Poster session 1. Chemical/Biochemical sensors MIRROR CORRIDOOR (16.45-18.30)			
MP.CHM-10-8083	Few-Layer graphene Langmuir-Schaefer nanofilms for H2 Gas Sensing	Dmytro Kostiuk, Stefan Luby (*), Maxim Demydenko, Matej Jergel, Peter Siffalovic, Jan Ivanco, Eva Majkova	Institute of Physics SAS, Dubravska 9, Bratislava 84511, Slovakia
MP.CHM-1-1002	Synthesis and Gas Sensing Properties of Au@In2O3 Core-Shell nanoparticles	Yeon-Tae Yu (a,*), Sanjit Manohar Majhi (a), Ho-Geun Song (b)	(a) Division of Advanced Materials Engineering, Chonbuk National University, Jeonju 54896, South Korea (b) Ogam Technology Co., Jeonju 54882, South Korea
MP.CHM-11-8093	Electrochemical Sensors Based on MoS2 and its Composite for Biochemical Sensing Applications	Hyeong-U Kim(a), Hye Youn Kim(b), Atul Kulkarni(c), Chisung Ahn(a), Mingu Kim(c), Min-Ho Lee(b) and Taesung Kim(a,c,*)	(a)SKKU Advanced Institute of Nano Technology (SAINT), Sungkyunkwan University, Suwon, Gyeonggi Do (b) Korea Electronics Technology Institute, Seongnam, Gyeonggi Do (c)Mechanical Engineering, Sungkyunkwan University, Suwon, Gyeonggi Do
MP.CHM-12-8098	Gas Sensing Properties of In2O3 Cubes Prepared by a Hydrothermal Method	Sergio Roso (a, b), Toni Vilic (a), Atsushi Urakawa (b) and Eduard Llobet (a)	(a) MINOS-EMaS, Departament d'Enginyeria Electrònica, Universitat Rovira i Virgili,Av. Països Catalans 26, 43007, Tarragona, Spain (b) Institute of Chemical Research of Catalonia (ICIQ), The Barcelona Institute of Science and Technology, Av. Països Catalans 16, 43007, Tarragona, Spain
MP.CHM-13-8112	Enhanced Photoelectrochemical Sensors with Hybrid Nanocomposites for Multichannel Detections	Z. Yue (a,b,*), S. Zhao(b), Wolfgang Parak(a)	(a) Fachbereich Physik und WZMW, Philipps Universität Marburg, Marburg 35037, Germany (b)Department of Microelectronics, Nankai University, Tianjin 300071, China
MP.CHM-14-8123	Chip Temperature Influence on Characteristics of MISFET Hydrogen Sensors	B. Podlepetsky (a,*), M. Nikiforova (a), A Kovalenko (b)	(a) National Research Nuclear University MEPhI (Moscow Engineering Physics Institute), 31, Kashirskoe sh., Moscow, 115409, Russia (b) Induko Ltd., 32/2 Seslavinskaia str., Moscow, 121309, Russia
MP.CHM-15-8125	Pulsed UV Light Activated Gas Sensing in Tungsten Oxide Nanowires	O. Gonzalez, T. Welearegay, E. Llobet, X. Vilanova (*)	MINOS-EMaS, Universitat Rovira i Virgili, Tarragona,Av Paisos Catalans 26, 43007, Spain
MP.CHM-16-8132	In situ Pesticide Detection in Food Processing by Microwave Transduction Combined with Molecularly Imprinted Polymers	J. Rossignol (a,*), E. Bou-Maroun (b), P. Cayot (b), D Stuerga (a), C. Lafarge (b), R. Gougeon (b,c)	(a) ICB, UMR 6303,Dept Interface, GERM, Université de Bourgogne Franche-Comté, Dijon France (b) Univ. Bourgogne Franche-Comté, AgroSup Dijon, PAM UMR A 02.102, Procédés Alimentaires et Microbiologiques, F-21000 Dijon, France (c) Institut Universitaire de la Vigne et du Vin, Université de Bourgogne Franche-Comté, Dijon France
MP.CHM-17-8137	H2S sensing properties of WO3 based gas sensor	B. Urasinska-Wojcik, T.A. Vincent, J.W. Gardner (*)	School of Engineering, University of Warwick, Coventry, UK
MP.CHM-18-8155	Composition Optimization Doped Silica Films to Amines Detection	S. Krutovertsev (*), A. Tarasova, O. Ivanova, L. Krutovertseva	JSC "Ecological sensors and systems", Moscow, Zelenograd, 124460, Russia
MP.CHM-19-8158	Label-Free and Electrochemical Detection of Nucleic Acids Based on Isothermal Amplification in Combination with Solid-State pH Sensor	Miyuki Tabata (a), Yurika Katayama (a), Fahmida Mannan (b), Ayaka Seichi (c), Koji Suzuki (c), Tatsuro Goda (a), Akira Matsumoto (a), Yuji Miyahara (a,*)	(a) Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University, 2-3-10 Kanda-surugadai, Chiyoda-ku, Tokyo 101-0062, Japan (b) Faculty of Medicine, Imperial College London, Exhibition Road, London SW7 2AZ, United Kingdum (c) Department of Applied Chemsitry, Graduate School of Science and Engineering, Keio University, 3-14-1 Hiyoshi, Kohoku, Yokohama, Kanagawa 223-8522, Japan

MP.CHM-20-8162	A Self-Organisation Synthesis Approach for Bacteria Molecularly Imprinted Polymers	Annette Schnettelker, Peter Lieberzeit (*)	University of Vienna, Faculty for Chemistry, Department of Physical Chemistry, Währinger Strasse 42, Wien 1090, Austria
MP.CHM-2-1004	Graphene-Based Portable SPR Sensor for the Detection of Mycobacterium Tuberculosis DNA Strain	Briliant Adhi Prabowo (a,e), Azharul Aloma, Muhammad Khari Secario (a), Frances Camille P. Masim(d), Hsin-Chih Lai(b), Koji Hatanaka (d) , and Kou-Chen Liu (a,c,*)	(a) Department of Electronic Engineering, Chang Gung University, Taoyuan 33002, Taiwan (b) Department of Medical Biotechnology and Laboratory Science, Chang Gung University, Taoyuan 33302, Taiwan (c) Center for Biomedical Engineering, Chang Gung University, Taoyuan 33302, Taiwan (d) Research Center for Applied Sciences, Academia Sinica, Taipei 11529, Taiwan (e) Research Center for Informatics, Indonesian Institute of Sciences, Bandung 40135, Indonesia
MP.CHM-21-8164	Molecular Imprinting Studies for Developing QCM-Sensors for Bacillus Cereus	Eva Spieker, Peter A. Lieberzeit (*)	University of Vienna, Department of Physical Chemistry, Währinger Straße 42, 1090 Vienna, Austria
MP.CHM-22-8177	Investigation and Analysis of Zinc Phthalocyanine Films for Resonant Gas Sensor Applications	A. Hamid (*), A. Holloway, A. Hassan, A. Nabok	Materials & Engineering Research Institute, Sheffield Hallam University, S1 1WB, Sheffield, United Kingdom
MP.CHM-23-8178	Novel Colorimetric Sensor for Cupric Reducing Antioxidant Capacity (CUPRAC) Measurement	E. Krylova, N. Gavrilenko, N. Saranchina, M. Gavrilenko	National Research Tomsk Polytechnic University, Tomsk, Russia
MP.CHM-24-8199	NDIR Ethanol Gas Sensor with Two Elliptical Optical Structures	JinHo Kim (a), KeunHeon Lee (b), SeungHwan Yi (a,*)	(a) KNUT (Korea National University of Transportation), 50 DaeHakRo, Chungjushi, Chungbuk 27469, Repulic of Korea (b) Humas Co.,59-6 Jang-Dong, YuSeong-Gu, DaeJeon 34113, Repulic of Korea
MP.CHM-25-8204	A High-Sensitive Detection of Several Tens of nM of Amyloid-Beta by Cantilever-Type Biosensor Immobilized DPPC Liposome Incorporated with Cholesterol	Y. Murakami (a), Z. Zhang (a), T. Taniguchi (a), M. Sohgawa (b), K. Yamashita (a), M. Noda (a,*)	(a) Kyoto Institute of Technology, Matsugasaki, Sakyo-ku, Kyoto 606-8585, Japan (b) Niigata University, 8050 Ikarashi 2-no-cho, Nishi-ku, Niigata 950-2181, Japan
MP.CHM-26-8214	Influence of the Design in Microwave-Based Gas Sensors: Ammonia Detection with Titania nanoparticles	G. Bailly(*), A. Harrabi, J. Rossignol, B. Domenichini, J.P. Bellat, I. Bezverkhyy, P. Pribetich), D. Stuerga	Laboratoire Interdisciplinaire Carnot de Bourgogne (ICB), UMR 6303 CNRS/UBFC, Dijon, France

