

THE INFLUENCE OF STRUCTURAL FACTORS
ON SENSITIVITY OF SnO₂-BASED GAS
SENSORS TO CO IN HUMID
ATMOSPHERE

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The influence of a crystallographic orientation of SnO₂ grain surfaces on the gas-sensing characteristics is considered by the example of the interaction of CO with different tin oxide surfaces in the presence of water. The charge state of a chemisorbed hydroxyl group varies depending on the predomination of different atomic faces of SnO₂ nanocrystallites prepared in different technologies. Involving the differently charged OH groups in the catalytic reaction with CO affects the sensor sensitivity.