

Flash Presentation & Poster Session

Convention Hall B, Makuhari-Messe, Chiba, Japan, September 8-9, 2016.

Session A (September 8, AM)

- A01** Switching of concentration/partition behavior of molecules in aqueous microdroplets
*Mao Fukuyama¹, Yumi Yoshida¹, Akihide Hibara², Kohji Maeda²
¹ Faculty of Molecular Chemistry and Engineering, Kyoto Institute of Technology, ² Institute of Multidisciplinary Research for Advanced Materials, Tohoku University
- A02** Simple HPLC Method Transfer by Adjustment of Dwell Volume
*Akihiro Kunisawa¹, Daiki Fujimura², Yusuke Osaka¹, Shinichi Kawano¹, Yoshihiro Hayakawa¹
¹ Global Application Development Center, Shimadzu Corporation, ² LC Business Unit, Shimadzu Corporation
- A03** Laser trapping of black carbon in air using a single annular laser beam
*Masaru Uraoka¹, Shoji Ishizaka¹
¹ Department of Chemistry, Graduate school of Science, Hiroshima University
- A04** DEVELOPMENT OF PHOTOTHERMAL DETECTION DEVICE FOR MEASUREMENT OF ABSORPTION SPECTRUM IN MICROSAPCE
*Fumitoshi Sugino¹, Hisashi Shimizu¹, Masaaki Sakakura², Kiyotaka Miura², Kazuma Mawatari¹, Takehiko Kitamori¹
¹ The University of Tokyo, ² Kyoto University
- A05** Spontaneous Chemical Oscillation Mechanism in water/oil/water system Effect of electrolyte in the membrane phase
*Satoshi Iko¹, Tomonori Nomoto¹, Taro Toyota², Masanori Fujinami¹
¹ Department of Applied Chemistry and Biotechnology, Chiba University, ² Department of Basic Science, Graduate School of Arts and Sciences, The University of Tokyo
- A06** In-situ Measurement of Temperature in Nanochannels Utilizing Nano-in-nano Integration Technology
*Taichi Nakajima¹, Yan Xu²
¹ Department of Physical Science, Graduate School of Science, Osaka Prefecture University, JAPAN, ² Department of Chemical Engineering, Graduate School of Engineering, Osaka Prefecture University, JAPAN
- A07** Development of potentiometric sensor based on molecularly imprinted polymer using histamine as a template
*Atsuko Konishi¹, Shoko Akatani¹, Rie Takemoto¹, Risa Fujita¹, Shigehiko Takegami¹, Tatsuya Kitade¹
¹ Kyoto Pharmaceutical University
- A08** Electrochemical long-period fiber grating sensor
*Takuya Okazaki¹, Tatsuya Orii¹, Akira Taguchi², Noriko Hata¹, Shigeru Taguchi¹, Yun-Thung Yong³, Faidz A-Rahman⁴, Hideki Kuramitz¹
¹ Department of Environmental Biology and Chemistry, Graduate School of Science and Engineering for Research, University of Toyama, Japan, ² Hydrogen Isotope Research Center, University of Toyama, Japan, ³ Department of Electronic Engineering, Faculty of Engineering and Green Technology, Universiti Tunku Abdul Rahman, Malaysia, ⁴ Department of Electrical and Electronic Engineering, Lee Kong Chian Faculty of Engineering and Science, Universiti Tunku Abdul Rahman, Malaysia
- A09** Fabrication of Nanoparticle Arrays by Using Nano-in-Nano Integration technology
*Yuji Shimatani¹, Yan Xu²
¹ Department of Chemistry, Graduate School of Science, Osaka Prefecture University, ² Department of Applied Chemistry, Graduate School of Engineering, Osaka Prefecture University
- A10** Cytosine methylation amplification method using Dnmt¹ and rolling circle amplification
*Takehito Yoshida^{1,2}, Hiroaki Suzuki¹, Ryoji Kurita²
¹ Graduate School of Pure and Applied Sciences, University of Tsukuba, ² National Institute of Advanced Industrial Science and Technology (AIST)
- A11** Surface modification for inhibition of drug adsorption in a microfluidic cardiovascular system
*Akira Hosoda¹, Kin-ichi Tsunoda¹, Kiichi Sato¹
¹ Gunma University
- A12** Quantitative analysis of active pharmaceutical ingredients by Transmittance Raman Spectroscopy
*Eishi Iso¹, Tomoko Numata¹, Yasushi Nakata²
¹ HORIBA TECHNO SERVICE Co., Ltd., ² HORIBA, Ltd.