MP.CHM-27-8218	Three-Dimensional Paper-Based Microfluidic Device for Interferon Gamma Detection	N. Ruecha(a), N. Rodthongkum(b), P. Ritprajak(c), K. Shin(d), O. Chailapakul(e)	(a) Department of Applied Chemistry, Faculty of Science and Technology, Keio University, Kanagawa, Japan (b)Metallurgy and Materials Science Research Institute, Chulalongkorn University, Bangkok, Thailand (c) Department of Microbiology and Immunology and DRU of Oral Microbiology, Faculty of Dentistry, Chulalongkorn University, Bangkok, Thailand (d) Department of Chemistry and Institute of Biological Interfaces, Sogang University, Seoul, Republic of Korea (e) Electrochemistry and Optical Spectroscopy Research Unit (EOSRU), Department of Chemistry, Faculty of Science, Chulalongkorn University, Bangkok, Thailand
MP.CHM-28-8226	Acetaldehyde Chemical Sensor Based on Molecularly Imprinted Polypyrrole	M. Debliquy (a,*), N. Dony (a), D. Lahem (b), X. Tang (c), C. Zhang (d), J.-P. Raskin (c), M.-G. Olivier (a)	(a) Materials Science department, University of Mons, rue de l'Epargne, 56 7000 Mons Belgium (b) Materia Nova, avenue Copernic, 1 7000 Mons Belgium (c) ICTEAM, University of Louvain-la-Neuve, place du Levant 3, Louvain-la-Neuve, Belgium (d) College of Mechanical Engineering, University of YangZhou, China
MP.CHM-29-8227	VOC Sensing Properties of MHDA-Functionalized Multiwall Carbon Nanotubes	A. Thamri (a), H. Baccar (a), C. Struzzi (b), C. Bittencourt (b), E. Llobet (b), A. Abdelghani (a,*)	(a) National Institute of Applied Science and Technology, Nanotechnology Group, Charguia Cedex, Tunisia (b) Universitat Rovira i Virgili, Tarragona, Spain
MP.CHM-30-8229	A Fluorescence Based Sensor System for Automated Detection of E. coli in Water	Thomas Posnicek (*), Jörg Ettenauer, Karen Zuser, Karlheinz Kellner, Martin Brandl	Danube University Krems, Center for Integrated Sensor Systems, Dr.-Karl-Dorrek Street 30, 3500 Krems, Austria
MP.CHM-31-8230	Sensitive Materials for Chemical Agents Vapor Detection Using SAW Sensors	Benoit Minot, Celine Frenois, Stephanie Besnard, Jeremy Bordet, Nathalie Martins, Franck Pereira (*)	CEA, 91191Gif-Sur-Yvette Cedex, FRANCE
MP.CHM-32-8241	Preliminary Study of Inkjet Printed Sensors for Monitoring Cell Cultures	S. Tonello (a,*), N. F. Lopomo (a), M. Serpelloni (a), M. Serzanti (b), P. Dell'Era (b) and E. Sardini (a)	(a) Department of Information Engineering, University of Brescia, Brescia, Italy (b) Department of Molecular and Translational Medicine, University of Brescia, Brescia, Italy
MP.CHM-33-8243	CMOS Integrated Tungsten Oxide Nanowire Networks for ppb-Level H2S Sensing	J. Krainer (a), M. Deluca (a), E. Lackner (a), R. Wimmer-Teubenbacher (a), F. Sosada (a), C. Gspan (b), K. Rohracher (c), E. Wachmann (c), A. Koeck (a,*)	(a) Materials Center Leoben Forschung GmbH, Roseggerstr. 12, Leoben 8700, Austria (b) Institute for Electron Microscopy and Fine Structure Research, Steyrerg. 17/III, Graz 8010, Austria (c) ams AG, Tobelbader Str. 30, Premstaetten 8141, Austria
MP.CHM-34-8245	The Effect of Thermal Reduction and Film Thickness on Fast Response Transparent Graphene Oxide Humidity Sensors	S.Papamatthaiou (a,*), D.-P.Argyropoulos (a), F.Farmakis (a), A.Masurkar (b), K.Alexandrou (b), I.Kymissis (b), N.Georgoulas (a)	(a) Department of Electrical and Computer Engineering, Democritus University of Thrace, Vas. Sofias 12, 67100 Xanthi, Greece (b) Department of Electrical Engineering, University of Columbia, 10027 New York, USA

MP.CHM-35-8256	Chemoresistive Gas Sensor Based on SiC Thick Film: Possible Distinctive Sensing Properties Between H2S and SO2	A. Gaiardo (a,b,*), P. Bellutti (b), B. Fabbri (a), S. Gherardi (a), A. Giberti (c), V. Guidi (a), N. Landini (a), C. Malagù (a), G. Pepponi (b), M. Valt (a), G. Zonta (a)	(a) Department of Physics and Earth Sciences, University of Ferrara, Via Saragat 1/c, 44122 Ferrara, Italy (b) MNF - Micro Nano Facility, Bruno Kessler Foundation, Via Sommarive 18, 38123 Trento, Italy (c) S.r.l., Mist-er, Via P. Gobetti 101, 40129 Bologna, Italy
MP.CHM-36-8257	Novel Optical Chemical Sensor Based on Molecularly Imprinted Polymer Inside a Trench Micro-Machined in Double Plastic Optical Fiber	Nunzio Cennamo (a,*), Genni Testa (b), Simone Marchetti (c), Letizia De Maria (d), Romeo Bernini (b), Luigi Zeni (a), Maria Pesavento (c)	(a) Department of Industrial and Information Engineering - Second University of Naples, Aversa, Italy (b) CNR - IREA, Naples, Italy (c) Department of Chemisty - University of Pavia, Pavia, Italy (d) RSE Research on Energetic System S.p.A, Milan, Italy
MP.CHM-37-8259	Non-Invasive Online Monitoring of Cell Growth in Disposable Bioreactors with a Planar Coil	T. Reinecke (a,*), P. Biechele (b), M. Frickhöffer (a), T. Scheper (b), S. Zimmermann (a)	(a) Institute of Electrical Engineering and Measurement Technology, Dept. of Sensors and Measurement Technology, Leibniz Universität Hannover, Appelstr. 9A, 30167 Hannover, Germany (b) Institute of Technical Chemistry, Leibniz Universität Hannover, Callinstr. 5, 30167 Hannover, Germany
MP.CHM-38-8262	Study of Sensing Mechanisms in Nerve Agent Sensors Based on Phthalocyanine-Palladium Structures	Paulina Powroźnik, Maciej Krzywiecki, Lucyna Grządziel and Wiesław Jakubik	Institute of Physics CSE, Silesian University of Technology, Konarskiego 22B, 44-100 Gliwice, Poland
MP.CHM-39-8267	Chemical Sensor for Haemodialysis Application	M. Santonico (a), G. Punzo (b), F. Amadei (b), G. De Pastena (b), S. Grasso (a), A. Zompanti (a), G. Pennazza (a,*) and S. Amadei (b)	(a) Unit of Electronics for Sensor Systems, Department of Engineering, Università Campus Bio-Medico di Roma, via Álvaro del Portillo 21, 00128 Rome, Italy (b) PURETECH s.r.l., Via Marcantonio Colonna 9, 00047 Marino (RM)
MP.CHM-40-8275	An Automated, Robotic Biosensor for the Electrochemical Detection of E. coli in Water	Karlheinz Kellner (*), Jörg Ettenauer, Karen Zuser, Thomas Posnicek, Martin Brandl	Danube University Krems, Center for Integrated Sensor Systems, Dr.-Karl-Dorrek Street 30, 3500 Krems, Austria
MP.CHM-4-1009	Investigation of Ammonia Gas Sensing Properties of Graphite Oxide	Alexander G. Bannov (a,d), Jan Prášek (b), Ondřej Jašek (c), Aleksandr A. Shibaev (a), Lenka Zajíčková (c,d,*)	(a) Department of Chemistry and Chemical Technology, Novosibirsk State Technical University, K. Marx 20, 630073 Novosibirsk, Russian Federation (b) SIX Research Centre, Brno University of Technology, Technická 10, CZ-61600 Brno, Czech Republic (c) Department of Physical Electronics, Faculty of Science, Masaryk University, Kotlářská 2, CZ-61137 Brno, Czech Republic (d) Central European Institute of Technology, Masaryk University, Kamenice 5, CZ-62500 Brno, Czech Republic
MP.CHM-41-8276	Miniaturized Ir/IrOx pH Sensor for Quantitative Diagnosis of Dental Caries	M. Tabata (a), C. Ratanaporncharoen (a), A. Asano (b), Y. Kitasako (b), M. Ikeda (b), T. Goda (a), A. Matsumoto (a), J. Tagami (b), Y. Miyahara (a)	(a) Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University, Tokyo, Japan (b) Faculty of Dentistry, Tokyo Medical and Dental University, Tokyo, Japan
MP.CHM-42-8288	Selective Ammonia Gas Sensor Based on SnO2-APTES Modification	M. Hijazi (a), M. Rieu (a,*), V. Stambouli (b), G. Tournier (a), J-P. Viricelle (a), C. Pijolat (a)	(a) Ecole Nationale Supérieure des Mines, SPIN-EMSE, CNRS:UMR5307, LGF, 42023 Saint-Etienne, France (b) LMGP, Université Grenoble-Alpes, Grenoble INP-MINATEC, CS 50257, 38016 Grenoble Cedex 1, France

MP.CHM-43-8290	Subnanogram Detection of Silver Stained Protein Bands with Thermal Lens Spectrometry	Giulia Mazza (*), Thomas Posnicek, Lisa-Marie Wagner, Martin Brandl	Center for Integrated Sensor Systems, Danube University Krems, Dr.-Karl-Dorrek-str. 30, Krems 3500, Austria
MP.CHM-44-8301	A Partially Wettable Micromechanical Resonator for Chemical- and Biosensing in Solution	Phil Peiker (a), Steffen Klingel (a), Julian Menges (b), Hans-Jörg Bart (b) and Egbert Oesterschulze (a,*)	(a) Physics and Technology of Nanostructures, University of Kaiserslautern, Germany (b) Chair of Separation Science and Technology, University of Kaiserslautern, Germany
MP.CHM-45-8310	Fluorimetric Oxygen Sensor for in vitro Cell Models	H. Välimäki (a,*), J. Kreutzer (a), J. Verho (a), K. Tappura (b), J. Lekkala (a)	(a) Tampere University of Technology, Korkeakoulunkatu 3, FI-33720 Tampere, Finland (b) VTT Technical Research Centre of Finland Ltd, Tekniikankatu 1, FI-33720 Tampere, Finland
MP.CHM-46-8321	Diamond Functional Layers for Cell-Based Impedance Spectroscopy	Tibor Ižák (a,*), Ondrej Szabó (a), Lucie Bačáková (b), Alexander Kromka (a,c)	(a) Institute of Physic, Czech Academy of Sciences v.v.i., Cukrovarnická 10, 162 00 Prague 6, Czech Republic (b) Institute of Physiology, Czech Academy of Sciences v.v.i., Videnska 1083, 14220 Prague 4, Czech Republic (c) Faculty of Faculty of Civil Engineering, Czech Technical University in Prague, Thákurova 7166 29 Prague, Czech Republic
MP.CHM-47-8328	Boron Doped Diamond/Metal Nanoparticle Catalysts Hybrid Electrode Array for the Detection of Pesticides in Tap Water	D. K. Belghiti, M. Zadeh-Habchi, E. Scorsone, P. Bergonzo	CEA, LIST, Diamond Sensors Laboratory, Gif Sur Yvette, France
MP.CHM-48-8331	Surface Acoustic Wave Biosensors for the Quantification of TNF-alpha/SPD-304 Interaction	G. Moreau (a), N. N. Fourati (b,*), C. Zerrouki (b), H. Mouhsine (a), M. Montes (c), M. Port (d), M. Sylla-Iyarreta Veitía (d), J. F. Zagury (c), N. Yaakoubi (e)	(a) Peptinov - Hôpital Cochin, 24 rue du Faubourg Saint Jacques, 75014 Paris, France (b) SATIE, UMR CNRS 8029, Cnam, 292 rue Saint Martin, 75003, Paris, France (c) GBA, EA 4627, Cnam, 292 rue Saint Martin, 75003, Paris, France (d) CMGPCE, EA 7341, Cnam, 2 rue Conté 75003 Paris, France (e) LAUM, UMR CNRS 6613, Avenue Olivier Messiaen, 72085 Le Mans Cedex9, France
MP.CHM-49-8345	Room Temperature CO Sensing with Metal Oxide nanoparticles Using Work Function Readout	N.B. Tanvir (a,b), E. Laubender (a), O. Yurchenko (a,*), G. Urban (a,b)	(a) University of Freiburg, FMF, Stefan Meier Str. 21, 79104 Freiburg, Germany (b) University of Freiburg, IMTEK,Georges-Koehler-Allee 103, 79110 Freiburg, Germany
MP.CHM-50-8361	A New Class of Biosensors Based on Tobacco Mosaic Virus and Coat Proteins As Enzyme nanocarrier	M. Bäcker (a), C. Koch (b), S. Eiben (b), F. Geiger (b), F. Eber (b), H. Gliemann (c), A. Poghossian (a,d), C. Wege (b,*), M.J. Schöning (a,d,*)	(a) Institute of Nano- and Biotechnologies, FH Aachen, Campus Jülich, D-52428 Jülich, Germany (b) Institute of Biomaterials and Biomolecular Systems, Universität Stuttgart, D-70569 Stuttgart, Germany (c) Institute of Functional Interfaces, Karlsruhe Institute of Technology, D-76344 Eggenstein-Leopoldshafen, Germany (d) Peter Grünberg Institute (PGI-8), Forschungszentrum Jülich GmbH, D-52425 Jülich, Germany

