PROGRAM

＊Doubly underlined are English presentations.

Tuesday, December 1st

【Room B】 9:00～18:45

Opening Session (9:00～9:15)

Joint Symposium "Fabrication of Novel Low-Dimensional Materials and Their Device Application"

Chair: Keiji Ueno (9:15～12:00)

1Ba01 《INVITED》 Atomically thin semiconducting films for field effect transistors
([1])NIMS, MANA) ○Kazuhito Tsukagoshi[1])

1Ba03 《INVITED》 Nanostructure control of layered metal chalcogenides by thermal CVD growth
([1])Hokkaido Univ.) ○Toshihiro Shimada[1]), Takashi Yanase[1]), Sho Watanabe[1]), Weng Mengting [1])

1Ba05 《INVITED》 Fabrication of Two-Dimensional and Three-Dimensional Layered Heterostructures and Their Applications to Devices ([1])NTT Basic Res. Labs, NTT Corp.)
○Hideki Yamamoto[1]), Koji Onomitsu[1]), Masanobu Hiroki[1]), Kazuhide Kumakura[1])

Break 10:45～11:00

1Ba07 《INVITED》 Development of Oxide Nanosheets and Application
([1])NIMS)
○Takayoshi Sasaki[1]), Yasuo Ebina[1]), Minoru Osada[1]), Renzhi Ma[1]), Tadashi C. Ozawa[1]), Nobuyuki Sakai[1])

1Ba09 《INVITED》 Possibility of Silicene as a Device Material
([1])Sch. Mat. Sci., JAIST) ○Yukiko Yamada-Takamura[1])

Lunchtime 12:00～13:30

Corporate Seminar (SSSJ: SHIMADZU CORPORATION)

Joint Symposium "Front-line Research on Wide-Gap Semiconductors for Power Devices"

Chair: Yukari Ishikawa (15:30～18:45)

1Bp01 《INVITED》 Ultra-high quality SiC grown by solution method utilizing dislocation conversion phenomenon
([1])Nagoya Univ.) ○Toru Ujihara[1])

1Bp03 《INVITED》 Recent Progress in SiC MOSFET and its Interface ([1])Univ. Tsukuba) ○Hiroshi Yano[1])

1Bp05 《INVITED》 GaN crystal growth by Na flux method
([1])Sch. Eng., Osaka Univ.) ○Y. Mori[1]), M. Imanishi[1]), M. Imade[1]), M. Maruyama[1]), M. Yoshimura[1])

Break 17:00～17:15

1Bp07 《INVITED》 Control of GaN-Based Heterostructure Interfaces for Advanced HEMT Technologies
([1])RCIQE, Hokkaido Univ.) ○Tamotsu Hashizume[1])

1Bp09 《INVITED》 Diamond wafer for power device application ([1])Kwansei Gakuin Univ.) ○Shinichi Shikata[1])

1Bp11 《INVITED》 Recent Progress of Diamond MOSFET Interface Research
([1])Dept. Electrical Electronic Eng., Saga Univ.) ○Makoto Kasu[1])

【Room C】 9:15～18:45

SSSJ "Soft Matter"

Chair: Madoka Takai (9:15～10:45)

1Ca01 《INVITED》 Soft Matter Physics ([1]Ochanomizu Univ.) ○Ko Okumura[1]

1Ca03S Development of beta-sheet functional peptide to self-organization in the two-dimensional surface of the material
([1]Tokyo Inst. Technol.) ○Kouhei Sakuma[1], Hiroto Fukata[1], Yuhei Hayamizu[1]

1Ca04S An electrochemical approach to control surface behavior of peptides self-assembling on graphite
([1]Tokyo Inst. Technol., [2]Univ. Washington) ○Takakazu Seki[1], Tamon Page[2], Yuhei Hayamizu[1]

1Ca05 Exciting-wavelength dependence in the photoluminescence of pyrolytic AgNP-DNA nanofibers
([1]NIMS, [2]Osaka Prefecture Univ., [3]Nikon Instech CO., LTD)
○Hidenobu NAKAO[1], Hiroshi SHIIGI[2], Kazuaki TOKUNAGA[3], Syu SEKIMOTO[3], Yoshihiko TAKEDA[1]

1Ca06S Functionalization of DNA-pretreated single-walled carbon nanotubes with fluorescent molecules
([1]Sci., Tokyo Univ. Sci.) ○Shusuke Oura[1], Masahiro Ito[1], Yoshikazu Homma[1] and Kazuo Umemura[1]

Break 10:45～11:00

SSSJ: Division of Soft-Nanotechnology "Reconstitution of biological function based on nano-designed surfaces"

Chair: Ayumi Hirano-Iwata (11:00～12:00)

1Ca07 《INVITED》 The "NanoSuit": A novel Scanning Electron Microscopy based on Biomimetics
([1]Chitose Inst. Sci. Technol.) ○Masatsugu Shimomura[1]

1Ca09 《INVITED》 Analysis of cell adhesion mechanism on nano-domain structure by block copolymer
([1]Univ. Tokyo) ○Madoka Takai[1]

Lunchtime 12:00～13:30

Corporate Seminar (SSSJ: Hitachi High-Technologies Corporation)

SSSJ: Division of Soft-Nanotechnology "Reconstitution of biological function based on nano-designed surfaces"

Chair: Ryugo Tero (15:30～17:00)

1Cp01 《INVITED》 On-chip Cellomics Technology: Soft nanotechnology for constructive cell network research for life science, drug discovery, and medical diagnostics.
([1]Inst. Biomaterials and Bioengineering, Tokyo Medical and Dental Univ.) ○Kenji Yasuda[1]

1Cp03 《INVITED》 Cell surface engineering with single-stranded DNA-poly(ethylene glycol)-lipid conjugates and its modeling using supported lipid bilayers
([1]Inst. Frontier Medical Sciences, Kyoto Univ.) ○Yusuke Arima[1], Hiroo Iwata[1]

1Cp05 《INVITED》 Surface micromodification techniques for engineering cultured neurons and neuronal networks
([1]Frontier Res. Inst. Interdisciplinary Sciences, Tohoku Univ., [2]Grad. Sch. Biomedical Eng., Tohoku Univ., [3]Fac. Sci. Eng., Waseda Univ., [4]Res. Inst. Electrical Communication, [5]JST-CREST) ○Hideaki Yamamoto[1),5)], Ayumi Hirano-Iwata[2),5)], Takashi Tanii[3)], Michio Niwano[4),5)]

Break 17:00～17:15

Chair: Kaoru Tamada (17:15～18:45)

1Cp07 《INVITED》 Model biological membrane combining patterned lipid bilayer and nanometric gap structure

([1]Kobe Univ.) ○Kenichi Morigaki[1], Koji Ando[1], Masashi Tanabe[1]

1Cp09 Packing Density of Glass-Supported Phosphatidylcholine Bilayers ([1]NIMS) ○Chiho Kataoka[1]

1Cp10 Evaluation of the interaction between amyloid beta and lipid membranes by means of ToF-SIMS
([1]Seikei Univ., [2]Okayama Univ., [3]NIMS) ○Yuta Yokoyama[1], Toshinori Shimanouchi[2], Hideo Iwai[3], Satoka Aoyagi[1]

1Cp11 High resolution fluorescence imaging of mixed monolayers composed of self-assembled metal nano particles
([1]Fac. Sci., Dept. Chemistry, Kyushu Univ., [2]Inst. Materials Chemistry Eng., Kyushu Univ., [3]Kyushu Univ. Molecular System Device Leading Educational Center) ○Kyohei Tagomori[1], Kaisei Terada[1], Ayumi Isijima[1], Sihomi Masuda[1], Pangpang Wang[3], Sou Ryuzaki[2], Koichi Okamoto[2], Kaoru Tamada[2]

1Cp12 Modification of Gold Nanoparticle in a Neuron and SEM Observation
([1]NTT Basic Res. Labs., [2]Univ. Oxford)
○Toichiro Goto[1], Nahoko Kasai[1], Koji Sumitomo[1], Hiroshi Nakashima[1], Jason Brown[2], David Sharp[2], John Ryan[2]

【Room D】 9:15～18:45

SSSJ “Surface Analysis & Characterization”

Chair: Tomoko Shimizu(9:15～10:45)

1Da01 《INVITED》 Development of novel SPM technique for observing the surface magnetism at the atomic scale
([1]Osaka Univ.) ○Yasuhiro Sugawara[1]

1Da03 Analysis of X-ray induced force components in force spectra obtained by X-ray aided NC-AFM(XANAM)
([1]Grad. Sch. Eng., Nagoya Univ., [2]Catalysis Res. Center, Hokkaido Univ., [3]ICU, [4]KEK-PF)
○Shushi Suzuki[1], Shingo Mukai[2], Wang-Jae Chun[3], Masaharu Nomura[4], Kiyotaka Asakura[2]

1Da04 Compositional analysis of single-layer $Mo_{1-x}W_xS_2$ alloy based in-plane heterostructure using STM
([1]Univ. Tsukuba, [2]Tokyo Metropolitan Univ.) ○Hiroyuki Mogi[1],Tomoki Koyama[1],Yu Kobayashi[2], Yasumitsu Miyata[2], Syoji Yoshida[1], Osamu Takeuchi[1], Hidemi Shigekawa[1]

1Da05R Chemical Identification on the Si-Ge Intermixed Surfaces by Non-Contact Atomic Force Microscopy
([1]Grad. Sch. Frontier Sciences, Univ. Tokyo, [2]Grad. Sch. Eng., Osaka Univ.)
○Jo Onoda[1),2)], Kohei Niki[2], Yoshiaki Sugimoto[1),2)]

1Da06R Analysis of ASS-LIB using in situ cross-sectional measurement in inert atmosphere
([1]NIMS, [2]Taiyo Yuden Co., Ltd.) ○Hideki Masuda[1], Nobuyuki Ishida[1], Yoichiro Ogata[2], Daisuke Fujita[1]

Break 10:45～11:00

Chair: Yasuhiro Sugawara(11:00～12:00)

1Da07 High Resolution Imaging of Three-Dimensional Surface Molecular Systems by Atomic Force Microscopy
([1]NIMS) ○Tomoko Shimizu[1], Oleksandr Stetsovych[1], Cesar Moreno[1], Oscar Custance[1]

1Da08 Energy dissipation of AFM studied by computer simulation ([1]Yamaguchi Univ.,[2]Aalto Univ.)
○Yasuhiro Senda[1], Shuji Shimamura[1], Janne Blomqvist[2], Risto Nieminen[2]

1Da09 Simulation for scanning tunneling microscopy based on DFTB method
([1]Advanced Algorithm & Systems Co., Ltd.) ○Toru Ogata[1]

1Da10 Numerical investigation of the viscoelastic contact problem with the finite element method AFM simulator
([1]Advanced Algorithm & Systems Co., Ltd.) ○Hiroo Azuma[1]

Lunchtime 12:00～13:30

Corporate Presentations (VSJ) Cosmotec Corp./Technoport Co., Ltd./VacLab Inc.

SSSJ: Surface Analysis Research Division "Standardization of Surface Chemical analysis; basis and problems in the standardization"

Chair: Shigeo Tanuma (15:30～17:00)

1Dp01 《INVITED》 What is the Standardization of Surface Chemical Analysis?
([1])Kobelco Res. Inst., Inc.) ○Kaoru Sasakawa[1])

1Dp03 《INVITED》 Current Status and Issues of standardization of surface analysis in the industry I
([1])TDK Corp.) ○Katsuaki Yanagiuchi[1])

1Dp05 《INVITED》 Current Status and Issues of standardization of surface analysis in the industry II
([1])Asahi Kasei Corp.) ○Takaharu Nagatomi[1])

Break 17:00～17:15

Chair: Kaoru Sasakawa (17:15～18:45)

1Dp07 《INVITED》 Standardization in depth analysis in surface chemical analysis: look-back opinion of ISO/TC201/SC4 activities ([1])Univ. Tsukuba) ○Mineharu Suzuki[1])

1Dp09 《INVITED》 Standardization of the physical parameters for electron inelastic scattering. Definitions and their background. ([1])NIMS) ○Shigeo Tanuma[1])

1Dp11 《INVITED》 Auger electron spectroscopy analysis of W diffused from WC grain into Co regions near WC/Co interface in cutting tools ([1])Mitsubishi Materials Corp.) ○Hiroshi Okumura[1]), Kazuhisa Mine[1])

1Dp12 《INVITED》 Trend of Standardization in Company: Standardization and problems in quantitative analysis of Cu-Zn alloy using Auger electron spectroscopy ([1])YAZAKI Corp.) ○Yasuo Yamauchi[1])

【Room E】 9:15～18:45

SSSJ: Catalysis Surface Science Division "Surface Scientific Approach to Catalyst Surfaces for Energy Technology"

Chair: Jun Kubota (9:15～10:45)

1Ea01 《INVITED》 Surface Analyses of Solid Oxide Fuel Cell (SOFC) Materials ([1])AIST) ○Katsuhiko Yamaji[1])

1Ea03S Thermal Non-equilibrium Activation of Carbon Dioxide on Cu catalysts
([1])Grad. Sch. Pure and Applied Sciences, Univ. Tsukuba, [2])College of Chemistry, Nankai Univ. (China))
○Jiamei Quan[1]), Takahiro Kondo[1]), Guichang Wang[2]), Junji Nakamura[1])

1Ea04 Surface structure and local electronic states of model catalyst of TiO_2 nano-clusters supproted on Au(111) studied by STM/STS ([1])Univ. Tsukuba, [2])AIST) ○Junpei Konno[1]), Rafael Yoshinori Kosaka[1]), Tadahiro Fujitani[2]), Takahiro Kondo[1]), Junji Nakamura[1])

1Ea05 《INVITED》 Toward Elucidation of Surface and Interface Characteristics in Future Energy Technologies
([1])Inamori Frontier Res. Center, Kyushu Univ.) ○Michihisa Koyama[1])

Break 10:45～11:00

Chair: Junji Nakamura (11:00～12:00)

1Ea07Y Operando Observation of Oxygen Evolution Catalyst by X-ray Absorption Spectroscopy using Hard, Tender, and Soft X-rays ([1]Keio Univ., [2]IMS) ○Masaaki Yoshida[1], Sho Onishi[1], Yosuke Mitsutomi[1], Miwa Kawamura[1], Masanari Nagasaka[2], Hayato Yuzawa[2], Nobuhiro Kosugi[2], Hiroshi Kondoh[1]

1Ea08 Direct Observation of active species of Cobalt-borate Oxygen Evolution Catalyst by Soft X-ray Absorption Spectroscopy ([1]Keio Univ., [2]IMS) ○Yosuke Mitsutomi[1], Masaaki Yoshida[1], Masanari Nagasaka[2], Hayato Yuzawa[2], Nobuhiro Kosugi[2], Hiroshi Kondoh[1]

1Ea09 《INVITED》 Operando characterization of PEFC electrocatalysts by time/space-resolved XAFS ([1]Res. Center for Materials Sci., Nagoya Univ.) ○Mizuki Tada[1]

Lunchtime 12:00～13:30

Corporate Presentations (VSJ) Sato Vac Inc./Okazaki Manufacturing Co./Tokyo Electronics Co., Ltd.

SSSJ: SR Surface Science Research Division "X-ray Free Electron Laser for Materials Research"

Chair: Ken-ichi Ozawa (15:30～17:00)

1Ep01 《INVITED》 X-Ray Free Electron Laser: Future Perspective ([1]RIKEN) ○Tetsuya Ishikawa[1]

1Ep03 《INVITED》 Jitter measurement for femtoseconds time-resolved measurement using XFELs ([1]Japan Synchrotron Radiation Res. Inst.) ○Tetsuo Katayama[1]

1Ep05 《INVITED》 Visualization of birth of molecular by a molecular movie with ultrafast x-ray ([1] KEK) ○Shunsuke Nozawa[1]

Break 17:00～17:15

Chair: Kiyotaka Asakura (17:15～18:45)

1Ep07 《INVITED》 Hard X-ray Photo Electron Spectroscopy Experiment using X-ray Free Electron Laser --- Towards Femtosecond Time-Resolved Observation of Transient Electronic States in Condensed Matter --- ([1]RIKEN SPring-8 Center) ○Masaki Oura[1]

1Ep09 《INVITED》 Dynamics of structure and electronic states of photocatalyst by time-resolved XAFS ([1]IMS) ○Yohei Uemura[1]

1Ep11 《INVITED》 Ultrafast dynamics studied by time-resolved x-ray diffraction ([1]ISSP, Univ. Tokyo) ○Hiroki Wadati[1]

【Room F】 9:15～18:15

Joint Session "Theoretical and Practical Aspects of Semiconductors for Electronics"

Chair: Daisuke Takeuchi (9:15～10:45)

1Fa01 《INVITED》 Physics in Interfaces of Widegap Semiconductor MOSFET ([1]Grad. Sch. Eng., Nagoya Univ.) ○Kenji Shiraishi[1]

1Fa03 Real-Time Measurement of Hole Concentration on H-Terminated Diamond Surface during NO_2 Molecular Adsorption ([1]Saga Univ.) ○Kenji Hanada[1] and Makoto Kasu[1]

1Fa04 Flattening of Ge surfaces in water by catalytic activity of metals enhancing oxygen reduction reaction ([1]Osaka Univ.) ○Kenta Arima[1],Tatsuya Kawase[1],Yusuke Saito[1], Kentaro Kawai[1], Yasuhisa Sano[1], Mizuho Morita[1],Kazuto Yamauchi[1]

1Fa05 Ultrafast Electron Dynamics on Photo-Excited Ge(111)-c(2×8)

([1]Inst. Scientific and Industrial Res., Osaka Univ.) ○Jun'ichi Kanasaki[1]

1Fa06 Pure-mechanical polishing method for atomically flat surface of cross-section of 4H-SiC(0001) sample and the long-period structure observed by Atomic Force Microscopy in ambient air

([1]NISSAN ARC, Ltd.) ○Takaya Fujita[1]

Break 10:45～11:00

Chair: Makoto Kasu (11:00～12:00)

1Fa07Y Evaluation of dislocations in HVPE GaN single crystal by KOH etching with Na_2O_2 additive and cathodoluminescence mapping

([1]Japan Fine Ceramics Center, [2]Nagoya Inst. Technol., [3]Yamaguchi Univ.)

○Yongzhao Yao[1], Yukari Ishikawa[1,2],Yoshihiro Sugawara[1], Daisaku Yokoe[1], Masaki Sudo[2], Narihito Okada[3], Kazuyuki Tadatomo[3]

1Fa08 Characterization of dislocations in GaN layer formed on Si(111) with AlGaN/AlN strained layer superlattice

([1]Japan Fine Ceramics Center, [2]Nagoya Inst. Technol.)

