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L.F. Cai and Q. Fang <i>Zhejiang University, CHINA</i>	
W22D MAGNETIC DROPLETS - GENERATION AND MANIPULATION IN CONTINUOUS FLOW	1817
E. AlHetlani, O.J. Hatt, M. Vojtišek, M.D. Tarn, and N. Pamme <i>University of Hull, UK</i>	
W23D MULTIPLE EMULSION FORMATION IN CROSS-SHAPED MICROCHANNEL USING ALTERNATIVE DROPLET GENERATION TECHNIQUE	1820
J. Shimamura, Y. Yokoyama, H. Moriguchi, and T. Torii <i>University of Tokyo, JAPAN</i>	
W24D ON-DROP SEPARATION AND SENSING WITH COMPOUND DROPLET MICROFLUIDICS	1823
Z. Barikbin ¹ , M.T. Rahman ¹ , P. Parthiban ² , A.S. Rane ¹ , V. Jain ¹ , and S.A. Khan ^{1,2} ¹ Singapore-MIT Alliance for Research and Technology (SMART) Centre, SINGAPORE and ² National University of Singapore, SINGAPORE	
W25D SELF-SORTING OF DEFORMABLE PARTICLES IN A MICROFLUIDIC CIRCUIT	1826
M.S. Raafat, M. Cartas Ayala, and R. Karnik <i>Massachusetts Institute of Technology, USA</i>	
W26D SOLUTION CONCENTRATION CHANGE OF PICOLITER-SIZED MICRODROPLET REACTORS	1829
M. Takinoue, H. Onoe, and S. Takeuchi <i>University of Tokyo, JAPAN</i>	
Poster Session Microfluidics - Multi-Scale/Integrative Microfluidics	
W27D INTEGRATED MICROFLUIDICS FOR SEROTYPE IDENTIFICATION OF FOOT AND MOUTH DISEASE VIRUS	1832
H. Sant ¹ , S. Sundberg ¹ , A. Miles ² , M. Johnson ¹ , E. Liddiard ¹ , and B. Gale ^{1,2} ¹ University of Utah, USA and ² Wasatch Microfluidics, USA	
W28D MICROFLUIDIC CULTURE CHAMBER FOR THE LONG-TERM PERFUSION AND PRECISE CHEMICAL STIMULATION OF ORGANOTYPIC BRAIN TISSUE SLICES	1835
H.H. Caicedo ¹ , M. Vignes ^{2,3} , B. Brugg ² , and J.M. Peyrin ² ¹ University of Illinois, Chicago, USA, ² Universite Pierre et Marie Curie, FRANCE, and ³ Institut Curie, FRANCE	
W29D PRECISION MICROFLUIDIC OSCILLATORS FOR ON-CHIP TIMING AND CONTROL	1838
P.N. Duncan, T.V. Nguyen, and E.E. Hui <i>University of California, Irvine, USA</i>	
Poster Session Microfluidics - Others	
W30D ACTIVE MICROFLUIDIC MIXER USING VIRTUAL SOURCE-SINK PAIRS FOR DNA PURIFICATION	1841
H.C. Tekin, C. Vandevyver, and M.A.M. Gijs <i>École Polytechnique Fédérale de Lausanne (EPFL), SWITZERLAND</i>	

W31D	FLOATING MICROFLUIDIC GRADIENTS	1844
	M.A. Qasaimeh and D. Juncker <i>McGill University, CANADA</i>	
W32D	MICROFLUIDIC GENERATION OF MAGNETIC SEMIFLEXIBLE CHAIN BASED ON CHITOSAN MICROCAPSULES	1847
	K. Jiang, C. Arya, S.R. Raghavan, and D.L. DeVoe <i>University of Maryland, USA</i>	
W33D	OPTOFLUIDIC FABRICATION OF FOLDABLE HYDROGEL PARTICLES TOWARD INTUITIVE DRUG DELIVERY CARRIERS	1850
	T.S. Shim, S.-H. Kim, C.-J. Heo, J.-H. Choi, and S.-M. Yang <i>Korea Advanced Institute of Science and Technology (KAIST), SOUTH KOREA</i>	
W34D	USE OF INTEGRATED ELECTRODES AND EMBRYO TRAPS FOR INDIVIDUALLY ADDRESSABLE LOADING, CULTURING AND MONITORING OF <i>C. elegans</i>	1853
	J. Krajniak and H. Lu <i>Georgia Institute of Technology, USA</i>	

