

C<sub>3</sub>N<sub>4</sub>-Mn/CNT composite as a heterogeneous catalyst in electro-peroxone process for promoting the reaction between O<sub>3</sub> and H<sub>2</sub>O<sub>2</sub> in acid solution

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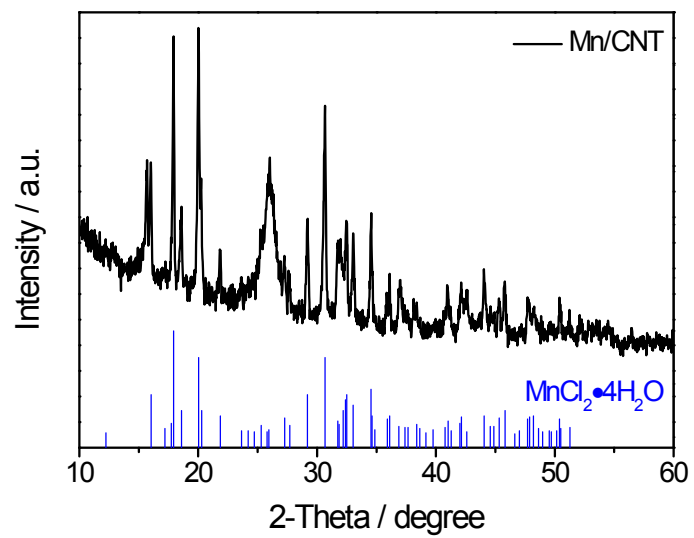


Fig. S1 XRD patterns of Mn/CNT.

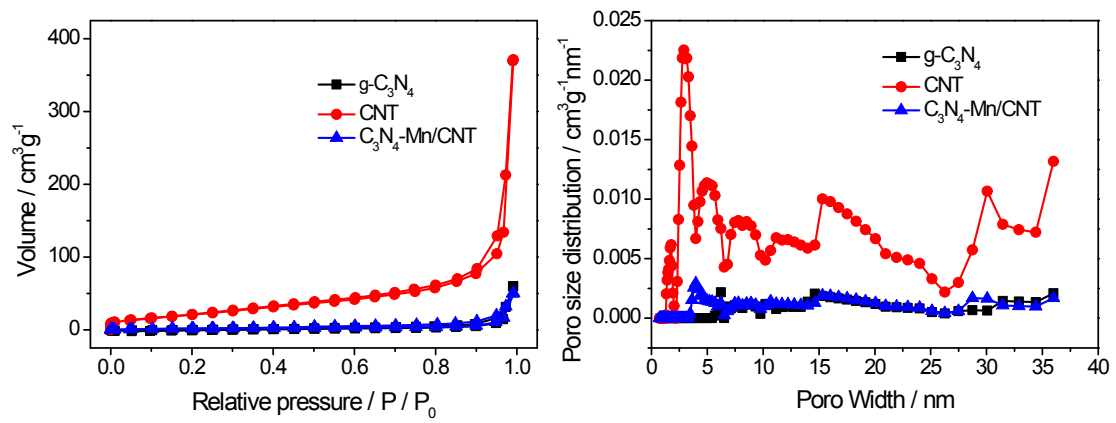


Fig. S2 Nitrogen adsorption-desorption isotherms and pore size distribution of g-C<sub>3</sub>N<sub>4</sub>, CNT and C<sub>3</sub>N<sub>4</sub>-Mn/CNT.

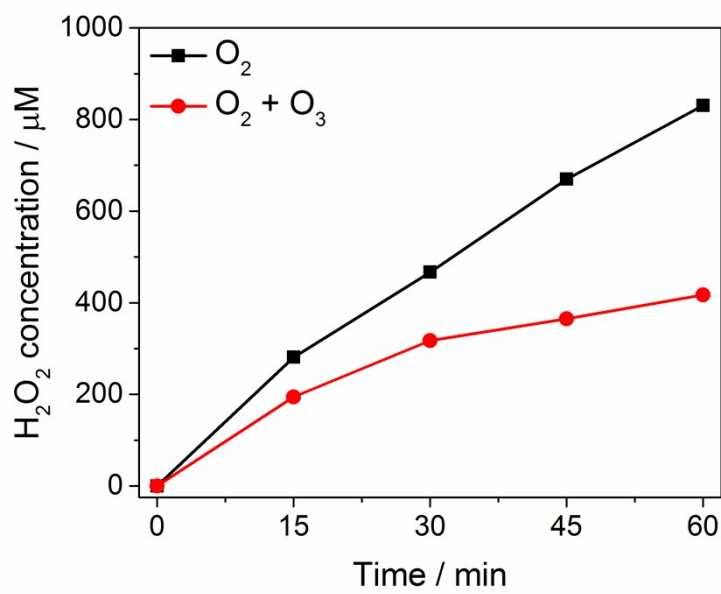


Fig. S3  $H_2O_2$  concentration at pH 3 under pure  $O_2$  atmosphere and in E-P process.