○Yoshihiro Sugawara[1], Yukari Ishikawa[1], Arata Watanabe[2], Makoto Miyoshi[2], Takashi Egawa[2]

1Fa09 《INVITED》 Numerical analysis on crystal growth of semiconductors

([1]RIAM, Kyushu Univ.) ○Koichi Kakimoto[1]

Lunchtime 12:00～13:30

Corporate Seminar (SSSJ) THERMO RIKO CO., LTD.

SSSJ: Research Division of "Science of Friction" "Heat and Friction"

Chair: Naruo Sasaki (15:30～18:15)

1Fp01 《INVITED》 Ballistic phonon thermal conductance of graphene and graphene nanoribbons

([1]Dept. Eng. Sci., Univ. Electro-Communications (UEC-Tokyo), [2]JST-CREST) ○Jun Nakamura[1,2]

1Fp03 《INVITED》 Heat conduction at the nanoscale ([1]Univ. Tokyo) ○Junichiro Shiomi[1]

1Fp05 《INVITED》 Thermal Transport and Thermielectric Properties of Low-Dimensional Nanostructures

([1]Tokyo Univ. Sci.) ○Takahiro Yamamoto[1]

Break 17:00～17:15

1Fp07 《INVITED》 Thermal conduction control by thermal phononics

([1]CIRMM, Inst. Industrial Sci., Univ. Tokyo, [2]Inst. Nano Quantum Information Electronics, Univ. Tokyo)

○Masahiro Nomura[1,2]

1Fp09 《INVITED》 Energy dissipation at MoS_2(0001) ([1]Aichi Univ. Education) ○Kouji Miura[1]

【Room G】 9:15～18:30

VSJ "Vacuum Science & Technology (VST)"

Chair: Kazuhiko Mase (9:15～10:45)

1Ga01 《INVITED》 National Synchrotron Light Source-II and Its Insertion Devices

([1]Brookhaven National Lab.) ○Toshiya Tanabe[1], Charles Kitegi[1], Dean Hidas[1], Marco Musardo[1], Yoshiteru Hidaka[1], Charles Hetzel[1], Hsiao-Chaun Hseuh[1]

1Ga03 SuperKEKB vacuum system in the final stage of the construction

([1] KEK) ○Yusuke Suetsugu[1], Kyo Shibata[1], Takuya Ishibashi[1], Ken-ichi Kanazawa[1], Mitsuru Shirai[1], Shinji Terui[1], Hiromi Hisamatsu[1]

1Ga04 Detection of electron beam with a thin gas sheet

([1]JAEA) ○Norio Ogiwara[1], Yusuke Hikichi[1], Junichiro Kamiya[1], Michikazu Kinsho[1]

1Ga05 The performance of a sample transfer vessel with a battery drive ion pump

([1]Kyushu Synchrotron Light Res. Center, [2]National Inst. Information and Communications Technol.) ○Eiichi Kobayashi[1], Shukichi Tanaka[2], Toshihiro Okajima[1]

1Ga06 Gas species dependence of flow rate through a cramped capillary type leak artefact

([1]National Metrology Inst. Japan (NMIJ), AIST) ○Kenta Arai[1], Hajime Yoshida[1], Tokihiko Kobata[1]

Break 10:45～11:00

Chair: Namio Matuda (11:00～12:00)

1Ga07 Gas permeation and desorption measurement for clay film "Claist" and clay-lignin hybrid film

([1]AIST, National Metrology Inst. Japan, [2]AIST, Res. Inst. Chemical Process Technol., [3]AIST, Flexible Electronics Res. Center) ○Hajime Yoshida[1], Kenta Arai[1], Tokihiko Kobata[1], Ryo Ishii[2], Mami Suzuki[2], Takashi Nakamura[2], Osamu Tanaike[2], Takeo Ebina[2], Manabu Yoshida[3]

1Ga08 The thermal desorption properties of the new duplex stainless steel

([1]Physical Electronics Eng. Lab., Grad. Sch., Yamaguchi Univ., [2]Nippon Steel & Sumikin Stainless Steel Corp., [3]North Hillz Welding Industry) ○Kengo Kuroki[1], Junpei Inutsuka[2], Shinji Tsuge[2], Noriaki Kitasaka[3], Tomoki Kurisu[1], Setsuo Yamamoto[1]

1Ga09 HS/GC/MS analysis of the pollutant gas generated from rubber gloves to treat vacuum components

([1]JEOL) ○Makoto Okano[1], Kouji Okuda[1], Noriyuki Inoue[1], Tomoshige Satou[1], Shinichi Kitamura[1], Hiroaki Okuda[1]

1Ga10 Measurement of local temperature around the impact points of fast ions

([1]Dept. Micro Eng., Kyoto Univ., [2]Takasaki Advanced Radiation Res. Inst., JAEA, [3]Inst. Integrated Cell-Material Sciences, Kyoto Univ.) ○Shota Matsuzaki [1], Hiroaki Hayashi[1], Takumi Kitayama[1], Kaoru Nakajima[1], Kenji Kimura[1], Kazumasa Narumi[2], Yuichi Saitoh[2], Masahiko Tsujimoto[3]

Lunchtime 12:00～13:30

Corporate Seminar (SSSJ: Advance Soft Corporation)

Joint Session "Synthesis and Properties of Carbon Nanomaterials"

Chair: Yoshikazu Homma (15:30～17:00)

1Gp01 《INVITED》 Analysis on the Reduction Process of a Coated Graphene-Oxide for Recovering Mobility

([1]Grad. Sch. Frontier Sciences, Univ. Tokyo) ○Koichiro Saiki[1], Seiji Obata[1]

1Gp03 Synthesis of nanodiamond films on Si(100) surface utilizing the dc methane plasma sheath

([1]Kyushu Inst. Technol., Grad. Sch. Life Sci. Systems, [2]Ube National College of Technol., [3]Kyushu Kyoritsu Univ. Res. Inst.) ○Kazuki Uchida[1], Daiki Shutoh[1], Noriko Soi[1], Masamichi Naitoh[1], Tomonori Ikari[2], Tatsuzo Nagai[3], Fumiya Shoji[3]

1Gp04 Operando spectromicroscopy on access region of graphene transistor

([1]RIEC, Tohoku Univ.,[2]IMRAM, Tohoku Univ.,[3]KEK-PF,[4]SRRO, Univ. Tokyo) ○Hirokazu Fukidome[1], Kazutoshi Funakubo[1], Maki Suemitsu[1], Naoka Nagamura[2], Koji Horiba[3], Masaharu Oshima[4]

1Gp05 Multi-scale characterization of singlelayer graphene on Pt(111) by surface precipitation of doped carbon

([1]NIMS) ○Daisuke Fujita[1)], Taliya Gunawansa[1)], Keisuke Sagisaka[1)], Nobuyuki Ishida[1)], Hideki Masuda[1)], Keiko Onishi[1)], Kyosuke Matsushita[1)]

1Gp06 Direct observation of magnetic proximity effect in graphene/magnetic oxides structures by SPMDS

([1]JAEA, [2]NIMS, [3]Aalto Univ. (Finland), [4]Kyungpook Univ. (Korea)) ○Seiji Sakai[1),2)],Sayani Majumdar[3)], Shiro Entani[1)], Hiroshi Naramoto[1)], Pavel Avramov[1),4)], Yasushi Yamauchi[1),2)]

Break 17:00～17:15

Chair: Koichiro Saiki (17:15～18:30)

1Gp07R Etching-free transfer of highly-ordered bottom-up graphene nanoribbon

([1]NTT Basic Res. Lab., [2]Kwansei Gakuin Univ.)

○Manabu Ohtomo[1)], Yoshiaki Sekine[1)], Hiroki Hibino[1),2)], Hideki Yamamoto[1)]

1Gp08S Numerical simulation on electronic transport in edge-disordered graphene nanoribbons toward device design

([1]Dept. Electrical Eng., Tokyo Univ. Sci., [2]Res. Inst. Sci. Technol. (RIST), Tokyo Univ. Sci.) ○Kengo Takashima[1)], Satoru Konabe[2)], Takahiro Yamamoto[1)]

1Gp09 Selective adsorption of Br ions into the micropore of single-walled carbon nanotube

([1]Grad. Sch. Natural Sci. Technol., Okayama Univ.,

[2]Grad. Sch. Natural Sci. Technol., Niigata Univ.)

○Takahiro Ohkubo[1)], Masayasu Nishi[1)], Atsushi Itadani[2)], Yasushige Kuroda[1)]

1Gp10S Response of salt concentration for single-walled carbon nanotubes coated with poly(N-isopropylacrylamide)

([1]Dept. Math. Sci. Education, Grad. Sch. Math. Sci. Education, Tokyo Univ. Sci.,[2]Inst. Advanced BioMedical Eng. Sci., Tokyo Women's Medical Univ.,[3]Dept. Physics, Grad. Sch. Sci., Tokyo Univ. Sci.)

○Katsuki Izumi[1)], Yoshikazu Kumashiro[2)], Masahiro Ito[3)], Shusuke Oura[3)], Teruo Okano[2)], Yoshikazu Homma[3)], Kazuo Umemura[3)]

1Gp11 Electrical conductivity of tripodal molecules on graphite by conductive probe atomic force microscopy

([1]Dept. Chemistry, Grad. Sch. Sci., Osaka Univ., [2]Inst. Scientific and Industrial Res., Osaka Univ.)

○Yoichi Otsuka[1)], Yutaka Ie[2)], Yoshio Aso[2)], Takuya Matsumoto[1)]

【Room H】 9:15～18:30

SSSJ "Surface Physical Properties"

Chair: Satoshi Watanabe(9:15～10:45)

1Ha01 Photoexcited carrier behaviour at the fullerene/titania interface studied by time-resolved photoelectron spectroscopy

([1]Tokyo Inst. Technol., [2]Sophia Univ., [3]ISSP, Univ. Tokyo) ○Ken-ichi Ozawa[1)], Masato Emori[2)], Ryu Yukawa[3)], Kazuma Akikubo[3)], Hiroshi Sakama[2)], Susumu Yamamoto[3)], Iwao Matsuda[3)]

1Ha02 Growth of vanadium oxide ultrathin films on Ag(100) ([1]Rikkyo Univ., [2]Tokyo Inst. Technol.)

○Kazuyuki Edamoto[1)], Takuya Nakamura[1)], Yuichi Sugizaki[1)], Ken-ichi Ozawa[2)]

1Ha03 Modification of Electronic State of DNTT Monolayer on Au(111) Surface via Verifying the Molecular Arrangement

([1]Univ. Tsukuba, [2]AIST, [3]NIMS WPI-MANA, [4]Chiba Univ.) ○Yuri Hasegawa[1)], Takuya Hosokai[2)], Yutaka Wakayama[3)], Koswattage K.R.[4)], Yoichi Yamada[1)], Masahiro Sasaki[4)]

1Ha04 Structural inversion of pi-conjugated molecules adsorbed on Au(111)

([1]Dept. of Chem., Tokyo Inst. Tech., [2]IMS, [3]Division of Appl. Chem., Osaka Univ.)

○Shintaro Fujii[1], Maxim Ziatdinov[1], Manabu Kiguchi[1], Shuhei Higashibayashi[2], Hidehiro Sakurai[3]

1Ha05 《SSSJ Review Paper Award》 Observation of H-Bond Dynamics on a Metal Surface

([1]Dept. Chemistry, Grad. Sch. Sci., Kyoto Univ.) ○Hiroshi Okuyama[1]

Break 10:45～11:00

Chair: Hiroshi Okuyama (11:00～12:00)

1Ha07S It is outbreak mechanism of friction and superlubricity in the one-dimensional Frenkel-kontorova model

([1]Yamaguchi Univ., Grad. Sch. Sci. Eng.)

○SatoDaigo Sato[1], Yasuhiro Senda[1], Shuji Shimamura[1]

1Ha08R Theoretical Study on Metal-Insulator Controlling by Atomic Adsorption on Ti_2CO_2 MXene Material

([1]Dept. Materials Eng., Univ. Tokyo) ○Yasunobu Ando[1], Satoshi Watanabe[1]

1Ha09Y Phase transition and electrical conduction of In/Si(111)-(4×1)

([1]Grad. Sch. Sci., Kyoto Univ.) ○Shinichiro Hatta[1], Hiroshi Okuyama[1], Tetsuya Aruga[1]

1Ha10 Viscoelastic Analyses of Soft Materials by Atomic Force Microscopy

([1]Dept. Organic and Polymeric Materials, Tokyo Inst. Technol., [2]WPI Advanced Inst. Materials Res., Tohoku Univ.)

○Ken Nakajima[1,2], Makiko Ito[2]

Lunchtime 12:00～13:30

SSSJ "Surface Physical Properties"

Chair: Kazuyuki Sakamoto (15:30～17:00)

1Hp01S Effects of K adsorption on surface states and quantum well states of Bi thin film

([1]ISSP, Univ. Tokyo, [2]NSRRC, [3]Nat'l. Tsing Hua Univ., [4]Schl. of Sci. Univ. Tokyo)

○Suguru Ito[1], Takashi Someya[1], Wei-Chuan Chen[2], Cheng-Maw Cheng[2], Chung-Huang Lin[3], Takushi Iimori[1], Bao-Jie Feng[1], Akari Takayama[4], Fumio Komori[1], Shu-Jung Tang[3], Iwao Matsuda[1]

1Hp02S One-dimensional edge state of deposited Bismuth film on Si(111)

([1]Dept. Advanced Materials Sci., Univ. Tokyo, [2]MANA NIMS)

○Naoya Kawakami[1], Chun-Liang Lin[1], Maki Kawai[1], Ryuichi Arafune[2], Noriaki Takagi[1]

1Hp03S Circular dichroism two-photon photoemission study of Rashba effect in image potential state of Au(001)

([1]Deparment of Frontier Science, Univ. Tokyo, [2]MANA NIMS)

○Takeo Nakazawa[1,2], Ryuichi Arafune[2], Noriaki Takagi[1], Maki Kawai[1]

1Hp04 Observation of superconductivity on the Rashba type surface reconstruction (Tl, Pb)/Si(111) by the in situ electrical transport measurements

([1]Dept. Physics, Univ. Tokyo, [2]IACP FEB RAS, [3]FEFU, [4]VSUES)

○Satoru Ichinokura[1], A.V. Matetskiy[2,3], L.V. Bondarenko[2,3], A.Y. Tupchaya[2,3], D.V. Gruznev[2,3], A.V. Zotov[2,3,4], Rei Hobara[1], Ryota Akiyama[1], Akari Takayama[1], A.A. Saranin[2,3], Shuji Hasegawa[1]

1Hp05S Electronic state and electric conduction of Bi_2Te_3 thin films on Si(111)

([1]Kyoto Univ.) ○Ko Obayashi[1], Shinichiro Hatta[1], Hiroshi Okuyama[1], Tetsuya Aruga[1]

1Hp06 Observation of current-induced spin polarization on Bi-based topological insulators

([1]JAEA) ○Atsuo Kawasuso[1], Teru Li[1], Masaki Maekawa[1], Hiroshi Abe[1], Atsumi Miyashita[1]

Break 17:00～17:15

Chair: Ryuichi Arafune (17:15～18:30)

1Hp07 Dielectric relaxation and crystallization of ferroelectric amorphous ice film
([1]Dept. Chemistry, Grad. Sch. Sci., Kyoto Univ.) ○Toshiki Sugimoto[1], Norihiro Aigo[1], Yuji Otsuki[1], Kuniaki Harada[1], Fumiaki Kato[1], Kazuya Watanabe[1], Yoshiyasu Matsumoto[1]

1Hp08Y Structural water layer on graphene surfaces
([1]Univ. Electro-Communications, [2]JST-CREST) ○Akira Akaishi[1,2], Jun Nakamura[1,2]

1Hp09 Probing of the electron-phonon scattering at the empty bands of graphite by means of the HREELS
([1]Inst. Scientific and Industrial Res., Osaka Univ., [2]ISSP, Univ. Tokyo)
○Shin-ichiro Tanaka[1], Kozo Mukai[2], Jun Yoshinobu[2]

1Hp10 Dynamics of the secondary electron emission: Investigation by means of the electron-electron coincidence spectroscopy ([1]Inst. Scientific and Industrial Res., Osaka Univ., [2]Inst. Materials Structure Sci., KEK)
○Shin-ichiro Tanaka[1], Kazuhiko Mase[2]

1Hp11 Edge-state-induced stabilization of impurities in graphene ([1]Dept. Eng. Sci., UEC-Tokyo), [2]JST-CREST)
○Yuuki Uchida[1,2], Akira Akaishi[1,2], Jun Nakamura[1,2]

【Multi-Purpose Hall】 13:30～15:30

Poster Session "Joint Session 1P01～1P27;VSJ, 1P28～1P71;SSSJ"

Chair: Ken Nakamura, Toshitaka Kubo (Odd Number;13:30～14:30, Even Number;14:30～15:30)

1P01 High performance spin-polarized photocathode and application for electron microscopy
([1] KEK, [2]Aichi Synchrotron Radiation Center, [3]Fundamental Electronics Res. Inst., Osaka Electro-Communication Univ.)
○Xiuguang Jin[1], Naoto Yamamoto[1], Atsushi Mano[2], Yoshikazu Takeda[2], Masahiko Suzuki[3], Tsuneo Yasue[3], Takanori Koshikawa[3]

1P02 Pressure measurements of roll-to-roll sputtering system with micro thin film sensor
([1]Okano Works, Ltd, [2]Ogawa Creation Res. Lab., [3]Osaka City Univ.)
○Shuichi Tajiri[1], Takanori Onishi[1], Toshikazu Okada[1], Yukiko Okano[1], Soichi Ogawa[2], Hiroshi Mima[3]

1P03 Pressure measurements with micro thin film sensor during sputtering process
([1]Okano Works, Ltd, [2]Ogawa Creation Res. Lab., [3]Osaka City Univ.)
○Takanori Onishi[1], Shuichi Tajiri[1], Toshikazu Okada[1], Yukiko Okano[1], Soichi Ogawa[2], Hiroshi Mima[3]

1P04 Optical Properties of the AlN/TiN/AlN Nano Multilayer Film by Sputtering
([1]Ogawa Creation Res. Lab., [2]E.M.D., [3]Technol. Res. Inst Osaka Prefecture)
○Soichi Ogawa[1], Masatoshi Kondo[1], Akinori Ebe[2], Yoshiharu Kakehi[3], Yusuke Kondo[3]

1P05V Pressure and Material Dependability of Target Race Track Profile during Magnetron Sputtering 2
([1]Surface & Thin Film Physics Lab., Dept. Materials and Life Sci., Seikei Univ.)
○Yudai Saito[1], Ryuhei Kamata[1], Takeo Nakano[1]

1P06 Effect of radio frequency substrate biasing on phase transition oxide films in reactive sputtering
([1]Course of Electrical and Electronic System Eng., Tokai Univ.)
○Kui Su[1], Kazuki Yuzurihara[1], Nurul Hanis Azhan[1], Kunio Okimura[1]

