Poster and Flash Presentations

Convention Hall, Makuhari-Messe, Chiba, Japan, September 5-6, 2013.

A101 OPTIMIZATION OF MICROFLUIDIC-BASED IN SITU PADLOCK ROLLING CIRCLE AMPLIFICATION FOR MITOCHONDRIAL DNA ANALYSIS.

Arisa Kuroda[1], Naoki Sasaki[1], Mats Nilsson[2], Kae Sato[1]

[1]Japan Women's University, [2]Uppsala University

A102 IMMUNOELECTROHORESIS OF EXTRACELLULAR NANOVESICLES ON A MICROCAPILLARY CHIP

Takanori Akagi[1], Nami Hanamura[1], Masashi Kobayashi[1], Kei Kato[1], Takanori Ichiki[1]

[1] Univ. Tokyo

A103 CHARACTERIZATION OF NANOPARTICLE PERMEABILITY ON MEMBRANE-INTEGRATED MICROFLUIDIC DEVICES

Naoki Sasaki,[1] Mariko Tatanou,[2] Yasutaka Anraku,[3] Akihiro Kishimura,[4] Kazunori Kataoka,[3] and Kae Sato[2]

[1]Toyo University, [2]Japan Women's University, [3]The University of Tokyo, [4]Kyushu University, JAPAN

A104 DIRECTED EVOLUTION OF PROTEINS USING A NOVEL MICROARRAY DEVICE

Shingo Ueno[1], Shusuke Sato[1], Tatsunori Hirai[1], Takumi Fukuda[1], Hiromi Kuramochi[1], Manish Biyani[1], Takanori Ichiki[1]

[1] Univ. Tokyo

A105 HIGH EFFICIENCY SEPARATION OF PROTEIN BY MICROCHIP ELECTROHORESIS USING PDMS MICROCHANNEL MODIFIED WITH CHARGED PHOSPHOLIPID POLYMER

Madoka Takai[1], Kyosuke Nii[1], Kenji Sueyoshi[2], Koji Otsuka[3]

[1] Univ. of Tokyo, [2] Osaka Prefecture University, [3] Kyoto University

A106 LUMAZINE-PEPTIDE CONJUGATES DISPLAY ENHANCED AFFINITY FOR RNA TARGETS

Hiroki Saito[1], Yusuke Sato[1], Norio Teramae[1], and Seiichi Nishiziawa[1]

[1] Department of Chemistry, Graduate School of Science, Tohoku University

A107 THIAZOLE ORANGE AS A FLUORESCENT LIGAND TO TARGET TAR RNA

Yoshiko Ito [1], Yusuke Sato[1], Norio Teramae[1], Seiichi Nishizawa[1]

[1] Department of Chemistry, Graduate School of Science, Tohoku University

A108 NANOLITER IMMUNOASSAY BASED ON CAPILLARY IMMUNE MICROREACTOR AND INKJET INJECTION TECHNOLOGY

Jianmin Yang, Hulie Zeng, Hizuru Nakajima, Katsumi Uchiyama

Tokyo Metropolitan University

A109 NOVEL COELENTERAZINE DERIVATIVE FOR BIOLUMINESCENCE APPLICATIONS

Ryo Nishihara[1], Emi Hoshino[1], Hideyuki Suzuki[2], Moritoshi Sato[2], Tsuyoshi Saito[1], Shigeru NIshiyama[1], Naoko Iwasawa[1], Daniel Citterio[1], Koji Suzuki[1]

[1] Keio University, [2] Tokyo University

A110 DESIGN AND SYNTHESIS OF NOVEL COELENTERAZINE DERIVATIVES

Emi Hoshino [1], Ken Ikegami [1], Hideyuki Suzuki [2], Moritoshi Sato [2], Tsuyoshi Saito [1], Shigeru Nishiyama [1], Naoko Iwasawa [1], Daniel Citterio [1] and Koji Suzuki [1]

[1] Keio University, [2] Tokyo University

A111 ICE GRAIN BOUNDARY ELECTROPHORESIS

Arinori Inagawa[1], Tetsuo Okada[1]

[1] Tokyo Tech

A112 MULTI-CLASS PESTICIDES RESIDUES ANALYSIS IN CRUDE FOOD EXTRACTS USING AOC-MEPS AND LC/MS/MS

Yuka Fujito[1], Shigeaki Shibamoto[2], Kiyomi Arakawa[2], Ichiro Hirano[2], Yoshihiro Hayakawa[2]

[1] Shimadzu Techno-Research Inc. [2] Shimadzu Corp.

A113 FUNDAMENTAL INVESTIGATION OF SINGLE DEFECT-INTRODUCED TWO-DIMENSIONAL PHOTONIC CRYSTAL FOR SENSING APPLICATION

China Ueda, Kenji Sueyoshi, Hideaki Hisamoto, and Tatsuro Endo

Osaka Prefecture University, Japan

A114 DIRECT DETERMINATION OF ULTRA-TRACE CHLORINE CONCENTRATION IN VARIOUS CERAMICS USING ELECTROTHERMAL VAPORIZATION INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPECTROMETRY

Bunji Hashimoto[1]

[1] HORIBA, Ltd.

A115 DEVELOPMENT OF UV EXCITATION DIFFERENTIAL INTERFERENCE CONTRAST THERMAL LENS MICROSCOPE FOR SINGLE PROTEIN DETECTION

Yoshihiro Asano, Hisashi Shimizu, Kazuma Mawatari, Takehiko Kitamori

Univ. Tokyo, JST-CREST

A116 NEAR-FIELD ILLUMINATION METHOD IN EXTENDED-NANO SPACE FOR ANALYSIS OF PROTON MOBILITY WITH HIGH DEPTH RESOLUTION

Ryoichi Ohta, Kazuma Mawatari, Yutaka Kazoe, Takehiko Kitamori
University of Tokyo

A117 FREQUENCY ANALYSIS OF 2D CAPILLARY WAVE RESONANCE IN CONFINED MICROSCALE

Myungwha Chung[1,2], Sebastian Volz[3], Akihide Hibara[2]
[1] University of Tokyo, Japan, [2] Tokyo Institute of Technology, Japan, [3] Ecole Centrale Paris, France

A118 SIMPLIFIED ANALYSIS FOR SOIL SAMPLES WITH COMPACT WATER QUALITY METER <LAQUATWIN>

Keiko Kuwamoto [1], Bunji Hashimoto [1], Yasukazu Iwamoto [1], Hiroshi Nagai [1], Takashi Aomi [1]
[1] Horiba Ltd.

