Supporting Information

Design of highly sensitive and selective Au@NiO yolk-shell nanoreactors for gas sensor applications

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Fig. S1 Cross section SEM images of (a and b) NiO and (c and d) Au@NiO yolk-shell nanoparticles.



Fig. S2 Response transient of Au@NiO yolk-shell NPs at various temperatures and concentrations of H₂S.



Fig. S3 Response transient of Au@NiO yolk-shell NPs at 400°C for 5 ppm of H₂S: (a) 1st day, (b) 2nd day, (c) 3rd day, (d) 4th day, and (e) 5th day.



Fig. S4 Schematic diagram of conduction of current in hollow NiO and Au@NiO yolk-shell NPs containing grain boundaries.