1P07V Preparation of VO_2(B) thin films on Mo foil by reactive sputtering and its application to lithium ion battery electrodes ([1]Course of Electrical and Electronic System Eng., Tokai Univ.)
○Kui Su[1], Nurul Hanis Azhan[1], Kunio Okimura[1]

1P08 Formation and properties of the Zirconium nitride thin film by the DC magnetron sputtering
([1)]Grad. Sch., Yokohama National Univ.)
Hiroshi Iwata[1)], Daiki Kato[1)], Masashi Furusawa[1)], ○Hiroki Ishii[1)], Takao Sekiya[1)], Masatoshi Tanaka[1)]

1P09V Effect of the TaON layer on photocatalyst of the TiO_2/TaON/Cu_2O film by the reactive magnetron sputtering ([1)]Kougakuin Univ. Grad. Sch. Eng. Electrical Eng. and Electrons, [2)]Kougakuin Univ. Fac. Eng. Dept. Electrical Eng.) ○Toshiya Souma[1)], Ichiro Takano[2)]

1P10V The TiO_2 Layer Effect of Cu_2O/NiO/TiO_2 Solar Cells Prepared by Reactive Magnetron Sputtering
([1)]Kogakuin Univ. Grad. Sch. Electrical Eng. and Electronics, [2)]Kogakuin Univ. Fac. Eng. Dept. Electrical Eng.) ○Tomokazu Tsuchiya[1)], Ichiro Takano[2)]

1P11 Zirconium oxide thin films prepared by the reactive sputtering
([1)]Yokohama National Univ. Sekiya Lab., [2)]Yokohama National Univ. Tanaka Lab.)
○Daiki Kato[1)], Hiroki Ishii[1)], Masashi Furusawa[1)], Hiroshi Iwata[2)], Takao Sekiya[1)], Masatoshi Tanaka[2)]

1P12V Universality of target mode transition behavior for reactive sputtering
([1)]Dept. Materials and Life Sci., Seikei Univ., [2)]AIST)
○Kosuke Kimura[1)], Masato Takeuchi[1)], Yuto Iijima[1)], Masayoshi Nagao[2)], Hisashi Ohsaki[2)], Takeo Nakano[1)]

1P13V Effects of Inductively-coupled-plasma Assistance on Film Structure and Properties in dc and Pulsed-dc Sputter-deposition of Group 4 Metal Thin Films
([1)]Advanced Material Sci. Center, Kanazawa Inst. Technol.)
○Yuuta Bohya[1)], Saori Tanaka[1)], Eiji Kusano[1)]

1P14V Crystal orientation of tungsten thin films prepared by rf-magnetron sputtering at different substrate positions ([1)]Grad. Sch. Eng., Kyoto Univ.)
○Hirofumi Fujiwara[1)], Hiroshi Tsuji[1)], Yasuhito Gotoh[1)]

1P15V RF Power Dependence for Ni Films prepared on a Flexible Substrate Material and Si Substrate Using Magnetron Sputtering with Multipolar Magnetic Plasma Confinement Assisted by Inductively Coupled Plasma ([1)]Hiroshima Inst. Technol.) ○Sho Miyashita[1)], Tatsuo Itahashi[1)], Hiroshi Toyota[1)]

1P16 Copper filling into trenches with Mn layer deposited by high-vacuum magnetron sputtering method
([1)]Tokyo Univ. Sci.) ○Masatoshi Itoh[1)], Shigeru Saito[1)]

1P17 Thickness evaluation of columnar-growth microstructure in CoPt-based alloy-oxide granular films for perpendicular magnetic recording media
([1)]Dept. Intelligent Systems Eng., National Inst. Technol., Ichinoseki College, [2)]Dept. Electronic Eng., Grad. Sch. Eng., Tohoku Univ.)
○Shingo Sasaki[1)], Yuzo Sasaki[2)], Shin Saito[2)]

1P18V Control of solar-absorbing and infrared-emitting properties with $FeSi_2$ thin film
([1)]Kyoto Univ.) ○Shoma Masunaka[1)], Kensuke Nishiura[1)], Kyoko Namura[1)], Motofumi Suzuki[1)]

1P19V Electrical and optical properties of GCZO transparent conducting film for a solar cell
([1)]Osaka Sangyo Univ.) ○Chihaya Murakami[1)], Satoru Hirayama[1)], Takanori Aoki[1)], Akio Suzuki[1)]

1P20 Semiconducting properties of multilayered single-crystalline CVD diamond having heavily boron-doped thin layers with different structures
([1)]Grad. Sch. Eng., Osaka Univ.) ○Tomohiro Tabuchi[1)], Osamu Maida[1)], Toshimichi Ito[1)]

1P21 Fabrication of single-crystalline CVD diamond with periodic thin columnar structure and its application to particle detectors
([1)]Grad. Sch. Eng., Osaka Univ.) ○Akito Shimizu[1)], Osamu Maida[1)], Toshimichi Ito[1)]

1P22V Hydrophilzation of polyimide surface using Inward plasma
([1)]Chiba Inst. Technol., [2)]Sunyou, [3)]NIMS, [4)]AIST) ○Ryo Kanou[1)], Ryouhei Satou[1)], Hiroshi Suga[1)], Satoshi Takahashi[2)], Yuya Shirayama[2)], Shun'ichiro Shimbori[2)], Norimichi Watanabe[3)], Tetsuo Shimizu[4)]

1P23 Production of metal plasmas for endohedral metallofullerene synthesis
([1)]National Inst. Technol., Toyama College, [2)]Tateyama Machine Co., Ltd.)

○Toyohisa Asaji[1)], Koharu Kanayama[1)], Takeshi Hitobo[2)]

1P24V The gas ratio dependence of carbon thin films prepared by ion beam assisted deposition
([1)]Kogakuin Univ. Grad. Sch. Electrical Eng. and Electronics, [2)]Kogakuin Univ. Fac. Electrical Eng. and Electronics) ○Tsuyoshi Inoue[1)], Ichiro Takano[2)]

1P25 Dependence of ion scattering on the surfaces work function
([1)]Yokohama National Univ.) ○Kyohei Tashiro[1)], Masako Shindo[1)], Shingo Ishiwata[1)], Ken-ichi Shudo[1)]

1P26 Time-of-flight mass spectroscope for field ionized ions ([1)]Grad. Sch. Eng., Kyoto Univ.)
○Yasuhito Gotoh[1)], Hiroshi Tsuji[1)], Tasuku Sone[1)], Yuki Haneji[1)]

1P27 Detection of mass and charge of ion beam by using charge changing and energy analysis together with time-of-flight mass spectroscopy ([1)]Dept. Electronic Sci. Eng., Kyoto Univ.)
○Hiroshi Tsuji[1)], Yu Tsudome[1)], Yasuhito Gotoh[1)]

1P28 Fe_2P(10-10) core-level spectroscopy study
([1)]Dept. Chemistry, Fac. Sci., Rikkyo Univ., [2)]Dept. Chemistry and materials Sci., Tokyo Inst. Technol.) ○Yuichi Sugizaki[1)], Chiharu Yamato[1)], Hiroki Motoyama[1)], Kazuki Tamenari[1)], Kazuyuki Edamoto[1)], Ken-ichi Ozawa[2)]

1P29S Photoelectron spectroscopy study of adsorption-induced charge transfer between organic molecules and oxide surfaces: a case of metal phthalocyanine adsorption on the $SrTiO_3$ surface
([1)]Hirosaki Univ., [2)]Institut des Nanosciences de Paris, Universite Pierre et Marie Curie-Paris 6, [3)] KEK, [4)]Tokyo Inst. Technol.)
○Yukako Kimura[1)], Marie D'Angelo[2)], Hiroo Kato[1)], Kazuhiko Mase[3)], Kenichi Ozawa[4)]

1P30 Hydrogen adsorption on clean Si(110)-16×2 single domain surface studied by X-ray photoelectron and photoelectron-Auger-electron coincidence spectroscopies
([1)]Dept. Chemistry, Fac. Sci., Ehime Univ., [2)]Inst. Materials Structure Sci., KEK, [3)]SOKENDAI (The Graduate Univ. for Advanced Studies)
○Takuhiro Kakiuchi[1)], Yuji Nakano[1)], Shin-ichi Nagaoka[1)], Kazuhiko Mase[2),3)]

1P31 Hafnium adsorption on clean Si(110)-16×2 single domain surface studied by low energy electron diffraction and electron spectroscopy ([1)]Dept. Chemistry, Fac. Sci., Ehime Univ., [2)]Inst. Materials Structure Sci., KEK, [3)]SOKENDAI (The Graduate Univ. for Advanced Studies)
○Takuhiro Kakiuchi[1)], Takuma Katsuragi[1)], Yuji Nakano[1)], Shin-ichi Nagaoka[1)], Kazuhiko Mase[2),3)]

1P32 Oxygen reduction reaction on nitrogen-doped graphene: Dependence of dopant density
([1)]Dept. Eng. Sci., Univ. Electro-Communications, [2)]JST-CREST)
○Haruyuki Matsuyama[1),2)], Akihide Ichikawa[1),2)], Akira Akaishi[1),2)], Jun Nakamura[1),2)]

1P33 A Study on the Formation of Iron Clusters on Si(111)-7×7 surfaces
([1)]Materials Sci. NAIST, [2)]CAS, [3)]ISSP, [4)]SIT)
○Haoyu Yang[1)], Kenichi Tanaka[2)], Fumio Komori[3)], DongYing Ju[4)], Ken Hattori[1)], Hiroshi Daimon[1)]

1P34S Multilayer graphene effect on superlubric C_{60} molecular bearings
([1)]Dept. Mat. & Life Sci., Seikei Univ., [2)]Dept. Appl. Phys., Univ. Electro-Commun., [3)]Dept. Phys., Aichi Univ. Educ.)
○Sho Imamura[1)], Noriaki Itamura[1)], Fumiko Koyanagi[1)], Tadashi Kon[1)], Masaru Suzuki[2)], Kouji Miura[3)], Naruo Sasaki[2)]

1P35S Nanomechanical imaging of the curved graphene surface
([1)]Dept. Mat. & Life Sci., Seikei Univ., [2)]Dept. Appl. Chem., Osaka Univ., [3)]Dept. Phys., Aichi Univ. Educ., [4)]Dept. Appl. Phys., Univ. Electro-Commun.) ○Masaaki Motohashi[1)], Noriaki Itamura[1)], Fumiko Koyanagi[1)], Tadashi Kon[1)], Hidehiro Sakurai[2)], Kouji Miura[3)], Naruo Sasaki[4)]

1P36R Structures and electronic states of two-dimensional Kondo lattice $CePt_5$/Pt(111) thin films

([1]ISSP, Univ. Tokyo)

○Koichiro Ienaga[1], Sunghun Kim[1], Yukio Takahashi[1], Toshio Miyamachi[1], Fumio Komori[1]

1P37 Observation of Kondo resonance for multi-decker porphyrin molecule by STM

([1]Inst. Multidisciplinary Res. Advanced Materials, Tohoku Univ., [2]Grad. Sch. Sci., Osaka Univ.) ○ZHIKUN QI[1], Ryuki sato[1], Ferdous Ara[1], Yasuyuki Saino[1], Tadahiro Komeda[1], Tomoko Inose[2], Daisuke Tanaka[2], Takuji Ogawa[2]

1P38 Neutron reflectivity measurement on the interface between gold thin film and sufric acid

([1]CROSS Tokai, [2]NIMS, [3]J-PARC/JAEA) ○Mari Mizusawa[1,2], Kenji Sakurai[2], Dai Yamazaki[3], Masayasu Takeda[3]

1P39S Isotope effects on thermal desorption of water from amorphous- and crystalline-ice surfaces: A mechanism of isotope enrichment in space ([1]Dept. Chemistry, Grad. Sch. Sci., Kyoto Univ.)

○Fumiaki Kato[1], Toshiki Sugimoto[1], Kuniaki Harada[1], Kazuya Watanabe[1], Yoshiyasu Matsumoto[1]

1P40R Temperature dependence study of NO oxidation of Ni_2P(10-10) surface

([1]Catalysis Res. Center, Hokkaido Univ.) ○Qiuyi Yuan[1], Hiroko Ariga[1], Kiyotaka Asakura[1]

1P41S In-situ XAFS Measurement of MnO_x Oxygen Evolution Catalyst Containing Methylphosphoric Acid

([1]Keio Univ.) ○Futaba Yamamoto[1], Masaaki Yoshida [1], Yosuke Mitsutomi[1], Hiroshi Kondoh[1]

1P42S Role of Amino Acid Addition to Nickel Phosphate Water Oxidation Catalyst Studied by Electrochemical X-ray Absorption Spectroscopy ([1]Keio Univ.) ○Sho Onishi[1], Masaaki Yoshida[1], Yosuke Mitsutomi[1], Hiroshi Kondoh[1]

1P43 Catalysis of Au fine particles in the oxide thin film ([1]Utsunomiya Univ.) ○Yuhei Minamino[1]

1P44 Cs adsorption behavior of clay minerals using TOF-SIMS

([1]Toukyo Denki Univ., [2]NIMS) ○HIROSHI SHINKAI[1], HIDEAKI KITAZAWA[2], NORIMICHI WATANABE[2], DAISUKE FUJITA[2], HIROHISA YAMADA[2], AKIRA TAMAKI[1]

1P45 Cryostat System for the study of H_2 adsorption at temperatures between 1.8K and 9.0K in Extreme High Vacuum

([1]Dept. Physics, Gakushuin Univ., [2]ULVAC, Inc., [3]ULVAC CRYOGENICS Inc.)

○Kosuke Kubota[1], Yuki Katoh[1], Koichiro Yamakawa [1], Ichiro Arakawa[1], Shuuichi Yamasaki[2], Satoshi Ueno[3], Mitsuki Terashima[3]

1P46 Reaction Kinetics at a Solid / Liquid Interfaces - Reaction on the Surface vs. in Homogeneous Media

([1]National Inst. Technol., Tokyo College, [2]NIMS MANA, [3]NIMS GREEN, [4]Hokkaido Univ.) Shunpei Tsuruta[1], ○Mikio Ito[1], Sou Hiraoka[1], Hidenori Noguchi[2,3,4], Kohei Uosaki[2,3,4]

1P47 Preparation of binary mixed organic monolayers toward functional solid / liquid interfaces

([1]National Inst. Technol., Tokyo College) ○Yuki Matsushita[1], Mikio Ito[1]

1P48 Development of a new type reactor for methanol synthesis at non-equilibrium conditions

([1]Grad. Sch. Pure and Applied Sciences, Univ. Tsukuba)

○Yuuka Amaha[1], Takahiro Oyama[1], Takahiro Kondo[1], Junji Nakamura[1]

1P49S Geometry analysis of hydrocarbon species adsorption on extraordinary sites over nickel surface

([1]Sch. Sci. Technol., Kwansei Gakuin Univ.) ○Yosuke Kotani[1], Teppei Ogura[1]

1P50S The magnetic property control of single molecule magnet using scanning tunneling microscopy

([1]Inst. Multidisciplinary Res. Advanced Materials, Tohoku Univ., [2]Grad. Sch. Sci., Osaka Univ.) ○Ryuki Sato[1], Zhikun Qi[1], Ferdous Ara[1], Yasuyuki Saino[1], Tadahiro Komeda[1], Tomoko Inose[2], Daisuke Tanaka[2], Takuji Ogawa[2]

1P51 Synchrotron radiation photoemission study on oxides formed at Ge(100)2×1 and Ge(111)c(2×8) surfaces

([1]JAEA, [2]Univ. Tsukuba) ○Akitaka Yoshigoe[1], Ryuta Okada[2], Yuden Teraoka[1], Yoichi Yamada[2], Masahiro Sasaki[2]

1P52 Synchrotron radiation photoemission study on oxides formed at Ge(100)2×1 by ambient oxidation
([1]JAEA, [2]Univ. Tsukuba) ○Akitaka Yoshigoe[1], Ryuta Okada[2], Yuden Teraoka[1], Yoichi Yamada[2], Masahiro Sasaki[2]

1P53 Reaction of a N-adsorbed Cu(001) surface with H atoms
([1]ISSP, Univ. Tokyo) ○Takuma Hattori[1], Masamichi Yamada[1], Toshio Miyamachi[1], Fumio Komori[1]

1P54 A sample holder for the study of physisorbed layers on Ag surfaces.
([1]Dept. Physics, Gakushuin Univ.) ○Reo Ezaki[1], Takuya Kusaka[1], Ichiro Arakawa[1], Koichiro Yamakawa[1]

1P55 Adsorption and desorption hysteresis observed for rare gases physisobed on silver surfaces
([1]Dept. Physics, Gakushuin Univ.)
○Takuya Kusaka[1], Ichiro Arakawa[1], Koichiro Yamakawa[1], Reo Ezaki[1], Michiko Jinbo[1]

1P56S Preparation and characterization of fluorine-doped tin oxide (FTO) particles by surface fluorination using fluorine gas
([1]Univ. Fukui)
○Takashi Kimura[1], Miwa Kouno[1], Kaoru Maekawa[1], Jae-Ho Kim[1], Susumu Yonezawa[1], Masayuki Takashima[1]

1P57S Electrochemical formation of ferrocenethiol-monolayer nanodots
([1]Grad. Sch. Chemical Sciences and Eng., Hokkaido Univ., [2]Fac. Sci., Hokkaido Univ., [3]Grad. Sch. Eng., Nagoya Inst. Technol., [4] GREEN, NIMS, [5]JST-PRESTO)
○Yuma Takeuchi[1,3], Kohei Uosaki[1,4], Kei Murakoshi[2], Katsuyoshi Ikeda[3,4,5]

1P58 Surface potential energy change of ultra-thin MgO films on Si(100) by post-annealing
([1]AIT, Akita Industrial Technol. Center) ○Toshio Suzuki[1]

1P59S Quantum chemical calculation of organic semiconductor molecules under an electric field
([1]Dept. Mat. Eng., Univ. Tokyo) ○Tomotaka Moriya[1], Emi Minamitani[1], Satosi Watanabe[1]

1P60S Effects of surface fluorination of Si wafer with F_2 gas on the adhesion between Si and metal film ([1]Univ. Fukui)
○Naoya Ogami[1], Fumihiro Nishimura[1], Keiji Degura[1], Jae-Ho Kim[1], Susumu Yonezawa[1], Masayuki Takashima[1]

1P61 Dependence of diffuse ion species type on basic memory properties in resistive memories
([1]Tottori Univ., [2]Tottori Integrated Frontier Reaerch Center)
○shinya tanaka[1], satoru kisida[1,2], kentaro kinosita[1,2]

1P62 Effect of solid-state polymerization on surface morphology of diacetylene crystals grown by physical vapor transport technique ([1]Aichi Gakuin Univ., [2]Toyota Technol. Inst.)
○Sadaharu Jo[1], Seiya Suzuki[2], Masamichi Yoshimura[2]

1P63 The Electrochemical Behavior of Biological Molecules at SAM-modified Gold Electrodes
([1]National Defense Academy) ○Shinichiro Ozawa[1], Hiroshi Abe[1]

1P64 Determination of the cooperative unit in the phase coexistence region in DMPE Langmuir monolayers
([1]Grad. Sch. Information Sci. Technol., Hokkaido Univ.) ○Naomi Uchida[1], Eiji Hatta[1], Kazuhisa Sueoka[1]

1P65 Formation of artificial cell membranes based on microfabricated silicon substrates
([1]Tohoku Univ., [2]CREST-JST) ○Shun Araki[1,2], Ayumi Hirano[1,2], Hideaki Yamamoto[1,2], Michio Niwano[1,2]

1P66 Development of non-linear optics microscope
([1]Tokyo Inst. Technol., [2]Center for Technol. Innovation; Electronics Res. Development Group Hitachi, Ltd.)
○Hiroko Yoshino[1,2], Sanato Nagata[2], Tomohiro Oka[1,2], Tomihiro Hashizume[1,2]

1P67S Membrane fusion process of proteoliposome containing human ether-a-go-go-related gene channel into supported lipid bilayer ([1]Dept. Environ. Life Sci., Toyohashi Univ. Tech., [2]Grad. Sch. Biomed. Eng., Tohoku Univ., [3]CREST, JST, [4]RIEC, Tohoku Univ., [5]EIIRIS, Toyohashi Univ. Tech.)
○Kohei Fukumoto[1], Miyu Yoshida[2], Ayumi Hirano-Iwata[2,3], Michio Niwano[3,4], Ryugo Tero[1,3,5]

1P68 Morphological observation of lipid bilayers embedding Au nanoparticles

([1]Yokohama National Univ., [2]Tokyo Univ. Technol., [3]Grad. Sch. Biomedical Eng., Tohoku Univ., [4]CREST/JST)

○Naotoshi Sakaguchi[1)], Tomoaki Nakayama[1)], Ryosuke Kimura[1)], Yasuo Kimura[2),4)], Ayumi Hirano-Iwata[3),4)], Toshio Ogino[1),4)]

1P69 Alkali metal adsorption on picene molecular layer

([1]Inst. Applied Physics, Univ. Tsukuba)

○Masahiro Yano[1)], Ryosuke Shimizu[1)], Taimu Tsuboi[1)], Yuri Hasegawa[1)], Yoichi Yamada[1)], Masahiro Sasaki[1)]

1P70 Fabrication of Giant Unilamellar Vesicle and evaluation by micro-pore.