A119 REVEALING THE DYNAMIC STRUCTURE OF ELECTRIC DOUBLE LAYER BY ELECTRICAL IMPEDANCE SPECTROSCOPY

Porpin Pungetmongkol[1] , Takatoki Yamamoto[1]
[1]Department of mechanical and control engineering, Tokyo Institute of technology

A120 SMALL DIFFERENTIAL PUMPING SYSTEM FOR MINIATURE QUADRUPOLE ARRAY MASS SPECTROMETER

Takaaki Matsuda, Junya Nakai, Kouhei Sasai
HORIBA STEC,Co.,Ltd.

A121 QUANTITATIVE DETERMINATION OF BRANCHED-CHAIN AMINO ACIDS IN HUMAN PLASMA USING ON-CHIP CHROMATOGRAPHY WITH PILLAR ARRAY

Yanting Song[1], Katsuya Takatsuki[2], Muneki Isokawa[1], Tetsushi Sekiguchi[2], Jun Mizuno[2], Takashi Funatsu[1], Shuichi Shoji[2], and Makoto Tsunoda[1]
[1] Univ. Tokyo, [2] Waseda Univ.

A122 DEVELOPMENT OF MICROTITER PLATE-COMPATIBLE ENZYME BIOSENSOR BASED ON SILVER NANOPARTICLE-CONTAINED HYDROGEL

Kenzo Yamamoto，Kenji Sueyoshi, Hideaki Hisamoto, Tatsuro Endo
Osaka Pref. Univ.

A123 ROOM-TEMPERATURE FERROMAGNETIC FEPT NANOPARTICLE FOR HYPERTHERMIA CANCER TREATMENT

Takashi Yamamoto[1], Tomoko Hosomi[1], Kei Asai[2], Shingo Nakao[2], Tetsuya Oda[3], Yukio Nagasaki[2], Yasuaki Einaga[1]
[1] Department of Chemistry, Keio University, [2] Graduate School of Pure and Applied Sciences, University of Tsukuba, [3] Department of Surgery, University of Tsukuba

A124 POWERLESS CELL SEPARATION AND BIOMOLECULAR EXTRACTION METHOD

Yukihiro Okamoto[1], Hiroshi Yukawa[1], Manabu Tokeshi[2], Yoshinobu Baba[1]
[1] Nagoya Univ, [2] Hokkaido Univ

A125 NOVEL PLATFORM TO MEASURE THE TRANSPORT ACTIVITY BY MEMBRANE PROTEINS USING SUB-MILLION LIPID MEMBRANE ARRAYS

Rikiya Watanabe[1], Naoki Soga[1], Hiroyuki Noji[1]
[1] Univ. Tokyo

A126 STOP AND FLOW SPR MEASUREMENT SYSTEM FOR HIGHTHROUPUT BLOOD COAGULATION TEST

Suzuyo Inoue, Katsuyoshi Hayashi, Yuzuru Iwasaki, Tsutomu Horiuchi, Nobuaki Matsuura, Hiroshi Koizumi
NTT MI lab.

A127 CONTINUOUS SEPARATION OF MICROPARTICLES AND CELLS WITH LATTICE-SHAPED MICROCHANNEL NETWORKS

Wataru Seko, Masumi Yamada, Minoru Seki
Univ. Chiba

A128 A FLUORESCENT PROBE TO VISUALIZE TELOMERIC RNAS IN LIVING CELLS WITH SINGLE MOLECULE SENSITIVITY

Toshimichi Yamada[1], Hideaki Yoshimura[1], Mitsuru Hattori[1], Takeaki Ozawa[1]
[1] The University of Tokyo

A129 DEVELOPMENT OF ASSAY SYSTEMS FOR CANCER CELL INVASION USING ANISOTROPIC HYDROGEL MICROFIBERS

Yoichi Kitagawa, Yuya Yajima, Masumi Yamada, and Minoru Seki.
Chiba University

A130 SIMULTANEOUS INJECTION EFFECTIVE MIXING ANALYSIS SYSTEM FOR AUTOMATED DETERMINATION OF VANADIUM AND IRON IN WATER SAMPLES

Alejandro Ayala[1], Norio Teshima[1], Tadao Sakai[1], Shoji Motomizu[2]
[1] Department of Applied Chemistry, Aichi Institute of Technology, Japan,[2] Graduate School of Natural Science and Technology, Okayama University, Japan

A131 AN LCMS/MS METHOD FOR THE ANALYSIS OF GLYPHOSATE IN COCOA

Jonathan T. Edwardsen[1], Shannon Cook[1], Chris Gilles[1], Robert J. Classon[1], William Hegdepeth, Tairo Ogura
[1]Shimadzu Scientific Instruments, Inc, Columbia, MD, USA, [2]Shimadzu Corporation, Kyoto, Japan

A132 STRUCTURAL ANALYSIS OF NDFEB MAGNET USING AN AIR PROTECTION SYSTEM

Akinari Morikawa, Takeshi Sato, Mitsuru Konno, Toshihide Agemura

Hitachi High-Technologies Corporation

A133 AN ABSORPTION-BASED NANOIMPRINTED TWO-DIMENSIONAL PHOTONIC CRYSTAL ION SENSOR USING PLASTICIZED PVC

Shoma Aki, Kenji Sueyoshi, Hideaki Hisamoto, and Tatsuro Endo

Osaka Prefecture University

A134 HIGH REPRODUCIBLE SURFACE-ENHANCED RAMAN SCATTERING DETECTION WITH HIGHLY-ORDERED GOLD NANOPARTICLE ARRAY

Takashi Fujita[1], Kohei Shibamoto[1]

[1] Tokyo Metropolitan University

A135 DETECTION OF CHARGE DYNAMICS AT THE TIO2/ELECTROLYTE INTERFACE IN DYE-SENSITIZED SOLAR CELLS

Shota Kuwahara[1], Soichiro Taya[1], Keita Omata[1], Qing Shen[2], Taro Toyoda[2], Kenji Katayama[1]

[1] Chuo Univ., [2] Univ. Electro-Comm.