- A13** Spyrolactam Capped Cyanine Dyes for Designing of NIR Probes to Target Various Metal Ions
*Chirantan Kar¹, Daniel Citterio¹, Koji Suzuki¹
¹ *Department of Applied Chemistry*
- A14** A novel BODIPY-based chemiluminescent probes for bioanalysis
*Mayuko Sumiya¹, Masahiro Yokoo¹, Shigeru Nishiyama², Daniel Citterio¹, Koji Suzuki¹
¹ *Department of Applied Chemistry, Keio University,* ² *Faculty of Science and Technology, Keio University*
- A15** Bright fluorescent probes based on MPC polymer for bio-application
*Yuka Takahashi¹, Mikako Sekizawa¹, Yutaka Shindo², Kotaro Oka², Madoka Takai³, Shigeru Nishiyama⁴, Daniel Citterio¹, Koji Suzuki¹
¹ *Department of Applied Chemistry, Keio University,* ² *Department of Biosciences and Informatics, Keio University,* ³ *Department of Material Engineering, The University of Tokyo,* ⁴ *Faculty of Science and Technology, Keio University*
- A16** Construction of a cell-penetrating/apoptosisinducing/electron-transfer peptide probe for sensing of lymphoma cells
*Kazuharu Sugawara¹, Hiroki Shinohara¹, Hideki Kuramitz², Toshihiko Kadoya¹
¹ *Maebashi Institute of Technology,* ² *Graduate School of Science and Engineering for Research, University of Toyama*
- A17** Cancer Cell Detection Using Molecularly Imprinted Polymer
*Ryotaro Kawaguchi¹
¹ *Department of Applied Chemistry, Osaka Prefecture University,* ² *Department of Science, Osaka Prefecture University,* ³ *Nanoscience and Nanotechnology Research Center, Osaka Prefecture University*
- A18** Development of Non-Contact Wettability Assessment System
*Nobuyuki Tanaka¹, Yoshihide Haruzono², Hiromitsu Nasu², Yuki Nakanishi¹, Junko Takahara¹, Akane Awazu¹, Yo Tanaka¹
¹ *RIKEN,* ² *Kitagawa Iron Works Co., Ltd.*
- A19** Structural studies of VEGF A-like DNA aptamers selected by consecutive SELEX with deep sequencing analysis
*Fumiya Wayama¹, Keiko Kimura¹, Hitoshi Furusho², Keitaro Yoshimoto¹
¹ *Department of Life Sciences, Graduate School of Arts and Science, The University of Tokyo,* ² *Chemical General Division, Nissan Chemical Industries, Ltd.*
- A20** Dielectrophoresis device as an analytical tool for applying mechanical stimuli to cell
*Junya Yoshioka¹, Toru Yoshitomi¹, Tomoyuki Yasukawa², Keitaro Yoshimoto¹
¹ *Department of Life Sciences, Graduate School of Arts and Science, The University of Tokyo,* ² *Graduate School of Material Science, University of Hyogo*
- A21** Countable-molecule Analysis Utilizing Extended-nano Fluidic ELISA Device
*Ryoichi Ohta¹, Kazuma Mawatari¹, Emi Mori¹, Takehiko Kitamori¹
¹ *The University of Tokyo, Japan*
- A22** Ribonuclease A Immobilized Monolithic Microreactor for Rapid Flow-Through Digestion of RNA
*Takayuki Wada¹
¹ *Graduate School of Life Sciences, Tokyo University of Pharmacy and Life Sciences*
- A23** Monitoring of oxygen for contracting myotube with the electrochemical microscopy
*Tomoyuki Yasukawa¹, Yuki Igaki¹, Fumio Mizutani¹
¹ *Graduate School of Material Science, University of Hyogo*
- A24** Sequence-specific detection of DNA in microchip electrophoresis using microbeads fixed with photo-crosslinkable resin
*Genta Suzuki¹, Kin-ichi Tsunoda¹, Kiichi Sato¹
¹ *Gunma university*
- A25** VOC Adsorption and Desorption Properties of Carbonized Biomass
*Yuhei Tanaka¹, Naoya Inomata¹, Toshihiro Okabe¹, Takahisa Tsugoshi², Yuko Nishimoto¹
¹ *Kanagawa Univ.,* ² *AIST*
- A26** Nanosorbent Prepared From Rice Husk For Chromium Metal Ions Removal From Leather Tannery Wastewater
*Zahratul Syifa Aisya¹, Ulfa Zhafirah¹, Nurul Ilma Lerina¹, Sukma Alfiana Aziz¹
¹ *Department of Chemistry, University of Indonesia, West Java, Indonesia*

- A27** Analysis of Discoloration and Coloration Using FTIR and EDX
*Risa Fuji¹
¹ Shimadzu Corporation
- A28** Entropy-Driven Complexation between Thiourea-Based Receptor and Acetate
*Takaya Suzuki¹, Yuuta Shibuya¹, Akira Yamaguchi¹
¹ Ibaraki University
- A29** ZnO nanowires for early prostate cancer diagnosis
*Takao Yasui^{1,2,3}, Daiki Takeshita¹, Takeshi Yanagida^{4,5}, Noritada Kaji^{1,2}, Masaki Kanai⁴, Kazuki Nagashima⁴, Hiroshi Yukawa², Tomoji Kawai⁵, Yoshinobu Baba^{1,2,6}
¹ Department of Applied Chemistry, Graduate School of Engineering, Nagoya University, ² ImPACT Research Center for Advanced Nanobiodevices, Nagoya University, ³ Japan Science and Technology Agency (JST), PRESTO, ⁴ Institute for Materials Chemistry and Engineering, Kyusyu University, ⁵ Institute of Science and Industrial Research, Osaka University, ⁶ Health Research Institute, National Institute of Advanced Industrial Science and Technology (AIST)
- A30** Microscopic Evaluation of CFRP Laminates
*Risa Fuji¹, Keiji Ogi²
¹ Shimadzu Corporation, ² Ehime University
- A31** Design of Fluorescent Membrane Using Dipicolylamine Probes for Selective Bacterial Detection in Water
*Yuna Kasai¹, Hiroyuki Kobayashi¹, Yuji Tsuchido¹, Takeshi Hashimoto¹, Takashi Hayashita¹
¹ Department of Materials and Life Sciences, Faculty of Science and Technology, Sophia University
- A32** Flow Chemical Analysis Methods: Practical Applications to Water, Gas and Steel Analyses
*Norio Teshima¹, Hiroya Murakami¹
¹ Aichi Institute of Technology
- A33** Paper Cone Spray Ionization Mass Spectrometry (PCSI MS) for Raw Solid Material Analysis
*Sangwon Cha¹, Gyuwoong Jun¹, Tae-Min Park¹
¹ Dept of Chemistry, Hankuk University of Foreign Studies
- A34** Development of a simplified and sensitive detection method with gas detector tube for mercury in water.
*Koji Kawamura¹, Manabu Suzuki¹, Kazumasa Miyazawa¹
¹ Komyo Rikagaku Kogyo K.K.
- A35** Introduction of Microfocus X-ray CT System
*Tsuginosuke Hashimoto¹, Masami Edahiro¹, Hirokazu Okochi¹, Daisuke Harada¹
¹ Shimadzu corporation
- A36** Real-time measurement of AlCl₃ vapor concentration utilizing Infrared absorption spectroscopy for semiconductor process
*Yuhei Sakaguchi¹, Atsuko Teraoka¹, Daisuke Hayashi¹, Masakazu Minami¹
¹ HORIBA STEC, Co., Ltd.