Poster Session Nanotechnologies - Nanofluidics

W1E	CLOSED-END NANOCHANNELS: MODEL PLATFORM FOR NANOFLUIDIC FLOWS	1856
	P. Joseph ¹ , V.N. Phan ² , P. Dubreuil ¹ , P. Abgrall ² , A.-M. Gué ¹ , and N.-T. Nguyen ² ¹ <i>Université de Toulouse, FRANCE</i> and ² <i>Nanyang Technological University, SINGAPORE</i>	
W2E	SELECTIVE PRECONCENTRATION WITHIN MICRO-NANOFLUIDIC DEVICE: A SINGLE STEP FOR ON CHIP BIOMOLECULE PRECONCENTRATION AND SEPARATION	1859
	C. Nanteuil, A.C. Louër, A. Plecis, and A.M. Haghiri-Gosnet <i>Centre National de la Recherche Scientifique (CNRS), FRANCE</i>	

Poster Session Nanotechnologies - Nanoengineering

W3E	VERTICAL NANOTUBES CONNECTED BY A SUBSURFACE NANOCHANNEL	1862
	H. Persson ¹ , J. Beech ¹ , W. Hällström ¹ , C. Niman ¹ , L. Samuelson ¹ , M. Kanje ¹ , S. Oredsson ¹ , C.N. Prinz ¹ , and J.O. Tegenfeldt ^{1,2} ¹ <i>Lund University, SWEDEN</i> and ² <i>University of Gothenburg, SWEDEN</i>	

Poster Session Nanotechnologies - Nanobiotechnology

W4E	AN OPEN MICROFLUIDIC DEVICE WITH ACTIVE VALVES FOR ACCURATE TRAPPING OF DNA BY SILICON NANOTWEEZERS	1865
	N. Lafitte, M. Kumemura, M. Nagai, L. Jalabert, D. Collard, and H. Fujita <i>University of Tokyo, JAPAN</i>	
W5E	DYNAMIC TRACKING OF SINGLE CELL SYNTHESIS OF CdSe QUANTUM DOTS WITH A MICROFLUIDIC DEVICE	1868
	L. Wang ¹ , Z.-L. Zhang ¹ , R. Cui ¹ , H.-H. Liu ¹ , J. Li ¹ , S.-L. Liu ¹ , Z.-X. Xie ¹ , Y. Chen ² , and D.-W. Pang ¹ ¹ <i>Wuhan University, CHINA</i> and ² <i>Ecole Normale Supérieure, FRANCE</i>	
W6E	FABRICATION OF SILICON NANOPATE AND NANOWIRE BIOSENSOR ARRAYS WITH HIGH SPECIFICITY AND SUB-PICOMOLAR LIMITS OF DETECTION	1871
	B. Dorvel ¹ , B. Reddy Jr. ¹ , D. Bergstrom ² , M.A. Alam ² , S. Clare ³ , and R. Bashir ¹ ¹ <i>University of Illinois, Chicago, USA</i> , ² <i>Purdue University, USA</i> , and ³ <i>Indianapolis University School of Medicine, USA</i>	
W7E	NANOFLUIDIC SINGLE-MOLECULE SORTER CONCEPTUALLY PROVEN BY SORTING OF DNA	1874
	T. Yamamoto ¹ and T. Fujii ² ¹ <i>Tokyo Institute of Technology, JAPAN</i> and ² <i>University of Tokyo, JAPAN</i>	

W8E ON-CHIP NANOMANIPULATION OF SINGLE INFLUENZA VIRUS USING DIELECTROPHORETIC CONCENTRATION AND OPTICAL TWEEZERS 1877
 H. Maruyama¹, K. Kotani², A. Honda³, T. Takahata³, and F. Arai¹
¹Nagoya University, JAPAN, ²Tohoku University, JAPAN, and ³Hosei University, JAPAN

