

Supplementary Materials

Catalytic evaluation and in-vitro bacterial inactivation of graphitic carbon nitride/carbon spheres doped bismuth oxide quantum dots with evidential in-silico analysis

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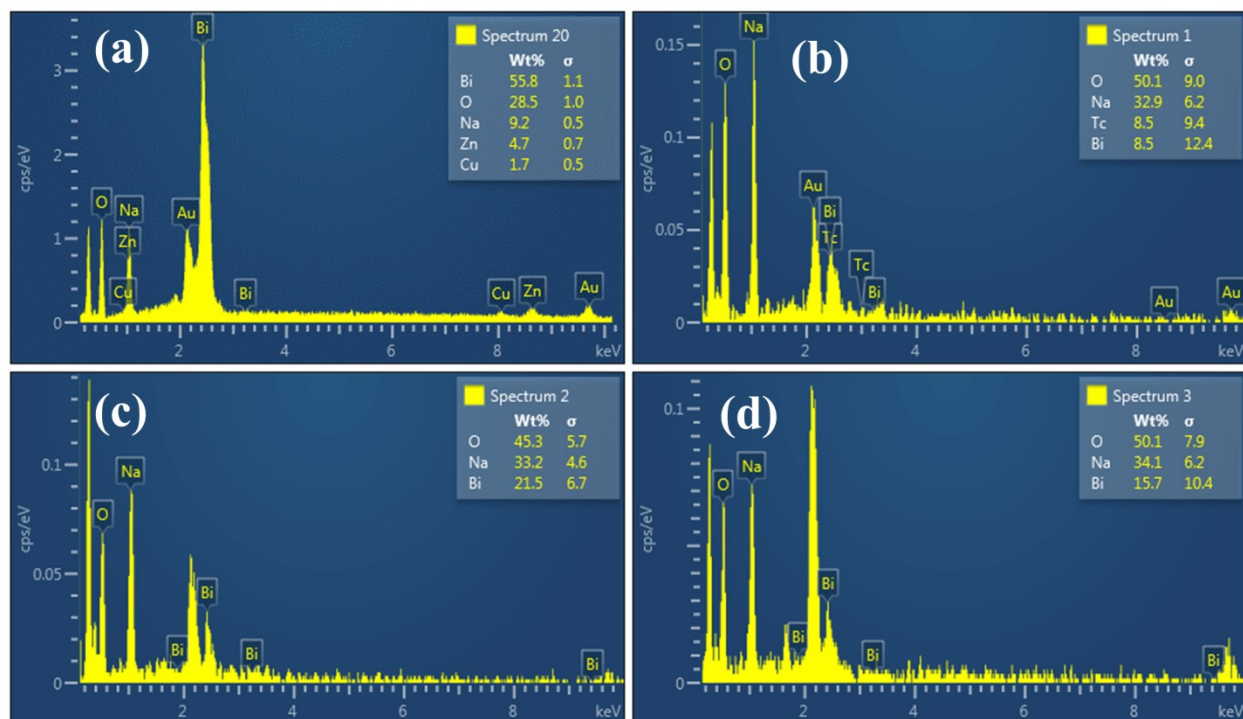


Fig. S1 The elemental mapping of (a) Bi_2O_3 (b) $\text{CS-Bi}_2\text{O}_3$ (c) (3 wt. %) $\text{g-C}_3\text{N}_4/\text{CS-Bi}_2\text{O}_3$ (d) (6 wt.%) $\text{g-C}_3\text{N}_4/\text{CS-Bi}_2\text{O}_3$ QDs