Session B (September 8, PM)

- B01** Pressure properties of electroosmotic pumps using sulfo group-modified silica monolith or microfabricated structure arrays
*Hiroki Inoue¹
¹ *Department of Material Chemistry, Graduate school of Engineering, Kyoto University*
- B02** Method Screening of Chiral Separation by a Single HPLC-SFC Switching System
*Yoshiko Hirao¹
¹ *Shimadzu Corporation., Kyoto, Japan*
- B03** Investigations of hygroscopic properties of multicomponent aerosols by means of a laser trapping technique
*Xiaomeng Tian¹, Sophie Sobanska², Shoji Ishizaka¹
¹ *Department of Chemistry, Graduate School of Science, Hiroshima University, Japan,* ² *Laboratoire de Spectrochimie Infrarouge et Raman, CNRS, France*
- B04** Quantitative Calculation of Spectrum Shape of Single Beam Quasi-Elastic Laser Scattering Method
*Kyohei Ishikawa¹, Koichiro Seki, Christian Pigot, Akihide Hibara¹
¹ *Tokyo Institute of Technology*
- B05** In situ Electrochemical Magnetization Measurement System: Applications to Metal Oxide Superconductors
*Takeshi Shimizu¹, Kunio Awaga², Hirofumi Yoshikawa¹
¹ *Department of Science and Technology, Kwansei Gakuin University,* ² *Department of Chemistry, Nagoya University*
- B06** Redox Cycling-based CMOS Electrochemical Sensor for Selective Detection of Dopamine
*Hiroya Abe¹, Kosuke Ino¹, Yusuke Kanno¹, Kumi Y. Inoue¹, Ryota Kunikata², Atsushi Suda², Masahki Matsudaira³, Hitoshi Shiku⁴, Tomokazu Matsue^{1,3,5}
¹ *Graduate School of Environmental Studies, Tohoku University,* ² *Japan Aviation Electronics Industry, Ltd.,* ³ *Micro System Integration Center, Tohoku University,* ⁴ *Graduate School of Engineering, Tohoku University,* ⁵ *WPI-Advanced Institute for Materials Research, Tohoku University*
- B07** Microfluidic bridge circuit ionic current sensing system to detect whole types of bacteria
*Hirotohi Yasaki^{1,2}, Takao Yasui^{1,2}, Takeshi Yanagida^{3,4}, Noritada Kaji^{1,2}, Masaki Kanai³, Kazuki Nagashima³, Tomoji Kawai⁴, Yoshinobu Baba^{1,2,5}
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 *Health Research Institute, National Institute of Advanced Industrial Science and Technology (AIST)*
- B08** Development of nLC-¹MS employing frequency division multiplexing for simultaneous analyses of multiple samples
*Hiroka Kishi¹, Takashi Kumazaki¹, Shinya Kitagawa¹, Hajime Ohtani¹
¹ *Graduate School of Engineering, Nagoya Institute of Technology*
- B09** IMAGE ANALYSIS FOR CRYSTAL SHAPE DISTINGUISHMENT IN MICROFLUIDIC MULTI-POINT CRYSTALIZATION METHOD
*Aoi Akiyama¹, Mao Fukuyama², Akihide Hibara^{1,3}
¹ *Tokyo Institute of Technology,* ² *Kyoto Institute of Technology,* ³ *Tohoku University*
- B10** Interfacial tension of a lipid membrane formed at the liquid-liquid interface upon DNA complex formation
*Keita Suzuki¹, Masashi Ohno¹, Tomonori Nomoto¹, Taro Toyota², Masanori Fujinami¹
¹ *Department of Applied Chemistry & Biotechnology, Chiba University,* ² *Department of Basic Science, The University of Tokyo*
- B11** Development of co-culture and permeation assay method for microfluidic blood-brain barrier model
*Satoshi Okazaki¹, Kin-ichi Tsunoda¹, Kiichi Sato¹
¹ *Gunma university*
- B12** Development of Electrodialyzer for On-line Sample Pretreatment of Electrospray Ionization Mass Spectrometry and Its Application to Quantification of Boric Acid
*Reiko Ishihara¹, Kiichi Sato¹, Kin-ichi Tsunoda¹, Hiroki Hotta²
¹ *Gunma University,* ² *Nara University of Education*

