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Synergistic effects of Au on the gas sensing properties of Yb-doped Co₃O₄-In₂O₃ nanostructures

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Noble metals such as Ag, Au, and Pt have been reported to improve gas sensor sensitivity by inducing electronic and chemical sensitization of the sensor layer. This is one of the methods used to enhance the gas response of metal oxide semiconductors for the detection of volatile organic compounds (VOCs). Monitoring of emitted VOCs in industrial and residential spaces serves as a precautionary measure for possible exposure to emissions exceeding the recommended limits. Herein, we report on the detection of BTEX compounds, which are aromatic VOCs using Au-loaded ytterbium-doped Co₃O₄-In₂O₃ nanostructures at a working temperature of 100 °C.

Apply to be considered for a student ; award (Yes / No)?

Yes

Level for award;(Hons, MSc, PhD, N/A)?

PhD

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