

TUESDAY
Poster session II

Date	Room	Category	Code	Title	Authors	Institution
Tuesday, 5 september, 16:30-18:30	Rooms 302 and 304	Chemical Sensors	T-CS- 302-	1011 ZnO Nanostructure Based QCM Sensor to Detect Ethanol at Room Temperature Fabricated by All Wet Process	T. Ito, N. Yamanishi, T. Shimizu, S. Shingubara	Kansai University, Japan
			T-CS- 302-	1028 Oxygen Sensors Based on Screen Printed Platinum and Palladium Doped Indium Oxides	W. Sari{2}, P. Smith{1}, S. Leigh{2}, J. Covington{2}	{1}McGowan Smith Consultancy Ltd, United Kingdom; {2}University of Warwick, United Kingdom
			T-CS- 302-	1044 Sensitivity Improvement of Thermoelectric Hydrocarbon Sensors: Combination of Glass-Ceramic Tapes and Alumina Substrates	J. Kita, G. Hagen, C. Schmidt, R. Moos	Universität Bayreuth, Germany
			T-CS- 302-	1060 Selective Detection of NO2 with Specific Filters for O3 Trapping	M. Othman{1}, C. Théron{2}, M. Bendahan{1}, C. Rivron{2}, S. Bernardini{1}, G. Le Chevallier{2}, L. Caillat{2}, K. Aguir{1}, T. Tran-Thi{2}	{1}Aix Marseille Université / Université de Toulon, France; {2}Université Paris-Saclay / Commissariat à l'Energie Atomique et aux Energies Alternatives, France
			T-CS- 302-	1069 Hybrid and Bio Nanocomposites for Ultrasensitive Ammonia Sensors	J. Wojkiewicz{2}, N. Redon{2}, A. Pud{1}, S. Mikhailov(1), N. Ogurtsov{1}, Y. Noskov{1}, C. Collard{2}, W. Li{2}	{1}National Academy of Science of Ukraine, Ukraine; {2}Université Lille 1, France
			T-CS- 302-	1083 Effects of Infrared Energy on Dual Elliptical NDIR Ethanol Gas Sensors	J. Kim, S. Shin, S. Yi	Korea National University of Transportation, Korea
			T-CS- 302-	1100 Light-Assisted Room-Temperature NO2 Sensors Based on Black Sheet-Like NiO	X. Geng{2}, D. Lahem{1}, C. Zhang{3}, M. Olivier{2}, M. Debliquy{2}	{1}Materia Nova, Belgium; {2}Université de Mons, China; {2}Université de Mons, Belgium; {3}Yangzhou University, China
			T-CS- 302-	1109 Lipophilic Gold Grating for SERS Detection of Biological Objects	O. Gusebnikova{2}, K. Hrobonova{3}, P. Postnikov{2}, O. Lyutakov{1}, V. Svorcik{3}	{1}Czech Technical University in Prague / Tomsk Polytechnic University, Czech Rep.; {2}Tomsk Polytechnic University, Russia; {2}Tomsk Polytechnic University, Czech Rep.; {3}University of Chemical Technology, Prague, Czech Rep.
			T-CS- 302-	1125 ZnO/SnO2 Heterojunctions Sensors with UV-Enhanced Gas-Sensing Properties at Room Temperature	L. da Silva{4}, M. Lucchini{2}, J. M'Peko{5}, S. Bernardini{1}, K. Aguir{1}, C. Ribeiro{3}, E. Longo{3}, M. Niederberger{2}	{1}Aix Marseille Université / Université de Toulon, France; {2}ETH Zürich, Switzerland; {3}Federal University of São Carlos, Brazil; {4}Universidade Federal de São Carlos, Brazil; {5}University of São Paulo, Brazil
			T-CS- 302-	1164 Improving the Lifetime of Organic-Semiconductor-Based Gas Sensor for Detecting Breath Ammonia of Hemodialysis Patients	M. Chuang{1}, C. Chen{3}, H. Zan{1}, H. Meng{1}, C. Lu{2}	{1}National Chiao Tung University, Taiwan; {2}National Taiwan Normal University, Taiwan; {3}National Taiwan University Hospital Hsinchu Branch, Taiwan
			T-CS- 302-	1180 Interaction of Colloidal Silver Nanoparticles with Ni2+ Sensing Application	F. Mochi{3}, I. Venditti{2}, I. Fratoddi{2}, C. Battocchio{4}, L. Carlini{4}, G. Iucci{4}, M. Casalboni{3}, F. De Matteis{3}, S. Casciardi{1}, P. Proposito{3}	{1}National Insurance Institute for Employment Injuries, Italy; {2}Sapienza – Università di Roma, Italy; {3}Università degli Studi di Roma Tor Vergata, Italy; {4}Università degli Studi Roma Tre, Italy
			T-CS- 302-	1193 Transdermal Alcohol Measurements Using MOX Sensors in Clinical Trials	B. Lawson{1}, V. Martini- Laithier{1}, T. Fiorido{1}, F. Annanouch{1}, S. Burtsey{1}, C. Cassé-Perrot{2}, C. Audebert{2}, M. Bendahan{1}, R. Bouchakour{1}, O. Blin{2}, K. Aguir{1}	{1}Aix Marseille Université / Université de Toulon, France; {2}Assistance Publique Hopitaux de Marseille, France
			T-CS- 302-	1203 Impedimetric Biosensor to Enable Fast Evaluation of Gaseous Sterilization Processes	J. Oberländer{2}, J. Arreola{2}, C. Hansen{2}, A. Greeff{1}, M. Mayer{1}, M. Keusgen{3}, M. Schöning{2}	{1}Elopak EQS GmbH, Germany; {2}FH Aachen – University of Applied Sciences, Germany; {3}Philipps-Universität Marburg, Germany
			T-CS- 302-	1232 Detection of Mercury Vapor in Air by Differential Heat Dissipation Measurements	M. Allers, T. Reinecke, S. Zimmermann	Leibniz Universität Hannover, Germany

