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2 MIN-INCUBATION AND 6 PM-SENSITIVITY MICROFLUIDIC FLUORESCENCE IMMUNOASSAY – A NOVEL METHOD FOR FURTHER SIGNIFICANT ENHANCEMENT USING LOCAL ELECTRICAL FIELD ON NANOPLASMONIC SIGNAL AMPLIFICATION SURFACE 1832
R. Peng, L. Zhou, Q. Zhang, W. Ding, and S.Y. Chou
Princeton University, USA

T.495e
CMOS-INTEGRATED HIGH-DENSITY ARRAYS OF CARBON NANOTUBE SENSORS 1835
F. Seichepine¹, J. Rothe², A. Dudina^{1,2}, A. Hierlemann², and U. Frey^{1,2}
¹*Institute of Physical and Chemical Research (RIKEN), JAPAN* and ²*ETH Zürich, SWITZERLAND*

W.496e
CONTROLLED SHRINKING OF NANOPORES IN SINGLE LAYER GRAPHENE USING ELECTRON BEAM IRRADIATION 1838
G. Goyal, A. Darvish, and M.J. Kim
Drexel University, USA

M.497e
DESIGN, SYNTHESIS AND CHARACTERIZATION OF A THIOLATED TEMPERATURE-RESPONSIVE POLYMER FOR SMART NANOFUIDIC CONTROL 1841
M. Shinomiya, A. Harada, and Y. Xu
Osaka Prefecture University, JAPAN

T.498e
EVAPORATION-DRIVEN NANOMACHINING TO FABRICATE NANOPORES IN SiO₂ 1844
L.J. de Vreede, A. van den Berg, and J.C.T. Eijkel
MESA+, University of Twente, THE NETHERLANDS

W.499e
FLOW-GUIDED MANUFACTURING OF NANOWIRE-BASED SENSING SYSTEM 1847
J. Chen, Y. Zu, K.K. Rajagopalan, and S. Wang
Louisiana Tech University, USA

M.500e		
HIERARCHICALLY-STRUCTURED SUSPENDED TiO₂ NANOFIBERS AS A pH SENSOR	1850	
W.S. Lee, Y.-S. Park, and Y.-K. Cho		
<i>Ulsan National Institute of Science and Technology (UNIST), SOUTH KOREA</i>		
T.501e		
HIGH THROUGHPUT FABRICATION OF TITANIUM NANOPILLARS BY MASKLESS PLASMA ETCHING	1853	
N.N. Li ^{1,2} , N.L. Zhu ¹ , Y.F. Zhang ¹ , Y.H. Sun ¹ , and J. Chen ¹		
¹ <i>Peking University, USA</i> and ² <i>Chinese Academy of Sciences, CHINA</i>		
W.502e		
IN-SITU FABRICATION OF Ag@ZnO NANOCOMPLEX IN MICROFLUIDICS TO PROBE SURFACE-ENHANCED RAMAN SCATTERING (SERS) FINGERPRINTS OF SINGLE LIVING CELLS	1856	
Y. Xie, S. Yang, and T.J. Huang		
<i>Pennsylvania State University, USA</i>		
M.503e		
IN-SITU FABRICATION OF FREE-STANDING NANOFIBER MEMBRANE IN A MICROFLUIDIC DEVICE	1859	
S.M. Park, M. La, K.D. Seo, W. Kim, J. Lee, and D.S. Kim		
<i>Pohang University of Science and Technology (POSTECH), SOUTH KOREA</i>		
T.504e		
SIMPLE FABRICATION AND PATTERN TRANSFER OF ANODIZED ALUMINUM OXIDE MEMBRANES FOR NANOIMPRINTING TEMPLATES	1862	
X. Wang ¹ , B.C. Barry ¹ , S.W. Anderson ² , and X. Zhang ¹		
¹ <i>Boston University, USA</i> and ² <i>Boston University Medical Center, USA</i>		
W.505e		
SIZE SELECTIVE NANOPARTICLE CONFINEMENT IN 2D NANOVOID ARRAY IN AQUEOUS SOLUTION	1865	
A. Panday ¹ , L. Chen ¹ , O.K. Jong ² , and L.J. Guo ¹		
¹ <i>University of Michigan, USA</i> and ² <i>Samsung Advanced Institute of Technology (SAIT), SOUTH KOREA</i>		
<u>Novel, Smart, and Responsive Materials</u>		
M.506e		
STRETCH-TUNING METAMATERIALS USING LIQUID METAL AND HIGHLY STRETCHABLE POLYMER	1868	
P. Liu, S. Yang, Q. Wang, H. Jiang, J. Song, and L. Dong		
<i>Iowa State University, USA</i>		
T.507e		
BIOCOMPATIBLE, REVERSIBLE PHOTO-ACTUATED HYDROGELS, OPERATIVE IN NEUTRAL ENVIRONMENTS, FOR MICRO-VALVE APPLICATIONS IN MICROFLUIDIC DEVICES	1871	
A. Dunne ¹ , W. Francis ¹ , L. Florea ¹ , F. Benito-Lopez ² , and D. Diamond ¹		
¹ <i>Dublin City University, IRELAND</i> and ² <i>CIC microGUNE, SPAIN</i>		
W.508e		
ELASTICITY TUNABLE HYBRID HYDROGELS USING PHOTOCLEAVABLE CROSSLINKER	1874	
F. Yanagawa ¹ , T. Mizutani ² , S. Sugiura ¹ , T. Takagi ¹ , K. Sumaru ¹ , and T. Kanamori ¹		
¹ <i>National Institute of Advanced Industrial Science and Technology (AIST), JAPAN</i> and ² <i>Hokkaido University, JAPAN</i>		
M.509e		
FABRICATION OF HIERARCHICAL AND MULTIFUNCTIONAL GRAPHENE NANOSTRUCTURES FOR CAPTURE OF PHOSPHOPEPTIDES	1877	
G. Cheng, X. Yu, M.D. Zhou, and S.Y. Zheng		
<i>Pennsylvania State University, USA</i>		

