], Naoki Kosaka[2], Takashi Yagi[3], Katsushi Tanaka[4], Haruyuki Inui[5], Miho Tagawa[1,2] and Toru Ujihara[1,2,3]

[1]*Institute of Materials and Systems for Sustainability, Nagoya University,*

[2]*Department of Materials Process Engineering, Nagoya University,*

[3]*National Institute of Advanced Industrial Science and Technology*

[4]*Department of Mechanical Engineering, Kobe University*

[5]*Department of Materials Science and Engineering, Kyoto University*

A4-I: Energy Conversion Ⅰ
(10:00-12:00, IB014)

Chair: Yasuaki UEKI (Nagoya Univ.)

A4-I-1 (1152) **Invite** Current Situation and Development of Gold Extraction by Chloridizing Volatilization Process

Shufeng Ye, Peiwei Han, Jian Ding and Peng Qian

State Key Laboratory of Multiphase Complex Systems, Institute of Process Engineering, Chinese Academy of Sciences

A4-I-2 **Invite** Catalytic Technology for Sustainable Green Aviation Biofuel Production

Y.H Taufiq-Yap[1,2], N. Asikin-Mijan[1], G. AbdulKareem-Alsultan[1,2]

[1]*Catalysis Science and Technology Research Centre (PutraCAT); Faculty of Science, Universiti Putra Malaysia*
[2]*Department of Chemistry, Faculty of Science, Universiti Putra Malaysia*

A4-I-3 (1208) Effect of AAEMs on Pyrolysis and Gasification of Different Species of Wood

Yuya Sakurai[1], Yuji Sakai[2] and Jun Kobayashi[1]

[1]*Department of Mechanical Engineering, Kogakuin University*
[2]*Department of Environmental Chemistry and Chemical Engineering, Kogakuin University*

A4-I-4 (1313) Capture and Oxidation of Gaseous Elemental Mercury in Flue Gas by De NO_x catalyst

Ryo Yoshiie[1], Yasuaki Ueki[2] and Ichiro Naruse[2]

[1]*Department of Mechanical System s Engineering, Nagoya University*
[2]*Institute of Materials and Systems for Sustainability, Nagoya University*

A4-I-5 (1364) Efficient removal of Pb(II) and demulsification of oil-in-water emulsions by Ti_3C_2Tx powders with silane coupling agent modification

Yingchao Du[1,2], Peiwei Han[2], Peng Qian[2], Yonggang Lu[2], and Shufeng Ye[2]

[1]*D epartment o f Chemical Engineering, University of Chinese Academy of Sciences*
[2]*State Key Laboratory of Multiphase Complex Systems, Institute of Process Engineering, Chinese Academy of Sciences*

A4-I-6 (1374) Research and Development of Rotating Detonation Engine System for the Sounding Rocket S520-31 Flight Experiment

Jiro Kasahara[1,2], Akira Kawasaki[1,2], Ken Matsuoka[2], Akiko Matsuo[3], Ikkoh Funaki[4], Daisuke Nakata[5] and Masaharu Uchiumi[5]

[1]*Institute of Material and Systems for Sustainability, Nagoya University*
[2]*Departmentsof Aerospace Engineering, Nagoya University*
[3]*Keio University*
[4]*ISAS, Japan Aerospace Exploration Agency*
[5]*Muroran Institute of Technology*

A4-Ⅱ: Energy Conversion Ⅱ
(14:00-15:15, IB014)

Chair: Yasuaki UEKI (Nagoya Univ.)

A4-Ⅱ-1 (1362) **Invite** Investigation of Hydrogen Production from Water Hyacinth thorough Sub-Critical Hydrothermal Gasification

Kazuki Nakanishi[1,2], Kazuyoshi Kanamori[2], Ryota Ueoka[2] and Mamoru Aizawa[3]

[1]*Division of Materials Research, Institute of Materials and Systems for Sustainability, Nagoya University*
[2]*Department of Chemistry, Graduate School of Science, Kyoto University*
[3]*Tiem Factory Incorporated*

A4-Ⅱ-2 (1071) Nickel Recovery by Chlorination-volatilization Method

Peiwei Han and Shufeng Ye

State Key Laboratory of Multiphase Complex Systems, Institute of Process Engineering, Chinese Academy of Sciences

A4-Ⅱ-3 (1045) Characteristics and Kinetics of Biomass Char Gasification in Steam, CO_2, and their Mixture

Xi Zeng[1], Hui Zhang[2], Yasuaki Ueki[1], Ryo Yoshiie[2], Ichiro Naruse[1]

[1]Institute of Materials and Systems for Sustainability (IMaSS), Nagoya University
[2]Department of Mechanical Systems Engineering, Nagoya University

A4-Ⅱ-4 (1177) CO_2 CO Conversion with Oxygen Carrier using Fixed Bed Flow Reactor System

KenjiKamiya, Nobusuke Kobayashi, Ryota Yoshimi, Akira Suami and Yoshinori Itaya

Graduate School of Engineering, Gifu University

A5: Transportation
(14:00-15:45, ES024)

Chair: Tomio MIWA (Nagoya Univ.)

A5-1 (1048) Deep learning based prediction model and empirical analysis for spatiotemporal demand of online ride hailing

Zhiju Chen, Kai Liu and Xinchao Peng

School of Transportation & Logistic, Dalian University of Technology

A5-2 (1012) The Relocation Problem in Dynamic Shared Autonomous Taxi System

Zhiguang Liu[1], Tomio Miwa[2]

[1]Department of Civil Engineering, Nagoya University
[2]Institute of Materials and Systems for Sustainability, Nagoya University

A5-3 (1043) Location of Electric Vehicle Charging Stations with Elastic Demands and Path Distance Constraints

Hong Gao, Kai Liu and Xinchao Peng

School of Transportation & Logistic, Dalian University of Technology

A5-4 (1153) Model measuring on Option Value of Public Transport Service in Aging Society

Xun ZHENG[1], Tomio MIWA[1, 2]

[1]Department of Civil Engineering, Nagoya University,
[2] Institute of Materials and Systems for Sustainability, Nagoya University

A5-5 (1084) The public acceptance analysis of level 3 autonomous driving vehicles based on binomial logit model

Xiyue Zhang and Kai Liu

School of Transportation and Logistics, Dalian University of Technology

A5-6 (1036) Study on social value evaluation of supporting bath on disaster using the contingent valuation Method

N. Kitagawa[1], T. Yamamoto[2]

[1]Disaster Mitigation Research Center, Nagoya University,
[2]Institute of Materials and Systems for Sustainability, Nagoya University

A5-7 (1082) GNSS elevation data processing for roadway grade measurement based on Kalman filter algorithm

Xinchao Peng and Kai Liu

School of Transportation & Logistic, Dalian University of Technology

A6-Ⅰ: Information & Communication Ⅰ
(14:00-16:15, IB011)

Chair: Hiraku OKADA (Nagoya Univ.)

A6-I-1 (1005)
An Experiment of Meteor Burst Communications in Equatorial Region

Tadahiro Wada[1], Hiroki Wadaguchi[1], Kaiji Mukumoto[2], I Wayan Mustika[3], Linawati[4], Hiraku Okada[5]

[1]Graduate School of Integrated Science and Technology, Shizuoka University
[2]Technical Division, Shizuoka University
[3]Faculty of Engineering, Gadjah Mada University
[4]Faculty of Engineering, Udayana University
[5]Institute of Materials and Systems for Sustainability, Nagoya University

A6-I-2 (1112)
Proposal of Antenna Pattern Multiplexing to Reduce Required Received Signal Power

Masato Saito

Department of Engineering, University of the Ryukyus

A6-I-3 (1164)
A Study on LED Transmitter of Image Sensor Communication for Improving Data Transmission Rate

Shintaro Arai

Dept. of Electrical and Electronic Engineering, Okayama University of Science

A6-I-4 (1077)
Data signal modulation scheme based on perceptually uniform color space for image sensor-based visible light communication

Taito Sasaki[1], Kentaro Kobayashi[2], Hiraku Okada[2] and Masaaki Katayama

[1]Dept. of Information and Communication Engineering, Nagoya University,
[2]Institute of Materials and Systems for Sustainability, Nagoya University

A6-I-5 (1007)
Calibration Method for an Integrated Range and Visible Light Communication System using Stereo Cameras

Ruiyi HUANG[1], Masayuki KINOSHITA[2], Takaya YAMAZATO[1], Hiraku OKADA[1], Toshiaki FUJII [1], Shintaro ARAI[3], Tomohiro YENDO[4] and Koji KAMAKURA[2]

[1]Nagoya Univers ity
[2]Chiba Institute of Technology,
[3]Okayama University of Science,
[4]Nagaoka University of Technology

A6-I-6 (1122)
Signal detection scheme for online map images

Ryota Ono[1], Yuki Mori[2], Katsuhiro Naito[1]

[1]Faculty of Information Science, Aichi Institute of Technology,
[2]Business Administration and Computer Science Course, Aichi Institute of Technology

A6-I-7 (1078)
Designing of packet processing in kernel space for mobile transparency protocol

Shuhei Isomura[1], Ryota Murate[2], Kohei Tanaka and Katsuhiro Naito[2]

[1]Graduate School of Business Administration and Computer Science, Aichi Institute of Technology
[2]Faculty of Information Science , Aichi Institute of Technology

A6-I-8 (1088)
Evaluation of indoor positioning technology using a smartphone and ultrasonic signal

Shotaro Osaki[1], Katsuhiro Naito[2]

[1]Graduate School of Business Administration and Computer Science, Aichi Institute of Technology,
[2]Department of Information Science, Aichi Institute of Technology

A8-I: Power Electronics 1
(15:30-16:45, IB014)

Chair: Masayoshi YAMAMOTO (Nagoya Univ.)

A8-I-1 (1038)
The Impedance Analysis of DC Brush Motor Considering Rotation Angle Dependence

K. Katagiri[1], T Ogawa1, M Yamamoto[2] and J Imaoka[2]

[1]Advanced Technology R& D Center, Mitsubishi Electric Corporation
[2]Department of Electrical Engineering, Nagoya University

A8-I-2 (1099)
Searching Method for Worst Combination of Component Parameters using Circuit Simulator with GA

Yasumichi Omoto

OMRON Automotive Electronics Co. Ltd.

A8-I-3 (1157) A Study of Inverter Layout Including GaN-HEMTs and GaN-Diodes

Takashi Sawada[1], Yu Hsin Wu[2], Toshihiro Iwaki[2], and Masayoshi Yamamoto1

[1]Institute of Materials and Systems for Sustainability, Nagoya University,
[2]Department of Electrical Engineering, Nagoya University,

A8-I-4 (1358) Reliability Improvement of Power Control Unit of Hybrid Electric Vehicle by means of Z-source Network

Thilak Senanayake, Jun Imaoka, Masayoshi Yamamoto

Power Electronics Laboratory, Nagoya University,

A8-I-5 (1158) Modeling of SiC UMOS chip and its application to Power Module

Hiroyuki Sakairi, Yohei Nakamura, Naotaka Kuroda, Maiko Hatano, Takukazu Otsuka and Ken Nakahara

Research and Development Center Rohm co., Ltd.

A9-I: Eco System Analysis and Others Ⅰ

(10:00-12:00, IB013)

Chair: Kiichiro Hayashi (Nagoya Univ.)

A9-I-1 (1352) **Invite** Multi-scale Remote Sensing for the Early Stage of Disaster Management

Satoru Sugita[1], Hiroshi Inoue[2], Yuji Asahi[3] and Hiromichi Fukui[1]

[1]International Digital Earth Applied Science Research Center, Chubu University
[2]National Research Institute for Earth Science and Disaster Resilience
[3]Falcon Corporation, Ltd.

A9-I-2 (1103) Accuracy verification of UAV-SfM survey of terrace paddy fields

Yuri Yamazaki[1], Kunming Li[2] and Hiromu Okazawa[1]

[1]Department of Regional Environment Science, Tokyo University of Agriculture
[2]Graduate School of Agriculture, Tokyo university of Agriculture

A9-I-3 (1063) Evaluating the transformation of rainfall using TOPMODEL in Mid-sized Equatorial Catchment

Emmanuel OKIRIA[1], Hiromu OKAZAWA[2], Yuri YAMAZAKI[2], Yukimitsu KOBAYASHI[1] and Shinji SUZUKI[2]

[1]Graduate School of Agriculture, Tokyo University of Agriculture
[2]Faculty of Regional Environment Science, Tokyo University of Agriculture

A9-I-4 (1006) Assessing the Recycle of Urban Forest Management Wastes Using the Resources Time Foot Print Analysis

N. KAWAGUCHI[1], K. HAYASHI[1] and M. FUJII[2]

[1]IMaSS, Nagoya University,
[2]National Institute for Environmental Studies

A9-I-5 (1149) Estimating Stem Volume of Coniferous Tree Species from a UAV-SfM Derived Canopy Model: An Application of the Pipe Model Theory

Takashi Machimura[1], Ayana Fujimoto[1], Kiichiro Hayashi[2], Satoru Sugita[3], Hiroaki Takagi[2] and Takanori Matsui[1]

[1]Graduate School of Engineering, Osaka University,
[2]Institute of Materials and Systems for Sustainability, Nagoya University
[3]Chubu Institute for Advanced Studies, Chubu University

A9-I-6 (1142) Accuracy verification of UAV-SfM survey of terrace paddy fields

Yuri Yamazaki[1], Kunming Li[2] and Hiromu Okazawa[1]

[1]Department of Regional Environment Science, Tokyo University of Agriculture
[2]Graduate School of Agriculture, Tokyo university of Agriculture

A9-I-7 (1131) Estimation of Carbon Stock for Coniferous and Broad-Leaved Forests by Comparing UAV and LIDAR methods

H. Takagi[1], K. Hayashi[1], T. Machimura[2] and S. Sugita[3]

[1]Department of Civil Engineering, Nagoya University
[2]Graduate School of Engineering, Osaka University
[3]Chubu Institute for Advanced Studies, Chubu University

A9-Ⅱ: Eco System Analysis and Others Ⅱ

(14:00-16:45, IB013)

Chair: Natsuko HAMAMURA (Kyusyu Univ.)
Naoko YOSHIDA (Nagoya Institute of Technology)
Nobusuke KOBAYASHI (Gifu Univ.)

A9-Ⅱ-1 **Invite**
Energy Reduction in Sewage Wastewater Treatment by Applying Microbial Fuel Cell

Naoko Yoshida

Department of Civil Engineering, Nagoya Institute of Technology

A9-Ⅱ-2 (1089)
Polyphasic Characterization of Solid-phase Humin functioning as External Electron Mediator for Anaerobic Microorganisms

Pham Minh Duyen and Arata Katayama

Institute of Materials and Systems for Sustainability, Nagoya University, Japan

A9-Ⅱ-3 (1072)
Microbial Biotransformation of Toxic Metalloids and Its Bioremediation Potentials

Natsuko Hamamura[1,2], Tomotaka Okubo[1] and Satoshi Mitsunobu[3]

[1]Department of Biology, Faculty of Science, Kyushu University,
[2]Institute of Materials and Systems for Sustainability, Nagoya University,
[3]Department of Bioresources, Faculty of Agriculture, Ehime University

A9-Ⅱ-4 (1065)
Nitrogen fixing activity promoted by humin

Takanori Awata[1], Jumpei Mitsushita[2], Takuya Kasai[2], Norihisa Matsuura[3] and Arata Katayama[2]

[1]National Institute for Land and Infrastructure Management,
[2]Nagoya University,
[3]Kanazawa University

A9-Ⅱ-5 (1070)
Extracellular electron transfer mechanisms in Shewanella oneidensis

Takuya Kasai[1], Takehito Noto[2] and Arata Katayama[1]

[1]Institute of Materials and Systems for Sustainability, Nagoya University,
[2]School of engineering, Nagoya University

A9-Ⅱ-7 (1056)
Direct Vitrification of Used Nuclear Fuel Considering Future Resource Retrieval

Naoki Tsukiyama, Kayo Sawada and Youichi Enokida

Department of Applied Energy, Graduate School of Engineering, Nagoya University

A9-Ⅱ-8 (1166)
Construction of Composting Heat Utilization Process

Yoshinori Watanabe[1,2], Nobusuke Kobayasi[2], Yoshinori Itaya[2] and Yuto Kashiwaya[2]

[1]Department of Mechanical and System Engineering, Aichi University of Technology
[2]Environmental and Renewable Energy S ystems, Gifu University

A9-Ⅱ-9 (1066)
Operating Temperature for the Vitrification of Radioactive Wastes with Lead Borate Glass

Takumi Shimakura, Kayo Sawada and Youichi Enokida

Department of Applied Energy, Graduate School of Engineering, Nagoya University,

A9-Ⅱ-10 (1196)
Effect of Electrolytes on the Stability of Surfactant Free W/O E mulsions

S.Ito, Y Kojima and M Ueda

Institute of Materials and Systems for Sustainability Nagoya University

Sunday, November 3

A1-Ⅲ: Advanced Mesurements Ⅲ
(10:00-12:00, IB015)

Chair: Eiji IKENAGA (Nagoya Univ.)