T-CS-	302-	1241	Tin Dioxide-Graphene Based Chemi-Device for NO ₂ Detection in the Sub ppm Range	J. Santos{1}, T. Polichetti{2}, M. Alexandre{1}, E. Hontañón{1}, I. Sayago{1}, B. Alfano{2}, M. Miglietta{2}, G. Di Francia{2}	{1}Consejo Superior de Investigaciones Científicas, Spain; {2}ENEA, Italy
T-CS-	302-	1243	Surface Acoustic Wave Sensors for the Detection of Hazardous Compounds in Indoor Air	M. Vanotti{2}, C. Théron{4}, S. Poisson{2}, V. Quesneau{3}, M. Naitana{3}, V. Soumann{2}, S. Brandès{3}, N. Desbois{3}, C. Gros{3}, T. Tran-Thi{1}, V. Blondeau-Patissier{2}	{1}Commissariat à l'Energie Atomique et aux Energies Alternatives, France; {2}Franche-Comté Électronique Mécanique Thermique et Optique - Sciences et Technologies, France; {3}CMUB, UMR CNRS 6302, France; {4}Université Paris-Saclay / Commissariat à l'Energie Atomique et aux Energies Alternatives, France
T-CS-	302-	1259	A Gas Sensor Device for Oxygen and Carbon Dioxide Detection	M. Santonico{2}, G. Pennazza{2}, F. Parente{3}, S. Grasso{2}, A. Zompanti{2}, V. Stornelli{3}, G. Ferri{3}, M. Bizzarri{1}, A. D'Amico{4}	{1}Sapienza – Università di Roma, Italy; {2}Università Campus Bio-Medico di Roma, Italy; {3}Università degli Studi dell'Aquila, Italy; {4}Università degli Studi di Roma Tor Vergata, Italy
T-CS-	302-	1276	Quantitative Analysis of Wine Mixtures Using an Electronic Olfactory System	M. Alexandre{1}, E. Montero{1}, T. Arroyo{2}, M. Cabellos{2}, C. Horrillo{1}	{1}Consejo Superior de Investigaciones Científicas, Spain; {2}IMIDRA, Spain
T-CS-	302-	1278	Detection of Nitrate / Nitrite Using BDD Electrodes Coated with Metal Nano-Catalysts	B. Zribi, E. Scorsone	Commissariat à l'Energie Atomique et aux Energies Alternatives, France
T-CS-	302-	1289	Study of YSZ Electrolyte Inks for Preparation of Screen-Printed Mixed-Potential Sensors for Selective Detection of NO _x and NH ₃	G. Nematbakhsh Abkenar, M. Rieu, P. Breuil, J. Viricelle	École Nationale Supérieure des Mines Saint Étienne, France
T-CS-	302-	1300	Evaluation of MOX Sensor Characteristics in Ultra-Low Power Operation Modes: Application to a Semi-Passive RFID Tag for Food Logistics	F. Palacio{3}, J. Gómez{3}, J. Burgués{3}, R. Pruna{3}, M. López{3}, A. Scorzoni{2}, S. Zampolli{1}, S. Marco{3}	{1}Consiglio Nazionale delle Ricerche, Italy; {2}Università degli Studi di Perugia, Italy; {3}Universitat de Barcelona, Spain
T-CS-	302-	1318	The Effect of Monolayer Graphene on the UV Assisted NO ₂ Sensing and Recovery at Room Temperature	T. Chen{1}, Y. Yang{1}, H. Liu{1}, C. Yang{1}, M. Meyyappan{2}, C. Lai{1}	{1}Chang Gung University, Taiwan; {2}NASA Ames Research Center, United States
T-CS-	302-	1328	Improving Sensitivity of a Chemoresistive Hydrogen Sensor by Combining ZIF-8 and ZIF-67 Nanocrystals	D. Matatagui{2}, A. Sainz-Vidal{2}, I. Gràcia{1}, E. Figueras{1}, C. Cané{1}, J. Saniger{2}	{1}Consejo Superior de Investigaciones Científicas, Spain; {2}Universidad Nacional Autónoma de México, Mexico
T-CS-	302-	1345	Study of a Layered Au,Pt-YSZ Mixed-Potential Sensing Electrode by ESEM, XRD and GD-OES with Relation to its Electrochemical Behaviour	X. Zhang{2}, H. Kohler{2}, M. Schwotzer{3}, Y. Wu{1}, U. Guth{4}	{1}HORIBA (CHINA) TRADING CO.LTD, China; {2}Karlsruhe University of Applied Sciences, Germany; {3}Karlsruher Institut für Technologie, Germany; {4}Technische Universität Dresden, Germany
T-CS-	304-	1352	Indium Oxide Octahedral Structures Based Sensor	G. Domènech-Gil{3}, S. Barth{2}, I. Gràcia{1}, C. Cané{1}, M. Moreno-Sereno{3}, A. Romano-Rodríguez{3}	{1}Consejo Superior de Investigaciones Científicas, Spain; {2}Technische Universität Wien, Austria; {3}Universitat de Barcelona, Spain
T-CS-	304-	1359	GO/2D WS ₂ Based Humidity Sensor	E. Comini{4}, G. Sberveglieri{4}, A. Wisitsora-at{2}, Z. Sofer{5}, C. Mayorga Martinez{1}, M. Pumera{1}, W. Wlodarski{3}	{1}Nanyang Technological University, Singapore; {2}National Electronics and Computer Technology Center, Thailand; {3}RMIT University, Australia; {4}Università degli Studi di Brescia, Italy; {5}University of Chemistry and Technology, Czech Rep.
T-CS-	304-	1369	Gas Sensors Based on Self-Assembled Monolayer Field-Effect Transistors	A. Sizov{1}, A. Trul{1}, V. Chekusova{1}, A. Kiselev{2}, M. Polinskaya{1}, O. Borshev{1}, M. Yablokov{1}, A. Vasiliev{3}, E. Agina{1}, S. Ponomarenko{1}	{1}Enikolopov Institute of Synthetic Polymer Materials RAS, Moscow, Russia; {2}Ivanovo State University, Ivanovo, Russia; {3}National Research Center Kurchatov Institute, Russia
T-CS-	304-	1379	Sensitivity to Heavy-Metal Ions of Cage-Opening Fullerene Quantum Dots	E. Ciotta{2}, P. Proposito{2}, P. Tagliatesta{2}, C. Lorecchio{2}, I. Venditti{1}, I. Fratoddi{1}, R. Pizzoferrato{2}	{1}Sapienza – Università di Roma, Italy; {2}Università degli Studi di Roma Tor Vergata, Italy
T-CS-	304-	1397	Restraining the Diffusion of Photocarriers to Improve the Spatial Resolution of the Chemical Imaging Sensor	K. Miyamoto{2}, T. Suto{2}, C. Werner{2}, T. Wagner{1}, M. Schöning{1}, T. Yoshinobu{2}	{1}FH Aachen – University of Applied Sciences, Germany; {2}Tohoku University, Japan