- B13** Structural Modified Firefly Luciferin Analogues for Bioluminescence Imaging
*Yuma Ikeda¹, Naoko Iwasawa¹, Daniel Citterio¹, Shigeru Nishiyama², Koji Suzuki¹
¹ Department of Applied Chemistry, Faculty of Science and Technology, Keio University, ² Department of Chemistry, Faculty of Science and Technology, Keio University
- B14** Design of Novel Red-Shifted Coelenterazine Derivatives for in vivo Imaging
*Masahiro Abe¹, Ryo Nishihara¹, Takahiro Nakajima², Moritoshi Sato², Naoko Iwasawa¹, Daniel Citterio¹, Shigeru Nishiyama³, Koji Suzuki¹
¹ Department of Applied Chemistry, Keio University, ² The University of Tokyo, ³ Faculty of Science and Technology, Keio University
- B15** Highly sensitive reagents for serum iron and copper based on charged quinone structure
*Ryuta Endo¹, Yoshiyuki Kaneko¹, Naoko Iwasawa¹, Shigeru Nishiyama², Daniel Citterio¹, Koji Suzuki¹
¹ Department of Applied Chemistry, Keio University, ² Department of Chemistry, Keio University
- B16** In vitro ³D culture platform for multidirectional imaging
*Masaya Hagiwara¹, Rina Nobata¹, Tomohiro Kawahara²
¹ Osaka Prefecture University, ² Kyushu Institution of Technology
- B17** Highly Sensitive ELISA System Using a Capillary Electrophoresis Apparatus Equipped with a Z-shaped Optical Cell
*Nozomi Ninomiya¹, Kenji Sueyoshi¹, Tatsuro Endo¹, Hideaki Hisamoto¹
¹ Graduate School of Engineering, Osaka Prefecture University
- B18** Analysis of residual solvents using headspace GC-FID/MS Detector Splitting system
*Ayaka Miyamoto¹, Izumi Nakano², Jun Nagata¹, Toyohito Wada¹
¹ Shimadzu, ² Shimadzu Techno-Research
- B19** Analysis of real-time motion of signal transduction molecule Akt in living cells to reveal its functioning mechanism
*Hideaki Yoshimura¹, Takeaki Ozawa¹
¹ Department of Chemistry, School of Science, The University of Tokyo
- B20** Living single cell release and culture after fL sampling by extended-nano/micro interface
*Ling Lin¹
¹ The University of Tokyo
- B21** Dissociation Kinetics of an Enzyme-Inhibitor Complex Using Capillary Electrophoretic Reactor (CER).
*Yumiko Sasaki¹, Toru Takahashi², Nobuhiko Iki¹
¹ Graduate School of Environmental Studies, Tohoku University, ² Graduate School of Engineering, University of Fukui
- B22** Development of Solid-Phase Derivatization of Amino Acid for Diastereomeric Separation on an Achiral Capillary GC Column
*Masakazu Yotsugi¹, Chisato Nakahara¹, Motohide Aoki¹, Tatsuya Uchida¹, Hidetoshi Kumata¹, Tomonari Umemura¹
¹ Graduate School of Life Sciences, Tokyo University of Pharmacy and Life Sciences
- B23** Chiral metabolomics research: Development of high accuracy method using isotope coded derivatization reagent
*Takahiro Takayama¹, Hajime Mizuno¹, Kenichiro Todoroki¹, JunZhe Min¹, Toshimasa Toyooka¹
¹ School of Pharmaceutical Sciences, University of Shizuoka
- B24** Detection of the B heavy oil in environmental water using Excitation Emission Matrix and Parallel Factor Analysis
*Reiji Kojima¹, Yoshihiko Kawaguchi¹
¹ HORIBA Advanced Techo. Co., Ltd.
- B25** Analysis of Water State and Gelation of Methylcellulose Thermo -Reversible Hydrogels containing PEG and salt
*Ayumu Endo¹, Hiroki Eguchi¹, Yuko Nishimoto¹
¹ Kanagawa Univ.
- B26** A droplet electrochemical microalgal bioassay based on alkaline phosphatase activity
*Md. Saiful Islam¹, Kazuto Sazawa², Noriko Hata¹, Shigeru Taguchi¹, Kazuharu Sugawara³, Hideki Kuramitz¹
¹ Department of Environmental Biology and Chemistry, Graduate School of Science and Engineering for Research, University of Toyama, ² Center for Far Eastern Studies, University of Toyama, ³ Maebashi Institute of Technology
- B27** Hydrogen-induced defects in α -iron on hydrogen embrittlement
*Kazuki Koizumi¹, Masanori Fujinami¹, Yuya Matsumoto², Hiroshi Suzuki², Takai Kenichi², Kenji Ito³
¹ Department of Applied Chemistry & Biotechnology, Chiba University, ² Department of Engineering and Applied Sciences, Sophia University, ³ Research Institute for Material and Chemical Measurement of AIST

- B28** Inkjet-generated ion selective optical sensing particles
*Soda Yoshiki¹, Hiroyuki Shibata¹, Kentaro Yamada¹, Koji Suzuki¹, Daniel Citterio¹
¹ *Department of Applied Chemistry, Keio university*
- B29** Removing Particulate Matter Using Water Film
*Taisuke Shimada^{1,2}, Takao Yasui^{1,2}, Akihide Hibara³, Takeshi Yanagida⁴, Noritada Kaji^{1,2}, Masaki Kanai⁴, Kazuki Nagashima⁴, Tomoji Kawai⁵, Yoshinobu Baba^{1,2,6}
¹ *Graduate School of Engineering, Nagoya University, JAPAN*, ² *ImPACT Research Center for Advanced Nanobiodevices, Nagoya University, JAPAN*, ³ *Institute of Multidisciplinary Research for Advanced Material, Tohoku University, JAPAN*, ⁴ *Institute of Materials Chemistry and Engineering, Kyusyu University, JAPAN*, ⁵ *Institute of Science and Industrial Research, Osaka University, JAPAN*, ⁶ *Health Research Institute, National Institute of Advanced Industrial Science and Technology (AIST), JAPAN*
- B30** Substituent Effect of Dipicolylamine Fluorescent Probe
*Ayumi Suzuki¹, Yasuko Torii¹, Shoji Fujiwara¹, Takeshi Hashimoto¹, Takashi Hayashita¹
¹ *Department of Materials and Life Sciences, Faculty of Science and Technology, Sophia University*
- B31** In-situ Manipulation of Giant Liposomes Using an Electron-beam Induced Virtual Cathode
*Hiroki Miyazako¹, Kunihiro Mabuchi¹, Takayuki Hoshino¹
¹ *Department of Information Physics and Computing, The University of Tokyo*
- B32** Characterization of reverse micelles using Slab Optical Waveguide.
*Takuya Nishiwaki¹, Kiichi Sato¹, Kin-ichi Tsunoda¹
¹ *Gunma University*
- B33** Characterization of natural coating materials
*Noriyasu Niimura¹, Hiroshi Terashima¹
¹ *Application Management Department, JEOL Ltd.*
- B34** Analysis of Poly(ethylene glycol-co-propylene glycol) Using Travelling Wave Ion Mobility Mass Spectrometry
*Kanakano Ito¹, Shinya Kitagawa¹, Hajime Ohtani¹
¹ *Graduate School of Engineering, Nagoya Institute of Technology*
- B35** X-ray Diffractometry of Water in Extended-nano Space
*Hiroki Koreeda¹, Kazuma Mawatari¹, Koji Ohara², Shinji Kohara³, Toshio Yamaguchi⁴, Koji Yoshida⁴, Takehiko Kitamori¹
¹ *University of Tokyo, Japan*, ² *Japan Synchrotron Radiation Research Institute (JASRI), Japan*, ³ *National Institute for Materials Science (NIMS), Japan*, ⁴ *Fukuoka University, Japan*

Session C (September 9, AM)