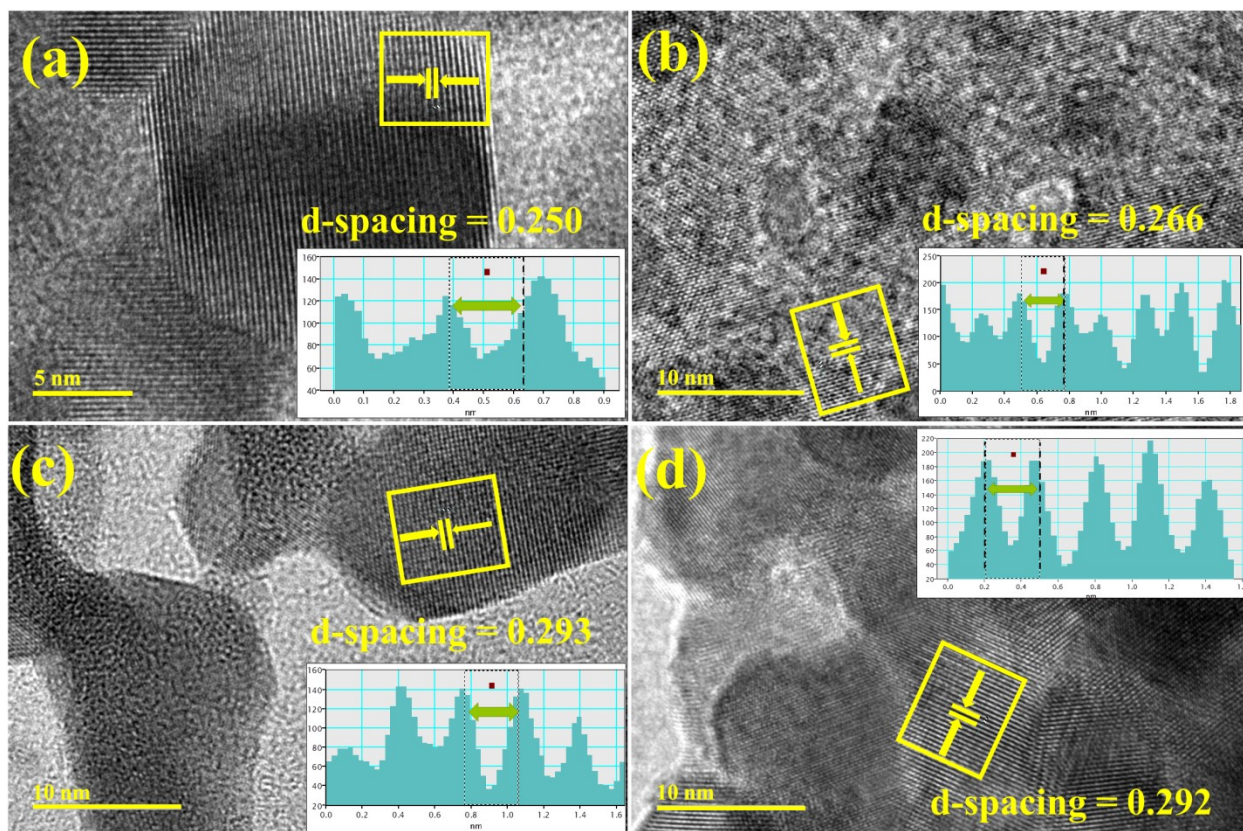


Fig. S2 HR-TEM images of (a) Bi₂O₃ (b) CS-Bi₂O₃ (c) (3 wt.%) g-C₃N₄/CS-Bi₂O₃ (d) (6 wt.%)

