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Supporting Information

ZIF-67 derived Co_3O_4 dodecahedron shaped microparticles electrode based extended gate field-effect transistor for nonenzymatic glucose detection towards diabetes mellitus diagnosis

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1. d-spacing and Lattice plane of ZIF-67 derived Co_3O_4

Lattice Plane	d-spacing (nm)	
311	0.243462	
400	0.179321	
422	0.165437	
440	0.142779	

 Table S1: d-spacing value obtained from HRTEM images

2. Histogram plot of ZIF-67 and ZIF-67 derived Co₃O₄

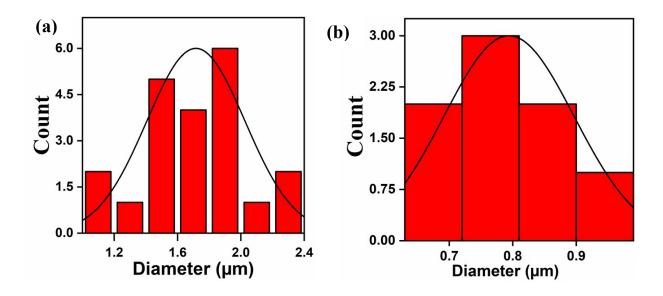


Figure S1. (a) Histogram of ZIF-67 particle size obtained from HRSEM images, (b) Histogram of ZIF-67 derived Co_3O_4 obtained from HRTEM images.

3. Elemental Composition of ZIF-67 derived Co₃O₄

Table S2: Elemental composition of ZIF-67 derived Co₃O₄ and its weight percentage.

Element Line Type	Wt.%	Wt.% Sigma	
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0	K series	34.12	0.77
Со	K series	65.88	0.77
Total:		100.00	

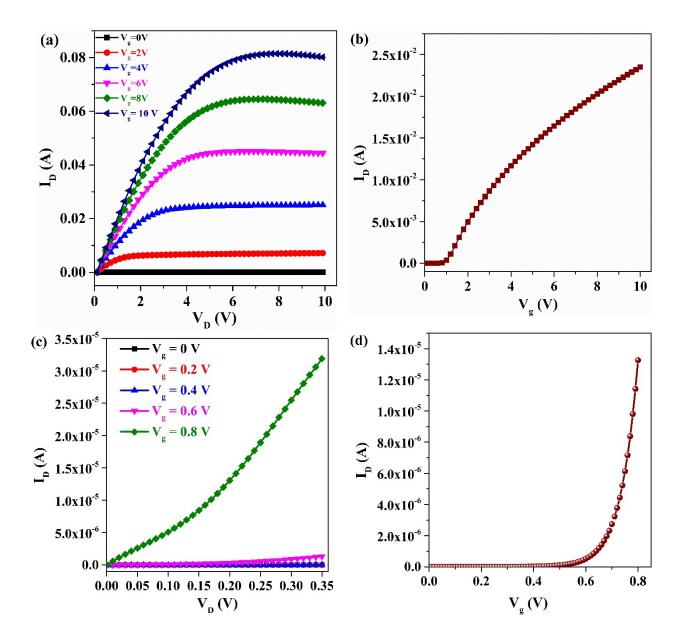


Figure S2. (a) The output curve of the commercial MOSFET, (b) Corresponding transfer curve of MOSFET. Here, the V_D range is from 0 to 10 V, (c) and (d) The output curve with V_D ranges from 0 to 0.8 V and corresponding transfer curve of MOSFET with $V_D = 0.33$ V.

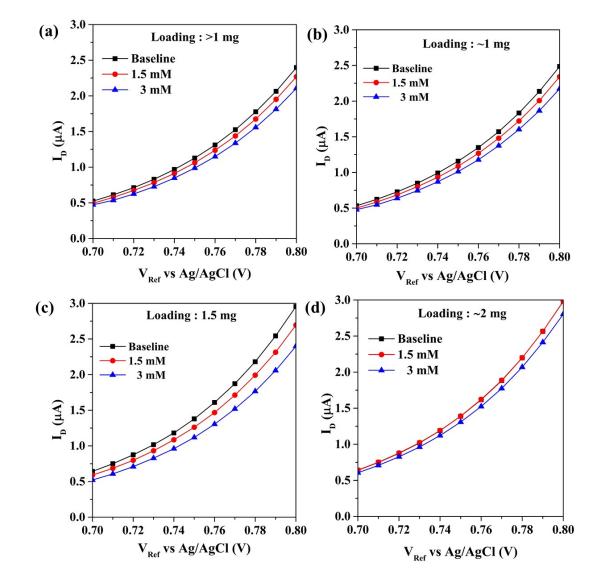


Figure S3. (a), (b), (c) and (d) represents I-V characteristics of sensing electrode with different loaded weight of ZIF-67 derived Co_3O_4 on the Cu foil.