Supporting Information for New Journal of Chemistry

A good-performance glucose sensor by rational designing a new cobalt-metal-organic framework precursor

Chao Han[a], Lei Nie[a], Xiao Han[b], Xiaoli Zhuang[a], Jingrui Zhang[a], Yulan Rui[a], Wei Meng[a],*

[a] College of Chemical Engineering, North China University of Science and Technology, Tangshan, 063009, China; [b] College of Chemical Engineering & Material and Hebei Key Laboratory of Heterocyclic Compounds, Handan University, Handan, 056005, China

*Corresponding author: Tel.: +86 315 8805462; Fax: +86 315 8805462.
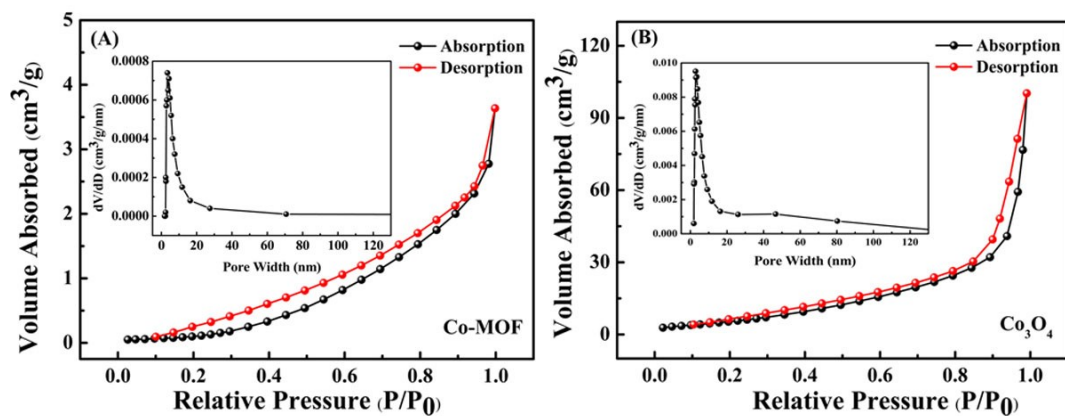
E-mail address: mengwei@ncst.edu.cn

Fig. S1 N$_2$ adsorption-desorption isotherms and pore size distribution (inset) of (A) Co-MOF and (B) Co$_3$O$_4$.

Table S1 The surface area and pore volume of Co-MOF and Co_3O_4.

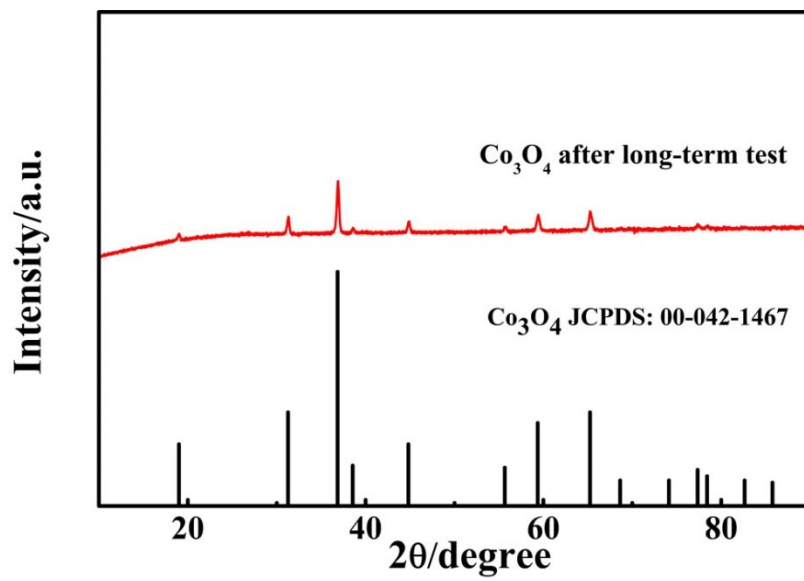| Samples	Surface area ($m^2\ g^{-1}$)		Total pore volume ($cm^3\ g^{-1}$)	Distribution centre of pore size (nm)
	BET	Langmuir		
Co-MOF	0.69	1.47	0.0056	3.47
Co_3O_4	23.63	41.13	0.16	2.84

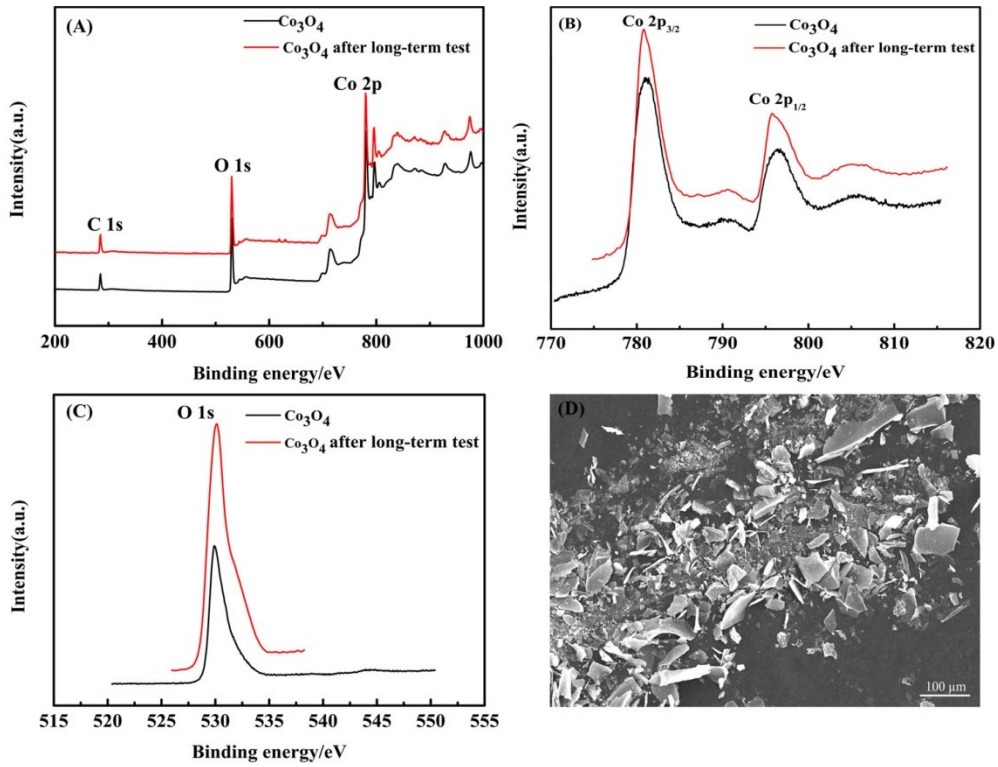**Fig. S2** The XRD patterns of standard card of Co_3O_4 and Co_3O_4 after long-term test.

Fig. S3 The comparisons of XPS spectra of the synthesized Co_3O_4 and Co_3O_4 after long-term test: (A) full spectra, (B) high-resolution spectra of Co 2p, (C) high-resolution spectra of O 1s and (D) the SEM image of Co_3O_4 after long-term test.