A136 FABRICATION OF UNIFORM FILMS OF GOLD NANORODS USING LANGMUIR-BLODGETT METHOD

Yukina Takahashi[1], Natsuko Ide[1], Moe Motobe[1], Kwati Leonard[1], Sunao Yamada[1]

[1] Kyushu Univ.

A137 QUANTIFICATION OF ELECTRON TRANSFER THROUGH A SINGLE SUPRAMOLECULE BY FULLERENE MOLECULAR STM TIP

Tomoaki Nishino[1], Phuc Tan Bui[1], Yojiro Yamamoto[1],[2], Hiroshi Shiigi[1]

[1] Osaka Prefecture Univ., [2] GreenChem Inc.

A138 METAL ENHANCEMENT OF FLUORESCENCE FROM SILVER NANOPARTICLES ON PAPER SUBSTRATES

Valeria Percassi[1], Yukiko Mizuno[1], Koji Suzuki[1], Daniel Citterio[1]

[1] Keio University

A139 MONITORING OF CHEMICAL REACTIONS AND CHANGES BY FTIR

Shoko Iwasaki , Hirokazu Taniguchi

Shimadzu Corporation

A140 BEHAVIOR OF SURFACTANTS IN CHEMICAL OSCILLATION OF WATER/OIL/WATER SYSTEM USING TIME-RESOLVED INTERFACIAL TENSION MEASUREMENT

Kazuma Goto[1], Taro Toyota[2], Tomonori Nomoto[1], Masanori Fujinami[1]

[1] Department of Applied Chemistry and Biotechnology, Chiba University, [2] Department of Basic Science, Graduate School of Arts and Sciences, The University of Tokyo

A141 POSITRON ANNIHILATION SPECTROSCOPY IN HYDROGEN-INDUCED DEFECTS IN PURE ALUMINUM

Naoya Uesugi[1], Masanori Fujinami[1], Hiroshi Suzuki[2]

[1]Department of Applied Chemistry and Biotechnology, Chiba University

[2]Department of Mechanical Engineering, Sophia University

A142 QUANTITATIVE ANALYSIS OF FAT IN MILK BY UV-VIS-NIR SPECTROMETRY AND MULTIVARIATE ANALYSIS

Mikio Sugioka

Shimadzu Corporation

A143 A NEWLY DEVELOPED SOFT X-RAY SPETROMETER FOR ELECTRON PROBE MICROANALYSER

H.Takahashi[1], N.Handa[1], T.Murano[1], Y.Iijima[1], M.Terauchi[2], K. Koike[3], T.Kawachi[3], T.Imazono[3], M.Koesa[4], T.Nagao[4], H.Sasai[4], Y.Oue[4], Z.Yonezawa[4], S.Kuramoto[4]

[1] JEOL Ltd.[2] Tohoku univ, [3] Japan Atomic Energy Agency, [4] Shimadzu Corp.,

A201 DEVELOPMENT OF LABEL-FREE UROKINASE ACTIVITY ASSAY USING NANOIMPRINTED TWO DIMENSIONAL PHTONIC CRYSTAL FOR BREAST CANCER DIAGNOSTICS.

Wakana Hashimoto, Kenji Sueyoshi, Hideaki Hisamoto, Tatsuro Endo

Osaka Pref. Univ.

A202 ON-CHIP STANDARD CALIBRATION AND ENZYME ASSAY USING THE THIRD GENERATION CAPILLARY-ASSEMBLED MICROCHIP (CAS-CHIP3G)

Terence G. Henares, Shun-ichi Funano, Kenji Sueyoshi, Tatsuro Endo, Hideaki Hisamoto

Osaka Prefecture University

A203 CHARACTERIZATION OF NANO SIZE IONIC MICELES BEHAVIOR IN SEVERAL SALT CONCENTRATION BY DYNAMC LIGHT SCATTERING AND ELECTROPHORESIS.

Shigemi Tochino [1], Jeffrey Bodycomb [2], Makoto Umezawa [1]

[1]. HORIBA, LTD., [2]. HORIBA International Incorporated

A204 CHARACTERIZATION OF A MICROFLUIDIC IN VITRO MODEL OF LYMPHATIC VESSEL.

Miwa Sato [1], Naoki Sasaki[1], Satoshi Hirakawa[2], Kae Sato[1]

[1]Japan Women's University, [2]Hamamatsu University School of Medicine

A205 LAL REAGENT-FREE ELECTROCHEMICAL LPS DETECTION USING A NANOCARBON ELECTRODE

Atsumu Oda, Dai Kato, Mutsuo Tanaka, Tomoyuki Kamata, Seiichiro Iijima, Yasuo Yoshimi, Sigeru Hirono, Osamu Niwa

[1] AIST, [2] Tsukuba Univ., [3] Shibaura Inst.Technol., [4] MES-afty Corp.

A206 DEVELOPMENT OF ICE DROPLET COLLIDER FOR CHEMICAL REACTION USING GAS FLOW ACCELERATION

Takumi Matsuno, Yutaka Kazoe, Kazuma Mawatari, Takehiko Kitamori

Univ. Tokyo

A207 ACCELERATED ENZYME-LINKED IMMUNOSORBENT ASSAY ON MULTICAPILLARY GLASS-ASSEMBLED MICROFLUIDIC CHAMBER

Shuhua Xue, Hulie Zeng, Hizuru Nakajima, Jin-Ming Lin, Katsumi Uchiyama

Tokyho Metropolitan University

A208 FLUORESCENT PTERIDINE DERIVATIVES FOR DETECTING CYTOSINE NUCLEOBASE OPPOSITE AN ABASIC SITE IN THE RNA DUPLEXES

Yu Toriyabe, Yusuke Sato, Norio Teramae, Seiichi Nishizawa

Tohoku Univ.

