

Highly sensitive and fast-response ethanol sensing of porous Co₃O₄ hollow polyhedra via palladium reined spillover effect

Guotao Yuan¹, Yihong Zhong¹, Yufeng Chen¹, Qiqi Zhuo^{2,} & Xuhui Sun^{1,*}*

¹Institute of Functional Nano and Soft Materials Laboratory (FUNSOM), Soochow University, Suzhou 215123, China

²College of Material Science & Engineering, Jiangsu University of Science and Technology, Zhenjiang, China

* Corresponding authors: Email: zqq88263268@126.com (Q. Zhuo); xhsun@suda.edu.cn (X. Sun).

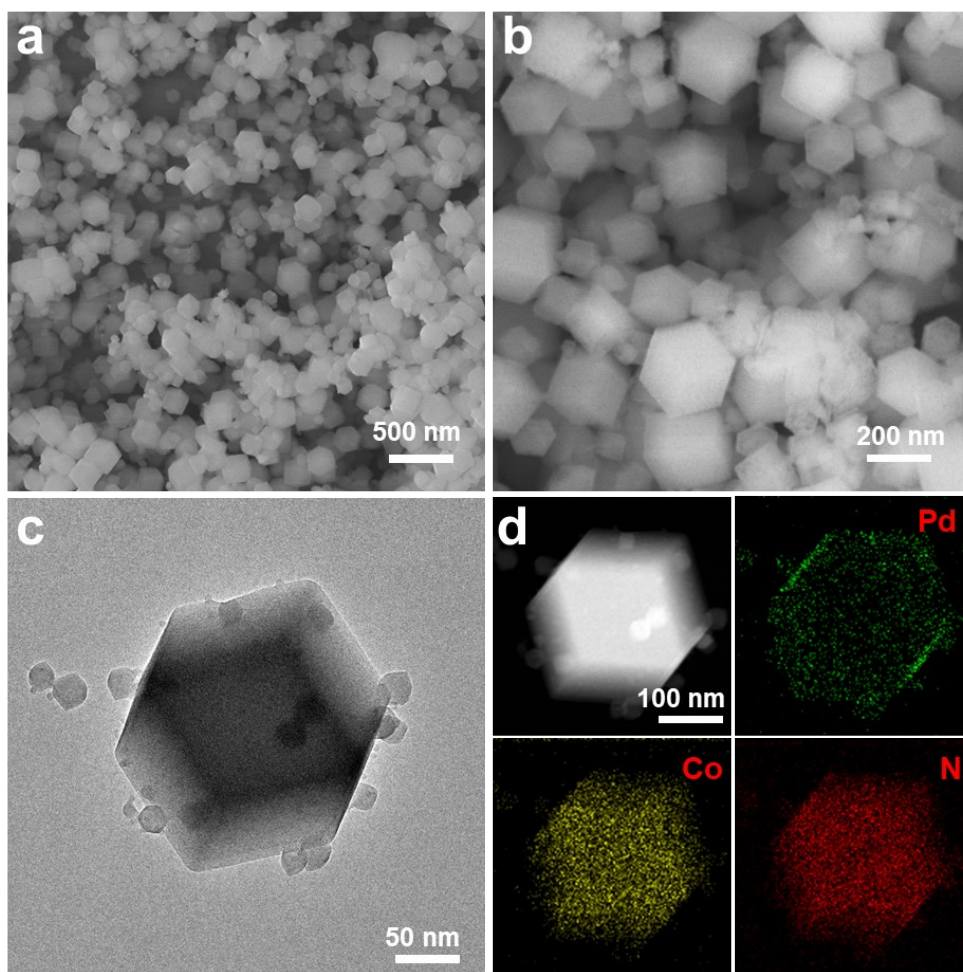


Figure S1 (a) and (b) the SEM images of Pd-ZIF-67 with different magnifications; (c) TEM image and (d) corresponding EDX mappings of Pd, Co, and N elements

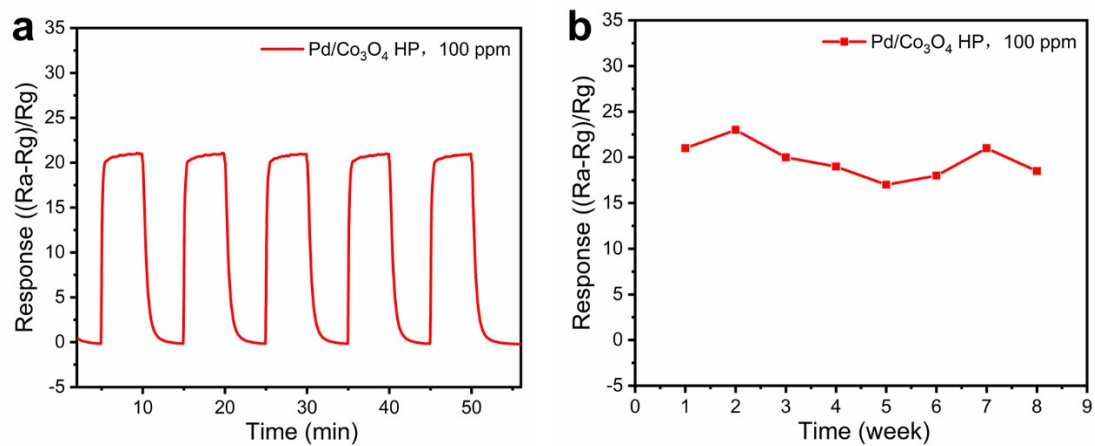


Figure S2 The sensing stability tests. (a) the response transient cycles and (b) long-term stability testing curve of Pd/Co₃O₄ HP sensor to 100 ppm of ethanol at 150 °C.

Table S1 Gas sensing performances based on various nanostructures of Co_3O_4 composites in literatures and the present work.

Target gas	Materials	Morphology	Temp. ($^{\circ}\text{C}$)	Con. (ppm)	Res. (Rg/Ra)	Res./Rec. times (s)	Ref
Ethanol	Co_3O_4	nanosheet	300		57.7	66/10	[1]
	Cr/ Co_3O_4	nanosheet	300		24.6	1/7	[2]
	$\text{Co}_3\text{O}_4/\text{CF}$	flower	320		4.2	44/31	[3]
	$\text{Co}_3\text{O}_4/\text{NCF}$	nanosheet	100	100	10.4	45/140	[4]
	$\text{ZnO}/\text{Co}_3\text{O}_4$	microsphere	275		~60	5.6/29	[5]
	Pd/ Co_3O_4	Hollow polyhedral	150		21	12/25	This work

References

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