MP.CHM-51-8369	Gas Sensitivity of Sol-Gel Prepared Mesoporous WO3 Thin Film	M. Takács (a,b,*) and A. E. Pap (a)	(a) Institute of Technical Physics and Materials Science – MFA, Konkoly-Thege Miklós út 29-33, H-1121 Budapest, Hungary (b) Budapest University of Technology and Economics, Műegyetem rkp. 3, H-1111 Budapest , Hungary
MP.CHM-52-8372	Using net analyte signal to estimate the limit of detection in temperature-modulated MOX sensors	Javier Burgués(a,b,*), J.M. Jiménez-Soto(a), Santiago Marco(a,b)	(a)Institute for Bioengineering of Catalonia, C/ Baldiri Reixac 10-12, Barcelona, 08028, Spain (b)Department of Engineering, University of Barcelona, Martí i Franqués 1, Barcelona, 08028 Spain
MP.CHM-53-8373	Ion selective potentiometric sensor based on single crystalline KTiOPO4 for determination of K+-ions	A.V. Kopytin(a), K.E.German(b,c,*), K.Yu. Zhizhin(a), A.F. Zhukov(d), E.G. Ilyin(a), T.V. Zhukova(e)	(a)Kurnakov Institute of General and Inorganic Chemistry Leninsky pr.31-1, Moscow, Russia (b)Frumkin Institute of Physical chemistry and electrochemistry, Leninsky pr.31-4, Moscow, 199071,Russia (c)Medical University Reaviz Moscow, Russia (d)D.Mendeleev Russian Chemical-Technology University, Miusskaya sq.9, Moscow, 125047, Russia (e)National Research Nuclear University MEPhI, Moscov, Russia
MP.CHM-54-8375	Enzymatic biosensors based on electrodeposited alginate hydrogels	A. Márquez-Maqueda(a,*), J.M. Ríos-Gallardo(a), N. Vigués(b), F. Pujol(b), M. Díaz-González(a), J. Mas(b), C. Jiménez-Jorquera(a), C. Domínguez(a), X. Muñoz-Berbel(a)	(a)Institut de Microelectrònica de Barcelona, (IMB-CNM, CSIC), Bellaterra, Barcelona, Spain (b)Department of Genetics and Microbiology. Autonomous University of Barcelona (UAB), Bellaterra, Barcelona, Spain
MP.CHM-55-8402	Low temperature gas sensing properties of Graphene Oxide/SnO2 nanowires composite for H2	M.A.H.M.Munasinghe(*), E.Comini,D.Zappa,N.Poli,G.Sberveglieri	Sensor Laboratory University of Brescia and CNR-INO, via valotti 9,25133 Brescia,Italy
MP.CHM-56-8406	Smart chemical system for reliable fire detection	J. Fonollosa (a,b,*), A. Solórzano (a,b), J.M. Jiménez-Soto(a,b), S. Oller-Morenoa,b, S. Marco(a,b)	(a)Institute for Bioengineering of Catalonia, 10-12 Baldiri Reixac, Barcelona 08028, Spain (b)University of Barcelona, Department of Engineering: Electronics, 1 Martí i Franquès, Barcelona 08028, Spain
MP.CHM-57-8416	Molecularly imprinted polymer based sensor to detect isoborneol in aqueous samples	G.S. Braga(a,b,*), P.A. Lieberzeit(b), F.J. Fonseca(a)	(a) University of São Paulo, Polytechnic School, Av. Prof. Luciano Gualberto, travessa 3, 158, São Paulo, 05508-010, Brazil (b) University of Vienna, Faculty for Chemistry, Department of Physical Chemistry, Währinger Strasse, 42, Vienna, 1090, Austria
MP.CHM-5-8006	A Monolithic Silicon nanocrystal Photonic Transducer for a Real-Time Biomarker Detection	Chul Huh(*), Jae Gab Lim, Wan-Joong Kim, Joo Yong Sim, and Bong-Kyu Kim	Bio-Medical IT Research Department, SW-Content Research Laboratory, Electronics and Telecommunications Research Institute, Daejeon 34129, Republic of Korea
MP.CHM-58-8419	Molecularly Imprinted Polymer-Carbon Nanotube based Cotinine sensor	Yawar Abbas (a,*), Johan Bomer(a), Marjolein Brusse-Keizer(b), Kris Movig(b), Paul van der Valk(b), Marcel Pieterse(c), Loes Segerink(a), Wouter Olthuis(a), Albert van den Berg(a)	(a) BIOS-Lab on a chip group, MESA+ Institute of Nanotechnology, MIRA Institute for Biomedical Technology and Technical Medicine, University of Twente, 7500 AE Enschede, The Netherlands (b) Medisch Spectrum Twente, Department of Pulmonary Medicine, Enschede, The Netherlands (c) Department of Psychology, Health and Technology, University of Twente, Enschede, The Netherlands

MP.CHM-59-8421	Electrochemical sensors based on printed circuit board technologies	F. Güth (a,*), P. Arki(a), T. Löher(b), A. Ostmann(b), Y. Joseph(a)	(a) Institute of Electronic and Sensor Materials / TU Bergakademie Freiberg, Freiberg, Germany (b) Fraunhofer Institute for Reliability and Microintegration IZM, Berlin, Germany
MP.CHM-60-8422	2'-OMe-RNA analogues of peroxidase-mimicking DNAzymes	Joanna Kosman(*), B. Juskowiak	Laboratory of Bioanalytical Chemistry, Faculty of Chemistry, Adam Mickiewicz University, Umultowska 89b, 61-614 Poznan, Poland
MP.CHM-61-8433	Miniaturized integrated gas sensor systems combining metal oxide gas sensors and pre-concentrators	M. Leidinger (a,*), T. Sauerwald(a), C. Alépée(b), A. Schütze (a)	(a) Lab for Measurement Technology, Saarland University, Campus A5 1, 66123 Saarbruecken, Germany (b) SGX Sensortech SA, Courtils 1, 2035 Corcelles, Switzerland
MP.CHM-62-8435	Gas Sensor for Volatile Organic Compounds Detection Using Silicon Photonic Ring Resonator	G. Zhang (a), X. L. Feng (b), B. Liedberg (b), A. Q. Liu (a,*)	(a) School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore 639798, Singapore (b) School of Materials Science and Engineering, Nanyang Technological University, Singapore 639798, Singapore
MP.CHM-63-8437	CMOS Integrated Nanocrystalline SnO2 Gas Sensors for CO Detection	E. Lackner (a), J. Krainer(a), R. Wimmer-Teubenbacher(a), F. Sosada(a), C. Gspan(b), K. Rohracher(c), E. Wachmann(c), A. Koeck(a,*)	(a)Materials Center Leoben Forschung GmbH, Roseggerstrasse 12, 8700 Leoben, Austria (b) Institute for Electron Microscopy and Fine Structure Research, Steyrergasse 17/III, 8010 Graz, Austria (c) ams AG, Tobelbaderstrasse 30, 8141 Premstätten, Austria
MP.CHM-64-8469	Plant physiological activity sensing by bioelectric potential measurement	Yuki Hasegawa (*), Fumiya Murohashi, Hidekazu Uchida	Saitama University, 255 Shimo-okubo, Sakura-ku, Saitama 388-8570, Japan
MP.CHM-65-8475	A new approach to evaluate vinegars quality: application of Small Sensor System (S3) device coupled with enfleurage	Giulia Betto (a), Veronica Sberveglieri (b,*); Estefanìa Núñez Carmona(a,b), Elisabetta Comini(a,b), Paolo Giudici(c)	(a) University of Brescia, Department of Information Engineering, Via Branze 45, 25123 Brescia, Italy (b) CNR-INO SENSOR Lab,Via Valotti 9, 25123 Brescia, Italy (c) University of Modena and Reggio Emilia, Department of Life Sciences, Via Amendola 2, 42124 Reggio Emilia, Italy
MP.CHM-66-8476	Quality Evaluation of Parmigiano Reggiano Cheese by a Novel Nanowire Device S3 and Evaluation of the VOCs Profile	M. P. Bhandari (a,b), E. Núñez Carmona (a,b,*), V. Galstyan (a,b), V. Sberveglieri (a)	(a) Sensor Laboratory, CNR, National Institute of Optics (INO), Via Valotti 9, 25133 Brescia, Italy (b) Department of Information Engineering, University of Brescia, Via Branze 38, 25123 Brescia, Italy
MP.CHM-6-8008	Electrodeposited ZnO Thin Film on Twin Sensor QCM for Sensing of Ethanol at Room Temperature	Takeshi Ito (*), Yudai Fujii, Noriyoshi Yamanishi, Naoto Asai, Tomohiro Shimizu, Shoso Shingubara	Faculty of Engineering Science, Kansai University,Yamatecho 3-3-35, Suita, Osaka, 564-8680 Japan
MP.CHM-68-8484	Sensitivity Optimization of Microwave Biosensors	T. Voglhuber-Brunnmaier (a,b,*), L. Wagner (a), C.G. Diskus (b), B. Jakoby (b), M. Brandl (a)	(a) Center for Integrated Sensor Systems, Danube University, Krems, Austria (b) Institute for Microelectronics and Microsensors, Johannes Kepler University, Linz, Austria
MP.CHM-69-8485	Bacteria detection with high-frequency gravimetric biosensors based on AlN thin film resonators	J.M. Escolano, J. Olivares, M. Clement, T. Mirea, J. Sangrador, B. Díaz-Durán, and E. Iborra (*)	GMME-CEMDATIC, ETSI Telecomunicación, Universidad Politécnica de Madrid, Madrid 28040, Spain
MP.CHM-70-8487	Gold Nanoshells coated 'U' bend optical fiber for near infra-red LSPR based refractive index sensing	J. Tharion (a), S. Chauhan (b), S. Mukherji (a,b,*)	(a) Department of Chemistry, Indian Institute of Technology Bombay,Powai, Mumbai-400076, India (b)Centre for Research in Nanotechnology and Science, Indian Institute of Technology Bombay, Powai, Mumbai-400076, India