([1]Yokohama National Univ., [2]Tokyo Univ. Technol., [3]Grad. Sch. Biomedical Eng., Tohoku Univ., [4]CREST/JST)

○Tomoaki Nakayama[1),4)], Daichi Yamaura[1),4)], Ryousuke Kimura[1),4)], Naotoshi Sakaguchi[1),4)], Yasuo Kimura[2),4)], Ayumi Hirano-Iwata[3),4)], Toshio Ogino[1),4)]

1P71 《SSSJ Industry Technology Award》 Sekigaisen Dounyu Kanetsusouti

([1]THERMO RIKO CO., LTD.) ○Tomoyoshi Endo[1)]

Wednesday, December 2nd

【Hall A】 9:00～12:00

SSSJ "Award Ceremony・Award Talks"

Award Ceremony (9:00～9:15)

Award Talks(9:15～10:25)

Chair: Yoshikazu Homma(9:15～10:25)

2Aa1 《Surface Science Society Award》 Monitoring of semiconductor surfaces from the inside- Infrared spectroscopy in the multiple internal reflection geometry ([1]Res. Inst. Electrical Communication, Tohoku Univ.) ○Michio Niwano[1)]

2Aa2 《Surface Science Society Award》 Fundamental Science of Nanomaterial Catalysts by state-of-art XAFS

([1]Catalysis Res. Center, Hokkaido Univ.) ○Kiyotaka Asakura[1)]

Joint Session "Keynote Lectures" (English Session)

Chairs: Toshio Ogino and Yoshio Saito (10:30～12:00)

2Aa3 《KEYNOTE》 TiO_2 Photocatalysis, Present Situation and Future Approaches

([1]Tokyo Univ. Sci.) ○Akira Fujishima[1)]

2Aa4 《KEYNOTE》 Creating Active Functionality Utilizing Abundant Elements

([1]Materials and Structures Lab. & Materials Res. Center for Element Strategy, Tokyo Inst. Technol.) ○Hideo Hosono[1)]

【Room B】 9:00～10:25

VSJ "Award Ceremonies・Award Talks"

Award Ceremonies(9:00～9:25)

Award Talks(9:25～10:25)

Chair: Kazuhiko Mase (9:00～10:25)

2Ba1 《VSJ Award for Vacuum Technology》

Development of tabletop scanning electron microscope at ambient atmospheric pressure

([1]Hitachi High-Technologies Corp.) ○Yusuke Ominami[1)]

2Ba2 《VSJ Award for Young Scientists》 Development of a detection method of micro-arc discharge in plasma

processing

(1)AIST) ○Yuji Kasashima[1)], Tatsuo Tabaru[1)], Mitsuo Yasaka[1)], Morito Akiyama[1)], Fumihiko Uesugi[1)]

2Ba3 《JVSJ Award》 Reminiscence of My Research Works on Accelerator Vacuum System

(1)KEK) ○Masanori Kobayashi[1)]

2Ba4 《JVSJ Award》 Spin-polarized Low Energy Electron Microscopy

(1)Osaka Electro-Communication Univ., 2)Arizona State Univ., 3)Nagoya Univ., 4)KEK, 5)Aichi Synchrotron Radiation Center) ○Takanori Koshikawa[1)], Masahiko Suzuki[1)], Tsuneo Yasue[1)], E. Bauer[2)], Tsutomu Nakanishi[3)], Xiuguang Jin[4)], Yoshikazu Takeda[5)]

Lunchtime 12:00～13:30

【Room B】 12:00～13:00

Corporate Seminar (SSSJ: JEOL Ltd.)

【Room D・E】 13:25～18:35

2015 International Joint Symposium on Recent Progress of Advanced Nanocharacterization (English Session)

Chair: Shuji Hasegawa (13:25～15:00)

Opening Remarks

2Dp1 《INVITED》 New insights into friction and wear through in-situ nanotribology

(1)Univ. Pennsylvania, USA) ○R. W. Carpick[1)]

2Dp2 《INVITED》 Control of Kondo Effect of Individual Magnetic Atom/Molecule on Surfaces

(1)Inst. Physics, Chinese Academy of Sciences, China) ○Haiming Guo[1)]

2Dp3 《INVITED》 Nano- plasmonics: from single-molecule chemistry to structures of low-dimensional materials

(1)Seoul National Univ., Korea) ○Zee Hwan Kim[1)]

Break 15:00～15:15

Chair: Fumio Komori (15:15～16:45)

2Dp4 《INVITED》 Precise Growth Control of Oxide Polar Films

(1)Inst. Physics, Chinese Academy of Sciences, China) ○Jiandong Guo[1)]

2Dp5 《INVITED》 Chiral Edge States of One-Dimensional Topological Insulators

(1)Pohang Univ. Sci. Technol., Korea) ○Tae-Hwan Kim[1)]

2Dp6 《INVITED》 Adsorption and ordering of nitrogen and oxygen molecules at the HOPG/water interface

(1)Inst. Physics, Academia Sinica, Taiwan) ○I. Hwang[1)], Y. Lu[1)], C. Yang[1)], C. Fang[1)], H. Ko[1)]

Break 16:45～17:00

Chair: Hiroshi Daimon (17:00～18:35)

2Dp7 《INVITED》 In-situ observation of Pd surfaces under hydrogen pressure

(1)ISSP, Univ. Tokyo, Japan) ○Jun Yoshinobu[1)]

2Dp8 《INVITED》 Soft X-ray spectromicroscopy for surface nanocharacterization

(1)National Synchrotron Radiation Res. Center, Taiwan)

○Chia-Hao Chen[1)], Yao-Jane Hsu[1)], Der-Hsin Wei[1)]

2Dp9 《INVITED》 Development of high brightness and high spin-polarized low energy electron microscopy and application to spintronics magnetic thin film materials

([1)]Osaka Electro-Communication Univ., [2)]Ochanomizu Univ., [3)]Osaka Univ., [4)]Arizona State Univ., [5)]Nagoya Univ., [6)]KEK, [7)]Aichi Synchrotron Light Center)

○T. Koshikawa[1)], M.Suzuki[1)], K. Kudo[2)], K. Kojima[3)], T. Yasue[1)], N. Akutsu[1)], A. Dino[3)], H. Kasai[3)], E. Bauer[4)], T. Nakanishi[5)], X. Jin[6)], Y. Takeda[7)]

Closing Remarks

【Room F】 12:00～18:30

Lunchtime 12:00～13:30

Corporate Seminar (SSSJ: Hokkai Photoelectron Co. Ltd)

VSJ "Surface Engineering・Surface Science・Applied Surface Science"

Chair: Hiroyuki Kitsunai (15:30～17:00)

2Fp01 《INVITED》 Creation of Nanointerface by Tribological Coating for Low Friction in Vacuum

([1)]Tohoku Univ.) ○Koshi Adachi[1)]

2Fp03 Lubricative Ceramic Coatings ([1)]NIMS)

○Masahiro Tosa[1)], Michiko Sasaki[1)], Masahiro Goto[1)], Akira Kasahara[1)], Hiroshi Suzuki[1)], Hiroshi Honda[1)]

2Fp04 Deuterium permeation of duplex stainless steel by Electron Stimulated Desorption Measurement

([1)]Dept. Physics, Toho Univ., [2)]NIMS, [3)]National Inst. Fusion Sci.)

○Kenichirou Hirata[1)], Naoya Miyauchi[1)], Yoshiharu Murase[2)], Hiroyuki Sakaue[3)], Akiko N. Itakura[2)], Shoji Takagi[1)]

2Fp05 Low outgas surface treatment on Stainless steel using segregated chromium oxide layer

([1)]NIMS, [2)]i-SEM Lab., [3)]Shinwa Vanes Co. Ltd, [4)]Contamination Control Services Inc)

○Akiko N. Itakura[1)], Masahiro Tosa[1)], Taro Yakabe[1)], Akira Kasahara[1)], Kenichi Simizu[2)], Toshimitsu Miyata[3)], Mitsuo Maehara[3)], Toyohiko Sindo[4)]

2Fp06 Oxide-metal interface chemical bonding prediction system updated ([1)]NIMS) ○Michiko Yoshitake[1)]

Break 17:00～17:15

Chair: Michiko Yoshitake (17:15～18:30)

2Fp07 《INVITED》 Development of a Vacuum-Type Charged Droplet Beam Gun and Its Application to Surface Analysis ([1)]Interdisciplinary Grad. Sch., Univ. Yamanashi)

○Satoshi Ninomiya[1)], Yuji Sakai[1)], LeeChuin Chen[1)], Kenzo Hiraoka[1)]

2Fp09 Microelement Analysis in Heat-Resistant Steel using TOF-SIMS

([1)]NIMS, Quantum Beam Unit, [2)]NIMS, Materials Reliability Unit, [3)]AIST, Electronics and Manufacturing)

○Norimichi Watanabe[1)], Hiroaki Mamiya[1)], Fujio Abe[2)], Masataka Ohkubo[3)], Hideaki Kitazawa[1)]

2Fp10 Observation of pulsed laser evaporation process of the solid surface in a vacuum by means of a resonance ionization mass spectrometry ([1)]AIST) ○Hidekazu Nagai[1)]

2Fp11 Decay processes of Au 4f,Au 5p core holes studies by Auger-electron - photoelectron coincidence measurments

([1)]Fac. Eng., Yokohama National Univ., [2)]Fac. Eng., Chiba Univ., [3)]Fac. Sci., Ehime Univ., [4)]Inst. Materials Structure Sci., KEK, [5)]Inst. Scientific and Industrial Res., Osaka Univ.)

○Hiraku Kodama[1)], Masato Tanaka[2)], Shinya Ohno[1)], Takuhiro Kakiuchi[3)], Kazuhiko Mase[4)], Koji

Okudaira[2)], Masatoshi Tanaka[1)], Shinichiro Tanaka[5)]

【Room G】 12:00～18:30

Lunchtime 12:00～13:30

Corporate Seminar (SSSJ: Bruker AXS K.K.)

Joint Session "Optical and X-ray Analysis of Nanomaterials"

Chair: Kenji Sakurai (15:30～17:00)

2Gp01 Isotope composition analysis and control of water molecular flow based on infrared absorption spectroscopy and temperature programmed desorption

([1)]Dept. Chemistry, Grad. Sch. Sci., Kyoto Univ.)

○Fumiaki Kato[1)], Kuniaki Harada[1)], Toshiki Sugimoto[1)], Kazuya Watanabe[1)], Yoshiyasu Matsumoto[1)]

2Gp02 Infrared absorption spectra of D_2O clusters isolated in solid rare gas matrices

([1)]Dept. Physics, Gakushuin Univ.) ○Yoichi Shimazaki[1)], Koichiro Yamakawa[1)], Ichiro Arakawa[1)]

2Gp03 Dependence of the infrared absorption spectrum of a methane adsorption layer on the film thickness and annealing temperature ([1)]Gakushuin Univ.) ○Takeru Sugimoto[1)], Koichiro Yamakawa[1)], Ichiro Arakawa[1)]

2Gp04Y Non-resonant-type Electromagnetic Enhancement Mechanism for Surface-enhanced Infrared Absorption

([1)]Fac. Education, Hirosaki Univ.,[2)]Grad. Sch. Sci. Technol., Hirosaki Univ., [3)]Fac. Sci. Technol., Hirosaki Univ.) ○Toru Shimada[1)], Hiroshi Nakashima[2)], Yuta Kumagai[1)], Yuta Ishigo[2)], Masamichi Tsushima[2)], Akihiko Ikari[3)], Yushi Suzuki[3)]

2Gp05 Elucidation of cations and water on gold electrode using ATR-SEIRA spectroscopy

([1)]Saitama Univ.) ○Fumie Watanabe[1)], Risa Abe[1)], Masayuki Futamata[1)]

2Gp06 Gap enhanced Raman scattering under ATR configuration

([1)]Saitama Univ.) ○Keitaro Akai[1)], Chiaki Iida[1)], Masayuki Futamata[1)]

Break 17:00～17:15

Chair: Toru Shimada (17:15～18:30)

2Gp07 In-situ observation on heating temperature and chemical structure of ultra-thin diamond-like carbon film in laser heating

([1)]Nanotechnology Lab., Waseda Univ., [2)]Fac. Sci. Eng., Waseda Univ.)

○Masahiro Yanagisawa[1)], Ying Ying Sun[2)], Masahiro Kunimoto[1)], Takayuki Homma[2)]

2Gp08S In-situ observation of molecular adsorbate driven by oiliness additives at friction interface via sum-frequency generation spectroscopy ([1)]Tokyo Univ. Sci., [2)]AIST)

○Seiya Watanabe[1)], Miki Nakano[2)], Koji Miyake[2)], Chiharu Tadokoro[1)], Shinya Sasaki[1)]

2Gp09 Imaging of surface and interfaces of thin films by X-ray and neutron reflectivity ([1)]NIMS) ○Kenji Sakurai[1)]

2Gp10 Application of high discrimination ability X-ray two-dimensional detector (Part 1)

([1)]Applied Science Lab., [2)]Hamamatsu Photonics)

○Hiroyoshi Soejima[1)], Toshiyuki Kakihara[2)], Toshiharu Ai[2)], Kuniyoshi Mori[2)], Hiroyuki Watanabe[2)]

2Gp11Y Hetero-epitaxial pn-junction of C_{60} on pentacene single crystal studied by grazing incidence x-ray diffraction ([1)]Dept. Pure and Applied Chemistry, Fac. Sci. Technol., Tokyo Univ. Sci.,[2)]Grad. Sch. Advanced Integration Sci., Chiba Univ.,[3)]Center for Frontier Sci., Chiba Univ.,[4)]Inst. Applied Physics, Univ. Tübingen,[5)]National Metrology Inst. Japan, AIST,[6)]Japan Synchrotron

Radiation Res. Inst.)

○Yasuo Nakayama [1)], Yuta Mizuno[2)], Ryohei Tsuruta[1)], Masayuki Yamamoto[2)], Hisao Ishii[2),3)], Nobuo Ueno[2)], Alexander Hinderhofer[4)], Heiko Frank[4)], Alexander Gerlach[4)], Frank Schreiber[4)], Takuya Hosokai[5)], Tomoyuki Koganezawa[6)]

【Room H】 12:00～18:30

Lunchtime 12:00～13:30

Corporate Presentations (VSJ) Sanyu Co., Ltd./Musashino Engineering Co., Ltd./Pascal Co., Ltd.

SSSJ "Surface Physical Properties"

Chair: Shiro Yamazaki (15:30～17:00)

2Hp01 《INVITED》 Surface molecular magnetism ([1)]Grad. Sch. Frontier Sciences, Univ. Tokyo) ○Noriaki Takagi[1)]

2Hp03 Spin state of Iron phthalocyanine molecule on Ag(111)

([1)]Dept. Advanced Materials Sci., Grad. Sch. Frontier Sciences, Univ. Tokyo, [2)]Dept. Chemistry and Materials Sci., Grad. Sch. Sci. Eng., Tokyo Inst. Technol., [3)]ISSP, Univ. Tokyo, [4)]Inst. Materials Structure Sci., KEK, [5)]NIMS-MANA)

○Masato Yoshimura[1)], Takeo Nakazawa[1)], Kenichi Ozawa[2)], Takanori Koitaya[3)], Shinya Yoshimoto[3)], Kozo Mukai[3)], Jun Yoshinobu[2),3)], Kazuhiko Mase[4)], Ryuichi Arafune [5)], Noriaki Takagi[1)]

2Hp04 Dependence of magnetization tilt angle on thickness of Co/W(110) -Observation with high brightness and highly spin-polarized low energy electron microscopy- ([1)]Osaka Electro-Communication Univ., [2)]Arizona State Univ.)