W9E REAL-TIME OBSERVATION OF DNA CONFORMATIONAL TRANSITIONS AT A SINGLE-MOLECULE LEVEL BY MICROFLUIDIC DEVICES 1880
 H. Suzuki¹, N. Kaji¹, Y. Okamoto¹, M. Tokeshi¹, and Y. Baba^{1,2}
¹Nagoya University, JAPAN and
²National Institute of Advanced Industrial Science and Technology (AIST), JAPAN

Poster Session Nanotechnologies - Nanoassembly

W10E SIMULTANEOUS CONTROL OF LENGTH AND LOCATION OF METAL-ORGANIC NANOWIRES GROWN BY HYDRODYNAMIC FOCUSING IN A MULTILAYER MICROFLUIDIC DEVICE 1883
 P. Kuhn¹, J. Puigmartí-Luis¹, I. Imaz², D. Maspoch², and P.S. Dittrich¹
¹ETH Zürich, SWITZERLAND and
²Centre d'Investigacions en Nanociència i Nanotecnologia (ICN-CSIC), SPAIN

Poster Session Nanotechnologies - Nanostructured Materials

W11E CHEMICAL SG-SELEX ON THE NANOPOROUS SILICON SUBSTRATE CAN GENERATE HIGH AFFINITY ssDNA APTAMERS AGAINST NON-SOLUBLE CHEMICALS 1886
 J.-Y. Ahn¹, S.W. Lee², M. Jo¹, M. Kim¹, H. Bae¹, T. Laurell², O.C. Jeong³, and S. Kim¹
¹Dongguk University, SOUTH KOREA, ²Lund University, SWEDEN, and
³Inje University, SOUTH KOREA

W12E INVESTIGATION OF PHONON-ASSISTED OPTICAL NEAR-FIELD EXCITATION ON NANOSTRUCTURED TiO₂ TOWARDS ON-CHIP FUEL CELL APPLICATION 1889
 Thu.H.H. Le, K. Mawatari, K. Kitamura, T. Yatsui, T. Kawazoe, M. Ohtsu, and T. Kitamori
 University of Tokyo, JAPAN

W13E SELECTIVE DEPOSITION OF ELECTROSPUN ALGINATE-BASED NANOFIBERS ON CELL-REPELLING HYDROGEL SURFACES FOR CELL-BASED MICROARRAY 1892
 S.H. Huang¹, T.C. Chien¹, K.Y. Hung², and Y.C. Chung²
¹National Taiwan Ocean University, TAIWAN and ²Mingchi University of Technology, TAIWAN

Poster Session MEMS & NEMS Technologies - Micro- & Nanomachining

W1F A NOVEL FABRICATION METHOD OF HOLLOW NANONEEDLES APPLICABLE FOR SINGLE CELL OPERATION 1895
 Y. Zhang, X. Ji, C. Li, W. Wu, and Z. Li
 Peking University, CHINA

W2F ENHANCED MICROFABRICATION CAPABILITIES OF THERMOPLASTICS ELASTOMERS FOR CD LAB SYSTEM INCLUDING: LYSING, PCR AND HYBRIDIZATION MICROFLUIDIC FUNCTIONS 1898
 E. Roy¹, M. Mounier¹, R. Peytavi², J. Siegrist³, R. Gorkin³, M. Madou², M.G. Bergeron² and T. Veres¹
¹National Research Council Canada, CANADA, ²Laval University, CANADA, and
³University of California, Irvine, USA

W3F FABRICATION OF A MRI STANDARDIZATION DEVICE BY STACKING HIGHLY PATTERNED THIN PDMS LAYERS 1901
 R. Samuel, H.J. Sant, F. Jiao, C.R. Johnson, and B.K. Gale
 University of Utah, USA

W4F FLEXIBLE MICROPOST ARRAYS FOR STUDYING TRACTION FORCES OF VASCULAR SMOOTH MUSCLE CELLS 1904
 Q. Cheng, Z. Sun, G.A. Meininger, and M. Almasri
 University of Missouri, USA