A209 INTERACTION OF POLY(N-ISOPROPYLACRYLAMIDE AND SURFACTANTS UNDER LOW-CONCENTRATION CONDITIONS

Mikako Mori, Minami Ogawa, Nobuo Uehara

Grad. School of Eng. Univ. Utsunomiya

A210 TEMPERATURE-RESPONSIVE FLUORESCENCE POLYMER PROBE FOR CELLULAR IMAGING

Yutaro Maekawa[1], Yuichi Suzuki[1], Minami Matsuura[1], Takaaki Funatsu[1], Yuki Hiruta[1], Teruo Okano[2], and Hideko Kanazawa[1]

[1]Keio Univ. Tokyo [2]Women's Medical Univ.

A211 PROBING INTERMOLECULAR STRUCTURES OF BIOMOLECULES IN SOLID STATE USING HIGH RESOLUTION 1H SOLID STATE NMR UNDER ULTRA HIGH SPEED MAS

Koji Yazawa[1],[2], Yusuke Nishiyama[2], Katsuyuki Nishimura[3], Hironori Kaji[4], Tetsuo Asakura[1],[3]

[1] Department of Biotechnology, Tokyo University of Agriculture and Technology, [2] JEOL RESONANCE, [3]Institute for Molecular Science, [4]Institue for Chemical Research, Kyoto University

A212 DRESS-UP CHIRAL COLUMNS FOR THE ENANTIOSEPARATION OF AMINO ACIDS BASED ON FLUOROUS SEPARATION

Yasuhiro Ishii[1], Kenichiro Todoroki[1], Koji Toyoda[1], Jun Zhe Min[1], Koichi Inoue[1], Toshimasa Toyo'oka[1]

[1] University of Shizuoka

A213 DEVELOPMENT OF LOW-TEMPERATURE HPLC FOR UNSTABLE CHEMICAL SPECIES USING LIQUID CARBON DIOXIDE AS A MOBILE PHASE

Tomohiro Motono, Shinya Kitagawa, Hajime Ohtani

Nagoya Institute of Technology

A214 DEVELOPMENT OF EXTENDED-NANO LIQUID CHROMATOGRAPHY WITH MILLION PLATES USING ULTRAHIGH PRESSURE SYSTEM

Yilin Liu[1], Hisashi Shimizu[1],[2], Kazuma Mawatari[1],[2], Takehiko Kitamori[1],[2]

[1]Department of Bioengineering, The University of Tokyo, Japan, [2]Japan Science and Technology Agency, Core Research for Evolutional Science and Technology

A215 ANALYSIS OF SUGARS WITH HPLC METHOD SCOUTING SYSTEM COUPLED TO SINGLE QUADRUPOLE MASS SPECTROMETER

Miho Kawashima[1]; Tadahiro Takahashi[2]; Hidetoshi Terada[1]; Yusuke Inohana[1]; Kiyomi Arakawa[1]; Yoshihiro Hayakawa[1]

[1] Shimadzu Corporation, Kyoto, JAPAN [2] Shimadzu Techno-Research, Inc., Kyoto, JAPAN

A216 ELEMENTAL ANALYSIS OF LITHIUM-ION BATTERIES BY THE ATOMIC ABSORPTION METHOD

Yumiko Katayama[1], Hideyuki Sakamoto[1], Akira Yonetani[1], Toshihiro Shirasaki[1],Kazuko Yamamoto[1], Kazuyo Miura[2]

[1] Hitachi High-Technologies Corporation, [2] Hitachi High-Tech Control Systems Corporation

A217 CONSTRUCTION OF A LIQUID-CORE/LIQUID-CLADDING OPTICAL WAVEGUIDE USING TEMPERATURE GRADIENTS FORMED IN LAMINAR FLOW.

Manami Nakamura,Hiroyasu Murata,Kiichi Sato,Kin-ichi Tsunoda

Gunma Univ

A218 INDUCED 2D CAPILLARY WAVE RESONANCE BY PIEZOELECTRIC VIBRATION

Kazushige Seki[1], Myungwha Chung[1,2], Christian Pigot[3], Akihide Hibara[2]

[1] University of Tokyo, Japan, [2] Tokyo Institute of Technology, Japan, [3] LIMMS/CNRS-IIS UMI [2]8[2]0, Institute of Industrial Science, Japan

A219 LSI-BASED ELECTROCHEMICAL PLATFORM CONTAINING 400 SENSORS FOR CELL ANALYSIS

Yusuke Kanno [1], Kosuke Ino [1], Kumi Y. Inoue [1], Ryota Kunikata [2], Atsushi Suda [2], Hitoshi Shiku [1], Tomokuzu Matsue [1,3]

[1] Grad. Envi. Tohoku Univ., [2] Japan Aviation Electronics Industry, Ltd., [3] WPI-AIMR Tohoku Univ.

A220 ELECTROCHEMICAL ANALYSIS OF BACTERIA USING FLUORESCENT LABELS

Yu Hatsuoka, Le Quynh Dung, Hiroshi shiigi, Tsutomu Nagaoka

Osaka Pref. Univ.

A221 AMPEROMETRIC DETERMINATION OF BRANCHED AMINO ACIDS BY HIGH PERFORMANCE LIQUID CHROMATOGRAPH WITH L-LEUSINE DEHYDROGENASE / DIAPHOLASE IMMOBILIZED ELECTRODE AS A DETECTOR

Yohei Yamada[1] , Yuki Ohnishi[1], Mari Nakashima[1], Katsuhito Tanaka[1], Toshio Watanabe[1], Haruhiko Sakuraba[2], Toshio Takayanag[1] and Tomoki Yabutani[1]

[1] Univ. Tokushima, [2] Univ. Kagawa

A222 MICROFLUIDIC DEVICES WITH SERS ACTIVE SELF-ASSEMBLED GOLD NANOSTRUCTURES

Ryo Takahashi[1], Ryohei Hara[1], Takao Fukuoka[1] , Yuichi Utsumi[1],Akinobu Yamaguchi

[1] Univ. Hyogo

A223 STUDIES ON THE IDENTIFICATION OF FOREIGN MATTERS IN FOOD USING ENERGY DISPERSIVE X-RAY FLUORESCENCE SPECTROMETER

Jae-Hwang Lee, Jun-Ho Shin, Young-eun Park, Kyu-Heon Kim, Yong-Chjun Park, Jae-I Kim, Sang-Yub Kim, Sang-Jae Lee, Young-Mi Jang

New Hazardous Substance Team, National Institute of Food & Drug Safety Evaluation, Ministry of Food and Drug Safety, Korea

A224 DETERMINATION OF INORGANIC OXO ACIDS BY ELECTROSPRAY IONIZATION MASS SPECTROMETRY USING DEHYDRATION REACTION AT THE INTERFACE.

