Electronic Supplementary Material (ESI) for RSC Advances.


# Electronic Supporting Information

## Ultralow Power Consumption gas Sensor based on Self-heated Nanojunction of $SnO_2$ Nanowires

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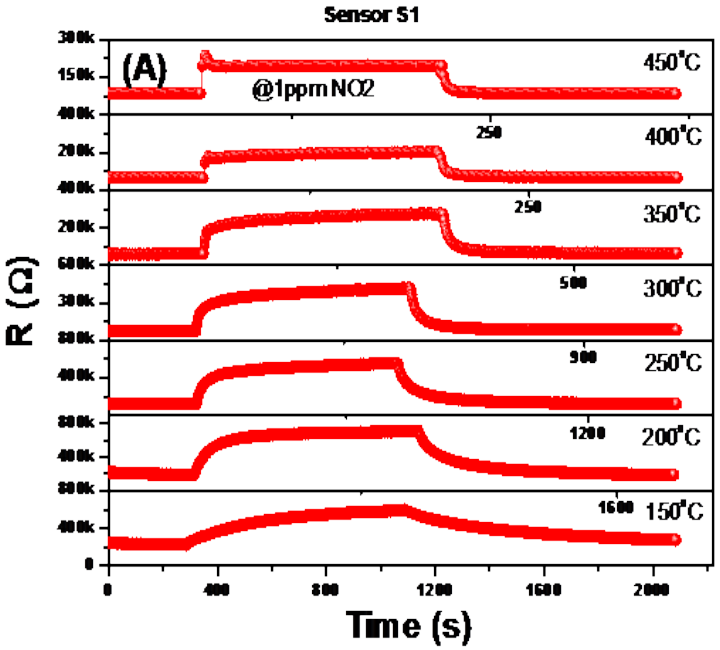
**Figure S1. (A)** Transient resistance vs. time upon exposure to 1 ppm $NO_2$ measured at different temperatures of sensor S1; (B) sensor response as a function of working temperatures.



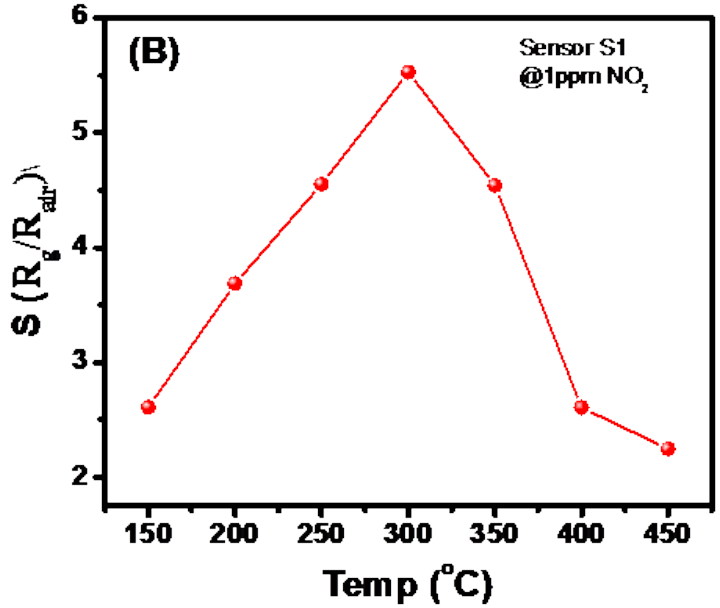



**Figure S2.** Transient resistance vs. time upon exposure to various $NO_2$ concentrations measured at different powers of sensor S1.