W5F MICROMACHINING OF PYREX7740 GLASS FOR MICRO-FLUIDIC DEVICES 1907
J.W. Liu, Q.A. Huang, J.T. Shang, and J.Y. Tang
Southeast University, CHINA

W6F WAX PATTERNS BY DECAL-TRANSFER-MICROLITHOGRAPHY AND ITS USE FOR LOW-TEMPERATURE-BONDING OF BIO-FUNCTIONALIZED μ TAS 1910
M. Díaz-González and A. Baldi
Instituto de Microelectrónica de Barcelona (IMB-CNM), SPAIN

Poster Session MEMS & NEMS Technologies - Microfluidic Components/Packaging

W7F A DISPOSABLE MICROFLUIDIC ARRAY PLATFORM FOR AUTOMATIC ION CHANNEL RECORDING 1913
M. Rossi¹, F. Thei¹, H. Morgan², and M. Tartagni¹
¹*University of Bologna, ITALY* and ²*University of Southampton, UK*

W8F ALL IN ONE LATERAL-FLOW CHIP FOR ARRAY IMMUNOASSAY 1916
T. Miura, T. Horiuchi, J. Takahashi, Y. Iwasaki, M. Seyama, and E. Tamechika
NTT Microsystem Integration Laboratories, JAPAN

W9F FREQUENCY ADDRESSABLE ACOUSTIC COLLECTION, SEPARATION AND MIXING IN A PZT DRIVEN GLASS CAPILLARY MICROFLUIDIC ACTUATOR 1919
M.K. Araz and A. Lal
Cornell University, USA

W10F METABOLOMIC NMR BY INDUCTIVE COUPLING 1922
A. Zaß¹, K. Wang¹, J. Korvink¹, M. Reed², J. Landers¹, and M. Utz¹
¹*University of Virginia, USA* and ²*Albert Ludwig - Universität, GERMANY*

W11F PDMS NANOSTRUCTURES FABRICATED BY TWO-STEP MOLDING PROCESS USED FOR TUNABLE SERS INTEGRATED WITH MICROFLUIDICS 1925
X. Wang¹, Z. Geng^{1,2}, W. Wang¹, and Z. Li¹
¹*Peking University, CHINA* and ²*Minzu University, CHINA*

Poster Session MEMS & NEMS Technologies - Integration Strategies

W12F A TWO CHAMBER SU8 LABONACHIP WITH INTEGRATED BURST VALVE FOR SAMPLE PREPARATION, SAMPLE CONCENTRATION AND PCR 1928
V. Calvo¹, M. Agirregabiria¹, L.J. Fernandez¹, A. Ezkerra¹, J. Berganzo¹, J. Elizalde¹, K. Mayora¹, D. Verdoy², and J.M. Ruano-Lopez¹
¹*Ikerlan S. Coop, SPAIN* and ²*Gaiker, SPAIN*

W13F FACILE AND CONTROLLED INTEGRATION OF FUNCTIONAL NANOSTRUCTURES IN MICROFLUIDIC DEVICE 1931
J. Kim and I. Park
Korea Advanced Institute of Science and Technology (KAIST), SOUTH KOREA

Poster Session MEMS & NEMS Technologies - New Chip Materials

W14F FLUOROTHERMOPLASTIC CHIPS FOR DROPLET MICROFLUIDICS AND DNA ANALYSIS 1934
S. Begolo, G. Colas, L. Malaquin, and J.-L. Viovy
Institut Curie, FRANCE

W15F MICROFLUIDIC DEVICES MADE OF UV-CURABLE GLUE (NOA81) FOR FLUORESCENCE DETECTION BASED APPLICATIONS 1937
Ph. Wägli, B.Y. Guélat, A. Homsy, and N.F. de Rooij
École Polytechnique Fédérale de Lausanne (EPFL), SWITZERLAND

Poster Session MEMS & NEMS Technologies - Surface Modification

W16F A HEMOCOMPATIBLE ARRAY CYLINDRICAL NANOSHELL WITH A REDUCED EFFECTIVE BLOOD CONTACT AREA 1940
H. Im, Y.-B. Park, J. Suk, M. Im, C.O. Joe, and Y.-K. Choi
Korea Advanced Institute of Science and Technology (KAIST), SOUTH KOREA