○Masahiko Suzuki[1)], Tsuneo Yasue[1)], Takanori Koshikawa[1)], Ernst Bauer[2)]

2Hp05S Evaluation for the chirality of Mn double layer on W(110) studied by spin polarized STM

([1)]ISSP, Univ. Tokyo) ○Masahiro Haze[1)], Yasuo Yoshida[1)], Yukio Hasegawa[1)]

2Hp06S Direct Visualization of Surface Phase of Oxygen Molecules Physisorbed on Ag(111) Surface

([1)]ISSP, Tokyo, [2)]SISL, RIKEN)

○Shunji Yamamoto[1)], Yasuo Yoshida[1)], Hiroshi Imada[2)], Yousoo Kim[2)], Yukio Hasegawa[1)]

Break 17:00～17:15

Chair: Toru Hirahara (17:15～18:30)

2Hp07Y Interaction between adjacent Si_4 atom switches

([1)]Dep. Material Sci. Eng., Tokyo inst. tech., [2)]GSE, Osaka Univ., [3)]GSSE, Osaka Univ., [4)]Univ. Autonoma de Madrid, [5)]Academy of Sci. of the Czech Republic, [6)]ISIR, Osaka Univ.)

○Shiro Yamazaki[1)], Keisuke Maeda[2)], Ryohei Takatani[2)], Daisuke Sawada[2)], Yoshiaki Sugimoto[2)], Masayuki Abe[3)], Pablo Pou[4)], Lucia Rodrigo[4)], Pingo Mutobbo[5)], Ruben Perez[4)], Pavel Jelinek[2),5)], Seizo Morita[6)]

2Hp08 Assembly of atom switch using scanning probe microscopy ([1)]Osaka Univ., [2)]NIMS, [3)]Univ. Tokyo)

Eiichi Inami[1)], Ikutaro Hamada[2)], Keiichi Ueda[1)], Masayuki Abe[1)], Seizo Morita[1)], ○Yoshiaki Sugimoto[3)]

2Hp09 Control of single organic molecular states by means of STM atom manipulation

([1)]Chiba Univ., [2)]Universidad Autonoma de Madrid, [3)]Mie Univ.) ○Toyokazu Yamada[1)], Naoka Ohta[1)], Shuhei Nakashima[1)], Takahiro Makino[1)], Amadeo Vazquez de Parga[2)], Kohji Nakamura[3)]

2Hp10S Orbital-selective tunneling process in a STM measurement

([1)]ISSP, Univ. Tokyo, [2)]Sci. Technol. Res. Labs., NHK, [3)]MPI Halle)

○Yukio Takahashi[1)], Toshio Miyamachi[1)], Koichiro Ienaga[1)], Norikazu Kawamura[1),2)], Arthur Ernst[3)], Fumio Komori[1)]

2Hp11S Electrical resistance measurements of individual steps on surfaces by scanning tunneling potentiometry

([1)]Dept. Physics, Sch. Sci., Univ. Tokyo, [2)]Dept. Physics, Grad. Sch. Sci., Tokyo Inst. Technol.)

○Tomonori Nakamura[1)], Ryo Yoshino[2)], Rei Hobara[1)], Shuji Hasegawa[1)], Toru Hirahara[2)]

【Room I】 12:00～18:15

Lunchtime 12:00～13:30

Corporate Presentations (VSJ) Fuji Technology Inc./San-ai Plant Co., Ltd.

SSSJ: Electrochemical Surface Science Division "Progress of the electrochemistry using a probe"

Chair: Toshihiro Kondo(15:30～16:15)

2Ip01 Utilization of electrochemical sum frequency generation to probe electronic state at electrode surface

([1)]NIMS, [2)]Grad. Sch. Chemical Sciences and Eng., Hokkaido Univ.)

○Hidenori Noguchi[1),2)], Yang Shuo[2)], Kohei Uosaki[1),2)]

2Ip02R Observation of Cathodic Reactions of Lithium-Air Secondary Batteries by Surface-Enhanced Raman Scattering

([1)]NIMS) ○Kentaro Tomita[1)], Hidenori Noguchi[1)], Kohei Uosaki[1)]

2Ip03 Stable Surface Structures and Electronic Properties on Methylammonium Lead Iodide for Perovskite Solar Cell Sensitizer ([1)]NIMS) ○Jun Haruyama[1)], Keitaro Sodeyama[1)], Liyuan Han[1)], Yoshitaka Tateyama[1)]

SSSJ "Environmental and Energy Materials"

Chair: Toshihiro Kondo(16:15～17:00)

2Ip04S Surface conductivity of ion conductive polymer electrolyte membranes and its effect on fuel-cell performance

([1)]Special Doctoral Program for Green Energy Conversion Sci. Technol., Interdisciplinary Grad. Sch. Medicine and Eng., Univ. Yamanashi, [2)]Fuel Cell Nanomaterials Center, Univ. Yamanashi, [3)]Clean Energy Res. Center, Univ. Yamanashi, [4)]TAKAHATA PRECISION JAPAN CO., LTD., [5)]JST-CREST)

○Taro Kimura[1)], Masanori Hara[2)], Junji Inukai[2)], Manai Shimada[1),4),5)], Hideaki Ono[1),5)], Takashi Mochizuki[1)], Shigefumi Shimada[1)], Makoto Uchida[2),5)], Kenji Miyatake[2),3),5)], Masahiro Watanabe[2)]

2Ip05 Lithium transport imaged by scanning moire fringe in operando STEM

([1)]TITECH, [2)]JAIST, [3)]AIST)

○Soyeon Lee[1)], Yoshifumi Oshima[2)], Eiji Hosono[3)], Haoshen Zhou[3)], Ryoji Kanno[1)], Kunio Takayanagi[1)]

2Ip06S Development of the titanium dioxide photocatalyst for the purpose of the decomposition of the molecular contaminations on spacecrafts ([1)]Sophia Univ.) ○Naoki Shimosako[1)], Hiroshi Sakama[1)]

Break 17:00～17:15

Chair: Hiroshi Sakama(17:15～18:15)

2Ip07 《INVITED》 Active sites from well-defined surfaces to nanoparticles

([1)]Chiba Univ.) ○Nagahiro Hoshi[1)], Masashi Nakamura[1)]

2Ip09R Development of TiO_2 photocatalyst encapsulated in hollow silica particles and evaluation of its photocatalytic activity

([1)]Div. Materials and Manufacturing Sci., Grad. Sch. Eng., Osaka Univ., [2)]Elements Strategy Initiative for Catalysts & Batteries (ESICB), Kyoto Univ.)

○Yasutaka Kuwahara[1),2)], Yuki Sumida[1)], Hiromi Yamashita[1),2)]

2Ip10 Interaction of oleic acid with iron based metal and silicon based ceramics under boundary lubrication conditions

([1]AIST) ○Yuko Hibi[1], Koji Miyake[1], Miki Nakano[1]

【Multi-Purpose Hall】 13:30～15:30

Poster Session "Joint Session 2P01～2P51;SSSJ, 2P52～2P71;VSJ"

Chair: Ken Nakamura, Toshitaka Kubo (Odd Number;13:30～14:30, Even Number;14:30～15:30)

2P01 Perovskite-structured Tantalate Films Prepared via Hydrothermal Epitaxy

([1]Kobe Univ.) ○Tomoya Fujiwara[1], Longjie An[1], Hiroshi Onishi[1]

2P02 STM observation of SAM films on Fe(110)

([1]Dept. Chemistry, Grad. Sch. Sci., Tohoku Univ., [2]Inst. Multidisciplinary Res. Advanced Materials, Tohoku Univ.)

○Sho Asami[1], Tadahiro Komeda[2], Yasuyuki Sainoo[2]

2P03S Analysis of crystalline phases and orientations for dome-like iron-silicide islands grown on Si(001) surfaces using ϕ-RHEED three-dimensional reciprocal mapping ([1]Grad. Sch. Materials Sci., Nara Inst. Sci. Tech)

○Takuya Ishida[1], Shouhei Takemoto[1], Hiroki Jimbo[1], Keisuke Ohta[1], Ken Hattori[1], Hiroshi Daimon[1]

2P04S Development of the Searching Algorithm for Nano-Crystal phases and Orientations in Three-Dimensional Reciprocal Lattice Space ([1]Nara Inst. Sci. Technol.(NAIST), Materials Sci.)

○Hiroki Jimbo[1], Madoka Ikuta[1], Nozomu Hirota[1], Yuugo Nakaya[1], Shouhei Takemoto[1], Takuya Ishida[1], Ken Hattori[1], Hiroshi Daimon[1]

2P05S STM observation and analysis of Mg-LPSO Phase

([1]Dept. Materials Sci. Eng., Kyoto Univ.) ○Hiroki Saito[1], Akira Sakai[1], Shu Kurokawa[1]

2P06S Reciprocal lattice analysis of a distorted β-$FeSi_2$(100) nanocarpet on a Si(001) substrate

([1]NAIST, [2]ISIR) ○Shohei Takemoto[1], Takuya Ishida[1], Hiroki Jimbo[1], Haoyu Yang[1], Masaaki Someta[1], Ken Hattori[1], Hiroshi Daimon[1], Azusa Hattori[2], Hidekazu Tanaka[2]

2P07R Structure estimation of passivation films on stainless steels with synchrotron XPS and XAFS

([1]DENSO CORP.) ○Sumera Shimizu[1], Toshihiko Miyakawa[1], Hideo Asai[1], Syunji Kajikawa[1], Shinichi Itou[1]

2P08 Infrared absorption spectroscopy of a reaction between a bio-molecule and plasma

([1]Grad. Sch. Eng., Nagasaki Univ.)

○Masanori Shinohara[1], Yamamoto Nakano[1], Kazuki Ito[1], Naoki Maruno[1], Hiroshi Fujiyama[1]

2P09 Weighing a single Brownian particle in a droplet

([1]Grad. Sch. Eng., Univ. Hyogo)

○Junya Tamura[1], Masaaki Hasegawa[1], Kosuke Goto[1], Kouzou Mochiji[1], Kousuke Moritani[1], Norio Inui[1]

2P10 Development of high-precision analysis of multilayer structure

([1]Mitsubishi Electric Corp.) ○Tatsuya Shiramizu[1], Takashi Imazawa[1], Hiroyuki Kawahara[1], Tetsuya Uetsuji[1]

2P11 Study on imaging analysis of organic materials with Bi cluster TOF-SIMS

([1]Tohoku Univ., [2]Kyoto Univ.)

○Rie Shishido[1], Makiko Fujii[2], Toshio Seki[2], Takaaki Aoki[2], Jiro Matsuo[2], Shigeru Suzuki[1]

2P12 A search algorithm for optimized and parameter-free inelastic background in XPS ([1]AIST) ○Masatoshi Jo[1]

2P13 Extension of gap enhanced Raman scattering ([1]Saitama Univ.) Maho Ishikura[1], ○Masayuki Futamata[1]

2P14 Chemical substitution of carbon contaminants in evaporated silver films for highly-sensitive Raman spectroscopy

([1]Saitama Univ.) Takeshi Yoshikawa[1], ○Masayuki Futamata[1]

2P15S Tip-Enhanced Raman Spectroscopy of Graphene Nanoribbons on Au(111)

([1]Fritz-Haber Institute of the Max-Planck Society, [2]Dept. Advanced Materials Sci., Univ. Tokyo)

○Akitoshi Shiotari[1),2)], Takashi Kumagai[1)], Martin Wolf[1)]

2P16S Surface Cleaning of Titanium Oxide Nanostructures by Ar Gas Cluster Ion Gun

([1]Shizuoka Univ.) ○Atsuyoshi Kondo[1)], E.K.D.H.D Siriwardena[1)], Raimu Endo[1)], Masaru Shimomura[1)]

2P17 Measurement of spin-polarization of electrons field-emitted from a single-crystalline Cr layer on W<001> tip

([1]Grad. Sch. Eng., Mie Univ., [2]Center for Ultimate Technol. nano-Electronics, Mie Univ.)

○Naoya Sakai[1)], Shigekazu Nagai[1),2)], Tatsuo Iwata[1),2)], Kazuo Kajiwara[1),2)], Koichi Hata[1),2)]

2P18S High speed and high resolution technique for scanning tunneling spectroscopy using sparse modeling

([1]ISSP, Univ. Tokyo, [2]Grad. Sch. Frontier Sciences, Univ. Tokyo, [3]Grad. Sch. Arts and Sciences, Univ. Tokyo)

○Masahiro Haze[1)], Yoshinori Nakanishi-Ohno[2)], Yasuo Yoshida[1)], Koji Hukushima[3)], Masato Okada[2)], Yukio Hasegawa[1)]

2P19 Atom probe analysis of Cr thin film deposited on tungsten emitter

([1]Grad. Sch. Eng., Mie Univ., [2]Center for Ultimate Technol. nano-Electronics, Mie Univ.)

○Hiroki Toyama[1)], Naoya Sakai[1)], Shigekazu Nagai[1),2)], Tatsuo Iwata[1),2)], Kazuo Kajiwara[1),2)], Koichi Hata[1),2)]

2P20 Subsurface Charged Regions on TiO_2(110) Observed by NC-AFM/KPFM

([1]Grad. Sch. Frontier Sciences, Univ. Tokyo, [2]Grad. Sch. Eng., Osaka Univ., [3]Dept. Chemistry and London Centre for Nanotechnology, Univ. College London, [4]Grad. Sch. Eng. Sci., Osaka Univ.)

○Jo Onoda[1),2)], Chi Lun Pang[3)], Ayhan Yurtsever[4)], Yoshiaki Sugimoto[1),2)]

2P21S Cross-sectional STM/STS Measurements for Cleaved MIS-Si(111) Surfaces with Applied Gate-bias Voltages.

([1]Grad. Sch. Materials Sci., Nara Inst. Sci. Tech., [2]Inst. Scientific and Industrial Res., Osaka Univ.)

○Yuri Ishihara[1)], Naoya Kato[1)], Kazuya Tachibana[1)], Nozomu Hirota[1)], Ken Hattori[1)], Hiroshi Daimon[1)], Tingting Wei[2)], Kohei Hujiwara[2)], Azusa Hattori[2)], Hidekazu Tanaka[2)]

2P22 Infrared absorption of the van der Waals complex of D_2O and H_2 in solid xenon

([1]Dept. Physics, Gakushuin Univ.) ○Shu Otsu[1)], Koichiro Yamakawa[1)], Ichiro Arakawa[1)]

2P23 Development of a mass filter using two rotating electric fields

([1]Grad. Sch. Sci. Technol., Tokyo Univ. Sci.,, [2]Res. Inst. Sci. Technol., Tokyo Univ. Sci., [3]Office TANDEM L.L.C., [4]College of Sci. Technol., Nihon Univ., [5]Ampere Inc., [6]Grad. Sch. Eng., Univ. Hyogo)

○Yuki Anai[1)], Ryo Tachibana[1)], Masashi Nojima[2)], Masanao Hotta[3)], Satoshi Kurumi[4)], Tatsuya Adachi[5)], Takashi Kusanagi[5)], Kaoru Suzuki[4)], Kousuke Moritani[6)]

2P24 Accurate Extraction of Electrostatic Force by Atomic Force Microscopy

([1]Osaka Univ., [2]Univ. Tokyo) Eiichi Inami[1)], ○Yoshiaki Sugimoto[2)]

2P25 An apparatus for far-infrared spectroscopy under ultrahigh vacuum

([1]Dept. Physics, Gakushuin Univ.)

○Genki Shimizu[1)], Ichiro Arakawa[1)], Koichiro Yamakawa[1)], Hiroyuki Kurahashi[1)], Natumi Suzuki[1)], Rei Tuboi[1)]

2P26Y Comparative Studies of Photoelectron Spectroscopy and Voltammetry of Ferrocene-Terminated Self-Assembled Monolayers ([1]Grad. Sch. Eng. Science, Osaka Univ.)

○Yasuyuki Yokota[1)], Yoshitada Mino[1)], Yuta Kanai[1)], Toru Utsunomiya[1)], Akihito Imanishi[1)], Ken-ichi Fukui[1)]

2P27 Pinpoint SR-PEEM analysis of Cs-adsorbed vermiculite

([1]JAEA, [2]Univ. Tokyo, [3]JASRI)

○Akitaka Yoshigoe[1)], Hidehiro Shiwaku[1)], Tooru Kobayashi[1)], Iwao Shimoyama[1)], Daijyu Matsumura[1)], Takuya Tsuji[1)],

Yasuo Nishihata[1)], Tsuyoshi Yaita[1)], Toshihiro Kogure[2)], Satoko Motai[2)], Takuo Ohkochi[3)], Akira Yasui[3)]

2P28 Three-dimensional probe of molecular conformation effect on single molecular conductance

([1)]Univ. Tsukuba) ○Tomoki Katayama[1)], Miki Nakamura[1)], syoji Yoshida[1)], Osamu Takeuchi[1)], Hidemi Shigekawa[1)]

2P29 Examination of fragmentation and Ionization mechanism of polymer with Time-of-flight secondary ion mass spectrometry ([1)]Panasonic Corp.) ○Takako Kurosawa[1)], Tomoko Kawashima[1)], Hiromi Morita[1)]

2P30 In-situ Heating Scanning Helium Ion Microscopy

([1)]NIMS) ○Keiko ONISHI[1)], Hongxin WANG[1)], Shoko NAGANO[1)], Daisuke FUJITA[1)]

2P31S thickness dependence of electronic and optical properties of a single molecule on the ultrathin insulating films

([1)]Grad. Sch. Frontier Sciences, Univ. Tokyo, [2)]RIKEN SISL)

○MIYABI IMAI[1),2)], HIROSHI IMADA[2)], KUNIYUKI MIWA[2)], MAKI KAWAI[1)], YOUSOO KIM[2)]

2P32 High bias stability of Pb single atom contacts under compressive stresses

([1)]Dept. Materials Sci. Eng., Kyoto Univ.) ○Shinsaku Wakasugi[1)], Akira Sakai[1)], Shu Kurokawa[1)]

2P33 The structure of Cu and Fe-based-metal organic framework (MOF/PCPs) thin film on TiO_2(110)

([1)]Grad. Sch. Arts and Sciences, International Christian Univ., [2)]Grad. Sch. Humanities and Sciences, Ochanomizu Univ.) ○Wang-Jae CHUN[1)], Miyuki Hashimoto[2)], Toshihiro Kondo[2)]

2P34 Light Emission Properties of Gold Supported Zinc Oxide Nano-Particles

([1)]Sch. Med., Shimane Univ., [2)] Cent. Pro. Res., Shimane Univ., [3)]Sch. Sci. Eng., Shimane Univ.)

Mari Iizuka[1)], ○Masatoshi Fujii[1)], Hideki Hashimoto[2)], Yasuhisa Fujita[3)]

2P35 Mechanical Annealing of Atomic Size Contact of Metals

([1)]Dept. Material Sci. Eng., Kyoto Univ.) ○Shun Takubo[1)], Shu Kurokawa[1)], Akira Sakai[1)]

2P36 Effect of recrystallized Cu-foil on chemical vapor deposition growth of graphene

([1)]NTT Basic Res. Labs., [2)]Kwansei Gakuin Univ.)

