

Flash Presentation & Poster Session

Convention Hall B, Makuhari-Messe, Chiba, Japan, September 3-4, 2015.

Poster session A (September 3, AM)

- A01** SIMULTANEOUS MULTIPOINT MEASUREMENT OF ORGANIC CRYSTALS
*Aoi Akiyama¹, Mao Fukuyama², Akihide Hibara¹
¹ Tokyo Institute of Technology, ² Kyoto Institute of Technology
- A02** DNA Aptamer Crosslinked Thermoresponsive Gel for Novel Affinity Chromatography System
*Erika HASUIKE¹, Aya Mizutani AKIMOTO², Reiko KURODA³, Yuki HIRUTA¹, Hideko KANAZAWA¹, Ryo YOSHIDA²
¹ Department of Pharmacy, Keio University, ² Department of Materials Engineering, School of Engineering, The University of Tokyo, ³ Research Institute for Science & Technology, Tokyo University of Science
- A03** Determination of Multi-Element in White copper alloy by ICP-OES
*Ma XiaoLing¹, Sun Youbao¹, Huang TaoHong¹, Shin-ichi Kawano¹, Yuki Hashi¹
¹ Shimadzu (China) Co., Ltd.
- A04** Total Reflection X-ray Fluorescence Analysis of Metal Particles in Used Machine Oil
*Ryohei Hosomi¹, Yuri Tabuchi², Kouichi Tsuji²
¹ Applied Chemistry & Bioengineering, Faculty of Engineering, Osaka City University, ² Applied Chemistry & Bioengineering, Graduate School of Engineering, Osaka City University
- A05** Evaluation of mechanical properties of CFRP
*Fumiaki Yano¹, Wataru Nagatsuka², Tsuyoshi Matsuo²
¹ Global Application Development Center, Analytical and Measuring Instruments Division, Shimadzu Corporation, ² Department of Systems Innovation, School of Engineering, The University of Tokyo
- A06** Surface-solvent interaction and fluid properties in extended nanospace
*Keisuke Ikeda¹, Yutaka Kazoe¹, Takehiko Tsukahara², Kazuma Mawatari¹, Takehiko Kitamori¹
¹ Department of applied chemistry, School of engineering, The university of Tokyo, Japan, ² Research Laboratory for Nuclear Reactors, Tokyo Institute of Technology, Japan
- A07** Photoluminescent properties of carbon nanodots prepared by pyrolytic synthesis
*Kotaro Morita¹, Naoki Yamada², Misuzu Nakada², Hirohisa Nagatani³, Naoki Hirayama^{1,4}, Hisanori Imura³
¹ Department of Chemistry, Faculty of Science, Toho University, Japan, ² Chemistry Course, School of Chemistry, College of Science and Engineering, Kanazawa University, Japan, ³ Division of Material Sciences, Graduate School of Natural Science and Technology, Kanazawa University, Japan, ⁴ Research Center for Materials with Integrated Properties, Toho University, Japan
- A08** Nanowire structures for bacteria analysis
*Takao Yasui^{1,2}, Kohei Otsuka¹, Masaki Takeuchi¹, Takeshi Yanagida^{3,4}, Noritada Kaji^{1,2,5}, Masaki Kanai³, Kazuki Nagashima³, Toyohiro Naito⁶, Tomoji Kawai⁴, Yoshinobu Baba^{1,2,7}
¹ Department of Applied Chemistry, Nagoya University, ² ImPACT Research Center for Advanced Nanobiodevices, Nagoya University, ³ Laboratory of Integrated Nanostructure Materials Institute of Materials Chemistry and Engineering, Kyushu University, ⁴ Institute of Scientific and Industrial Research, Osaka University, ⁵ ERATO Higashiyama Live-Holonics Project, Nagoya University, ⁶ Department of Material Chemistry, Kyoto University, ⁷ Health Research Institute, National Institute of Advanced Industrial Science and Technology (AIST)
- A09** Development of enzyme electrode based on carbon coated mesoporous silica tube
*Yuuta Shibuya¹, Tetsuji Itoh², Yasuto Hoshikawa³, Takashi Kyotani³, Akira Yamaguchi⁴
¹ Graduate School of Science and Engineering, Ibaraki University, ² National Institute of Advanced Industrial Science and Technology (AIST), ³ Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, ⁴ College of Science, Ibaraki University
- A10** Cellular Uptake Control of Thermo-Responsive Polymer Modified Liposome
*Ryo Nemoto¹, Jian Wang¹, Yuki Hiruta¹, Yoshie Maitani¹, Hideko Kanazawa¹
¹ Keio University
- A11** Evaluation of Phosphate Derivatives Recognition by Supramolecular Dipicolylamine Azoprobe/Dendrimer Complexes in Water
*Takeshi Hashimoto¹, Anna Koshino¹, Naoto Tabuchi¹, Shoji Fujiwara¹, Yuji Tsuchido¹, Takashi Hayashita¹
¹ Department of Materials and Life Sciences, Faculty of Science and Technology, Sophia University

