

## Supporting Information

### Crystal Plane-Dependent Gas-Sensing Properties of Zinc Oxide

#### Nanostructures: Experimental and Theoretical Studies

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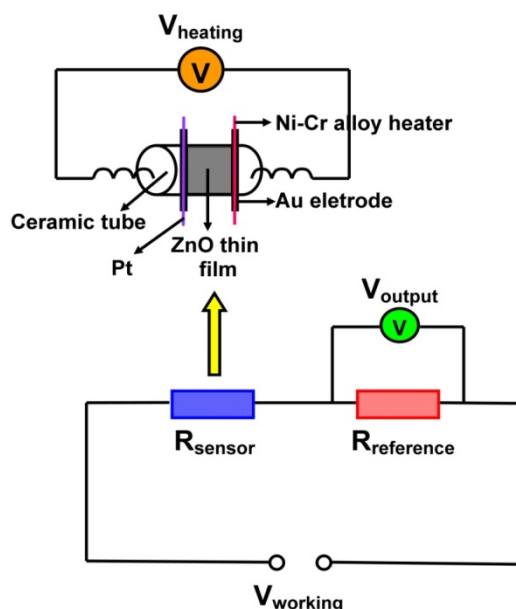
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#### List of supporting figures:

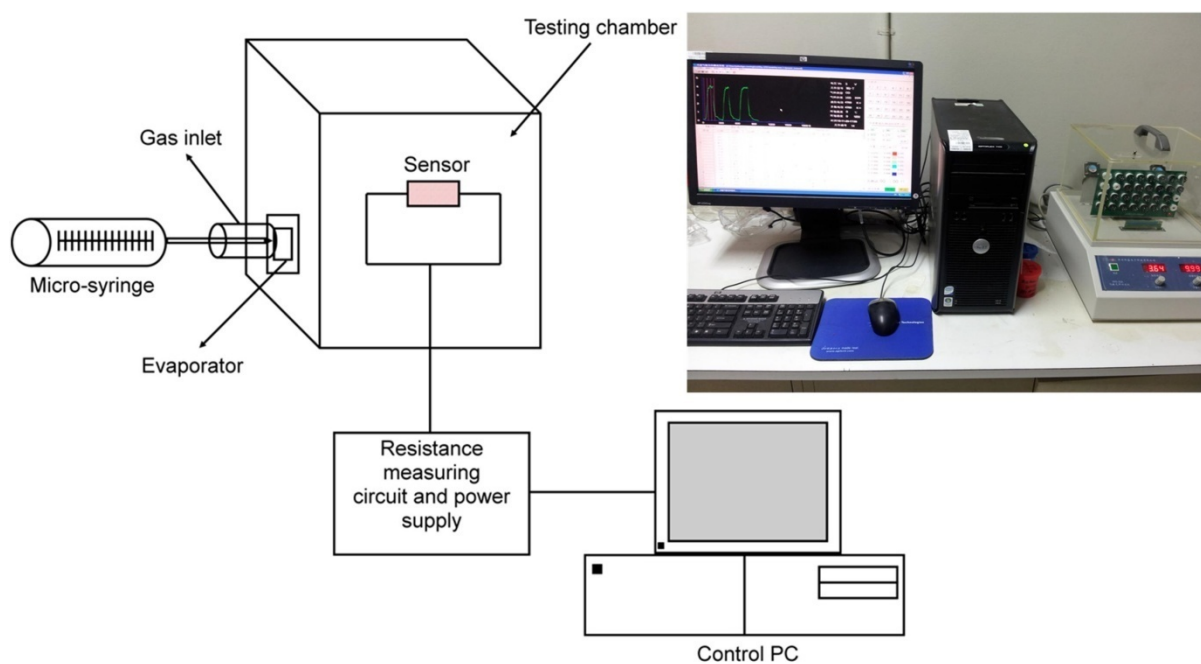
##### *Gas-Sensing Measurement Diagram*



**Fig. S1** Schematic diagram of the WS-30A gas-sensing measurement system

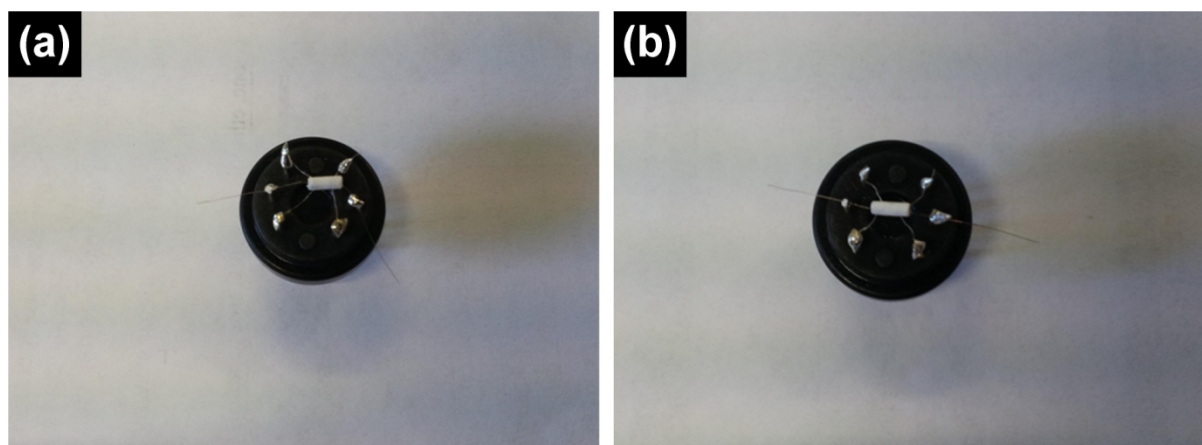
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## *Static State Gas-Distribution Method*