T.510e		
HIGHLY STRETCHABLE CELL-LADEN HYDROGEL MICROFIBER	.....	1880
F. Ozawa ^{1,2} , H. Onoe ^{1,2} , and S. Takeuchi ^{1,2}		
¹ University of Tokyo, JAPAN and ² Japan Science and Technology Agency (JST), JAPAN		
W.511e		
MICROCHANNEL-ASSISTED PREPARATION OF POLYION COMPLEX VESICLES AND REAL-TIME OBSERVATION OF THEIR DYNAMIC RESPONSES TO EXTERNAL ELECTRIC FIELDS	.....	1882
D. Sueyoshi ¹ , A. Kishimura ² , H. Oana ¹ , Y. Anraku ¹ , M. Takai ¹ , M. Washizu ¹ , and K. Kataoka ¹		
¹ University of Tokyo, JAPAN and ² Kyushu University, JAPAN		
M.512e		
MICROFLUIDIC PRODUCTION OF FIBROUS SCAFFOLDS COMPOSED OF ECM PROTEINS FOR 3D CELL CULTIVATION	.....	1885
A. Hori, Y. Hirai, Y. Yajima, Y. Kitagawa, M. Yamada, and M. Seki		
Chiba University, JAPAN		
T.513e		
MICROFLUIDIC SOLUTION SPINNING OF CATALYTIC MICROFIBERS FOR SELF-HEALING MATERIAL	.....	1888
R.J. Lemmens ¹ and D.D. Meng ²		
¹ Michigan Technological University, USA and ² University of Texas, Arlington, USA		
W.514e		
QUANTITATIVE PHOTO-BINDING AND SENSING OF DIVALENT METAL IONS USING PHOTO-RESPONSIVE POLYMERIC BRUSHES IN MICRO-CAPILLARIES	.....	1891
L. Florea ¹ , G. Mc Guirk ¹ , F. Benito-Lopez ² , and D. Diamond ¹		
¹ Dublin City University, IRELAND and ² CIC microGUNE, SPAIN		
M.515e		
ONE-STEP PREDICTIVE FORMATION OF HETEROGENEOUS SOFT MATERIAL TUBES	.....	1894
H. Chen, M. Jeronimo, Z. Barikbin, and A. Günther		
University of Toronto, CANADA		
T.516e		
THERMOPLASTIC SOFT LITHOGRAPHY	.....	1897
E.L. Kendall, M.S. Wiederoder, A. Wilson, and D.L. DeVoe		
University of Maryland, College Park, USA		
<u>Surface Modification</u>		
W.517e		
FACILE CONSTRUCTION OF MICROFLUIDIC DIGESTION SYSTEM FOR RAPID PROTEOLYSIS	.....	1900
G. Cheng, X. Yu, and S.Y. Zheng		
Pennsylvania State University, USA		
M.518e		
HIGH-PERFORMANCE AND INEXPENSIVE ULTRA-SLIPPERY PDMS AS THE NOVEL PLANAR MICROFLUIDIC PLATFORM	.....	1903
Y. Luo ^{1,2} , S. Ling ¹ , J. Ma ² , and T. Wu ¹		
¹ Chinese Academy of Sciences, CHINA and ² Xidian University, CHINA		
T.519e		
NOVEL ELECTROCHEMICAL BIOSENSOR SURFACE MODIFICATION METHOD BASED ON PHOTBLEACHING	.....	1906
L. Pires, N. Braunegger, G. Davidson, C. Neumann, and B.E. Rapp		
Karlsruhe Institute of Technology (KIT), GERMANY		

