

Supporting Information:

Incorporating N atoms into SnO₂ nanostructure as an approach to enhance gas sensing property for acetone

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Figure S1:

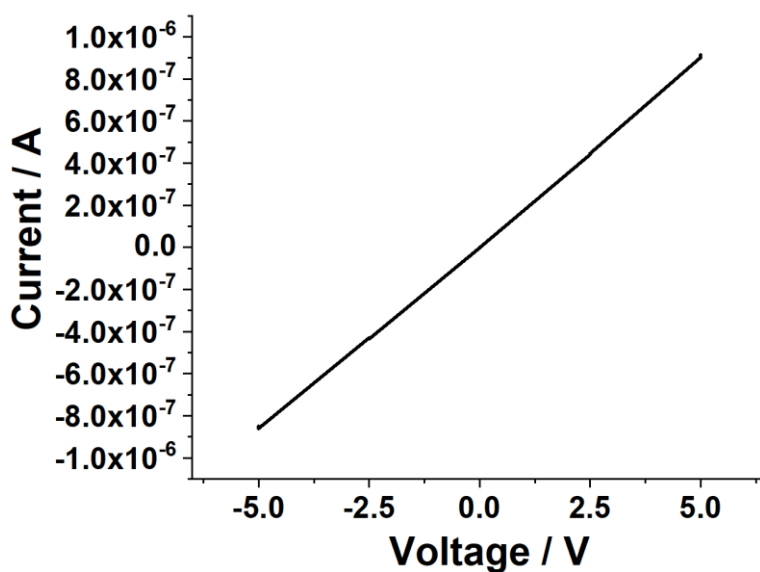


Figure S1. The V-I curve of the N-incorporated SnO₂ sample on Ag electrodes coated Al₂O₃ substrate at 300 °C

Figure S2:

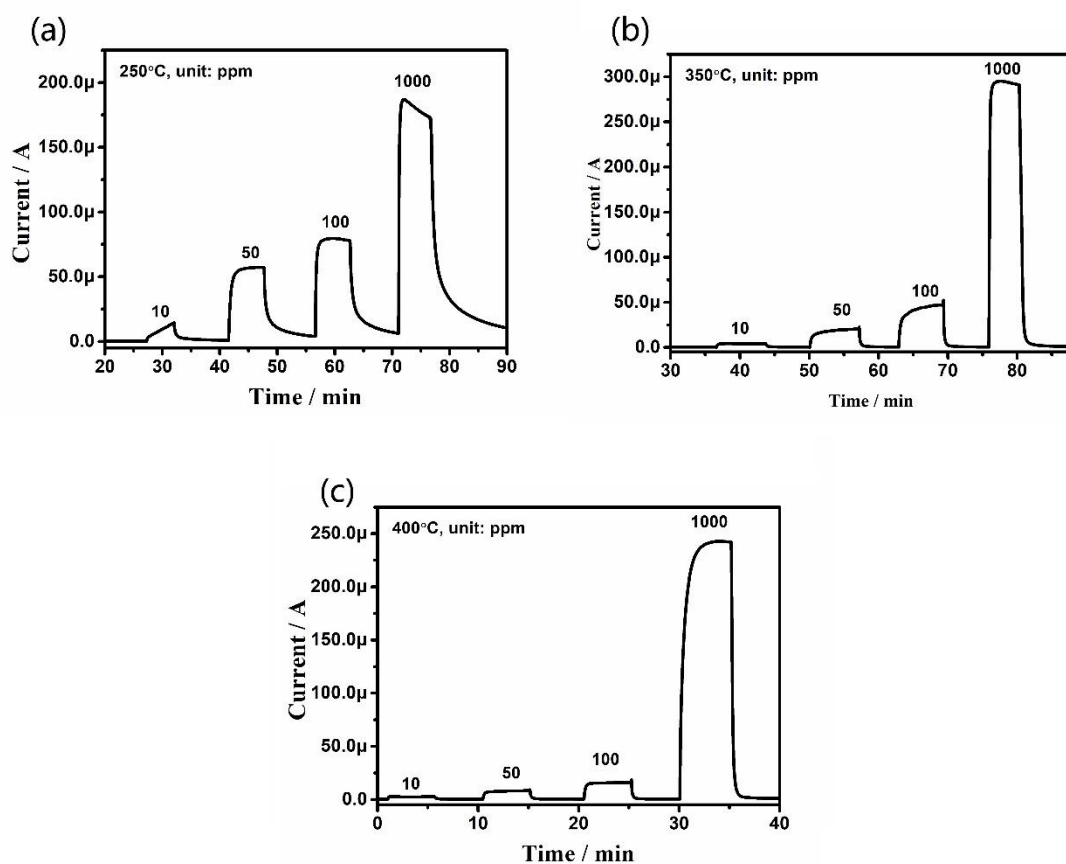


Figure S2. Typical response-recovery current curves of the N-incorporated SnO₂ gas sensor toward acetone gas with different concentration at different temperatures: (a) 250 °C; (b) 350 °C; (c) 400 °C.

Figure S3:

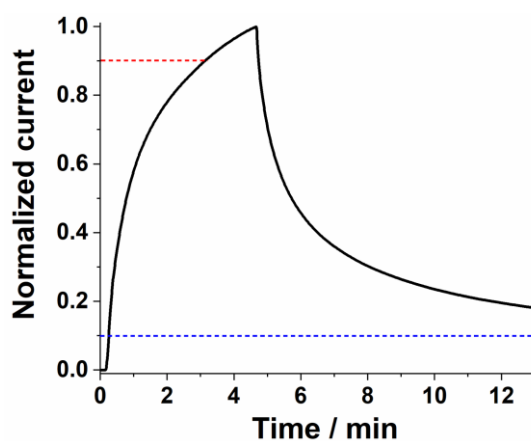


Figure S3. The response and recovery curve for the N-incorporated SnO₂ sample toward 1 ppm of acetone at 200 °C

Figure S4:

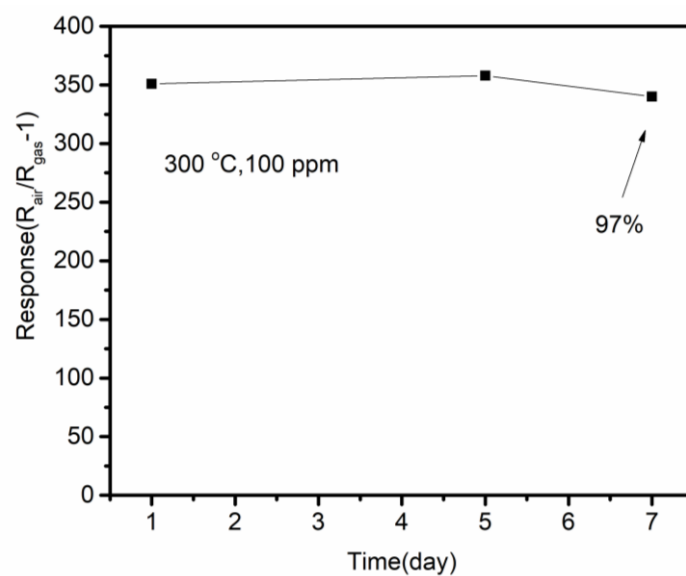


Figure S4. Stability response curve of the N-incorporated SnO₂ gas sensor toward 100 ppm of acetone at 300 °C.

Table S1: The repeatability within a batch of three samples

Sample number	Acetone concentration (ppm)	Working temperature (°C)	Sensor Response ($R_{air}/R_{gas}-1$)	Relative standard deviation (RSD)
1#	100	300	357	2%
2#	100	300	351	
3#	100	300	343	