- A12** Failure analysis of electrical products using X-ray fluorescence spectrometry
*Hitomi Nakano¹, Tetsuya Takimoto¹, Mami Segawa¹
¹ *Scientific & Semiconductor Instruments R&D Dept. HORIBA, Ltd.*
- A13** Water State Analysis of Methyl Cellulose Thermo Reversible Hydrogels Containing PEG and Salt
*Hiroki Eguchi¹, Yuko Nishimoto¹
¹ *Kanagawa Univ.*
- A14** Robust Platform For Photocatalytic Organic Syntheses Using Glass-Milled Microchip
*Akari Nakamura¹
¹ *Dept. of Appl. Chem., Chuo Univ.*
- A15** Real-time monitoring and detection of primer generation - rolling circle amplification of DNA using an ethidium ion selective electrode
*Ayaka Seichi¹, Nanami Kozuka¹, Miyuki Tabata², Akira Matsumoto², Tatsuro Goda², Yuji Miyahara², Daniel Citterio¹, Koji Suzuki¹
¹ *Keio university*, ² *Tokyo medical and dental university*
- A16** Colorimetric serum iron and copper chelators based on charged quinone structures
*Ryuta Endo¹, Yoshiyuki Kaneko¹, Kenyu Kina², Shigeru Nishiyama³, Naoko Iwasawa¹, Daniel Citterio¹, Koji Suzuki¹
¹ *Department of Applied Chemistry, Keio University*, ² *University of the Ryukyus*, ³ *Department of Chemistry, Keio University*
- A17** The Assessment of Protein Aggregation by Quantitative Laser Diffraction Method
*Hiroki Maeda¹, Shinichiro Totoki¹
¹ *Shimadzu Corporation*
- A18** Design of bright fluorescent polymers for bioimaging
*Yuka Takahashi¹, Mikako Sekizawa¹, Rina Kato¹, Tomohisa Toyama¹, Yuki Hiruta³, Yutaka Shindo², Kotaro Oka², Madoka Takai⁴, Naoko Iwasawa¹, Daniel Citterio¹
¹ *Department of Applied Chemistry, Keio University*, ² *Department of Biosciences and Informatics, Keio University*, ³ *Department of Pharmacy, Keio University*, ⁴ *Department of Materials Engineering, The University of Tokyo*
- A19** Rapid Formation of Single-Cell Pairs on a Microwell Array Using Dielectrophoresis
*Tomoyuki Yasukawa¹, Yuki Yoshimura¹, Masahiro Tomita², Fumio Mizutani¹
¹ *Graduate School of Material Science, University of Hyogo*, ² *Graduate School of Engineering, Mie University*
- A20** Identification of a novel SUMOylated protein and analysis of the SUMOylation function
*Maki Komiya¹, Daisuke Hiruma¹, Mitsuru Hattori¹, Takeaki Ozawa¹
¹ *Department of Chemistry, Tokyo University*
- A21** Synthesis of fluorescent thermoresponsive polymers for novel immunoassays
*Yoshifumi Hagimoto¹, Nobuo Uehara¹
¹ *Graduate School of Engineering Utsunomiya University*
- A22** Optimization of microfluidic in situ Padlock RCA for DNA counting in a cell
*Yuri Ishigaki¹, Kae Sato¹
¹ *Japan Women's University*
- A23** siRNA delivery analysis by siRNA-selective fluorescent PNA probe
*Takaya Sato¹, Yusuke Sato¹, Kenta Iwai², Shusuke Kuge², Norio Teramae¹, Seiichi Nishizawa¹
¹ *Department of Chemistry, Graduate School of Science, Tohoku University*, ² *Department of Microbiology, Tohoku Pharmaceutical University*
- A24** Continuous and Simultaneous Monitoring of PM Mass Concentration and Speciation with a Single Instrument
*Yusuke Mizuno¹, Tomoki Aoyama¹, Erika Matsumoto¹
¹ *HORIBA, Ltd.*
- A25** A Simple Regeneration Method for Glass Nanofluidic Chips by Utilizing a Thermochemical Decomposition Process
*Yuji Shimatani^{1,2}, Qian Wu^{1,2}, Koji Yamaguchi^{1,3}, Yan Xu¹
¹ *Nanoscience and Nanotechnology Research Center, Osaka Prefecture University*, ² *Department of Chemistry, Graduate School of Science, Osaka Prefecture University*, ³ *Department of Quantum and Radiation Engineering, Graduate School of engineering, Osaka Prefecture University*
- A26** Advanced Flow Analysis Systems for Automated Water Quality Assessment
*Alejandro Ayala Quezada¹, Hiroya Murakami¹, Norio Teshima¹
¹ *Aichi Institute of Technology*

- A27** Discriminating between normal and cancer cells by viscoelastic properties with the AFM and laser-induced surface deformation microscope
*Masashi Ishihara¹, Toshinori Morisaku¹, Hiroharu Yui¹
¹ *Graduate School of Chemical Sciences and Technology, Tokyo University of Science*
- A28** Dual-polarisation Raman Imaging for Biological Research
*Liang-da Chiu^{1,2}, Takeaki Ozawa¹, Katsumasa Fujita²
¹ *Department of Chemistry, the University of Tokyo*, ² *Department of Applied Physics, Osaka University*
- A29** Continuous separation of micro-particles based on staggered-electromagnetophoretic split-flow fractionation
*Yoshinori Iiguni¹, Ayaka Tanaka¹, Hajime Ohtani¹
¹ *Graduate School of Engineering, Nagoya Institute of Technology*
- A30** Development of Radioactive Strontium-90 Analytical System Using Inductively Coupled Plasma Mass-spectrometry Following Cascade-step Separation System
*Takahiro Suzuki¹, Makoto Furukawa², Yutaka Kameo³, Katz Suzuki⁴, Yoshitaka Takagai¹
¹ *Fukushima University*, ² *PerkinElmer Japan Co., Ltd.*, ³ *Japan Atomic Energy Agency*, ⁴ *Japan Agency for Marine-Earth Science and Technology*
- A31** Detection of RNA by Capillary Polymer Electrophoresis
*Xiaoming Dou^{1,2}, Xifang Zhu², Chenchen Liu^{1,3}, Zhenqing Li³, Yoshinori Yamaguchi¹
¹ *East China University of Science and Technology*, ² *Changzhou Institute of Technology*, ³ *University of Shanghai for Science and Technology*
- A32** Pore Size Control of Thermal Stimuli-Induced Gel for Molecular Sieving
*Yudai Fukushima¹, Toyohiro Naito¹, Takuya Kubo¹, Koji Otsuka¹
¹ *Graduate School of Engineering, Kyoto University*
- A33** Effect of AOT on the Selectivity of Microdroplet Condensation Using Spontaneous Emulsification
*MAO FUKUYAMA¹, AKIHIDE HIBARA², YUMI YOSHIDA¹, KOHJI MAEDA¹
¹ *Kyoto Institute of Technology*, ² *Tokyo Institute of Technology*
- A34** Imaging Mass Spectrometry Using Ultra-high Mass Resolution Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometer, SpiralTOF
*Takaya Satoh¹, Ayumi Kubo¹, Naoki Moriguchi², Hisanao Hazama², Kunio Awazu², Michisato Toyoda³
¹ *JEOL Ltd.*, ² *Graduate School of Engineering, Osaka University*, ³ *Graduate School of Science, Osaka University*