W.520e

- SAMs VAPOR DEPOSITION: A READY TO USE FUNCTIONALIZATION TECHNOLOGY FOR MONITORING WETTABILITY PROPERTIES IN MICROFLUIDIC DEVICES** 1909
R. Courson^{1,2}, M. Fouet^{1,2}, P. Joseph^{1,2}, F. Mesnilgrete^{1,2}, V. Conédeéra^{1,2}, and A.M. Gué^{1,2}
¹Centre National de la Recherche Scientifique (CNRS), FRANCE and ²University de Toulouse, FRANCE

MicroTAS for Other Applications

Environmental Analysis

M.521f

- ATP SENSING IN DEEP-SEA ENVIRONMENTS USING CONTINUOUS FLOW MICROFLUIDIC DEVICE** 1912
T. Fukuba¹, T. Noguchi¹, K. Okamura², M. Kyo¹, S. Nishida³, T. Miwa¹, and T. Fujii³
¹Japan Agency for Marine-Earth Science and Technology, JAPAN, ²Kochi University, JAPAN, and
³University of Tokyo, JAPAN

T.522f

- CONTINUOUS ONLINE NANOPARTICLE SIZING AND CHARACTERIZATION** 1915
F. Meng and V.M. Ugaz
Texas A&M University, USA

W.523f

- MICROFLUIDIC CAPILLARY ELECTROPHORESIS SYSTEM FOR ORGANOCHLORIDE DETECTION AND SPECIATION** 1918
E.C. Jensen¹, J. Lee², H. Mehrabani¹, H. Jiao¹, and J. Kim²
¹HJ Science Technology, USA and ²Texas Tech University, USA

M.524f

- MULTIPARAMETRIC COC-BASED ANALYTICAL MICROSYSTEM FOR POTENTIOMETRIC DETERMINATION OF NITRATE, CHLORIDE AND POTASSIUM IONS IN WATER RECYCLING PROCESSES IN MANNED SPACECRAFTS** 1921
A. Calvo-López, M. Puyol, and J. Alonso-Chamarro
Universitat Autònoma de Barcelona, SPAIN

T.525f

- SIMPLE RT-QPCR CHIP FOR SINGLE MARINE DIATOM CELLS** 1924
X. Shi, W. Gao, S.-H. Chao, and D.R. Meldrum
Arizona State University, USA

W.526f

- SUB-MICROFLUIDIC DEVICES TO OPTIMIZE REMOVAL OF PATHOGENS FROM DRINKING WATER USING SAND FILTRATION** 1927
N. Tandogan, Y.A. Zhu, K.T. Wan, and E.D. Goluch
Northeastern University, USA

Food & Nutrition

M.527f

- EIGHT-CHAMBER MICROFLUIDIC DEVICE WITH INTEGRATED LOOP MEDIATED ISOTHERMAL AMPLIFICATION (LAMP) FOR MULTIPLE DETECTION OF *Campylobacter spp* FROM PIG AT SLAUGHTER** 1930
T.L. Quyen, S. Yi, W.H. Chin, T.Q. Hung, S. Jardenbæk, A. Wolff, and D.D. Bang
Danmarks Tekniske Universitet (DTU), DENMARK