W17F	IN-SITU SOL-GEL MODIFICATION OF PDMS ELECTROPHORETIC ANALYTICAL DEVICES	1943
	I. Hoek ¹ , A. Bubendorfer ¹ , T. Kemmitt ^{1,2} , and W.M. Arnold ^{1,2} <i>¹Industrial Research Ltd., NEW ZEALAND and ²Victoria University, NEW ZEALAND</i>	
W18F	SIMPLE AND FUNCTIONAL MODIFICATION OF PDMS SURFACE FOR MICROCHANNEL ELECTROPHORESIS	1946
	T. Shirai, M. Takai, and K. Ishihara <i>University of Tokyo, JAPAN</i>	
W19F	WETTABILITY PATTERNING IN MICROFLUIDIC SYSTEMS BY POLY(ACRYLIC ACID) GRAFT POLYMERIZATION	1949
	M.H. Schneider ^{1,2} , B. Kozlov ^{1,2} , H. Willaime ¹ , Y. Tran ¹ , F. Rezgui ² , and P. Tabeling ¹ <i>¹École Supérieure de Physique et de Chimie Industrielles (ESPCI), FRANCE and ²Études et Production Schlumberger, FRANCE</i>	

Poster Session Imaging & Detection Technologies - Flow Visualization

W1G	MEASUREMENT OF PERIODIC FLOW USING MICRO PARTICLE IMAGE VELOCIMETRY WITH PHASE SAMPLING TECHNIQUE	1952
	W.-I. Wu, D. Ewing, P.R. Selvaganapathy, and C.Y. Ching <i>McMaster University, CANADA</i>	

Poster Session Imaging & Detection Technologies - Optical

W2G	A POLYMERIC MICRO-OPTIC DEVICE FOR THE DETECTION OF MICROFLUIDIC FLOW SPATIAL PROFILE	1955
	F. Sapuppo ¹ , A. Llobera ² , F. Schembri ¹ , and M. Bucolo ¹ <i>¹Università degli Studi di Catania, ITALY and ²Centro Nacional de Microelectrónica (CNM), SPAIN</i>	
W3G	CMOS-BASED LUMINESCENCE DETECTION FOR LAB-ON-A-CHIP	1958
	L. Shen ¹ , M. Ratterman ¹ , D. Klotzkin ² , and I. Papautsky ¹ <i>¹University of Cincinnati, USA and ²State University of New York, Binghamton, USA</i>	
W4G	FIBER FREE PLUG AND PLAY ON-CHIP SCATTERING CYTOMETER MODULE – FOR IMPLEMENTATION IN MICROFLUIDIC POINT OF CARE DEVICES	1961
	T.G. Jensen and J.P. Kutter <i>Danmarks Tekniske Universitet (DTU), DENMARK</i>	
W5G	HYDRATION LAYERS OF ALCOHOL AND PROTEINS ANALYZED BY THZ BIOMEMS	1964
	S. Laurette, A. Treizebre, and B. Bocquet <i>Université de Lille, FRANCE</i>	
W6G	INVESTIGATION OF PLASMONIC NANODOT ARRAYS COMPARED WITH NANO HOLE ARRAYS FABRICATED BY A SEQUENTIAL NANOIMPRINT TECHNIQUE	1967
	K. Nakamoto ^{1,2} , R. Kurita ² , and O. Niwa ^{1,2} <i>¹University of Tsukuba, JAPAN and ²National Institute of Advanced Industrial Science and Technology (AIST), JAPAN</i>	
W7G	LONG-RANGE SPR SENSOR WITH MICRO LIQUID CHANNELS FOR MAINTAINING SYMMETRICAL CONDITION	1970
	T. Kan ¹ , H. Kojo ² , E. Iwase ³ , K. Matsumoto ¹ , and I. Shimoyama ¹ <i>¹University of Tokyo, JAPAN, ²Cannon Corp., JAPAN, and ³Harvard University, USA</i>	
W8G	REAL-TIME BIOCHEMICAL RESPONSE UPON CHEMICAL STIMULATION OF LIVING MONOCYTES INVESTIGATED BY FOURIER TRANSFORM INFRARED MICROSCOPY (μ-FTIR)	1973
	G. Birarda ^{1,2} , G. Greci ² , L. Businaro ² , S. Pacor ³ , M. Tormen ² , and L. Vaccari ¹ <i>¹Eletra Synchrotron Light Laboratory, ITALY, ²Consiglio Nazionale delle Ricerche (CNR), ITALY, and ³Trieste University, ITALY</i>	

