

Poster and Flash Presentations

Convention Hall B, Makuhari-Messe, Chiba, Japan, September 6, 2012.

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| Odd numbers | 10:05-11:20 | Flash presentation I |
| | 12:00-13:00 | Poster presentation I |
| Even numbers | 13:45-15:00 | Flash presentation II |
| | 15:30-16:30 | Poster presentation II |

- A001** SINGLE-CELL ISOLATION OF BACTERIA USING MICROENCLOSURE AND ITS APPLICATIONS
Akihiro Matsutani¹, Ayako Takada²
¹ *Semiconductor and MEMS Processing Center, Tokyo Institute of Technology*
² *Biomaterial Analysis Center, Tokyo Institute of Technology*
- A002** DESIGN OF NANO-SYSTEM BASED ON DENDRITIC POLY(L-LYSINE)S FOR TUMOR-SELECTIVE FLUORESCENCE IMAGING
Naoyama Kenshiro¹, Kazuto Watanabe¹, Takeshi Mori¹, Yoshiki Katayama^{1,2,3,4}, Takuro Niidome^{1,2}
¹ *Department of Applied Chemistry, Faculty of Engineering, Kyushu University.*
² *Center for Future Chemistry, Kyushu University.*
³ *International Research Center for Molecular Systems, Kyushu University.*
⁴ *Center for Advanced Medical Innovation, Kyushu University.*
- A003** SIMULTANEOUS INJECTION EFFECTIVE MIXING FLOW ANALYSIS SYSTEM FOR SPECTROPHOTOMETRIC DETERMINATION OF UROBILINOGEN AND BILIRUBIN IN URINE SAMPLES
Jitlada Vichapong^{1,2}, Rodjana Burakham², Norio Teshima¹, Tadao Sakai¹
¹ *Department of Applied Chemistry, Aichi Institute of Technology, Japan*
² *Department of Chemistry and Center of Excellence for Innovation in Chemistry, Faculty of Science, Khon Kaen University, Thailand*
- A004** DISPOSABLE URIC ACID MEASURING CHIP WITH PLASMA SEPARATION DRIVEN BY CAPILLARY FORCE.
Kazuhiro Miyamura¹, Ranko Hatsuda², Linghan Li², Susumu Sugiyama²
¹ *HORIBA, Ltd.,*
² *Univ. Ritsumeikan*
- A005** LARGE-SCALE FEMTOLITER MICRODROPLET ARRAY FOR DIGITAL ELISA
Soo Hyeon Kim^{1,2}, Shino Iwai^{2,3}, Suguru Araki^{2,3}, Shouichi Sakakihara³, Ryota Iino^{1,2} and Hiroyuki Noji^{1,2}
¹ *University of Tokyo, Japan,*
² *CREST, JST, Japan,*
³ *Osaka University, Japan)*
- A006** OBSERVATION OF THE GROWTH INCREMENT ON THE SHELL USING A X-RAY ANALYTICAL MICROSCOPE
Takuma Ampo¹, Satoko Nishikawa², Bunji Hashimoto², Masaaki Yokoyama², Tomoko Numai², Hidehiro Daidoji²
¹ *HORIBA TECHNO SERVICE CO.,LTD,*
² *HORIBA, Ltd.*
- A007** ANALYTICAL METHOD FOR MONITORING OF INORGANIC ARSENIC IN INFANT FORMULA BY HPLC-ICP/MS
Kim, Jun-Hyun
Imported Food Analysis Division, Gyeongin Regional Food & Drug Administration, Korea
- A008** HIGH SPEED ANALYSIS OF PRE-COLUMN DERIVATIZED AMINO ACID WITH AUTOMATIC PRETREATMENT
Ayako Nomura, Yoshiko Hirao, Yoshiyuki Watebe, Yoshihiro Hayakawa
Shimadzu.Corp.
- A009** RAPID UHPLC-TRIPLE QUADRUPOLE MASS SPECTROMETRY METHOD FOR QUANTITATIVE ANALYSIS AND SCREENING OF AFLATOXINS IN FOODS
Manami Kobayashi, Takahiro Goda, Satoshi Yamaki, Ayako Nomura, Kyoko Watanabe, Yoshihiro Hayakawa, Tsutomu Nishine
Shimadzu.Corp.
- A010** ATTENUATED TOTAL REFLECTION SPECTROSCOPY IN FAR ULTRAVIOLET REGION (ATR-FUV) FOR EXTREME SURFACE OF POLYMERS
Yusuke Morisawa¹, Erika Tanimura², Harumi Sato², Naomi Kariyama³, Noboru Higashi³, Yukihiko Ozaki²
¹ *Kinki Univ.,*
² *Kwansei Gakuin Univ.*
³ *KURABO Co. Ltd.*

- A011** THE CLASSIFICATION OF DIAMOND-LIKE CARBON THIN FILMS USING BL05 IN NEWSUBARU
Ryo Imai, Kazuhiro Fukuda, Masaharu Uemura, Takayuki Hasegawa, Muneyuki Motoyama, Mititaka Terasawa, Kazuhiro Kanda
LASTI, Univ. Hyogo
- A012** LANTHANIDE-MACROCYCLIC POLYAZACARBOXYLATE COMPLEXES FOR LUMINESCENCE RECOGNITION OF SIALIC ACID: THE MECHANISM OF THE SPECIFIC BINDING
Kazuki Ouchi, Shigo Saito, Masami Shibukawa
Saitama Univ.
- A013** SOFTWARE EVALUATION USING TG/PI-QMS WITH SKIMMER INTERFACE FOR POLYMER PRODUCTS.