Tuesday, 5
september,
16:30-18:30

Rooms 204
and 205

Biological
Sensors,
Microfluidic

T-CS-	304-	1403 Aryl-Diazonium Functionalized Polycrystalline Silicon Nanoribbons Based Device for Lead Detection	B. Le Borgne, A. Salaün, L. Pichon, F. Geneste	Université de Rennes 1, France
T-CS-	304-	1417 A Highly Sensitive Potentiometric Amphetamine Microsensor Based on All-Solid-State Membrane Using a New Ion-Par Complex, [3,3'-Co(1,2-closo-C2B9H11)2]-C9H13NH+	J. Gallardo-Gonzalez{4}, A. Baraket{5}, S. Boudjaoui{5}, Y. Clément{4}, A. Alcácer{3}, A. Streklas{3}, F. Teixidor{2}, N. Zine{4}, J. Bausells{1}, A. Errachid{4}	{1}Consejo Superior de Investigaciones Científicas, Spain; {2}Institut de Ciència de Materials de Barcelona, Spain; {3}Institute IMB-CNM, Spain; {4}Université Claude Bernard Lyon 1, France; {5}Université de Lyon 1, France
T-CS-	304-	1420 Design of Novel Electrochemical Sensors for the Selective Detection of Glyphosate	Z. Mazouz{4}, Z. Ait Touchente{7}, H. Laradi{1}, N. Fourati{3}, N. Yaakoubi{6}, R. Touzani{7}, M. Chehimi{2}, R. Kalfat{4}, A. Othmane{5}, C. Zerrouki{3}	{1}Cnam, SATIE, France; {2}CNRS, ICMPE, France; {3}Conservatoire national des arts et métiers, France; {4}Institut national de recherche et d'analyse physico-chimique, Tunisia; {5}Université de Monastir, Tunisia; {6}Université du Maine, France; {7}Université Mohammed 1er, LCAE, Morocco
T-CS-	304-	1425 High-Performance Ammonia Sensor at Room Temperature Based on a Love-Wave Device with Fe2O3@WO3-x Nanoneedles	F. Bahos{3}, S. Vallejos Vargas{1}, I. Gràcia{2}, C. Cané{2}, M. Fernández{2}, C. Horrillo{2}, D. Matatagui{3}	{1}Brno University of Technology / Consejo Superior de Investigaciones Científicas, Spain; {2}Consejo Superior de Investigaciones Científicas, Spain; {3}Universidad Nacional Autónoma de México, Mexico
T-CS-	304-	1443 Investigation of the Salt Concentration Dependence of Water-Gated Field Effect Transistors (WG-FET) Using 16-nm-Thick Single Crystalline Si Film	O. Ertop, B. Sonmez, S. Mutlu	Boğaziçi Üniversitesi, Turkey
T-CS-	304-	1476 Photonic System for on-Line Determination of UV-Induced Ros on Airborne TiO2 Nanoparticles	D. Vernez, J. Sauvain, A. Laulagnet, A. Portela Otaño, N. Hopf, K. Batsungnoen, G. Suárez	Centre Hospitalier Universitaire Vaudois, Switzerland
T-BM-	204-	1029 A Reversible Method to Characterize the Mass Sensitivity of a 3-DOF Mode Localized Coupled Resonator Under Atmospheric Pressure	Y. Wang{2}, C. Zhao{1}, C. Wang{2}, D. Cerica{2}, M. Baijot{2}, V. Pachkawade{2}, A. Ghorbani{2}, M. Boutier{2}, A. Vanderplasschen{2}, M. Kraft{2}	{1}University of Cambridge, United Kingdom; {2}University of Liège, Belgium
T-BM-	204-	1082 Design of a Gate Field-Effect Transistor Biosensor for Lab-on-a-Chip Applications	Y. Mermoud{2}, O. Synhaivska{1}, M. Wipf{1}, A. Fanget{3}, M. Baghernejad{1}, M. Calame{1}	{1}Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland; {2}Swiss Federal Laboratories for Materials Science and Technology, Switzerland; {3}University of Basel, Switzerland
T-BM-	204-	1124 Electrochemiluminescence Based Biosensors with AuNP Showing Catalytic ROS Generation	Y. Higashi, J. Mazumder, H. Yoshikawa, M. Saito, E. Tamiya	Osaka University, Japan
T-BM-	204-	1168 In Situ Generation of Substrate via Bi-Potential Screen-Printed Electrode for Determination of Antioxidant Using Electrochemiluminescence	M. Kasai, Y. Inoue, J. Mazumder, H. Yoshikawa, M. Saito, E. Tamiya	Osaka University, Japan
T-BM-	204-	1235 Sensor Array Based on Molecularly Imprinted Polymers for Simultaneous Detection of Lipoproteins	S. Chunta{3}, S. Singsanan{1}, R. Srichana{2}, P. Lieberzeit{3}	{1}Burapha University, Thailand; {2}Prince of Songkla University, Thailand; {3}Universität Wien, Austria
T-BM-	204-	1257 Real-Time Monitoring of Stem Cells by Diamond-Based Impedance Sensors	V. Procházka{1}, R. Matějka{3}, T. Ižák{1}, O. Szabó{1}, J. Štěpanovská{2}, L. Bažáková{3}, A. Kromka{1}	{1}Institute of Physics, Academy of Sciences of the Czech Republic, Czech Rep.; {2}Institute of Physics, Czech Academy of Sciences, Czech Rep.; {3}Institute of Physiology, Czech Academy of Sciences, Czech Rep.
T-BM-	204-	1274 Monitoring Biological Cell Flow Within a Mimicking Capillary Device with Impedance Measurement	T. Xu{2}, M. Lizarralde{1}, W. El Nemer{1}, B. Le Pioufle{2}, O. François{3}	{1}BIGR, France; {2}École Normale Supérieure Paris-Saclay, France; {3}ESIEE, France
T-BM-	204-	1305 Configurable on-Chip Gel Electrophoresis in Inkjet 3D Printed Microfluidic Modules	R. Walczak, K. Adamski, W. Kubicki	Wrocław University of Science and Technology, Poland
T-BM-	205-	1320 Online Monitoring the Water Contaminations with Optical Biosensor	H. Gao, S. Generelli, F. Heitger	CSEM, Switzerland