Poster session B (September 3, PM)

- B01** 3D culture of fat and muscle cells in a microchip
*Kyoka Onodera¹, Kin-ichi Tsunoda¹, Kiichi Sato¹
¹ *Gunma university*
- B02** Real-time detection of cells binding on antibodies using SPR imaging
*Hiroyuki Morimura¹, Chiraz Frydman²
¹ *HORIBA, Ltd.*, ² *HORIBA Jobin Yvon SAS*
- B03** Patterning of living cells in a microchannel by photocrosslinking reaction
*Sayaka Kikuchi¹, Kin-ichi Tsunoda¹, Kae Sato², Kiichi Sato¹
¹ *Gunma University*, ² *Japan Women's University*
- B04** Comprehensive analysis of primary & secondary metabolites in citrus using an automated method changeover UHPLC system and LC/MS/MS
*Yuka Fujito¹, Kiyomi Arakawa¹, Yoshihiro Hayakawa¹
¹ *Shimadzu Corporation, Kyoto*
- B05** Inkjet-printed polymeric hydrogels for application on microfluidic paper-based analytical devices
*Masanori Ishii¹, Kentaro Yamada¹, Koji Suzuki¹, Daniel Citterio¹
¹ *Department of Applied Chemistry, Keio University*
- B06** A study of observation method of polymer materials in liquid using TEM
*Kiyotaka Nakano¹, Marina Wayama¹, Syunya Watanabe¹, Taro Ogawa¹, Mami Konomi¹, Pin Chang², Lin-AI Tai², Yu-Ching Chen²
¹ *Hitachi High-Technologies Corporation*, ² *Bio Materials Analysis Technology Inc.*
- B07** Design of Fluorescent Dipicolylamine Derivatives for Selective Detection of Bacteria in Water
*Yuna Kasai¹, Yasuko Torii¹, Yuji Tsuchido¹, Takeshi Hashimoto¹, Takashi Hayashita¹
¹ *Department of Materials and Life Sciences, Faculty of Science and Technology, Sophia University*
- B08** Synthesis of NIR luminescent gold nanoclusters by etching with thiol compounds
*Natsumi Sonoda¹, Nobuo Uehara¹
¹ *Department of Applied Chemistry, Graduate school of Utsunomiya University*
- B09** VOC-Adsorption and Desorption Properties of Charcoal and Woodceramics Prepared from Apple Waste
*Naoya Inomata¹, Toshihiro Okabe¹, Takahisa Tsugoshi², Yuko Nishimoto¹
¹ *Kanagawa Univ.*, ² *AIST*
- B10** Analysis of SF6 in GC-BID
*Shinji Uchiyama¹
¹ *Shimadzu corporation*
- B11** MASS-PRODUCIBLE AND EASY-TO-USE CAPILLARY-ASSEMBLED MICROCHIP FOR MULTIPLEXED SENSING TOWARD POINT OF CARE TESTING
*Akihiro Shirai¹, Terence G. Henares¹, Kenji Sueyoshi¹, Tatsuro Endo¹, Hideaki Hisamoto¹
¹ *Graduate School of Engineering, Osaka Prefecture University, Osaka, Japan*
- B12** Ion selective optodes for inkjet-printed microPADs
*Hiroyuki Shibata¹, Terence Henares¹, Nobutoshi Komuro¹, Koji Suzuki¹, Daniel Citterio¹
¹ *Department of Applied Chemistry, Keio University*
- B13** New Excimer fluorescence derivatization reagent, CMPT for use in the highly sensitive and selective liquid chromatography analysis of polyamines in biological and food samples
*Nan Fukudo¹, Tatsuki Nakano¹, Kenichiro Todoroki¹, Hajime Mizuno¹, Koichi Inoue², Jun Zhe Min¹, Toshimasa Toyooka¹
¹ *School of Pharmaceutical sciences, university of Shizuoka*, ² *College of Pharmaceutical Sciences, Ritsumeikan University*
- B14** Nano-composite with a Thermo-responsive Molecularly Imprinted Polymer and a Magnetic Nanoparticle for Selective Drug-releasing.
*Katsuaki KOTERASAWA¹, Toyohiro NAITO¹, Takuya KUBO¹, Koji OTSUKA¹
¹ *Department of Material Chemistry Graduate School of Engineering Kyoto University*