Yuji Mishima¹, Takahisa Tsugoshi², Yasuo Miyashita³, Takeshi Mori³, Tadashi Arit⁴
¹ *Tsurui Chemical Co., Ltd,*
² *NMIJ/AIST,*
³ *Park Corp.,*
⁴ *Rigaku Corp.)*
- A014** PROMPT SEARCHING OF SUITABLE METHOD FOR CHIRAL ANALYSIS
Takeo Sakai¹, Hidetoshi Terada¹, Tadayuki Yamaguchi², Yoshihiro Hayakawa¹
¹ *Shimadzu Corp. Global Application Development Center,*
² *Shimadzu Corp. Global Marketing Department*
- A015** MULTIPLE-IMMUNOSENSING TECHNOLOGY FOR ENVIRONMENTAL POLLUTANT AS STANDARD METHOD
Yoko Takagi¹, Norio Tateishi¹, Shigenobu Oshima¹, Hirohisa Kitagawa¹, Katsuhisa Honda²
¹ *Kyoto Electronics Manufacturing, co.,Ltd.,*
² *Faculty of Agriculture, Ehime University*
- A016** REAL-TIME NUCLEASE DIGESTION TEST BY SINGLE DNA MOLECULAR TAGGING IN FLUID
Daisuke Onoshima¹, Noritada Kaji¹, Manabu Tokeshi², Yoshinobu Baba^{1,3}
¹ *Nagoya Univ.,*
² *Hokkaido Univ.,*
³ *AIST*
- A017** VAPOR PHASE METHOD TO SYNTHESIZE PERIODIC MESOPOROUS SILICA WITHIN ANODIC ALUMINA MEMBRANE
Limin Guo, Hiroyuki Arafune, Yong Fan and Norio Teramae
Department of Chemistry, Graduate School of Science, Tohoku University
- A018** PRINTABLE PHOTONICS-BASED FLEXIBLE PHOTONIC CRYSTAL FOR FLUORESCENT DNA DETECTION
China Ueda, Hideaki Hisamoto, and Tatsuro Endo
Osaka Prefecture University
- A019** CHARACTERIZATION OF PENETRATION OF METALLIC OXIDE PRECURSOR INTO FERRITIN CRYSTAL AS A TEMPLATE FOR HIGHLY ORDERED MESOPOROUS MATERIALS
Yohei Yamada¹, Shota Toyama¹, Takahito Suzuta¹, James Metson², David Williams², Yoshihisa Suzuki¹, Tomoki Yabutani¹, Toshio Takayanagi¹
¹ *Univ. Tokushima,*
² *Univ. Auckland*
- A020** DEVELOPMENT OF GOLD NANOROD-IMMOBILIZED SUBSTRATES FOR SENSING APPLICATIONS
Yukina Takahashi, Moe Motobe, Natsumi Miyahara, Sunao Yamada
Kyushu University
- A021** SERS ACTIVE SELF-ASSEMBLED NANOSTRUCTURES TOWARD HIGHER DIMENSION I : PRE-AGGREGATED COLLOIDAL DISPERSION WITH A LONGEVITY OVER MONTHS
Takao Fukuoka^{1,2}, Yasushige Mori³
¹ *Univ. Hyogo,*
² *Archilys,*
³ *Doshisha Univ.*
- A022** SERS ACTIVE SELF-ASSEMBLED NANOSTRUCTURES TOWARD HIGHER DIMENSION II : PHYSICALLY SELF-ASSEMBLED NANOPARTICLES ARRAY
Takao Fukuoka¹, Ryo Takahashi¹, Yuichi Utsumi¹, Motofumi Suzuki²
¹ *Univ. Hyogo,*
² *Kyoto Univ.*
- A023** SERS ACTIVE SELF-ASSEMBLED NANOSTRUCTURES TOWARD HIGHER DIMENSION III : STERICALLY-BULKY SELF ASSEMBLES ARRAY
Ryo Takahashi, Takao Fukuoka, Yuichi Utsumi
Univ. Hyogo
- A024** BLOOD SEPARATION IN LAB-ON-A-CHIP FOR AUTOMATED PROTOCOL ANALYSIS
H.Nose¹, K.kuroda¹, M. Kataoka² and Y.Utsumi¹
¹ *Laboratory of Advanced Science and Technology for Industry,*
² *Health Technology Research Center*

- A025** MEASUREMENT OF VELOCITY DISTRIBUTION IN EXTENDED NANOCHANNELS USING PARTICLE TRACKING METHOD
Keizo Iseki, Yutaka Kazoe, Kazuma Mawatari, Takehiko Kitamori
The University of Tokyo
- A026** SIMULTANEOUS MEASUREMENT OF DIALYSATE AND SAMPLE SOLUTION IN A MICRODIALYSIS SYSTEM
Yu Sakuta, Kiichi Sato, Kin-ichi Tsunoda
Department of Chemistry and Chemical Biology, Gunma University,
- A027** CHARACTERIZATION OF PEG INTERACTIONS IN AQUEOUS SOLUTION BY STATIC LIGHT SCATTERING AND ELECTROPHORETIC LIGHT SCATTERING
Shigemi Tochino, Jeffrey bodycomb, Satoru Tanaka
HORIBA, Ltd.