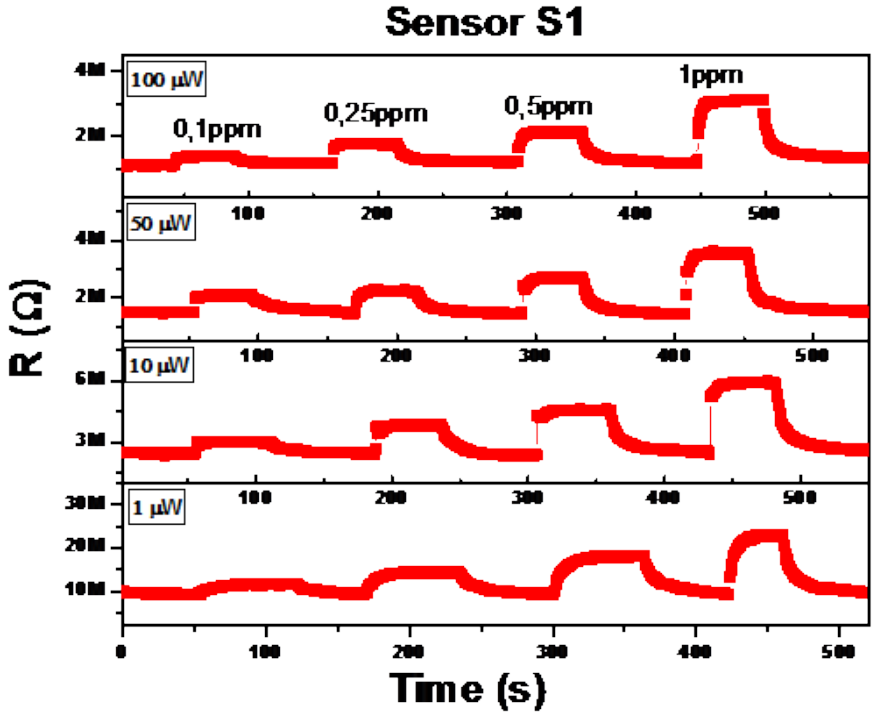


**Figure S3.** Low magnification SEM image of sensor S2 after damage.

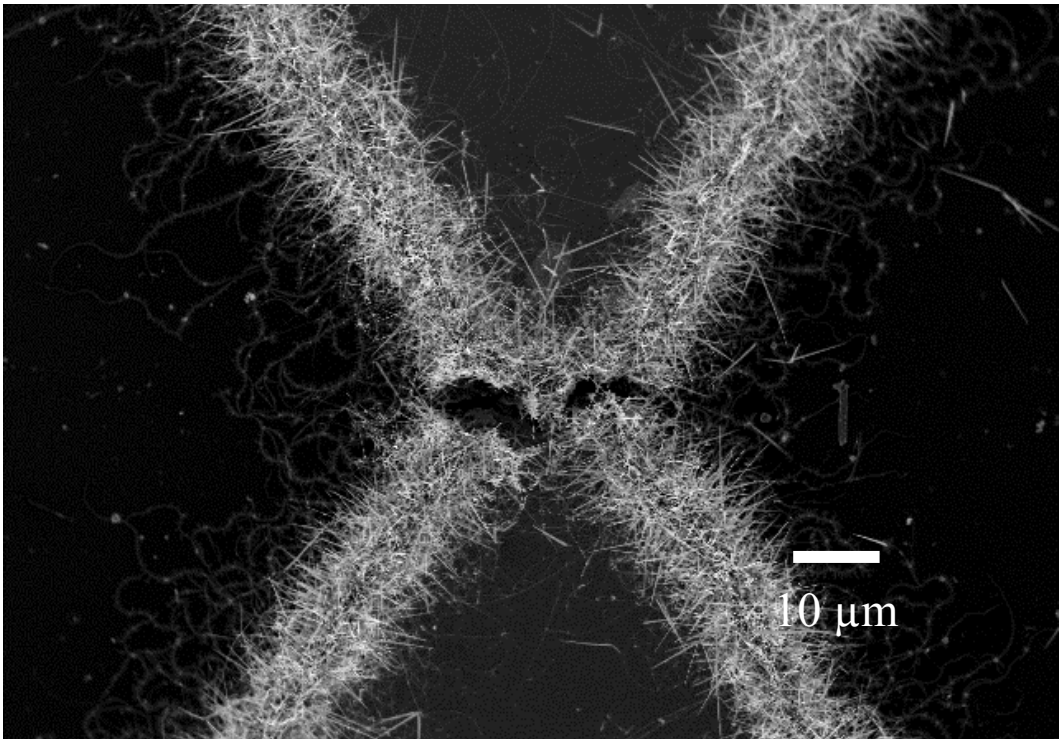


**Figure S4.** Stability of sensor S1 after a month continuous operation at supplied power of 10 µW.