Poster Session Imaging & Detection Technologies - Electrochemical

- W9G 3-D CARBON INTERDIGITATED ARRAY NANO-ELECTRODES FOR HIGHLY SENSITIVE SENSING OF NEUROTRANSMITTERS** 1976
J.-I. Heo¹, D.-S. Shim¹, R.M. Duarte², M. Madou², and H. Shin¹
¹Ulsan National Institute of Science & Technology (UNIST), SOUTH KOREA and
²University of California, Irvine, USA
- W10G INTEGRATED ELECTROCHEMICAL MICRO-SENSORS FOR METABOLISM STUDIES OF YEAST CELLS** 1979
F. Zhang^{1,2}, J.J. Liu¹, J.H. Tian¹, L. Wang¹, P.G. He², and Y. Chen^{1,3}
¹École Normale Supérieure (ENS), FRANCE, ²East China Normal University, CHINA, and
³Kyoto University, JAPAN
- W11G SIGNIFICANT IMPROVEMENT IN SENSITIVITY OF LEAKAGE CURRENT MICROSENSOR BY USING DENATURANT AND ELECTROLYTE-ENTRAPPING DPPC LIPOSOMES** 1982
P. Lorchrachoonkul¹, T. Shimanouchi², K. Yamashita¹, H. Umakoshi², R. Kuboi², and M. Noda¹
¹Kyoto Institute of Technology, THAILAND and ²Osaka University, JAPAN

Poster Session Imaging & Detection Technologies - Mass Spectrometry

- W12G CHIP-BASED HEATERLESS NANO-APCI-MS** 1985
R.J. Raterink, M. de Korte, H. van der Linden, and T. Hankemeier
Leiden University, THE NETHERLANDS
- W13G IDENTIFYING PSA BIOMARKER WITH SOL-GEL INTEGRATED MICROARRAY AND MALDI-TOF MS** 1988
J.-Y. Ahn¹, S.W. Lee², M. Jo¹, S. Ren¹, J. Kang¹, S. Lee¹, T. Laurell², and S. Kim¹
¹Dongguk University, SOUTH KOREA and ²Lund University, SWEDEN

Poster Session Imaging & Detection Technologies - Optofluidics

- W14G CHARACTERIZATION OF AN OPTOFLUIDIC MICROFLOW CYTOMETER FOR SINGLE PARTICLE ANALYSIS** 1991
M. Rosenauer and M.J. Vellekoop
Vienna University of Technology, AUSTRIA
- W15G ELASTOMER MEMBRANE PRESSURE SENSORS FOR MICROFLUIDICS** 1994
A.G. Orth, E.F. Schonbrun, and K.B. Crozier
Harvard University, USA
- W16G ON-CHIP REFRACTIVE INDEX MEASUREMENT VIA INTERFACIAL REFRACTION OF TWO PHASE FLOW STREAMS** 1997
S. Xiong^{1,2}, Y. Yang¹, Y. Chen², G.J. Zhang², G.Q. Lo², D.L. Kwong², and A.Q. Liu¹
¹Nanyang Technological University, SINGAPORE and
²Agency for Science, Technology and Research (A*STAR), SINGAPORE

Poster Session Imaging & Detection Technologies - Others

- W17G A CORONA DISCHARGE PROCESS BASED MICRO ELECTRIC NO_x CONVERTER FOR THE TOTAL NO_x EVALUATION IN AIR** 2000
S.I. Yoon, Y.H. Choi, M.S. Kim, and Y.J. Kim
Yonsei University, SOUTH KOREA
- W18G CHARACTERIZATION OF PDMS MICROVALVES USING MUSIC** 2003
A.K. Au, P. Liu, and A. Folch
University of Washington, USA
- W19G DETECTION OF TRACE EXPLOSIVES BY SERS USING 3-D NANOCHANNEL ARRAYS** 2005
K. Jiang, I. White, and D.L. DeVoe
University of Maryland, USA