Fuel Cells

T.528f

EFFECT OF PHYSICAL PROPERTIES OF CARBON NANOTUBE ANODES ON MICROFLUIDIC MICROBIAL FUEL CELL ARRAY 1933

C. Erbay, X. Pu, W. Choi, M. Choi, H. Hou, P. Figueiredo, C. Yu, and A. Han
Texas A&M University, USA

W.529f

MICROSCALE MICROBIAL FUEL CELL USING 3D BIOANODE WITH ELECTROSPUN CONDUCTIVE NANOFIBERS AND MICROPILLARS 1936

H. Jiang, P. Liu, X. Qiao, L.J. Halverson, and L. Dong
Iowa State University, USA

Other Energy/ Power Devices

M.530f

DEVELOPMENT OF A NANOSTRUCTURED PHOTOANODE MATERIAL FOR EFFICIENT WATER SPLITTING TOWARDS FABRICATION OF A MICRO-FUEL GENERATION DEVICE 1939

Y. Pihosh^{1,2}, J. Uemura¹, K. Mawatari^{1,2}, and T. Kitamori^{1,2}
¹*University of Tokyo, JAPAN* and ²*Japan Science and Technology Agency (JST), JAPAN*

T.531f

HIGH-THROUGHPUT TRANSESTERIFICATION WITH SOYBEAN OIL AND METHANOL BY MICRO-SCALE AND MINI-SCALE DROPLET-BASED MICROSYSTEMS 1942

C.-H. Cheng, K.-H. Chen, and J.-T. Yang
National Taiwan University, TAIWAN

Others

W.532f

2D PLANAR PDMS MICRODEVICE ATTACHED ONTO A CURVED POLYCARBONATE SUPPORT FOR ON-CHIP CONTINUOUS-FLOW PCR EMPLOYING A SINGLE HEATER 1945

K.T.L. Trinh, M.L. Ha, W. Wu, and N.Y. Lee
Gachon University, SOUTH KOREA

M.533f

A CONCENTRATION GRADIENT NIB AS NOVEL TOOL FOR ANTIBIOTIC SUSCEPTIBILITY TESTING 1948

Y.R. Yun¹, Y.G. Jung³, S.H. Song¹, S. Kwon^{2,3}, and W. Park¹
¹*Kyung Hee University, SOUTH KOREA*, ²*Seoul National University, SOUTH KOREA*, and ³*Quanta Matrix Inc., SOUTH KOREA*,

T.534f

RAPID AND SENSITIVE MEASUREMENT OF GLYCATED HEMOGLOBIN FOR DIABETES MONITORING BY USING A TWO-APTAMER ASSAY ON AN INTEGRATED MICROFLUIDIC SYSTEM 1951

J. Li¹, K.-W. Chang¹, C.-H. Yang², S.-C. Shiesh², and G.-B. Lee¹
¹*National Tsing Hua University, TAIWAN* and ²*National Cheng Kung University, TAIWAN*