g-C₃N₄/CS-Bi₂O₃ QDs

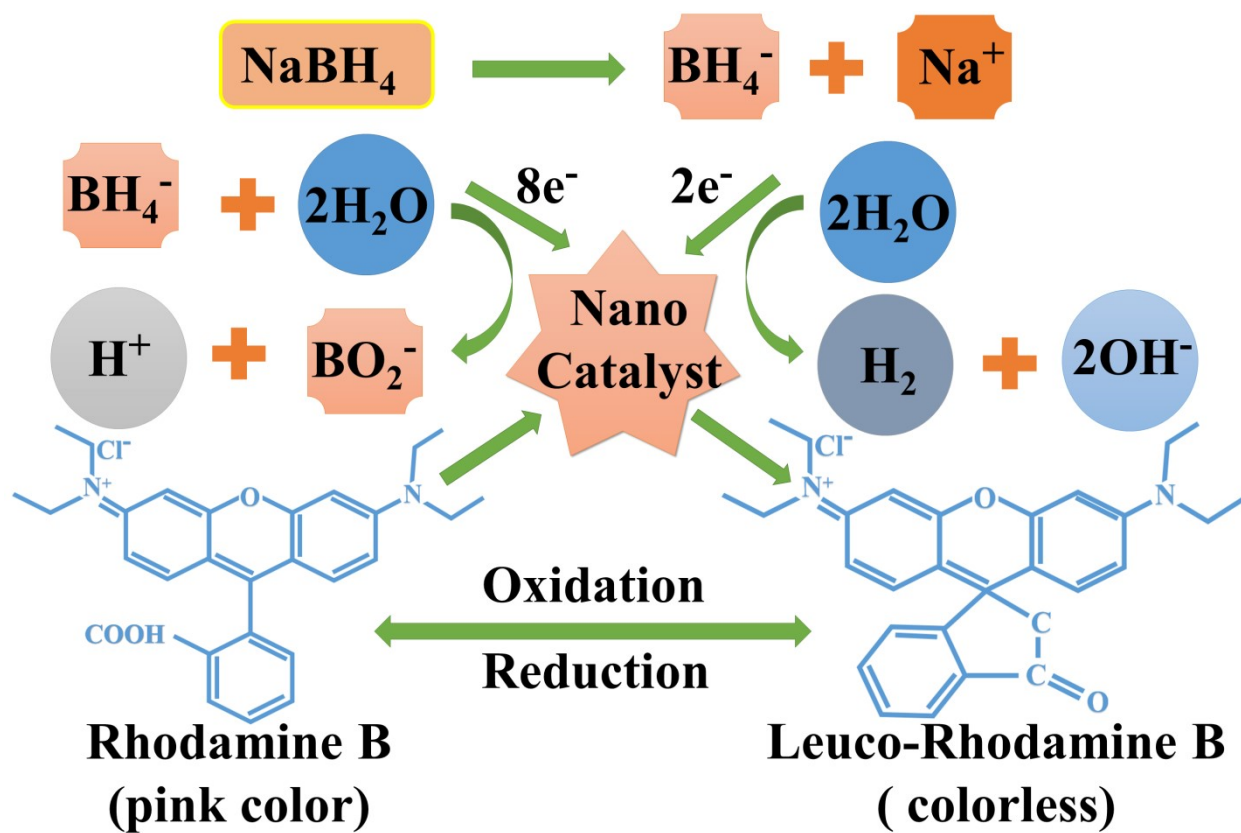


Fig. S3 Catalysis mechanism of prepared quantum dots

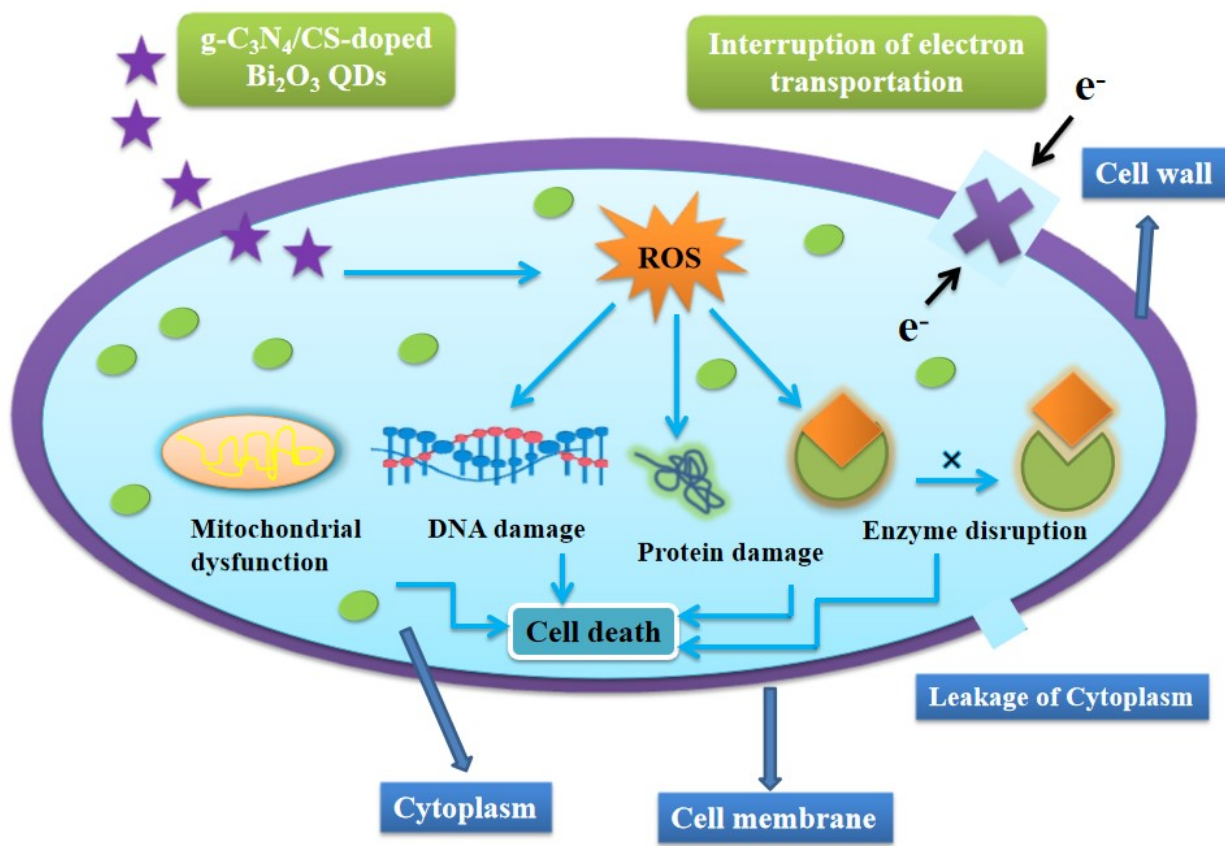


Fig. S4 The antibacterial mechanism of synthesized CS and g-C₂N₄ doped Bi₂O₃