- A028** EFFECTS OF PARTICLE MORPHOLOGY AND MICROCHANNEL GEOMETRY ON CONTINUOUS SEPARATION OF NON-SPHERICAL PARTICLES
Atsushi Tamura, Sari Sugaya, Masumi Yamada, and Minoru Seki
Chiba University
- A029** PHOTOCROSSLINKING OF CELLS TO A GLASS SUBSTRATE FOR IN SITU DNA ANALYSIS
Naoki Sasaki, Eri Yoshida, Anri Isu, Reina Ishii, Kae Sato
Japan Women's University
- A030** NANOPARTICLE-BASED SENSING INK FOR INKJET PRINTED MICROFLUIDIC MULTI-ANALYTE SENSOR
Shunsuke Takaki, Tamaki Soga, Koji Suzuki, Daniel Citterio
Univ. Keio
- A031** EFFECT OF TBP ADDITION ON CARRIER DYNAMICS IN DYE-SENSITIZED SOLAR CELLS MEASURED BY THE TRANSIENT GRATING METHOD
Soichiro Taya¹, Shota Kuwahara¹, Hiroaki Hata^{1,2}, Naotaka Maeda^{1,2}, Qing Shen^{2,3}, Taro Toyoda², Kenji Katayama¹
¹ Department of Applied Chemistry, Chuo University,
² Department of Engineering Science, The University of Electro-Communications,
³ PRESTO, Japan Science and Technology Agency (JST)
- A032** LIGHT CURING DYNAMICS OF A PHOTOPOLYMER MEASURED BY THE HETERODYNE TRANSIENT GRATING METHOD
Tomomi Fujii, Mika Arai, Hayato Inoue, Shota Kuwahara, Kenji Katayama
Department of Applied Chemistry, Chuo University
- A033** LASER TRAPPING AND RAMAN SPECTROSCOPY OF SINGLE SUPERCOOLED WATER DROPLETS IN AIR
Shoji Ishizaka^{1,2}, Kunihiko Yamauchi³, Noboru Kitamura³, Terufumi Fujiwara¹
¹ Univ. Hiroshima,
² JST-PRESTO,
³ Univ. Hokkaido
- A034** CARRIER DYNAMICS OF CDSE QUANTUM DOT SENSITIZED SOLAR CELLS CHARACTERIZED BY THE TRANSIENT GRATING METHOD
Naoya Osada¹, Naotaka Maeda¹, Hiroaki Hata¹, Shota Kuwahara¹, Kenji Katayama¹, Qing Shen^{2,3}, Taro Toyoda²,
¹ Department of Applied Chemistry, Chuo University,
² Department of Engineering Science, The University of Electro-Communications,
³ PRESTO, Japan Science and Technology Agency (JST))
- A035** DIRECTIONAL CONTROL OF CELL MIGRATION THROUGH MICROPATTERN GEOMETRY AND TOPOLOGY
Keiichiro Kushiro¹, Anand Asthagiri², Madoka Takai¹
¹ The University of Tokyo,
² Northeastern University
- A036** LOCAL REDOX CYCLING-BASED ELECTROCHEMICAL CHIP DEVICES CONTAINING 256 ELECTROCHEMICAL SENSORS FOR CELL ANALYSIS
Kosuke Ino, Mustafa Sen, Taku Nishijo, Yusuke Kanno, Hitoshi Shiku, Tomokazu Matsue
Tohoku University
- A037** MICRODEVICE FOR LABEL-FREE THROMBIN DETECTION USING APTAMER MODIFIED GRAPHENE OXIDE SURFACE
Yuko Ueno¹, Kazuaki Furukawa², Kota Matsuo¹, Katsuyoshi Hayashi¹, Suzuyo Inoue¹, Hiroki Hibino², and Emi Tamechika¹
¹ NTT Microsystem Integration Labs., NTT Corp.,
² NTT Basic Research Labs., NTT Corp.

- A038** DEVELOPMENT OF A SINGLE CELL EXTRACTION METHOD USING BIOMIMETIC CELL SURFACE MODIFICATION AND MICROFLUIDIC DEVICE
 Ayato Hibino^{1,3}, Yukihiro Okamoto^{1,3}, Takao Yasui^{1,3}, Noritada Kaji^{1,3}, Manabu Tokeshi^{2,3} and Yoshinobu Baba^{1,3,4}
¹Nagoya Univ.
²Hokkaido Univ.,
³FIRST Research Center for Innovative Nanobiodevices, Nagoya Univ.
⁴National Institute of Advanced Industrial Science and Technology, (AIST))
- A039** A MICRODROPLET-BASED TECHNIQUE FOR GENERATING SINGLE CRYSTALS, ITS THEORETICAL BACKGROUND, IN-SITU CRYSTAL GROWTH IMAGING, AND APPLICATION AS AN EASY X-RAY DIFFRACTION MEASUREMENT TOOL
 Kenichi Yamashita, Satoshi Nitahara, Masatoshi Maeki, Hiroshi Yamaguchi, Hideaki Maeda, Masaya Miyazaki
 Measurement Solution Research Center, National Institute of Advanced Industrial Science and Technology (AIST)
- A040** HYBRIDIZATION OF SHORT OLIGONUCLEOTIDES IN SUPERCOOLED WATER IN SILICA MESOPORES
 Hiroyuki Arafune¹, Manato Namekawa¹, Akira Yamaguchi^{2,3}, Norio Teramae¹
¹Tohoku Univ.,
²Ibaraki Univ.