- B15** Development of coelenterazine derivatives for bioluminescence applications
 *Ryo Nishihara¹, Sung Bae Kim², Takahiro Nakajima³, Moritoshi Sato³, Shigeru Nishiyama⁴, Naoko Iwasawa¹, Daniel Citterio¹, Koji Suzuki¹
¹ Department of Applied Chemistry, Keio University, ² National Institute of Advanced Industrial Science and Technology, ³ The University of Tokyo, ⁴ Faculty of Science and Technology, Keio University
- B16** Direct Estimation of the Interaction between Cell Surface Antigen and Antibody on Solid Phase Using Dielectrophoresis
 *Ayaka Kawashima¹, Fumio Mizutani¹, Tomoyuki Yasukawa¹
¹ Graduate School of Material Science, University of Hyogo
- B17** Development of temperature-responsive solid-phase extraction column for biological sample pretreatment
 *Michiko Akimaru¹, Kohei Okubo¹, Yuki Hiruta¹, Hideko Kanazawa¹
¹ Faculty of Pharmacy, Keio University
- B18** Development of a microfluidic blood vessel and extracellular matrix model
 *Ai Kumada¹, Kae Sato¹
¹ Japan Women's University
- B19** Investigation of a bioluminescent probe to quantify the activity of photoreceptors
 *Tomoki Nishiguchi¹, Takeaki Ozawa¹
¹ Department of Chemistry, University of Tokyo
- B20** Detection of Periodontal bacteria by Capillary Polymer Electrophoresis
 Zhenqing Li¹, Chenchen Liu^{1,2}, *Yoshinori Yamaguchi^{2,3}
¹ University of Shanghai for Science and Technology, ² East China University of Science and Technology, ³ Osaka University,
- B21** Protein Detection by Using Graphene FRET Aptasensor
 *Yuko Ueno¹, Kazuaki Furukawa¹
¹ NTT Basic Research Laboratories, NTT Corporation
- B22** Structural characterization of photocleavable polymersomes based on dynamic light scattering, field flow fractionation and transmission electron microscopy
 *Shota Yamamoto¹, Jun Nakanishi², Kazuo Yamaguchi¹
¹ Department of Chemistry, Kanagawa University, ² National Institute for Materials Science (NIMS)
- B23** Development of a specific binding scaffold reebody targeting clathrin
 *Kazuki Fukuda¹, Kazuma Eto¹, Hideaki Yoshimura¹, Takeaki Ozawa¹
¹ Department of Chemistry, School of Science, The University of Tokyo
- B24** Fast elemental imaging by WD-XRF spectrometer
 *Yuki Takimoto¹, Masaki Yamanashi¹, Shuichi Kato², Takashi Shoji², Kouichi Tsuji¹
¹ Department of Applied Chemistry & Bioengineering, Graduate School of Engineering, Osaka City University, ² X-ray Research Laboratory, Rigaku Corporation
- B25** DEVELOPMENT OF HIGH-EFFICIENT PROTON CONDUCTOR NANOCANNELS ARRAY BASED ON FERROELECTRIC MATERIAL
 *Hangyeol Seo¹, Yuriy Pihosh¹, Yutaka Kazoe¹, Kazuma Mawatari¹, Kenji Kitamura², Osamu Tabata³, Toshiyuki Tsuchiya³, Takehiko Kitamori¹
¹ The University of Tokyo, Department of Applied Chemistry, Japan, ² National Institute for Materials Science, Optoelectronic Materials Group, Japan, ³ Kyoto University, Department of Micro Engineering, Japan
- B26** Development of a quantitative hormone detection system combining electrochemical method with immunochromatography.
 *Wataru Iwasaki¹, Mizuki Ryu¹, Ramachandra Rao Sathuluri¹, Ryoji Kurita¹, Osamu Niwa¹, Masaya Miyazaki¹
¹ National Institute of Advanced Industrial Science and Technology
- B27** Complex formation of aluminium ion and Lumogallion in a liquid-core/liquid-cladding optical waveguide
 *Satoshi Yoshizawa¹, Kiichi Sato¹, Kin-ichi Tsunoda¹
¹ Gunma university
- B28** Fabrication of slab optical waveguide with cation exchange thin film and its application to the detection of sulfide ion.
 *Masayuki Hinachi¹, Kiichi Sato¹, Kin-ichi Tsunoda¹
¹ Gunma university
- B29** Graphene Characterization using Side-Illuminated Tip-Enhanced Raman Spectroscopy
 *Yoshito Okuno¹, Nobuyuki Naka¹, Yasushi Nakata¹
¹ Horiba.Ltd, Scientific and Semiconducting instruments R&D department, Optical Analysis Team

- B30** Contribution of Cytoskeletal Networks in a Fibroblast Cell to its Viscoelastic Properties Studied by the Laser-Induced Surface Deformation Microscope
*Yuhei Wada¹, Toshinori Morisaku¹, Hiroharu Yui¹
¹ *Graduate School of Chemical Science and Technology, Tokyo University of Science*
- B31** Effects of Terminal Group and Chain Length on Temperature-Responsive Chromatography Utilizing Poly(N-isopropylacrylamide) Via RAFT Polymerization
*Yuhei Nagumo¹, Yuki Hiruta¹, Hideko Kanazawa¹
¹ *Keio University Faculty of Pharmacy*
- B32** Elucidation of accumulation mechanism for Ag and Pt in unicellular algae
*Yu Imamura¹, Akiko Hokura¹
¹ *Tokyo Denki University*
- B33** Electrophoretic Separation of Intrinsic Membrane Proteins in Supported Lipid Membrane
*Yukihiro Okamoto¹
¹ *Div. of Chemical Engineering, Grad. Sch. of Engineering Science, Osaka University*

Poster session C (September 4, AM)