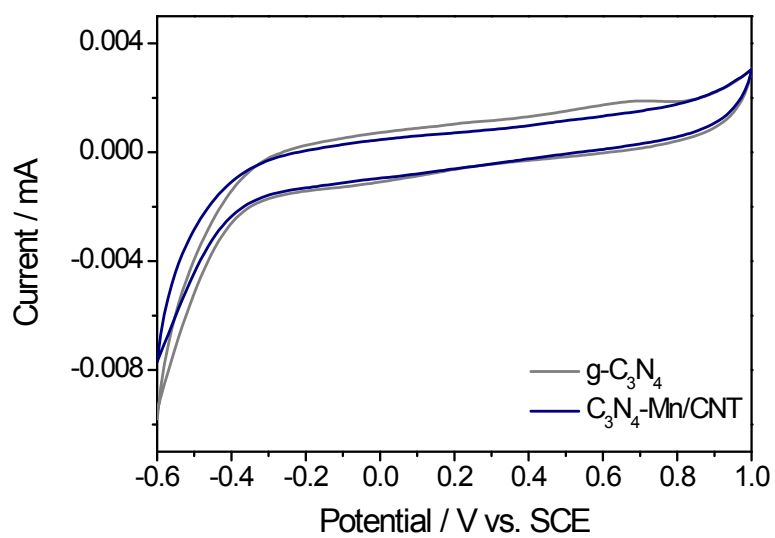


Fig. S4 Cyclic voltammetric curves of g-C<sub>3</sub>N<sub>4</sub> and C<sub>3</sub>N<sub>4</sub>-Mn/CNT in 50 mM Na<sub>2</sub>SO<sub>4</sub> solution at pH 3.

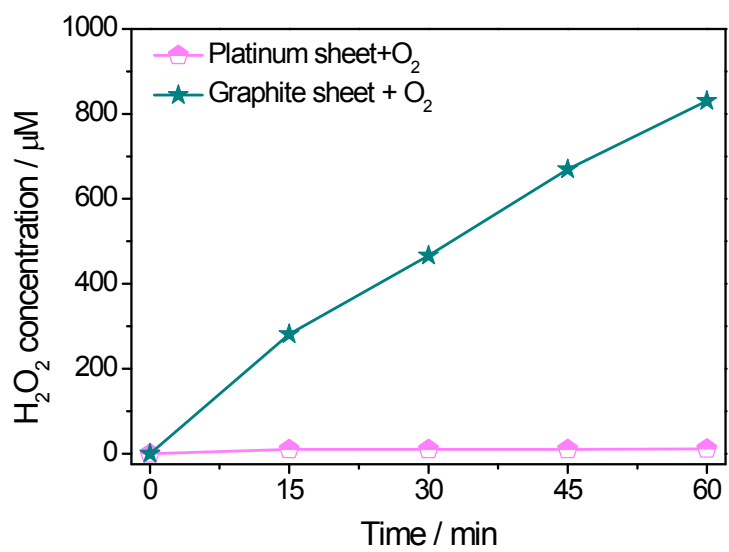


Fig. S5  $H_2O_2$  concentration with graphite cathode and Pt cathode under  $O_2$  atmosphere at pH 3.

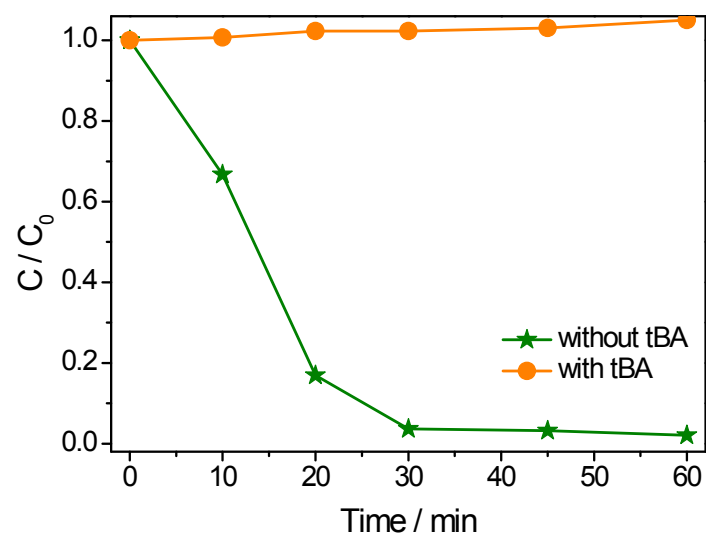


Fig. S6 tBA inhibition experiment of OA with  $C_3N_4$ -Mn/CNT in E-P process.



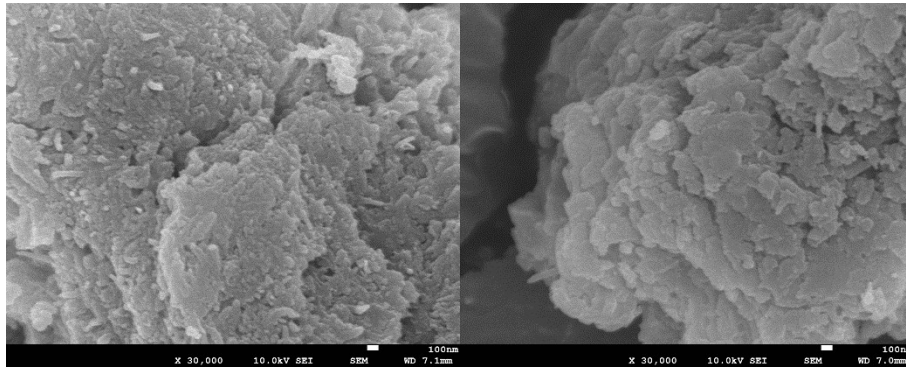


Fig. S7 SEM images of C<sub>3</sub>N<sub>4</sub>-Mn/CNT applied in E-P process after 60 min.