A1-Ⅲ-1 (1185) Time series analysis of depth profiles in multi-layered stack-film interfaces studied by nearambient-pressure hard x-ray angle-resolved photoemission spectroscopy

Satoshi Toyoda[1], Tomoki Yamamoto[2], Masashi Yoshimura[3], Hirosuke Sumida[4], Susumu Mineoi[4], Masatake Machida[5], Akitaka Yoshigoe[6], Akira Yoshikawa[7], Satoru Suzuki[2], Kazushi Yokoyama[2]

[1]New Industry creation Hatchery Center, Tohoku University
[2]Synchrotron Radiation Nanotechnology Center, University of Hyogo
[3]Spring-8 Service Co., Ltd.
[4]Technical Research Center, Mazda Motor Corporation
[5]Scienta Omicron, Inc.
[6]Materials Sciences Research Center, Japan Atomic Energy Agency
[7]Institute for Materials Research, Tohoku University

A1-Ⅲ-2 (1345) Saturation of Activated Sb Atom in Heavily Sb-Doped Ge Epitaxial Thin Films

J. Jeon[1], S. Shibayama[1], S. Zaima[2], and O. Nakatsuka[1, 3]

[1]Graduate School of Engineering, Nagoya University,
[2]Graduate School of Science and Technology, Meijo University,
[3]Institute of Materials and Systems for Sustainability, Nagoya University

A1-Ⅲ-3 (1340) Operand Study of Multiple Stacked Si Quantum Dots by Hard X-ray Photoelectron Spectroscopy

Mitsuhisa Ikeda[1], Akio Ohta[2], Makihara Katsunori[2] and Seiichi Miyazaki[2]

[1]DII Collaborative Graduate Program for Accelerating Innovation in Future Electronics, Nagoya University
[2]Department of Electronics, Nagoya University

A1-Ⅲ-4 (1411) Designing Functional Materials via Atomic-resolution Microscopy and Spectroscopy

Invite

Stephen J. Pennycook[1,2,3,4], Xiaoxu Zhao[1], Jiong Lu[5], Wenjie Zang[1], Haijun Wu[1], Changjian Li, A. Ariando[4], T. Venkatesan[4] and John Wang[1,2]

[1]Department of Materials Science and Engineering, National University of Singapore
[2]NUS Graduate School for Integrative Sciences and Engineering, Centre for Life Sciences
[3]Centre for Advanced 2D Materials, National University of Singapore
[4]NUSNNI-Nanocore, National University of Singapore
[5]Department of Chemistry, National University of Singapore

A1-Ⅲ-5 (1102) Analyzing 3D Distributions of Au/Pt Nanoparticles by Focal Series of Aberration Corrected TEM I mages

Jun Yamasaki[1,2], *Masaki Kano[3], Koh Saitoh[2], Kenta Yoshida[4], Keita Kobayashi[5] and Nobuo Tanaka[2]*

[1]Research Center for Ultra High Voltage Electron Microscopy, Osaka University
[2]Institute o f Materials and Systems for Sustainability, Nagoya University
[3]Department of Electronic Engineering, Osaka University
[4]Institute for Materials Research, Tohoku University
[5]National Institute of Advanced Industrial Science a nd Technology

A1-Ⅲ-6 (1271) High-brightness pulsed electron microscopy toward advanced measurement of time-evolution in nano-materials

Makoto Kuwahara[1,2], Rina Yokoi[2], Lila Mizuno[2], Wataru Nagata[2], Yuya Yoshida[2], Takafumi Ishida[1,2], Toru Ujihara[1,2] and Koh Saitoh[1,2]

[1]Institute of Materials and Systems for Sustainability, Nagoya University
[2]Graduate School of Engineering, Nagoya University

A2-Ⅲ: Nuclear Emulsion Technology Ⅲ

(10:00-12:00, IB Hall)

Chair: Masahiro KOMATSU (Nagoya Univ.)
Toshiyuki TOSHITO (Nagoya Proton Therapy Center)

A2-Ⅲ-1 (1211) Single Photon Emission Computed Tomography System using Emulsion to visualize Irradiation Fields for Particle Therapy

T.Toshito[1], M Kimura[1], O Sato[2] and M Nakamura[2]

[1]Nagoya Proton Therap y Center

[2]Nag oya University

A2-Ⅲ-2 (1176) Secondary neutron measurements in proton therapy with nuclear emulsion

Mitsuhiro Kimura*[1,2], Toshiyuki Toshito[1,2], Hiroyuki Ogino[1,2], Yuta Shibamoto[2] Osamu Sato [3] and Mitsuhiro Nakamura[3]*

[1]Nagoya Proton Therapy Center
[2]Nagoya City University
[3]Nagoya University

A2-Ⅲ-3 (1050) Application of Nuclear Emulsions for the Identification of Laser-accelerated Multi-MeV Protons

T. Asai[1,2], M. Kanasaki[1], S. Jinno[3], N. Kitagawa[4], N. Shutoh[1], S. Kodaira[5], T. Yamauchi[1], K. Oda[1], K. Morishima[4] and Y. Fukuda[2]

[1]Graduate school of Maritime sciences, Kobe University,
[2]Kansai Photon Science Institute, QST,
[3]School of Engineering, the University of Tokyo,
[4]Graduate School of Science, Nagoya University,
[5]National Institute of Radiological Sciences, QST

A2-Ⅲ-5 (1137) Upgrading of momentum measurement techniques in emulsion-based particle detectors

T. Matsuo[1], K. Hirose[1], A. Kono[1], Y. Kosakai[1], K. Mizuno[1], Y. Morimoto[1], S. Ogawa[1], H. Oshima[1], H. Shibuya[1], H. Takagi[1], C. Tsuruoka[1], S. Mikado[2], Y. Hanaoka[2], T. Fukuda[3], M. Nakamura[4] and O. Sato[4]

[1]Department of Physics, Faculty of Science, Toho University,
[2]College of Industrial Technology, Nihon University,
[3]Institute for Advanced Research
[4]Institute of Materials and Systems for Sustainability, Nagoya University

A2-Ⅲ-6 (1311) Study on the neutrino interactions in subGeV to GeV Energy range : NINJA.

Osamu Sato for NINJA collaboration

Institute of Materials and Systems for Sustainability, Nagoya University

A2-Ⅲ-7 (1334) The DsTau Experiment: Study of Tau Neutrino Production

Elena Firu

on behalf of the DsTau Collaboration

Institute of Space Science, Bucharest

A2-Ⅲ-8 (1221) Studying High Energy Neutrinos in the FASER experiment at the LHC

Tomoko Ariga

on behalf of the FASER Collaboration

Kyushu University

A3-Ⅲ: Nanomaterials Ⅲ

(9:45-12:15, ES022)

Chair: Yusuke IDE (Institute for Material Science)
Eisuke YAMAMOTO (Nagoya Univ.)
Makoto KOBAYASHI (Nagoya Univ.)

A3-Ⅲ-1 (1289) Template syntheses of titania nanoparticle

Invite

Kasimanat (Guy) Vibulyaseak and Makoto Ogawa

School of Energy Science and Engineering, Vidyasirimehi Institute of Science and Technology

A3-Ⅲ-2 (1297) Hydrothermal Synthesis of Rutile-type Titania Nanocrystals with Controlled Morphologies

Makoto Kobayashi[1], Hideki Kato[2], Minoru Osada[1] and Masato Kakihana[1]

[1]Institute of Materials and Systems for Sustainability, Nagoya University,
[2]Institute of Multidisciplinary Research for Advanced Materials, Tohoku University

A3-Ⅲ-3 (1281)

DNA-guided crystallization of nanoparticles: optimization of crystallization conditions and structure analysis

Miho Tagawa[1,2], Shoko Kojima[2], Hayato Sumi[2], Noboru Ohta[3], Hiroshi Sekiguchi[3], Shunta Harada[1,2] and Toru Ujihara[1,2]

[1]*Center for Integrated Research of Future Electronics (CIRFE) ,Institute of Materials and Systems for Sustainability (IMaSS), Nagoya University*
[2]*Graduate School of Engineering Nagoya University*
[3]*Japan Synchrotron Radiation Research Institute (JASRI)*

A3-Ⅲ-4 (1039)

Tailored Fabrication of TiO_2-TiN/Sn-SnO_2 Composite Films as High-Performance LIB Anode Materials

Song-Zhu S. Kure-Chu[1],Takato Inoue[1], Xuewen Chen[1], Takehiko Hihara[1], ong Peng[2], Masazumi Okido[2] and Hitoshi Yashiro[3]

[1]*Department of Materials Function and Design, Nagoya Institute of Technology*
[2]*Institute of Materials and Systems for Sustainability (IMaSS), Nagoya University*
[3]*Department of Chemistry and Bio-Sciences, Iwate University*

A3-Ⅲ-5 (1057)

Atomic and electronic structure analysis of resistive switching regions in rutile TiO_{2-x} based four terminal memristive devices

Tsuyoshi Isaka[1], Tetsuya Tohei[1], Takuma Shimizu[1], Shotaro Takeuchi[1], Nobuyuki Ikarasi[2] and Akira Sakai[1]

[1]*Graduate School of E ngineering Science, Osaka University*
[2]*Institute of Materials and System for Sustainability, Nagoya University*

A3-Ⅲ-6 (1024)

Computics Approach toward Clarification of Microscopic Mechanisms of Epitaxial Growth of Gallium Nitride

Kieu My Bui[1], Mauro Boero[1,2], Kenji Shiraishi1 and Atsushi Oshiyama[1]

[1]Institute of Materials and Systems for Sustainability, Nagoya University

[2]University of Strasbourg and CNRS, Institut de Physique et Chimie des Matériaux de Strasbourg UMR 7504

A3-Ⅲ-7 (1061)

GaN Crystal Growth Multi Physics Simulation with Gas Phase Chemical Reaction

S. Sakakibara[1], A. Kusaba[2], M. Araidai[3], N. Okamoto[4], K. Yoshimatsu[3], H. Watanabe[3], S. Nitta[3], Y. Kangawa[5], K. Kakimoto[5], K. Shiraishi [3], H. Amano[3]

[1]*Grad. Sch. Eng., Nagoya Univ. Univ.*
[2] *Computer Centre, Gakushuin Univ.*
[3]*IMaSS, Nagoya Univ.*
[4]*Aichi Institute Tec hnology*
[5]*RIAM, Kyushu Univ.*

A3-Ⅲ-8 (1079)

Synthesis of InGaN nanowires and nanostructures to achieve high indium content and high crystal quality for optoelectronic devices

Geoffrey Avit[1], Yoann Robin[1], Mohammed Zeghouane[2], Léo Mostéfa[1,3], Boris Michalska[1,3], Yamina Andre[2], Dominique Castelluci[2], Agnès Trassoudaine[2,3] and Hiroshi Amano[1]

[1]*Univ. of Nagoy*
[2]*Universit é Clermont Auvergne, CNRS, SIGMA Clermont, Institut Pascal*
[3]*IUT Mesures Physique, Universit é Clermont Au vergne*

A3-Ⅲ-9 (1213)

Acceptor formation of Mg-ion implanted GaN by high-pressure N_2 annealing

Hideki Sakurai[1,2,3], Shinji Yamada[1,2,3], Akihiko Koura[3], Tetsuo Narita[4], Keita Kataoka[4], Masahiro Horita[1,2], Michal Bońkowski[1,5], Jun Suda[1,2] and Tetsu Kachi[1]

[1]*IMaSS, Nagoya University,*
[2]*Dept. of Electronics, Graduate School of Engineering, Nagoya University,*
[3]*ISET, ULVAC, Inc.,*
[4]*Toyota Central R&D Labs., Inc.,*
[5]*Institute of High Pressure Physics Polish Academy of Sciences*

A6-II: Information & Communication Ⅱ
(10:00-11:15, IB011)

Chair: Kentaro Kobayashi (Nagoya Univ.)

A6-Ⅱ-1 (1022) A Study on Cross-layer Combination of Predictive Control and Error Correction Coding for Wireless Feedback Control

Kohei Kasai[1], Kentaro Kobayashi[2], Hiraku Okada[2] and Masaaki Katayama[2]

[1]Dept. of Information and Communication Engineering, Nagoya University,
[2]Institute of Materials and Systems for Sustainability, Nagoya University

A6-Ⅱ-2 (1081) A Study on Broadcast of Operation Information for IEEE802.15.4-Based Wireless Control of Multiple Machines

YasuhiroUmemura[1], Kentaro Kobayashi[2], Hiraku Okada[2] and Masaaki Katayama[2]

[1]Dept. of Information and Communication Engineering, Nagoya University,
[2]Institute of Materials and Systems for Sustainability, Nagoya University

A6-Ⅱ-3 (1037) A Study on Flight Models in Wireless Relay Networks Using Drones for Large-Scale Disasters

Hiroki Yanai[1], Hiraku Okada[2], Kentaro Kobayashi[2] and Masaaki Katayama[2]

[1]Dept. of Information and Communication Engineering, Nagoya University,
[2]Institute of Materials and Systems for Sustainability, Nagoya University

A6-Ⅱ-4 (1227) A Study on Delay-Optimal Scheduling Policy for Ultra-Low Latency Vehicular Networking

Weiqi Sun and Shih-Chun Lin

Department of Electrical and Computer Engineering, North Carolina State University

A6-Ⅱ-5 (1228) A Study on User-Centric Virtual-Cell Design in Software-Defined Vehicular Networks

Weiqi Sun and Shih-Chun Lin

Department of Electrical and Computer Engineering, North Carolina State University

A7: Electric Power System
(10:00-12:15, ES025)

Chair: Masaki Imanaka (Nagoya Univ.)

A7-1 (1226) Implementation and Verification of Transmission Line Capacity Management System with PLC and IEDs

Kohei Ito[1], Mutsumi Aoki[2], Toru Amau[2,3], Tetsuo Otani[2,4], Tatsuya Ozawa[5]

[1]Department of Electric and Mechanical Engineering, Nagoya Institute of Technology
[2]Nagoya Institute of Technology
[3]Chubu Electric Power Co.,Inc.
[4]CRIEPI
[5]MEIRYO DENSHI

A7-2 (1265) Voltage Imbalance Suppression Effect using HVR by Multiple Node Voltage Estimation of Distribution System

Yoshiteru Saito[1], Mutsumi Aoki[1], Hirokazu Uenishi[2] and Yuki Kanazawa[2]

[1]D epartment o f Electric and Mechanical, Nagoya Institute of Technology
[2]Chubu Electric Power Co., Inc.

A7-3 (1106) Effectiveness of Frequency and Voltage Regulation by Photovoltaic Generation Units in Microgrid

Masahide Hojo[1], Hiroyuki Nakagawa[1], Hibiki Kawaguchi[1], Kenji Yamanaka[1], Toshihisa Funabashi[2], Masaki Imanaka[3] and Takeyoshi Kato[3]

[1]Department of Electrical and Electronic Engineering, Tokushima University,

[2]Faculty of Engineering, University of the Ryukyus

[3]Institute of Materials and Systems for Sustainability, Nagoya University

A7-4 (1042) Contribution of Accuracy Improvement of Photovoltaic (PV) Power Output Forecasting on Design and Operation of Microgrid with Huge Capacity of PV and Battery Energy Storage

Guowei CHEN[1], Masaki IMANAKA[2], Muneaki KURIMOTO[2], Shigeyuki SUGIMOTO[2], Takeyoshi KATO[2]

[1]Department of Electrical Engineering, Nagoya University
[2]Institute of Materials and Systems for Sustainability, Nagoya University

A7-5 (1051) Feasibility study on mitigation of PV surplus power by demand response of waterworks pumps

Masaki Imanaka[1], Muneaki Kurimoto[1], Shigeyuki Sugimoto[1], Takeyoshi Kato[1] and Jumpei Baba[2]

[1]Institute of Material and Systems for Sustainability, Nagoya University,
[2]Graduated School of Frontier Sciences, The University of Tokyo

A7-6 (1067) Proposal for Coordinated Control of Heating Ventilation and Air Conditioning Loads and Battery Energy Storage System for Improved Performance of FastADR Response

R. Myovela[1], M. Imanaka[2], M. Kurimoto[2], S. Sugimoto[2] and T. Kato[2]

[1]Department of Electrical Engineering, Nagoya University,
[2]Institute of Material and Systems for Sustainability (IMaSS), Nagoya University

A7-7 (1058) Experimental Study on Dual P-f Droop Control of Photovoltaic Power Generation for Grid Frequency Regulation

Noha Harag[1], Yusaku Tamakoshi[1], Masaki Imanaka[1], Muneaki Kurimoto[1], Shigeyuki Sugimoto[1], Takeyoshi Kato[1], Mutsumi Aoki[2]

[1]Department of Electrical Engineering, Nagoya University,

[2]Department of Electrical and Mechanical Engineering, Nagoya Institute of Technology,

A7-8 (1304) Study on Influence of Difference in LFC Capacity Constraint in Unit Commitment Scheduling on Power Output Flexibility

Huidan Luo[1], Ryota Azukisawa[1], Masaki Imanaka[2], Muneaki Kurimoto[2], Shigeyuki Sugimoto[2], Takeyoshi Kato[2]

[1]Department of Electrical Engineering, Nagoya University,

[2]Institute of Materials and Systems for Sustainability, Nagoya University

A8-II: Power Electronics Ⅱ

(10:00-11:15, IB014)

Chair: Masayoshi YAMAMOTO (Nagoya Univ.)