W.535f

MICROFLUIDIC TUNABLE CAPACITOR ARRAY FOR MAGNETIC RESONANCE IMAGING (MRI) 1954

C. Koo and A. Han
Texas A&M University, USA

Sensors and Actuators, Detection Technologies

Biosensors

- M.536g**
1000-FOLD ACCELERATION OF SURFACE BIOSENSORS USING ISOTACHOPHORESIS 1957
M. Karsenty, S. Rubin, T. Rosenfeld, and M. Bercovici
Israel Institute of Technology, ISRAEL
- T.537g**
A BIOBARCODE ASSAY INCORPORATED MICRODEVICE FOR HIGHLY SENSITIVE AND MULTIPLEX BIOLOGICAL AGENT DETECTION 1960
M. Cho, S. Chung, Y.T. Kim, J.H. Jung, and T.S. Seo
Korea Advanced Institute of Science and Technology (KAIST), SOUTH KOREA
- W.538g**
A HIGH-THROUGHPUT IMPEDANCE SPECTROSCOPY PLATFORM FOR CHARACTERIZING CONCENTRATION OF CELLS WITHIN MICRODROPLETS 1963
N.M. Sobahi, H.S. Kim, and A. Han
Texas A&M University, USA
- M.539g**
A LOW-COST OPTICAL TRANSDUCING SYSTEM BY REASSEMBLING COMMON ELECTRONICS COMPONENTS FOR THE VERSATILE BIOSENSING APPLICATION 1966
Y.D. Han, Y.M. Park, and H.C. Yoon
Ajou University, SOUTH KOREA
- T.540g**
A MULTILAYERED PDMS BASED MICROTAS FOR HIGH-SENSITIVITY INSULIN DETECTION 1969
B. Srinivasan¹, Y. Ping², and S. Tung¹
¹University of Arkansas, USA and ²Shenyang Institute of Automation, CHINA
- W.541g**
A MULTIPLEX DEVICE BASED ON TUNABLE NANOSHEAR FORCES FOR HIGHLY SPECIFIC DETECTION OF MULTIPLE PROTEIN BIOMARKERS 1972
R. Vaidyanathan, L.M. van Leeuwen, S. Rauf, M.J.A. Shiddiky, and M. Trau
University of Queensland, AUSTRALIA
- M.542g**
A NOVEL MICRO-CANTILEVER BIOSENSOR WITH DROPLET-SEALED STRUCTURE FOR STABLE DETECTION OF TARGET PROTEINS 1975
Z. Zhang¹, T. Akai¹, M. Sohgawa², K. Takada¹, K. Yamashita¹, and M. Noda¹
¹Kyoto Institute of Technology, JAPAN and ²Niigata University, JAPAN
- T.543g**
A NOVEL NANOFUIDIC DIODE BASED ON AN ASYMMETRIC NANOSLIT ARRAY FOR LABEL-FREE PROTEIN DETECTION 1978
Y. Liu and L. Yobas
Hong Kong University of Science and Technology, HONG KONG
- W.544g**
A TRANSDUCER-FREE GLYCATED HEMOGLOBIN BIOSENSOR BASED ON A BORONATE-FUNCTIONALIZED HYDROGEL/MEMBRANE COMPOSITE 1981
Y.M. Park, Y.D. Han, Y.H. Jang, and H.C. Yoon
Ajou University, SOUTH KOREA

- M.545g**
AN ENHANCED *PSEUDOMONAS AERUGINOSA* BIOFILM TREATMENT USING AN INTEGRATED MICROSYSTEM 1984
 Y.W. Kim, M.T. Meyer, S. Subramanian, W.E. Bentley, and R. Ghodssi
University of Maryland, College Park, USA
- T.546g**
AN ENZYME-FREE DIGITAL BIOSENSOR FOR DETECTION OF REACTIVE OXYGEN SPECIES 1987
 K. Aran, J. Paredes, J. Yau, S. Srinivasan, N. Murthy, and D. Liepmann
University of California, Berkeley, USA
- W.547g**
AN INTERFEROMETRIC INTEGRATED MICROSYSTEM FOR THE LABEL FREE DETECTION OF INTERLEUKINS 1990
 M. Anastasopoulou¹, A. Malainou¹, A. Salapatas¹, N. Chronis², S. Papagerakis², G. Jobst³, I. Raptis¹, and K. Misiakos¹
¹National Center for Scientific Research Demokritos, GREECE, ²University of Michigan, USA, and
³Jobst Technologies GmbH, GERMANY
- M.548g**
ATTOLITER-SIZED ARRAYED LIPID BILAYER CHAMBER SYSTEM FOR HIGHER SENSITIVE TRANSPORTER ASSAY 1993
 N. Soga¹, R. Watanabe^{1,2}, T. Yamanaka¹, and H. Noji¹
¹University of Tokyo, JAPAN and ²Japan Science and Technology Agency (JST), JAPAN
- T.549g**
BIFUNCTIONAL NANO LYCURGUS CUP ARRAY PLASMONIC SENSOR FOR COLORIMETRIC AND SURFACE ENHANCED RAMAN SPECTROSCOPY 1996
 T.-W. Chang, A. Hsiao, and G.L. Liu
University of Illinois, Urbana-Champaign, USA
- W.550g**
CANCER CELL ADHESION MEASUREMENT ON THE COLLAGEN LAYER IN MULTIPLE SHEAR STRESS LEVELS 1999
 M.-J. Kim, I. Doh, and Y.-H. Cho
Korea Advanced Institute of Science and Technology (KAIST), SOUTH KOREA
- M.551g**
CMOS-BASED IMPLANTABLE GLUCOSE SENSOR USING GLUCOSE-RESPONSIVE FLUORESCENT HYDROGEL 2002
 T. Tokuda¹, M. Takahashi², K. Masuda¹, T. Kawamura¹, Y. Ohta¹, M. Motoyama¹,
 T. Noda¹, K. Sasagawa¹, T. Okitsu³, S. Takeuchi³, and J. Ohta¹
¹Nara Institute of Science and Technology, JAPAN, ²BEANS Laboratory, JAPAN, and ³University of Tokyo, JAPAN
- T.552g**
DEVELOPMENT OF AN INTEGRATED NANOFUIDIC DEVICE FOR THE DETECTION OF SEQUENCE VARIATIONS IN dsDNA 2005
 F.I. Uba¹, K.M.W. Ratnayake², J. Wu², Y.K. Cho³, H.J. Shin³, and S.A. Soper^{1,2,3}
¹University of North Carolina, USA, ²Louisiana State University, USA, and
³Ulsan National Institute of Science and Technology, SOUTH KOREA
- W.553g**
ULTRASENSITIVE ELECTRICAL DETECTION OF HEPATITIS B VIRUS USING SILICON NANOWIRE SENSOR 2008
 A. Gao, N. Lu, P. Dai, T. Li, and Y. Wang
Chinese Academy of Sciences, CHINA