- C01** Effects of the flow to band broadening in monodispersed and polydispersed micropillar array columns
*Tsuyoshi Iwaba¹, Toyohiro Naito¹, Takuya Kubo¹, Koji Otsuka¹
¹ *Department of Material Chemistry, Graduate School of Engineering, Kyoto University, Japan*
- C02** Separation of biphasic main and satellite droplets using micro pillar arrays
*Naotomo Tottori¹, Takeshi Hatsuzawa², Takasi Nisisako²
¹ *School of Engineering, Department of Mechanical Engineering, Tokyo Institute of Technology,* ² *Laboratory for Future Interdisciplinary Research of Science and Technology, Institute for Innovative Research, Tokyo Institute of Technology*
- C03** Development of Molecular Interactions Analysis System by Fluorescence Polarization Imaging
*Osamu Wakao¹, Masatoshi Maeki², Akihiko Ishida², Hirofumi Tani², Akihide Hibara³, Manabu Tokeshi²
¹ *Graduate School of Chemical Sciences and Engineering, Hokkaido University,* ² *Division of Applied Chemistry, Faculty of Engineering, Hokkaido University,* ³ *IMRAM, Tohoku University*
- C04** Amperometric detection by alternative-comb-electrode optical diffraction method
*Kotohiro Furukawa¹, Mao Fukuyama², Akihide Hibara^{1,3}
¹ *Tokyo Institute of Technology,* ² *Kyoto Institute of Technology,* ³ *Tohoku University*
- C05** Development of a flow type complete electrolytic photo-electrochemical cell for a study of photoelectrochemical property of antioxidant
*Hiroki Hotta¹, Tadashi Miyoshi¹, Kenji Matsumoto¹, Anna Izumi¹, Masashi Fujita², Tsunaki Miyashita²
¹ *Department of Chemistry, Nara University of Education,* ² *EC Frontier Co, Ltd.*
- C06** Single-step immunochromatography with electrochemical detection systems
*Kohei Tominaga¹, Satoshi Arimoto², Ken Shimono², Toshihiko Yoshioka², Fumio Mizutani¹, Tomoyuki Yasukawa¹
¹ *Graduate School of Material Science, University of Hyogo,* ² *Bio Research Department, Device Research Laboratory, Advanced Research Division, Panasonic Corporation*
- C07** Synthesis and characterization of lipophilic fluorescent substrate for hydrogen peroxide detection toward the development of single-step bioassay microdevice
*Koki Kishi¹, Kenji Sueyoshi¹, Tatsuro Endo¹, Hideaki Hisamoto¹
¹ *Department of Applied Chemistry, Graduate School of Engineering Osaka Prefecture University*
- C08** A Novel Portable System for Rapid Realtime PCR
*Hidenori Nagai¹, Takashi Fukuzawa²
¹ *National Institute of Advanced Industrial Science and Technology (AIST),* ² *Nippon Sheet Glass Company, Ltd*
- C09** The development of micro-fluidic chemical pen for region selective modification
*Chiho Sato¹, Sifeng Mao¹, Hulin Zeng¹, Shungo Kato¹, Hizuru Nakazima¹, Katsumi Uchiyama¹
¹ *Department of Applied Chemistry Tokyo Metropolitan University*
- C10** Measurement of membrane tension modulation of lipid bilayers via laser-induced surface deformation spectroscopy
*Takuya Fujii¹, Tomohiko Takei¹, Masahiro Takahashi¹, Tomonori Nomoto¹, Taro Toyota², Masanori Fujinami¹
¹ *Department of Applied Chemistry and Biotechnology, Chiba University,* ² *Department of Basic Science, The University of Tokyo*
- C11** Assessment of the Protein-Protein Interactions in a Highly Concentrated Antibody Solution by Using Raman Spectroscopy
*Chikashi Ota¹, Shintaro Noguchi¹, Satoru Nagatoishi^{2,3}, Kouhei Tsumoto^{2,3,4}
¹ *Advanced R&D Center, HORIBA, Ltd,* ² *Sch. Eng., Univ. Tokyo,* ³ *Drug Discovery Initiative, Univ. Tokyo,* ⁴ *Inst. Med. Sci., Univ. Tokyo*
- C12** Blood cell generation system in a microfluidic device
*Eriko Kamata¹, Sayaka Ishii¹, Kanako Yanagisawa¹, Kenji Kitajima², Takahiko Hara^{1,2}, Kae Sato¹
¹ *Japan women's university,* ² *The Tokyo Metropolitan Institute of Medical Science*
- C13** Text-displayed colorimetric paper-based analytical devices obtained by printing
*Kentarō Yamada¹, Koji Suzuki¹, Daniel Citterio¹
¹ *Department of Applied Chemistry, Keio University*

