

8th GOSPEL Workshop

Registration (08:00-09:00)

Opening Ceremony (08:45-09:00)

Session 1 - Fundamental understanding - General (09:00-10:50)

Chair: Eduard Llobet

09:00	Application runs the show: what can we learn about the future from the past?	BARSAN, Nicolae
09:30	Monitoring Surface Stoichiometry, Work Function and Valance Band of Tungsten Oxide (WO ₃), Molybdenum Oxide (MoO ₃) and Tin Oxide (SnO ₂) Thin Films as a Function of Temperature and Oxygen Partial Pressure with Advanced Surface Sensitive Techniques for Chemical Sensing Applications	ENGİN, Ciftiyurek
09:50	How the gas flow affects conductometric sensor performance	GARCIA M. , Gemma
10:10	Heterogeneous integration of metal oxides – towards a CMOS based multi gas sensor device	KOECK, Anton
10:30	Consideration for oxygen adsorption species on SnO ₂ semiconductor gas sensors	SHIMANOE, Kengo

Coffee Break (10:50-11:10)

Session 2 - Advanced materials – Nanomaterials (11:10-13:00)

Chair: Jong-Heun Lee

11:10	Gas Sensors Based on Oxide Semiconductors with Porous Nanostructures	PENG, Sun
11:40	H ₂ S sensing properties of a diode-type device using ZnO nanorods coupled with CuO nanocrystals	KIDA, Tetsuya
12:00	Metal Oxides and Noble Metal Additives in the Nanocrystalline Regime. Enhancement of the Performances of Chemoresistive Gas-Sensors and Novel Interpretation Issues	EPIFANI, Mauro
12:20	Gas sensing optimization of NiO-SCCNTs core-shell nanostructures by atomic layer deposition	PINNA, Nicola
12:40	A Multi-MOx Sensor Approach to Measure Oxidizing and Reducing Gases	DANESH, Ehsan

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Lunch (13:00-14:00)

Session 3 - New devices – MEMS (14:00-15:30)

Chair: Kuniyuki Izawa

14:00	Ultra-Low Power MEMS Gas Sensor Technology and Applications	NISHIUE, Yoshinori
14:30	A flexible room-temperature NH ₃ sensor for ultrasensitive, selective, and humidity-independent gas detection	LEE, Jong-Heun
14:50	Testing the Reliability of Flexible MOX Gas Sensors Under Strain	LLOBET, Eduard
15:10	Rapid Prototyping of MOX Gas Sensors in Form-factor of SMD Packages	SAMOTAEV, Nikolay

Coffee Break (15:30-15:50)

Session 4 - Fundamental understanding – Photostimulation (15:50-17:20)

Chair: Kengo Shimanoe

15:50	Micro Light Plates for Photoactivated Micro-Power Gas Sensors	PRADES, J Daniel
16:20	Luminescence Probing of Surface Adsorption Processes Using InGaN/GaN Nanowire Heterostructure Arrays	MÜLLER, Gerhard
16:40	Shining light on indium oxide gas sensors at work: A combined operando Raman / UV-Vis / FT-IR spectroscopic study	HESS, Christian
17:00	The influence of temperature and visible light activation on the NO ₂ response of WO ₃ nanofibers prepared by electrospinning	PAOLUCCI, Valentina

Poster Session: Poster Session (17:20-18:20)

Social Dinner (19:30-21:30)

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Session 5 - Advanced materials (08:30-10:20)

Chair: Geyu Lu

08:30	Self-heated graphene microchannels for low-power-consumption chemoresistive sensor array	JANG, Ho Won
09:00	Metal oxide decorated graphene for high sensitivity applications	RODNER, Marius
09:20	Oxide Semiconductor Gas Sensors with Nanoscale Catalytic Overlayer: Toward Highly Selective and Sensitive Gas Detection using Bilayer Design	LEE, Jong-Heun
09:40	Branch-like NiO-based p-n heterostructures with enhanced gas sensing properties	ZAPPA, Dario
10:00	Low-power, multiplexed MEMS gas sensor array by local liquid phase reaction	PARK, Inkyu

GOSPEL 2019 Official Photo (10:20-10:35)

Coffee Break (10:35-10:55)

Award Cerimony (10:55-11:30)

Session 6 - Fundamental understanding - High sensitivity (11:30-13:00)

Chair: Nikolay Samotaev

11:30	Ultra-high sensitive (ppt) gas sensor based on the pulse heating using MEMS technique	SUEMATSU, Koichi
12:00	Nanocrystalline LaCoO ₃ modified by Ag nanoparticles with improved sensitivity to H ₂ S	MARIKUTSA, Artem
12:20	Realizing the Control of Fermi Level and Gas-Sensing Selectivity over Gallium-Doped In ₂ O ₃ Inverse Opal Microspheres	WANG, Tianshuang
12:40	Sub-ppm NO ₂ sensing in temperature cycled mode with Ga doped ZnO thin films deposited by RF sputtering	PRESMANES, Lionel

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Lunch (13:00-14:00)

Session 7 - New devices – Applications (14:00-16:10)

Chair: Veronica Sberveglieri

14:00	Metal Oxide Sensors Applied to Industrial and Consumer Applications: Examples and Requirements for Successful Implementation	STENZEL, Adrian
14:30	Application of a micro-machined electronic nose to detect Escherichia coli in human urine samples	SOPRANI, Matteo
14:50	SACMI Electronic Olfactory System based on Semiconducting Metal Oxides	MARZOCCHI, Marco
15:10	Identification of poisonous mushrooms by means of a hand-held electronic nose	LOZANO, Jesus
15:30	MOX sensors to ensure suitable parameters of grated Parmigiano Reggiano Cheese	ABBATANGELO, Marco
15:50	Campilobacter jejuni monitoring, from in vitro to in vivo scenario	NÚÑEZ-CARMONA, Estefanía

Coffee Break (16:10-16:30)

Session 8 - New devices – Application (16:30-18:20)

Chair: Lionel Presmanes

16:30	Selective detection of hydrogen and hydrogen containing gases with metal oxide gas sensor operating in non-stationary thermal regime	VASILIEV, Alexey
17:00	SnO ₂ -based gas sensor for detection of refrigerant gases	IZAWA, Kuniyuki
17:20	Rare-earth based chemoresistive CO ₂ sensors and their operando investigations	SUZUKI, Takuya
17:40	Comparative Analysis between Blood Test and Breath Analysis using Sensors Array for Diabetic Patients	BYUN, Hyung-Gi
18:00	Selective detection of hydrocarbons in real atmospheric conditions by single MOX sensor in temperature modulation mode	KRIVETSKIY, Valeriy

Workshop Closing (18:20-18:30)