M.554g		
DNA-TO-GO: A PORTABLE SMARTPHONE-ENABLED PCR ASSAY PLATFORM	.....	2011
A. Priye and V.M. Ugaz <i>Texas A&M University, USA</i>		
T.555g		
ELECTROPORATION DELIVERED PROTEIN BIOSENSORS FOR STUDY OF MOLECULAR ACTIVITY ON MICROFLUIDIC PLATFORM	.....	2014
C. Sun ¹ , M. Ouyang ² , Z. Cao ¹ , S. Ma ¹ , Y. Wang ² , and C. Lu ¹ ¹ <i>Virginia Polytechnic Institute and State University, USA</i> and ² <i>University of California, San Diego, USA</i>		
W.556g		
EXOSOMAL MEMBRANE PROTEIN DETECTION BY NANOWIRE DEVICE	.....	2017
Y. Konakade ¹ , T. Yasui ¹ , T. Yanagida ² , N. Kaji ¹ , Y. He ² , M. Kanai ² , K. Nagashima ² , H. Yukawa ¹ , T. Kawai ² , and Y. Baba ^{1,3} ¹ <i>Nagoya University, JAPAN</i> , ² <i>Osaka University, JAPAN</i> , and ³ <i>National Institute of Advanced Industrial Science and Technology (AIST), JAPAN</i>		
M.557g		
EXTRACTION OF SIGNAL FROM NOISE: IMPEDANCE CYTOMETRY USING MULTI-ELECTRODE SENSING	.....	2020
S. Emaminejad ^{1,2,3} , S. Talebi ^{1,2,3} , R.W. Davis ^{2,3} , and M. Javanmard ^{1,2,3} ¹ <i>Stanford University, USA</i> , ² <i>Stanford Genome Technology Center, USA</i> , and ³ <i>Stanford School of Medicine, USA</i>		
W.558g		
FROM CHIP-IN-A-LAB TO LAB-ON-A-CHIP	.....	2023
C.D.M. Campos ^{1,4} , C.C. Wong ⁴ , J.W.S. Bo ³ , J. Reboud ^{3,5} , A. Manz ¹ , and P. Neuzil ^{1,2,3} ¹ <i>KIST Europe Forschungsgesellschaft GmbH, GERMANY</i> , ² <i>Brno University of Technology, CZECH REPUBLIC</i> , ³ <i>Institute of Microelectronics, SINGAPORE</i> , ⁴ <i>Universidade Estadual de Campinas, BRAZIL</i> , and ⁵ <i>University of Glasgow, UK</i>		
W.559g		
FUNCTIONALIZED COLLOIDAL SELF-ASSEMBLED PARTICLES IN MICROCHIP FOR IMMUNO-AFFINITY CHROMATOGRAPHY	.....	2026
L. Zhang ¹ , A.B. Jemere ² , and D.J. Harrison ^{1,2} ¹ <i>University of Alberta, CANADA</i> and ² <i>National Research Council (NRC), CANADA</i>		
M.560g		
CMOS-COMPATIBLE PHOTONIC CRYSTAL CHIP FOR PROTEIN DETECTION	.....	2029
F. Liang and Q. Quan <i>Harvard University, USA</i>		
T.561g		
HIGH SENSITIVE DETECTION OF BIOMOLECULE BY SYNTHESIZED PEPTIDE BIOPROBE ON-CHIP BASED PROGRAMMABLE BIOSENSOR	.....	2032
L. Ngashangva ¹ , R. Bhardwaj ¹ , Y. Ukita ² , Y. Takamura ¹ , and M. Biyani ¹ ¹ <i>Japan Advanced Institute of Science and Technology (JAIST), JAPAN</i> and ² <i>University of Yamanashi, JAPAN</i>		
W.562g		
HIGHLY SENSITIVE MEMS BIOSENSORS FOR THE DETECTION OF HUMAN PAPILLOMA VIRUS BY USING MAGNETIC FORCE	.....	2035
H.H. Kim, H.J. Jeon, H.K. Cho, J.H. Cheong, and J.S. Go <i>Pusan National University, SOUTH KOREA</i>		
M.563g		
HYDROGEL BASED 2D-PHOTONIC CRYSTAL INCLUDING ACRYLIC ACID FOR BIOSENSING APPLICATION	.....	2038
Y. Matsumoto, T. Araki, T. Endo, K. Sueyoshi, and H. Hisamoto <i>Osaka Prefecture University, JAPAN</i>		