T-BM-	205-	1326	Colorimetric Paper-Based DNA Sensor Using Pyrrolidinyl Peptide Nucleic Acid-Induced AgNPs Aggregation for MERS-CoV, MTB and HPV Detection	P. Teengam{1}, W. Siangproh{4}, A. Tuantranont{3}, T. Vilaivan{1}, C. Henry{2}, O. Chailapakul{1}	{1}Chulalongkorn University, Thailand; {2}Colorado State University, United States; {3}National Electronics and Computer Technology Center, Thailand; {4}Srinakharinwirot University, Thailand
T-BM-	205-	1349	Influence of Buffers and Culture Media on Diamond Solution-Gated Field Effect Transistors Regarding Stability and Memory Effect	V. Procházka, T. Ižák, A. Kromka	Institute of Physics, Academy of Sciences of the Czech Republic, Czech Rep.
T-BM-	205-	1363	Novel Four Layer Metal Sensing in Portable SPR Sensor Platform for Viral Particles Quantification	B. Prabowo, A. Alom, P. Pal, M. Secario, R. Wang, K. Liu	Chang Gung University Taiwan, Taiwan
T-BM-	205-	1376	Characterization of Retinal Pigmented Epithelium Cells Density on a Microelectrode Array Using Impedance Spectroscopy	J. Boutzen{1}, M. Valet{3}, V. Fradot{3}, L. Rousseau{1}, O. Français{1}, S. Picaud{4}, G. Lissorgues{2}	{1}ESIEE, France; {2}ESIEE / Université Paris-Est, France; {3}institut de la vision, France; {4}Institut national de la santé et de la recherche médicale, France
T-BM-	205-	1388	Comparison of ITO and IrOx-Modified ITO Interdigitated Electrodes for Electrical Cell-Substrate Impedance Sensing (ECIS) Applications	J. Martinez{2}, A. Montalibet{1}, E. McAdams{1}, M. Faivre{2}, R. Ferrigno{2}	{1}Institut des Nanotechnologies de Lyon, France; {2}Université Claude Bernard Lyon 1, France
T-BM-	205-	1395	Impedimetric IgG-Biosensor with in-Situ Generation of the Redox-Probe	J. Schrattecker{1}, R. Heer{1}, R. Hainberger{1}, G. Faflek{2}	{1}Austrian Institute of Technology GmbH, Austria; {2}Technische Universität Wien, Austria
T-BM-	205-	1411	Leishmania spp. Detection Using a Surface Plasmon Resonance Biosensor	E. Ferreira{2}, J. Lima{2}, R. Alves-Balvedi{4}, P. Bonan{2}, E. Medeiros{2}, L. Goulart{4}, A. Lima{3}, H. Neff{3}, L. Oliveira{5}, L. Castellano{2}, A. Araújo{6}, C. Moreira{1}	{1}Instituto Federal da Paraíba, Brazil; {2}Universidade Federal da Paraíba, Brazil; {3}Universidade Federal de Campina Grande, Brazil; {4}Universidade Federal de Uberlândia, Brazil; {5}Universidade Federal Rural do Semi-Árido, Brazil; {6}Université de Lorraine, France
T-BM-	205-	1428	Cortisol Stress Biosensor Based on Molecular Imprinted Polymer	S. Klangphukhiew{1}, R. Srichana{2}, R. Patramanon{1}	{1}Khon Kaen University, Thailand; {2}Prince of Songkla University, Thailand
T-BM-	205-	1432	Diamond Coated LW-SAW Sensors – Study of Diamond Thickness Effect	L. Drbohlavová{4}, J. Gerbedoen{1}, A. Taylor{4}, A. Talbi{6}, L. Fekete{4}, P. Ashcheulov{4}, A. Soltani{5}, V. Bovtun{4}, M. Kempa{4}, J. Bartoň{2}, P. Cigler{3}, V. Mortet{4}	{1}Centrale Lille, France; {2}Czech Academy of Sciences, Czech Rep.; {3}Institute of Organic Chemistry and Biochemistry of the CAS, Czech Rep.; {4}Institute of Physics, Academy of Sciences of the Czech Republic, Czech Rep.; {5}Université de Sherbrooke, Canada; {6}Université Lille 1, France
T-BM-	205-	1470	Monitoring of Monosodium Urate Crystallization for the Detection of Crystal Arthropathies in Human Joints	T. Voglhuber-Brunnmaier, E. Reichel, J. Sell, B. Jakoby	Johannes Kepler Universität Linz, Austria
T-BM-	205-	1484	Cu-BTC derived porous copper cube as non-enzymatic glucose sensor	Q. Gong, L.P. Sun, Z. Wu, L.H. Huo, H Zhao	Key Laboratory of Functional Inorganic Material Chemistry, Heilongjiang University, Harbin, P.R.China
T-MN-	305-	1042	Fabrication of ZnO Nanorods on MEMS Piezoresistive Silicon Microcantilevers for Environmental Monitoring	J. Xu, M. Bertke, A. Gad, F. Yu, G. Hamdana, A. Bakin, E. Peiner	Technische Universität Braunschweig, Germany
T-MN-	305-	1093	Silicon Sacrificial Layer Technology for the Production of 3D MEMS (EPyC process)	L. Louriki{1}, P. Staffeld{1}, A. Kaelberer{1}, T. Otto{2}	{1}Robert Bosch GmbH, Germany; {2}Technische Universität Chemnitz, Germany
T-MN-	305-	1116	Integration of Silica Aerogels in Microfluidic Chips	S. Reede, F. Bunge, M. Vellekoop	Universität Bremen, Germany
T-MN-	305-	1127	A Simple Method to Allow Parylene-C Coatings on Gold Substrates	S. van Den Driesche, C. Habben, A. Bödecker, W. Lang, M. Vellekoop	Universität Bremen, Germany
T-MN-	305-	1153	Microfabrication of Embedding a Flexible Parylene-Based Microelectrode Array Within Body-on-a-Chip	T. Omaki, Y. Hirai, K. Kamei, T. Tsuchiya, O. Tabata	Kyoto University, Japan