Hirochika Kojima,Shota Kurihara,Kazuki Shimotori,Kiichi Sato,Kin-ichi Tsunoda

Gunma Univ

A225 DEVELOPMENT OF MICROHOLE ARRAY WITH TWO DIFFERENT CELLS BASED ON DIELECTROPHORESIS

Yuki Yoshimura[1], Tomoyuki Yasukawa[1], Masahiro Tomita[2], Fumio Mizutani[1]

[1] Univ. of Hyogo, [2] Mie Univ.

A226 LABEL-FREE ELECTROPHORETIC ANALYSIS OF CARBOHYDRATES USING COMPLEXATION WITH QUINOLINEBORONIC ACIDS. 3

Koichi Kanemori[1], Takayuki Kawai[2], Toyohiro Naito[1], Kenji Sueyoshi[3], Takuya Kubo[1], Fumihiko Kitagawa[4], Koji Otsuka[1]

[1] Graduate School of Engineering, Kyoto University, [2] Department of Chemistry,University of Illinois, [3] Graduate School of Engineering, Osaka Prefecture University, [4] Graduate School of Science and Technology, Hirosaki University

A227 LIVE-CELL IMAGING OF SINGLE B-ACTIN MRNAS THROUGH DEVELOPMENT OF A SPECIFIC RNA LABELING METHOD.

Hideaki Yoshimura[1], Toshimichi Yamada[1], Asumi Inaguma[2], Takeaki Ozawa[1]

[1] The University of Tokyo, [2] The Graduate University for Advanced Studies

A228 INKJET PRINTED MICROFLUIDIC MULTI-ANALYTE SENSOR FOR MICRONUTRIENT DETECTION

Shunsuke Takaki [1], Hideaki Ijima [1], Tamaki Soga [1], Koji Suzuki [1] and Daniel Citterio [1]

[1] Keio University

A229 HIGHLY SELECTIVE ANALYSIS OF GLYCEROPHOSPHOLIPIDS BY 2 DIMENSIONAL LC COUPLED WITH TRIPLE QUADRUPOLE MASS SPECTROMETER

Taku Tsukamoto[1], Jing Dong[1], Keiko Yamabe[1], Takashi Suzuki[1], Hiroki Nakajima[1], Satoshi Yamaki[1], Yoshihiro Hayakawa[1]

[1] Shimadzu Corporation

A230 MONITORING WATER QUALITY AND COLORED DISSOLVED ORGANIC MATTER (CDOM) BY ABSORBANCE SPECTRA AND FLUORESCENCE EXCITATION-EMISSION MAPPING WITH INSTRUMENTAL, SPECTRAL AND INNER-FILTER EFFECT CORRECTION

Mayuko Shido[1], Adam Gilmore

[1] HORIBA,Ltd. [2] HORIBA Instruments Incorporated

A231 GEL FILTRATION CHROMATOGRAPHY FOR SEPARATION OF A PROTEIN-MODIFIED GOLD NANOPARTICLE

Hitoshi Iwasaki[1], Kazuhiko Fujiwara[1], Nobuaki Ogawa[1]

[1] Akita Univ.

A232 LOW-TEMPERATURE COMPLEXATION OF A LIGAND WITH ABASIC SITE-CONTAINING DNA INSIDE ALUMINA NANOPORES

Maki Uda, Shigeki Kashimura, Akira Yamaguchi

College of Science, Ibaraki University

A233 IMMOBILIZATION OF VAST NUMBERS OF METALLIC NANOPARTICLES ON A MICROBEAD AND ITS OPTICAL PROPERTY

Keisuke Nishida[1], Shimpei Hidaka[1], Takuya Iida[1], Yojiro Yamamoto[2], Hidenobu Nakao[3], Shiho Tokonami[1]

[1] Osaka Prefecture University, [2] Green Chem Inc., [3] National Institute for Material Science

A234 LABEL-FREE BACTERIA SENSOR USING AN OVEROXIDIZED POLYPYRROLE FILM

Hiroyuki Nakata[1], Seiji Takami[2], Tetsuya Kadoma[2], Hiroshi Shiigi[1], Tsutomu Nagaoka[1], Shiho Tokonami[1]

[1] Osaka Prefecture University, [2] Sharp Corporation

A235 ADIPOSE TISSUE-DERIVED STEM CELLS IMAGING USING CADMIUM-FREE QUANTUM DOTS AND OCTA-ARGININE PEPTIDE (R8)

Yoshiyuki miyazaki[1], Hiroshi Yukawa[2], Hiroyasu Nishi[3], Takao Yasui[1, 2], Noritada Kaji[1, 2], Tsukasa Torimoto[3], Yoshinobu Baba[1, 2, 4]

[1] Department of Applied Chemistry, Nagoya University Graduate School of Engineering, [2]FIRST Research Center for Innovative Nanobiodevices, Nagoya University, [3]Department of Crystalline Materials Science, Nagoya University Graduate School of Engineering, [4]

A236 MOLECULAR DESIGN OF HIGHLY SENSITIVE PROTEIN DETECTION IN GRAPHENE OXIDE APTASENSOR

Yuko Ueno[1], Kazuaki Furukawa[2], Suzuyo Inoue[1], Katsuyoshi Hayashi[1], Hiroki Hibino[2]

[1] NTT Microsystem Integration Labs. NTT Corp., [2] NTT Basic Research Labs. NTT Corp.