³iFRAC
- A041** HPLC METHOD SCOUTING SYSTEM USING ULTRA HIGH PERFORMANCE LIQUID CHROMATOGRAPHY COUPLED TO SINGLE QUADRUPOLE MASS SPECTROMETER
 Yusuke Inohana; Taku Tsukamoto; Hidetoshi Terada; Kiyomi Arakawa; Ichiro Hirano
 Shimadzu Corporation, Kyoto, JAPAN
- A042** PRESSURE DRIVEN NANOSLIT DEVICE TO ACHIEVE LENGTH-DEPENDENT SEPARATION OF LONG DNA MOLECULES
 Beomjoon Kim, Kyungduck Park, Akihide Hibara
 Univ. of Tokyo, IIS-CIRMM
- A043** PORTABLE LIQUID CHROMATOGRAPHY SYSTEM WITH ELECTROOSMOTIC PUMP AND MICROFLUIDIC CHIP INTEGRATING PACKED COLUMN AND ELECTROCHEMICAL DETECTOR
 Akihiko Ishida¹, Ichiro Yanagisawa²
¹Hokkaido University,
²Science Solutions International Laboratory
- A044** GC-MS SYSTEM EQUIPPED WITH MULTI-PURPOSE INJECTOR
 Katsuhiko Nakagawa¹, Kouki Tanaka¹, Tomoaki Kondo¹, Shuichi Kawana¹, Haruhiko Miyagawa¹, Atsushi Sato², Hiroshi Hayashida², Manami Takeda², Mitsuhiro Kurano³
¹Shimadzu Corp.,
²GL Sciences, Inc.,
³ATAS GL International B.V.,
- A045** METABOLIC PROFILING ANALYSIS ON FERMENTED BEVERAGE USING FAST POLARITY SWITCHING TOFMS ACQUISITION WITH HIGH MASS ACCURACY
 Satoshi Yamaki, Takahiro Goda, Manami Kobayashi, Tsutomu Nishine
 Shimadzu Corporation
- A046** ZWITTERIONIC MONOLITHIC STATIONARY PHASES FOR CAPILLARY ION CHROMATOGRAPHY
 Lee Wah Lim, Tomomi Aono, Kiyotaka Oshima, Toyohide Takeuchi
 Gifu Univ.
- A047** FABRICATION OF SLAB OPTICAL WAVEGUIDE WITH ANION EXCHANGE THIN FILM AND ITS APPLICATION TO THE DETECTION OF FLUORIDE ION
 Anna Akuzawa, Kiichi Sato, Kin-ichi Tsunoda
 Gunma Univ.
- A048** INVESTIGATION OF INTERACTION BETWEEN TRIS(ACETYLACETONATO)IRON(III) AND ALCOHOLS IN SUPERCRITICAL CARBON DIOXIDE BY CONFOCAL RAMAN MICROSPECTROSCOPY WITH A CAPILLARY CELL
 Akira Ohashi, Atsushi Shibata, Akira Yamaguchi, Haeng-Boo Kim
 Ibaraki University
- A049** MONITORING OF PHOTOREACTION OF OZONE WATER BY USING NOVEL TIME-RESOLVED FAR-ULTRAVIOLET SPECTROSCOPY.
 Shin Tachibana¹, Takeyoshi Goto², Yusuke Morisawa³, Naomi Kariyama¹, Kyoko Takaba⁴, Noboru Higashi¹, Yukihiro Ozaki⁴
¹KURABO Industries LTD,
²National Agriculture and Food Research Organization,
³Kinki University,
⁴Kwansei Gakuin University

- A050** LABEL-FREE DETECTION OF REAL-TIME DNA AMPLIFICATION USING NANOSTRUCTURES
Kensuke Ogawa¹, Takao Yasui¹, Noritada Kaji¹, Yukihiro Okamoto¹, Manabu Tokeshi^{1,2}, Yasuhiro Horiike³, Mats Nilsson³ and Yoshinobu Baba¹
¹ Nagoya University,
²Hokkaido University,
³National Institute for Materials Science, JAPAN, ***Uppsala University, SWEDEN)
- A051** PLASMA IN AQUEOUS SOLUTIONS AND ITS APPLICATION TO ANALYTICAL CHEMISTRY (1) : INSTRUMENTATION OF NEW TIME-RESOLVED SPECTRAL IMAGING MICROSCOPE
Hiroharu Yui, Kenta Kanno, Hotaka Takakuwa, Motohiro Banno
Univ. Tokyo University of Science
- A052** LITHOGRAPHIC CURVED SURFACE MIRROR FOR OPTICAL SYSTEM INTEGRATION
Kazushige Seki, Yuto Kazama, Akihide Hibara
Univ. Tokyo
- A053** FOOD SAFETY AND ENVIRONMENTAL SAFETY FOR HUMAN HEALTH (INTRODUCTION FOR HITACHI ZA3000 SERIES POLARIZED ZEEMAN AAS)
Yumiko Katayama¹, Hideyuki Sakamoto¹, Akira Yonetani¹, Toshihiro Shirasaki¹, Kazuko Yamamoto², Kazuyo Miura²
¹ Hitachi High-Technologies Corporation,
² Hitachi High-Tech Control Systems Corporation
- A054** DNA COMPUTING WITH BIOLOGICAL NANOPORE ON ARTIFICIAL CELL NETWORKS
Hiroki Yasuga^{1,3}, Ryuji Kawano¹, Masahiro Takinoue⁴, Yutaro Tsuji^{1,3}, Toshihisa Osaki¹, Koki Kamiya¹, Norihisa Miki^{1,3} and Shoji Takeuchi^{1,2}
¹ Kanagawa Academy of Science and Technology,
² The University of Tokyo,
³ Keio University,
⁴ Tokyo Institute of Technology
- A055** A WIDE PH RANGE RATIOMETRIC OPTICAL SENSOR BASED ON SOL-GEL SILICA DOUBLE LAYER FILM EMBEDDING TWO PH INDICATORS AND QUANTUM DOTS
Yuki Hiruta, Naoto, Yoshizawa, Daniel, Citterio, Koji Suzuki
Keio Univ.
- A056** EXAMINATION OF ESCAPE PEAK GENERATION RATIO FROM SDD
Hitomi Ohno, Sumiyo Ishikawa, Akimichi Kira, Kazuo Nishihagi
Horiba Ltd
- A057** DEVELOPMENT OF SUPRAMOLECULAR DIPICOLYLAMINE AZOPROBE/CYCLODEXTRIN COMPLEX SENSORS FOR ION RECOGNITION IN WATER
Naoki Takeshita, Takeshi Hashimoto, Takashi Hayashita
Sophia Univ.