Tuesday, 5
september,
16:30-18:30

Room 305

Materials and
micro- nano-
technology,
Microfabrication

T-MN-	305-	1191	Segmented Control of Electrostatically Actuated Bimorph Beam	K. Waggoner{1}, R. Lake{1}, L. Starman{2}, J. Walton{2}	{1}Air Force Institute of Technology, United States; {2}Air Force Research Laboratory, United States
T-MN-	305-	1209	Incorporation of ZnO Nanostructures in Mis Architecture Through Chemical Routes	R. Aranda García{1}, A. Escobedo Morales{1}, J. Carrillo{1}, M. Domínguez{1}, N. Ramírez{2}, J. Luna López{1}	{1}Benemérita Universidad Autónoma de Puebla, Mexico; {2}Instituto Nacional de Astrofísica, Óptica y Electrónica, Mexico
T-MN-	305-	1221	Thermal Stability of Micro-Structured PDMS Piezo-Electrets Under Various Polymeric Reticulation Ratios for Sensor Applications	A. Kachroudi{1}, S. Basrour{2}, A. Sylvestre{1}	{1}Institut polytechnique de Grenoble, France; {2}Laboratoire TIMA de Grenoble, France
T-MN-	305-	1266	Ionogel – Based Composite Material for CO2 Sensing Deposited on a Chemiresistive Transducer	B. Ersoez{1}, M. Bauersfeld{3}, J. Wöllenstein{2}	{1}Albert-Ludwigs-Universität Freiburg, Germany; {2}Albert-Ludwigs-Universität Freiburg / Fraunhofer-Institut für Physikalische Messtechnik, Germany; {3}Fraunhofer-Institut für Physikalische Messtechnik, Germany
T-MN-	305-	1336	Layer by Layer Deposition of Colloidal SnO2 Nano Particles	H. Gao{1}, X. Lyu{1}, J. Wöllenstein{2}, S. Palzer{1}	{1}Albert-Ludwigs-Universität Freiburg, Germany; {2}Albert-Ludwigs-Universität Freiburg / Fraunhofer-Institut für Physikalische Messtechnik, Germany
T-MN-	305-	1358	Optical and Morphological Analysis of c-Si/PSi and c-Si/PSi/MWCNT/SiOx Heterostructures	N. Victoriano Huerta, J. Luna López, J. Hernández de la Luz, E. Gómez Barojas, M. Domínguez Jimenez	Benemérita Universidad Autónoma de Puebla, Mexico
T-MN-	305-	1393	Laser Interferometry for Broad Area SPR-Grating Couplers in Chemical Applications	M. Moreno-Sereno{3}, N. Pérez{2}, G. Domènech-Gil{3}, L. Parellada-Monrea{1}, M. Martínez-Calderón{1}, M. Gómez-Aranzadi{1}, N. Darwish{3}, G. Mandayo{1}, A. Romano-Rodríguez{3}	{1}Ceit and Tecnun, Universidad de Navarra, Spain; {2}Universidad de Navarra / TECNUN, Spain; {3}Universitat de Barcelona, Spain
T-MN-	305-	1423	Fabrication of Hybrid Microfluidic System on Transparent Substrates for Electrochemical Applications	E. Holczer, O. Hakkel, P. Fürjes	Hungarian Academy of Sciences, Hungary
T-PS-	301-	1009	Angle Measurement and 3D Magnetic Field Sensing Using Circular Hall Microsensor	S. Lozanova, S. Noykov, A. Ivanov, C. Roumenin	Bulgarian Academy of Sciences, Bulgaria
T-PS-	301-	1014	Monitoring the Etching Process in LPFGs Towards Development of Highly Sensitive Sensors	I. Del Villar{1}, J. Cruz{2}, A. Socorro{1}, S. Diaz{1}, J. Corres{1}, F. Arregui{1}, I. Matías{1}	{1}Universidad Pública de Navarra, Spain; {2}Universitat de València, Spain
T-PS-	301-	1064	Linear-Logarithmic CMOS Image Sensor with Reduced FPN Using Photogate and Cascode MOSFET	M. Bae, B. Choi, S. Kim, J. Lee, C. Oh, P. Choi, J. Shin	Kyungpook National University, Korea
T-PS-	301-	1072	A Combined Temperature and Stress Sensor in 0.18 μm CMOS Technology	S. Huber{2}, S. François{2}, O. Paul{1}	{1}Albert-Ludwigs-Universität Freiburg, Germany; {2}Melexis Technologies SA, Switzerland
T-PS-	301-	1079	MEMS Capacitive Microphone with Dual-Anchored Membrane	C. Je, J. Jeon, S. Lee, W. Yang	Electronics and Telecommunications Research Institute, Korea
T-PS-	301-	1108	CMOS Technology Integrated Terahertz Rectifier	R. Rao{2}, G. De Amicis{1}, A. Del Monte{1}, F. Palma{2}	{1}LFoundry, Italy; {2}Sapienza – Università di Roma, Italy
T-PS-	301-	1487	Optical and electrical characterizations of uncooled bolometers based on LSMO thin films"	V.M. Nascimento, M.E.B.G.N. Silva , S. Liu, L. Méchin, B. Guillet	Normandie Univ, UNICAEN, ENSICAEN, CNRS, GREYC, 14000 Caen, France
T-PS-	303-	1130	Characterization of Acoustic Sources by Optical Feedback Interferometry	F. Urgiles{1}, J. Perchoux{2}, T. Bosch{2}	{1}LAAS-CNRS / Université de Toulouse / Universidad Politécnica Salesiana, France; {2}Laboratory for Analysis and Architecture of Systems, France
T-PS-	303-	1146	Torsional Moving Electric Field Sensor with Modulated Sensitivity and Without Reference Ground	S. Liyanage, C. Shafai, T. Chen, A. Rajapakse	University of Manitoba, Canada