A237 DESIGN AND PREPARATION OF NOVEL LABELING NANOPARTICLES FOR CHEMILUMINESCENCE IMMUNOASSAYS

Ayako Kusumoto[1], Yuta Katayama[1], Daniel Citterio[1], Koji Suzuki[1]

[1] Keio University

A238 DETECTION OF CYSTEINE BASED ON FORMATION OF A NEW PLASMON RESONANCE BAND OF GOLD NANOCLUSTERS

Chikara Haneishi, Nobuo Uehara

Grad. School of Eng. Univ. Utsunomiya

A239 SIMPLE AND LOW-COST COLORIMETRIC ARSENIC SENSOR USING GOLD NANOPARTICLES

Yukiko Mizuno[1], Yuta Katayama[1], Koji Suzuki[1], Daniel Citterio[1]

[1]Keio University

A240 A LASER TRAPPING AND RAMAN SPECTROSCOPY STUDY ON PHOTOINDUCED WATER DROPLETS FORMATION IN THE AIR

Keiichi Katayama, Shoji Ishizaka, Terufumi Fujiwara

Univ. Hiroshima

A241 FLUCTUATION MEASUREMENT OF FREE-STANDING BILAYER LIPID MEMBRANES BY LASER-INDUCED SURFACE DEFORMATION SPECTROSCOPY

Tatsuya Yaguchi[1], Taro Toyota[2], Tomonori Nomoto[1], Masanori Fujinami[1]

[1] Department of Applied Chemistry and Biotechnology, Chiba University, [2] Department of Basic Science, Graduate School of Arts and Sciences, The University of Tokyo

A242 UV RESONANCE RAMAN SPECTROSCOPY FOR THE ANALYSIS OF UV ABSORBERS IN POLYMERIC MATERIALS

Yuichi Kato[1], Eiichi Sudo[1], Keiko Fukumoto[1]

[1] Toyota Central R&D Labs., Inc

A243 MICROFLUIDIC SYSTEMS FOR CONTINUOUS LIQUID-LIQUID EXTRACTION UTILIZING MONODISPERSE MICRODROPLETS

Masahiro Mizuno, Shunta Kakegawa, Natsuki Nakajima, Masumi Yamada, and Minoru Seki

Chiba University

A244 THE ANALYSIS OF VARIATIONS OF DISSOLVED IONS IN AN ACIDIFIED RIVER BY MULTIVARIATE ANALYTICAL METHODS

Kazuhiro Hikichi [1], Masaru Sanjo[1], Atsushi Sasaki[2] Masatoshi Endo[1]

[1] Graduate School of Science and Engineering, Yamagata Univ., Japan , [2] Technical Division of Instrumental Analysis, Faculty of Engineering, Yamagata Univ., Japan

A301 CANCER CELL CULTURE AND ANTICANCER AGENT TEST IN A MICRODIALYSIS SYSTEM

Yu Sakuta, Kin-ichi Tsunoda, Kiichi Sato

Gunma Univ.

A302 SELF-ASSEMBLY OF THIACALIXARENE AND LANTHANIDE(III) TO KINETICALLY STABLE COMPLEXES LEADING TO BIOPROBES

Nobuhiko Iki[1], Mami Nakamura[1], Eszter Boros[2], Peter Caravan[2]

[1] Tohoku Univ., [2] Harvard Medical School

A303 PNA-TO CONJUGATES AS FLUORESCENT PROBES FOR SIRNA ANALYSIS

Takaya Sato[1], Yusuke Sato[1], Kenta Iwai[2], Shusuke Kuge[2], Norio Teramae[1], Seiichi Nishizawa[1]

[1] Tohoku Univ., [2] Tohoku Pharmaceutical Univ.

A304 RECONSTITUTION OF HERG CHANNELS IN MICROFABRICATED SILICON CHIPS

Ayumi Hirano-Iwata, Yutaka Ishinari, Yasuo Kimura, and Michio Niwano

Tohoku University

A305 A NOVEL RATIOMETRIC FLUORESCENT MERCURY ION PROBE BASED ON A BORON-DIPYRROMETHENE (BODIPY) DYE

Koiso Hikaru[1], Yuki Hiruta[1], Daniel Citterio[1], Koji Suzuki[1]

[1]Keio University

A306 DETECTION OF DNA INDUCED GOLD NANOPARTICLE AGGREGATION WITH DARK FIELD IMAGING

Tong Bu[1],[2], Tamotsu Zako[2] , Masahiro Fujita[2], and Mizuo Maeda[1],[2]

[1] Department of Advanced Materials Science, School of Frontier Sciences, The University of Tokyo, [2] Bioengineering Laboratory, RIKEN

A307 DESIGN AND FUNCTION OF BORONIC ACID AZOPROBE/PAMAM DENDRIMER COMPLEXES FOR SACCHARIDE RECOGNITION

Yuji Tsuchido, Keisuke Aimu, Yuuki Sakai, Takeshi Hashimoto, Takashi Hayashita

Sophia Univ.

A308 DESIGN AND ION RECOGNITION FUNCTION OF DIPICOLYLAMINE MODIFIED CYCLODEXTRIN FOR ATP SENSING IN WATER

Kohei Katano, Keiko Ogura, Mariko Samizo, Takeshi Hashimoto, Takashi Hayashita

Sophia Univ.

A309 DEVELOPMENT OF NOVEL SOLID-PHASE EXTRACTION CARTRIDGE UTILIZAING THERMO-RESPONSIVE POLYMER MODIFIED SATIONARY PHASE

Kohei Okubo[1], Kazuki Sakata[1], Chuhei Yamamoto[1], Yuki Hiruta[1], Teruo Okano[2], and Hideko Kanazawa[1]

[1]Keio Univ. [2]Tokyo Women's Medical Univ.

A310 INDIRECT SERS DETECTION OF AVIDIN AND BIOTIN VIA MOLECULAR INTERACTION

Takao Fukuoka [1],[2], Yasushige Mori [3]

[1] Univ. Hyogo, [2] Archilys, [3] Doshisha Univ.