MP.CHM-71-8489	A Microwave Ring Resonator Based Glucose Sensor	Berk Camli (a,*), Emre Kusakci (a), Berkan Lafci (b), Seyhan Salman (c), Hamdi Torun (a,d), Arda Yalcinkaya (a,d)	(a) Department of Electrical and Electronics Engineering, Bogazici University, Istanbul 34342, Turkey (b) Department of Biomedical Engineering, Bogazici University, Istanbul 34342, Turkey y (c) Department of Genetics and Bioengineering, Bilgi University, Istanbul 34060, Turkey (d) Center for Life Sciences and Technologies, Bogazici University, Istanbul 34342, Turkey
MP.CHM-72-8491	Stable optical oxygen sensing material based on perfluorinated polymer and fluorinated platinum(II) and palladium(II) porphyrins	N.K. Zaitsev (a), P.V. Melnikov (a), V.A. Alferov (b), A.V. Kopytin (c), K.E. German (d,*)	(a) Moscow Technological University, Moscow, Russia (b) Tula State University, Tula, Russia (c) N.S. Kurnakov Institute of General and Inorganic Chemistry of RAS, Moscow, Russia (d) Frumkin Institute of Physical Chemistry and Electrochemistry of RAS, Moscow, Russia
MP.CHM-73-8502	Diesel detection in surface water in the low ppb range	Mats Eriksson (*), Fredrik Winquist	Linköping University, IFM, 581 83 Linköping, Sweden
MP.CHM-74-8503	Real-time monitoring of cell activities by diamond solution-gated field effect transistors	Tibor Ižák (a), Václav Procházka (a,b), Toshiya Sakata (c), Bohuslav Rezek (a,b), Alexander Kromka (a,d,*)	(a)Institute of Physic, Czech Academy of Sciences v.v.i., Cukrovarnická 10, 162 00 Prague 6, Czech Republic (b)Faculty of Electrical Engineering, Czech Technical University in Prague, Technická 2, 166 27 Prague, Czech Republic (c) Department of Materials Engineering, School of Engineering, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8656, Japan (d) Faculty of Faculty of Civil Engineering, Czech Technical University in Prague, Thákurova 7166 29 Prague, Czech Republic
MP.CHM-75-8522	Understanding the behavior of stimuli-response ionogels for microfluidic applications	Nerea Gil-González (a), T. Akyazi (b,c), A. Zuzuarregui (d), E. Castaño (a), F. Benito-Lopez (c,e), M.C. Morant-Miñana (d,*)	(a) CEIT and Tecnun (University of Navarra), Donostia-San Sebastián, Spain (b) Tecnun (University of Navarra), Donostia-San Sebastián, Spain (c) Analytical Microsystems & Materials for Lab-on-a-Chip (AMMa-LOAC) Group, Microfluidics UPV/EHU Cluster, Analytical Chemistry Department, University of the Basque Country UPV/EHU, Vitoria-Gasteiz, Spain (d) CIC nanoGUNE Consolider, Donostia-San Sebastián, Spain (e) Insight: Centre for Data Analytics, National Centre for Sensor Research, Dublin City University, Dublin, Ireland
MP.CHM-76-8535	Titanium dioxide nanostructures chemical sensor	A. Bertuna (*), E. Comini, N. Poli, D. Zappa, G. Sberveglieri	SENSOR Laboratory University of Brescia and CNR-INO, Via D. Valotti 9, 25133 Brescia, Italy
MP.CHM-77-8537	Signal-to-Noise Ratio in Adsorption-Based Microfluidic Bio/Chemical Sensors	Z. Djurić (a,*), I. Jokić (b), G. Milovanović (a)	(a) Serbian Academy of Sciences and Arts, Knez Mihailova 35, Belgrade 11000, Serbia (b) ICTM – Institute of Microelectronic Technologies, University of Belgrade, Njegoševa 12, Belgrade 11000, Serbia
MP.CHM-7-8028	Fabrication and characterization of fast response H2 sensor based on Pd-Pt core-shell nanoparticles decorated Si nanowires cluster	Kamrul Hassan, Gwiy-Sang Chung (*)	School of Electrical Engineering, University of Ulsan, Ulsan, Republic of Korea

MP.CHM-78-8547	Influence of Nb-doping on hydrogen sensing performance of WO3 nanowires	D. Zappa (a,*), A. Bertuna (b), E. Comini (b), N. Poli (b) and G. Sberveglieri (a,b)	(a) CNR-INO, UOS Brescia, Brescia, Italy (b) Dept. of Information Engineering (DII), University of Brescia, Brescia, Italy
MP.CHM-79-8553	Polymethacrylate Matrix with Immobilized Acid–Base Indicators as pH Sensor	Alexey Sukhanov (*), Anastasia Ovsyannikova, Natalya Gavrilenko, Nadezhda Saranchina	Tomsk Polytechnic University, Lenin Avenue, 30, Tomsk,634050, Russia
MP.CHM-80-8559	Direct comparison of the sensitivity of QCMs and AlN-based TFRs biosensors	J.M. Escolano, B. Díaz-Durán, J. Olivares, M.Clement, T. Mirea, and E. Iborra (*)	GMME-CEMDATIC, ETSI Telecmunicación, Universidad Politécnica de Madrid, Spain
MP.CHM-81-8561	A Novel C-Ant Miner Classification Model for Feature Selection and Fault Tolerance of Chemical Sensor Data	G. Magna, S. Velappa Jayaraman. M. Maola, A. Catini, R. Capuano, E. Martinelli, C. Di Natale	Dept. Electronic Engineering, University of Rome Tor Vergata
MP.CHM-82-8569	Solidly Mounted Resonators with Integrated Carbon Nanotube Forests for Chemical Sensing	T. Mirea, J. Olivares, M. Clement, B. Díaz-Durán, J. Sangrador and E. Iborra	GMME-CEMDATIC, ETSI de Telecomunicación, Universidad Politécnica de Madrid, Madrid, Spain
MP.CHM-83-8582	Chemoresistive gas sensors for sub-ppm acetone detection	A. Fioravanti (a,b), S. Morandi (c), M.C. Carotta (a,*)	(a) Laboratorio sensori e nanomateriali, C.N.R. – IMAMOTER, Ferrara, Italy (b) Dipartimento di Chimica, Università di Parma, Parma, Italy (c) Dipartimento di Chimica, Università di Torino, Torino, Italy
MP.CHM-84-8613	Comparative analysis of SERS substrates of different morphology	I. Rigó (a,*), M. Veres (a), L. Himics (a), S. Tóth (a), A. Czitrovszky (a), A. Nagy (a), P. Fürjes (b)	(a) Institute for Solid State Physics and Optics, Wigner Research Centre for Physics, HAS, Budapest, Hungary (b) Institute of Technical Physics and Materials Science, Centre for Energy Research, HAS, Budapest, Hungary
MP.CHM-85-8616	Highly sensitive hydrogen gas sensors based on gold nanoparticle decorated zinc oxide nanosheets	Aled R. Lewis (a), Josef Náhlík (b), Daniel R. Jones (a), Thierry G.G. Maffeis (a,*)	(a) College of Engineering, Swansea University, Swansea SA1 8EN, UK (b) Czech Technical University in Prague, Faculty of Electrical Engineering, Department of Microelectronics, Prague, Czech Republik
MP.CHM-86-8632	Development of New Colorimetric and Fluorescent Receptor: in Vivo Monitoring and Approaches	Young-A Son, Ji-Yong Hwang, Satheshkumar Angupillai	Chungnam National University, Daejeon, Republic of Korea
MP.CHM-87-8646	Paper-based Humidity Sensor Coated with ZnO Nanoparticles: The Influence of ZnO	G. Niarchos(a,*), G. Dubourg(a), G. Afroudakis(b), V. Tsouti(b), E. Makarona(b), J. Matović(a), V. Crnojević-Bengin(a), C. Tsamis (b)	(a) BioSense Institute, 1 Zorana Djindijca, Novi Sad 21000, Serbia (b) Institute of Nanoscience and Nanotechnology, National Center for Scientific Research "Demokritos", Patriarhou Gregoriou & Neapoleos, Aghia Paraskevi 15310, Athens, Greece
MP.CHM-8-8030	Fabrication and Characterization of Self-Powered Active Hydrogen Sensor Based on Triboelectric nanogenerator	A. S. M. Iftekhar, Gwiy-Sang Chung (*)	School of Electrical Engineering, University of Ulsan, Ulsan, Republic of Korea
MP.CHM-9-8064	ZnO-Based Gas Microsensors Sensitive to CO at Room Temperature by photoactivation	S. Vallejos (a,*), I. Gràcia (b), E. Figueras (b), N. Pizurova (c), J. Hubálek (a,d), C. Cané (b)	(a) SIX Research Centre, Brno University of Technology, Brno, Czech Republic (b) Instituto de Microelectrónica de Barcelona (IMB-CNM, CSIC), Barcelona, Spain (c) Institute of Physics of Materials, Academy of Sciences of Czech Republic, Brno, Czech Republic (d) Central European Institute of Technology, Brno University of Technology, Brno, Czech Republic