- C14** Combination of paper-based device and glass capillary for instrument-free enzyme immunoassay
*Kota Kido¹, Terence Henares¹, Koji Suzuki¹, Daniel Citterio¹
¹ *Department of Applied Chemistry, Keio University*
- C15** Quantum yield measurements of coelenterazine-luciferase emission system
*Masanobu Tanaka¹, Ryo Nishihara¹, Kazuki Niwa², Sung Bae Kim², Masahiro Abe¹, Yuma Ikeda¹, Naoko Iwasawa¹, Shigeru Nishiyama³, Daniel Citterio¹, Koji Suzuki¹
¹ *Department of Applied Chemistry, Faculty of Science and Technology, Keio University*, ² *National Institute of Advanced Industrial Science and Technology*, ³ *Department of Chemistry, Faculty of Science and Technology, Keio University*
- C16** Quantification of epithelial-mesenchymal transition by using photoactivatable substrates and particle image velocimetry
*Tatsuya Miyama¹, Makiko Nonomura¹, Takafumi Komoda², Michiko Sugawara², Jun Nakanishi³
¹ *Department of Mathematical Information Engineering, College School of Industrial Technology, Nihon University*, ² *Department of Mechanical Engineering, Graduate School of Engineering, Chiba University*, ³ *WPI Center for Materials Nanoarchitectonics (MANA), National Institute for Materials Science (NIMS)*
- C17** A Convenient and Rapid Density Measurement of Single Cell
*Yaxiaer Yaliku¹, Yo Tanaka¹
¹ *Laboratory for Integrated Biodevice, Quantitative Biology Center, RIKEN*
- C18** Development of the MRM-based detection method for the comprehensive plant metabolome analysis using a liquid chromatography/tandem mass spectrometry
*Junichi MASUDA¹, Satoshi YAMAKI¹, Yoshihiro HAYAKAWA¹, Yuji SAWADA², Mami OKAMOTO², Muneo SATO², Masami Y. HIRAI²
¹ *Shimadzu Corporation*, ² *RIKEN CSRS*
- C19** Optogenetic Control of Ligand-activating GPCR Endocytosis and Trafficking
*Osamu Takenouchi¹, Hideaki Yoshimura¹, Takeaki Ozawa¹
¹ *Department of Chemistry, School of Science, The University of Tokyo*
- C20** Rapid Antigen Detection through Electrospun Microfibers with Vacuum Pump Technology
*Carlton F. Hoy¹, Keiichiro Kushiro¹, Madoka Takai¹
¹ *The University of Tokyo*
- C21** A novel amperometric imaging system for simultaneously monitoring different cell functions
*Yusuke Kanno¹, Kosuke Ino¹, Hiroya Abe¹, Kumi Y. Inoue¹, Masahki Matsudaira², Atsushi Suda³, Ryota Kunikata³, Hitoshi Shiku⁴, Tomokazu Matsue^{1,5}
¹ *Graduate School of Environmental Studies, Tohoku University*, ² *Micro System Integration Center, Tohoku University*, ³ *Japan Aviation Electronics Industry, Ltd.*, ⁴ *Graduate School of Engineering, Tohoku University*, ⁵ *WPI-Advanced Institute for Materials Research, Tohoku University*
- C22** Materials to analyze chemical, mechanical and geometrical regulation of collective cell migration
*Kei Okada^{1,2}, Shota Yamamoto², Naoki Sasaki¹, Kazuo Yamaguchi³, Jun Nakanishi²
¹ *Graduate School of Science and Engineering, Toyo University*, ² *WPI Center for Materials Nanoarchitectonics (MANA), National Institute for Materials Science (NIMS)*, ³ *Faculty of Science, Kanagawa University*
- C23** A rapid and sensitive detection of D-Asp in protein by chiral derivatization
*Yasuto Miyazaki¹, Hajime Mizuno¹, Keisuke Ito², Jun Zhe Min¹, Kenichiro Todoroki¹, Toshimasa Toyo'oka¹
¹ *School of Pharmaceutical Sciences, University of Shizuoka*, ² *School of Food and Nutritional Sciences, University of Shizuoka*
- C24** Quantitative Imaging of Environmental Gamma-ray Distribution with Gamma-ray Visualization Analyzer (GV-100)
*Hiroshi Ito¹, Akio Uesaka¹, Ryuhei Nakamura¹, Koji Tominaga¹
¹ *HORIBA, Ltd.*
- C25** Determination of arsenic by using reaction between Ellman's reagent and thiol
*Haruka Tsunekawa¹, Atsushi Manaka¹, Saori Takamatsu¹, Masamoto Tafu¹
¹ *National Institute of Technology, Toyama College*
- C26** Fluorometric determination of ionic surfactants with thermoresponsive polymers having fluorescent groups
Nobuo Uehara¹, *Masatoshi Takita¹, Kanae Sato¹
¹ *Graduate School of Engineering, Utsunomiya University*

- C27** Lipid Nanoparticle Formation Behavior in Microfluidic Chips and Its Application for Nanomedicine
*Masatoshi Maeki¹, Yuka Fujishima², Yusuke Sato³, Akihiko Ishida¹, Hirofumi Tani¹, Hideyoshi Harashima³, Manabu Tokeshi¹
¹ *Division of Applied Chemistry, Hokkaido University,* ² *Graduate School of Chemical Sciences and Engineering, Hokkaido University,* ³ *Faculty of Pharmaceutical Sciences, Hokkaido University*
- C28** Simplified metal complex stoichiometry determination by inkjet printing
*Kento Kuwahara¹, Kota Kido¹, Kentaro Yamada¹, Koji Suzuki¹, Daniel Citterio¹
¹ *Department of Applied Chemistry, Keio University*
- C29** Colorimetric discrimination of chirality using poly(phenylacetylene) with chiral amide receptors
*Yoshinobu Mato¹, Shun Ozawa¹, Satoshi Umeda¹, Katsuyuki Tsuda¹, Toshifumi Satoh², Toyoji Kakuchi², Ryosuke Sakai¹
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- C30** Design of Fractional Modified Dendrimer Azoprobe for Highly Selective Recognition of Phosphoric Acids
*Naoto Tabuchi¹, Anna Koshino¹, Shoji Fujiwara¹, Yuji Tsuchido¹, Takeshi Hashimoto¹, Takashi Hayashita¹
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- C31** Effect of salt concentration to spontaneous emulsification of microdroplets
*Lin Zhou¹, Akihito Hibara², Mao Fukuyama³
¹ *Tokyo Institute of Technology,* ² *Tohoku University,* ³ *Kyoto Institute of Technology*
- C32** Detection of in-solution and in-gel proteins by paper spray ionization mass spectrometry
*Gyuwoong Jun¹, Sangwon Cha¹
¹ *Dept of Chemistry, Hankuk University of Foreign Studies*
- C33** ESR signals of quartz in the present river bed sediments and in the possible source rocks
*Aiko Shimada¹, Masashi Takada², Shin Toyoda³
¹ *JEOL RESONANCE Inc.,* ² *Nara Women's University,* ³ *Okayama University of Science*
- C34** Identification of Foreign Materials in Food : Textiles
*Jae-Hwang Lee¹, Byung-Chul Lim¹, Jushin Kim¹, Jin-Ha Lee¹, Kisung Kwon¹
¹ *New Hazardous Substance Team, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety South Korea*
- C35** Amperometric determination of sodium hypochlorite at N,N-diethylaniline-grafted carbon electrode
*Kotaro Morita¹, Naoki Hirayama^{1,2}
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Session D (September 9, PM)