W20G IN SITU MICRO DROPLET TYPING SYSTEM USING 3 ω METHOD 2008
N. Yi, D. Kim, and J. Park
Pohang University of Science and Technology (POSTECH), SOUTH KOREA

W21G SAPPHIRE DIELECTRIC RESONATORS FOR MICROFLUIDIC COMPOSITIONAL ANALYSIS 2011
A. Porch, A. Masood, A.J. Naylor, A. Sulaimalebbe, and D.A. Barrow
Cardiff University, UK

Poster Special Focus Session - Tissue Engineering

W1H BEAD-BASED RAPID CONSTRUCTION OF HETEROGENEOUS 3D TISSUE ARCHITECTURE 2014
Y. Tsuda^{1,2}, H. Onoe¹, and S. Takeuchi^{1,2}
¹*University of Tokyo, JAPAN* and ²*BEANS Project, JAPAN*

W2H DEVELOPMENT OF INSULIN DELIVERY DEVICES COMPOSED OF LANGERHANS ISLETS AND CARDIOMYOCYTES 2017
H. Akaike¹, Y. Tanaka^{1,2}, Y. Sugii^{1,2}, and T. Kitamori^{1,2}
¹*University of Tokyo, JAPAN* and ²*Japan Science and Technology Agency (JST), JAPAN*

W3H HIGHLY ALIGNED SKELETAL MUSCLE FIBERS 2020
Y. Shimoyama, H. Onoe, Y. Tsuda, and S. Takeuchi
University of Tokyo, JAPAN

W4H MICROARRAYS FOR THE SCALABLE PRODUCTION OF UNIFORM AND METABOLICALLY RELEVANT TUMOUR SPHEROIDS 2023
H. Hardelauf¹, J.-P. Frimat¹, W. Schormann², J.D. Stewart², Y.-Y. Chiang¹, C. Cadenas², J. Franzke¹, J.G. Hengstler², L.A. Kunz-Schughart³, and J. West¹
¹*Institute for Analytical Sciences (ISAS), GERMANY*, ²*IfADo, GERMANY*, and ³*University of Dresden, GERMANY*

W5H SCULPTING TISSUE SCAFFOLDS WITH EMBEDDED 3-D VASCULATURE 2026
J.-H. Huang, J. Kim, A. Jayaraman, and V.M. Ugaz
Texas A&M University, USA

W6H PREPARATION OF ALGINATE MICROFIBERS FOR CELL ENTRAPMENT USING A MICROFLUIDIC DEVICE 2029
L. Capretto¹, S. Mazzitelli², X. Zhang¹, and C. Nastruzzi²
¹*University of Southampton, UK* and ²*University of Ferrara, ITALY*

Poster Special Focus Session - Electrowetting-Driven Digital Microfluidics

W7H A FEEDBACK CONTROL SYSTEM FOR HIGH-FIDELITY DIGITAL MICROFLUIDICS 2032
S.C.C. Shih¹, R. Fobel¹, P. Kumar², and A.R. Wheeler¹
¹*University of Toronto, CANADA* and ²*Indian Institute of Technology, INDIA*

W8H DIGITAL MICROFLUIDIC HUB FOR AUTOMATED NUCLEIC ACID SAMPLE PREPARATION 2035
H. Kim, M.S. Bartsch, R.F. Renzi, G.L. Pezzola, E.M. Remillard, E.A. Kittlaus, J. He, and K.D. Patel
Sandia National Laboratories, USA

W9H MODELING THE SPONTANEOUS INSERTION OF ONE LIQUID INTO ANOTHER ON A DROPLET MICROFLUIDIC PLATFORM 2038
D. Chatterjee, A.K. Tucker-Schwartz, and R.L. Garrell
University of California, Los Angeles, USA