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Rooms 301
and 303

Physical sensors
and Actuators

T-PS-	303-	1159	Development of Catheter Flow Sensor for Breathing Measurements at Different Levels of Tracheobronchial Airway	T. Fujinori{1}, Y. Hasegawa{1}, M. Matsushima{2}, T. Kawabe{2}, M. Shikida{1}	{1}Hiroshima City University, Japan; {2}Nagoya University, Japan			
T-PS-	303-	1178	Development of Small-Footprint Thermal Sensor Detecting Airflow at Mouth in Baby	Y. Mitsunari{1}, Y. Hasegawa{1}, M. Matsushima{2}, T. Kawabe{2}, M. Shikida{1}	{1}Hiroshima City University, Japan; {2}Nagoya University, Japan			
T-PS-	303-	1196	Portable SAW Impedance Sensor Using a 1-Port Resonator Approach	V. Nguyen, O. Peters, S. Serve, U. Schnakenberg	Rheinisch-Westfälische Technische Hochschule Aachen, Germany			
T-PS-	303-	1219	Mechanical Characterization of (La,Sr)MnO ₃ Microbridges for Thermometric Applications	F. Remaggi{2}, L. Pellegrino{1}, N. Manca{2}, C. Bernini{1}, D. Marrè{2}	{1}Consiglio Nazionale delle Ricerche, Italy; {2}Università di Genova / Consiglio Nazionale delle Ricerche, Italy			
T-PS-	303-	1263	Photoelectrical Hydrogen Sensor Based on Pd/Anodic Oxide/InP Structure	V. Shutayev{1}, A. Imenkov{1}, E. Grebenshchikova{1}, V. Sidorov{2}, D. Virko{2}, S. Makarov{2}, Y. Yakovlev{1}	{1}Ioffe Institute, Russia; {2}Peter the Great St. Petersburg Polytechnic University, Russia			
T-PS-	303-	1281	Impact of High Coupling Factor in Absolute Distance Measurement with Self-Mixing Interferometry	M. Veng, J. Perchoux, F. Bony	Laboratory for Analysis and Architecture of Systems, France			
T-PS-	303-	1312	Nanogap Pirani Sensor Operating in Constant Temperature Mode for Near Atmospheric Pressure Measurements	C. Ghouila-Hourii{3}, R. Sindjui{1}, M. Moutaouekkil{2}, O. Elmazria{2}, Q. Gallas{3}, E. Garnier{3}, A. Merlen{1}, R. Viard{4}, A. Talbi{5}, P. Pernod{5}	{1}IEMN, France; {2}Institut J. Lamour Univ. Lorraine, France; {3}Office National d'Etudes et de Recherches Aéropatiales, France; {4}THURMELEC, France; {5}Université Lille 1, France			
T-PS-	303-	1314	Simulation of Thermal Impedance Fluid Sensors	M. Jaegle{2}, H. Pernau{2}, M. Pfützner{2}, M. Benkendorf{2}, M. Bartel{2}, J. Wöllenstein{1}	{1}Albert-Ludwigs-Universität Freiburg / Fraunhofer-Institut für Physikalische Messtechnik, Germany; {2}Fraunhofer-Institut für Physikalische Messtechnik, Germany			
T-PS-	303-	1357	High Sensitivity Ultraviolet Light Off-Stoichiometric Silicon Oxide –Based Sensors	J. Carrillo, J. Luna López, G. García, H. Juárez	Benemérita Universidad Autónoma de Puebla, Mexico			
T-PS-	303-	1390	Micro-Grippers with Femtosecond-Laser Machined in-Plane Agonist-Antagonist SMA Actuators Integrated on Wafer-Level by Galvanic Riveting	M. Garcés-Schröder, L. Hecht, A. Vierheller, M. Leester-Schädel, M. Böhl, A. Dietzel	Technische Universität Braunschweig, Germany			
T-PS-	303-	1405	A Spherical Directional Anemometer Sensor System	A. Leoni{2}, G. Barile{2}, M. Muttillio{2}, L. Pantoli{2}, V. Stornelli{2}, G. Ferri{2}, R. Paolucci{1}, L. Di Vita{1}	{1}Antares Innovation, Italy; {2}Università degli Studi dell'Aquila, Italy			
T-PS-	303-	1426	Linear Position Sensing Through Conductive Wall Without Permanent Magnet	J. Vyhnanek, P. Ripka, A. Chirtsov	Czech Technical University in Prague, Czech Rep.			
T-PS-	303-	1464	Sensitivity of Piezoelectric Ultrasonic Microsensors with Sol-Gel Derived PZT Films Prepared Through Various Pyrolysis Temperatures	K. Yamashita, S. Nakajima, J. Shiomi, M. Noda	Kyoto Institute of Technology, Japan			
T-PS-	303-	1465	Contactless Interrogation System for Capacitive Sensors with Time-Gated Technique	M. Masud, M. Baù, M. Demori, M. Ferrari, V. Ferrari	Università degli Studi di Brescia, Italy			
Tuesday, 5 september, 16:30-18:30	Room 303	Embedded systems, Interface and Signal processing	T-IS-	303-	1036	Low Cost Optical Electronic Nose for Biomedical Applications	S. Esfahani, J. Covington	University of Warwick, United Kingdom
			T-IS-	303-	1111	Detection of Self-Mixing Interferometric Fringes of a Laser Sensor Using Matched Filter	M. Akmal{2}, U. Zabit{2}, O. Bernal{1}, T. Bosch{1}	{1}Laboratory for Analysis and Architecture of Systems, France; {2}Riphah International University, Pakistan
			T-IS-	303-	1121	RFID Integration Into a Low Power Sensor Platform	K. Kellner, M. Brandl	Danube University Krems, Austria
			T-IS-	303-	1227	Selective Gas Detection by a Single MOX-Sensor	A. Shaposhnik{3}, P. Moskalev{3}, A. Zviagin{3}, K. Chegereva{3}, S. Ryabtsev{4}, A. Vasiliev{2}, P. Shaposhnik{1}	{1}Moscow State University, Russia; {2}National Research Center Kurchatov Institute, Russia; {3}Voronezh State Agricultural University, Russia; {4}Voronezh State University, Russia