○Yui Ogawa[1)], Satoru Suzuki[1)], Hiroki Hibino[2)], Hideki Yamamoto[1)]

2P37 Preparation of gold rods based on etching and reshaping of micro-sized gold plates

([1)]Chuo Univ.) ○Yoshihiro Akimoto [1)], Clara Imura[1)], Hitoshi Shindo[1)]

2P38 Synthesis of graphene by microwave surface wave plasma CVD method

([1)]Chubu Univ., [2)]Okayama Univ.) ○Susumu Ichimura[1),2)], Yasuhiko Hayashi[2)], Masayoshi Umeno[1)]

2P39S Edge-Disorder Engineering on Thermoelectric Performance of Graphene Nanoribbons: Theoretical and Computational Prediction ([1)]Tokyo Univ. Sci.) ○Tetsumi Izawa[1)], Kengo Takashima[1)], Takahiro Yamamoto[1)]

2P40 Numerical simulation on inelastic electronic transport properties in single-walled carbon nanotubes

([1)]Dept. Electrical Eng., Tokyo Univ. Sci., [2)]Organization of Advanced Sci. Technol., Kobe Univ., [3)]Dept. Liberal Arts (Physics), Tokyo Univ. Sci.)

○Keisuke Ishizeki[1)], Kenji Sasaoka[2)], Takahiro Yamamoto[1),3)]

2P41S Analysis of capacitance in bilayer graphene device by first-principles calculation

([1)]Sch. Eng., Univ. Tokyo, [2)]ISSP, Univ. Tokyo, [3)]Keyence Corp.)

○Yutaro Mori[1)], Emi Minamitani[1)], Ando Yasunobu[1)], Shuusuke Kasamatsu[2)],

Kaoru Kanayama[1),3)], Kosuke Nagashio[1)], Satoshi Watanabe[1)]

2P42R Formation of ultrathin Si films by Ag-induced layer exchange method

([1)]EcoTopia Sci. Inst., Nagoya Univ., [2)]Grad. Sch. Eng., Nagoya Univ., [3)]Inst. Adv. Res., Nagoya Univ.)

○Masashi Kurosawa[1),2),3)], Akio Ohta[2),3)], Masaaki Araidai[2),3)], Shigeaki Zaima[1),2)]

2P43 First-principles study on two-dimensional crystals of group IV material on insulating film

([1]Grad. Sch. Eng., Nagoya Univ., [2]Inst. Advanced Res., Nagoya Univ., [3]EcoTopia Sci. Inst., Nagoya Univ.) ○ Masaaki Araidai[1),2)], Masashi Kurosawa[1),2),3)], Akio Ohta[1),2)], Kenji Shiraishi[1)]

2P44S Theoretical study of the surface interaction between germanene and MX (M=Ga, In; X=S, Se, Te): towards germanene with Dirac-cone ([1]Dept. Materials Eng., Univ. Tokyo)

○Zeyuan Ni[1)], Emi Minamitani[1)], Yasunobu Ando[1)], Satoshi Watanabe[1)]

2P45 Study on catalyst chemical vapor deposition of graphene by using in-situ reflection high energy electron diffraction

([1]Grad. Sch. Eng., Nagoya Univ.) ○Sotaro Fujita[1)], Takuro Minato[1)], Hitoshi Nakahara[1)], Yahachi Saito[1)]

2P46 Structural and morphological study of metal clusters on $SrTiO_3$ substrates ([1]NIMS) ○Miyoko Tanaka[1)]

2P47 Generation of nanobubbles by porous alumina thin films

([1]Res. Inst. Electrical Communication, Tohoku Univ., [2]Frontier Res. Inst. Interdisciplinary Sciences (FRIS), [3]Grad. Sch. Biomedical Eng., Tohoku Univ., [4]JST-CREST, [5]Han-ichi Corp.)

○Natsuki Yamada[1)], Hideyuki Saito[1)], Teng Ma[1)], Ayumi Hirano[3),4)], Hideaki Yamamoto[2),4)], Ken-ichi Ishibashi[5)], Makoto Miyazawa[5)], Hitoshi Sakamoto[5)], Michio Niwano[1)]

2P48 Operando TEM study on the phase transition of a Li ion battery under fast charge-discharge

([1]TITECH, [2]JAIST, [3]AIST)

○Soyeon Lee[1)], Yoshifumi Oshima[2)], Eiji Hosono[3)], Haoshen Zhou[3)], Ryoji Kanno[1)], Kunio Takayanagi[1)]

2P49 Plasmon mediated enhanced photocurrent response in sol-gel synthesized $SrTiO_3$ films

([1]NIMS MANA) ○Sugavaneshwar Ramu Pasupathi[1)]

2P50R High efficient electrocatalysis for oxygen reduction reaction using boron nitride nanosheets I

([1]NIMS) ○Ganesan Elumalai[1)], Hung Cuong DINH[1)], HIDENORI NOGUCHI[1)], Kohei UOSAKI[1)]

2P51R High Efficient Electrocatalysis for Oxygen Reduction Reaction using Boron Nitride nanosheets II

([1]NIMS) ○DINH Hung Cuong[1)], Ganesan Elumalai[1)], Hidenori NOGUCHI[1)], Kohei UOSAKI[1)]

2P52 Extreme High Vacuum Technology for 500 kV high brightness DC electron source

([1]KEK, [2]AIST, [3]Yamaguchi Univ.) ○Masahiro Yamamoto[1)], Takashi Uchiyama[1)], Tsukasa Miyajima[1)], Yosuke Honda[1)], Masanori Kobayashi[1)], Hajime Yoshida[2)], Hiroki Kurisu[3)]

2P53 Replacement of vacuum chambers for installing a superconducting wiggler in the SAGA-LS storage ring

([1]SAGA Light Source) ○Tatsuo Kaneyasu[1)], Yuichi Takabayashi[1)], Yoshitaka Iwasaki[1)], Shigeru Koda[1)]

2P54 Pre-installation work of beam ducts for SuperKEKB

([1]KEK) ○Kyo Shibata[1)], Yusuke Suetsugu[1)], Mitsuru Shirai[1)]

2P55 Improvement of vacuum in the J-PARC RCS

([1]JAEA, [2]Nippon Advanced Technol. Co. Ltd.) ○Junichiro Kamiya[1)], Shoji Noshiroya[1)], Yuya Namekawa[1)], Yusuke Hikichi[1)], Atsushi Sato[1)], Michikazu Kinsho[1)], Toru Yanagibashi[2)]

2P56 Simulation of relative sensitivity coefficient of Bayard-Alpert gauge

([1]AIST) Shigemi Suginuma[1)], ○Masahiro Hirata[1)]

2P57 Development of ultra-fine leak testing device for MEMS packaging

([1]AIST, National Metrology Inst. Japan) ○Hajime Yoshida[1)], Kenta Arai[1)], Tokihiko Kobata[1)]

2P58 Effect of Solid Lubricant on Impact Drive Mechanism in High Vacuum

([1]CIT, [2]Sunyou) ○Shingo Tateno[1)], Aoi Koami[1)], Yousuke Nakano[1)], Hiroshi Suga[1)], Kenta Kashimura[2)], Yuya Shirayama[2)], Ryo Seya[2)], Satoshi Takahashi[2)]

2P59 Structural characterization of sharpened mechanical pencil lead by means of FIM/FEM

([1]Univ. Tsukuba) ○Takuma Myojin[1)], Manabu Adachi[1)], Ken Asanagi[1)], Yoichi Yamada[1)], Masahiro Sasaki[1)]

2P60 Thermionic electron emission properties of amorphous carbon film with low work function

([1]Grad. Sch. Sci. Eng., Toyo Univ., [2]Grad. Sch. Eng., Mie Univ.)
○Takuma Tsuchiya[1], Tomomi Yoshimoto[1], Tatsuo Iwata[2]

2P61 Emission current stability of diamond nanopowder field emitter
([1]Grad. Sch. Sci. Eng., Toyo Univ., [2]Grad. Sch. Eng., Mie Univ.)
○Yoshiaki Sugimoto[1], Tomomi Yoshimoto[1], Tatsuo Iwata[2]

2P62V Electron Emission from Diamond PIN Diode Type Electron Emitters
([1]AIST, [2]IMRAM, Tohoku Univ., [3]Waseda Univ., [4]CREST/JST)
○Tsubasa Matsumoto[1),4)], Ryo Kadowaki[2)], Hiromitsu Kato[1),4)], Toshiharu Makino[1),4)], Daisuke Takeuchi[1),4)], Shozo Kono[3)], Tadashi Abukawa[2)], Satoshi Yamasaki[1),4)]

2P63 Investigation of in situ photoelectron yield spectroscopy by using short-pulse laser
([1]AIST, [2]Tokushima Univ.) Takuya Hosokai[1], Hiroyuki Matsuzaki[1], Akihiro Furube[1),2)], ○Ken Nakamura[1]

2P64 Evaluating Strength of Anodized aluminum on Aluminum
([1]National Inst. Technol., Oshima College, [2]National Inst. Technol., Toyama College, [3]Hitachi High-Technologies Corp.)
○Yoshitaka Kanoyama[1], Hiromu Nagata[1], Tsubasa Nakamura[1], Muneo Furuse[1], Toyohisa Asaji[2]), Tohru Aramaki[3]

2P65 Removal of particles on surfaces by using the atmospheric pressure
([1]Oshima College, National Inst. Technol.) ○Kazue Takahashi[1]

2P66V Evaluation of carbon content in vacuum deposited glycine thin films by $^{12}C(p, p)^{12}C$ resonant elastic scattering analysis
([1]Grad. Sch. Eng., Kyoto Univ., [2]Fac. Eng., Kyoto Univ.)
○Noriaki Nyuba[1], Makoto Okada[2], Hirofumi Fujiwara[1], Hiroshi Tsuji[1], Yasuhito Gotoh[1]

2P67V TEM observation of the Au-decorated ESD surfaces of Alkali halide crystals
([1]Div. Sci. Education, Osaka-Kyoiku Univ.)
○Yuuko Fukazawa[1], Takuya Nishiguchi[1], Yasufumi Susuki[1]

2P68 Nano-scale Observation of Luminescence from a single-walled carbon nanotube
([1]RIEC, Tohoku Univ.) ○Satoshi Katano[1], Hiroto Fujita[1], Wei Tao[1], Yoichi Uehara[1]

2P69 Growth control of carbon nanotubes using ion-beam irradiation effect in the SiC surface decomposition method (II) ([1]Kyushu Inst. Technol., [2]National Inst. Technol., Ube College)
○Masahito Uchida[1], Kyohei Soga[1], Takahiro Oyama[1], Masamichi Naitoh[1], Tomonori Ikari[2]

2P70 Effect of Doping via Surface Adsorption in Transition Metal Dichalcogenides
([1]Dept. Physics, Fac. Eng., Yokohama National Univ., [2]Dept. Physics, National Defense Academy)
○Kazuki Osada[1], Shinya Ohno[1], Masatoshi Tanaka[1], Takanori Suzuki[2]

2P71 Electronic state and surface structure analyses of the Si(100) surface with metal phthalocyanine
([1]National Inst. Technol., Ube College, [2]Grad. Sch. Life Sci. Systems Eng., Kyushu Inst. Technol.)
○Fukutoshi Kaneko[2], Kouhei Matsuo[1], Tomonori Ikari[1], Masamichi Naitoh[2]

Thursday, December 3rd

【Room B】 9:00～15:45

Joint Symposium "Cutting-Edge Accelerators in Asia and Their Future Perspectives" (English Session)

Chair: Tohru Honda (9:00～11:45)

3Ba01 《INVITED》 Progress and Future of the Shanghai Synchrotron Radiation Facility
([1]Shanghai Inst. Applied Physics, Chinese Academy of Sciences, China)

Z. Zhao[1)], ○L. Yin[1)], R. Tai[1)], D. Wang[1)]

3Ba03 《INVITED》 Achievement of Taiwan Photon Source Project
([1)]National Synchrotron Radiation Res. Center, Taiwan) ○Gao-Yu Hsiung[1)]

3Ba05 《INVITED》 Vacuum Technologies in High Power Proton Beam Accelerator
([1)]JAEA, Japan) ○Junichiro Kamiya[1)]

Break 10:30～10:45

3Ba07 《INVITED》 Steps and Strides of SPring-8 and Its Future Perspective: A Viewpoint from Vacuum Technology ([1)]Japan Synchrotron Radiation Res. Inst. (JASRI/SPring-8))
Masaya Oishi[1)], ○Haruo Ohkuma[1)]

3Ba09 《INVITED》 Superconducting RF Accelerator Cavity Techniques as a Basis for Future Accelerators -Learn from the development and beam operation for Compact ERL - ([1)]KEK, Japan) ○Hiroshi Sakai[1)]

Lunchtime 12:00～13:00

Joint Symposium "Surface Analysis under Device Operation or during Chemical Reaction: State-of-the-art Operando Observations"

Chair: Hiroshi Kondoh (13:00～15:45)

3Bp01 《INVITED》 Operando Analysis of Solid Oxide Fuel Cells by Synchrotron X-Ray
([1)]IMRAM, Tohoku Univ., [2)]Grad. Sch. Environmental Studies, Tohoku Univ.)
Koji Amezawa[1)], ○Takashi Nakamura[1)], Tatsuya Kawada[2)]

3Bp03 《INVITED》 Operando Measurement of Green Device using Scanning Probe Microscopy
([1)]NIMS) ○Nobuyuki Ishida[1)], Hideki Masuda[1)], Daisuke Fujita[1)]

3Bp05 《INVITED》 Operando Analyses of Lithium Batteries by Means of Soft X-ray Emission Spectroscopy
([1)]AIST) ○Daisuke Asakura[1)]

Break 14:30～14:45

3Bp07 《INVITED》 XAFS Study of Automotive Exhaust Catalysts
([1)]Toyota Central R&D Labs.) ○Yasutaka Nagai[1)]

3Bp09 《INVITED》 Operando Measurement by Photoelectron Spectroscopy
([1)]IMS) ○Yasumasa Takagi[1)]

Closing Session 16:15～16: 30

【Room C】 9:00～16:00

SSSJ "Low-Dimensional and Nanoscale Materials"

Chair: Masahiro Sasaki (9:00～10:30)

3Ca01 《INVITED》 Layered compound semiconductor electronics ([1)]AIST) ○Atsushi Ando[1)], Eiko Mieda[1)], Takahiro Mori[1)]

3Ca03 STM imaging of energy band alignment of $WS_2/Mo_{1-x}W_xS_2$ single layer heterostructure
([1)]Univ. Tsukuba, [2)]Tokyo Metropolitan Univ.) ○Shoji Yoshida[1)], Ryuji Sakurada[1)], Yu Kobayashi[2)], Hiroyuki Mogi[1)], Osamu Takeuchi[1)], Yasumitsu Miyata[2)], Hidemi Shigekawa[1)]

3Ca04S CVD Synthesis of MoS_2 Grown on Au(111) and its In-situ Electrochemical Raman Spectroscopic Study

([1]Dept. Chem., Hokkaido Univ., [2]Dept. Chem., Hokkaido Univ.)

○Ryosuke Takahashi[1], Ryota Kumagai[1], Satoshi Yasuda[2], Kei Murakoshi[2]

3Ca05S PEEM and micro-PES study of Molybdenum disulfide

([1]Inst. Multidisciplinary Res. Advanced Materials, Tohoku Univ.) ○Ryo Kadowaki[1], Naoki Sano[1], Tadashi Abukawa[1]

3Ca06S The layered material FET for specific molecular detection

([1]Dept. Chemistry, Tohoku Univ., [2]Inst. Multidisciplinary Res. Advanced Materials, Tohoku Univ., [3]AIST, [4]NIMS)

○Trung Nguyen Tat[1], Tadahiro Komeda[2], Atsushi Ando[3], Eiichiro Watanabe[4], Hirotaka Oosato[4], Daiju Tsuya[4]

Break 10:30～10:45

Chair: Atsushi Ando (10:45～12:00)

3Ca07 Fabrication and structural measurement of unidirectional Pt/Au nanowires on Ge(110) surface

([1]Inst. Physics, Univ. Tsukuba, [2]JAEA, [3]NIMS)

○Takahiro Watanabe[1], Yoichi Yamada[1], Masahiro Sasaki[1], Seiji Sakai[2], Yasushi Yamauchi[3]

3Ca08Y (Withdrawn)

3Ca09 Simultaneous measurements of mechanical response and electronic conductance of Au nanocontact

([1]Sch. Natural Sci. Technol., Kanazawa Univ., [2]Sch. Materials Sci., JAIST)

○Ryota Hashimoto[1], Yoshifumi Oshima[2], Masahiko Tomitori[2], Toyoko Arai[1]

3Ca10 Bond distance expansion in Pd nanoclusters

([1]Hokkaido Univ.) ○Kiyotaka Asakura[1], Tadashi Ohba[1], Hiromitsu Uehara[1], Satoru Takakusaki[1]

3Ca11 Layer Number Dependence of Structure and Electronic Density of States of Silicon Nanosheet Formed on MoS_2

([1]Grad. Sch. Eng., Osaka Univ.) ○Masaaki Shigehara[1], ryuutarou Kuga[1], Noriharu Nakashima[1], Hiroshi Tabata[1], Osamu Kubo[1], Mitsuhiro Katayama[1]

Lunchtime 12:00～13:00

SSSJ "Low-Dimensional and Nanoscale Materials"

Chair: Tadaaki Nagao (13:00～14:30)

3Cp01R Investigation on electronic and geometric structure of single molecular junction utilizing simultaneous measurement of surface enhanced Raman spectrum and current-voltage characteristics

([1]Tokyo Inst. Technol., [2]NIMS)

○Satoshi Kaneko[1], Daigo Murai[1], Yuki Komoto[1], Kazuhito Tsukagoshi[2], Manabu Kiguchi[1]

3Cp02S Non-linear I-V characteristics of Cytochrome c3 single molecule

([1]Osaka Univ.) ○Saki Sumida[1], Dock-Chil Che[1], Takuya Matsumoto[1]

3Cp03S Electrical properties of DNA supramolecular networks by nano-gap electrode

([1]Osaka Univ.) ○Harumasa Yamaguchi[1], Yoichi Otsuka[1], Takuya Matsumoto[1]

3Cp04 Real space analysis on phase transition between Peierls and Mott states in $[Pd(chxn)_2Br]Br_2$ by STM

([1]Univ. Tsukuba, [2]Tohoku Univ.) ○Yuka Hosomi[1], Shoji Yoshida[1], Shinya Takaishi[2], Masahiro Yamashita[2], Takehumi Yoshida[2], Osamu Takeuchi[1], Hidemi Shigekawa[1]

3Cp05 Electrical characterization of ruthenium complex/AuNP/ruthenium complex structures between the nanogap electrodes

([1]Dept. Chemistry, Sch. Sci., Osaka Univ.)

