

**Session Program**

**Aug 4 - 6, 2024**

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

***Day I, Session I***

# Mon, August 5

1:00 PM

## Day I, Session I: Chair: Prof. Jing Wei (Xi'an Jiaotong University, China), Prof. Fengmin Liu (Jilin University, China)

### Session

1:00 – 1:25 PM

**Portable sensing platforms, based on solid state gas sensors, for outdoor air quality monitoring: a multi-level and iterative approach for development, deployment and calibration**

**Speaker**

Andrea Gaiardo

1:25 – 1:40 PM

**Single-atom copper-doped zinc stannate-based hydrogen sulfide sensor prepared by MOF derivatization method**

**Speaker**

Siqi Li

1:40 – 1:55 PM

**MOS acetone sensors with hot wire type structure**

**Speaker**

Eri Sarumaru

1:55 – 2:10 PM

**Cu(II) coordination MOF-303 based dual- functional sensor for precisely detecting and distinguishing humidity and temperature with multifunction applications**

**Speaker**

Ke Wu

2:10 – 2:25 PM

**Highly sensitive and moisture-resistant gas sensor with Sn doping on rod Pt/CeO<sub>2</sub> for n- butanol detection**

**Speaker**

Zhen Wang

2:25 – 2:40 PM

**A pulsed detection method for Pt-doped In<sub>2</sub>O<sub>3</sub> field effect H<sub>2</sub> sensors**

**Speaker**

Meile Wu

2:40 – 2:55 PM

**MOX Sensors on MEMS platform- a way for the selective detection of hydrogen containing gases**

**Speaker**

Alexey Vasiliev

2:55 – 3:10 PM

**Ferroelectric polarization induced fast response of ABO<sub>3</sub> humidity sensor**

**Speaker**

Nan Ma

3:10 – 3:30 PM **Coffee Break**

3:30 – 3:55 PM

**Exploring gas sensing mechanism of metal oxides using cutting-edge in situ characterization techniques**

**Speaker**

Pengcheng Xu

3:55 – 4:10 PM

**The MOX Sensor Modification for Real Condition of Work Based on Experience Using One in Gas Leakage Detector**

**Speaker**

Nikolay Samotaev

4:10 – 4:25 PM

**Self-template synthesis of mesoporous metal oxide spheres for enhanced gas sensing performance**

**Speaker**

Jing Wei

4:25 – 4:40 PM

**Gas sensor array based on ZnO-Au-SnO<sub>2</sub>: Synthesis and device application for mixture classification**

**Speaker**

Mingzhi Jiao

4:40 – 4:55 PM

**Flexible, Wearable, room-temperature NO<sub>2</sub> gas sensor based on MoS<sub>2</sub>/ZnS**

**Speaker**

Yiyang Xu

4:55 – 5:10 PM

**Electronic nose utilizing low-dimensional nanomaterials and its applications in exhaled breath analysis**

**Speaker**

Hua-Yao Li

5:10 – 5:25 PM

**Highly sensitive and stable low humidity sensors based on polymeric ionic liquid and polybenzimidazole composites**

**Speaker**

Yaping Song

5:25 – 5:40 PM

**Microwave Split Ring Resonator (SRR) Sensor Based on Multilayered Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> Mxene for Room Temperature ppb-Level Nitrogen Dioxide Sensing**

**Speaker**

Xianwang Yang

5:40 – 5:55 PM

**Effect of heterogenous dopant and high temperature pulse excitation on ozone sensing behavior of In<sub>2</sub>O<sub>3</sub> nano-structures and an image recognition method coupled to ozone sensing Array**

**Speaker**

Ning Sui

5:55 - 6:10 PM

**Highly selective gas sensor for rapid detection of triethylamine using PdRu alloy nanoparticles functionalized SnO<sub>2</sub>**

**Speaker**

Yilin Wang

6:25 PM