



# 9th GOSPEL Workshop. Gas sensors based on semiconducting metal oxides: novel materials & mechanism analyses & application fields

## Monday, August 5, 2024

**Day I, Session II: Chair: Prof. Ho Won Jang (Seoul National University, Korea), Prof. Tetsuya Kida (Kumamoto University, Japan) (1:00 PM - 6:25 PM)**

time	[id] title	presenter
1:00 PM	[143] Operando spectroscopic analysis of the gas detection mechanism of noble metal-decorated metal oxides	KIDA, Tetsuya
1:25 PM	[144] Synergistic Etching and Hydrogen Bonding Induced Self-assembly of MXene/MOF Hybrid Aerogel for Flexible Room Temperature Gas Sensing	LIU, Zhuo
1:40 PM	[145] Surface Defects-Induced Specific Catalysis Activates 100% Selective Sensing towards Amine Gases at Room Temperature	WANG, Wu
1:55 PM	[146] Development of a Sensor Array for NonInvasive Detection of Exhaled Volatile Organic Compounds in Respiratory Diseases	HU, Jiangxue
2:10 PM	[147] An on-chip MOS array for malodorous gas recognition enabled by optimization strategy	JIANG, Yiwei
2:25 PM	[148] Bimetallic Pd, Ce oxide modified SnO <sub>2</sub> for low-temperature carbon monoxide sensing	LI, Mengmeng
2:40 PM	[149] Optimization of the PILs-based humidity sensor's response /recovery characteristics	YU, Yunlong
2:55 PM	[150] Nanoscale MOF-74-based QCM gas sensor for CO <sub>2</sub> detection at room temperature	WANG, Xukun
3:10 PM	Coffee Break	
3:30 PM	[151] Metal-oxide gas sensors: current advances in science and technology to meet challenges	FABBRI, Barbara
3:55 PM	[152] Chemical sensor array using 2D materials	JANG, Ho Won
4:10 PM	[153] Gas-sensing properties of WS <sub>2</sub> /WO <sub>3</sub> hybrids	LLOBET, Eduard
4:25 PM	[154] Preparation and NO <sub>2</sub> sensing performance of WO <sub>3</sub> based gas sensing materials	ZHENG, Qiuyue
4:40 PM	[155] Coordination Polymers derived waxberrylike CuO and flower sphere-like Cu <sub>2</sub> O/CuO: low-power Cl <sub>2</sub> sensing	LI, Ting
4:55 PM	[156] A systematic study on gas selectivity of a room temperature-operated gas sensor based on TiO <sub>2</sub> burr-like nanorods	FANG, Xu
5:10 PM	[196] Thin-film transistor gas sensors employing chalcogenide semiconductor hetero-junction	TANG, Yanting
5:25 PM	[158] Construction of hierarchical In <sub>2</sub> O <sub>3</sub> /In <sub>2</sub> S <sub>3</sub> microsphere heterostructures for TEA detection	ZHANG, Yongjie
5:40 PM	[159] Ultrasensitive Flexible Temperature Sensors Based on Thermal-Mediated Ions Migration Dynamics in Asymmetrical Polymer Bilayers	LI, Fan

5:55 PM

[157] Y-doped spongy like zinc oxide achieves photoexcitation for room temperature detection of NO<sub>2</sub>

ZHENG, Tianrun