- A058** DESIGN AND FUNCTION OF DIPICOLYLAMINE FLUORESCENT PROBE/CYCLODEXTRIN COMPLEX SENSORS FOR ION RECOGNITION IN WATER
Keiko Ogura, Mariko Samizo, Takeshi Hashimoto, and Takashi Hayashita
Department of Materials and Life Sciences, Sophia University
- A059** DEVELOPMENT OF LED-INDUCED FLUORESCENCE ANALYSIS SYSTEM USING A COMPACT DISK-TYPE MICROFLUIDIC DEVICE AND ITS APPLICATION TO ELISA
Kazuhiro Morioka¹, Hizuru Nakajima¹, Akihide Hemmi², Hulie Zeng¹, Katsumi Uchiyama¹
¹ Tokyo Metropolitan University,
² Mebius Advanced Technology Ltd.
- A060** DEVELOPMENT OF 2D SURFACE PLASMON RESONANCE SENSOR USING MULTI BEAM SPLITTER
Ryosuke Mizumura¹, Hizuru Nakajima¹, Akihide Hemmi², Hulie Zeng¹, Katsumi Uchiyama¹
¹ Tokyo Metropolitan University,
² Mebius Advanced Technology Ltd.
- A061** ION DETECTION BY USING MICROFLUIDIC DOUBLE-DROPLETS
Mao Fukuyama, Akihide Hibara
Institute of Industrial Science, The University of Tokyo
- A062** WATER QUALITY MEASUREMENT WITH PLANER ION SELECTIVE ELECTRODES AND A CONDUCTIVITY CELL
Yuichiro Komatsu, Hisashi yamanouchi, Keiko Kuwamoto
Application Development Center, HORIBA Ltd.
- A063** 2D CORRELATION SOLID-STATE NMR EXPERIMENTS AT 110 KHZ
Yusuke Nishiyama, Michal Malon, Yuki Endo, Tahakiro Nemoto
JEOL RESONANCE Inc.
- A064** DEGRADATION PATHWAYS OF ORGANIC COMPOUNDS AND EFFECT OF DISSOLVED OXYGEN IN THE MEASUREMENT OF TOTAL ORGANIC CARBON BY USING ULTRAVIOLET OXIDATION
Yuta Hijikata, Atsushi Sasaki, Masatoshi Endo
Univ. Yamagata

- A065** APPROACH FOR DEVELOPMENT OF RADIATION DETECTOR USING DIFFERENT SCINTILLATOR
Nami Ikarashi, Atsushi Sasaki, Masatoshi Endo
Univ. Yamagata
- A066** DEVELOPMENT OF RAPID AND SIMPLE BIOSENSING SYSTEM BASED ON DIELECTROPHORETIC PARTICLE MANIPULATION
Misa Furutani, Tomoyuki Yasukawa, Fumio Mizutani
Univ. Hyogo
- A067** MICROCHIP-BASED IN-SITU PADLOCK/ROLLING CIRCLE AMPLIFICATION (MICRO-RCA) SYSTEM FOR SINGLE DNA COUNTING IN A CELL
Arisa Kuroda¹, Reina Ishii¹, Naoki Sasaki¹, Mats Nilsson², Kae Sato¹
¹ *Japan Women's Univ.*
² *Uppsala Univ.*
- A068** MICROFLUIDIC DEVICES FOR PERMEABILITY ASSAYS OF LYMPHATIC ENDOTHELIAL CELLS
Miwa Sato¹, Naoki Sasaki¹, Satoshi Hirakawa², Kae Sato¹
¹ *Japan Women's Univ.*,
² *Hamamatsu Univ. School of Medicine*
- A069** PURIFICATION OF GENE DELIVERY NANOSYSTEM BY MICROCHIP-BASED FREE-FLOW ELECTROPHORESIS
Daisuke Shigenaka^{1,2}, Masami Ukawa³, Noritada Kaji^{1,2}, Yukihiro Okamoto², Manabu Tokeshi^{2,4}, Hidetaka Akita³, Hideyoshi Harashima³, Yoshinobu Baba^{1,2,5}
¹ *Department of Applied Chemistry, Nagoya University, JAPAN,*
² *FIRST Research Center for Innovative Nanobiodevices, Nagoya University, JAPAN,*
³ *Faculty of Pharmaceutical Sciences, Hokkaido Univ, JAPAN,*
⁴ *Division of Biotechnology & Macromolecular Chemistry, Hokkaido University, JAPAN,*
⁵ *Health Research Institute, National Institute of Advanced Industrial Science and Technology (AIST), JAPAN)*
- A070** OPEN-TYPE CAPILLARY-ASSEMBLED MICROCHIP (CAS-CHIP) FOR SIMPLE AND RAPID ANALYSIS OF SERUM SAMPLE
Yusuke Kimura, Terence G. Henares, Shun-ichi Funano, Tatsuro Endo and Hideaki Hisamoto
Osaka Prefecture University
- A071** SINGLE STEP NEURAMINIDASE INHIBITOR ASSAY USING COMBINABLE PDMS CAPILLARY (CPC) SENSOR
Tadashi Ishimoto, Kaede Jigawa, Terence G. Henares, Tatsuro Endo, Hideaki Hisamoto
Osaka Pref. Univ.