- C01** Background-free optical detection on micro-device with alternative comb electrodes
*Kotohiro Furukawa¹, Mao Fukuyama², Akihide Hibara¹
¹ *Tokyo Institute of Technology, Japan*, ² *Kyoto Institute of Technology, Japan*
- C02** Label-Free Cell Detection Using an Overoxidized Polymer Film
*Koji Numada¹, Hiroshi Shiigi², Tsutomu Nagaoka², Ikuhiko Nakase³, Shiho Tokonami²
¹ *Department of Electronic and Physics, Osaka Prefecture University*, ² *Department of Applied Chemistry, Osaka Prefecture University*, ³ *Nanoscience and Nanotechnology Research Center, Osaka Prefecture University*
- C03** Alternating current cloud point extraction: the use of ferrocenyl surfactant
*Yuya Usui¹, Naoki Sasaki¹
¹ *Faculty of Science and Engineering, Toyo University*
- C04** Parameters influencing sample transport in microfluidic paper-based analytical devices
*Riki Ota¹, Kentaro Yamada¹, Koji Suzuki¹, Daniel Citterio¹
¹ *Department of Applied Chemistry, Keio University*
- C05** High Sensitivity Analysis of Diarrhetic Shellfish Poisoning Toxins Using Liquid Chromatography Tandem Mass Spectrometry
*Manami Kobayashi¹, Miho Kawashima², Satoshi Yamaki³, Yoshihiro Hayakawa³
¹ *Shimadzu Corporation, Kanagawa, JAPAN*, ² *Shimadzu Corporation, Tokyo, JAPAN*, ³ *Shimadzu Corporation, Kyoto, JAPAN*
- C06** Identification of Foreign Materials in Food by Physicochemical Analyses: Mammalian Hairs
*Jae-Hwang Lee¹, Young-Eun Park¹, Byung-Chul Lim¹, Jin-Ha Lee¹, Kisung Kwon¹
¹ *New Hazardous Substance Team, National Institute of Food & Drug Safety Evaluation, Ministry of Food and Drug Safety*
- C07** Preparation of thermo-responsive hollow polymeric microspheres by ink-jetting approach
*Daisuke Katagiri¹, Huijie Zeng¹, Hizuru Nakajima¹, Shungo Kato¹, Katsumi Uchiyama¹
¹ *Department of Applied Chemistry, Tokyo Metropolitan University*
- C08** Saccharide recognition by using amphiphilic boronic acid probe
*Yuji Tsuchido¹, Nana Nodomi¹, Takahito Suzuki¹, Takeshi Hashimoto¹, Takashi Hayashita¹
¹ *Department of Materials and Life Sciences, Faculty of Science and Technology, Sophia University*
- C09** Development of Thermoresponsive Hybrid Nanoparticles Using Silica-block-copolymer
*Sayaka Koide¹, Jian Wang¹, Yuki Hiruta¹, Hideko Kanazawa¹
¹ *Faculty of Pharmacy, Keio University*
- C10** The effect of adsorbed dyes on carrier dynamics in dye-sensitized solar cell
*Shota Kuwahara¹, Keita Omata¹, Ryo Hosokawa¹, Taisei Nishimura¹, Qing Shen², Taro Toyoda², Kenji Katayama¹
¹ *Department of Applied Chemistry, Chuo University*, ² *Department of Engineering Science, The University of Electro-Communications*
- C11** Continuous pH Monitoring of Ultra-Diluted Chemistry for Industrial Process
*Takahiro Goto¹, Kazuhiro Miyamura¹, Yoko Nakai¹, So Takagi¹, Yoshihiro Mori¹
¹ *HORIBA, Ltd.*
- C12** Characteristic Scattergram of White Blood Cells Obtained Using the Pentra MS CRP Hematology Analyzer
*Katsutoshi Ishizuka¹, Naoyuki Nomura², Kensuke Saito³, Tohru Inaba⁴, Masaki Nakanishi⁴, Naohisa Fujita⁴
¹ *Application R&D center, HORIBA, Ltd.*, ² *Medical Segment Strategy Office, HORIBA, Ltd.*, ³ *Medical Sales Management Office, HORIBA, Ltd.*, ⁴ *Kyoto Prefectural University of Medicine*
- C13** Bioanalysis for therapeutic monoclonal antibodies using affinity purification-high temperature reversed phase chromatography.
*Tatsuki Nakano¹, Yasuhiro Eda¹, Kenichiro Todoroki¹, Hajime Mizuno¹, Jun Zhe Min¹, Koichi Inoue², Toshimasa Toyooka¹
¹ *Department of Analytical and Bio-Analytical Chemistry, University of Shizuoka*, ² *College of Pharmaceutical Sciences, Ritsumeikan University*
- C14** Basic Study of the Bactericidal Effects of Electrolyzed Water Containing Hypochlorous acid
*Teruaki Kuno¹, Atsuo Iwasawa², Yuko Nishimoto¹
¹ *Kanagawa Univ.*, ² *Tokyo Institute of Technology*