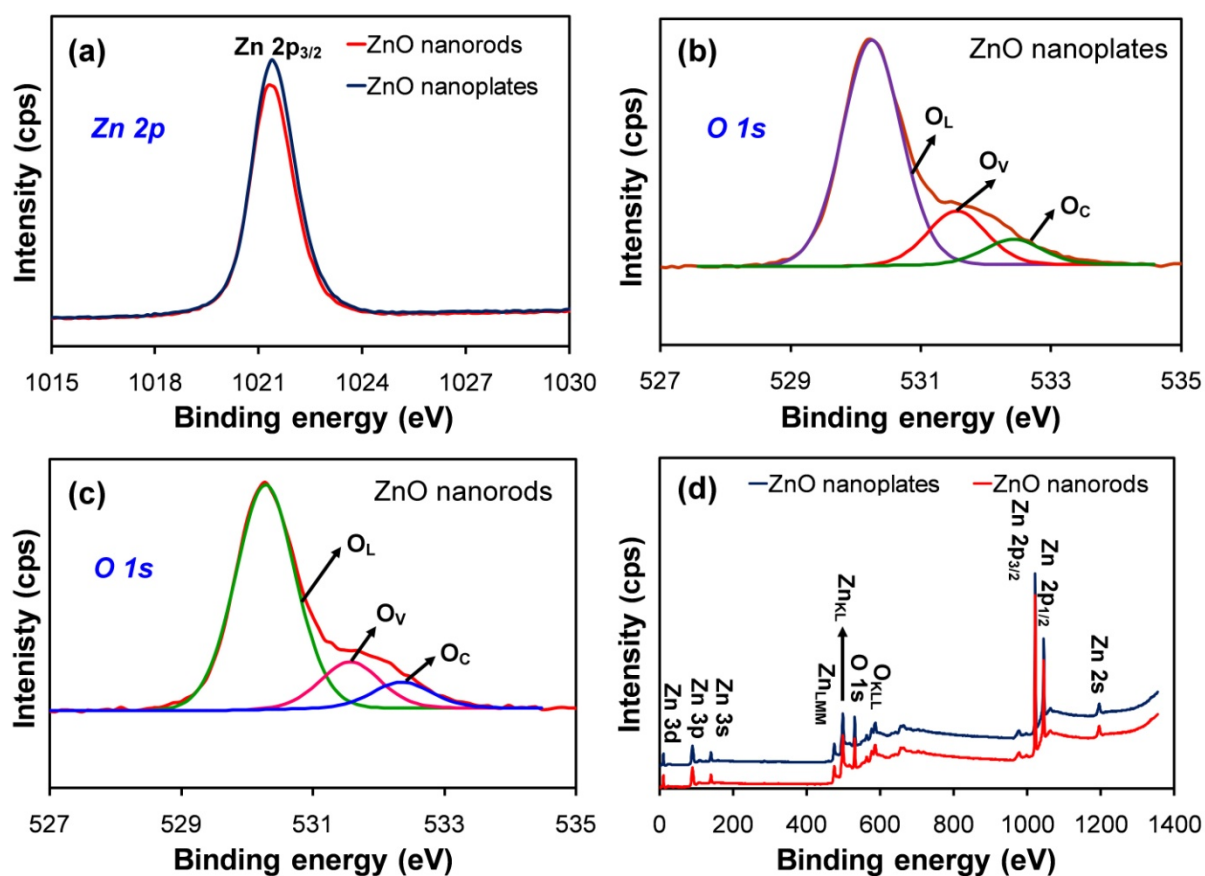
**Fig. S2** Schematic diagram of the static state gas-distribution method used for the gas-sensing measurements.

## *Sensor Pictures*



**Fig. S3** Digital photograph of the sensor prepared from: (a) ZnO nanoplates, and (b) ZnO nanorods.

## XPS Analysis



**Fig. S4** (a) Zn 2p XPS spectra of ZnO nanorods and nanoplates; O 1s XPS spectra of: (b) ZnO nanoplates, (c) ZnO nanorods; (d) survey spectra of ZnO nanoplates and nanorods.