○Satoshi Nishijima[1], Yoichi Otsuka[1], Naoyuki Tange[1], Tomohiro Takagi[1], Takuya Matsumoto[1]

3Cp06 Electrical property of ITO/Ru complex/Au nanoparticle device structure by conductive probe atomic force microscopy

([1]Osaka Univ.) ○Tomohiro Takagi[1], Yoichi Otsuka[1], Naoyuki Tange[1], Satoshi Nishizima[1], Takuya Matsumoto[1]

Break 14:30～14:45

Chair: Takuya Matsumoto (14:45～16:00)

3Cp07 Single Layer Etching of 2D Layered Materials

([1]AIST, [2]Sanyu Co., Ltd.)

○Toshitaka Kubo[1], Jun Miyawaki[1], Tetsuo Shimizu[1], Shunichiro Shimbori[2], Satoshi Takahashi[2], Atsushi Ando[1]

3Cp08 High temperature wavelength-selective thermal emitters composed of metal-insulator-metal structure

([1]NIMS, [2]JST-CREST) ○Takahiro Yokoyama[1,2], Thang Dao[1,2], Kai Chen[1,2], Satoshi Ishii[1,2], Ramu Sugavaneshwar[1,2], Tadaaki Nagao[1,2]

3Cp09 Charge detection on organic photovoltaic thin film by Electrostatic Force Microscopy

([1]Osaka Univ., [2]Osaka Univ., ISIR) ○Kento Araki[1], Yutaka Ie[2], Yoshio Aso[2], Takuya Matsumoto[1]

3Cp10 Surface force analysis of pyrite (FeS_2) mineral: its reactivity to amino acid adsorption

([1]Eng., Tokyo Inst. Technol., [2]Chemical Evolution Lab Unit, Earth-Life Sci. Inst.(ELSI), Tokyo Inst. Technol., [3]Global Res. Cluster, RIKEN)

○Narangerel Ganbaatar[1,2], Nina Matsuzaki[1,2], Taka-aki Yano[1,2], Tomohiro Hayashi[1] and Masahiko Hara[1,2,3]

【Room D】 9:00～16:00

SSSJ "Surface Analysis & Characterization"

Chair: Keisuke Sagisaka (9:00～10:30)

3Da01Y Characterization of excited states of a single molecule by scanning tunneling luminescence spectroscopy

([1]SISL RIKEN,[2]Grad. Sch. Frontier Sciences, Univ. Tokyo)

○Hiroshi Imada[1], Miyabi Imai[1,2], Shota Kawahara[1,2], Kuniyuki Miwa[1], Kensuke Kimura[1,2], Yousoo Kim[1]

3Da02S Scanning tunneling luminescence from magnesium phthalocyanine dimer

([1]Grad. Sch. Frontier Sciences, Univ. Tokyo,[2]SISL, RIKEN) ○Shota Kawahara[1,2], Hiroshi Imada[2], Kuniyuki Miwa[2], Miyabi Imai[1,2], Kensuke Kimura[1,2], Maki Kawai[1], Yousoo Kim[2]

3Da03S Enhancement and stability of He field ion current in He-Ne gas mixture

([1]Grad. Sch. Eng., Mie Univ., [2]Center for Ultimate Technol. nano-Electronics, Mie Univ.)

○Keisuke Komaki[1], Shigekazu Nagai[1,2], Tatsuo Iwata[1,2], Kazuo Kajiwara[1,2], Koichi Hata[1,2]

3Da04S Measurement of field ion yield distribution above a single surface atom site using a micro-probe hole field ion microscope ([1]Grad. Sch. Eng., Osaka City Univ.)

○Yasushi Oota[1], Tatsuya Wakimura[1], Ryotaro Morioka[1], Ataru Kobayashi[1]

3Da05 《SSSJ Technique Award》 SEM Images Obtained with an Energy and Takeoff Angle Selective Detector

([1]JEOL Ltd.,[2]JEOL Technics Ltd.) ○Takeshi Otsuka[1],Motohiro Nakamura[1], Ken-ichi Yamashita[1],Kazuhiro Honda[1],Shin-ichi Kitamura[1],Felix Timischl[2],Masato Kudo[2]

Break 10:30～10:45

Chair: Ataru Kobayashi (10:45～11:45)

3Da07 Electrical Potential Distribution Measurement of Multilayer Ceramic Capacitors with Applied Voltage using Helium Ion Microscope

([1]NIMS GREEN,[2]NIMS Environment and Energy Materials Div.,
[3]NIMS Advanced Key Technologies Div.,[4]TAIYO YUDEN CO., LTD.)

○Chikako Sakai[1)], Nobuyuki Ishida[1),2)], Hideki Masuda[3)], Yoichiro Ogata[4)], Daisuke Fujita[1),3)]

3Da08 Advanced Multi-functional Characterization of High Strength CFRP Materials

([1)]NIMS,[2)]Univ. Tsukuba)

○Hongxin Wang[1)], Daisuke Fujita[1)], Hideaki Kitazawa[1)], Masamichi Kawai[2)]

3Da09S Valence bands structure of the pentacene single crystal clean surface prepared by vacuum cleavage

([1)]Advanced Integration Sci., Chiba Univ., [2)]Fac. Sci. Technol., Tokyo Univ. Sci., [3)]IMS, National Institutes of Natural Sciences,[4)]Center for Frontier Sci., Chiba Univ.)

○Yuta Mizuno[1)], Masayuki Yamamoto[1)], Masataka Hikasa[2)], Masaharu Matsunami[3)], Shinichiro Ideta[3)], Kiyohisa Tanaka[3)], Hisao Ishii[1),4)], Koji Okudaira[1)], Hiroyuki Yoshida[1)], Yasuo Nakayama[2)]

3Da10S Adsorbed state of CO_2 on the graphene/SiC(0001) surface studied by temperature programmed desorption and ambient pressure X-ray photoelectron spectroscopy

([1)]ISSP, Univ. Tokyo,[2)]RIEC, Tohoku Univ) ○Kaori Takeuchi[1)], Susumu Yamamoto[1)], Ro-Ya Liu[1)], Yuichiro Shiozawa[1)], Takashi Someya[1),] Keiichiro Tajima[2)], Hirokazu Fukidome[2)],Takanori Koitaya[1)],Kozo Mukai[1)],Shinya Yoshimoto[1)], Maki Suemitsu[2)], Jun Yoshinobu[1)], Iwao Matsuda[1)]

Lunchtime 12:00～13:00

SSSJ “Surface Analysis & Characterization”

Chair: Akiya Karen (13:00～14:30)

3Dp01 Depth-sensitive analysis of $Ir(ppy)_3$:TPBi thin film by GCIB and XAS

([1)]Sumika Chemical Analysis Service, Ltd.,[2)]Grad. Sch. Eng., Univ. Hyogo) Hitoshi Fukumitsu[1)], ○Eiji Takahashi[1)], Daisuke Yamauchi[1)], Katsuya Imanishi[1)], Shogo Suehiro[1)], Yasuji Muramatsu[2)]

3Dp02R Recent Progress and Future Prospect of Cluster SIMS for Biological Applications

([1)]Kyoto Univ.) ○Makiko Fujii[1)], Toshio Seki[1)], Takaaki Aoki[1)], Jiro Matsuo[1)]

3Dp03 Imaging Mass of Bio-molecules with cluster SIMS ([1)]Kyoto Univ.,[2)]JST-SENTAN)

○Jiro Matsuo[1),2)], Kanji Suzuki[1),2)], Masakazu Kusakari[1)], Makiko Fujii[1)], Takaaki Aoki[1),2)], Toshio Seki[1),2)]

3Dp04 Evaluation of peptide fragmentation depending on the low-energy primary ion beam of ToF-SIMS

([1)]Dept. Materials and Life Sci., Seikei Univ.) ○Satoka Aoyagi[1)],Yuta Yokoyama[1)]

3Dp05S Evaluation of matrix effects of polymer samples in terms of positive and negative secondary ions using Ar cluster ion beams ([1)]Dept. Materials and Life Sci., Seikei Univ.)

○Kazuma Takahashi[1)], Yuta Yokoyama[1)], Satoka Aoyagi[1)]

3Dp06 Accelerating voltage and cluster size dependence of etching rate for organic or inorganic material

([1)]JEOL Ltd.,[2)]ScientaOmicron)

○Naoki Muraya[1)], Masahide Shima[1)], Kenichi Tsutsumi[1)], Hitoshi Tomizuka[2)], Retsu Oiwa[2)]

Break 14:30～14:45

Chair: Jiro Matsuo (14:45～16:00)

3Dp07 SIMS measurement of organic materials using water and methanol cluster ion beams
([1)]Univ. Hyogo) ○Shogo Nagata[1)], Yutaro Higashihara[1)], Kousuke Moritani[1)], Norio Inui[1)], Kozo Mochiji[1)]

3Dp08 Spectra Analyses of Polymers by MS/MS TOF-SIMS ([1)]ULVAC-PHI, Inc.,[2)]Physical Electronics)
○Shin-ichi Iida[1)], Gregory Fisher[2)], John Hammond[2)], Takuya Miyayama[1)]

3Dp09 Mass imaging analysis of surface and cross section of single particles from micron to submicron sizes by high lateral resolution TOF-SIMS ([1)]TOYAMA CO. LTD) ○Takeharu Ishikawa[1)], Tomoyuki Yamashita[1)], Satoru Nagashima[1)], Takahiro Kashiwagi[1)], Jun Nakagawa[1)], Katsumi Endo[1)]

3Dp10 Transmission secondary ion mass spectrometry using fast C_{60} ions
([1)]Dept. Micro Eng., Kyoto Univ.,[2)]Takasaki Advanced Radiation Res. Inst., JAEA, [3)]Res. Inst. Material and Chemical Measurement, AIST)
○Kaoru Nakajima[1)], Tomoya Marumo[1)], Kazuki Yamamoto[1)], Kengo Nagano[1)], Kazumasa Narumi[2)], Yuichi Saitoh[2)], Koichi Hirata[3)], Kenji Kimura[1)]

3Dp11 Comparison of matrix effect of dopant in Sputtered Neutral Mass Spectrometry with Secondary Ion Mass Spectrometry ([1)]Manufacturing Eng. Res. Center, Toshiba Corp.,[2)]Semiconductor & Storage Products Company, Toshiba Corp.,[3)]Toyama Co., Ltd)
○Reiko Saito[1)], Toma Yorisaki[1)], Haruko Akutsu[2)], Shiro Takeno[2)], Takeharu Ishikawa[3)], Takahiro Kashiwagi[3)], Satoru Nagashima[3)], Jun Nakagawa[3)]

【Room E】 9:00～16:00

SSSJ: Electrochemical Surface Science Division "Progress of the electrochemistry using a probe"

Chair: Toshihiro Kondo (9:00～10:30)

3Ea01 《INVITED》 In situ characterization of electrochemical processes at solid/liquid interfaces utilizing electrons and x-rays as probes ([1)]NIMS, [2)]JST) ○Takuya Masuda[1),2)], Kohei Uosaki[1)]

3Ea03R In situ XAFS spectroscopy of a carbon-supported dinuclear copper electrocatalyst for oxygen reduction
([1)]Hokkaido Univ., [2)]FC-Cubic) ○Masaru Kato[1)], Ken'ichi Kimijima[2)], Mari Shibata[2)], Hideo Notsu[2)], Kazuya Ogino[2)], Kiyoshi Inokuma[2)], Narumi Ohta[2)], Nobuhisa Oyaizu[1)], Hiromitsu Uehara[1)], Tadashi Ohba[1)], Yohei Uemura[1)], Satoru Takakusagi[1)], Kiyotaka Asakura[1)], IchizoYagi[1)]

3Ea04 《INVITED》 Condensed matter physics using resonant X-ray scattering ([1)]KEK) ○Hironori Nakao[1)]

3Ea06S Copper-Incorporated Carbon Catalysts for Oxygen Reduction Reaction
([1)]Grad. Sch. Environmental Sci., Hokkaido Univ.) ○Marika Muto[1)], Masaru Kato[1)], Ichizo Yagi[1)]

Break 10:30～10:45

Chair: Junji Inukai(10:45～12:00)

3Ea07 《INVITED》 Investigation of water at aqueous interfaces using heterodyne-detected sum-frequency generation spectroscopy ([1)]RIKEN, Molecular Spectroscopy Lab., [2)]RIKEN center for advanced photonics, Ultrafast Spectroscopy Res. Team, [3)]JST presto) ○Satoshi Nihonyanagi[1),2),3)], Tahei Tahara[1),2)]

3Ea09 Dynamics of Ionic Liquid at Ionic Liquid / Organic Semiconductor Interface ~Classical Molecular Dynamics Simulation Study~ ([1)]Grad. Sch. Eng. Sci., Osaka Univ., [2)]Grad. Sch. Eng., Osaka Univ.)
○Hiroo Miyamoto[1)], Yasuyuki Yokota[1)], Akihito Imanishi[1)], Kouji Inagaki[2)], Yoshitada Morikawa[2)], Ken-ichi Fukui[1)]

3Ea10 《INVITED》 Characterization of Electrode-Electrolyte Interface Using Electrochemical Surface Forces Apparatus

([1])Inst. Multidisciplinary Res. Advanced Materials, Tohoku Univ.) ○Motohiro Kasuya[1)]

Lunchtime 12:00～13:00

VSJ Organized Session "Vacuum Nanoelectronics - Challenges to Ultimate Performances -"

Chair: Takeo Nakano (13:00～14:30)

3Ep01 《INVITED》 Expectation to Vacuum Nanoelectronics

([1])Res. Inst. Electronics, Shizuoka Univ.) ○Hidenori Mimura[1)]

3Ep03 《INVITED》 High-frequency modulated electron emission from silicon field emitter array

([1])Hachinohe Inst. Technol.) ○Hidetaka Shimawaki[1)]

3Ep05 Characteristics of silicon field emitter array at elevated temperatures

([1])Grad. Sch. Eng., Kyoto Univ.) ○Yasuhito Gotoh[1)], Wataru Ohue[1)], Hiroshi Tsuji[1)]

3Ep06 Field emission from carbon films without sharp nano-protrusion

([1])Univ. Tsukuba) Shota Horie[1)], Ken Asanagi[1)], Takuma Myojin[1)], Yoichi Yamada[1)], ○Masahiro Sasaki[1)]

Break 14:30～14:45

Chair: Masahiro Sasaki (14:45～16:00)

3Ep07 《INVITED》 Ultrahigh Sensitivity Flat Image Sensor with Field Emitter Array

([1])NHK Sci. Technol. Res. Labs.) ○Masakazu Nanba[1)]

3Ep09 Fabrication of field emitter arrays with a built-in gate and focusing electrode ([1])AIST)○Masayoshi Nagao[1)]

3Ep10 Fabrication of Spindt emitter cathode using HPPMS with controlled plasma potential

([1])Grad. Sch., Seikei Univ., [2)]AIST)

○Tomoki Narita[1)], Takeo Nakano[1)], Masayoshi Nagao[2)], Hisashi Ohsaki[2)]

3Ep11 Development of radiation tolerant compact image sensor with field emitter array

([1])Grad. Sch. Eng., Kyoto Univ., [2)]AIST, [3)]Res. Inst. Electronics, Shizuoka Univ., [4)]National Inst. Technol., Kisarazu College, [5)]Res. Reactor Inst., Kyoto Univ., [6)]Radiation Res. Center, Osaka Prefecture Univ.)

○Yasuhito Gotoh[1)], Hiroshi Tsuji[1)], Masayoshi Nagao[2)], Tomoaki Masuzawa[3)], Yoichiro Neo[3)], Hidenori Mimura[3)], Tamotsu Okamoto[4)], Noburiho Sato[5)], Masafumi Akiyoshi[6)], Ikuji Takagi[1)]

【Room F】 9:00～16:15

SSSJ "Surface Reaction"

Chair: Akira Sasahara (9:00～10:30)

3Fa01 《INVITED》 Activation of CO_2 and methanol synthesis ([1])Univ. Tsukuba) ○Junji Nakamura[1)]

3Fa03Y CO oxidation on the size-selected Pt clusters deposited on Al_2O_3/NiAl(110)

([1])Toyota Central R&D Labs., Inc.,[2)]TOYOTA MOTOR CORP.)

○Atsushi Beniya[1)], Noritake Isomura[1)], Hirohito Hirata[2)], Yoshihide Watanabe[1)]

3Fa04 Study on adsorption and reaction of CO and NO on Ir(111) under near ambient pressure conditions

([1])Keio Univ., [2)] KEK, [3)]Gwangju Inst. Sci. Technol., [4)]Lund Univ.)