MP.FLU-10-8319	Integration of Amorphous Silicon Balanced Photodiodes and Thin Film Heaters for Biosensing Application	Domenico Caputo (a,*), Emanuele Parisi (a), Augusto Nascetti (b), Mara Mirasoli (c), Marco Nardecchia (b), Nicola Lovecchio (a), Giulia Petrucci (a), Francesca Costantini (b,d), Aldo Roda (c), Giampiero de Cesare (a)	(a) DIET University of Rome "La Sapienza", via Eudossiana 18, 00184 Rome (Italy) (b) SAE University of Rome "La Sapienza", via Salaria 851/881, 00138 Rome (Italy) (c) Department of Chemistry "G. Ciamician", University of Bologna, via Selmi 2, 40126, Bologna (Italy) (d) Department of Chemistry, University of Rome "La Sapienza", piazzale A. Moro, 5, 00185 Rome (Italy)
MP.FLU-1-1021	Optical Properties and Real Application of New photoimageable Bonding Adhesives	Wojciech Kubicki (*), Rafał Walczak, Jan Dziuban	Wrocław University of Science and Technology, Janiszewskiego St. 11/17, Wrocław 50-372, Poland
MP.FLU-11-8353	Parallelizable Microfluidic Resistive on-Line Detector of Micrometric Aggregates of Biopharmaceutical Antibodies	M. Carminati (a), M. Giacometti (a), M. Sampietro (a), S. Chiodini (b), T. Doles (c), G. Ferrari (a,*)	(a) Politecnico di Milano, Dipartimento di Elettronica, Informazione e Bioingegneria, P.za Leonardo da Vinci 32, Milano 20133, Italy (b) National Systems, Somma Lombardo (VA), Italy - (c) Lek Pharmaceuticals, Mengeš, Slovenia
MP.FLU-12-8358	Microcrystalline Diamond Membrane for Electronic Monitoring of Cells in Microfluidic Perfusion Systems	Bohuslav Rezek (a,b,*), Marian Varga (a), Catarina Pedrosa (c), Virgina Chu (c), Joao P. Conde (c,d), Alexander Kromka (a)	(a) Institute of Physics CAS, Prague, Czech Republic (b) Faculty of Electrical Engineering, Czech Technical University in Prague, Czech Republic (c) Instituto de Engenharia de Sistemas E Computadores – Microsistemas e Nanotecnologias (INESC-MN) and Institute of Nanoscience and Nanotechnology (IN), Lisbon, Portugal (d) Department of Bioengineering, Instituto Superior Técnico, Universidade de Lisboa, Lisbon, Portugal
MP.FLU-13-8444	Gradient capacitance for solid particle position detection in electrolyte	Miguel Solsona (a,b,*), Wouter Olthuis (a,b) and Albert van den Berg (a,b)	(a) University of Twente, Enschede, The Netherlands (b) Mesa+, Institute of Nanotechnology and Mira, Biomedical Technology and Technical Medicine, Enschede, The Netherlands
MP.FLU-14-8462	Toxic Effect Monitoring by Analyzing Swimming Motions of Microbial Cells Confined in Microfluidic Chip with Micro-Trench Flow Injection	Kazunari Ozasa (a,*), June Won (b), Simon Song (b), Mizuo Maeda (a)	(a) Bioengineering Lab., RIKEN, 2-1 Hirosawa, Wako, Saitama 351-0198, Japan (b) Mechanical Convergence Engineering Department, Hanyang University, 17 Haendang-dong, Seongdong-gu, Seoul 133-791, South Korea
MP.FLU-15-8468	3D Printed electrophoretic lab-on-chip for DNA separation	K.Adamski (*), W.Kubicki, R.Walczak	Wrocław University of Science and Technology, Faculty Microsystem Electronics and Photonics
MP.FLU-16-8513	Simulation and experimental validation of particle trapping in microfluidic magnetic separation (MMS) system	E. L. Tóth (a,b,*), A. Füredi (a,c), K. Iván (b), P. Fürjes (a)	(a) Inst. of Technical Physics and Materials Science, Centre for Energy Research, HAS, 29-33 Konkoly-Thege str, Budapest, 1121, Hungary (b) Pázmány Péter Catholic University - Faculty of Information Technology and Bionics, 50/a Práter str. Budapest 1083, Hungary (c) Budapest University of Technology and Economics, 3. Műegyetem rkp Budapest, 1111, Hungary
MP.FLU-17-8520	Microfluidic particle sorting system for environmental pollution monitoring applications	E. L. Tóth (a,b,*), E. Holczer(a), P. Földesy (a), K. Iván (b), P. Fürjes (a)	(a) Inst. of Technical Physics and Materials Science, Centre for Energy Research, HAS, 29-33 Konkoly-Thege str, Budapest, 1121, Hungary (b) Pázmány Péter Catholic University - Faculty of Information Technology and Bionics, 50/a Práter str. Budapest 1083, Hungary

MP.FLU-18-8528	Detection and sizing of single droplets flowing in a microfluidic device by impedance measurement	Nour Eddin Yakdi, Damien Bricault, François Huet, Kieu Ngo (*)	Sorbonne Universités, UPMC Univ Paris 6, CNRS, Laboratoire Interfaces et Systèmes Electrochimiques, F-75005, Paris, France
MP.FLU-19-8558	Discrimination of living biological cells by infrared absorbance measurements in a microfluidics chip	R. Ebrahimifard (*), S. van den Driesche, M. Di Salvo, and M.J. Vellekoop	Institute for Microsensors, -Actuators and -Systems (IMSAS), Microsystems Center Bremen (MCB), University of Bremen, Germany
MP.FLU-20-8608	Nanoparticle electrical analysis and detection with a solid-state nanopore in a microfluidic device	Jean Roman(a,b), Olivier Francais (b), Nathalie Jarroux(a), Gilles Patriarche (c), Juan Pelta(a), Bruno Le Pioufle (b), Laurent Bacri (a,*)	(a) Lambe UMR8587, University of E´vry val d'Essonne, E´vry 91000, France (b) Satie UMR8029, ENS Cachan, Cachan 94230, France (c) C2N UMR9001, Marcoussis 91460, France
MP.FLU-2-1022	Label-free Microfluidic Sensing by Detection of Interaction-triggered Change in Blood Flow Characteristics	Éva Sautner (a), Krisztián Papp (b), Eszter Holczer (c), Rita Ungai-Salánki (c,d,e), Bálint Szabó (c,d), Péter Fürjes (c), József Prechl (b,f,*)	(a) Budapest University of Technology and Economics, 3. Műegyetem rkp Budapest, 1111, Hungary (b) MTA-ELTE Immunology Research Group, Eötvös Loránd University, 1 Pázmány P. s, Budapest, 1117, Hungary (c) Inst. of Technical Physics and Materials Science, Centre for Energy Research, HAS, 29-33 Konkoly-Thege str, Budapest, 1121, Hungary (d) Department of Biological Physics, Eötvös Loránd University, 1 Pázmány P. s, Budapest, 1117, Hungary (e) Doctoral School of Molecular- and Nanotechnologies, University of Pannonia, 10 Egyetem str,Veszprém, 8200, Hungary (f) Diagnosticum Zrt., 126 Attila str, Budapest, 1047, Hungary
MP.FLU-22-8610	The effect of elevated water sample temperature on the performance of a custom-developed colorimetric arsenic sensor	P. Nagy (*), A. Bonyár, H. Sántha, G. Harsányi	Department of Electronics Technology, Budapest University of Technology and Economics, Budapest, Hungary
MP.FLU-3-8060	Multi-Parametric Point of Care Device for Allergen-Specific IgE Detection in Veterinary Applications	J. Elizalde (a ,*), K. Mayora (a), L. A. Rivas (b), A. J. Sanz (b), T. Tolentino-Cortez (c), G. Barreda-Gómez (c), M. Tijero (a)	(a) IK4-Ikerlan Technology Research Centre, Pº JMª Arizmendiarrieta 2, Arrasate-Mondragón 20500, Spain (b) INGENASA, c/Hermanos García Noblejas 39, Madrid 28037, Spain (c) IMG Pharma Biotech, Astondo bidea, BIC BIZKAIA (ed.612), Derio 48160, Spain
MP.FLU-4-8198	Detection of Fibrillization Process of Amyloid Beta Protein Using Arrayed Biosensor with Liposome Encapsulating Fluorescent Molecules	R. Imamura (a,*), T. Shimanouchi (b), N. Murata (a), K. Yamashita (a), M. Fukuzawa (a), M. Noda (a)	(a) Kyoto Institute of Technology, Matsugasaki, Sakyo-ku, Kyoto 606-8585, Japan (b) Okayama University, 1-1-1 Tsushima-naka, Kita-ku, Okayama 700-8530, Japan
MP.FLU-5-8206	A Novel Multi-Pad Paper Plate (MP3) Based Assays for Rapid Animal Disease Diagnostics	Valentina Busin (a,b,*), Stewart Burgess (a), Wenmaio Shu (b,c)	(a) Moredun Research Institute, Pentlands Science Park, Bush Loan, Edinburgh EH26 0PZ, United Kingdom (b) School of Engineering and Physical Sciences, Heriot-Watt University, Edinburgh EH14 4AS, United Kingdom (c) Department of Biomedical Engineering, University of Strathclyde, Glasgow. G4 0NW. United Kingdom