- D01** Designable Digital Electrophoresis Devices for Desirable Microscale Bioassays
*Yuta Aoki¹, Tadamasana Kanaoka¹, Keita Matsuda¹, Kenji Sueyoshi¹, Tatsuro Endo¹, Hideaki Hisamoto¹
¹ *Graduate School of Engineering, Osaka Prefecture University*
- D02** Observations of Liquid-Liquid Phase Separation in Single Organic/Inorganic Aerosol Particles
*QUN WANG¹
¹ *Department of Chemistry, Graduate School of Science, Hiroshima University*
- D03** Gelation measurement of clay suspension using DLS
*Keijiro Sakuramoto¹, Tetsuya Mori¹, Tetsuji Yamaguchi¹, Nobuyuki Naka¹, Yoshiteru Yasuda¹
¹ *Scientific & Semiconductor Instruments R&D Dept., HORIBA, Ltd.*
- D04** Optical Interfacial Tension Measurement in Array-type Microfluidic Device
*Takuya Endou¹, Akihida Hibara^{1,2}
¹ *Tokyo Institute of Technology*, ² *Tohoku University*
- D05** Development of Electrochemical Detection Platform for Paper-based Analytical Device
*Wataru Iwasaki¹, Ryoji Kurita^{1,2}, Osamu Niwa^{1,2,3}, Masaya Miyazaki^{1,4}
¹ *Advanced Manufacturing Research Institute, National Institute of Advanced Industrial Science and Technology (AIST)*,
² *Biomedical Research Institute, National Institute of Advanced Industrial Science and Technology (AIST)*, ³ *Advanced Science Research Laboratory, Saitama Institute of Technology*, ⁴ *Cool Earth Co., Ltd*
- D06** Chemometrics assisted microfluidic paper-based analytical device for the determination of uric acid by silver nanoparticles plasmon resonance
*Vahid Hamedpour¹, Koji Suzuki¹, Daniel Citterio¹
¹ *Department of Applied Chemistry, Keio University*
- D07** Electrochemical-Localized Surface Plasmon Resonance Fiber Optic Sensor
*Tatsuya Orii¹, Takuya Okazaki¹, Noriko Hata¹, Shigeru Taguchi¹, Akira Taguchi², Kazuharu Sugawara³, Hideki Kuramitz¹
¹ *Department of Environmental Biology and Chemistry, Graduate School of Science and Engineering for Research, University of Toyama*, ² *Hydrogen isotope science research center, University of Toyama*, ³ *Maebashi Institute of Technology*
- D08** Development of New-type Color Analyzer for Nitrate using Smart device
*Yuki Yokota¹, Atsushi Manaka¹, Shoichi Furuyama¹, Masamoto Tafu¹, Mitsuteru Irie², Makoto Satoda³
¹ *National Institute of Technology, Toyama College*, ² *University of Miyazaki*, ³ *Satoda Science LLC.*
- D09** Dual-channel type Concentric Grid Nebulizer for Inductively Coupled Plasma Optical Emission Spectrometry
*Rina Matsushita¹, Shin-ichiro Fujii², Shin-ichi Miyashita², Koyou Ido³, Tomonari Umemura¹, Kazumi Inagaki²
¹ *Laboratory of Bioanalytical and Environmental Chemistry, Tokyo University of Pharmacy and Life Sciences*, ² *Environmental Standards Group, National Metrology Institute of Japan (NMIJ)*, *National Institute of Advanced Industrial Science and Technology*, ³ *Analytical chemistry laboratory, Tokyo Denki University*
- D10** Focal adhesion dynamics of the biased cell migration on micro-patterns by reflection interference contrast microscopy
*Yuki Arai¹, Taro Toyota², Tomonori Nomoto¹, Masanori Fujinami¹
¹ *Department of Chemistry and Biotechnology, Graduate School of Engineering, Chiba University*, ² *Department of Basic Science, Graduate School of Arts and Science, The University of Tokyo*
- D11** Holistic analysis of mammalian cell proliferation using fluorescence spectroscopy
*Yuichi Kitagawa¹, Takumi Moriyama¹, Daisuke Irikura², Yasushi Nakata²
¹ *HORIBA TECHNO SERVICE Co., Ltd.*, ² *HORIBA, Ltd.*
- D12** Microfluidic-based in situ Padlock/RCA for mRNA detection
*Chikako Kase¹, Hiroshi Nishihara², Kae Sato¹
¹ *Japan women's university*, ² *Hokkaido University*
- D13** Fluorescent core-shell-type labeling nanoparticles for immunoassays
*Kota Osada¹, Yuta Katayama¹, Koji Suzuki¹, Daniel Citterio¹
¹ *Department of Applied Chemistry, Keio University*