A8-Ⅱ-1 (1160) Dynamic On-State Resistance Measurement of GaN-HEMT by Double Pulse Test

Ryosuke Ishido, Tatsuya Yanagi, Yuta Okawauchi, and Ken Nakahara

ROHM co., Ltd

A8-Ⅱ-2 (1243) (La,Li)TiO3 Epitaxial Thin Films Grown by RF Magnetron Sputtering

T. Kawaguchi, M. Naka, K. Sugihara, N. Sakamoto, H. Suzuki1 and N. Wakiya

Department of Electronics and Materials Science, Shizuoka University

A8-Ⅱ-3 (1174) Device Voltage Imbalance Suppression Method of LLC Converter Applying MOSFET Series Connection

T. Kakisaka[1], J. Imaoka[1] and M. Yamamoto[1] and Q. Piao[2]

[1]Department of Electrical Engineering, Nagoya University

[2]YANMAR CO., LTD

A8-Ⅱ-4 (1188) 12V Double-Ended Active-Clamp Forward Converter Realizing Large Output Current and Downsizing by Using Integrated Magnetic Components

Aoi Oyane[1], Tatsuya Aoki1, Masayoshi Yamamoto[1], Jun Imaoka[1], Takashi Hyodo[2], Yuki Ito[2] and Hironori Tauchi[1,2]

[1]Department of Electrical Engineering, Nagoya University,

[2]OMRON Corporation

A8-Ⅱ-5 (1338) A study on multi-phase of clock-less half-wave voltage resonant buck DC-DC converter

Yi Xiong[1], Jun Imaoka[1] Masayoshi Yamamoto[1], Yasunori Kobori[2] and Haruo Kobayshi[2]

[1]Department of Engineering, Nagoya University,

[2]Department of Science and Engineering Gunma University

Poster Presentations

Saturday, November 2, 13:00 – 14:00 IB (Integrated Building)

A1-P

A1-P-1 (1002) Fabrication of holograms for electron vortex generation by one-shot laser interference processing

Yuuki Uesugi[1], Ryota Fukushima[1], Koh Saitoh[2], and Shunichi Sato[1]

[1]*Institute of Multidisciplinary Research for Advanced Materials, Tohoku University*

[2]*Advanced Measurement Technology Center, Institute of Materials and Systems for Sustainability, Nagoya University*

A1-P-2 (1025) Study on nanostructured tungsten photocatalysts fabricated by helium plasma irradiation

Tomoko Yoshida[1], Katsuyuki Komori[2], Muneaki Yamamoto[1], Chie Tsukada[3], Satoshi Ogawa[2], Shin Kajita[4], Noriyasu Ohno[2] and Shinya Yagi[4]

[1]*Advanced Research Institute for Natural Science and Technology, Osaka City University*

[2]*Graduate School of Engineering, Nagoya University*

[3]*Synchrotron Radiation Research Center, Nagoya University*

[4]*Institute for Materials and Systems for Sustainability, Nagoya University*

A1-P-3 (1086) Image Reconstruction of High-Resolution STEM Image by Dictionary Learning and Evaluation of Atom Displacement

Sosuke Hattori[1], Yuki Nomura[1,2] and Koh Saitoh[1]

[1]*Department of Applied Physics, Nagoya University*

[2]*Panasonic Corporation*

A1-P-4 (1091) Observation of Anisotropic Skyrmion Interactions Using Lorentz Transmission Electron Microscopy

T.Nagase1, M Komatsu[2], Y. G So[2], T Ishida1, H Yoshida[3], Y Kawaguchi[1], Y Tanaka[1], K Saitoh[1], N Ikarashi[1], M Kuwahara[1] and M Nagao[1]

[1]*Graduate School of Engineering Nagoya University, Nagoya, Japan*

[2]*Graduate School of Engineering Science , Akita University, Akita, Japan,*

[3]*Department of Physics , Hokkaido University, Sapporo, Japan*

A1-P-5 (1128) How to Use Angular Fourier Transform for Orbital Angular Momentum Spectrum Mapping

Wei Li[1,2], Koh Saitoh[2] and Masaya Uchida[3]

[1]*School of Information Science and Engineering, Dalian Polytechnic University*

[2]*Institute of Materials and Systems for Sustainability, Nagoya University*

[3]*Advanced Science Research Laboratory, Saitama Institute of Technology, Fukaya*

A1-P-6 (1129) Development of Measurement Technique for Magnetization Distribution at Buried Interface in Spintronics Materials Using Hard X-ray Photoelectron Spectroscopy

Akira Yasui[1], Eiji Ikenaga[1, 2]

[1]*Japan Synchrotron Radiation Research Institute (JASRI),*

[2]*Institute of Institute of Materials and Systems for Sustainability, Nagoya University*

A1-P-7 (1186) Generation and Application of Ultra-Fine Electron Bessel Beams using Ring-Shaped Apertures by an Aberration-Corrected Scanning Transmission Electron Microscope

Takafumi Ishida[1], Takeshi Owaki[2], Makoto Kuwahara[1] and Koh Saitoh[1]

[1]*Institute of Materials and Systems Sustainability, Nagoya University*

[2]*Department of Applied Physics, Nagoya University*

A1-P-8 (1210) Development of Compact and Simple Cs Corrector with Annular and Circular Electrodes for SEMs

Tadahiro Kawasaki[1], Ryuji Yoshida[1], Takeharu Kato[1], Tsunenori Nomaguchi[2], Shunichi Motomura[2], Toshihide Agemura[2] and Takashi Ikuta[3]

[1]*Nanostructures research laboratory, Japan Fine Ceramics Center,*

[2]*Hitachi High-Technologies*

[3]*Osaka Electro-communication University*

A1-P-9 (1270) Analysis of ion atmosphere generated inside ETEM during electron beam irradiation

Kimitaka Higuchi[1], Takumi Kawakami[2], Sae Ohkawara[2], Yuta Yamamoto[1], Tomoharu Tokunaga[2], Takahisa Yamamoto[1,2]

[1]*Institute of Materials and Systems Sustainability, Nagoya University*

[2]*Department of Engineering, Nagoya University*

A1-P-10 (1277) Direct Observation of Stacking Fault Expansion Process in 4H-SiC by In-situ Synchrotron X-ray Topography

F.Fujie[1], S. Harada[1,2], H. Suo[3,4], T Kato[4] and T. Ujihara[1,2,5]

[1]*D epartment o f Materials Process Engin e ering , Nagoya University*

[2]*Center fo r Integrated Research of Future Electronics (CIRFE) CIRFE), Institute of Materials and Systems for Sustainability (IMaSS) IMaSS), Nagoya University*

[3]*Showa Denko K.K.*

[4]*National Institute of Advanced Industrial Science and Technology (AIST)*

[5]*GaN Advanced Device Open I nnovation Laboratory (GaN OIL), N a tional Institute of Advanced Industrial Science and Technology (AIST)*

A1-P-11 (1303) Application of C face dislocation conversion technique to 2-inch SiC crystal growth

X. Liu[1], C. Zhu[1,2], S. Harada[1,2], M. Tagawa[1,2] and T. Ujihara[1,2,3]

[1]*Department of Materials Science and Engineering, Nagoya University,*

[2]*Center for Integrated Research of Future Electronics (CIRFE), Institute of Materials and System for Sustainability (IMaSS), Nagoya University,*

[3]*GaN Advanced Device Open Innovation Laboratory (GaN-OIL), National Institute of Advanced Industrial Science and Technology (AIST),*

A1-P-12 (1307) Current Control of 3YSZ during Flash Sintering

Kimihiro TAGUCHI, Yudai YAMASHITA, Tomoharu TOKUNAGA and Takahisa YAMAMOTO

[1]*Department of Materials Design Innovation Engineering, Nagoya University*

A1-P-13 (1308) TEM/STEM Observation and EEL Analysis of $BaTiO_3$ Discharge Structure Generated during Flash Sintering

Seiya Takahashi, Tsuyoshi Kurachi, Tomoharu Tokunaga and Takahisa Yamamoto

Department of Materials Design Innovation Engineering, Nagoya University

A1-P-14 (1314) Interface of electrode-solid electrolyte composite of ASS-LIB fabricated by aerosol deposition analysed by STEM-EELS

Yuta Yamamoto[1], Yasutoshi Iriyama[2] and Sunsuke Muto[1]

[1]*High Voltage Electron Microscope Laboratory, Nagoya University*

[2]*Department of Mater ials Design Innovation Engineering, Nagoya Universityo*

A1-P-15 (1318) Fine structure of surface plasmon on Au triangular nanoprisms via STEM-EELS

L. Mizuno[1], M. Kuwahara[1,2], S. Kuwahara[3], T. Ishida[1,2] and K. Saitoh[1,2]

[1]Department of Applied Physics, Nagoya University

[2]Institute of Materials and Systems for Sustainability, Nagoya University

[3]Department of Chemical, Toho University

A1-P-16 (1319) High-sensitive electron imaging sensor toward nano-second single shot imaging

Akira Shinozaki[1], Kaho Fukuwa[1], Takafumi Ishida[2], Makoto Kuwahara[2], Toshinobu Miyoshi[3] Yasuo Arai[3] and Koh Saitoh[2]

[1]Graduate School of Engineering Nagoya University

[2]Insti tute of Materials and Systems Su stainability, Nagoya University,

[3]Institute of Particle and Nuclear Studies, High Energy Accelerator Research Organization (KEK)

A1-P-17 (1321) The evaluation of the structure of Ga_2O_3 for photocatalytic CO_2 reduction to CO

Masato Akatsuka[1], Tetsuo Tanabe[2], Shinya Yagi[3] and Tomoko Yoshida[2]

[1]Applied Chemistry and Bioengineering, Graduate School of Engineering, Osaka City University

[2]Advanced Research Institute for Natural Science and Technology, Osaka City University

[3]Institute of Materials and Systems for Sustainability Nagoya University

A1-P-18 (1322) Operando Measurement of Electrode Reactions in Solid Oxide Fuel Cells Using Environmental Electron Microscopy

Yuya Yoshida[1], Takafumi Ishida[1], Kimitaka Higuchi[1], Koh Saitoh[1], Masahiro Tomita[2] and Takayoshi Tanji[1]

[1]Nagoya University

[2]Vacuum Device Inc.

A1-P-19 (1324) Observation of Manganese Nitride Thin Films by Electron Microscopy

Tomoya Suzuta, Yuuki Kawasaki, Kento Tanaka, Takafumi Ishida, Takafumi Hatano, Hiroshi Ikuta and Koh Saitoh

Nagoya University

A1-P-20 (1326) Application of high-quality SiC solution growth to large size crystal

C. Zhu[1], T. Endo[2], T. Unno[2], H. Koizumi[1], S. Harada[1,2], M. Tagawa[1,2], and T. Ujihara[1,2,3]

[1]Institute of Materials and System for Sustainability (IMaSS), Nagoya University,

[2]Department of Materials Science and Engineering, Nagoya University,

[3]GaN Advanced Device Open Innovation Laboratory (GaN-OIL), National Institute of Advanced Industrial

Science and Technology (AIST)

A1-P-21 (1339) Chemical state analysis of sulfur in vul canized rubber using synchrotron radiation

Hitoshi Kawai[1], Satoshi Ogawa[1], Tsukada Chie[2], Eiji Ikenaga[1,3] and Shinya Yagi[1,3]

[1]Graduate School of Engineering, Nagoya University

[2]Synchrotron Radiation Research center, Nagoya University Japan

[3]Institute of Materials and Systems for Sustainability, Nagoya University

A1-P-22 (1349) Novel Transmission Electron Microscope Using High Brightness Pulsed Beam Emitted from NEA-Photocathode

R. Yokoi[1], T. Ishida[1,2], M. Kuwahara[1, 2] and K. Saitoh[1, 2]

[1]Graduate School of Engineering, Nagoya University,

[2]Institute of Materials and Systems for Sustainability, Nagoya University

A1-P-23 (1354) Determination of Complex Dielectric Function of Oxide Film from Photoemission Measurements

Akio Ohta[1,2], Mitsuhisa Ikeda[1], Katsunori Makihara[1] and Seiichi Miyazaki[1]

[1]*Graduate School of Engineering, Nagoya University,*

[2]*Institute for Advanced Research, Nagoya University*

A1-P-24 (1360) X-ray analysis of hydrogen storage nanoparticles

Satoshi Ogawa[1], Chie Tsukada[2] and Shinya Yagi [1,3]

[1]*Department of Energy Engineering, Graduate School of Engineering, Nagoya University*

[2]*Synchrotron radiation Research center, Nagoya University*

[3]*Institute of Materials and Systems for Sustainability, Nagoya University*

A4-P

A4-P-1 (1026) Glow discharge plasma mass spectrometry for direct analysis of saturated hydrocarbons

Yoko Nunome[1], Kenji Kodama[2], Yasuaki Ueki[3], Ryo Yoshiie[4], Kazuaki Wagatsuma[5] and Ichiro Naruse[3]

[1]*Graduate School of Integrated Sciences for Life, Hiroshima University,*

[2]*X-ray Instrument Division, Rigaku Corporation,*

[3]*Institute of Materials and Systems for Sustainability, Nagoya University*

[4]*Graduate School of Engineering, Nagoya University*

[5]*Institute for Materials Research, Tohoku University*

A4-P-2 (1060) Modeling of Ash Particles Behaviors during Reaction of Cokes

Koki Teshima[1], Yasuaki Ueki[2], Ryo Yoshiie[1] and Ichiro Naruse[2]

[1]*Department of Mechanical Systems Engineering, Nagoya University*

[2]*Institute of Materials and Systems for Sustainability, Nagoya University*

A4-P-3 (1140) Control of Ash Deposition on the Surface of Heat Transfer Tubes in Pulverized Coal fired Boiler

Kyohei Tsukahara[1], Ysuaki Ueki[2], Ryo Yoshiie[1], Ichiro Naruse[1,2]

[1] *Department of Mechanical Systems Engineering, Nagoya University,*

[2]*Institute of Materials and Systems for Sustainability Nagoya University*

A4-P-4 (1155) Co-combustion Behaviors of Biomass with Pulverized Coal

Jun Nagata[1], Yasuaki Ueki[2], Ryo Yoshiie[1], Ichiro Naruse[2], Kimihito Narukawa[3] and Kazuhiko Morii[3]

[1]*Institute of Materials and Systems for Sustainability, Nagoya University,*

[2]*Department of Mechanical Systems Engineering, Nagoya University,*

[3]*Chubu Electric Power Co., Inc.*

A4-P-5 (1161) Characteristics of Exhaust Heat Recovery by Catalytic Reforming Using Mixture of Fuel and Exhaust Gases

Jun Kobayashi1, Hiroyuki Katsumata1, Hideki Murakami1, Naoki Kubo1, Hajime Iida2 and Ichiro Naruse3

1Department of Mechanical Engineering, Kogakuin University,

2 Department of Applied Chemistry, Kogakuin University

3 Graduate School of Engineering, Nagoya University

A4-P-6 (1165) Gasification Behaviors of Pulverized Coal Char with CO_2 and H_2O at High Temperature

Yasuaki Ueki[1], Ryo Yoshiie[2], Ichiro Naruse[1] and Kaoru Nakano[3]

[1]*Institute of Materials and Systems for Sustainability, Nagoya University,*

[2]*Department of Mechanical Systems Engineering, Nagoya University,*

[3]*R&D Process Research Laboratories, NIPPON STEEL CORPORATION*

A4-P-7 (1170) NO_x formation behaviors in char combustion of waste incineration process

Kazutaka Tsukamoto[1], Ryo Yoshiie[1], Ichiro Naruse [2], Yasuaki Ueki[2], Tomohiro Denda[3] and Taichi Usuki[3]

[1]*Nagoya U niversity Graduate school of engineering*

[2]*Nagoya University Institute of materials and Systems for sustainability*

[3]*JFE Engineering Corporation*

A4-P-8 (1175) Degradation behavior of solid oxide fuel cells with trace hydrocarbons

Zhang Hui[1], Ryo Yoshiie[1], Yasuaki Ueki[2] and Ichiro Naruse[2]

[1]*Department of Mechanical Systems Engineering, Nagoya University,*

[2] *Institute of Materials and Systems for Sustainability, Nagoya University*

A4-P-9 (1191) Adhesion characteristics of Si compounds on the De-NO_x catalyst surface

Kota Nakanishi[1], Ryo Yoshiie[1] ,Ichiro Naruse[2] ,Yasuaki Ueki[2], Takanori Oka[3], Takuya yoshida[3], Takeharu Tanaka[3] and Katsuya Akiyama[3]

[1]*Graduate School of Engineering,Nagoya University*

[2]*Institute of Materials and Systems for Sustainability*

[3]*Kobe Steel*

A4-P-10 (1192) Biomass Gasification in Oxygen-enriched Air with Packed Bed Gasifier

Masaya Oda[1], Daisuke Shirato[1], Ichiro Naruse[2], Ryo Yoshiie[1] and Yasuaki Ueki[2]

[1]*Department of Mechanical Systems Engineering, Nagoya University,*

[2]*Institute of Materials and Systems for Sustainability, Nagoya University*

A4-P-11 (1014) Mixing of Two-Layer Density-Stratified Fluid by a Vortex Ring

Lile Cao[1], Ryo Ito[1], Tomohiro Degawa[2], Tomomi Uchiyama[2], Kotaro Takamure[2] and Yu Matsuda[3]

[1]*Graduate School of Informatics, Nagoya University, Japan*

[2]*Institute of Materials and Systems for Sustainability, Nagoya University, Japan*

[3]*Faculty of Science and Engineering, Waseda University, Japan*

A4-P-12 (1276) Hybrid Wake Model for Aerodynamic Load Calculation of HAWT Rotor by Vortex Lattice Method

T. Hida[1], Y Hasegawa[1], T Ushijima[1] and J Ozaki[2]

[1]*Graduate School of Engineering, Nagoya Institute of Technology*

[2]*Nippon Steel Corporation*

A4-P-13 (1132) Study on Diffusion and Evaporation of Micro Mist Introduced in Duct Air Flow

Yuta Sato[1], Yutaka Hasegawa[1], Yoshihiro Kojima [2], Tatsuo Ushijima[1], Kazuki Nishiyama[3]

[1]*Department pf Electrical and Mechanical Engineering, Graduate School of Nagoya Institute of Technology*

[2]*Institute of Materials and Systems for Sustainability, Nagoya University*

[3]*MITSUBISHI MOTORS CORPORATION*

A4-P-14 (1335) Study on Structural Load Reduction by Using Combined Control of Blade Pitch and Rotational Speed for HAWT

K.Kawase, H.Okazaki, Y.Hasegawa and T.Ushijima

Department of Electrical and Mechanical Engineering, Nagoya Institute of Technology

A6-P

A6-P-1 (1015) A Comparison of TDMA and Synchronous CDMA for a PLC-based Multi-Machine Control System

Mitsuru Hasegawa[1], Kentaro Kobayashi[2], Hiraku Okada[2] and Masaaki Katayama[2]

[1]Dept. of Information and Communication Engineering, Nagoya University,

[2]Institute of Materials and Systems for Sustainability, Nagoya University

A6-P-2 (1046) A Receiver Design for Indoor Data Collection Systems Using Optical Wireless CDMA

Shuto Ito[1], Kentaro Kobayashi[2], Hiraku Okada[2] and Masaaki Katayama[2]

[1]Dept of Information and Communication Engineering, Nagoya University

[2]Institute of Materials and Systems for Sustainability, Nagoya University

A6-P-3 (1120) A Study on Application of Machine Learning to Transmission Rate Selection in Wireless Mesh Networks

Soki WATANABE[1], Hiraku OKADA[2], kentaro KOBAYASHI[2] and Masaaki KATAYAMA[2]

[1]Department of Information and Communication Engineering, Nagoya University

[2]Institute of Materials and Systems for Sustainability, Nagoya University

A8-P

Chair:

Minoru OSADA (Nagoya Univ.)

