## **Supplementary Materials for**

## Porous $Co_3O_4$ nanoplates as efficient electromaterial for

## non-enzymatic glucose sensing

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Fig. S1 SEM images of samples obtained at the reaction temperatures of (a) 140 °C,

(b) 150 °C, (c) 170 °C and (d) 180 °C.



Fig. S2 SEM images of samples obtained with the addition of different amount of

NaOH: (a) 0.0344 g, (b) 0.0687 g, (c) 0.1037 g, (d) 0.1719 g and (e) 0.2061 g.



Fig. S3 SEM images of samples obtained with the addition of different amount of L-

lysine: (a) 0.0254 g, (b) 0.0627 g, (c) 0.1887 g and (d) 0.2516 g.



Fig. S4 Plot of peak current densities obtained from the CVs vs. scan rate.



Fig. S5 (a), (b) Amperometric response of Co<sub>3</sub>O<sub>4</sub>/GCE for different concentrations of glucose in 0.1 M NaOH solution at applied potential of 0.40 and 0.42 V vs. Ag/AgCl, respectively. (c), (d) The corresponding calibration curve for glucose of (a) and (b), respectively.



Fig. S6 (a) Current response of  $Co_3O_4/GCE$  upon the successive injection of glucose at low concentrations. (B) The corresponding plots of steady-state current versus glucose concentration.



Fig. S6 7 CVs tested using the same Co<sub>3</sub>O<sub>4</sub>/GCE electrode in a 0.1 mM glucose



solution (scan rates: 0.1 V/s).

Fig. S8 Amperometric response of 3 fresh Co<sub>3</sub>O<sub>4</sub>/GCE sensors with the addition of

0.1 mM glucose at the applied potential of 0.38 V.