- A072** SEQUENCE SELECTIVE DNA METHYLATION ANALYSIS BY BULGE-SPECIFIC IMMUNO-RECOGNITION
Ryoji Kurita, Hiroyuki Yanagisawa, Osamu Niwa
AIST
- A073** CELL ABLATION BY ELECTRICALLY-INDUCED MONO-DISPERSED BUBBLE KNIFE
Hiroki Kuriki¹, Yoko Yamanishi¹, Shinya Sakuma¹, Satoshi Akagi² and Fumihito Arai¹
¹ *Univ. Nagoya,*
² *NARO*
- A074** SINGLE MOLECULE VISUALIZATION OF ENDOGENOUS B-ACTIN MRNA IN LIVING CELLS USING A GFP-BASED PROBE
Hideaki Yoshimura¹, Toshimichi Yamada¹, Asumi Inaguma², Takeaki Ozawa¹
¹ *The University of Tokyo,*
² *The Graduate University for Advanced Studies*
- A075** A GENETICALLY ENCODED PROBE FOR IMAGING NON-ENGINEERED MRNA DYNAMICS WITH SINGLE MOLECULE SENSITIVITY
Toshimichi Yamada¹, Hideaki Yoshimura¹, Asumi Inaguma², Takeaki Ozawa¹
¹ *The University of Tokyo,*
² *The Graduate University for Advanced Studies*
- A076** NEW IMAGING SYSTEM FOR MONITORING AN ACIDIC ENVIRONMENT IN LIVING TISSUE BY PHOTO-REACTIVE LUCIFERASE
Mitsuru Hattori¹, Sanae Haga², Hideo Takakura¹, Michitaka Ozaki², Takeaki Ozawa¹
¹ *Tokyo Univ.,*
² *Hokkaido Univ.*
- A077** DEVELOPMENT OF A NOVEL METHOD FOR DETECTING MITOCHONDRIA-MEDIATED APOPTOSIS IN LIVING MULTICELLULAR ORGANISMS
Yusuke Nasu¹, Yoichi Asaoka², Hiroshi Nisina², Takeaki Ozawa¹
¹ *Univ. of Tokyo,*
² *Tokyo Med. Dent. Univ.*
- A078** DEVELOPMENT OF LIGHT-INDUCED PROTEIN-PROTEIN HOMODIMERIZATION SYSTEM TO CONTROL AXON GUIDANCE WITH BLUE LIGHT
Mizuki Endo, Mitsuru Hattori and Takeaki Ozawa
The University of Tokyo

- A079** ANALYSES OF BIOPHARMACEUTICALS USING AMINO ACID ANALYZER.
Yusuke Hosen¹, Yoko Inoue¹, Keisuke Shibuya², Miyuki Matushita¹, Hiroaki Nakagawa¹, Masahito Ito¹, Keiko Abe¹
¹ Hitachi High-Technologies Co.
² Hitachi Research Laboratory, Hitachi, Ltd.
- A080** CYRO TRANSER OBSERVATION OF VITRESCENCE ICE-EMBEDDED LIPOSOMES USING 120 KV TEM
Manabu Shirai¹, Yasushi Kuroda¹, Hiroyuki Kobayashi², Eiko Nakazawa¹
¹ Hitachi High-Technologies Corporation Manufacturing Strategy Group Glogal Application Center,
² Hitachi High-Technologies Corporation Advanced Microscope System Design Department
- A081** REAGENT RELEASE CAPILLARY-BASED ISOELECTRIC FOCUSING (RRC-IEF) FOR HIGHLY-SENSITIVE MULTI ENZYME ACTIVITY ASSAY
Yuto Nogawa, Tatsuro Endo, Hisamoto Hideaki
Osaka Pref. Univ.
- A082** 3D CULTURE SYSTEM ON A MICRO PATTERNED SURFACE FOR IMPROVED DIFFERENTIATION CAPABILITIES OF ADIPOSE DERIVED STEM CELLS
Yuka Kikuchi¹, Hideyuki Suzuki², Moritoshi Sato², Shyuji Takahasi³ and Keitaro Yoshimoto¹
¹Dept. of Life Sci., Grad. Sch. of Arts and Sci.
²Dept. of General Systems Studies, Grad. Sch. of Arts and Sci.
³Div. of Life Sci., KOMEX, College of Arts and Sci., The Univ. of Tokyo
- A083** INDUCTION OF HSP70 IN HYPERTHERMIA MEDIATED BY PHOTOTHERMAL EFFECT OF GOLD NANORODS
Moemi Yoshiura¹, Takeshi Mori¹, Yoshiki Katayama^{1,2,3,4}, Takuro Niidome^{1,2,3}
¹ Department of Applied Chemistry, Faculty of Engineering, Kyushu University.
² Center for Future Chemistry, Kyushu University.
³ International Research Center for Molecular Systems, Kyushu University.
⁴ Center for Advanced Medical Innovation, Kyushu University.
- A084** MICROFLUIDIC SYSTEM WITH FAST, LOCAL TEMPERATURE CONTROL TO STUDY CELLUAR RESPONSE IN MICROENVIRONMENTAL STIMULI
Ryohei Ueno, Yuka Ogata, Nobuyuki Takama, Yasuyuki Sakai, Kim Beom Joon
Institute of Industrial Science, The University of Tokyo
- A085** ICROFLUIDIC CHIP FOR CONTINUOUS TWO-DIMENSIONAL CELL SEPARATION BASED ON SIZE AND SURFACE MARKER
Masahiro Mizuno, Kaori Toyama, Ryusuke Mitamura, Masumi Yamada, and Minoru Seki
Chiba University
- A086** REDOX-SENSITIVE LUCIFERASES FOR THE DETECTION OF OXIDATIVE STRESS IN VIVO
Hideyuki Suzuki, Moritoshi Sato
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- A087** GENETICALLY ENCODED FLUORESCENT "MEMORY PROBES" FOR IMAGING CGMP PRODUCTION IN VIVO.