A8-P-1 (1096) Experimental Evaluation of Balancing Capacitors for Multi-Stage FET Bidirectional Converter

Yuki Ishikura[1,2], Jun Imaoka[2], Mostafa Noah[2] and Masayoshi Yamamoto[3]

[1]Murata Manufacturing Co., Ltd.,

[2]Department of Electrical Engineering, Graduate school of Engineering, Nagoya University,

[3]Institute of Materials and Systems for Sustainability, Nagoya University

A8-P-2 (1159) Comparison of High Frequency Characteristic on PCB Air-core Inductors

K. Matsuta[1], F. Hattori[1], A. Yamaguchi[2], H. Umegami[2] and M. Ishitobi[1]

[1]National Institute of Technology, Nara College,

[2] ROHM Co,.Ltd

A8-P-3 (1212) Lower Magnetic Field Intensity Operation Realized by Using Coupled Inductors in Multiphase Boost Converter

Tatsuya Aoki[1], Koichiro Ito[1], Jun Imaoka[1], Masayoshi Yamamoto[2] and Kosuke Yoshimoto[3]

[1]Department of Electrical Engineering, Nagoya University,

[2]Institute of Materials and Systems for Sustainability, Nagoya University,

[3]Daido Steel Co., Ltd. CORPRATEARCH & DEVELOPMENT CENTER

A8-P-4 (1320) Current Source Gate Drive Circuit with Voltage Source to Stable Driving for SiC-MOSFETs

Shinya Shirai[1], Yuta Okawauchi[2], Ken Nakahara[2], Toshihiro Iwaki[1] Masayoshi Yamamoto[1]

[1]Department of Electrical Engineering, Nagoya University

[2]ROHM Co., Ltd.

Saturday, November 2, 17:00 – 18:00 ES Building

A3-P

A3-P-1 (1004) "Manipulation" of Acetaminophen Crystallization and Discovery of Two- Step Dissolution Process by Plasmonic Optical Tweezers

Hiromasa Niinomi[1], Teruki Sugiyama [2,3,4], Miho Tagawa [5], Toru Ujihara [5], Katsuhiko Miyamoto [6,7], Takashige Omatsu [6,7], Jun Nozawa[1], Junpei Okada[1] and Satoshi Uda[1]

[1]Institute for Materials Research, Tohoku University

[2]Department of Applied Chemistry

[3]Center for Emergent Functional Matter Science, National Chiao Tung University

[4]Graduate School of Science and Technology, Nara Inst itute of Science and Technology

[5]Institute of Materials and Systems for Sustainabi lity (IMaSS), Nagoya University

[6]Graduate School of Engineering

[7]Molecular Chirality Research Center (MCRC), Chiba University

A3-P-2 (1008) Unique Photofunctions of Metal Nanoparticle / Layered Semiconductor Hybrids

Tatsuto YUI

Department of Materials Science and Technology, Faculty of Engineering, Niigata University

A3-P-3 (1016) Magnetic anisotropy of Bi-substituted yttrium iron garnet films prepared by MOD method

Takayuki Ishibashi[1], Gengjian Lou[1], Jion Yamakita[1], Masami Nishikawa[1] Takeshi Kato[2] and Satoshi Iwata[3]

[1]Department of Materials Science and Technology, Nagaoka University of Technology,

[2]Department of Electronics, Nagoya University,

[3]Institute of Materials and Systems for Sustainability, Nagoya University,

A3-P-4 (1020) Theoretical Study about the Leakage Current due to the Dislocation of Mg Segregation in GaN

Takashi Nakano[1], Yosuke Harashima[2], Kenta Chokawa[2], Masaaki Araidai[2,1], Kenji Shiraishi[2,1], Atsushi Oshiyama[2,1], Akira Kusaba[3], Yoshihiro Kangawa[4,2], Atsushi Tanaka[2], Yoshio Honda[2,1] and Hiroshi Amano[2,1]

[1]Graduate School of Engineering, Nagoya University, [2]Institute of Materials and Systems for Sustainability, Nagoya University, [3]Computer Centre, Gakushuin University, [4]Research Institute for Applied Mechanics, Kyushu University.

A3-P-5 (1030) Approach to Promote CO_2 Reduction with H_2 and H_2O over Pd/TiO_2

Akira Nishimura, Tadaki Inoe, Yoshito Sakakibara, Masafumi Hirota, Akira Koshio and Fumio Kokai

Graduate School of Engineering, Mie University

A3-P-6 (1032) Improvement of thermoelectric properties of $Si_{1-x-y}Ge_xSn_y$ thin films by ion implantation and rapid thermal annealing $Si1_{-x-y}$ Ge_x Sn_y thin films by ion implantation and rapid thermal annealing

Ying Peng[1,2], Lei Miao[2], Masashi Kurosawa[1,3] and Osamu Nakatsuka[1]

[1]Department of Materials Physics, Graduate School of Engineering, Na goya University

[2]School of Material Science and Engineering, Guilin University of Electronic Technology

[3]Institute for Advanced Research, Nagoya University

A3-P-7 (1035) Preparation of Various Manganese Dioxide Composites and Their Desulfurization Performance

Xing Li[1,2], Lintao Chen[1,2], Yugo Osaka[3], Hongyu Huang[1,2], Lisheng Deng[1,2]

[1]Guangzhou Institute of Energy Conversion, Chinese Academy of Sciences,

[2]Guangdong Prov incial Key Laboratory of New and Renewable Energy Research and Development,

[3]School of Mechanical Engineering, College Science and Engineering, Kanazawa University

A3-P-8 (1040) Formation of Ohmic Contact at Ni/SiC Interface with the Assistance of Femtosecond-Laser-Induced Modifications

T. Okada[1], T. Tomita[1], Y. Fuchikami[2], Y. Mizuo[2], H. Hisazawa[1] and Y. Tanaka[3]

[1]Division of Science and Technology, Tokushima University

[2]Graduate Student, Graduate School of Advanced Technology and Science, Tokushima University

[3]Faculty of Engineering and Design, Kagawa University

A3-P-9 (1052) Voltage Control of Spin Hall Switching in Perpendicularly Magnetized MgO/Co/Pt Trilayers

K. Kunishima[1], X. Zhou[1], D. Oshima[2], T. Kato[1], Iwata [2]

[1]Department of Electronics, Nagoya University

[2]Institute of Materials and Systems for Sustainability, Nagoya University

A3-P-10 (1059) Structured Spinel Oxide Positive Electrodes of Magnesium Rechargeable Batteries

K.Sone[1], K. Ishii[1], R Ise[1], S Yagi[2], T Mandai[3], Y Oaki[1], H Imai[1]

[1]Keio University

[2]The University of Tokyo

[3]National Institte for Materials Science

A3-P-11 (1062) Study of the Origins of Carbon Impurities on Gallium Nitride MOVPE from a Gas Phase Reaction Perspective

Yuto Okawachi[1], Kenta Chokawa[1], Masaaki Araidai[2], Akira Kusaba[4], Yoshihiro Kangawa[3,2], Koichi Kakimoto[3], Zheng Ye[1], Yoshio Honda[2,1], Shugo Nitta[2,1], Hiroshi Amano[2,1] and Kenji Shiraishi[2,1]

[1]Graduate School of Engineering, Nagoya Univ.

[2]IMaSS, Nagoya Univ.

[4]Computer Center, Gakushuin Univ.

A3-P-12 (1069) Suppression of Hysteresis in Flexible Carbon Nanotube Thin-film Transistors

Y. Shimasaki[1], J. Hirotani[1], S. Kishimoto[1], Y. Ohno[1,2]

[1]Dept. of Electronics, Nagoya Univ.

[2]Inst. of Material and Systems for Sustainability, Nagoya Univ.

A3-P-13 (1073) Effect of Incident Ion Energy on the Growth of Nano-Tendril Bundles under Impurity-Seeded Helium Plasma Exposure

R R. Zhang[1], D. Hwangbo[1], S. Kajita[2], H. Tanaka[1] and N. Ohno1

[1]Graduate School of Engineering, Nagoya University

[2]Institute of Materials and Systems for Sustainability, Nagoya University

A3-P-14 (1075) Synthesis of Titanium Dioxide Photo catalysts using Supermicroporous Silica

Y.Ono [1] , Watanabe [2] , Somekawa [2] , Oaki [1] , Imai [1]

[1]School of Integrated Design Engineering, Keio University

[2]Tokyo Metropolitan Industrial Technology Research Institute

A3-P-15 (1076) Fabrication of Binary Magnetic Nanocube Arrays for Coercivity Enhancement

K.Sawano , M Shimizu, M Takasaki, Y Oaki, T Sato and H Imai

School of Integrated Design Engineering , Keio University

A3-P-16 (1087) Layer-by-layer Manipulation for Ordered Arrays of $BaTiO_3$ and Fe_3O_4 Nanocubes

M.Shimizu , R Matsumoto K S awano , M . Takasaki, Y Oaki, T Sato and H Imai

School of Integrated Design Engineering , Keio University

A3-P-17 (1098) Effect of inorganic solid electrolyte on lithium dendrite formation

Aogu Soma, Daisuke Mori, Mitsuhiro Matsumoto, Sou Taminato, Nobuyuki Imanishi

Department of chemistry for materials, Mie University,

A3-P-18 (1105) Feature Vector Approach for Machine Learning of Molecules

Koji Yasuda[1, 2] and Mitsunori Kaneshige[1]

[1]Graduate School of Informatics, Nagoya University,

[2] Institute of Materials and Systems for Sustainability, Nagoya University

A3-P-19 (1111) Preparation and Magneto-optical Characterization of MOD Derived $R_{0.5}Bi_{2.5}Fe_4GaO_{12}$ (R = Sm, Gd and Yb) Garnet Thin Films on Glass Substrate

Takao Nishi[1], Hikaru Enpuku[1], Shion Iwata[1], Masami Kawahara[2], Takeshi Kato[3], Satoshi Iwata[3], Masami Nishikawa[4] and Takayuki Ishibashi[4]

[1]Kobe City College of Technology,

[2] Kojundo Chemical Laboratory Co., Ltd,

[3]Nagoya University

[4]Nagaoka University of Technology

A3-P-20 (1114) Synthesis and Photochromic Properties of 2D Tungsten Oxide Polymorphs

Ryosuke Narukawa[1], Eisuke Yamamoto[1,2], Makoto Kobayashi[1,2] and Minoru Osada[1,2]

[1]Graduate School of Engineering, Nagoya University,

[2]Institute of Materials and Systems for Sustainability (IMaSS), Nagoya University

A3-P-21 (1115) Topotactic Synthesis of Ferroelectric $BaTiO_3$ Nanosheets

Kazuki Hagiwara[1], Eisuke Yamamoto[1, 2], Makoto Kobayashi[1,2] and Minoru Osada[1, 2]

[1]Department o f Materials Chemistry, Nagoya University

[2]Institue of Materials and Systems for Sustainability IMaSS Nagoya University

A3-P-22 (1118) Using Tilting-deceleration Method to Improve Magnetic Contrast Observed by Scanning Electron Microscope

Hideo-Morishita[1,2], Teruo Kohashi1 and Hiroyuki Yamamoto[1]

[1]Hitachi Ltd. R&D G roup

[2]Nagoya University

A3-P-23 (1119) Model development of MOCVD growth for realizing high-Sn-content $Ge_{1-x}Sn_x$ epitaxial layer ~ What physical properties are required for precursors? ~

Yuki Miki[1], Shigehisa Shibayama[1], Shigeaki Zaima and Osamu Nakatsuka[1,]3

[1]Graduate School of Engineering, Nagoya University,
[2]Graduate School of Science and Technology, Meijo Univeristy
[3]IMaSS, Nagoya University

A3-P-24 (1121) Large-scale Fiberform Nanostructures in the Co-deposition Environment of Helium Plasma and Mo/Re Ions

T. Okuyama[1], S. Kajita[2], T. Nojima[1], N. Yoshida[3], Y. Yamamoto[2], H. Tanaka[1] and N. Ohno[1]

[1]Graduate School of Engineering, Nagoya University

[2]Institute of Materials and Systems for Sustainability, Nagoya University

[3]Research Institute for Applied Mechanics, Kyushu University

A3-P-25 (1125) Preparation of Pt-based oxide nanosheets exfoliation of layer materials (Li_2PtO_3) and investigation of exfoliation process

Asami Funatsu and Sae Hanamura

Department o f Chemistry, Kumamoto University

A3-P-26 (1126) Effect of surface layer on charge state control of diamond NV centers

A.Osaki[1], H. Uchiyama[1], M. Inaba, S. Kishimoto[1] and Y Ohno[1,2]

[1]*Department of Electronics, Nagoya Univ ersity*

[2]Institute of Materials and Systems for Sustaina bility, Nagoya Univ ersity

A3-P-27 (1133) Magnetic Properties at Room Temperature of $Co_{3-X}Ni_XO_4$ ($0 \leq X \leq 1.28$) Particles Synthesized from $Co_{1-Y}Ni_Y(OH)_2$ Precursors

Kensuke Hayashi, Keisuke Yamada and Mutsuhiro Shima

Electronics and Information Systems Engineering Division, Graduate School of Engineering,Gifu University

A3-P-28 (1162) Photocatalytic Decomposition of Ethylene by TiO_2 Thin Films Formed Using Helium Plasma

K. Miyaguchi[1], S. Kajita[2], Y. Tomita[1], K. Asai[1], H. Tanaka[1], N. Ohno[1]

[1]Graduate School of Engineering, Nagoya University,

[2] IMaSS (Institute of Materials and Systems for Sustainability), Nagoya University

A3-P-29 (1171) Optoelectronic Property of GeSn and GeSiSn Heterostructure

Masahiro Fukuda[1], Mitsuo Sakashita[1], Shigehisa Shibayama[1], Masashi Kurosawa[1], Sigeaki Zaima[1, 2] and Osamu Nakatsuka[1,3]

[1]*Graduate School of Engineering, Nagoya University*

[2]*Graduate School of Science and Technology, Meijo University*

[3]*Institute of Materials and Systems for Sustainability, Nagoya University*

A3-P-30 (1179) Enhancement in electrochemical activity of carbon nanotube electrodes of voltage generator based on streaming potential

Y. Ando[1], R. Nishi[1], S. Kishimoto[1] and Y. Ohno[1,2]

[1]*Department of Electronics, Nagoya University*

[2] *Institute of Materials and Systems for Sustainability, Nagoya University*

A3-P-31 (1180) Improvement of Activity of Rh-doped $SrTiO_3$ Photocatalyst Aiming at Enhancement of Efficiency of Z-scheme Water Splitting

H. P. Duong[1], T. Mashiyama[1], M. Kobayashi[2], A. Iwase[3], A. Kudo[4], M. Kakihana[1] and H. Kato[1]

[1]*Institute of Multidisciplinary Research for Advanced Materials, Tohoku University,*
[2]*Institute of Materials and Systems for Sustainability, Nagoya University*
[3]*School of Science and Technology, Meiji University*
[4]*Faculty of Science, Tokyo University of Science*

A3-P-32 (1181) Ruddlesden-Popper Phase Oxyhydroxides as Oxygen Electrocatalysts for Aqueous Lithium-Oxygen Rechargeable Batteries

H. Sonoki, T. Mizoguchi, D. Mori, S. Taminato, Y. Takeda and N. Imanishi

Graduate School of Engineering, Mie University

A3-P-33 (1195) Effect of Filler Material on Dielectric Breakdown Strength of Epoxy Nanocomposite

Chiharu Kato[1], Muneaki Kurimoto[2], Takeyoshi Kato[2], Masaki Imanaka[2], Shigeyuki Sugimoto[2] and Yasuo Suzuoki[3]

[1]*Department of Electrical Engineering, Nagoya University,*
[2]*Institute of Material and Sysyems for Sustainability, Nagoya University,*
[3]*Aichi Institute of Technology*

A3-P-34 (1198) Development of in-situ cyclic metal layer oxidation to form abrupt $Al_2O_{3/4}$H-SiC interface

T. Doi1[2], S. Shibayama[1], W. Takeuchi[1,3], M. Sakashita[1], N. Taoka[1], M. Shimizu[2] and O. Nakatsuka[1]

[1]*Grad. Sch. of Engineering, Nagoya Univ.,*

[2]*AIST-NU GaN-OIL*

[3]*Aichi Institute of Technology*

A3-P-35 (1201) Discharge Resistance of Epoxy TiO_2 Nanocomposite Exposed to Closed Void Discharges

Kentaro Tatsumi[1], Kazuma Tagawa[1], Chiharu Kato[1], Takeyoshi Kato[1], Muneaki Kurimoto[1], Shigeyoshi Yoshida[2], Takahiro Umemoto[2], Takahiro Mabuchi[2] and Hirotaka Muto[2]

[1]*Nagoya University*

[2] *Mitsubishi Electric*

A3-P-36 (1205) Suppression of Electrical Tree Growth in Nanocomposite Gel for Power Module