MP.FLU-6-8244	A Multiplexed Integrated a-Si:H Photosensor for Simultaneous Detection of Mycotoxins for Point-of-Use Food Safety Applications	Denis R. Santos (a,b,*), Ruben R. G. Soares (a,b), Virginia Chu (a), Maria R. Aires-Barros (b,c), João Pedro Conde (a,c)	(a) Instituto de Engenharia de Sistemas e Computadores – Microsistemas e Nanotecnologias (INESC-MN) and IN – Institute of Nanoscience and Nanotechnology, Rua Alves Redol 9, Lisbon 1000-029, Portugal (b) IBB – Institute for Bioengineering and Biosciences, Instituto Superior Técnico, Universidade de Lisboa, Avenida Rovisco Pais 1, Lisbon 1049-001, Portugal (c) Department of Bioengineering, Instituto Superior Técnico, Universidade de Lisboa, Avenida Rovisco Pais 1, Lisbon 1049-001, Portugal
MP.FLU-7-8284	Nanomechanical IR Spectroscopy for Fast Analysis of Liquid-Dispersed Engineered Nanomaterials	Alina J. Andersen(a), Shoko Yamada(a), Pramod Kumar E. K.(a), Thomas L. Andresen(a), Anja Boisen(a) and Silvan Schmid(a,b)	(a) Department of Micro- and Nanotechnology,Technical University of Denmark, DTU Nanotech, DK-2800 Kgs. Lyngby, Denmark (b) Institute of Sensor and Actuator Systems, Vienna University of Technology, Gusshausstraße 27-29, A-1040 Vienna, Austria
MP.FLU-8-8285	Integration of photosensors in a NanoLiter Scale Chromatography Column for the online Monitoring of Adsorption/Desorption Kinetics of a fluorophore-Labeled Monoclonal Antibody	Inês F. Pinto (a,b,*), D.R Santos(a,b), R.R.G. Soares(a,b), M.R. Aires-Barros(b,c), V. Chu(a), A.M. Azevedo(b,c), J.P. Conde (a,c)	(a) Instituto de Engenharia de Sistemas e Computadores – Microsistemas e Nanotecnologias (INESC-MN) and IN – Institute of Nanoscience and Nanotechnology, Rua Alves Redol, 9, 1000-029 Lisbon, Portugal (b) IBB – Institute for Bioengineering and Biosciences, Instituto Superior Técnico, Universidade de Lisboa, Avenida Rovisco Pais, 1, 1049-001 Lisbon, Portugal (c)Department of Bioengineering, Instituto Superior Técnico, Universidade de Lisboa, Avenida Rovisco Pais, 1, 1049-001 Lisbon, Portugal
MP.FLU-9-8313	High Temporal Resolution Study of Phosphorylation Events in HEK Cells Using a Micromixer Microfluidic Device	Pedro Novo (*), Margherita Dell'Aica, Dirk Janasek, René P. Zahedi	Protein Dynamics Group, Leibniz-Institut für Analytische Wissenschaften – ISAS – e.V., Otto-Hahn Str. 6b, 44227 Dortmund, Germany
MP.HLTH-10-8271	Screen-Printed Biosensors for the Early Detection of Biomarkers Related to Alzheimer Disease: Preliminary Results	S. Tonello (a,*), M. Serpelloni (a), N. F. Lopomo (a), G. Abate (b), D. L. Uberti (b), and E. Sardini (a)	(a) Department of Information Engineering, University of Brescia, Brescia, Italy (b) Department of Molecular and Translational Medicine, University of Brescia, Brescia, Italy
MP.HLTH-11-8294	Novel Low-Cost Selective Pre-Concentrators Based on Metal Organic Frameworks	Isabel Wilhelma (a,*), Max Rieger (a), Jürgen Hürttlen (a), Michael Wittek (a), Christine Alépée (b), Martin Leidinger (c), Tilman Sauerwald (c)	(a) Fraunhofer Institute for Chemical Technology ICT, Joseph-von-Fraunhoferstraße 7, 76327 Pfinztal, Germany (b) SGX Sensortech SA, Courtils 1, 2035 Corcelles-Cormondreche, Switzerland (c) Saarland University, Lab for Measurement Technology, Campus A5 1, 66123 Saarbrücken, Germany
MP.HLTH-13-8311	Capacitive Sensing of Surface EMG for Upper Limb Prostheses Control	Theresa Roland (a,*), Sebastian Amsüss (b), Michael Friedrich Russold (b), Christoph Wolf (a), Werner Baumgartner (a)	(a) Johannes Kepler University Linz, Institute for Biomedical Mechatronics, Altenbergerstraße 69, Linz 4040, Austria (b) Otto Bock Healthcare Products GmbH, Research and Development, Kaiserstraße 39, Vienna 1070, Austria
MP.HLTH-14-8330	Development of a System Concept for Miniaturized Cardiovascular Multi Sensor Implants	Özgü Dogan (*), Christian Walk, Jens Weidenmueller, Pierre Gembaczka, Alexander Stanitzki, Michael Görtz	Fraunhofer Institute for Microelectronic Circuits and Systems, Finkenstraße 61, 47057 Duisburg, Germany

MP.HLTH-15-8398	Portable laboratories in suitcases utilizing microfluidic chips for identification of bacteria and virus pathogens as a new tool of EU countries biological threats defense strategy	Rafał Walczak, Wojciech Kubicki, Patrtcja Śniadek, Wojciech Kosek, Anna Górecka-Drzazga, Jan Dziuban	Wrocław University of Science and Technology, Faculty of Microsytsems Electronics and Photonics, 50372 Wrocław, Poland
MP.HLTH-16-8414	Tri-Axial Force Sensor Unit for Smart Prosthetics	Guido Sordo, Alvise Bagolini, Daniele Perenzoni and Leandro Lorenzelli	Fondazione Bruno Kessler, Trento. 38123, Italy
MP.HLTH-17-8415	Gauging indoor air quality with inexpensive gas sensing technologies	Alvaro Ortiz Perez, Benedikt Bierer, Ponkanok Eaksen, Jürgen Wöllenstein, Stefan Palzer(*)	Department of Microsystems Engineering – IMTEK, Laboratory for Gas Sensors, University of Freiburg, Georges-Köhler-Allee 102, 79110 Freiburg, Germany
MP.HLTH-1-8025	A Novel Neural Probe for Simultaneous Electrical Recording and Local Thermal Control in Sleep Spindle Oscillation Studies	Á. Cs. Horváth (a), K. Kocsis (b), M. Csernai (b), P. Barthó (b), Z. Fekete (a,*)	(a) MTA EK NAP B Research Group for Implantable Microsystems, 29-33 Konkoly-Thege st, Budapest, H-1121, Hungary (b) MTA TTK NAP B Research Group of Sleep Oscillations, Magyar tudósok krt 2, Budapest, H-1117, Hungary
MP.HLTH-18-8426	Attachment of primary mouse astroglial cells on neural implant surfaces	Zs. Bérces (a,b), B. Csernyus (b), H. Liliom(c), K. Schlett(c,d), D. Pinke(a), P. Lőw(e), Á. Horváth(b), Z. Fekete(b), A. Pongrácz(b)	(a)Faculty of Information Technology, Pázmány Péter Catholic University, 50/A Práter u., H-1083, Budapest, Hungary (b)MTA EK NAP B Research Group for Implantable Microsystems, 29-33 Konkoly-Thege út., H-1121, Budapest, Hungary (c)Department of Physiology and Neurobiology, Eotvos University, 1/C Pázmány P. sétány, H-1117, Budapest, Hungary (d)MTA ELTE NAP B Neuronal Cell Biology Research Group, 1/C Pázmány P. sétány, H-1117, Budapest, Hungary (e)Department of Anatomy, Cell and Developmental Biology, Eotvos University, 1/C Pázmány P. sétány, H-1117, Budapest, Hungary
MP.HLTH-19-8446	P-type BSI image sensor with active deep trench interface passivation for radiation-hardened imaging systems	Bastien Mamdy(a,b,*), Guo-Neng Lu(b), François Roy(a)	(a) STMicroelectronics, 850 Rue Jean Monnet 38920 Crolles, France (b) Institut des Nanotechnologies de Lyon, CNRS UMR5270, Université Lyon 1, Villeurbanne, France
MP.HLTH-20-8470	Capacitive sweat sensor constructed by Gui diatomaceous earth	Chia-Ming Yang (a,b,c,d,*), Hsin-Yin Peng(e), Wei-Yin Zeng (a), Chun-Hui Chen (a,b) and Chao-Sung Lai (b,f,g,*)	(a) Institute of Electro-Optical Engineering, Chang Gung University, Taoyuan 333, Taiwan (b) Department of Electronic Engineering, Chang Gung University, Taoyuan 333, Taiwan (c) Biosensor Group, Biomedical Engineering Research Center, Chang Gung University, Taoyuan, Taiwan (d) Department of General Surgery, Chang Gung Memorial Hospital, Linkou, Taiwan (e) Office of Physical Education, Chang Gung University, Taoyuan 333, Taiwan (f) Department of Materials Engineering, Ming-Chi University of Technology, New Taipei City 243, Taiwan (g) Department of Nephrology, Chang Gung Memorial Hospital, Linkou, Taiwan

MP.HLTH-21-8529	Force Feedback Control System Dedicated for Robin Heart Surgical Robot	Zbigniew Nawrat (a,*), Kamil Rohr (a), Péter Fürjes (b), Lukasz Mucha (a), Krzysztof Lis(a), János Radó (b), Csaba Dücső (b) , Péter Földesy (a), Wojciech Sadowski (a), Dariusz Krawczyk (a), Piotr Kroczek (a), Gábor Szebényi (c), Pál Soós (d), Zbigniew Małota (a)	(a) Foundation of Cardiac Surgery Development, Biocybernetics Laboratory, 345a Wolności str., Zabrze, 41-800, Poland (b) Inst. of Technical Physics and Materials Science, Centre for Energy Research, HAS, 29-33 Konkoly-Thege str, Budapest, 1121, Hungary; (c) Budapest University of Technology and Economics, 3. Műegyetem rkp, Budapest, 1111, Hungary; (d) Heart and Vascular Center, Semmelweis University, Budapest, 9 Gaál József str, Budapest, 1122, Hungary;
MP.HLTH-22-8557	Biostability assessment of flexible Parylene C-based implantable sensor in wireless chronic neural recording	A. Lecomte (a,*), A. Degache (a), E. Descamps (a), L. Dahan (b), C. Bergaud (a)	(a) LAAS-CNRS, Université de Toulouse, CNRS, Toulouse, France (b) CNRS-UMR 5169, Research Center of Animal Cognition (CRCA), Toulouse, France
MP.HLTH-23-8591	The Bladder Pill: Developments toward bladder pressure measurement in wake mini-pigs	M. Bakula (a,*), A. Soebadi (a,b), D. De Ridder (b), R. Puers (a)	(a)KU Leuven, ESAT-MICAS, Leuven, Belgium (b) KU Leuven, Urology, UZ Leuven, Belgium
MP.HLTH-2-8041	Devices for Screening and Monitoring of Tumors Based on chemoresistive Sensors	G. Anania (c), B. Fabbri (a), A. Gaiardo (a,d), S. Gherardi (a), A. Giberti (a,b), V. Guidi (a), N. Landini (a), C. Malagù (a,*) and G. Zonta (a)	(a) Department of Physics and Earth Science, University of Ferrara, Ferrara, Italy (b) MIST E-R s.c.r.l., Bologna, Italy (c) Department of Morphology, Surgery and Experimental Medicine, University of Ferrara, 44121 Ferrara, Italy (d) MNF - Micro Nano Facility, Bruno Kessler Foundation, Trento, Italy
MP.HLTH-3-8059	Evanescent Wave Absorption Based S-Shaped Fiber-Optic Biosensor for Immunosensing Applications	S. Chauhan (a), N. Punjabi (b), D. Sharma (c), S. Mukherji (a,b,*)	(a) Centre for Research in Nanotechnology and Science, Indian Institute of Technology Bombay,Powai, Mumbai-400076, India (b) Department of Bioscience and Bioengineering, Indian Institute of Technology Bombay, Powai, Mumbai-400076, India (c) Department of Electrical Engineering, Indian Institute of Technology Bombay, Powai, Mumbai-400076, India
MP.HLTH-4-8141	Glycated Hemoglobin Detection in Clinical Blood Samples by Using CMOS Poly-Silicon Sub-Micron Wire Biosensor	I-Shun Wang (a), Chih-Ting Lin (a,b,*)	(a) Graduate Institute of Electronics Engineering, National Taiwan University, No. 1, Sec. 4, Roosevelt Road, Taipei, 106, Taiwan (b) Graduate Institute of Biomedical Electronic and Bioinformatics, National Taiwan University, No. 1, Sec. 4, Roosevelt Road, Taipei, 106, Taiwan
MP.HLTH-5-8150	Inexpensive Polyester Sheet Based Waveguides for Detection of Cardiac Biomarker, myeloperoxidase	Anjali Khatri, Nirmal Punjabi, Arvind Dhawangale, Soumyo Mukherji (*)	Indian Institute of Technology Bombay, Mumbai-400076, India
MP.HLTH-6-8184	Measurement of Energy Expenditure on a Smartphone Using a Hand-Held Breath Analyser	T.A.Vincent (a), J.W. Gardner (a,*), M.J. Chappell (a), J.G. Hattersley (b), A. Wilson (b,c)	(a) School of Engineering, Library Road, University of Warwick, Coventry, CV4 7AL, UK (b) HMRU, University Hospitals Coventry & Warwickshire NHS Trust, Clifford Bridge Road, Coventry, CV2 2DX, UK (c) Department of Physics, Library Road, University of Warwick, Coventry, CV4 7AL, UK