- D14** Printed paper-based ion-selective optode devices with integrated pH-buffer system
*Hiroyuki Shibata¹, Terence Henares¹, Kentaro Yamada¹, Koji Suzuki¹, Daniel Citterio¹
¹ *Department of Applied Chemistry, Keio University*
- D15** Microfluidic paper-based analytical device (μ PAD) for non-enzymatic colorimetric urea analysis
*Daiki Watanabe¹, Masanori Ishii¹, Kentaro Yamada¹, Koji Suzuki¹, Daniel Citterio¹
¹ *Keio University Department of Applied Chemistry*
- D16** Surface Coated Nanowire Devices for Selective Capture of C-reactive Protein and E. coli
*Asami Yokoyama^{1,2}, Takao Yasui^{1,2}, Tatsuro Goda³, Takeshi Yanagida⁴, Masayoshi Tanaka⁵, Masaki Muto⁵, Mina Okochi⁵, Noritada Kaji^{1,2}, Masaki Kanai⁴, Kazuki Nagashima⁴
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- D17** Ultra-sensitive Capillary Electrophoresis for Single Cell Analysis
*Takayuki Kawai^{1,2,3}, Nobutoshi Ota¹, Yo Tanaka^{1,3}
¹ *Quantitative Biology Center, RIKEN*, ² *Japan Science and Technology Agency, PRESTO*, ³ *Graduate School of Frontier Biosciences, Osaka University*
- D18** Development of an MRM based phospholipid profiling method using a high speed triple quadrupole mass spectrometer
*Masaki Yamada¹, Tsuyoshi Nakanishi¹
¹ *Analytical & Measuring Instruments Division, Shimadzu Corporation*
- D19** Development of extended-nano to bulk size interface for ultra-small instrumental analysis
*Tatsuya Tanaka¹, Yutaka Kazoe², Kazuma Mawatari¹, Takehiko Kitamori¹
¹ *Department of Engineering, the University of Tokyo*, ² *Department of Medicine, the University of Tokyo*
- D20** Micro ELISA Utilizing Thin-liquid layer formed by micrometer-sized channel
*Tatsuro Nakao¹, Kazuma Mawatari¹, Hisashi Shimizu¹, Emi Mori¹, Ayumi Yoshizaki², Takehiko Kitamori¹
¹ *The University of Tokyo, JAPAN*, ² *The University of Tokyo Hospital, JAPAN*
- D21** Reconstitution of human epidermal tissue on a chip toward personalized drug testing devices based on quartz crystal microbalance
*Tomoyo Nakamura¹, Ayaka Yamaguchi¹, Nagisa Abo¹, Motohide Aoki¹, Hidetoshi Kumata¹, Tomonari Umemura¹, Tatsuya Uchida¹
¹ *Graduate School of Life Science, Tokyo University of Pharmacy and Life Sciences*
- D22** Application of Molecularly Imprinted Polymer as Chemical Sensor for Melamine Detection in Milk Products
*Malikussaid¹, Tri Yuliani¹, Muhammad Z. Buzairi¹
¹ *Department of Chemistry, Universitas Indonesia*
- D23** Comparison of ⁹⁰Sr concentrations on surface soil between before and after Fukushima Dai-ichi nuclear power station accident in whole area of Fukushima prefecture
*Mitsuyuki Konno^{1,2}, Yoshitaka Takagai^{1,3}
¹ *Faculty of Symbiotic Systems Science, Fukushima University*, ² *Environmental Radiation Monitoring Centre, Fukushima Prefecture*, ³ *Institute of Environmental Radioactivity, Fukushima University*
- D24** Application of micro-Raman spectroscopy to chemical form identification of uranium particles with micro-meter size
*Takumi Yomogida¹, Fumitaka Esaka¹, Masaaki Magara¹
¹ *Nuclear Safety Research Center, Japan Atomic Energy Agency*
- D25** Determination of multiple pesticides residues in soil by GC-MS/MS
*Wenyu Kang¹, Ying Ye¹, Jinting Yao¹, Jun Fan², Taohong Huang²
¹ *Shimadzu (China) Co., LTD. Guangzhou Branch*, ² *Shimadzu (China) Co., LTD. Shanghai*

- D26** Intact metabolome analysis of mice biological tissues by probe electrospray ionization-tandem mass spectrometry(PESI-MS/MS) and its application to real-time analysis
*Yumi Hayashi^{1,2}, Kei Zaitu^{1,3}, Tasuku Murata⁴, Hiroki Nakajima⁴, Maiko Kusano³, Hitoshi Tsuchihashi³, Akira Ishii³, Tetsuya Ishikawa²
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- D27** Correlation between duplex formation of DNA fragments and pore size
*Tsubasa Masuda¹, Sayaka Kobayashi¹, Sotaro Suzuki¹, Yuuta Shibuya¹, Akira Yamaguchi¹
¹ *Ibaraki University*
- D28** AFM-probe apex-selective electroless deposition of gold and nano-Raman imaging
*Hiroki Itasaka¹, Masayuki Nishi¹, Masahiro Shimizu¹, Yoshito Okuno², Shinsuke Kashiwagi², Nobuyuki Naka², Kazuyuki Hirao¹
¹ *Kyoto University*, ² *HORIBA Ltd.*
- D29** Bacterial Fixation Using Photoinduced Convection
*Shinya Kurita¹
¹ *Department of Applied Chemistry, Osaka Prefecture University*, ² *Department of Science, Osaka Prefecture University*, ³ *Department of Applied Chemistry and Bio Science, Chitose Institute of Science and Technology*
- D30** Development of Amphiphilic Boronic Acid Probe for Saccharide Recognition
*Yuji Tsuchido¹, Nana Nodomi¹, Takeshi Hashimoto¹, Takashi Hayashita¹
¹ *Department of Materials and Life Sciences, Faculty of Science and Technology, Sophia University*
- D31** Self-assembly of gold nanoclusters driven by poly(ethylene glycol)
*Natsumi Sonoda¹, Nobuo Uehara¹
¹ *Department of Applied Chemistry, Graduate school of Utsunomiya University*
- D32** In situ separation and analysis of total brain lipid extracts by paper spray ionization mass spectrometry (PSI MS)
*SOOBIN CHOI¹, Sangwon Cha¹
¹ *Dept of Chemistry, Hankuk University of Foreign Studies*
- D33** Analytical study of excavated whetstone and stone objects at the Hatamoto Hanabusa Family Mansion Site
*Masami Sakurai¹, Yuki Aoyanagi¹, Shinya Nagasako², Yuko Nishimoto¹
¹ *Kanagawa Univ.*, ² *Tokyo Metropolitan Archeological Center*
- D34** Analysis of polyphenol glycosides using temperature responsive chromatography
*Mariko Ohshima¹, Yoshiko Ito¹, Hideko Kanazawa¹
¹ *Faculty of Pharmacy, Keio University*
- D35** Quinine derivative modified temperature-responsive chromatography for analysis of chiral compounds
*Atsushi Miki¹, Yuki Hiruta¹, Hideko Kanazawa¹
¹ *Faculty of Pharmacy, Keio University*
- D36** Development of temperature-responsive chromatography using a proline derivative polymer
*Ryo Adachi¹, Ryo Uchida¹, Yuki Hiruta¹, Hideko Kanazawa¹
¹ *Faculty of Pharmacy, Keio University*