## Supplementary materials:

## CoO/Co-graphene quantum dot as oxidative mimetic nanozyme

## for the colorimetric detection of L-Cysteine

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**Fig. s1** A: UV-vis absorption spectra of CoO/Co-Try-GQD + TMB in O<sub>2</sub>, air and N<sub>2</sub> solutions. B: The relative activity of different scavengers on the CoO/Co-Try-GQD + TMB system.



Fig. s2 Effect of pH (A), temperature (B) and reaction time (C) on catalytic activity.



Fig. s3 The total (A) and Co 2p (B) XPS spectra of CoO/Co-Try-GQD before and after interaction with

L-cys.



Fig. s4 Stability of CoO/Co-Try-GQD in buffer.





Met) and ions (K<sup>+</sup>, Na<sup>+</sup>), respectively.