Naoya Hisada[1], Muneaki Kurimoto[2], Masaki Imanaka[2], Takeyoshi Kato[2], Shigeyuki-Sugimoto[2] and Hirotaka Muto[2]

[1]*Department of Electrical Engineering, Nagoya University*

[2]*Instit ute of Material and Syst ems for Sustainability, Nagoya University,*

A3-P-37 (1209) Theoretical Investigation of Self-organization Behavior of $Si_{0.5}Sn_{0.5}$ Nano-particles

Yuki Nagae[1], Masashi Kurosawa[1, 2] and Osamu Nakatsuka[1, 3]

[1]*Graduate School of Engineering, Nagoya University,*

[2]*Institute for Advanced Research, Nagoya University,*

[3]*Institute of Materials and Systems for Sustainability, Nagoya University*

A3-P-38 (1230) Structural analysis of MoS_2 films fabricated by radiofrequency sputtering using high-angle annular dark field scanning transmission electron microscopy

Ryunosuke Otsuki[1], Yuta Suzuki[1], Takuro Sakamoto[2], Takanori Shirokura[2], Iriya Muneta[2], Masahiro Nagao[3], Hitoshi Wakabayashi[2] and Nobuyuki Ikarashi[3]

[1]*Department of Electronics, Nagoya University*

[2]*Tokyo Institute of Technology*

[3]*Institute of Materials and Systems for Sustainability, Nagoya University*

A3-P-39 (1264) Change in thermal conductivity of amorphous WO_3 films by lithium intercalation

Ryota Kobayashi[1], Tong Shen[1], Ayano Nakamura[1], Shunta Harada[1,2], Miho Tagawa[1,2] and Toru Ujihara[1,2,3]

[1]*Department of Materials Process Engineering, Nagoya University,*

[2]*Institute of Materials and Systems for Sustainability, Nagoya University,*

[3]*National Institute of Advanced Industrial Science and Technology*

A3-P-40 (1272) Structural stability analysis of DNA-guided nanoparticle superlattice by direct dehydration

Hayato Sumi[1], Noboru Ohta[2], Hiroshi Sekiguchi[2], Shunta Harada[1,3], Toru Ujihara[1,3], Miho Tagawa[1,3]

[1]*Graduate School of Engineering Nagoya University*

[2]*Japan S ynchrotron Radiation Research Institute (JASRI)*

[3]*Center for Integrated Research of Future Electronics (CIRFE), Institute of Materials and Systems for Sustainability (IMaSS), Nagoya University*

A3-P-41 (1278) Magnetization Reversal in Ni/Cu/Ni Cylindrical Nanowires

Mayu Kikuchi[1], Keisuke Yamada[1], Yoshinobu Nakatani[2] and Mutsuhiro Shima[1]

[1]*Department of Materials Science and Processing, Graduate School of Natural Science and Technology, Gifu University*

[2]*Gradua te S chool of Informatics and Engineering, The Univer sity of Electro Communications*

A3-P-42 (1279) 1 nm-thick ZnO Nanosheets Grown at the Water-air Interface

Yoshinori Morita[1], Eisuke Yamamoto[2], Makoto Kobayashi[2] and Minoru Osada[2]

[1]*Graduate school of engineering, Nagoya University,*

[2]*IMaSS, Nagoya University*

A3-P-43 (1288) Fabrication of $L1_0$-FeNi by pulsed laser deposition system

Masato Kotsugi[1], Masahiro Saito[1], Yuta Suzuki[1], Masaki Mizuguchi[2], Tomoyuki Koganezawa[3], Toshio Miyamachi[4], Fumio Komori[4], Koki Takanashi[2]

[1]*Tokyo University of Science,*

[2] *Tohoku University,*

[3] *Japan Synchrotron Radiation Research Institute,*

[4] *The University of Tokyo, ISSP*

A3-P-44 (1291) Real-time visualization for temperature and fluid flow by using numerical simulation and neural network

Goki Hatasa[1], Yosuke Tsunookar[1], Can Zhu[1], Shunta Harada[1, 2], Miho Tagawa[1,2] and Toru Ujiharar[1, 2, 3]

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[3]*GaN Advanced Device Open Innovation Laboratory (GaN-OIL), National Institute of Advanced Industrial Science and Technology (AIST)*

A3-P-45 (1294) Behavior of dislocations in GaN epitaxial layer propagating from substrate

Sho Inotsume[1, 2], Nobuhiko Kokubo[1,2], Hisashi Yamada[2], Shoishi Onda[1], Jun Kojima[1], Junji Ohara[1,2], Shunta Harada[1], Miho Tagawa[1] Toru Ujihara[1, 2]

1Nagoya Univ.

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1Current affiliation: Hitachi, Ltd.,

2 Current affiliation: DENSO,

A3-P-46 (1296) Relationship between crystal orientation of Cu collectors and cycling stability of Li metal anodes

Kohei Ishikawa[1], Shunta Harada[1,2], Miho Tagawa[1,2] and Toru Ujihara[1,2]

[1]Department of Materials Science and Engineering, Nagoya University

[2]Institute of Ma terials and Systems for Su stainability (IMaSS), Nagoya University

A3-P-47 (1302) SPM-based characterization of 2D nanosheets

Shu Hamagami[1], Eisuke Yamamoto[1], Makoto Kobayashi [1] and Minoru Osada[1,2]

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A3-P-48 (1325) Estimation of Physical Properties Using Machine Learning for Accurate Numerical Modeling of Crystal Growth

K. Ando[1], H. Lin[1], Y. Tsunooka[1,2], T. Narumi[3], C. Zhu [1,4], K. Kutsukake[5], S. Harada[1,4], K. Matsui[5], I. Takeuchi [5,6], Y. Koyama[7], Y. Kawajiri[1], M. Tagawa[1,4], T. Ujihara[1, 2, 3, 4]

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A3-P-49 (1327) Impact of Boron Doping into Si Quantum Dots with Ge Core on Their Photoluminescence Properties

Shuntaro Fujimori, Mitsuhisa Ikeda, Akio Ohta, Katsunori Makihara and Seiichi Miyazaki

Graduate School of Engineering, Nagoya University

A3-P-50 (1337) Wet-chemical Synthesis of Non-layer 2D Ceria and Their Ion-conductivity

Eisuke Yamamoto, Makoto Kabayashi and Minoru Osada

IMaSS, Nagoya University

A3-P-51 (1343) In situ observation of chemical state of Rh in Rh-doped titanate nanosheet by ESR at extremely low temperature during photo-induced hydrogen evolution reaction

Takuya Fujimura[1], Jun Kumagai[2] and Ryo Sasai[1]

[1]Graduate School of Natural Science and Technology, Shimane University

[2]Institute of Materials and Systems for Sustainability, Nagoya University

A3-P-52 (1347) Detailed study of radical formation step in photocatalysis

Jun Kumagi[1], Hiroyuki Sahashi[2], Tomoko Yoshida[3] and Hiaso Yoshida[4]

[1]Institute of Materials and Systems for Sustainability, Nagoya University

[2]Graduate School of Engineering, Nagoya University

[3]The OCU Advanced Research Institute for Natural Science and Technology, Osaka City University

[4]Graduate School of Human and Environmental Studies, Kyoto University/ESICB, Kyoto University

A3-P-53 (1351) Photocatalytic Carbon Dioxide Reduction over Gallium Oxide with Silver Co-Catalyst

M. Yamamoto, T. Tanabe and T. Yoshida

Advanced Research Institute for Natural Science and Technology, Osaka City University

A3-P-54 (1359) Formation of Atomically Flat $(La_{0.3}Sr_{0.7})(Al_{0.65}Ta_{0.35})O_3$ (001) Surface by Ultrapure Water

Y. Tokuda[1], T. Irimoto[1], N. Nishikawa[1], S. Kobayashi [2], T. Tokunaga1 and T. Yamamoto[1,2]

[1]Department of Materials Design Innovation Engineering, Nagoya University

[2]Nanostructures Research Laboratory, Japan Fine Ceramics Center

A3-P-55 (1406) Bidirectional Deep Neural Network for Accurate Silicon Color Design

Li Gao[1], Xiaozhong Li[2], Dianjing Liu[3], Lianhui Wang[1], Zongfu Yu[3]

[1]School of Materials Science and Engineering Nanjing University of Posts and Telecommunications

[2]School of Electronic and Optical Engineering, Nanjing University of Science and Technology

[3]School of Electrical and Computer Engineering, University of Wisconsin Madison

A7-P

A7-P-1 (1064) Model for Calculating Electric Vehicle Energy Consumption in Various Areas based on Publicly Available Data Sets

Helindu Cumaratunga[1], Masaki Imanaka[2], Muneaki Kurimoto[2], Shigeyuki Sugimoto[2] and Takeyoshi Kato[2]

[1]Department of Electrical Engineering, Nagoya University

[2]Institute of Materials and Systems for Sustainability, Nagoya University

A7-P-2 (1095) Space Charge Observation of Laminate Elastomer Sheets with Different Laminating Directions

Shinichi Mitsumoto[1], Muneaki Kurimoto[2], Masumi Fukuma[3] and Masayuki Fujii[4]

[1]National Institute of Technology, Toyota College

[2]Nagoya University

[3]National Institute of Technology, Matsue College

[4]National Institute of Technology, Toyota College

A7-P-3 (1097) An Energy Management Scheme for a DC Smart Apartment with Electric Vehicles

Hidehito Matayoshi[1], Tomonobu Senjyu[2] and Takeyoshi Kato[3]

[1]Graduate School of Engineering and Science, University of the Ryukyus

[2]Faculty of Engineering, University of the Ryukyus

[3]Institute of Materials and Systems for Sustainability (IMaSS), Nagoya University

A7-P-4 (1108) Development of Irradiance Forecasting Method by Combination of Multiple Numerical Weather Prediction Models

Fumichika Uno[1], Shota Funami[2], Masaki Imanaka[2], Muneaki Kurimoto[2], Shigeyuki Sugimoto[2] and Takeyoshi Kato[2]

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[2]Institute of Materials and Systems for Sustainability, Nagoya University

A7-P-5 (1110) Modeling of Residual Load Profile of Various Distribution Networks for Various Future Scenarios on Demand-side

Yasuyuki Kunii[1], Junzou Takemura[1], Masaki Imanaka[2], Muneaki Kurimoto[2], Shigeyuki Sugimoto[2] and Takeyoshi Kato[2]

[1]Chubu Electric Power Co., Inc.,

[2]Institute of Materials and Systems for Sustainability, Nagoya University

A7-P-6 (1130) Coordinated Control of HVAC Loads and BESS for Improved FastADR Response - Sensitivity Analysis on Available HVAC Loads -

J. Zhu[1], R. Myovela[1], M. Imanaka[2], M. Kurimoto [2], S. Sugimoto[2] and T. Kato[2]

[1]Department of Electrical Engineering, Nagoya University.

[2]Institute of Materials and Systems for Sustainability (IMaSS), Nagoya University.

A7-P-7 (1167) A Method for Effective Control of LFC Generator in Consideration of Power Output Response to EDC

Masaru Saida[1], Masaki Imanaka[1], Muneaki Kurimoto[1], Shigeyuki Sugimoto[1], Takeyoshi Kato[1], Kouichiro Hata[2], Yoshiki Nakachi[2] and S. C. Verma[2]

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[2]Chubu Electric Power Co., Inc.

A7-P-8 (1090) Experimental Study on Wireless Power Transfer System with Double Primary Coils

Kenji Yamanaka, Naoki Sakamoto and Masahide Hojo

Department of Electrical and Electronic Engineering, Tokushima University

A7-P-9 (1136) Optimal Operation Plan and Optimum Capacity of Smart City Assuming Annual

Yuta Susowake and Tomonobu Senjyu

Department of Electrical and Electronics Engineering, University of the Ryukyus

A7-P-10 (1139) Examination of optimal placement and optimal capacity of storage battery considering uncertainty in the introduction of the photovoltaic system.

Hiroki Aoyagi, Tomonobu Senjyu

Department of Electrical and Electronics Engineering, University of the ryukyus

A7-P-11 (1141) Output smoothing of Torsional oscillation damping control for PMSG wind power generator under strong wind

K. Takahashi[1] and T. Senjyu[2]

[1]*Graduate School of Engineering and Science, University of the Ryukyus*

[2]*Faculty of Engineering, University of the Ryukyus*

A7-P-12 (1148) Optimal Operation of Transmission System Considering Large Storage Battery

Ryota Isomura and Tomonobu Senjyu

The Graduate School of Science and Engineering, University of the Ryukyus,

A7-P-13 (1168) Battery Compensation Considering Load Fluctuation in Large-scale Power System

Kazuki Oya and Tomonobu Senjyu

Department of Electrical and Electronics Engineering, University of the Ryukyus

A7-P-14 (1178) A study of an annual simulation method for equipment capacity optimization considering the optimal operation.

Makoto Sugimura and Tomonobu Senjyu

Department of Electrical and Electronics Engineering, University of the Ryukyus

A7-P-15 (1197) Influence of Lamination Direction on AC Breakdown Characteristics of Insulation Materials

Taro Hatano[1], Ryoya Seo[1], Masaki Imanaka[1], Shigeyuki Sugimoto[1], Takeyoshi Kato[1], Muneaki Kurimoto[1], Yuya Manabe[2] and Yasuo Suzuoki[3]

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[2]*Chubu Electric Power Co., Inc.,*

[3]*Aichi Institute of Technology*

A7-P-16 (1202) Permittivity Characteristics of TiO_2 Silicone Elastomer Composites for Energy Conversion

R. Fujihara[1], M. Kurimoto[1], K. Naya[1], T. Kato[1], M. Imanaka[1], S. Sugimoto[1] and Y. Suzuoki[2]

[1]*Nagoya University*

[2]*Aichi Institute o f University*

A7-P-17 (1203) A Basic Study for Partial Discharge Characteristic of Oil-immersed Polypropylene Film Capacitor

Y. Takemoto[1], K. Tatsumi[1], T. Kato[1], M. Kurimoto[1], F. Komori[2], Y. Suzuoki[2], Y. Sasatani[4], Y. Sano[4], S. Hamada[4] and S. Ogura[4]

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[2]*NIT, Toba College*
[3]*Aichi Institute of Technology*
[4] *NISSIN ELECTRIC CO., LTD*

A7-P-18 (1206) A Study on Effective Timing of Unit Commitment Scheduling in Consideration of Update Photovoltaic Power Output Forecasting

Ryota Azukisawa[1], Masaki Imanaka[2], Muneaki Kurimoto[2], Shigeyuki Sugimoto[2] and Takeyoshi Kato[2]

[1]*Department of Electrical Engineering, Nagoya University*

[2]*Institute of Material and Systems for Sustainability, Nagoya University*

A7-P-19 (1239) Frequency Suppression Method Using Inverter for Distributed PV Systems

Koki Kato[1], Yuji Iwane[1], Tadahiro Goda[1], Kazuto Yukita[1], Toshiro Matsumura[1], Yasuyuki Goto[1] and Issarachai Ngamroo[2]

[1]Department of Electrical and Electronic Engineering, Aichi Institute of Technology,

[2]King Mongkut's Institute of Technology Ladkrabang

A7-P-20 (1240) Performance Evaluation of GaN-MPPT by Transient Characteristics

Yusuke Kobayashi, Kazuto Yukita, Toshiro Matsumura and Yasuyuki Goto

Department o f Electric Engineering, Aichi Institute of Technology

A7-P-21 (1241) Performance Comparison of Various Voltage Control Functions in Photovoltaic Inverter

Yuji Iwane, Koki Kato, Tadahiro Goda, Kazuto Yukita, Toshiro Matsumura and Yasuyuki Goto

Department of Electrical and Electronic Engineering, Aichi Institute of Technology

A7-P-22 (1247) Voltage-Frequency Control in Photovoltaic Generator Introduction System

Goken Fukuyama, Yuji Iwane, Koki Kato, Tadahiro Goda, Kazuto Yukita, Toshiro Matsumura and Yasuyuki Goto

Department of Electrical Engineering, Aichi Institute of Technology

A7-P-23 (1259) Dependence of Critical Electric Field Strength in High Temperature CO_2 gas of 2,000 K on Contamination of PTFE Vapor

Toshiya YOKOI[1], Akihiro TSUSAKA[1], Toshiro MATSUMURA[1], Kazuto YUKITA[1], Yasuyuki GOTO[1] and Yasunobu YOKOMIZU[2]

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[2]Nagoya University

A7-P-24 (1262) Arcing Time of Disconnection Fault in Low-Voltage PV Systems

Akihiro Tsusaka[1], Toshiya Yokoi[2], Toshiro Matsumura[1], Kazuto Yukita[1], Yasuyuki Goto[1], Atsushi Miyamoto[2] and Hiroyuki Ito[2]

[1]Aichi Institute of Technology

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A7-P-25 (1292) One-hour-ahead Price Prediction Model by Using LSTM Neural Network on Electricity Power Whole-sale Market

Tomohisa Yamada, Shun Matsukawa and Chuzo Ninagawa

Graduate School of Engineering, Gifu University

Saturday, November 2, 17:00 – 18:00 IB (Integrated Building)

A2-P

A2-P-1 (1083) Measurement of Laser-accelerated Protons using Several Types of Track Detectors

Masato Kanasaki[1], Satoshi Jinno[2], Kunihiro Morishima[3], Satoshi Kodaira[4], Takafumi Asai[1,5], Keita Sakamoto[1], Kazuki Shimizu[1], Keiji Oda[1], Tomoya Yamauchi[1] and Yuji Fukuda[5]

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[2]*School of Engineering, The University of Tokyo,*

[3]*Graduate School of Science, Nagoya University,*

[4]*National Institute of Radiological Sciences, National Institutes for Quantum and Radiological Science and Technology (QST)*

[5]*Kansai Photon Science Institute, National Institutes for Quantum andRadiological Science and Technology (QST)*