T.564g	
INTEGRATED MICRO-IMPACTION CARTRIDGE COVERED WITH MICROPOROUS LIGHT-BLOCKING FILM FOR LOW-CONCENTRATION AIRBORNE VIRUS DETECTION	2041
K. Takenaka ¹ , S. Togashi ¹ , R. Miyake ² , T. Sakaguchi ³ , and M. Hide ³	
¹ Hitachi, Ltd, JAPAN, ² University of Tokyo, JAPAN, and ³ Hiroshima University, JAPAN	
W.565g	
LAB-ON-BLU-RAY: LOW-COST ANALYTE DETECTION ON A DISK	2044
M. Donolato ¹ , P. Antunes ¹ , R. Burger ¹ , F. Bosco ¹ , M. Olsson ¹ , J. Yang ² , C.-H. Chen ³ , Q. Lin ² , E.T. Hwu ³ , A. Boisen ¹ , and M.F. Hansen ¹	
¹ Danmarks Tekniske Universitet (DTU), DENMARK, ² Columbia University, USA, and ³ Academia Sinica, TAIWAN	
M.566g	
LABEL-FREE BIOSENSING PLATFORM WITH LOW-VOLTAGE ELECTROLYTE-GATED TRANSISTORS	2047
S.P. White, K.D. Dorfman, and C.D. Frisbie	
University of Minnesota, USA	
T.567g	
MICROCANTILEVER BASED LOC SYSTEM FOR COAGULATION MEASUREMENTS	2050
O. Cakmak ¹ , E. Ermek ² , N. Kilinc ² , I. Baris ¹ , I.H. Kavakli ¹ , G.G. Yaralioglu ³ , and H. Urey ¹	
¹ Koç University, TURKEY, ² Gebze Institute of Technology, TURKEY, and ³ Özyegin University, TURKEY	
W.568g	
MICROFLUIDIC CHIPS WITH INTEGRATED AMORPHOUS SILICON SENSORS FOR POINT-OF-CARE TESTING	2053
F. Costantini, A. Nascetti, G. Petrucci, C. Sberna, C. Manetti, D. Caputo, and G. de Cesare	
Sapienza University of Rome, ITALY	
M.569g	
MICROFLUIDIC IMPEDIMETRIC SYSTEM FOR THE AUTOMATIC READOUT OF LOW-DENSITY MICROARRAYS	2056
M. Díaz-González, J.P. Salvador, D. Bonilla, M.P. Marco, A. Baldi, and C. Fernández-Sánchez	
Consejo Superior de Investigaciones Científicas (CSIC), SPAIN	
T.570g	
PROGRAMMABLE BIO-NANO-CHIP SYSTEM: AN ULTRA-FLEXIBLE PLATFORM FOR BIOSCIENCE AND CLINICAL MEASUREMENTS	2059
G.W. Simmons ¹ , M.P. McRae ¹ , B. Shadfan ¹ , J. Wong ¹ , N. Christodoulides ¹ , P.W.M.v. Ruijven ² , J.P. Hayes ² , R. Mehalso ² , and J.T. McDevitt ¹	
¹ Rice University, USA and ² MiniFAB Pty Ltd, AUSTRALIA	
W.571g	
NONAMPEROMETRIC CMOS SENSING OF INTESTINAL ACTION POTENTIALS	2064
Y. Cao, N. Rakhilin, X. Shen, and E.C. Kan	
Cornell University, USA	
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