A311 DEVELOPMENT OF THE LASER-INDUCED SURFACE DEFORMATION MICROSCOPE AND ITS APPLICATION FOR THE NON-CONTACT RHEOLOGY MEASUREMENTS OF SINGLE LIVING CELLS

Toshinori Morisaku[1], Yuriko Kido[1], Kei Asai [2], Hiroharu Yui[1]

[1] Tokyo University of Science, [2] Saitama University

A312 QUANTITATIVE ANALYSIS OF BACOPASIDE-I IN BIOLOGICAL SAMPLES USING HIGH PERFORMANCE LIQUID CHROMATOGRAPHY MASS SPECTROMETRY

Sontaya Sookying[1], Kornkanok Ingkaninan[1], Dumrongsak Pekthong[1], Sarawut Oo-puthinan[1], Jie Xing[2], Zhi Wei Ting[2], Zhaoqi Zhan[2]

[1]Faculty of Pharmaceutical Sciences, Naresuan University, Thailand [2]Customer Support Centre, Shimadzu (Asia Pacific Pte Ltd, Singapore

A313 ON-CHIP LC WITH LOW DISPERSION TURN STRUCTURE USING DISTRIBUTION CONTROLLED PILLAR ARRAY

Muneki Isokawa[1], Katsuya Takatsuki[2], Kailing Shih[2], Masanori Kono[2], Yanting Song[1], Tetsushi Sekiguchi[2], Jun Mizuno[2], Takashi Funatsu[1], Shuichi Shoji[2], and Makoto Tsunoda[1]

[1] The University of Tokyo, [2] Waseda University

A314 SENSITIVITY ENHANCEMENT IN CAPILLARY ELECTROPHORESIS–MASS SPECTROMETRY USING LVSEP. 3

Hiroya Ota[1], Takayuki Kawai[2], Toyohiro Naito[1], Kenji Sueyoshi[3], Takuya Kubo[1], Fumihiko Kitagawa[4], Koji Otsuka[1]

[1] Kyoto Univ., [2] Univ. Illinois, [3] Osaka Pref. Univ., [4] Hirosaki Univ.

A315 SIMULTANEOUS DETECTION OF TWO TARGET SEQUENCES BY MICROFLUIDIC SOUTHERN HYBRIDIZATION

Yuta Okubo, Kin-ichi Tsunoda, Kiichi Sato

Gunma Univ.

A316 HOLLOW FIBER-ASSEMBLED PDMS MICROCELL WITH MULTI-ELECTRODES TO CONTROL THE ELECTROMAGNETOPHORESIS OF MICRO-PARTICLES

Ayaka Tanaka, Yoshinori Iiguni, Hajime Ohtani

Nagoya Inst. Tech.

A317 HIGH-SENSITIVITY SIMULTANEOUS ANALYSIS OF INORGANIC GASES AND LIGHT HYDROCARBONS IN GC-BID

Ryo Kubota, Mikiko Asakawa, Yoshihiro Aoyama

Shimadzu Corporation Analytical & Measuring Instrument Division Global Application Development Center

A318 CHARACTERIZATION OF CARBON NANOTUBES AS STANDARD SAMPLE FOR PHOTOLUMINESCENCE SPECTROSCOPY IN NIR REGION.

Sakiko Akaji, Yoko Shinozaki, Yasushi Nakata

HORIBA Ltd.

A319 A LIQUID/LIQUID OPTICAL WAVEGUIDE WITH MISCIBLE SOLVENTS TO OBSERVE SOME INTERFACE REACTIONS

Hiroyasu Murata[1],Kiichi Sato[1],Kin-ichi Tsunoda[1],Yasuhiko Sugii[2]

[1] Univ.Gunma, [2] Univ. Tokyo

A320 DEVELOPMENT OF FARADAY ROTATION DISPERSION MICROSCOPY IMAGING WITH PULSED MAGNETIC FIELD

Masayori Suwa[1], Satoshi Tsukahara[1], Hitoshi Watarai[2]

[1] Graduate School of Science, Osaka University, [2] Institute of NanoScience Design, Osaka

A321 CONSTRUCTION OF MICROFLUIDIC ELECTROCHEMICAL CELL FOR ANALYSIS OF NEUROTRANSMITTER

Jun Sekiya[1], Satoshi Yokogawa [1], Tatsuya Tanaka[1], Akihiko Ishida[1], Hirifumi Tani[1], Manbu Tokeshi[1]
[1] Univ. Hokkaido

A322 FUNDAMENTAL INVESTIGATION OF HYDROGEL-BASED TWO-DIMENSIONAL PHOTONIC CRYSTAL FOR OPTICAL SENSOR APPLICATION

Takashi Araki, Kenji Sueyoshi, Hideaki Hisamoto and Tatsuro Endo
Osaka Prefecture Univ.

A323 DEVELOPMENT OF ELECTROCHEMICAL BIODETECTION SYSTEM USING MAGNETIC CONDUCTING MICROBEADS

Takamasa Kinoshita [1], Naoki Shibutani [1], Yojiro Yamamoto [1], [2], Hiroshi Shiigi [1], Tsutomu Nagaoka [1]
[1] Osaka Prefecture Univ., [2] Green Chem. Inc.

A324 SINGLE-STEP ENZYNE IMMUNOASSAY CAPILLARY BASED ON PLASTICIZED PVC COATING CONTAINING LIPOPHILIC FLUORESCENT SUBSTRATE FOR CAPILLARY-ASSEMBLED MICROCHIP

Masato Sugahara, Shun-ichi Funano, Terence G. Henares, Kenji Sueyoshi, Tatsuro Endo, Hideaki Hisamoto
Osaka Pref. Univ

A325 CRYSTALLIZATION OF GLUCOKINASE FROM PSYCHROPHILIC PSEUDOALTEROMONAS SP. AS-131 IN MICROFLUIDIC CHIP AND ITS APPLICATION FOR ON-CHIP X-RAY DIFFRACTION

Masaya Miyazaki[1],[2], Masatoshi Maeki[2], Ashtamurthy S. Pawate[3], Morihiro Wakugawa[4], Kenichi Yamashita[1],[2], Keiichi Watanabe[4], Paul J. A. Kenis[3]
[1] AIST, [2] Kyushu University, [3] University of Illinois, [4] Saga University

A326 DEVELOPMENT OF MULTIMODAL MULTIPHOTON SPECTRAL MICROSCOPE FOR THREE-DIMENSIONAL IMAGING OF RAT CORNEA EX VIVO

Hiroki Segawa[1], Yuichi Kaji[2], Hideaki Kano[2], Takeaki Ozawa[1]
[1] the Univ. of Tokyo, [2] Univ. of Tsukuba

A327 POLYION COMPLEXES AS A NOVEL RECEPTOR LIBRARY FOR A PATTERN RECOGNITION BASED PROTEIN DISCRIMINATION

Shunsuke Tomita[1], Saki Yokoyama[1], Tomohiro Soejima[2], Keitaro Yoshimoto[1]
[1] Grad. Sch. of Arts and Sci., The Univ. of Tokyo, [2] College of Arts and Sci., The Univ. of Tokyo

A328 INKJET-PRINTED ION SELECTIVE OPTODE SENSOR FOR METAL IONS

Nobutoshi Komuro[1], Koji Suzuki[1], Daniel Citterio[1]
[1] Keio University

A329 ANODIC STRIPPING VOLTAMMETRIC DETERMINATION OF CADMIUM(Ⅱ) AND LEAD(Ⅱ) WITH A SP2 AND SP3 HYBRID CARBON FILM ELECTRODE FABRICATED BY UNBALANCED MAGNETRON SPUTTERING EQUIPMENT.