○Kohei Ueda[1)], Kazuma Suzuki[1)], Ryo Toyoshima[1)], Yuuji Monya[1)], Masaaki Yoshida[1)], Kazuhisa Isegawa[1)], Kenta Amemiya[2)], Kazuhiko Mase[2)], Bongjin Simon Mun[3)], Md. Alif Arman[4)], Elin Grånäs [4)], Jan Knudsen[4)], Joachim Schnadt[4)], Hiroshi Kondoh[1)]

3Fa05 Growth of 2-D Materials on a Magnetic Substrate by UHV-CVD and Their Spin-Polarization

([1]JAEA, [2]NIMS) Manabu Ohtomo[1], Seiji Sakai[1] ,○Yasushi Yamauchi[2]

3Fa06 Reaction measurement between carbon-based molecule and H_2 using Supersonic H_2 beam

([1]Univ. Tsukuba) ○Tatsuya Namatsu[1], Atsushi Kunihara[1], Rikuto Shouji[1], Youichi Yamada[1], Masahiro Sasaki[1]

Break 10:30～10:45

Chair: Junji Nakamura (10:45～12:00)

3Fa07 Measurement of the mean residence time and the adsorption isotherm of hydrogen physisorbed on a cold copper surface ([1]Dept. Physics, Gakushuin Univ.) ○Yuki Katoh[1], Kosuke Kubota[1], Ichiro Arakawa[1], Koichiro Yamakawa[1]

3Fa08Y Steric effect in O_2 adsorption on Pt(111) ([1]NIMS) ○Hirokazu Ueta[1], Mitsunori Kurahashi[1]

3Fa09 An XPS and AFM Study of Calcium Phosphate Deposition on Titanium Dioxide Surfaces

([1]JAIST)○Akira Sasahara[1],Tu Le[1], Kentaro Tsukuda[1], Masahiko Tomitori[1]

3Fa10S H_2 production from hydrogen storage material by highly active RuNi/TiO_2 catalyst

([1]Osaka Univ., [2]ESICB, Kyoto Univ.) ○Kohei Miyawaki[1], Kohsuke Mori[1),2)], Hiromi Yamashita[1),2)]

3Fa11 Studies of catalytic properties on mineral surfaces for oligomerization of amino acids

([1]Dept. Electronic Chemistry, The interdisciplinary Grad. Sch. Sci. Eng. Tokyo Inst. Technol., [2]Earth-Life Sci. Inst.) ○Yuya Nakazawa[1),2)], Takaaki Yano[1),2)], Tomohiro Hayashi[1], Masahiko Hara[1),2)]

Lunchtime 12:00～13:00

Joint Session "Surface chemistry: Adsorption, diffusion, interaction and their dynamic processes"

Chair: Ken-ichi Shudo (13:00～14:30)

3Fp01 《INVITED》 Generation of a spin- and alignment-controlled molecular oxygen beam and its application to surface reaction analysis ([1]NIMS) ○Mitsunori Kurahashi[1]

3Fp03 Analysis of electronic states on Si(113) surfaces oxidized by a supersonic seeded molecular beam technique

([1]Yokohama National Univ., [2]JAEA) ○Kazuma Tanaka[1], Shin-ya Ohno[1], Hiraku Kodama[1], Akitaka Yoshigoe[2], Yuden Teraoka[2], Masatoshi Tanaka[1]

3Fp04 Surface Orientation Dependence of Hydrogen Adsorption States on Solid Water Surfaces

([1]Center for Advanced Res. Energy and Materials, Fac. Eng., Hokkaido Univ.) ○Yuji Kunisada[1], Norihito Sakaguchi [1]

3Fp05 Adsorption state of CH_3Cl on Cu(410) stepped surface

([1]Grad. Sch. Sci., Osaka Univ.) ○Takamasa Makino [1], Michio Okada[1]

3Fp06 Adsorption states of 2-butene on a Cu(410) surface and the stability of geometric isomers

([1]Dept. Chemistry, Grad. Sch. Sci., Osaka Univ.)○Kotaro Takeyasu[1], Takamasa Makino[1], MichioOkada[1]

Break 14:30～14:45

Chair: Mitsunori Kurahashi (14:45～16:15)

3Fp07 Diffusion and stable structures of carborane derivatives on Au(111)

([1]Yokohama National Univ., [2]RIKEN) ○Masako Shindo[1], Yu Sugioka[1], Masanobu Uchiyama[2], Ken-ichi Shudo[1),2)]

3Fp08S Cyclic etching process of hydrogen terminated Si(110) surfaces
([1)]Tohoku Univ., [2)]RIKEN) ○Erina Kawamoto[1)], Stephane Yu Matsushita[1)], Taro Yamada[2)], Shozo Suto[1)]

3Fp09 Comparison of O_2 dissociative adsorption on Si(001) at room temperature between p-type and n-type conductivity ([1)]IMRAM, Tohoku Univ., [2)]Univ. Washington)
○Ryo Taga[1)], Jaiyi Tang[1)], Zhou Yu[1),2)], Shuichi Ogawa[1)], Yuji Takakuwa[1)]

3Fp10S Research on Reaction at Metal Sliding Surface of Ionic Liquids
([1)]Grad. Sch., Tokyo Univ. Sci., [2)]Tokyo Univ. Sci.)
○Shouhei Kawada[1)], Seiya Watanabe[1)], Chiharu Tadokoro[2)], Shinya Sasaki[2)]

3Fp11Y First-principles simulation of molecular adsorption and diffusion processes on constant-potential electrodes
([1)]ESICB, Kyoto Univ., [2)]Nanomaterials Res. Unit, AIST) ○Chunping Hu[1)], Minoru Otani[1),2)]

3Fp12 Si Growth Reaction Kinetics on Hydrogen Terminated Surface ([1)]AIST) ○Yasutake Toyoshima[1)]

【Room G】 9:00～16:15

VSJ “Thin Films (TF)・Plasma Science & Technique (PST)”

Chair: Yasushi Inoue (9:00～10:30)

3Ga01 《INVITED》 Plasma Synthesis of Graphene for Transparent Conductive Films
([1)]AIST, [2)]TASC-Graphene) ○Masataka Hasegawa[1),2)]

3Ga03 《INVITED》 Fundamentals of microwave-excited high-density plasma near substrate and its application to DLC coating ([1)]Nagoya Univ.) ○Hiroyuki Kousaka[1)]

3Ga05 Hydrogen fuel production from methane gas using atmospheric pressure plasma
([1)]Electrical and Electronic Eng. Dept., Grad. Sch. Eng, Osaka Institute Technol., [2)]Electrical and Electronic Eng. Dept., Osaka Institute Technol.) ○Masatoshi Tada[1)], Akiyoshi Nagata[2)]

3Ga06 DLC On-site Deposition by Atmospheric-Pressure Penlike Plasma
([1)]Tsuruoka National College Technol.) ○Hiroyuki Yoshiki[1)]

Break 10:30～10:15

Chair: Yasuhito Gotoh (10:45～12:00)

3Ga07 Mössbauer spectroscopy under visible-light irradiation of Fe-oxide eptaxially grown on TiO_2(100)
([1)]Inst. Industrial Sci., Univ. Tokyo)
○Taizo Kawauchi[1)], Naoki Nagatsuka[1)], Kanta Asakawa[1)], Katsuyuki Fukutani[1)]

3Ga08 Development of low damage sputtering cathode and evaluation of its performance
([1)]Yokohama National Univ.)
○Hiroshi Iwata[1)], Keisuke Okada[1)], Hiroki Ishii[1)], Daiki Kato[1)], Takao Sekiya[1)], Masatoshi Tanaka[1)]

3Ga09 Thermoelectric properties of copper selenide thin films synthesized by a combinatorial sputter coating system ([1)]NIMS) ○Masahiro Goto[1)], Michiko Sasaki[1)], Yibin Xu[1)], Yukihiro Isoda[1)], Yoshikazu Shinohara[1)]

3Ga10 Structure of Mo films deposited by triode High Power Magnetron Sputtering with plasma voltage control
([1)]Dept. Materials and Life Sci., Seikei Univ.)
○Takeo Nakano[1)], Tomoki Narita[1)], Kosuke Kimura[1)]

3Ga11 Electrochromic Properties of InN Thin Films Prepared by Glancing-angle Reactive Sputtering
([1)]Dept. Mechanical Sci. Eng., Chiba Inst. Technol., [2)]Grad. Sch. Mechanical Sci. Eng., Chiba Inst. Technol., [3)]Materials & Surface Eng. Res. Inst., Kanto Gakuin Univ.) ○Yasushi Inoue[1)], Daiki Sato[1)], Masahiro Nakao[2)], Osamu Takai[3)]

Lunchtime 12:00～13:00

VSJ “Vacuum Science & Technology (VST) Part II”

Chair: Junichiro Kamiya (13:00～14:15)

3Gp01 Influences of humidity on preamp of pressure sensor using temperature-stable quartz oscillator
([1]AIST) ○Atsushi Suzuki[1)]

3Gp02 Development of the sapphire-based sensor chip for capacitance diaphragm gauge
([1]Azbil Corp.) ○Masaru Soeda[1)], Hidenobu Tochigi[1)], Masashi Sekine[1)], Takuya Ishihara[1)]

3Gp03 Vacuum Property Measurement of a TiZrV Thin Film Exposed to Synchrotron Radiation
([1]KEK,[2]CERN)
○Yasunori Tanimoto[1)], Tohru Honda[1)], Marton Ady[2)], Roberto Kersevan[2)], Paolo Chiggiato[2)]

3Gp04 NEG pumps for SuperKEKB new beam pipes
([1]KEK) ○Yusuke Suetsugu[1)], Kyo Shibata[1)], Takuya Ishibashi[1)], Mitsuru Shirai[1)], Shinji Terui[1)]

3Gp05 Development of low-cost and high-performance non-evaporable getter (NEG) pumps using NEG pills
([1]Inst. Materials Structure Sci., KEK, [2]Fac. Eng., Chiba Univ., [3]Fac. Eng., Yokohama National Univ.)
○Takashi Kikuchi[1)], Kazuhiko Mase[1)], Masato Tanaka[2)], Hiraku Kodama[3)]

Break 14:15～14:45

VSJ School Course “Ultrahigh vacuum technique for surface science studies”

(14:45～16:15)

【Room H】

9:00～16:15

SSSJ “Soft Matter”

Chair: Akiko N. Itakura (9:00～10:30)

3Ha01 In-situ observation of reactions of water cluster ions with polypeptides by infrared absorption spectroscopy
([1]Res. Inst. Electrical Communication, Tohoku Univ., [2] FRIS, Tohoku Univ.,
[3]Grad. Sch. Biomedical Eng., Tohoku Univ., [4]JST-CREST)
○Mao Yoshida[1)], Teng Ma[1)], Hideaki Yamamoto[2),4)], Ayumi Hirano[3),4)], Michio Niwano[1)]

3Ha02S Quantitative analysis of the affinity of the material-binding peptide by AFM force mapping method
([1]Dept. Electronic Chemistry, Tokyo Inst. Technol., [2]Sch. Materials Sci. Eng., Nanyang Technological Univ., [3]Sch. Chemical and Biomedical Eng., Nanyang Technological Univ., [4]Centre for Biomimetic Sensor Sci., Nanyang Technological Univ., [5]Surface and Interface Sci. Lab., RIKEN)
○Masahito Mochizuki[1)], Masahiro Oguchi[1)], Seong-Oh Kim[2),3)], Joshua Jackman[2),3)], Tetsu Ogawa[1)], Ganchimeg Lkhamsuren[1)], Cho Nam-Joon[2),3),4)], Tomohiro Hayashi[1),5)]

3Ha03 Characterization of size distribution and adsorption types of exosomes
([1]Yokohama National Univ., [2]Japanese Foundation for Cancer Res., [3]CREST/JST,
[4]Tokyo Univ. Technol., [5]Grad. Sch. Biomed. Eng., Tohoku Univ., Tohoku Univ.)
○Yuta Ogawa[1)], Kazuki Itou[1)], Yukiko Matumura[2)], Kanako Suga[2)], Kiyotaka Shiba[2)], Yasuo Kimura[3),4)], Ayumi Hirano[3),5)], Toshio Ogino[1),3)]

3Ha04 Selective condensation of chromium ions in water by biofilms formed on solid surfaces
([1]National Inst. Technol., Suzuka College) ○Nobumitsu Hirai[1)], Miku Iwata[1)], Daichi Sugita[1)], Hideyuki Kanematsu[1)]

3Ha05 Observation of Streptavidin Immobilization on Mixed SAMs of Octanethiols and Biotin-tagged thiols by Atomic Force Microscopy. ([1]Tokyo Inst. Technol.) ○Tika Kusbandiah[1], Masahiko Hara[1]

3Ha06S Friction Measurement of Firebrat's scale surfaces by Atomic Force Microscopy

([1]Chitose Inst. Sci. Technol.) ○Naoto Okuda[1], Yuji Hirai[1], Masatsugu Shimomura[1]

Break 10:30～10:45

Chair: Takuya Ohzono (10:45～11:45)

3Ha07 Behavior of adsorbed Hb combined with O_2 and CO on surface using AFM measurement

([1]Osaka Univ., [2]NCVC, [3]Saitama Med. Univ.)

○Ai Maehira[1], Dock-Chil Che[1], Akito Shimouchi[2], Makoto Sawano[3], Takuya Matsumoto[1]

3Ha08 The Signals for Molecule Sensing using stress of Molecularly Imprinted Polymer

([1]NIMS, [2]Kobe Univ.) ○Akiko N. Itakura[1], Hirofumi Sunayama[2], Toshifumi Takeuchi[2]

3Ha09Y Development of microfluidic device with SPR imaging for allergy test

([1]Hiroshima Univ., [2]Kyusyu Inst. Technol.)

○Yuhki Yanase[1], Kenji Sakamoto[2], Koichiro Kobayashi[2], Tomoko Kawaguchi[1], Michihiro Hide[1]

3Ha10Y Label-free imaging of a cancer tissue by scanning probe electrospray ionization mass spectrometry

([1]Dept. Chemistry, Grad. Sch. Sci., Osaka Univ.) ○Yoichi Otsuka[1]

Lunchtime 12:00～13:00

SSSJ "Surface Structure"

Chair: Ken Hattori (13:00～14:30)

3Hp01 《INVITED》 Development of Mass Production and Application of Super-Growth Single Walled Carbon Nanotube ([1]CNT-Application Res. Center, AIST) ○Takeo Yamada[1], Kenji Hata[1]

3Hp03S Preparation of the oxygen supply device in water by using a honeycomb films

([1]Chitose Inst. Sci. Technol.) ○Naoki Yanagi[1], Yuji Hirai[1], Masatsugu Shimomura[1]

3Hp04 Structure Analysis of ZnO(0001) Surface by RHEED

([1]Daido Univ., [2]IMRAM Tohoku Univ., [3]Nagoya Inst. Technol.)

○Yoshimi Horio[1], Yuji Takakuwa[2], Shuichi Ogawa[2], Koji Abe[3]

3Hp05 Publication of highly oriented picene molecular film based on the control of monolayer

([1]Univ. Tsukuba) ○Hiromu Tsuboi[1], Masahiro Sasaki[1], Yoichi Yamada[1]

3Hp06 A study of P-Si heterodimer incorporated in the Si(100) surface

([1]NIMS, [2]Univ. College London)

○Keisuke Sagisaka[1], Daisuke Fujita[1], David Bowler[2]

Break 14:30～14:45

Chair: Yoshimi Horio(14:45～16:15)

3Hp07 Studies of Surface Reconstruction and Stripe Structures on Au(111)

([1]Dept. Electronic Chemistry, The Interdisciplinary Grad. Sch. Sci. Eng., Tokyo Inst. Technol.) ○Nina Matsuzaki[1], Takaaki Yano[1], Tomohiro Hayashi[1], Masahiko Hara[1]

3Hp08S Structure of multilayer silicene grown on Ag(111)

([1)]Grad. Sch. Frontier Sciences, Univ. Tokyo, [2)]JSPS Res. Fellow,[3)]ISSP, Univ. Tokyo,[4)]MANA-NIMS)

○Kazuaki Kawahara[1),2)], Tetsuroh Shirasawa[3)], Chun-Liang Lin[1)], Ryuichi Arafune[4)], Ryo Nagao[1)], Noriyuki Tsukahara[1)], Toshio Takahashi[3)], Maki Kawai[1)], Noriaki Takagi[1)]

3Hp09 Structure and electronic states of β-$FeSi_2$(100) surface

([1)]Grad. Sch. Materials Sci., Nara Inst. Sci. Tech.,[2)]Inst. Phys., Acad. Sci. of Czech Repub.)

○Ken Hattori[1)], Masaaki Someta[1)], Hiroshi Daimon[1)], Oleksandr Romanyuk[2)]

3Hp10Y Ultra-thin film formation on the Si{111}7×7 side-surfaces on the three-dimensionally architected Si(110) substrate ([1)]ISIR, Osaka Univ., [2)]NAIST)

○Azusa Hattori[1)], Ken Hattori[2)], Shohei Takemoto[2)], Hiroshi Daimon[2)], Hidekazu Tanaka[2)]

3Hp11 Stress evolution during Si(111) surface reconstruction

([1)]ASRC, JAEA,[2)]Hitachi Power) ○Hidehito Asaoka[1)], Yuki Uozumi[1),2)]

3Hp12 Determination of rutile-TiO_2(110)-(1×2) structure using total-reflection high energy positron diffraction (TRHEPD) ([1)]KEK,[2)]Hokkaido Univ.,[3)]JAEA) ○Izumi Mochizuki[1)], Hiroko Ariga[2)], Yuki Fukaya[3)], Ken Wada[1)], Kiyotaka Asakura[2)], Ayahiko Ichimiya[1)], Toshio Hyodo[1)]

【Room I】 9:00～11:30

SSSJ "Materials for Semiconductor, Magnetic, Electronic and Photonic Devices"

Chair: Ken-ichi Fukui (9:00～10:30)

3Ia01S Thin film growth method of Metal-Organic Frameworks (MOF/PCP) and application to a next-generation memory ([1)]Fac. Eng., Tottori Univ.,[2)]Nippon Steel & Sumitomo Metal Co., [3)]TiFREC, [4)]TEDREC)

○Yuki Nishimura[1)], Naohiro Murayama[1)], Hiroshi Kajiro[2)], Naonobu Katada[1)], Satoru Kishida[1),3),4)], Kentarou Kinoshita[1),3),4)]

3Ia02S Relationship of resistive switching and interfacial state in perovskite oxide

([1)]Tottori Univ.,[2)]Tottori Integrated Frontier Res. Center)

○Yuuto Hagihara[1)], Toshiki Shiomi[1)], Satoru Kishida[1),2)], Kentaro Kinoshita[1),2)]

3Ia03 Characterization of selective binding of protein molecules against hybrids of surface modified single-walled carbon nanotubes and single-stranded DNA

([1)]Dept. Physics, Grad. Sch. Sci., Tokyo Univ. Sci.) ○Yu Ishibashi[1)], Shusuke Oura[1)], Kazuo Umemura[1)]

3Ia04 Synthesis and characterization of organic material-based mechanoluminescent materials

([1)]Grad. Sch., Shizuoka Univ., [2)]Dept. Chemistry, Univ. Peradeniya)

Manoj Ranasinghe[1)], Gamini Rajapaksse[2)], Masaru Shimomura[1)], Masayuki Okuya[1)], ○Kenji Murakami[1)]

3Ia05 《SSSJ Review Paper Award》 LSI Interconnect Technology and Surface Science

([1)]Fujitsu Labs. Ltd.) ○Tomoji Nakamura[1)]

Break 10:30～10:45

Chair: Tomoji Nakamura (10:45～11:30)

3Ia07 Structural and Transport Properties of Ionic Liquid / Organic Single Crystal Interfaces Using FM-AFM and Device Measurements ([1)]Grad. Sch. Eng. Sci., Osaka Univ., [2)]Grad. Sch. Frontier Sciences, Univ. Tokyo)

○Yasuyuki Yokota[1)], Hisaya Hara[1)], Yusuke Morino[1)], Ken-ichi Bando[1)], Sakurako Ono[1)], Akihito Imanishi[1)],

Yugo Okada[2)], Hiroyuki Matsui[2)], Takafumi Uemura[2)], Jun Takeya[2)], Ken-ichi Fukui[1)]

3Ia08S Improvement of performance and the reliability of the conductive bridge memory by the ionic liquid addition

([1)]Fac. Eng., Tottori Univ., [2)]Tottori integrated Frontier Reserch center, [3)]Grad. Sch. Eng., Tottori Univ.) ○Atsushi Sakaguchi[1)], Kouhei Watanabe[3)], Akinori Harada[3)], Hiroki Yamaoka[3)], Toshiyuki Itou[1),3)], Satoru Kishida[1),2),3)], Kentarou Kinoshita[1),2),3)]

3Ia09 Development of non-destructive electric contact probes

([1)]NIMS) ○Michiko Yoshitake[1)], Shinjiro Yagyu[1)], Toyohiro Chikyow[1)]

【Room B】 16:15～16:30

Closing Session