

## Effect of Depositing Tin Oxide Thin Film in Liquid Phase and Dip-Coating Cu and Au Catalysts on H<sub>2</sub>S Gas-Sensing Performance

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(Received July 30, 2008; accepted November 23, 2008)

**Key words:** LPD, tin oxide, porous, catalyst, gas sensor

In this study, unlike conventional methods used to grow gas sensor films, a liquid-phase deposition method was used to deposit fluorine-doped tin oxide as the sensing material of a gas sensor. Furthermore, silica was doped into the film as an inhibitor to prevent the grain growth of tin oxide during the calcination process. This structure can be used to improve the sensitivity of a H<sub>2</sub>S sensor. By adding a moderate quantity of copper and gold catalysts on the surface of film, the sensitivity can be dramatically improved.

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