- C15** Development of red-shifted luciferin analogues
*Yuma Ikeda¹, Tomohisa Toyama¹, Naoko Iwasawa¹, Daniel Citterio¹, Shigeru Nishiyama¹, Koji Suzuki¹
¹ Department of Applied Chemistry, Keio University
- C16** histamine selective paper sensing device
*Yusuke Suemura¹, Kentaro Yamada¹, Yuki Adachi¹, Koji Suzuki¹, Daniel Citterio¹
¹ Keio University
- C17** Hands-Free Preparation of Monodisperse Water-in-Oil Droplets Using a Poly(dimethylsiloxane) Microfluidic Chip for Droplet Digital PCR
Yuta Nakashoji¹, Kazuhiko Tsukagoshi¹, *Masahiko Hashimoto¹
¹ Department of Chemical Engineering and Materials Science, Doshisha University
- C18** Development of a protein imprinted PEG-based hydrogel for label-free fluorescence detection. 2
*Shunsuke Arimura¹, Toyohiro Naito¹, Takuya Kubo¹, Koji Otsuka¹
¹ Graduate School of Engineering, Kyoto University
- C19** Separation of Small Interfering RNA in Capillary Polymer Electrophoresis
*Chenchen Liu^{1,2}, Xiaoming Dou¹, Xifang Zhu³, Zhenqing Li², Yoshinori Yamaguchi¹
¹ East China University of Science and Technology, ² University of Shanghai for Science and Technology, ³ Changzhou Institute of Technology
- C20** Development of luciferase probes for the elucidation of synchronization mechanism of circadian clock by ultraviolet-C irradiation.
*Genki Kawamura¹, Mitsuru Hattori¹, Teruya Tamaru², Takeaki Ozawa¹
¹ Department of Chemistry, School of Science, The University of Tokyo, ² Department of Physiology, School of Medicine, Toho University
- C21** Bovine ova separation based on sucrose absorption rate difference with microfluidic device
*Wataru Iwasaki¹, Yuki Teshima², Daisuke Sugiyama¹, Maria Portia Briones Nagata¹, Kenichi Yamashita¹, Masatoshi Maeki³, Kenichi Yamanaka⁴, Masashi Takahashi⁵, Masaya Miyazaki^{1,2}
¹ Advanced Manufacturing Research Institute, National Institute of Advanced Industrial Science and Technology (AIST), ² Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, ³ Faculty of Engineering, Hokkaido University, ⁴ Faculty of Agriculture, Saga University, ⁵ Graduate School of Agriculture, Hokkaido University
- C22** Highly Sensitive Electrophoretic Bioassay Based on Double Sweeping Using Reagent-release Hydrogels
Ryota Sanuki¹, *Kenji Sueyoshi¹, Tatsuro Endo¹, Hideaki Hisamoto¹
¹ Osaka Prefecture University
- C23** Evaluation of novel extraction needle for Collecting Alcohol in the air -NeedlEx-
*Koji Kawamura¹, Koji Usubuchi¹, Miho Syundo¹, Kazumasa Miyazawa¹
¹ Komyo Rikagaku Kogyo
- C24** Au Nanoparticle-Embedded Carbon Films for Electrochemical As³⁺ Detection with High Sensitivity and Stability
*Daiki Kato^{1,2}, Tomoyuki Kamata^{1,3}, Dai Kato¹, Hiroyuki Yanagisawa^{1,2}, Osamu Niwa^{1,2}
¹ National institute of advanced industrial science and technology (AIST), ² University of Tsukuba, ³ Chiba institute of technology
- C25** Highly sensitive ionic current sensing system with optical observation
*Hirotohi Yasaki^{1,2}, Takao Yasui^{1,2}, Sakon Rahong², Takeshi Yanagida³, Naritada Kaji^{1,2,4}, Masaki Kanai³, Kazuki Nagashima³, Tomoji Kawai⁵, Yoshinobu Baba^{1,2,6}
¹ Department of Applied Chemistry, Nagoya University, ² IMPACT Research Center for Advanced Nanobiodevices, Nagoya University, ³ Institute for Materials Chemistry and Engineering, Kyushu University, ⁴ ERATO Higashiyama Live-Holonics Project, Graduate School of Science, Nagoya University, ⁵ Institute of Scientific and Industrial Research, Osaka University, ⁶ Health Research Institute, National Institute of Advanced Industrial Science and Technology (AIST)
- C26** Large-scale integration (LSI)-based electrochemical chip device for imaging of cell activity in three-dimensional cultured cells
*Kosuke Ino¹, Yusuke Kanno¹, Kumi Y. Inoue¹, Masahki Matsudaira², Atsushi Suda³, Ryota Kunikata³, Hitoshi Shiku¹, Tomokazu Matsue^{1,4}
¹ Graduate School of Environmental Studies, Tohoku University, ² Micro System Integration Center, Tohoku University, ³ Japan Aviation Electronics Industry, Ltd., ⁴ WPI-Advanced Institute for Materials Research, Tohoku University
- C27** Integration of Thermal lens detection with Mach-Zehnder interferometer
*Hiroki Morita¹, Hisashi Shimizu¹, Masaaki Sakakura², Yasuhiko Shimotsuma², Kiyotaka Miura², Kazuyuki Hirao², Kazuma Mawatari¹, Takehiko Kitamori¹
¹ the university of tokyo, ² Kyoto University

- C28** Features of the RF-6000 Spectrofluorophotometer
*Haruka Iwamae¹, Mikio Sugioka¹, Yasuyuki Watanabe¹
¹ *Shimadzu Corporation*
- C29** Development of stimulated Raman scattering interferometer and application to analysis of thin film materials
*Eri Omori¹, Motohiro Banno¹, Hiroharu Yui¹
¹ *Department of Chemistry, Tokyo University of Science*
- C30** Development of the Near-infrared Laser-induced Surface Deformation (NIR-LISD) Microscope
*Toshinori Morisaku¹, Hiroharu Yui¹
¹ *Department of Chemistry, Tokyo University of Science*
- C31** Separation of Inorganic Anions on Dendritic Polymer-based Stationary Phases in Capillary Liquid Chromatography
*Itsuya Kawase¹, Lee Wah Lim¹, Toyohide Takeuchi¹
¹ *Department of Chemistry and Biomolecular Science, Faculty of Engineering, Gifu University*
- C32** Development of Immobilized Enzymatic Trypsin Micro-reactor on Polymer Monolith Column for Biocatalytic Reactions by Using Capillary Chromatography
*Radhia Putri¹, Lee Wah Lim¹, Toyohide Takeuchi¹
¹ *Department of Chemistry and Biomolecular Science, Faculty of Engineering Gifu University, Japan*
- C33** Anti-inflammatory Pterocarpans and Flavonoids from *Derris laxiflora* Benth
*Hsi-Lin Chiu¹, Wen-Cheng Huang¹, Ming-Yu Chao¹, Jui-Ching Chen¹, Yueh-Hsiung Kuo²
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Poster session D (September 4, PM)