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Room 202

Optical
microsystems

T-IS-	303-	1230	Development of Calorie Tracking Algorithm for Children and Comparison with Commercialized Product	Y. Jang, D. Lee, S. Kim	Electronics and Telecommunications Research Institute, Korea
T-IS-	303-	1262	Digital Multi-Probe Temperature Monitoring System for Long-Term on Field Measurements	L. Pantoli, M. Muttillio, T. De Rubeis, I. Nardi, V. Stornelli, G. Ferri	Università degli Studi dell'Aquila, Italy
T-IS-	303-	1301	Embedded Wearable Integrating Real-Time Processing of Electromyography Signals	P. Gentile{1}, M. Pessione{2}, A. Suppa{1}, A. Zampogna{1}, F. Irrera{1}	{1}Sapienza – Università di Roma, Italy; {2}STMicroelectronics, Italy
T-IS-	303-	1327	Cooperative Air Quality Sensing with Crowdfunded Mobile Chemical Multisensor Devices	A. Agresta, S. De Vito, F. Formisano, E. Massera, E. Esposito, M. Salvato, G. Fattoruso, G. Di Francia	ENEA, Italy
T-IS-	303-	1341	Plug-and-Play Electronic Unit for MOS and Thermocatalytic Gas Sensors	A. Vasiliev{2}, S. Merzlikin{1}, I. Shakhnovich{1}, A. Sokolov{1}, O. Shulgin{1}, P. Agafonov{1}	{1}LLC RIIIT, Russia; {2}National Research Center Kurchatov Institute, Russia
T-IS-	303-	1409	Custom Filter Design for Embedded Applications Using Self-Mixing Interferometric Laser Vibration Sensor	I. Ahmed{2}, U. Zabit{2}, O. Bernal{1}, T. Bosch{1}	{1}Laboratory for Analysis and Architecture of Systems, France; {2}Riphah International University, Pakistan
T-IS-	303-	1467	Low-Cost Impedance Measurements for Lab-on-a-Chip Architectures: Towards Potentiostat Miniaturization	R. Pruna{3}, F. Palacio{3}, A. Baraket{2}, J. Bausells{1}, A. Errachid{4}, M. López{3}	{1}Consejo Superior de Investigaciones Científicas, Spain; {2}Institut des Sciences Analytiques, France; {3}Universitat de Barcelona, Spain; {4}Université Claude Bernard Lyon 1, France
T-OM-	202-	1007	A Novel Gyroscopic Actuation Concept for 2D MEMS Micromirrors	P. Kaupmann{1}, S. Pinter{1}, J. Franz{1}, R. Streiter{2}, T. Otto{2}	{1}Robert Bosch GmbH, Germany; {2}Technische Universität Chemnitz, Germany
T-OM-	202-	1034	Optical Microdevice in Silicon for Angular Measurements	J. Costa, R. Gounella, R. Machado, Y. Assagra, J. Carmo	Universidade de São Paulo, Brazil
T-OM-	202-	1091	Evanescence-Wave Gas Sensing Using an Integrated Thermal Light Source	C. Consani{1}, C. Ranacher{1}, A. Tortschanoff{1}, T. Grille{2}, P. Irsigler{2}, B. Jakoby{3}	{1}Carinthian Tech Research AG, Austria; {2}Infineon Technologies Austria AG, Austria; {3}Johannes Kepler Universität Linz, Austria
T-OM-	202-	1126	Uniform Fabrication of MOEMS Arrays Using Dry Thick Resist Films	T. Camps{2}, S. Abada{1}, B. Reig{2}, J. Doucet{1}, R. Courson{2}, L. Salvi{1}, B. Boissard{2}, E. Daran{2}, V. Bardinal{2}	{1}LAAS-CNRS / Université de Toulouse, France; {2}Laboratory for Analysis and Architecture of Systems, France
