

[TS06F7]

Nanomaterials and Emerging Technologies for Next Generation Sensors 5

Date & Time	July 5(Fri.), 2024 / 14:00–16:30
Place	Room 208
Session Chair(s)	Chan Ho Park (Gachon Univ.)

TS06F7_O_1

14:00–14:15

Surface Functionalization of Graphene for Selective and Flexible Chemical Sensor

Seungsoo Kim¹ and Ho Won Jang^{1,2}

(¹Seoul National University, ²Advanced Institute of Convergence Technology)

TS06F7_O_2

14:15–14:30

Electrochemically Chlorinated Graphene for Ultrafast NO₂ Detection at Room Temperature

Jaeyeon Oh¹, Sungjin Cho¹, Ansoon Kim¹, Woo Lee¹, Seongpil An², and Yeonhoo Kim¹

(¹KRISS, ²Sungkyunkwan University)

TS06F7_O_3

14:30–14:45

Investigation of Improved NO₂ Sensing Property of Substitutional Transition Metal-Doped Molybdenum Disulfide based on In-situ Raman Analysis

Jae-Woo Seo, Ga-Yeon Baek, Seung-Ho Choi, Yeon-Joo kim, and Seon-Jin Choi

(Hanyang University)

TS06F7_O_4

14:45–15:00

MWCNT-MOF Composites Functionalized with Schiff Base Derivatives for Selective Detection of Heavy Metal Ion

Yeon-Joo Kim, Seung-Ho Choi, Jae-Woo Seo, Ga-Yeon Baek, and Seon-Jin Choi

(Hanyang University)

TS06F7_O_5

15:00–15:15

Metalloporphyrin-Functionalized Polymer-SWCNT Composites: Effect of Metal Chelation on NO₂ Sensing Properties

Ga-Yeon Baek, Seung-Ho Choi, Jae-Woo Seo, Yeon-Joo Kim, and Seon-Jin Choi

(Hanyang University)

TS06F7_O_6 15:15–15:30**Metal-Center Effect of Metalloporphyrin-Based Selectors on Chemiresistive Heavy Metal Ion Sensing**

Seung-Ho Choi, Jae-Woo Seo, Yeon-Joo Kim, Ga-Yeon Baek, and Seon-Jin Choi

*(Hanyang University)***TS06F7_O_7** 15:30–15:45**Exclusive and Ultrasensitive Detection of H₂S at Low Temperature using MOF/SnS₂ Heterostructure**

Soo Min Lee and Ho Won Jang

*(Seoul National University)***TS06F7_O_8** 15:45–16:00**Room Temperature Operation of CO₂ Gas Sensor based on Ca & Al Co-Doped ZnO**Eunjin Kim¹, Daewoong Jung², Gil Sik Lee¹, and Jeong Bong Lee³*(¹University of Texas at Dallas, ²KITECH, ³Baylor University)***TS06F7_O_9** 16:00–16:15**V₂O₅ Humidity Sensor for Wide Range Humidity Detection**Sung Jin Cho^{1,2}, Jae Yeon Oh¹, Hyun Ho Kim³, and Yeon Hoo Kim^{1,2}*(¹KRISS, ²UST, ³Kumho National Institute of Technology)***TS06F7_O_10** 16:15–16:30**Unveiling the Potential of MAPbI₃-PVDF Composite Films for Self Powered Pressure and Broadband Light-Sensing Applications**

Venkatraju Jella, Swathi Ippili, and Soon-Gil Yoon

(Chungnam National University)