Session 3A3 - Cell Analysis II

HIGH-DENSITY ARRAY OF SINGLE CELL TRAPS FOR HIGH-THROUGHPUT IMAGING OF CALCIUM DYNAMICS IN RESPONSE TO OXIDATIVE STRESS 2041
C.A. Rivet, K. Chung, M.L. Kemp, and H. Lu
Georgia Institute of Technology, USA

SEPARATION AND DETECTION OF RARE CELLS VIA MULTISTAGE MAGNETIC GRADIENT IN A MICROFLUIDIC DISK 2044
C.-L. Chen, K.-C. Chen, Y.-C. Pan, T.-P. Lee, C.-W. Yang, L.-C. Hsiung, C.-M. Lin, C.-Y. Chen, C.-H. Lin, B.-L. Chiang, and A.M. Wo
National Taiwan University, TAIWAN

SICKLING RED BLOOD CELLS IN DROPLET ARRAYS 2047
P. Abbyad¹, R. Dangla¹, P.-L. Tharaux², A. Alexandrou¹, and C.N. Baroud¹
¹*Ecole Polytechnique, FRANCE* and ²*Paris-Cardiovascular Research Centre, FRANCE*

Session 3B3 - Assays for Trauma & Disease

BURN INJURY INHIBITS NEUTROPHIL CHEMOTAXIS IN MICROFLUIDIC DEVICES 2050
K.L. Butler, V. Ambravaneswaran, N. Agrawal, M. Bilodeau, M. Toner, R.G. Tompkins, S. Fagan, and D. Irimia
Massachusetts General Hospital, Shriners Hospital for Children and Harvard Medical School, USA

REAL TIME ELECTROCHEMICAL DNA QUANTIFICATION IN A COC LAB ON A CHIP: TOWARDS LOW-COST DIAGNOSIS OF NOSOCOMIAL INFECTIONS 2053
V. Taniga¹, G. Mottet¹, S. Miserere¹, L. Malaquin¹, J.L. Viovy¹, F. Kivlehan², F. Mavre², D. Marchal², B. Limoges², A. Le Nel³, and J. Goulpeau³
¹*Institut Curie, FRANCE*, ²*Université Paris, FRANCE*, and ³*FLUIGENT, FRANCE*

ASSESSING THE TRAUMATIC BRAIN INJURY MARKERS S100 AND C-REACTIVE PROTEIN IN HUMAN CEREBROSPINAL FLUID VIA MICROFLUIDIC IMMUNOSUBTRACTION 2056
A.A. Apori and A.E. Herr
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Invited Presentation

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C.A. van Blitterswijk

University of Twente, THE NETHERLANDS

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¹University of Twente, THE NETHERLANDS and ²Delft University of Technology, THE NETHERLANDS

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Invited Presentation

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J.G.E. Gardeniers², and **A.P.M. Kentgens¹**,

¹Radboud University Nijmegen, THE NETHERLANDS and ²University of Twente, THE NETHERLANDS

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T. Ichii¹, H. Suzuki^{1,2}, and T. Yomo^{1,2}

¹Japan Science and Technology Agency (JST), JAPAN and ²Osaka University, JAPAN

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Cardiff University, UK

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University of California, Berkeley, USA

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P. Garcia-Sanchez¹, A. Ramos¹, and F. Mugele²

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THE JOURNEY OF ÅMIC 2104

O. Öhman

Meje AB, SWEDEN

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¹Medimate BV, THE NETHERLANDS, ²University of Castilla-La Mancha, SPAIN, and

³MESA+, University of Twente, THE NETHERLANDS

Invited Presentation

VALUE CREATION BASED ON HIGH TECH P IC

J. Elders

Thermo Fisher Scientific, THE NETHERLANDS

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¹Corning Incorporated, USA and ²Corning Research Center, TAIWAN

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¹BEANS Laboratory, JAPAN, ²University of Tokyo, JAPAN, and

³Mitsubishi Chemical Medience Co. Ltd., JAPAN

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¹University of California, Los Angeles, USA and ²University of Southern California, USA

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Korea Advanced Institute of Science and Technology (KAIST), SOUTH KOREA

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