Removal of typical pollutant ciprofloxacin using iron-nitrogen co-doped modified corncob in the presence of hydrogen peroxide

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17 **Supplementary data**

18 **Text S1.** Description of the reaction process

19 **Fig. S1.** The mass spectrum of intermediate products of CIP degradation at different

20 time.

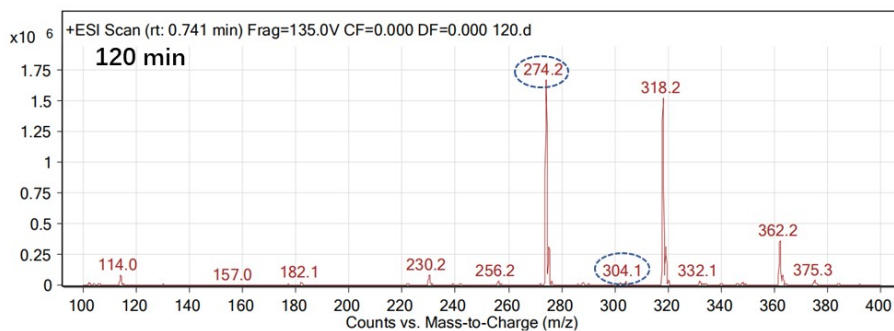21 **Fig. S2.** Proposed degradation pathways of CIP in the homogeneous Fenton process.[51,

22 52]
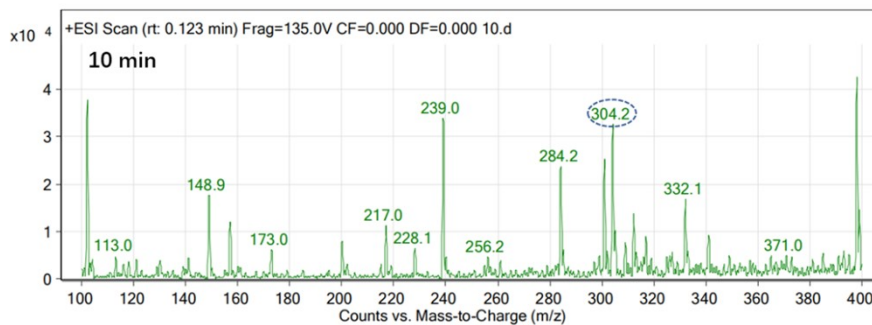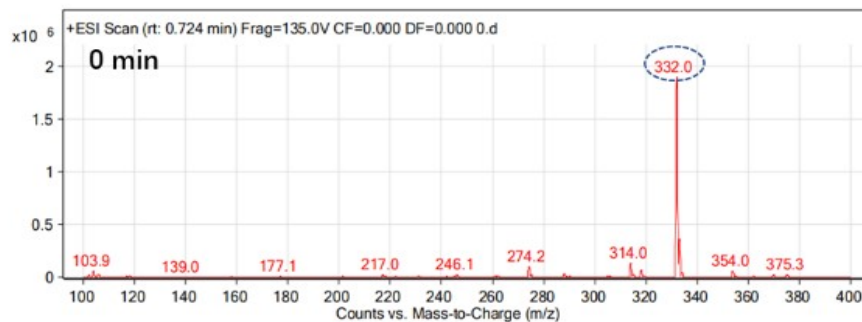
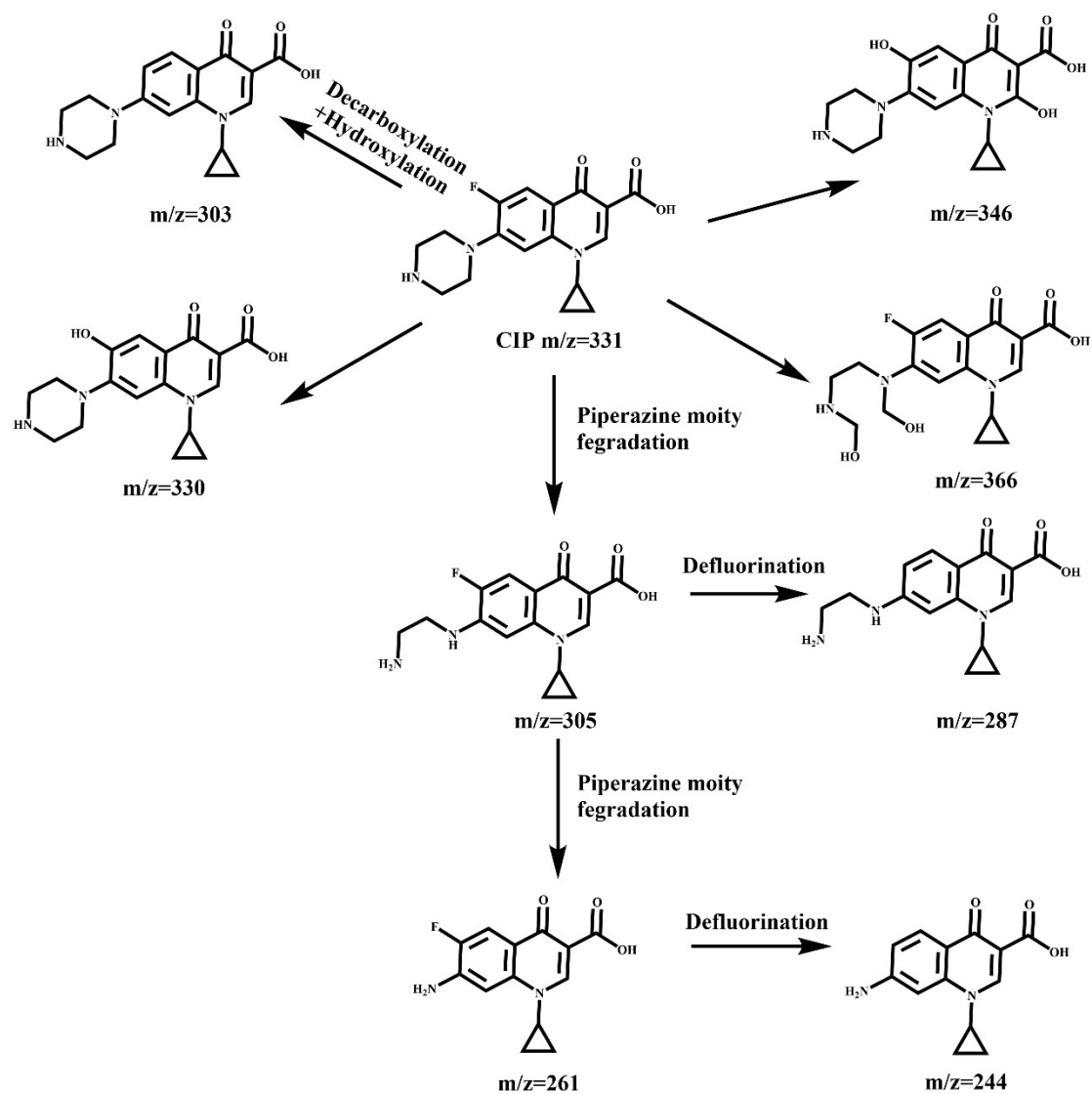23 **Table S1.** BET surface area and pore size of BC and Fe-N-BC.