MP.HLTH-7-8187	Ultrapure Organically Modified Gold Nanoparticles for Breath Analysis	T. G. Welearegay (a,b), O. E. Gualdrón (c), A. L. Jaimes (c), J. M. Cáceres (c), G. Pugliese (a,c), U. Cindemir (b,d), C. M. Durán (c) , L. Österlund (b,d), R. Ionescu (a,e,*)	(a) MiNoS, Universitat Rovira i Virgili, Av. Paisos Catalans 26, 43007 Tarragona, Spain (b) Molecular Fingerprint Sweden AB, Eksatravagen 130, 75655 Uppsala, Sweden (c) GISM, Universidad de Pamplona, Pamplona Km 1 Vía Bucaramanga, 543050 Norte de Santander, Colombia (d) The Ångström Laboratory, Department of Solid State Physics, Uppsala University, 75121 Uppsala, Sweden (e) Faculty of Engineering, Universidad Autónoma del Caribe, Barranquilla, Colombia
MP.HLTH-8-8248	A Foldable Neural Electrode for 3D Stimulation of Deep Brain Cavities	Dries Kil (a,*), Philippe De Vloo (b), Bart Nuttin (b), Robert Puers (a)	(a) KU Leuven dept. ESAT-MICAS, Kasteelpark Arenberg 10, 3001 Leuven, Belgium (b) KU Leuven research group Experimental Neurosurgery and Neuroanatomy, O&N 1 Herestraat 49, 3000 Leuven, Belgium
MP.HLTH-9-8263	8-hydroxyquinoline-Glucuronide Sodium Salt Used As electroactive Substrate for a Sensitive voltammetric Detection of Escherichia coli in Water Samples	Jörg Ettenauer (*), Karen Zuser, Karlheinz Kellner, Thomas Posnicek, Martin Brandl	Danube University Krems, Center for Integrated Sensor Systems, Dr.-Karl-Dorrek Street 30, 3500 Krems, Austria
MP.PRO-10-8193	Ultrathin Films of Palladium Oxide for Oxidizing Gases Detecting	V. M. Ievlev (a), S. V. Ryabtsev (b), A. V. Shaposhnik (c), A. M. Samoylov (b,*), S. B. Kuschev (d), A. A. Sinelnikov (b)	(a) Moscow State University, Leninskiye Gory,1-3, Moscow 1, GSP-1,119991, Russian Federation (b) Voronezh State University, Universitetskaya Sq., 1, Voronezh, 394006, Russian Federation (c) Voronezh State Agricultural University, Michurina, 1, Voronezh, 394087, Russian Federation (d) Voronezh State Technical University, Moscow Av., 14, Voronezh,394026, Russian Federation
MP.PRO-11-8233	Piezoresistive Silicon Cantilever Covered by ZnO nanorods for Humidity Sensing	Jingmei Yang, Jiushuai Xu, Wenze Wu, Maik Bertke, Hutomo Suryo Wasisto, Erwin Peiner (*)	Technische Universität Braunschweig, Institute of Semiconductor Technology (IHT) and Laboratory for Emerging Nanometrology (LENA), Hans-Sommer-Str. 66, 38106 Braunschweig, Germany
MP.PRO-12-8291	Influence of a morphology sensitive layer of resistive gas sensors on chlorine sensing	M. Fiedot (*), O. Rac, P. Suchorska-Woźniak, H. Teterycz	Wrocław University of Technology, Faculty of Microsystems Electronics and Photonics, Wrocław, Poland
MP.PRO-13-8297	In-situ Growth of Platinum with Hierarchical Porosity for Low Impedance Biomedical Microelectrode Fabrication	Frederik Ceyssens (a,*), Sreeprasanth Pulinthanathu Sree (b), Lisa Geerts (b) , Johan Martens (b), Robert Puers (a)	(a) KULeuven, dept ESAT-MICAS, Leuven, Belgium (b) KULeuven, Centre for Surface Chemistry and Catalysis, Leuven, Belgium
MP.PRO-14-8307	Design and Manufacturing of High Inductance Planar Coils for Small Scale Sensing Applications	J. Poliakine (*), Y. Civet, Y. Perriard	École Polytechnique Fédérale de Lausanne (EPFL), Integrated Actuators Laboratory, Rue de la Maladiére 71B, Neuchatel CH-2002, Switzerland

MP.PRO-15-8318	Fabrication and Characterization of Misaligned Polysilicon-Chromium-Gold Chips Towards Intracellular Bi-Functional Platforms	Aishwarya Sudarsan(a), Marta Duch(a), Ezhil Amirthalingam(b,c), Sara Durán(a), Rodrigo Gómez-Martinez(a), Oriol Torrecilla(c), Arántzazu González-Campo(c), Lluïsa Pérez-García(b), José Antonio Plaza(a)	(a)Instituto de Microelectrónica de Barcelona IMB-CNM (CSIC), 08193, Cerdanyola, Barcelona, Spain (b)Department of Pharmacology and Therapeutical Chemistry, Faculty of Pharmacy and Institute of Nanoscience and Nanotechnology UB (IN2UB), Universitat de Barcelona, Spain (c)Instituto de Ciencias de Materiales de Barcelona ICMAB (CSIC), Cerdanyola, Barcelona, Spain
MP.PRO-16-8347	Amperometric Polyphenol Biosensor Based on Tyrosinase Immobilization on CoAl-Layered Double Hydroxide Thin Films	A. Soussou (a,b,c), I. Gammoudi (a,d), F. Moroté (a), M. Mathelié-Guinlet (a), A. Kalboussi (b), Z.M. Baccar (c), T. Cohen-Bouhacina (a,d), C. Grauby-Heywang (a)	(a) LOMA, Université de Bordeaux, UMR CNRS 5798, 351 cours de la Libération, Talence, France (b) Laboratoire de Microélectronique et Instrumentation, LR13ES12, FSM, Université de Monastir, av. de l'Environnement, 5019 Monastir, Tunisia (c) National Institute of Research and Physicochemical analysis (INRAP), 2020 Sidi-Thabet, Tunisia (d) Cellule de transfert NanoPhyNov, LOMA, 351 cours de la Libération, Talence, France
MP.PRO-17-8371	UV-crosslinked polymeric materials for encapsulation of ZnO nanowires in piezoelectric fingerprint sensor	A.Bouvet-Marchand(a), M. Loubat(a), A.Graillot(a,*), J.Volk(b), R.Dauksevicius(c), E.Saoutief(d), A.Viana(d), B.Christian(e), V.Lebedev(e), C.Sturm(f), C.Loubat(a)	(a)SPECIFIC POLYMERS, Castries, France (b)MTA EK MFA, Budapest, Hungary (c)Institute of Mechatronics, Kaunas, Lithuania (d)Université Grenoble Alpes, CEA, LETI, MINATEC Campus, F-38054 Grenoble, France; (e)Fraunhofer IAF, Freiburg, German fInstitut für Experimentelle Physik II, Leipzig, Germany
MP.PRO-1-8010	Thermal-Electronic Integrated Circuits Using Thermally Sensitive VO2 MIT Material	János Mizsei (a,*), J. Lappalainen (b)	(a) Budapest University of Technology and Economics, Department of Electron Devices, Magyar Tudósok krt. 2,. Budapest 1117, Hungary (b) University of Oulu, Faculty of Information Technology and Electrical Engineering, Pentti Kaiteran katu 1, Oulu FI-90014, Finland
MP.PRO-18-8379	NiO/ZnO nanowire-heterostructures by vapor phase growth for gas sensing	Navpreet Kaur(*), Elisabetta Comini, Nicola Poli, Dario Zappa, Giorgio Sberveglieri	SENSOR Laboratory, University of Brescia and CNR-INO, Via D. Valotti 9, 25133 Brescia, Italy
MP.PRO-19-8386	Characterization of thermal expansion coefficient of LPCVD polycrystalline SiC thin films using two section V-beam actuators	S. Thomas, A. Jovic, B. Morana, F. Buja, A. Gkouzou, G. Pandraud, P.M. Sarro	Delft University of Technology, Mekelweg 2, Delft 2628 CD, the Netherlands
MP.PRO-20-8428	Pt deposition techniques for catalytic activation of nano-structured materials	Ferenc Bíró (a,b,*), György Z. Radnóczi (a), Máté Takács (a,c), Zsófia Baji (a), Csaba Dücső(a) and István Bársony(a)	(a) Institute of Technical Physics and Materials Science –MFA, Konkoly-Thege M. u 29-33., Budapest, 1121 Hungary (b)University of Pannonia, Egyetem u. 10., Veszprém, 8200 Hungary (c) Budapest University of Technology and Economics, Műegyetem rkp. 3., Budapest, 1111 Hungary

