

Supporting information

Ethanol Sensing Properties and First Principles Study of Au Supported on Mesoporous ZnO Derived from Metal Organic Framework ZIF-8

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Table S1. Au element content in Au/ZnO samples (ICP).

Materials	Element	Content(wt.%)
ZnO	--	--
Au/ZnO-0.5	Au	0.9194
Au/ZnO-1.0	Au	1.7895
Au/ZnO-1.5	Au	2.9764

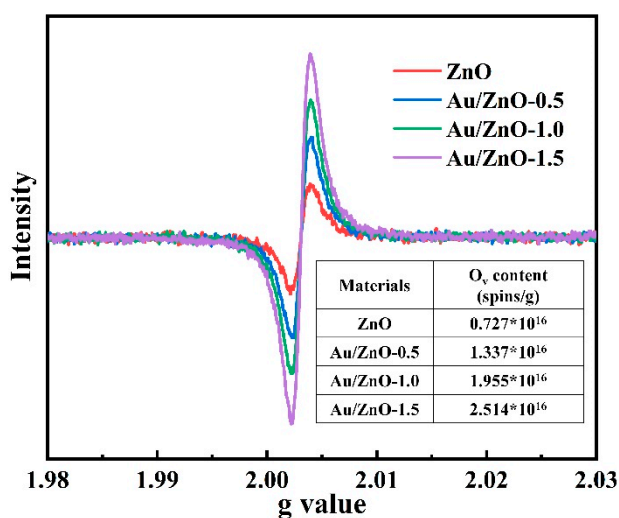


Figure S1. Quantitative analysis of oxygen vacancies in Au/ZnO.

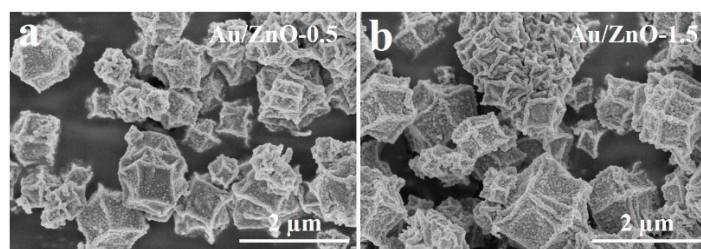


Figure S2. SEM images of (a) Au/ZnO-0.5, (b) Au/ZnO-1.5.

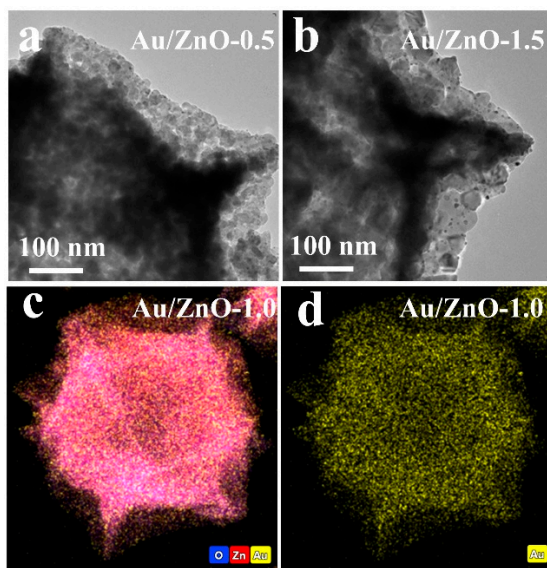


Figure S3. (a–b) TEM images of Au/ZnO-0.5 and Au/ZnO-1.5; (c–d) Mapping spectrum of Au/ZnO-1.0.

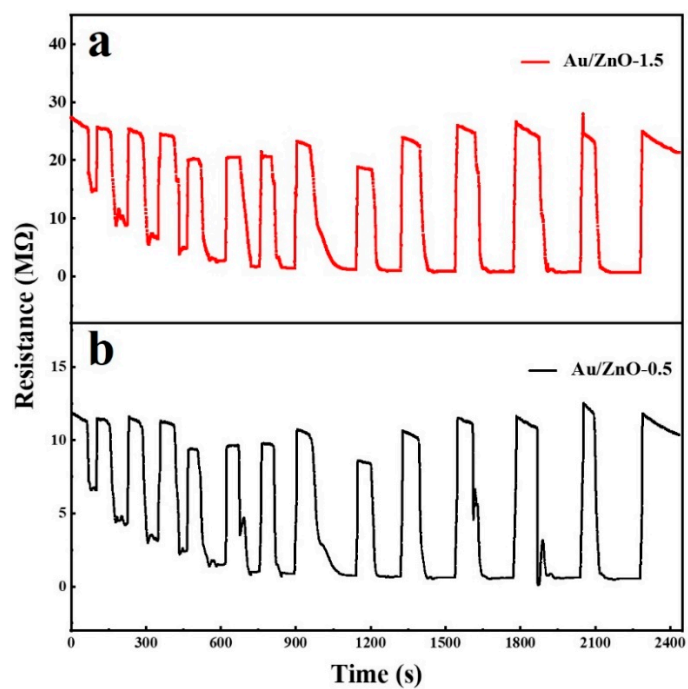


Figure S4. Dynamic response graph of (a) Au/ZnO-1.5 and (b) Au/ZnO-0.5 samples to ethanol (1-100 ppm).

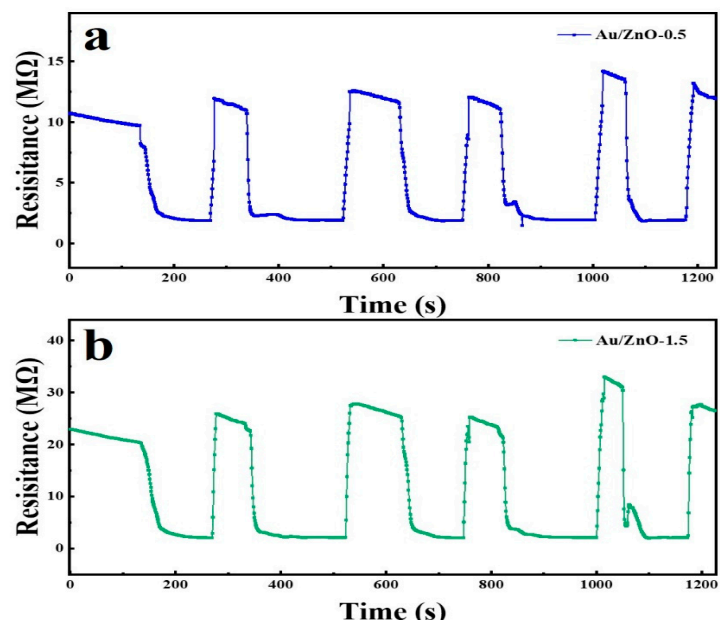


Figure S5. 5-cycle dynamic response-recovery curve of (a) Au/ZnO-0.5 and (b) Au/ZnO-1.5 samples to ethanol (100 ppm).