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Text S1. Description of the reaction process

The variation of CIP removal with time in the whole system can be explained as follows: in the pre-reaction period, the high specific surface area of the catalyst and sufficient ·OH content endowed the system with strong adsorption and oxidation capacity. Therefore, the CIP removal rate of the system increased rapidly. In the late stage of the reaction, the active sites of the catalyst were covered, and the decrease of reactants and the increase of intermediate products led to the decrease of the reaction rate, and the degradation rate of CIP was gradually stabilized.

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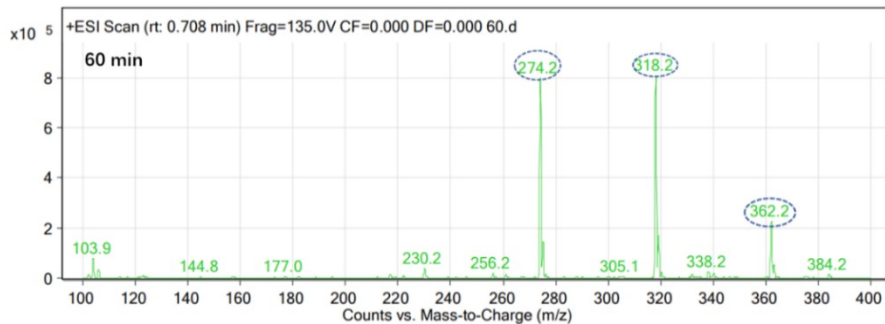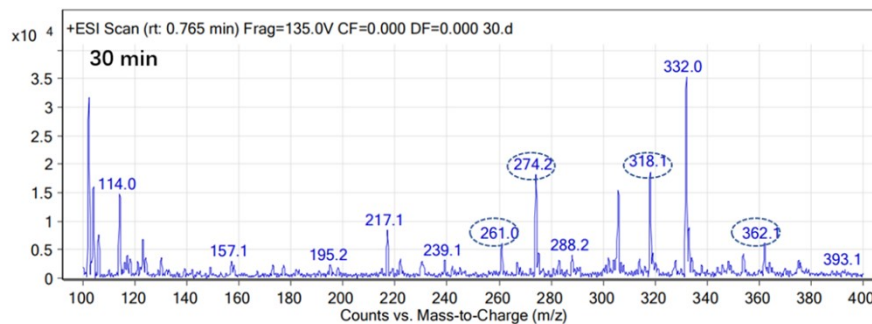
39 **Fig. S1.** The mass spectrum of intermediate products of CIP degradation at different time.

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Fig. S2. Proposed degradation pathways of CIP in the homogeneous Fenton process.[51, 52]

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44   **Table S1.** BET surface area and pore size of BC and Fe-N-BC.

Samples	$S_{BET}(m^2 \cdot g^{-1})$ [a]	Pore diameter (nm) [b]
BC	132.512	1.583
Fe-N-BC	261.772	2.245

45 [a] BET specific surface.

46 [b] The pore diameter is computed from the desorption branch of the isotherm using the BJH

47 method.

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