MP.PRO-21-8431	Investigation of the performance of thermally generated Au/Ag nanoislands for SERS and LSPR applications	A. Bonyár(a), I. Csarnovics(b,*), M. Veres(c), L. Himics(c), A. Csík(d), J. Kámán(a), L. Balázs(b), S. Kökényesi (E)	(a) Department of Electronics Technology, Budapest University of Technology and Economics, Budapest, Hungary (b) Department of Experimental Physics, University of Debrecen, Debrecen, Hungary (c) Institute for Solid State Physics and Optics, Wigner Research Centre for Physics of the Hungarian Academy of Sciences, Budapest, Hungary (d)Institute for Nuclear Research, Hungarian Academy of Sciences, Debrecen, Hungary (e) Department of Electrical Engineering, University of Debrecen, Debrecen, Hungary
MP.PRO-22-8432	Growth kinetics of ultrathin ZnO Nanowires grown by Pulsed Laser Deposition	Alexander Shkurmanov(*), Chris Sturm, Holger Hochmuth and Marius Grundmann	Institut für Experimentelle Physik II, Universität Leipzig, Linnéstraße 5, Leipzig, 04103, Germany
MP.PRO-23-8456	LSPR nanosensors with highly ordered gold nanoparticles fabricated on nanodimpled aluminium templates	A. Bonyár (a), T. Lednický (b,*), J. Hubálek (b)	(a) Department of Electronics Technology, Budapest University of Technology and Economics, Budapest, Hungary (b) CEITEC - Central European Institute of Technology, Brno University of Technology, Brno, Czech Republic
MP.PRO-24-8479	Fracture analysis of a-SiC:H membranes after thermal annealing	T. Frischmuth (a), A. Klein (a), M. Schneider (a,*), T. Grille (b), U. Schmid (a)	(a) Institute of Sensor and Actuator Systems, TU Wien, Gußhausstraße. 27-29, 1040 Vienna, Austria (b)Infineon Technologies Austria AG, Siemensstraße 2, 9500 Villach, Austria
MP.PRO-25-8509	Wet-etch induced changes in impedance of carbon nanotube –silicone rubber electrode materials for active implants	K. Tegtmeier (*), F. Borrmann, T. Doll	Cluster of Excellenz "Hearing for All" at Hannover Medical School, Department of ORL, Carl-Neuberg-Straße , 30625 Hannover, Germany
MP.PRO-26-8514	Graphene-zinc oxide based nanomaterials for gas sensing devices	V. Galstyan (a,b,*), E. Comini (a,b), I. Kholmanov (a,c), A. Ponzoni (a,b), V. Sberveglieri (a), N. Poli (b), G. Faglia (a,b), G. Sberveglieri (a,b)	(a) Sensor Lab, CNR, National Institute of Optics (INO), Via Valotti 9, 25133 Brescia, Italy (b) Department of Information Engineering, University of Brescia, Via Valotti 9, 25133 Brescia, Italy (c) Department of Mechanical Engineering, The University of Texas at Austin, Austin, TX 78712, USA
MP.PRO-27-8543	Piezoelectric sensitivity of a layered film of chitosan and cellulose nanocrystals	A.Hänninen, S.Rajala, T.Salpavaara, M.Kellomäki, S.Tuukkanen (*)	BioMediTech, Tampere University of Technology, Korkeakoulunkatu 10, Tampere 33100, Finland
MP.PRO-2-8031	Synthesis and Characterization of the PVDF-BTO Nanocomposites with the Employment of RGO Sheets for Flexible Energy Harvesters	Usman Yaqoob, Gwiy-Sang Chung (*)	School of Electrical Engineering, University of Ulsan, Ulsan, Republic of Korea
MP.PRO-28-8548	Application of local backside contacts for structuring of silicon with anodization: simulation and experiments	A. Ivanov (a,b,*) , A. Kovacs (b), U. Mescheder (a,b)	(a) Furtwangen University, Institute for microsystems (iMST), Robert-Gerwig-Pl. 1, 78120 Furtwangen, Germany (b) Furtwangen University, Faculty of Mechanical and Medical Engineering (MME), Robert-Gerwig-Pl. 1, 78120 Furtwangen, Germany

MP.PRO-29-8550	Nanoscale Patterning and Processing Technologies for Advanced Sensors	N. Petkov(a), Y. M. Georgiev(a), J. Volk(b), R. Erdélyi(b), I. E. Lukács**(b)**, C. Sturm(c) and M. Grundmann(c)	(a) Tyndall National Institute, Lee Maltings and Cork Institute of Technology, Rosa Avenue, Cork, Ireland. (b)MTA EK Institute of Technical Physics and Materials Science, Konkoly Thege M. út 29-33, 1121 Budapest, Hungary. (c) Universität Leipzig, Institut für Experimentelle Physik II, Linnéstr. 5, 04103 Leipzig, Germany
MP.PRO-30-8574	MWCNT-PDMS Nanocomposite based Flexible Multifunctional Sensor for Health Monitoring	R. Ramalingame (*), N. Udhayakumar, R. Torres, C. Müller, O. Kanoun	Technische Universität Chemnitz, Reichenhainer Strasse 70, 09126 Chemnitz, Germany
MP.PRO-31-8587	PEDOT:PSS: a Conductive and Flexible Polymer for Sensor Integration in Organ-on-Chip Platforms	W.F.Quirós-Solano (a,b,*), N.Gaio (a), C.Silvestri (a), G.Pandraud (a), P.M. Sarro (a)	(a)Laboratory of Electronic Components, Technology & Materials (ECTM),Else Kooi Lab, TU Delft, The Netherlands (b) Escuela de Ingeniería Electrónica, Instituto Tecnologico de Costa Rica, Cartago, Costa Rica.
MP.PRO-32-8588	Preparation and biosensing performance of porous-alumina-assisted gold nanostructures on substrates	A. Mozalev (a,*), H. Baccar (b), A. Abdelghani (b)	(a) CEITEC - Central European Institute of Technology, Brno University of Technology, Purkynova 123, 61200 Brno, Czech Republic (b) Carthage University, National Institute of Applied Science and Technology (INSAT), Bp676, Centre Urbain Nord 1080 Charguia Cedex, Tunisia
MP.PRO-33-8596	Piezo-force and vibration analysis of ZnO nanowire arrays for sensor application	B. Christian (a,*), J. Volk (b), I. E. Lukács (b), E. Saoutieff (c), C. Sturm (d), A. Graillot (e), R. Dauksevicius (f), M. Seifikar (g), O. Ambacher (a,h), V. Lebedev (a)	(a) Fraunhofer IAF, Freiburg, Germany; (b) MTA EK MFA, Budapest, Hungary; (c) Université Grenoble Alpes, CEA, LETI, MINATEC Campus, Grenoble, France; (d) Universität Leipzig, Leipzig, Germany; (e) Specific Polymers, Montpellier, France; (f) Kaunas University of Technology, Kaunas, Lithuania; (g) Tyndall National Institute, Cork, Ireland; (h) University of Freiburg, Freiburg, Germany
MP.PRO-34-8622	Mask-Less Direct-Writing Deposition of Lead-Free Piezoelectric Films for Microsystems	Marco Ferrari (a,*), Simone Dalola (a), Vittorio Ferrari (a), Giulio Cordaro (b), Cinzia Cristiani(b), Giovanni Dotelli(b)	(a) Dept. of Information Engineering, University of Brescia, Via Branze 38, 25123 Brescia, Italy (b) Dept. of Chemistry, Materials and Chemical Engineering "Giulio Natta", Politecnico di Milano, P.za Leonardo da Vinci 32, 20133 Milan, Italy
MP.PRO-3-8040	Micromachined Gas Sensors Based on Au-functionalized SnO2 nanorods Directly Integrated Without Catalyst Seeds via AA-CVD	S. Vallejos (a,*), S. Selina (b), F. E. Annanouch (c, e), I. Gràcia (d), E. Llobet (c), C. Blackman (b)	(a) SIX Research Centre, Brno University of Technology, Brno, Czech Republic (b) Department of Chemistry, University College London, London, UK (c) MINOS-EMaS, Departament d'Enginyeria Electrònica, Universitat Rovira i Virgili, Tarragona, Spain (d) Instituto de Microelectrónica de Barcelona (IMB-CNM, CSIC), Barcelona, Spain (e) Aix Marseille Université, Université de Toulon, IM2NP UMR 7334, Marseille, France
MP.PRO-4-8046	Effect of N-Type Doping of SnO2 and ZnO on Surface Sites and Gas Sensing Behaviour	Artem Marikuts (*), Marina Rumyantseva, Alexander Gaskov	Chemistry Department, Moscow State University, Vorobyevy gory 1-3, Moscow 119991, Russia
MP.PRO-5-8052	RF Sputtering of ZnO (002) Thin Films on Top of 3C-SiC-on-Si (100) Substrates for Low Cost Piezoelectric Devices	V. Valliyil Sasi, A. Iqbal, K. Chaik, P. Tanner, A. Iacopi and F. Mohd-Yasin (*)	Queensland Micro- and Nanotechnology Centre, Griffith University, Brisbane, QLD 4111, Australia

MP.PRO-6-8078	Functionalized ZnO microbelt as improved CO sensor	Dang Thi Thanh Le (a,*), Ruomeng Yu (b), Erica Iacob (c), Matteo Tonezzer (d,†)	(a) ITIMS, Hanoi University of Science and Technology, Hanoi, Viet Nam (b) School of Materials Science and Engineering, Georgia Institute of Technology, Atlanta, Georgia, 30332-0245, USA (c) Center for Materials and Microsystems-Irst, Fondazione Bruno Kessler, via Sommarive 18, 38050 Povo, Trento, Italy (d) IMEM-CNR, sede di Trento - FBK, Via alla Cascata 56/C, Povo - Trento, Italy
MP.PRO-7-8104	Precision Recess of AlGaN/GaN with Controllable Etching Rate Using ICP-RIE Oxidation and Wet Etching	R. Sokolovskij (a), J. Sun (a), F. Santagata (b,c), E. Iervolino (b,c), S. Li (b), G. Y. Zhang (b), P. M. Sarro (d), G. Q. Zhang (d,*)	(a) Beijing Research Centre, Delft University of Technology, A35 QingHua East Road, 100083, Beijing, China (b) Dongguan Institute of Opto-Electronics, Peking University, Bldg No. 1 Technology & Innovation Park, 523000, Dongguan, China (c) Guangdong Dongguan Quality Supervision Testing Center, No.2 South Industry Road, 523808, Dongguan, China (d) Microelectronics department, Delft University of Technology, Feldmannweg 17, 2628 CT, Delft, The Netherlands
MP.PRO-8-8188	Impact of the Structural Characteristics on the Performance of Light Emitting Capacitors Using nanometric SRO multilayers Fabricated by LPCVD	J. Alarcón-Salazar (a,*), I. E. Zaldívar-Huerta (a), A. Morales-Sánchez (b), C. Domínguez (c), and M. Aceves-Mijares (a)	(a) Instituto Nacional de Astrofísica Óptica y Electrónica (INAOE), Puebla 72840, México (b) Centro de Investigación en Materiales Avanzados (CIMAV) S.C., Monterrey-PIIT, N.L. 66600, México (c) Institut de Microelectrónica de Barcelona, CNM-CSIC, Campus UAB, Bellaterra 08193, Spain
MP.PRO-9-8191	Two-Dimensional (2D) SnS2-Based Oxygen Sensor	Yongxiang Li (a,c), Salvatore Gianluca Leonardi (b), Anna Bonavita (b), Giovanni Neri (b), Wojtek Wlodarski (c)	(a) The Key Laboratory of Inorganic Functional Materials and Devices, Shanghai Institute of Ceramics, Chinese Academy of Sciences, 200050 Shanghai, P.R. China. (b) Department of Engineering, University of Messina, 98166 Messina, Italy. (c) School of Engineering, RMIT University, Melbourne, VIC 3000, Australia