Hiroyuki Yanagisawa [1],[2], Ryoji Kurita[1] ,Tomoyuki Kamata[1] and Osamu Niwa[1],[2]
[1] AIST, [2] Univ Tsukuba

A330 AMINO-FUNCTIONALIZED MONOLITHIC CAPILLARY COLUMN FOR ION CHROMATOGRAPHY

Lee Wah Lim, Takahito Abe, Toyohide Takeuchi
Gifu Univ.

A331 DECOMPOSITION OF METAL SULFIDES UNDER ACCELERATED-AGING CONDITIONS

Shun Watanabe, Uehara Nobuo
Grad. School of Eng., Univ.Utsunomiya

A332 IN SITU SEM/STEM SIMULTANEOUS OBSERVATION OF PLATINUM CATALYSTS IN GAS ATMOSPHERE USING A 300KV COLD FE TEM

Takeshi Sato[1], Hiroaki Matsumoto[1], Isao Nagaoki[1], Yasuhira Nagakubo[1], Toshie Yaguchi[1]
[1] Hitachi High-Technologies Corporation

A333 INTERNALIZATION OF A PEPTIDE FUNCTIONALIZED GOLD NANOPARTICLE INTO A BIOLOGICAL CELL PROBED BY CONFOCAL LIGHT SCATTERING MICROSCOPY

Takuya Odashima[1], Yoshinobu Hinobori[1], Kazuhiko Fujiwara[1], Nobuaki Ogawa[1]
[1] Akita Univ.

A334 EFFECT OF A CHEMICAL FUNCTIONALIZATION FOR CYTOTOXICITY OF GOLD NANOPARTICLE

Yuki Nagano[1], Kazuhiko Fujiwara[1], Nobuaki Ogawa[1]
[1] Akita Univ.

A335 FABRICATION OF MESOPOROUS SILICA TUBES INSIDE COLUMNAR ALUMINA PORES

Ryotaro Ueno, Kazuyoshi Nasu, Akira Yamaguchi
College of Science, Ibaraki University

A336 PHOTOCHEMICAL PROPERTIES OF FLUORESCENT CARBON NANODOTS DERIVED FROM CANDLE SOOT

Tomoki Ishikawa, Shoji Ishizaka, Terufumi Fujiwara
Univ. Hiroshima

A337 APPLICATION OF AUTO PHASE ANALYSIS FUNCTION FOR ENERGY DISPERSIVE X-RAY SPECTROSCOPY

Seiji Higuchi, Shintaro Miyasaka, Seichi Sato, Jun Hirose, Kentaro Nishikata

HORIBA, Ltd.

A338 ENZYME MODIFIED NANOWIRES FOR YEAST CELL LYSIS

Masaki Takeuchi[1], Takao Yasui[1], Sakon Rahong[2], Takeshi Yanagida[2], Masaki Kanai[2], Kazuki Nagashima[2], Noritada Kaji[1], Tomoji Kawai[2], and Yoshinobu Baba[1]

[1] Nagoya Univ. , [2] Osaka Univ.

A339 DEVELOPMENT OF NANOWIRE DEVICE FOR EXOSOMAL MICRORNA EXTRACTION

Satoru Ito[1], Takao Yasui[1], He Yong[2], Takeshi Yanagida[2], Sakon Rahong[2], Masaki Kanai[2], Kazuki Nagashima[2], Hiroshi Yukawa[1], Noritada Kaji[1], Tomoji Kawai[2], Yoshinobu Baba[1]

[1] Nagoya University, Japan, [2] Osaka University, Japan

A340 DEVELOPMENT OF MICRO HEAT PIPE DEVICE USING UNIQUE PROPERTY IN EXTENDED-NANO SPACE

Kentaro Kasai[1], Chenxi Wang[1,2], Hisashi Shimizu[1,2], Yutaka Kazoe[1,2],
Kazuma Mawatari[1,2], and Takehiko Kitamori[1,2]

[1]Department of Applied Chemistry, The University of Tokyo, Japan[2]Japan Science and Technology Agency, Core Research for Evolutional Science and Technology

A341 ULTRASOUND-RESPONSIVE POLYMERIC MICELLE FOR DRUG DELIVERY

Mikako Sekizawa[1], Yushi Heta[1], Daniel Citterio[1], Koji Suzuki[1]

[1]Keio University

A342 TIME-RESOLVED SURFACE TENSION IN AMOEABA-LIKE MOTION OF AN OIL DROPLET

Shoko Uemoto[1], Taro Toyota[2], Tomonori Nomoto[1], Masanori Fujinami[1]

[1] Department of Applied Chemistry and Biotechnology, Chiba University, [2] Department of Basic Science, Graduate School of Arts and Sciences, The University of Tokyo

A343 MICROCHAMBER ARRAYS FOR PLANT OVULE FIXATION AND LONG-TERM OBSERVATION

Jongho Park[1,2,4], Daisuke Kurihara[1,2], Tetsuya Higashiyama[1,2,3],, Hideyuki Arata[1,2]

[1] JST, ERATO, Higashiyama Live-Holonics Project, Nagoya University, [2] Graduate School of Science, Nagoya University, [3] Institute of Transformative Bio-Molecules (ITbM, Nagoya University, [4] Precision and Intelligence Laboratory, Tokyo Institute of Technolo

A344 THE EFFECTIVENESS OF APPLYING FIELD IONIZATION MASS SPECTROMETRY TO EVOLVED GAS ANALYSIS

Noriyasu Niimura

Management Strategy Planning Office, JEOL Ltd.