- D01** Hybridization of DNA on microbeads fixed with a photo-crosslinkable resin for a microfluidic Southern hybridization system
*Genta Suzuki¹, Kin-ichi Tsunoda¹, Kiichi Sato¹
¹ *Gunma university*
- D02** Single DNA molecules detection by on-bead rolling circle amplification in a crowded environment
Yoshitaka Gunji¹, Akiho Numata², Kae Sato², *Naoki Sasaki¹
¹ *Faculty of Science and Engineering, Toyo University, JAPAN*, ² *Faculty of Science, Japan Women's University, JAPAN*
- D03** Development of sampling and pretreatment methods of drugs in a microfluidic cardiovascular system
*Akira Hosoda¹, Kin-ichi Tsunoda¹, Kiichi Sato¹
¹ *Gunma university*
- D04** Single-molecular detection of apoptosis related proteins using a nanofluidic array chip
*Qian Wu^{1,2}, Yan Xu¹
¹ *Nanoscience and Nanotechnology Research Center, Research Organization for the 21st Century, Osaka Prefecture University*, ² *Department of Chemistry, Graduate School of Science, Osaka Prefecture University*
- D05** Fabrication of a tubular hydrogel structure and cell culture in the tube for development of a vascular model
*Shunya Fukuda¹, Kin-ichi Tsunoda¹, Kiichi Sato¹
¹ *Gunma university*
- D06** Directly determination of the Trace Elements in Diesel Engines-NO_x Reduction Agent AUS 32 by ICP-OES
*You Bao Sun¹, XiaoLing Ma¹, TaoHong Huang¹, Shin-ichi Kawano¹, Yuki Hashi¹
¹ *Shimadzu (China) Co., Ltd.*
- D07** Application of PCA for X-ray Fluorescence Mapping
*Shota Aida¹, Tsuyoshi Matsuno², Takeshi Hasegawa³, Kouichi Tsuji²
¹ *Applied Chemistry & Bioengineering, Faculty of Engineering, Osaka City University*, ² *Applied Chemistry & Bioengineering, Graduate School of Engineering, Osaka City University*, ³ *Institute for Chemical Research, Kyoto University*
- D08** Development of Microfabricated 3D Structures for LC Columns
*Makoto Nakamura¹, Toyohiro Naito¹, Takuya Kubo¹, Koji Otsuka¹
¹ *Graduate School of Engineering, Kyoto University*
- D09** Design and Function of Coumarin Fluorescent Probe modified Cyclodextrin for Phosphate anion Sensing in Water
*Shoji Fujiwara¹, Tatsuru Yamada¹, Takeshi Hashimoto¹, Takashi Hayashita¹
¹ *Department of Materials and Life Sciences, Faculty of Science and Technology, Sophia University*
- D10** Co-sputter deposited nickel-copper nanoalloy embedded carbon films for electrocatalytic detection of sugar markers
*Shunsuke Shiba^{1,2}, Dai Kato², Tomoyuki Kamata^{2,3}, Osamu Niwa^{1,2}
¹ *University of Tsukuba*, ² *Advanced Industrial Science and Technology*, ³ *Chiba Institute of Technology*
- D11** New expansion method of SI-traceable organic standard Materials using Standard Materials Calibration System
*Tomohiro Sasaki¹, Takuro Watanabe², Tomotaka Yoshimura¹, Shoji Narukami¹
¹ *HORIBA STEC, Co.,Ltd.*, ² *National Institute of Advanced Industrial Science and Technology (AIST)*
- D12** Discovery of Imogolite-like Aluminumsilicate-based Colloidal Stumpy Hollow Nanoparticles in Goshiki-numa Pond Community and Its Electron Tomographic Analysis
*Arata Endo¹, Ryota Abe¹, Yoshitaka Takagai¹
¹ *Fukushima University*
- D13** The Molecular Interaction of a Protein in Highly Concentrated Solution Investigated by Raman Spectroscopy
*Chikashi Ota¹, Shintaro Noguchi¹, Satoru Nagatoishi², Kouhei Tsumoto^{2,3,4}
¹ *Advanced R&D Center, Horiba Ltd.*, ² *School of Engineering, The University of Tokyo*, ³ *Institute of Medical Science, The University of Tokyo*, ⁴ *Drug Discovery Initiative, The University of Tokyo*
- D14** Reader-free quantification of tear fluid lactoferrin on paperfluidic analytical device
*Kentaro Yamada¹, Terence Henares¹, Koji Suzuki¹, Daniel Citterio¹
¹ *Department of Applied Chemistry, Keio University*
- D15** Analysis of Metabolites in human Plasma with Stable Isotopes and Ultra-Fast GC-MS/MS System
*Takero Sakai¹, Yumi Unno¹, Shuichi Kawana¹, Yukihiko Kudo¹, Shin Nishiumi², Masaru Yoshida², Noriyuki Ojima¹
¹ *Shimadzu Corporation*, ² *Kobe University Graduate School of Medicine*