Yuki Aono¹, Shigekazu Oda², Takahiro Nakajima¹, Yuich Iino², Moritoshi Sato¹
¹ Graduate School of Arts and Science, The University of Tokyo,
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- A088** TIME-LAPSE IMAGING FOR FOCAL ADHESION FORMATION OF CELL MIGRATION ON MICROPATTERNS
Hiroki Kobayashi¹, Takayuki Furuya¹, Tomonori Nomoto¹, Atsushi Maruyama², Kiyoshi Ohnuma², Taro Toyota³, Masanori Fujinami¹
¹ Chiba Univ.,
² Nagaoka Univ. of Tech.,
³ Univ. of Tokyo
- A089** ENZYME-PEGYLATED POLYELECTROLYTE COMPLEXES FOR PATTERN-BASED PROTEIN DISCRIMINATION.
Shunsuke Tomita, Keitaro Yoshimoto
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- A090** PARYLENE MICRO-FLAPPING SYSTEM FOR THE OBSERVATION OF PARASITE INFECTION INTO MAMMALIAN CELLS.
Tetsuhiko Teshima¹, Hiroaki Onoe¹, Hiroka Aonuma², Kaori Kuribayashi-Shigetomi¹, Hirotaka Aonuma², Shoji Takeuchi¹
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- A091** A SINGLE-CELL DRUG EFFLUX ASSAY IN BACTERIA BY USING A DIRECTLY ACCESSIBLE FEMTOLITER DROPLET ARRAY
Ryota Iino^{1,2}, Kohei Hayama³, Hiromi Amezawa¹, Shouichi Sakakihara³, Soo Hyeon Kim^{1,2}, Yoshimi Matsumono³, Kunihiko Nishino³, Akihito Yamaguchi³, Hiroyuki Noji^{1,2}
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- A092** QUATIFICATION OF NANOG IN SMALL AMOUNT OF IPS CELL LYSATE BY CAPILLARY ELISA TOWARDS SIMULTANEOUS DETECTION OF PLURIPOTENCY RELATED PROTEINS BY LAMINATED GLASS CAPILLARY SENSOR ARRAY
Kentaro Izumoto¹, Shun-ichi Funano¹, Terence G. Henares¹, Tatsuro Endo¹, Ryuichi Sekizawa², Daisuke Kami³, Masashi Toyoda⁴, Satoshi Gojo³, Akihiro Umezawa⁵, and Hideaki Hisamoto¹
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- A093** RAPID AND SIMPLE CHARACTERIZATION OF MYCOLIC ACIDS USING MALDI SPIRAL-TOFMS
Kanae Teramoto¹, Takafumi Sato¹, Tomohiko Tamura², Moriyuki Hamada², Ken-ichiro Sudzuki²
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- A094** SEQUENTIAL INJECTION ANALYSIS OF PHENOL INDEX COMBINED WITH A SCALED-DOWN DISTILLATION SYSTEM
Mai Yamashita¹, Norio Teshima¹, Tadao Sakai¹, Ohno Shinsuke², Norio Hayashi², Toshio Kaneko²
¹ *Aichi Institute of Thechnology,*
² *Mitubishi Chemical Analytech Co.,Ltd*
- A095** DETECTION OF PIGMENT-PROTEIN INTERACTIONS IN PHOTOSYNTHETIC PURPLE BACTERIA BY NEAR INFRARED RAMAN SPECTROSCOPY
Yukihiro Kimura¹, Yuta Inada², Tomoko Numata³, Teruhisa Arikawa², Yong Li², Jian-Ping Zhang⁴, Zheng-Yu Wang⁵, Takashi Ohno²
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- A096** SEPARATION OF CHROMIC ACID IN SOIL BY ION EXCHANGE COLUMN FOR THE DETERMINATION OF CHROMIUM(VI) BY ELECTROSPRAY IONIZATION MASS SPECTROMETRY
Shota Kurihara, Kiichi Sato, Kin-ichi Tsunoda
Gunma Univ.
- A097** APPLICATIONS OF HITACHI TABLETOP MICROSCOPE TM3000
Mari Sakaue¹, Masahiko Ajima²
¹ *Global Application center, Hitachi High-Technologies Corporation,*
² *Advanced Microscope Systems Design Department, Hitachi High-Technologies Corporation*
- A098** SEPARATION OF ALUMINUM-ORGANIC ACID COMPLEXES BY CATION EXCHANGE AND ANION EXCHANGE CHROMATOGRAPHY
Kazuki Shimotori, Kiichi Sato, Kin-ichi Tsunoda
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- A099** EVALUATION OF DOSE RATE METER WITH THE CAPABILITY OF THREE SIMULTANEOUS MEASUREMENTS OF SPECIFIC DIRECTIONS
Erika Matsumoto, Koji Tominaga, Hiroshi Ito, Takashi Nagayama, Yasuo Furukawa, Naoto Bando
HORIBA, Ltd.
- A100** PLASMA IN AQUEOUS SOLUTIONS AND ITS APPLICATION TO ANALYTICAL CHEMISTRY (2) : GLOW DISCHARGE FORMATION AND ITS SPECTROSCOPIC ANALYSIS
Kenta Kanno, Hotaka Takakuwa, Motohiro Banno, Hiroharu Yui
Tokyo Univ. of Sci.