A2-P-2 (1151) GRAINE2018 : the flight data of multistage shifter in 2018 balloon experiment

Shota Matsuda[1], Shigeki Aoki[1], Satoru Takahashi[1], Takafumi Nakamura[1], Motoya Nakamura[1], Tomomi Yamamoto[1], Miyuki Oda[1], Hiroki Rokujo[2], Yuya Nakamura[2], Masahiro Komiyama[2]

and GRAINE collabolation [1, 2, 3, 4, 5]

[1]*Kobe University*

[2]*Nagoya University*

[3]*Okayama University of Science*

[4]*Aichi University of Education*

[5]*ISAS/JAXA*

A2-P-3 (1154) A development of next generation multi-stage shifter for GRAINE scientific observation

Miyuki Oda[1], Shigeki Aoki[1], Satoru Takahashi[1], Tomomi Yamamoto[1] and GRAINE collaboration1, [2, 3, 4, 5]

[1]*Kobe Unive rsity*

[2]*Nagoya Univer sity*

[3]*Okayama University of Science*

[4]*Aichi University of Education*

[5]*ISAS/JAXA*

A2-P-4 (1183) Physical Process of Dna Strand Breakage Induced by Ionizing Radiations

Kentaro Fujii[1], M A. Hérve du Penhoat[2], M. F. Politis[3]

[1]*National Ins titutes for Quantum and Radiological Sciences and Technology*

[2]*IMPMC, Sorbonne Universités*

[3]*Universitéd Evryval d Essonne*

A2-P-5 (1218) GRAINE 2018: Performance evaluation of converter by analyzing gamma ray from hadronic interaction

Yuya Nakamura[1], Hiroki Rokujo[1], Masahiro Komiyama[1], Saya Yamamoto[2], Shigeki Aoki[3], Satoru Takahashi[3], Takafumi Nakamura[3], Motoya Nakamura[3], Shota Matsuda[3] and GRAINE collaboration[1,2,3,4,5]

[1]*Nagoya University*

[2]*Okayama University of Science*

[3]*Kobe University,*

[4]*Aichi University of Education*

[5]*ISAS/JAXA*

A2-P-6 (1219) Development of emulsion shifter for neutrino experiment

HiroakiKawahara[1] and NINJA Collaboration1 [2, 3, 4, 5, 6, 7]

[1]*Department of Science, Nagoya University*
[2]*Nihon University*
[3]*Toho University*
[4]*Kobe University*
[5]*Yokohama National University*
[6]*Kyoto University*
[7]*The University of Tokyo*

A2-P-7 (1224) High-Speed Tracking Machine for sub-μm Tracks: PTS

Ryuta Kobayashi and NEWSdm collaboration

Graduate school of Science, Nagoya University

A2-P-8 (1231) Development of the cylindrical pressurized vessel gondola realizing large observed for GRAINE scientific obsevation

Masahiro.Komiyama[1], Hiroki Rokujo[1], Yuya Nakamura[1] Shigeki Aoki[2], Satoru Takahashi[2], Takafumi.Nakamura[2], Motoya Nakamura[2], Shota Matsuda[2], Tomomi Yamamoto[2], Miyuki Oda[2] and GRAINE collaboration[1, 2, 3, 4, 5]

[1]Nagoya University

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[3]Aichi University of Education,

[4]ISAS/JAXA

[5]Okayama University of Science

A2-P-9 (1232) NINJA Experiment: Analysis of water target ECC and preparation for physics run

Yosuke Suzuki[1], TsutomuFukuda[1,2], Tomoki Takao[1], Takahiro Odagawa[3] and Ayami Hiramoto[3]

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[2]Institute for advanced research, NagoyaUniversity

[3]Graduate school of science, KyotoUniversity,

A2-P-10 (1249) Study of Low Energy Muon Flux for Cosmic ray Imaging with Nuclear Emulsion

Kotaro Hikata, Kunihiro Morishima, Akira Nishio, Mitsuaki Kuno,Yuta Manabe, Ami Sakakibara, Nobuko Kitagawa

Nagoya University

A2-P-11 (1253) Development of an Easy Cloud Chamber which can Observe Elementary Particles and Research of its Usefulness for Education

H. Hayashi

Nagoya University

A2-P-12 (1261) Development of desensitized nuclear emulsion films for exploring the composition of cosmic ray nuclei

Saya Yamamoto[1], Shigeki Aoki[2], Atsushi Iyono[1], Keita Ozaki[2], Satoshi Kodaira[3], Masahiro Komiyama[4], Yuya Nakamura[4], Akine Matsukawa[1], Misato Yabu[2] and Hiroki Rokujo[4]

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[2]Graduate School of Human Development and Environment, Kobe University

[3]National Institute of Radiological Sciences

[4]Graduate School of Science, Nagoya University

A2-P-13 (1266) Status of emulsion film production for NINJA physics run

T. Takao[1], T. Fukuda[1] and M. Nakamura[1, 2]

[1]Graduate School of Science, Nagoya University

[2] Institute of Materials and Systems for Sustainability, Nagoya University

A2-P-14 (1273) Developing of Analysis System for Measurement Of Underground Environmental Sub-Mev Neutrons With Nuclear Emulsion

Inori Todoroki

A2-P-15 (1274) Simulation for SUSY particles researches with International Linear Collider

Mayuko Naiki

Graduate school of science, NagoyaUniversity

A2-P-16 (1312) Constructing of Emulsion Film Pouring System

Kou Sugimura, Hiroki Rokujo, Mitsuhiro Nakamura and Naotaka Naganawa

Nagoya University

A2-P-17 (1317) Development of a new noise evaluation method for nuclear emulsion

Noboru nakano, Hiroki Rokujo, Masahiro Komiyama, Yuya Nakamura, Toshiyuki Nakano

Graduate School of Science, Nagoya University

A2-P-18 (1323) The Effect of Rock-derived Radiation on Nuclear Emulsion

Ami SAKAKIBARA and Mitsuhiro NAKAMURA

Nagoya University

A2-P-19 (1346) Development of High Spatial Resolution Ultracold Neutron Detector Using Fine-grained Nuclear Emulsion and Research on Gravity with It

N. Muto[1], T. Ariga[2,3], S. Awano[1], G. Ichikawa[1], A. Umemoto[1], S. Kawasaki [4], H. Kawahara[1], M. Kitaguchi[5], H. Shimizu[1], S. Tasaki[6], N. Naganawa[7], S. Tada[1], M. Hino[8], K. Hirota[9] and K. Mishima[4]

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[2]*Faculty of Arts and Science, Kyushu University*

[3]*Laboratory for High Energy Physics, University of Bern*

[4]*High Energy Accelerator Research Organization*

[5]*Center for Experimental Studies, KMI, Nagoya University*

[6]*Department of Nuclear Engineering, Kyoto University*

[7]*Institute of Materials and Systems for Sustainability, Nagoya University*

[8]*Institute for Integrated Radiation and Nuclear Science, Kyoto University*

[9]*Research Center for Nuclear Physics, Osaka University*

A2-P-20 (1350) Development of High Position Accur acy Nuclear Emulsion

Yuta Manabe, Kunihiro Morishima, Akira Nishio, Mitsuaki Kuno, Kotaro Higata, Ami Sakakibara and Nobuko Kitagawa

Nagoya University

A2-P-21 (1355) Observation of the flux of cosmic ray muon on the ground with CES

Nobuko Kitagawa[1], Kunihiro Morishima[2], Akira Nishio[2], Mitsuaki Kuno[2], Yuta Manabe[2], Kotaro Higata[2] and Ami Sakakibara[2]

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[2]*Department of Graduate School ofScience, Nagoya University,*

A9-P

A9-P-1 (1009) Effects of Titanium Surface Wettability on Osteoblast Behavior

S. Okano[1], K. Nisogi[1], S. Kobayashi[1], K. Kuroda[2] and T. Okamoto[3]

[1]*Department of Materials Science and Biotechnology, Ehime University*

[2]*Institute of Materials and Systems for Sustainability, Nagoya University*

[3]*Faculty of Education, Ehime University*

A9-P-2 (1013) Simulations of the Flow and Performance of a Hydraulic Savonius Turbine by the Vortex in Cell Method

Qiang Gu[1], Haotian Wang[1], Tomohiro Degawa[2], Tomomi Uchiyama[2], Kotaro Takamure[2], Shouichiro Iio[3], Toshihiko Ikeda[3] and Tomoko Okayama[4]

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[2]*Institute of Materials and Systems for Sustainability, Nagoya University*

[3]*Faculty of Engineering, Shinshu University*

[4]*Faculty of Human Studies, Taisho University*

A9-P-3 (1068) Acceleration of Biological Nitrogen Fixation Using Humin as External Electron Mediator

Sujan Dey[1], Takuya Kasai[1, 2], Jumpei Mitsushita[1], Takanori Awata[3], Arata Katayama[1,2]

[1]*Department of Civil and Environmental Engineering, Nagoya University*

[2]*Institute of Materials and System of Sustainability, Nagoya University*

[3]*National Institute for land and Infrastructure Management*

A9-P-4 (1107) Selective recovery of indium via continuous counter-current foam separation from sulfuric acid solutions

Kinoshita Takehiko[1, 2], Ishigaki Yuzo[1], Kamimoto Yuki[2], Kitagawa Shinya[3] and Ichino Ryoichi[2]

[1]*Nagoya Municipal Industrial Research Institute,*

[2]*Nagoya University*

[3]*Nagoya Institute of Technology*

A9-P-5 (1113) Influence of Tip Leakage Flow on Small Propeller Turbine Performance

Koki Yoshida[1], Haruyuki Murakoshi[1] and Shouichiro Iio[2]

[1]Graduate School of Science and Technology, Shinshu University

[2]Department of Mechanical Systems Engineering, Shinshu University

A9-P-6 (1123) Biodegradation potential of four different pollutants in downstream of Yahagi river

Yajie YU[1], Kai UCHIDA[1], Takanori AWATA[2], Takuya KASAI[1] and Arata KATAYAMA[1]

[1]Department of Civil Engineering, Nagoya University,

[2]National Institute for Land and Infrastructure Management

A9-P-7 (1124) Extracellular Electron Transfer Function of Soil Humin: Potential Origins

Mirai YAMAURA[1], YAMAURA[1], Minh Duyen PHAM[2], Takuya KASAI[1,2] and Arata KATAYAMA[1,2]

[1]Graduate school of Engineering, Nagoya University

[2]IMaSS, Nagoya University

A9-P-8 (1127) Nanocarbon Electrocatalysts for Environmental Purification Devices using Microbes

Yasushi Miyata[1] and Arata Katayama[2]

[1]Nagoya Municipal Industrial Research Institute

[2]Institute of Materials and Systems for Sustainability, Nagoya University

A9-P-9 (1145) Noise Characteristics of Cavitating Jet through a Rectangular Orifice with Various Aspect Ratio

A. Watanabe[1], F. Yoshida[2], S. Iio[3], T. Uchiyama[4] and K. Takamure[4]

[1]Graduate School of Science and Technology, Shinshu University

[2]KYB CO., Ltd.

[3]Faculty of Engineering, Shinshu University

[4]Institute of Materials and Systems for Sustainability, Nagoya University

A9-P-10 (1146) Application of Combination Treatment of Ultrasound/Ultraviolet in the Presence of Photocatalyst for the Decomposition of o-Chlorophenol in an Aqueous Solution

K. Usui, T. Ito and Y. Kojima

Institute of Materials and Systems for Sustainability, Nagoya University

A9-P-11 (1156) Estimating the Introduction Potential of Residential Solar Power Generation: Case in Nagoya City, Japan

T. Matsumoto[1], K. Hayashi[2], N. Kawaguchi[2], T. Yamada[3] and Y. Tomino[3]

[1]Department of Civil Engineering, Nagoya University

[2]IMaSS, Nagoya University

[3]Chubu Electric Power Co., Inc.

A9-P-12 (1199) Effect of Extraction Conditions on the Property of Chitin and Chitosan from Crab Shells

Andi Muhammad Anshar[1, 2], Sengo Kobayashi[1] and Satoshi Okano[1]

[1]Department of Materials Science and Biotechnology, Ehime University

[2]Department of Chemistry, Mathematics and Natural Science Faculty, Hasanuddin University

A9-P-13 (1225) Selection of salinity sensitive wavebands from laboratory derived hyperspectral data

T. Qian[1], A. Tsunekawa[2], F. Peng[2], T. Masunaga[3], T. Wang[4], R. Li[5] and F. Minoru[1]

[1]*Center for Social and Environmental Systems Research, National Institute for EnvironmentalStudies*

[2]*Arid Land Research Center, Tottori University*

[3]*Life and Environmental Science, Shimane University*

[4]*Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences*

[5]*Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences*

A9-P-14 (1245) Carbon-dioxide Fixation by Humin-Dependent Mixed Consortium Exercises Humin's Alternate Functionality in Electron Transfer

Mahasweta Laskar[1], Takanori Awata[2], Takuya Kasai[1,3] and Arata Katayama[1,3]

[1]*Department of Civil & EnvironmentalEngineering, NagoyaUniversity,*

[2]*National Institute for Land and Infrastructure Management*

[3]*Institute of Materials and Systems for Sustainability, Nagoya University*

A9-P-15 (1282) Study on Power Factor Required to Suppress Voltage Rise When Connecting a Large-Capacity PV Device to Medium Voltage Distribution Line End

Masumi Tsukamoto[1], Toshiro Matsumura[1], Kazuto Yukita[1], Yasuyuki Goto[1], Yasunobu Yokomizu[2], Daisuke Iioka[3], Hirotaka Shimizu[4], Hideki Iwatsuki[5], Hirokazu Uenishi[5], Hiroyuki Ishikawa[5], Yuto Mineta[5] and Yuuki Kanazawa[5]

[1]*Aichi Institute of Technology*

[2]*Nagoya University*

[3]*Tohoku University*

[4]*Polytechnic University*

[5]*Chubu Electric Power Co., Inc.*

A9-P-16 (1298) Influence of Flow Field on Crystal Growth with Flux Method

Y. Funatsumaru, S. Iio, N. Zettsu and K. Teshima

Faculty of Engineering, Shinshu University, Japan

A9-P-17 (1316) A study on the spatial distribution of the building's power demand

N. KAWAGUCHI and K. HAYASHI

IMaSS, Nagoya University,

A9-P-18 (1341) Resources Time Footprint of Potential Small Hydro-power Capacity in China

X. Huang[1], K. Hayashi[1], M. Fujii[2] and N. Kawaguchi[1]

[1]*Nagoya University*

[2]*National Institute for Environmental Studies*

A9-P-19 (1342) Convolutional Neural Networks for Tree Species Classification

Y. Huang[1] and K. Hayashi[2]

[1]*Department of CivilEngineering, NagoyaUniversity*

[2]*IMASS, NagoyaUniversity*

Joint Symposia

Joint Simposium 1

Nagoya University and National University of Singapore (NU-NUS): Cyber/Physical System in Energy-Efficient Smart Cities —From Materials Design, Alternative Energy Technologies to Intelligent Systems and Operations

Oral Presentation (S1-I)

Saturday, November 2, 10:00 – 12:15 (ES Hall)

Chair: Yoshiaki KAWAJIRI (Nagoya Univ.)

Opning Remaks

Teo Kie Leong (National University of Singapore)

S1-I-1: (1401) Invite

Computational Approaches to Understand the Role of Grain Boundary Phase on Magnetic Property of NdFeB Hard Magnets

Toshiyuki Koyama and Yuhki Tsukada

Department of Materials Design Innovation Engineering, Nagoya University

S1-I-2: Invite

3D Structures by Ceramics Robocasting

Jun Ding

Department of Materials Science & Enginering, National University of Singapore

S1-I-3: (1417) Invite

Materials and System Design for Next Generation Wearables, Prosthetics and Robotics Systems

Benjamin C.K. Tee

Department o f Electrical and Computer Engineering, National University of Singapore

S1-I-4: (1376) Invite

Metal/polymer joining via open-cell porous layer synthesized by combustion reactions

Asuka Suzuki and Makoto Kobayashi

Department of Materials Process Engineering, Nagoya University

S1-I-5: (1365) Invite

PEDOT:PSS for Transparent Electrode and Thermoelectric Conversion

Jianyong Ouyang

Department of Materials Science and Engineering, National University of Singapore

Oral Presentation (S1-II)

Saturday, November 2, 10:00 – 12:00 (ES024)

Chair: Toshiyuki YAMAMOTO (Nagoya Univ.)

Opning Remaks

Takyuki Morikawa (Nagoya University)

S1-II-1: (1405) Invite

Autonomous Vehicles-Based Mobility-on-Demand in Singapore: User Behavior, Transport/Urban Planning and Implementation

Ghim Ping Ong

Department of Civil and Environmetal Engineering, National University of Singapore

S1-II-2: (1368) Invite

Intersection Priority Management to Reduce Urban Congestion using Link Transmission Model

Ruotian Tang, Ryo Kanamori and Toshiyuki Yamamoto

Graduate School of Civil Engineering, Nagoya University,

Institute of Innovation for Future Society, Nagoya University,

Institute of Materials and Systems for Sustainability, Nagoya University

S1-II-3: (1408) Invite

Privacy Issues in Intelligent Transportation Systems

Biplab Sikdar

Department o f Electrical and Computer Engineering, National University of Singapore

S1-II-4: (1370) Invite

Exploring the Application of Lane based Charging System by a Meso Simulator Platform

Yanyan LI, Toshiyuki Yamamoto, Takayuki Morikawa and Mingya ng Hao

Institute of Materials and Systems for Sustainability, Nagoya University

Institutes of Innovation for Future Society, Nagoya University

Oral Presentation (S1-III)
"Special Session by Center for Integrated Research of Future Electronics"

Saturday, November 2, 14:00 – 15:20 (ES Hall)

Chair: Toru UJIHARA (Nagoya Univ.)

