Supporting Information for

ZnO@ZnS Core/shell Microrods with Enhanced Gas Sensing Properties

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Figure S1. Working principle of gas sensor test. $V_h$: Heating voltage; $V_{out}$: Output signal voltage; $V_c$: Test circuit voltage; $R_L$: Load resistance.
Figure S2. The corresponding EDS spectrum of the ZnO@ZnS core/shell MRs.
**Figure S3.** SEM images of ZnO@ZnS MRs sulfurized in Na$_2$S solution for (a) 12 h, (b) 16 h, (c) 20 h, and (d) 28 h.
Figure S4. XRD patterns of the ZnO@ZnS core/shell MRs sulfurized for different times.
Figure S5. Response of the ZnO@ZnS core/shell MR sensor to 100 ppm n-butanol at different temperature.
Figure S6. Reproducibility of the ZnO@ZnS core/shell MR based sensor on successive 100 ppm of n-butanol.