- A101** DISCHARGE PLASMA GENERATION IN AQUEOUS SOLUTIONS AND ITS APPLICATION TO ANALYTICAL CHEMISTRY (3) : CORONA DISCHARGE FORMATION AND ITS SPECTROSCOPIC ANALYSIS
Hotaka Takakuwa, Kenta Kanno, Motohiro Banno, Hiroharu Yui
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- A102** DEVELOPMENT OF BIOLOGICAL NANOPORE SENSOR FOR ENVIRONMENT ANALYSIS
Ryuji Kawano¹, Yutaro Tsuji^{1,3}, Toshihisa Osaki¹, Koki Kamiya¹, Norihisa Miki^{1,3}, Yoke Tanaka⁴, Shoji Takeuchi^{1,2}
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- A103** DEVELOPMENT OF POLYMER MODIFICATION METHOD ON EXTENDED NANOSPACE
Junpei Katagiri, Kazuma Mawatari, Takehiko Kitamori
Department of Applied Chemistry, The University of Tokyo

- A104** DEVELOPMENT OF MICRO FUEL CELL UTILIZING EXTENDED-NANO CHANNELS AS PROTON CONDUCTOR
Hiroyuki Chinen¹, Kazuma Mawatari^{1,2}, Yuriy Pihosh^{1,2}, Takehiko Kitamori^{1,2}
¹ University of Tokyo,
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- A105** DEVELOPMENT OF HYDROPHILIC INTERACTION ELECTROKINETIC CHROMATOGRAPHY USING CHITIN/CHITOSAN NANOFIBERS. 3
Masato Watanabe¹, Takayuki Kawai², Kenji Sueyoshi¹, Takuya Kubo¹, Fumihiko Kitagawa³, Koji Otsuka¹
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² Health Research Institute, National Institute of Advanced Science and Technology,
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Hitoshi Iwasaki, Kazuhiko Fujiwara, Nobuaki Ogawa
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- A107** DEVELOPMENT OF H₂/O₂ GENERATION CHIP UTILIZING SPECIFIC PROPERTIES OF EXTENDED-NANO SPACE
Yasuhito Kajita¹, Yuriy Pihosh^{1,2}, Kazuma Mawatari^{1,2}, Takehiko Kitamori^{1,2}
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Tomoya Shimizu¹, Junichi Aoyama¹, Shogo Awata¹, Nobuyuki Naka¹, Tomoaki, Hatayama²
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- A109** PORE ANALYSIS OF SILICA-BASED GLASSES BY POSITRON ANNIHILATION SPECTROSCOPY
Shuhei Aoyama¹, Kenta Hara¹, Masanori Fujinami¹, Madoka Ono^{2,3}, Setsuro Ito^{2,3}
¹ Chiba Univ.,
² Asahi Glass Co. Ltd.,
³ Tokyo Inst. Tech.
- A110** DNA MANIPULATION AND SEPARATION IN SUB-LITHOGRAPHIC NANOWIRE ARRAY
Takao Yasui¹, Sakon Rahong², Koki Motoyama¹, Takeshi Yanagida², Qiong Wu¹, Noritada Kaji¹, Masaki Kanai¹, Kentaro Doi², Kazuki Nagashima², Manabu Tokeshi³, Masateru Taniguchi², Satoyuki Kawano², Tomoji Kawai², and Yoshinobu Baba¹
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² Osaka University,
³ Hokkaido University
- A111** ATTENUATED TOTAL REFLECTION SURFACE-ENHANCED INFRARED ABSORPTION SPECTROSCOPY FOR THE ANALYSIS OF FATTY ACIDS ON SILVER NANOPARTICLES
Yuichi Kato, Eiichi Sudo, Keiko Fukumoto
Toyota Central R&D Labs., Inc.
- A112** THE LATEST EVALUATION OF THE OPTICAL MATERIALS OF SOLAR CELLS AND ELECTRONICS BY UV-VIS-NIR SPECTROPHOTOMETER
Hirokazu Abo, Eiji Ikeda, Seiji Takeuchi
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- A113** MEASUREMENT OF THERMAL AND MECHANICAL PROPERTIES OF LITHIUM-ION SECONDARY BATTERY SEPARATORS
Atsuko Naganishi, Mitsuru Ohta
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- A114** DEVELOPMENT OF NEW LABELING REAGENTS FOR CHEMILUMINESCENCE IMMUNOASSAY
Ayako Kusumoto, Yuta Katayama, Daniel Citterio, Koji Suzuki
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- A115** CHITIN-MODIFIED POLY(DIMETHYLSILOXANE) MICROCHANNEL FOR ELECTROPHORETIC ANALYSIS OF BIOGENIC COMPOUNDS. 2
Yusuke Hori, Kenji Sueyoshi, Takuya Kubo, Koji Otsuka
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- A116** HIGHLY SENSITIVE ELECTROPHORETIC ANALYSIS USING LVSEP: APPLICATION TO CATIONIC ANALYTES. 2
Jun Ito¹, Takayuki Kawai², Kenji Sueyoshi¹, Takuya Kubo¹, Fumihiko Kitagawa³, Koji Otsuka¹
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² Health Research Institute, National Institute of Advanced Science and Technology,
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- A117** ESI INTERFACE-INTEGRATED MICRODEVICE FOR AN APPLICATION OF LVSEP TO MICROCHIP ELECTROPHORESIS–MASS SPECTROMETRY
Mami Oketani¹, Takayuki Kawai², Kenji Sueyoshi¹, Takuya Kubo¹, Fumihiko Kitagawa³, Koji Otsuka¹
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² Health Research Institute, National Institute of Advanced Science and Technology,
³ Graduate School of Science and Technology, Hirosaki University
- A118** INVESTIGATION OF DETERIORATION FOR UV IRRADIATED ABS RESIN BY FTIR AND RAMAN MICROSCOPE
Hirokazu Taniguchi, Tsuyoshi Tsuchibuchi
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- A119** REEXAMINATION OF THE PH VALUES ASSIGNED TO AQUEOUS PHOSPHATE BUFFERS USED AS A PRIMARY STANDARD FOR PH DETERMINATION
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