S1-III-1: (1413) Invite

Highly-Stretchable, Low-Voltage Integrated Circuits Based on Carbon Nanotube Thin Films

Yutaka Ohno

Institute of Materials and Systems for Sustainability, Nagoya University

S1-III-2: (1404) Invite

Highly conducting p-type transparent LnCuOS (Ln=La and Nd) films and diodes

Hao GONG and Nengduo Zhang

Department of Materials and Engineering, National University of Singapore

S1-III-3: (1415) Invite

Theoretical Studies on Atomic and Electronic Structures of Threading Screw Dislocations in GaN

Kenji Shiraishi

Institute of Materials and Syst ems for Sustainability, Nagoya University

Graduate School of Engine ering, Nagoya University

S1-III-4: (1418) Invite

Expanding the Range of Chalcogenide, Oxides and Phosphide Catalyst for Clean Energy Applications

Shu Hearn Yu, Ng Zhen Quan Cavin and Daniel H.C. Chua

Department of Materials Science and Engineering, NationalUniversityof Singapore

Oral Presentation (S1-IV)
Special Session by Center for Integrated Research of Future Electronics

Saturday, November 2, 15:50 – 17:00 (ES Hall)

Chair: Toru UJIHARA (Nagoya Univ.)

Yoshiaki KAWAJIRI (Nagoya Univ.)

S1-Ⅳ-1: (1023) Invite

An universal approach to produce the passivation materials of c-Si substrate by alcoholic solute PEDOT:PSS

Van Hoang NGUYEN, Yasuyoshi KUROKAWA and Noritaka USAMI

Graduate School of Engineering, Nagoya University

S1-Ⅳ-2: (1369) Invite

Growth of epitaxial graphene by thermal decomposition of carbides

Wataru Norimatsu

Department of Materials Science and Engineering, Nagoya University

S1-Ⅳ-3: (1416) Invite

High Throughput Prediction of Ion Transport Across Battery Materials

Stefan Adams

Department of Materials Science and Engineering, National University of Singapore

Closing Remaks

Prof. Hiroshi Amano (Nagoya University)

Oral Presentation (S1-V)

Saturday, November 3, 9:50 – 11:50 (ES Hall)

Chair: Seiichi TAKAMI (Nagoya Univ.)

S1-Ⅴ-1: (1409) Invite

High-throughput Screening of Electrodes, Electrolytes and Coating Materials for Rechargeable Batteries

Sai G. Gautam and Pieremanuele Canepa

Department of Mechanical and Aerospace Engineering, Princeton University, New Jersey, USA

Department of Materials Science and Engineering, The National University of Singapore

S1-Ⅴ-2: (1402) Invite

Chemical Reaction Eng ineering for Carbon Recycle

Koyo Norinaga, Wei Zhang, Cheolyong Choi, Keiichi Yanase, Tran Khuyen and Hirochi Machida

Department o f Chemical Systems Engineering, Nagoya University

Institute of Materials Innovation (i-MI), Nagoya University

S1-Ⅴ-3: (1414) Invite

Single Atom Catalysis for New Energy, Clean Water and Healthy Environment

John Wang

Department of Materials Science and Engineering, National University of Singapore

S1-Ⅴ-4: (1366) Invite

Medical Application of Functional Magnetic Nanoparticles

Akira Ito

Department of Materials Science and Engineering, School of Engineering, Nagoya University

S1-Ⅴ-5: (1419) Invite

Strain Stabilized Nickel hydroxide Nanoribbons for Efficient Water Splitting

Xiaopeng Wang, Haijun Wu, Stephen Pennycook and Junmin. Xue

Department of Materials Science and Enineering, National University of Singapore

Poster Presentations (S1-P)

Saturday, November 2, 13:00 – 14:00 (ES entrance hall)

S1-P-1: (1367) Invite

International comparison of aggressive driving behavior: A comparative analysis among three Asian nations; Japan, China and Vietnam.

Blawal HUSSAIN, Hitomi SATO, Shiyu XIONG, Tomio MIWA, Ngoc T. NGUYEN and Takayuki MORIKAWA

Graduate School of E nvironmental Studies, Nagoya University

Institutes of Innovation for Future Society, Nagoya University

Graduate School of Engineering, Nagoya University

Institute of Materials and Systems for Sustainability, Nagoya University

Faculty of Environmental Science, University of Science, Vietnam National University

S1-P-2: (1371) Invite

Ultrasonic Assisted Fabrication of Metal Nanoparticles by Laser Ablation in Liquid

Xin Hu, Mardiansyah Mardis, Wahyudiono, Noriharu Takada, Hideki Kanda and Motonobu Goto

Department of Materials Process Engineering, Nagoya University

S1-P-3: (1372) Invite

The effects of environmentalism and attitude towards physical activity on travel behaviors

T. YEN, T. YAMAMOTO and H. SATO

Morikawa & Yamamoto T & Miwa Lab., Nagoya University

Institute of Materials and Systems for Sustaina bility, Nagoya University

Institute of Innovation for Future Society, Nagoya University

S1-P-4: (1373) Invite

Appearance Based Localization

Y. Bai and MH. Ang Jr

Department of Mechanical Engineering, National University of Singapore

S1-P-5: (1375) Invite

Causal relationship between urban rail investment and residential behavior in Nagoya city

Lisha Wang, Meilan Jiang, Tomio Miwa, Eleni B ardaka and Takayuki Morikawa

Department of Civil Engineering, Nagoya University,

Institute ofInnovation forFuture Society, Nagoya University

Institute ofMaterials and Systems for Sustainability, Nagoya University

Department of Civil, Construction, and Environmental Engineering, North Carolina State University,

Institute ofInnovation for Future Society, Nagoya University

S1-P-6: (1377) Invite

Exploratory Analysis of the Relationship between Kinematic Indicators and Driving Behaviour

M.Zhou and H.C. Chin

Department o f Civil & Environmental Engineering, National University of Singapore

S1-P-7: (1378) Invite

Spatial-Temporal Inference of Urban Traffic Emissions Based on Taxi Trajectories and Multi-Source Urban Data

Jielun Liu, Ke Han, Xiqun (Michael) Chen and Ghim Ping Ong

Department of Civil & Environmental Engineering, National University of Singapore

Center for Transport Studies, Department of Civil and Environmental Engineering, Imperial College London

College of Civil Engineering and Archi tecture, Zhejiang University

S1-P-8: (1379) Invite

Metallization of 3D Printed Polymers for Application as a Fully Functional Water Splitting System

Xinran Su, Xinwei Li and Jun Ding

Department o f Materials Science & Engineering, National University of Singapore

S1-P-9: (1380) Invite

Bicycle Station Planning with Stochastic Demand

CAI Yutong, ONG Ghim Ping and MENG Qiang

Department o f Civil and Environmental Engineering, National University of Singapore

S1-P-10: (1381) Invite

Exploring tour-based mode choice and travel distance considering intra-household interaction

Shasha Liu, Toshiyuki Yamamoto and Enjian Yao
Institute of Materials and Systems for Sustainability, NagoyaUniversity
School of Traffic and Transportation, Beijing Jiaotong University

S1-P-11: (1384) Invite

Enhancing Water Harvesting through the Cascading Effect [1]

Barbara T.W. Ang, Jiong Zhang, Gabriel J.J. Lin, Hao Wang, Wee Siang Vincent Lee and Junmin Xue
Department of Materials Science & Engineering, National University of Singapore,
Department of Mechanical Engineering, National University of Singapore

S1-P-12: (1385) Invite

Designing Autonomous Vehicle Incentive Program with Uncertain Vehicle Purchase Price

Shukai Chen, Hua Wang and Qiang Meng
Department o f Civil and Environmental Engineering, National University of Singapore
School of Economics and Management, Tongji University

S1-P-13: (1386) Invite

A statistic approach for Characterization of daily travel distance

Jiahang He and Toshiyuki Yamamoto
Department of Civil Engineering, Nagoya University
Institute of Materials and Systems for Sustainability, Nagoya University

S1-P-14: (1388) Invite

Enlarged Inter-layer Spacing in Cobalt Manganese Layered Double Hydroxide Guiding Transformation to Layered Structure for High Supercapacitance

X. Liu, L. Zhang, X. Gao, C. Guan, Y. Hu and J. Wang
Department of Materials Science and Engineering, National University of Singapore
Department of Physics and Electronic Engineering, Changshu Institute of Technology
Institute of Flexible Electronics, Northwestern Polytechnical University

S1-P-15: (1389) Invite

Future Implications of Shared Autonomous Vehicles

Mingyang Hao and Toshiyuki Yamamoto
Department of Civil Engineering, Nagoya University,
Institute of Materials and Systems for Sustainability, Nagoya University

S1-P-16: (1390) Invite

Examination on the influence area of Transit-Oriented Development in New Delhi, India

Sangeetha Ann, Meilan Jiang and Toshiyuki Yamamoto
Department of Civil Engineering, Nagoya University
Instituteof Innovation for Future Society, Nagoya University
Institute of Materials and Systems for Sustainability, Nagoya University

S1-P-17: (1391) Invite

Detecting Selective Modification in V2V Communication

Nalam Venkata Abhishek, Teng Joon Lim, Biplab Sikdar and Ben Liang
Department of Electrical and Computer Engineering, National University of Singapore
Department of Electrical and Computer Engineering, University of Toronto

S1-P-18: (1392) Invite

Quantitative Measurement of Sub-nanometer In Fluctuations in InGaN Quantum Well

T. P. MISHRA, G. J. SYARANAMUAL, L. JONES, J. Y. CHUNG, Z. LI, S. A. GOODMAN, S. J. CHUA, E. A. FITZGERALD, P. CANEPA, S. GRADECAK and S. J. PENNYCOOK
Department of Materials Science and Engineering, National University of Singapore
Singapore-MIT Alliance for Research and Technology,
School of Physics/CRANN, Trinity College Dublin
Department of Materials Science and Engineering, Massachusetts Institute of Technology
Department of Electrical and Computer Engineering, National University of Singapore

S1-P-19: (1393) Invite

Flash sintering of yttria stabilized zirconia

K. Itakura, T. Tokunaga and T. Yamamoto
Department of Materials Design Innovation Engineering, Nagoya University

S1-P-20: (1394) Invite

Compressive Behavior of Lattice Structured AlSi10Mg Alloys with V arious Unit Cells Fabricated by S elective Laser Melting

Xiaoyang Liu, Keito Sekizawa, Asuka Suzuki, Naoki Takata and Makoto Kobashi
Department of Materials ProcessEngineering, Nagoya University

S1-P-21: (1395) Invite

Shared Autonomous Vehicle System at Suburban Residential Area Combined with Park and Ride

Yefang Zhou, Yanyan Li, Mingyang Hao and Toshiyuki Yamamoto
Graduate School of Engineering, Nagoya University
Institute of Materials and Systems for Sustainability, Nagoya University

S1-P-22: (1396) Invite

PEDOT:PSS/ Crystalline Si Hybrid Solar Cells Employing Tapered Nanostructures

Yuqing Li, Nguyen Van Hoang and Usami Noritaka
Department o f Materials Science and Engineering, Nagoya University

S1-P-23: (1397) Invite

20.7% Highly Reproducible Inverted Planar Perovskite Solar Cells with Enhanced Fill Factor and Eliminated Hysteresis

Liu Xixia, Cheng Yuanhang, Ouyang Jianyong, and Gong Hao
Department of Materials Science & Engineering, National University of Singapore
Solar Energy Research Institute of Singapore (SERIS), National University of Singapore

S1-P-24: (1398) Invite

A Path-based Equilibrium Model for Ridesharing Matching

Yuanyuan Li, Yang Liu and Jun Xie
Department of Industrial Systems Engineering and Management, National University of Singapore,
Department of Civil and Environmental Engineering, National University of Singapore,
School of Transportation and Logistics, Southwest Jiaotong University

S1-P-25: (1399) Invite

Modeling isotherms for pressure swing adsorption process using ELM-11

Yuya Takakura, Tomoyuki Yajima and Yoshiaki Kawajiri
Department of Materials Process Engineering, Nagoya University
Department of Chemical & Biomolecular Engineering, Georgia Institute of Technology

S1-P-26: (1400) Invite

Spatial Spillover of Demand in Customized Bus Service

J Wang, T Yamamoto and K Liu
Department of CivilEngineering, Nagoya University,
Institute of Materials and Systems for Sustainability, Nagoya University
School of Transportation and Logistics, Dalian University of Technology

S1-P-27: (1403) Invite

SenSearch: Predictive Sensor Search Engine for User-designable Performance of Micro-pyramidal E-skin

Haicheng Yao, Weidong Yang, Zhuangjian Liu and Benjamin C.K. Tee
Department of Materials Science and Engineering, National University of Singapore,
Institute for Health Innovation & Technology, National University of Singapore,
*Institute of High Performance Computing, Agency for Science, Technology and Research (A*STAR),*
*Institute of Microelectronics, Agency for Science, Technology and Research (A*STAR)*

S1-P-28: (1407) Invite

Online Maximum Likelihood State Tracking via Stochastic Gradient Descent for Mapless Localisation

Li Zhikai and Marcelo H. Ang
Department of Mechanical Engineering, National University of Singapore

S1-P-29: (1410) Invite

Information Provision and Congestion Pricing in Risky Road Networks with Heterogeneous Travelers

Yang Liu and Zhenyu Yang
Department of Civil and Environmental Engineering, National University of Singapore,
Department of Industrial Systems Engineering and Management, National University of Singapore

S1-P-30: (1412) Invite

One-step Solvothermal Synthesis of β-Ga2O3 Nanocrystals

K. Takezawa and S. Takami

Graduate School of Engineering, Nagoya University

Joint Simposium 2

International Symposium on Creation of Life Innovation Materials for Interdisciplinary and International Researcher Development Satellite (iLIM-s)

Oral Presentations (S2-I)

Saturday, November 2, 11:00 – 12:00 (ES021)

Chair: Masakuni OZAWA (Nagoya Univ.)
Takao HANAWA (Tokyo Dental Univ.)

S2-I-1: (1269) Invite

Wet-chemical synthesis of non-layer 2D materials and its applications

Eisuke Yamamoto, Makoto Kabayashi and Minoru Osada
IMaSS, Nagoya University

S2-I-2: (1329) Invite

Point Arc Remote Plasma Chemical Vapor Deposition for High Quality Single Crystal Diamond Selective Growth

W. Fei, M. Inaba, H. Hoshino, I. Tsuyusaki, S. Kawai, M. Iwataki and H. Kawarada
School of Science and Engineering, Waseda University,
Institute of Materials and Systems for Sustainability, Nagoya University
Kagami Memorial Laboratory for Materials Science and Technology, Waseda University

S2-I-3: (1260) Invite

Development of advanced control technology of plasma-MIG process and application to dissimilar joining

Seong Min HONG, Shinichi TASHIRO, Mamat Bin SARIZAM, Manabu TANAKA and Yuichiro KOIMUZMI
Osaka University
University Malaysia Kelantan

S2-I-4: (1258) Invite

Prediction of Material Properties from First Principles and Machine Learning

Akira Takahashi, Yu Kumagai, Jun Miyamoto and Fumiyasu Oba

Tokyo Institute of Technology

Oral Presentations (S2-I)

Saturday, November 2, 14:00 – 16:00 (ES021)

Chair: Yutaka MAJIMA (Tokyo Institute on Technology)
Yuichi SETSUHARA (Osaka Univ.)
Hiroshi KAWARADA (Waseda Univ.)
Hidemi KATO (Tohoku Univ.)

