

SUPPORTING INFORMATION:

**Construction of novel xanthine biosensor by using Zinc Oxide (ZnO) by biotemplate method for fish freshness detection**

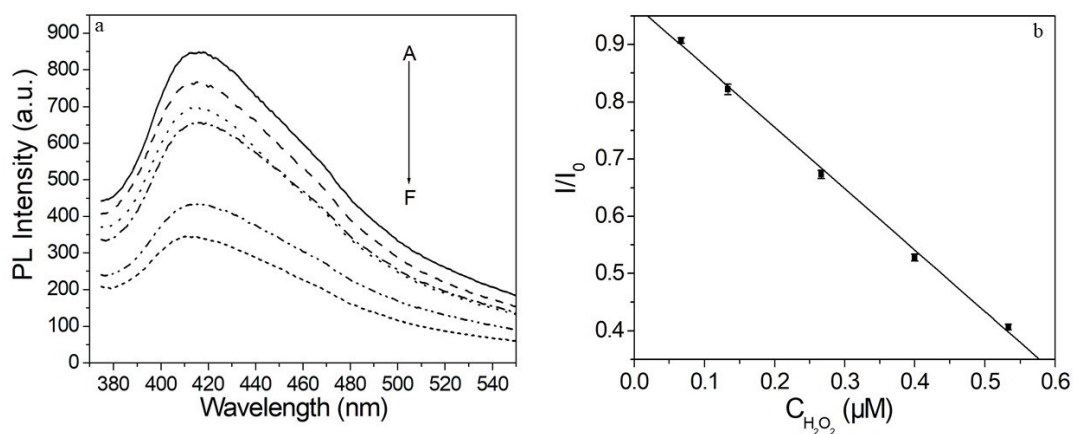


Fig. S1. (a) Fluorescence changes upon the interaction of ZnO nanomaterial with different amounts of H<sub>2</sub>O<sub>2</sub>, A-E represents the concentration of H<sub>2</sub>O<sub>2</sub> of 0,  $5.33 \times 10^{-7}$ ,  $4.0 \times 10^{-7}$ ,  $2.67 \times 10^{-7}$ ,  $1.33 \times 10^{-7}$  and  $6.67 \times 10^{-8}$  mol/L, respectively. (b) The relationship between ZnO nanomaterial and the concentration of H<sub>2</sub>O<sub>2</sub>.