- D16** Design and synthesis of novel coelenterazine derivatives for bio-applications
*Masahiro Abe¹, Ryo Nishihara¹, Takahiro Nakajima⁴, Moritoshi Sato⁴, Sung-Bae Kim³, Naoko Iwasawa¹, Daniel Citterio¹, Shigeru Nishiyama², Koji Suzuki¹
¹ Department of Applied Chemistry, Keio University, ² Faculty of Science and Technology, Keio University, ³ National Institute of Advanced Industrial Science and Technology, ⁴ The University of Tokyo
- D17** A Single Probe to Sense Al(III) Colorimetrically and Cd(II) by Turn-On Fluorescence in Physiological Conditions and in Live Cells.
*Chirantan Kar¹, Soham Samanta¹, Aiyagari Ramesh², Gopal Das¹
¹ Dept. of Chemistry, Indian Institute of Technology Guwahati, ² Dept of Biotechnology, Indian Institute of Technology Guwahati
- D18** Fluorescent detection of the methylation sites on stretched DNA molecules at the single molecule level for epigenomic analysis
*Atsunori Hattori^{1,2}, Takao Yasui^{1,2}, Noritada Kaji^{1,2,3}, Yoshinobu Baba^{1,2,4}
¹ Department of Applied Chemistry, Graduate School of Engineering, Nagoya University, Japan, ² ImPACT Research Center for Advanced Nanobiodevices, Nagoya University, Japan, ³ ERATO Higashiyama Live-Holonics Project, Graduate School of Science, Nagoya University, ⁴ Health Research Institute, National Institute of Advanced Industrial Science and Technology(AIST), Japan
- D19** Evaluation of the interaction between U937 cells and arginine-rich peptide with an electroactive compound
*Kazuharu Sugawara¹, Toshihiko Kadoya¹, Hiroki Shinohara²
¹ Faculty of Engineering, Maebashi Institute of Technology, ² Graduate school of Engineering, Maebashi Institute of Technology
- D20** Analysis of dynamics on a non-coding RNA in living cells using a single molecule tracking approach
*Hideaki Yoshimura¹, Toshimichi Yamada¹, Hiroki Segawa¹, Takeaki Ozawa¹
¹ Department of Chemistry, School of Science, The University of Tokyo
- D21** A novel application of RT-IPCR for circadian clock phase determination
*Tatsunosuke TOMITA¹, Kenichiro TODOROKI², Koyomi MIYAZAKI¹
¹ Biomedical research institute, AIST (Japan), ² School of Pharmaceutical Sciences, University of Shizuoka (Japan)
- D22** Rapid and Sensitive Enzyme Activity Assay by Electrokinetic Filtration Using a Hydrogel Immobilizing Fluorescent Substrates
Takashi Nishiwaki¹, *Kenji Sueyoshi¹, Tatsuro Endo¹, Hideaki Hisamoto¹
¹ Osaka Prefecture University
- D23** Determination of arsenite by anodic stripping voltammetry with a nano-hole shaped membrane electrode
*Naoto Yoshikawa¹, Shinya Sato¹, Tomomi Sato¹, Genki Hayakawa¹, Masamitsu Iiyama², Hitoshi Mizuguchi²
¹ Department of Biochemical Engineering, Graduate School of Science and Engineering, Yamagata University, ² Nomura Micro Science Co. Ltd.
- D24** Analytical Study of Excavated and Natural Whetstone at the Owari Domain Upper Mansion Site
*Yuki Aoyanagi¹, Manami Takaoka¹, Yuko Nishimoto¹
¹ Kanagawa Univ.
- D25** Chemical-contrast imaging of microstructures on water/substrate interface with stimulated Raman scattering interferometer
*Sumire Takahashi¹, Eri Omori¹, Takayuki Kondo¹, Motohiro Banno¹, Hiroharu Yui¹
¹ Department of Chemistry, Tokyo University of Science
- D26** Development of macrocyclic antibiotics-type dress-up chiral column
*Yuhi Sato¹, Kenichiro Todoroki¹, Yasuhiro Ishii¹, Kentaro Sato², Jun Zhe Min¹, Hajime mizuno¹, Yoshitaka Hamashima², Toshimasa Toyo'oka¹
¹ Department of Analytical and Bio-Analytical Chemistry, University of Shizuoka, ² Department of Synthetic Organic Chemistry, University of Shizuoka
- D27** Fully automated on-line sample extraction and analysis of residual pesticides in agricultural products by using on-line SFE-SFC-MS
*Takanari Hattori¹, Takato Uchikata¹, Hidetoshi Terada¹, Chigusa Ichikawa¹, Yasuhiro Funada¹, Yayoi Ichiki², Miho Sakai³, Takashi Ando³, Yoshihiro Izumi^{4,5}, Eiichiro Fukusaki⁵
¹ Shimadzu Corporation, ² Miyazaki Enterprise Promotion Organization, ³ Miyazaki Agricultural Research Institute, ⁴ Kushu University, ⁵ Osaka University

- D28** Development of a novel solid phase extraction column for purification of the protein utilizing temperature-responsive polymer
*Kohei Okubo¹, Michiko Akimaru¹, Yuki Hiruta¹, Hideko Kanazawa¹
¹ *Keio University*
- D29** Parallel MS Detection in LC for simultaneous analysis of multiple samples using signal processing
*Takashi KUMAZAKI¹, Shinya KITAGAWA¹, Hajime OHTANI¹
¹ *Department of Material science and Engineering Graduate School of Engineering, Nagoya Institute of Technology*
- D30** Utility of online pretreatment method utilizing temperature-responsive chromatography
*Ryo Uchida¹, Toshiyasu Mikuma¹, Yuki Hiruta¹, Hideko Kanazawa¹
¹ *Keio university*
- D31** Development of temperature-responsive chromatography using Hydroxyproline derivative polymer
*Yuki Hiruta¹, Ryo Adachi¹, Hideko Kanazawa¹
¹ *Keio University*
- D32** Simultaneous and Rapid Separation of Inorganic Cations using Sulfonate Hybrid Monolithic Column in Capillary Ion Chromatography
*Aster Rahayu¹, Lee Wah Lim¹, Toyohide Takeuchi¹
¹ *Department of Chemistry and Biomolecular Science, Faculty of Engineering, Gifu University, Japan*
- D33** Applications of Concatenated Composite Pulses (CCCPs) to Solution NMR
*Nobuaki Nemoto¹, Tomomitsu Kurimoto¹, Toshihito Nakai¹, Masamitsu Bando^{2,3}, Tsubasa Ichikawa⁴, Mikio Nakahara^{3,5}, Yutaka Shikano^{6,7}, and Yasushi Kondo^{2,3}
¹ *JEOL RESONANCE Inc.*, ² *Kinki University Technical College*, ³ *Department of Physics, Kinki University*,
⁴ *Department of Physics, Gakushuin University*, ⁵ *Research Center for Quantum Computing, Interdisciplinary Graduate School of Science and Engineering, Kinki University*, ⁶ *Research Center of Integrative Molecular Systems (CIMoS), Institute for Molecular Science*, ⁷ *Institute for Quantum Studies, Chapman University*