S2-II-1: (1018) Invite

Comparison of Antibacterial Property of Ag, Cu, Zn and Ga Incorporated to Ti Surface

Masaya Shimabukuro, Yusuke Tsutsumi, Kosuke Nozaki, Peng Chen and Takao Hanawa
Tokyo Medical and Dental University, Graduate School of Medical and Dental Sciences,
Tokyo Medical and Dental University, Institute of Biomaterials and Bioengineering
Research Center for Structural Materials, National Institute for Materials Science

S2-II-2: (1251) Invite

The effect of cryogenic thermal cyclic processing on the mechanical properties of TiNi based crystalline/amorphous alloy

Jing Jiang, Hidemi Kato and Dmitri V. Louzguine
Institute for Materials Research, Tohoku University
Advanced Institute for Materials Research, Tohoku University

S2-II-3: (1233) Invite

Catalytic Property of Composite Catalysts derived from ZrPd-based Metallic Glass

Masatomo Hattori, Naoya Katsuragawa, Atsuhiko Masuda, Shinichi Yamaura, Hidemi Kato, and Masakuni Ozawa
Institute of Material and Systems for Sustainability, Nagoya University

Department of Materials Science and Engineering, Graduate School of Engineering, Nagoya University,
Polytecnic University
Institute for Materials Research, Tohoku University

S2-II-4: (1284) Invite

Evolution of porous structure and unique orientation relationships during liquid metal dealloying from FCC precursor to BCC ligament

Soo-Hyun Joo and Hidemi Kato
Institute for Materials Research, Tohoku University

S2-II-5: (1306) Invite

Functional thin film deposition using plasma-assisted reactive process

Kosuke Takenaka, Hiroyuki Hirayama, Yuichi Setsuhara, Keisuke Ide and Toshio Kamiya

Joining and Welding Research Institute, Osaka University,

Laboratory for Materials and Structures, Tokyo Institute of Technology

S2-II-6: (1027) Invite

Regulation of Stem Cell Behaviors by Titanium with Multiscaled Topography Surface Design using Femtosecond Laser

P. Chen and T. Hanawa

Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University

S2-II-7: (1328) Invite

High Power Density Silicon Thermoelectric Generator - Optimum Design Toward Large-scale Integration

Motohiro Tomita, Kaito Oda, Takashi Matsukawa, Takeo Matsuki and Takanobu Watanabe

Faculty of Science and Engineering, Waseda University

National Institute of Advanced Industrial Science and Technology (AIST)

S2-II-8: (1101) Invite

Kappa-almina-type structured multiferroics

Shintaro Yasui, Tsukasa Katayama, Yosuke Hamasaki, Takahisa Shiraishi, Akihiro Akama, Takenori Kiguchi, Ayako Konishi, Hiroki Moriwake and Mitsuru Itoh

Laboratory for Materials and Structures, Tokyo Institute of Techonology

Department of Chemistry, Univeiristy of Tokyo

Department of Applied Physics, National Defense Academy of Japan

Institute of Materials Research, Tohoku University

Nanostructures Research Laboratory, Japan Fine Ceramics Center

Poster Presentations (S2-P)

Saturday, November 2, 13:00 – 14:00 (ES entrance hall)

S2-P-1: (1001)

The effect of sulfonated polyrotaxane surfaces on hepatic responses

Yoshinori Arisaka and Nobuhiko Yui

Department of Organic Biomaterials, Institute of B iomaterials and Bioengineering, Tokyo Medical and Dental University

S2-P-2: (1010)

Development of an immunomodulatory biomaterial for cancer treatment

Tsuyoshi Kimura, Rino Tokunaga, Yoshihide Hashimoto, Naoko Nakamura and Akio Kishida

Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University

Department of Bioscience and Engineering, Shibaura Institute of Technology

S2-P-3: (1019)

Optimization of Ag Concentration on Ti Surface for Realizing Dual Function

Masaya Shimabukuro, Yusuke Tsutsumi, Kosuke Nozaki, Peng Chen and Takao Hanawa

School of Medical and Dental Sciences, Tokyo Medical and Dental University

Institute of Biomaterials and Bioengneering, Tokyo Medical and Dental University

Research Center for Structural Materials, National Institute for Materials Science

S2-P-4: (1028)

Calcification Promotion of Preosteoblast by Titanium with Chessboard-patterned Nano Surface Topography Produced with Femtosecond Laser Irradiation

P. Chen, N. Shinohara, T. Shinonaga, M. Tsukamoto, Y. Tsutsumi and T. Hanawa

Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University,

Joining and Welding Research Institute, Osaka University

Faculty of Engineering, Okayama University

Tokyo Medical and Dental University (Present: National Institute for Materials Science)

S2-P-5: (1029)

Mechanical Property Improvement of AuCuAl Biomedical Superelastic Alloys Containing α Phase

A. Umise, K. Yamji, K. Goto, M. Tahara, H. Kanetaka, T. Hanawa and H. Hosoda
Institute of Innovative Research (IIR), Tokyo Institute of Technology,
Institute of Biomaterials and Bioengineering (IBB), Tokyo Medical and Dental University,
TANAKA KIKINZOKU KOGYO K.K.,
Graduate School of Dentistry, Tohoku University,

S2-P-6: (1041)

Compositional Dependence of Spin Orbit Torques in SiN/GdFeCo/Ta films

K. Kawakami, D. Oshima, T. Kato and S. Iwata
Department of Electronics, Nagoya University
Institute of Materials and Systems for Sustainability, Nagoya University

S2-P-7: (1053)

Electrodeposition of GaN Film in Aqueous Solution

Jaewook Kang, Kensuke Kuroda and Masazumi Okido
Department of Materials Science & Engineering, Graduate School of Engineering, Nagoya University
Institutes of Materials and Systems for Sustainability, Nagoya University

S2-P-8: (1054)

Electrochemical behavior of the less noble metal salts in an aprotic polar solvent

Sangjae Kim, Kenta Kamebuchi, Kensuke Kuroda and Masazumi Okido
Department of Materials Science & Engineering, Graduate school of Engineering, Nagoya University
Institutes of Materials and Systems for Sustainability, IMaSS, Nagoya University

S2-P-9: (1080)

Ibuprofen Adsorptivity of Surface Modified Titanium and Its Biological Response

Hazuki Iwamoto, Kensuke Kuroda and Masazumi Okido
Department of Materials Process Engineering, Nagoya University
Institute of Materials and Systems for Sustainability, Nagoya University

S2-P-10: (1085)

Surface Modification to Polyethylene for the Antifouling Application in Seawater

Futoshi Tanaka, Osamu Terakado, Chiharu Nakazono, Kensuke Kuroda and Masazumi Okido

National Institute of Technology, Hakodate College

Graduate School of Engineering, Nagoya University

Institute of Materials and Systems for Sustainability, Nagoya University

S2-P-11: (1092)

Fractional analytical procedure for adsorbed proteins onto a material surface

Naofumi Ohtsu, Takuya Kawakami, Yusuke Konaka, and Kensuke Kuroda

Faculty of Engineering, Kitami Institute of Technology

Institute of Materials and System for Sustainability, Nagoya University

S2-P-12: (1093)

Formation of isothermal α" phase in Ti-Mo base biomedical shape memory alloy

K. Hasunuma, A. Umise, M. Tahara, H. Kanetaka and H. Hosoda

Institute of Innovative Research（IIR）,Tokyo Institute of Technology,

Institute of Biomaterials and Bioengineering (IBB), Tokyo Medical and Dental University

S2-P-13: (1094)

Effect of Bi addition on phase constitution and mechanical properties of Ti-Cr base shape memory alloy

Kenta Hayashi, Masaya Iwasaki, Akira Umise, Masaki Tahara, Hiroyasu Kanetaka and Hideki Hosoda

Institute of Innovative Research, Tokyo Institute of Technology

Institute of Biomaterials and Bioengineering (IBB), Tokyo Medical and Dental University

Tohoku University Graduate School of Dentistry

S2-P-14: (1109)

Development of Novel Biomedical High Entropy Alloys

Weicheng Heng, Daixiu Wei, Hedimi Kota and Akihiko Chiba

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S2-P-15: (1117)

Surface Modification of Polymer Materials and Their Protein and Ion Adsorptivity

Chiharu Nakazono, Kensuke Kuroda, Masazumi Okido, Futoshi Tanaka and Osamu Terakado

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Department of Material and Environmental Engineering, Hakodate College National Institute of Technollogy

S2-P-16: (1138)

Fabrication of Hydrophilic Surface on Magnesium Alloy by Hydrothermal Technique to Improve Corrosion Resistance

L. Zhu, C. Peng, K. Kuroda and M. Okido

Department of Materials Science and Engineering, Nagoya University

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S2-P-17: (1144)

Antibacterial Properties of Ti Surface Using Metallic Ions Adsorption

Ryota Kuroda, Kensuke Kuroda, Masazumi Okido, Kaho Yamaguchi and Naofumi Ohtsu

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Faculty of Engineering, School of Earth, Energy and Environmental Engineering, Kitami Institute of Technology

S2-P-18: (1163)

Surface characteristics and Ni ion release behavior of anodized NiTi alloy surface using the mixed electrolyte comprising HNO_3 and H_3PO_4

Kako Yamasaki, Kodai Takiguchi, Shiori Komai and Naofumi Ohtsu

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S2-P-19: (1172)

Thermoelectric properties of silicon germanium wires with a composition gradient

M. Nakata, O. Nakatsuka, M. Tomita, T. Watanabe and M. kurosawa

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IMaSS, Nagoya University,

Waseda University, IAR, Nagoya University, JST-PRESTO

S2-P-20: (1173)

Infarct Region was Attenuated by Local Injection of Hydroxyapatite Electret in Murine Myocardial Infarction Model

R. Chiba, H. Komuro, K. Abe, M. Yamazoe, K. Ihara, Y. Soejima, M. Sawabe, T. Furukawa, A. Nagai and T. Sasano
Department of Cardiovascular Medicine
Department of Cardiovascular Physiology
Department of Molecular Pathology, Tokyo Medical and Dental University (TMDU),
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Department of Anatomy, School of Dentistry, Aichi Gakuin University

S2-P-21: (1182)

Crystal Growth and Magneto-transport Properties of $CrTi_2Te_4$

T. Wada, R. Yano, M. Murase and T. Sasagawa
Laboratory for Materials and Structures, Tokyo Institute of Technology,
Department of Applied Physics, Nagoya University

S2-P-22: (1184)

Crystal Growth and Characterization of a Room-temperature Half-metal Co_2TiSn

K. Koyanagi, M. Murase and T. Sasagawa
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S2-P-23: (1189)

The mechanism of cellular uptake of HAp nanoparticles for targeted gene delivery to cardiomyocytes

Hiroaki Komuro, Kosuke Nozaki, Masahiro Yamazoe, Tetsushi Furukawa, Tetsuo Sasano and Akiko Nagai
Department of cardiovascular physiology, Tokyo Medical and Dental University
Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University
Department of cardiovascular medicine, Tokyo Medical and Dental University
Medical Research Institute, Tokyo Medical and Dental University
School of Dentistry, Aichi Gakuin University

S2-P-24: (1193)

Phase control of the plasma-nitrided SUS316 surface by N_2 and H_2 gas mixture ratio

Koyo Miura, Misao Yamane, Yohei Sakuraba and Naofumi Ohtsu
Kitami Institute of Technology
Hokkaido Research Organization

S2-P-25: (1229)

Isotropic and Anisotropic Crystalline Growth of Magnetite Nanostructures in Polyols

Hiroya Abe, Shinya Yamanaka and Minoru Osada
Joining and welding research Institute, Osaka University,
Department of Sciences and Informatics, MuroranInstitute of Technology,
Institute of Materials and Systems for Sustainability, Nagoya University

S2-P-26: (1234)

Deposition of ceria nanoparticle on single crystal substrate and nano device

Rintaro Kawai, Ryo Kashima, Masatomo Hattori and Masakuni Ozawa
Department of Engineering, Nagoya University
IMaSS, Nagoya University

S2-P-27: (1235)

Catalytic Property of Deposited Ceria-Zirconia Nanoparticle on Single Crystal Substrate

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Department of Material ScienceEngineering, NagoyaUniversity
Institute of Materials and Systems for Sustainability Nagoya University

S2-P-28: (1236)

Preparation and catalytic property of platinum-doped CeO_2-ZrO_2 nanoparticle catalyst

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Department of Material Science Engineering, Nagoya University
Institute of Materials and Systems for Sustainability, Nagoya University

S2-P-29: (1237)

Preparation and catalytic property of M (M= Fe, Mn) doped alumina composite catalyst

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S2-P-30: (1238)

Preparation and catalytic property of Cu doped alumina Composite catalyst

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S2-P-31: (1244)

Removal of Antibiotics Using Magnetic BEA Zeolite Prepared by Dry-Gel Conversion

Takaaki Sakashita, Supinya Nijpanich, Masatake Hiraiwa, Takeshi Hagio, Yuki Kamimoto and Ryoichi Ichino
Department of Chemical Systems Engineering, Graduate School of Engineering, Nagoya University
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Global Research Institute for Mobility in Society, Institutes of Innovation for Future Society, Nagoya University

S2-P-32: (1246)

Recovery of Phosphorus Using Magnetic Layered Double Hydroxide

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S2-P-33: (1250)

Low-temperature fabrication of phosphor thin-film and light emitting device using amorphous oxide semiconductor

Keisuke Ide, Naoto Watanabe, Takayoshi Katase, Hidenori Hiramatsu, Hideo Hosono and Toshio Kamiya
Laboratory for Materials and Structures, Tokyo Institute of Technology
Materials Research Center for Element Strategy, Tokyo Institute of Technology
PRESTO, Japan Science and Technology Agency

S2-P-34: (1252)

Thermal transport study on some metal insulator transition materials

Suguru Kitani, Kenta Hashimoto and Hitoshi Kawaji
Laboratory for Materials and Structures, Tokyo Institute of Technology

S2-P-35: (1254)

Synthesis of Tailor-Made Ceramic Nanocrystals by Organic Ligand-Assisted Hydrothermal Method towards Environmental and Energy Applications

Satoshi Ohara and Masakuni Ozawa

Joining and Welding Research Institute, Osaka University

Institute of Materials and Systems for Sustainability, Nagoya University

S2-P-36: (1255)

Collection and Dechlorination of Hexachlorobenzene in Water Using Cu/Fe Bimetal Particles Supported on Admicelles

Hiroaki Matsumiya and Hiroto Tanaka

Institute for Materials Innovation, Institutes of Innovation for Future Society, Nagoya University

Department of Chemical Systems Engineering, Graduate School of Engineering, Nagoya University

S2-P-37: (1256)

Weld Toe Modification using Friction Stir Processing for Fatigue Strength Improvement of High-Strength Low-Alloy Steel Joints

Hajime Yamamoto, Yoshikazu Danno, Kazuhiro Ito, Yoshiki Mikami and Hidetoshi Fujii

Joining and Welding Research Institute, Osaka University

S2-P-38: (1257)

Functional epitaxial graphene grown by thermal decomposition of carbide materials

Wataru Norimatsu and Michiko Kusunoki

Department of Materials Science and Engineering, Nagoya University

S2-P-39: (1268)

Oxidation Behavior of Cr and Al-alloyed MoSiBTi_2C alloys

Xi Nan, Tomotaka Hatakeyama and Kyosuke Yoshimi

Department of Materials Science, Tohoku University

S2-P-40: (1275)

Preparation of nanoporous tungsten by liquid metal dealloying

Gerelmaa Khuchitbaatar and Hidemi Kato

Graduate School of Engineering, Tohoku University

Institute for Materials Research, Tohoku University

S2-P-41: (1280)

High performance oxide thin-film transistors fabricated by a total nano-rheology printing (nRP) method

Phan Trong Tue, Kazuhiro Fukuda, Jinwang Li and Tatsuya Shimoda

Laboratory for Materials and Structures, Tokyo Institute of Technology

School of Materials Science, Japan Advanced Institute of Science and Technology

S2-P-42: (1299)

Gigantic Dielectric Responses in Perovskite Nanosheets

T. Sakuraba, E. Yamamoto, M. Kobayashi and M. Osada

Graduated school of Engineering, Nagoya University

IMaSS, Nagoya University

S2-P-43: (1300)

Atomically Defined Templates for Growth of CeO_2 Nanosheets

Kohei Hayashi, Eisuke Yamamoto, Makoto Kobayashi and Minoru Osada

Graduate school of Engineering, Nagoya University

IMaSS, Nagoya University

S2-P-44: (1309)

Formation of amorphous oxide thin films using plasma-assisted reactive sputter deposition

H. Hirayama, K. Takenaka and Y. Setsuhara

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S2-P-45: (1310)

Photoligation based RNA quantification system for high throughput and bias- less transcriptome analysis

M. Y okomori, M. Tagawa, S. Harada, T. Ujihara and A. Suyama

Center for Integrated Research of Future Electronics (CIRFE), Institute of Materials and Systems for Sustainability (IMaSS), Nagoya University

Department of Materials Science and Engineering, Nagoya University

Department of Life Sciences, Graduate School of Arts and Sciences, The University of Tokyo

S2-P-46: (1330)

Nitrogen-terminated Diamond Electrolyte Solution-Gate FET for pH Sensing in Both Acidic and Alkaline Solutions

Y.H. Chang, S. Falina, S. Kawai, Y. Iyama, M. Syamsul, Y. Shintani and H. Kawarada

Waseda University

Kagami Memorial Research Institute for Materials Science and Technology

S2-P-47: (1331)

Diamond Cascode Application for p-FET Diamond n-FET GaN Half-Bridge Complementary Inverter

T. Bi, T. Kudo, A. Yamamoto, T. Yabe, K. Horikawa, T. Sasaki, A. Hiraiwa and H. Kawarada

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S2-P-48: (1336)

3.8 W/mm RF Power Density for ALD Al_2O_3-Based 2DHG Diamond MOSFETs for Complementary Power Circuit

Shoichiro Imanishi, Ken Kudara, Kiyotaka Horikawa, Atsushi Hiraiwa and Hiroshi Kawarada

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The Kagami Memorial Laboratory for Materials Science and Technology, Waseda University

S2-P-49: (1361)

Preparation of silver/zirconia catalyst for effective soot oxidation

Sudarsan Raj, Masatomo Hattori and Masakuni Ozawa

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Institute of Materials and Systems for Sustainability, Nagoya University

Joint Simposium 3

Energy System Symposium on Emerging Technologies for Next Generation Electric Power Systems

Oral Presentation (S3-I)

Sunday, November 2, 14:00 – 16:45 (ES025)

Chair: Muneaki KURIMOTO (Nagoya Univ.)

S3-I-1: Invite

Nano-Scale Evaluation of Functional Devices by In Situ Transmission Electron Microscopy

Kazuo Yamamoto, Yuki Nomura, Satoshi Anada and Tsukasa Hirayama

Nanostructures Research Laboratory, Japan Fine Ceramics Center

Technology Innovation Division, Panasonic Corporation

Department of crystalline materials Science, Nagoya University

Institute of Materials and Systems for Sustainability, Nagoya University

S3-I-2: Invite

Development of Nondestructive Evaluation of Electric Apparatus Using Terahertz Waves

Norikazu Fuse

Electric Power Engineering Research Lab., Central Research Institute of Electric Power Industry

S3-I-3: Invite

Perspectives on First Principles and Machine Learning Aided Dielectric Materials Design

Masahiro Sato, Akiko Kumada and Kunihiko Hidaka

Research Center for Advanced Science and Technology, The University of Tokyo,

Department of Electrical Engineering and Information Systems, The University of Tokyo

S3-I-4: Invite

Wind ramp forecasts ~ NEDO R&D project on grid integration of variable renewable energy “Mitigation technologies on output fluctuations of renewable energy generations in power grid”~

Chiyori T. Urabe and Kazuhiko Ogimoto

Institute of Industrial Science, The University of Tokyo

S3-I-5: Invite

TBA

Takashi IKEGAMI

Graduate School of Bio-Applications and Systems Engineering, Tokyo University of Agriculture and Technology

Division of Advanced Mechanical Systems Engineering, Institute of Engineering, Tokyo University of Agriculture and Technology