T-OM-	202-	1190	Post Fabrication Processing of Foundry MEMS Structures Exhibiting Large, Out-of-Plane Deflections	L. Starman{2}, J. Walton{2}, H. Hall{2}, R. Lake{1}	{1}Air Force Institute of Technology, United States; {2}Air Force Research Laboratory, United States
T-OM-	202-	1206	A Lorentz Force Actuated Continuous Deformable Polymer Mirror for Wavefront Control	B. Park, E. Afsharipour, C. Shafai	University of Manitoba, Canada
T-OM-	202-	1231	Binary Zone Plate Infrared Spectrometer for Dissolved Gas Analysis in High Voltage Equipment	P. Glowacki, C. Shafai	University of Manitoba, Canada
T-OM-	202-	1255	Analysis of PN Junction Deep Trench Isolation with SU-8/SiO ₂ -Liner Passivation in a Linear Butt-Coupled 3D CMOS Si Photodetector Array	I. Sabrialirezaei, J. Vierhaus, E. Burte	Otto-von-Guericke-Universität Magdeburg, Germany
T-OM-	202-	1270	Metasurface-Based THz Dual-Band Absorber Sensor for the Measurement of Refractive Index Variations of Chemical and Biological Substances	M. Janneh{2}, A. De Marcellis{2}, E. Palange{2}, A. Tenggara{1}, D. Byun{1}	{1}Sungkyunkwan University, Korea; {2}Università degli Studi dell'Aquila, Italy
T-OM-	202-	1284	Integrated SiGe Detectors for Si Photonic Sensor Platforms	G. Pandraud{1}, S. Milosavljevic{1}, A. Sammak{1}, M. Cherchi{2}, A. Jovic{1}, P. Sarro{1}	{1}Technische Universiteit Delft, Netherlands; {2}VTT Technical Research Centre of Finland, Finland
T-OM-	202-	1298	Sers Active Periodic 3D Structure for Trapping and High Sensitive Molecular Analysis of Particles or Cells	I. Rigó{2}, M. Veres{2}, P. Fürjes{1}	{1}Hungarian Academy of Sciences, Hungary; {2}Institute for Solid State Physics and Optics, Wigner Research Centre for Physics, HAS, Hungary

T-OM-	202-	1324	Evanescent Waveguide Sensor for on-Chip Biomolecular Detection	G. de Cesare, R. Asquini, A. Buzzin, D. Caputo	Sapienza – Università di Roma, Italy
T-OM-	202-	1351	A MEMS-Controllable Fresnel Zone Plate for Miniaturized UV Spectrometer	E. Afsharipour, P. Glowacki, C. Shafai	University of Manitoba, Canada
T-OM-	202-	1421	Blue-Enhanced a-Si:H-Based N-I-P Photodiodes with Protocrystalline Silicon P-Type Layers	Y. Vygranenko{2}, M. Fernandes{1}, M. Vieira{1}	{1}Instituto Superior de Engenharia de Lisboa / Uninova-Instituto Desenvolvimento De Novas Tecnologias, Portugal; {2}Uninova-Instituto Desenvolvimento De Novas Tecnologias, Portugal
T-OM-	202-	1434	A Laser-Machined Stainless-Steel Micro-Scanner for Confocal Microscopy	H. Oyman{1}, M. Icel{1}, B. Efe{1}, Y. Gokdel{2}, O. Ferhanoglu{3}, A. Yalcinkaya{1}	{1}Boğaziçi Üniversitesi, Turkey; {2}Istanbul Bilgi University, Turkey; {3}Istanbul Technical University, Turkey