Electronic Supplementary Material (ESI) for Catalysis Science & Technology.

Supporting Information

Iodine-doped carbon fibers as an efficient metal-free catalyst to activate peroxymonosulfate for the removal of organic pollutants

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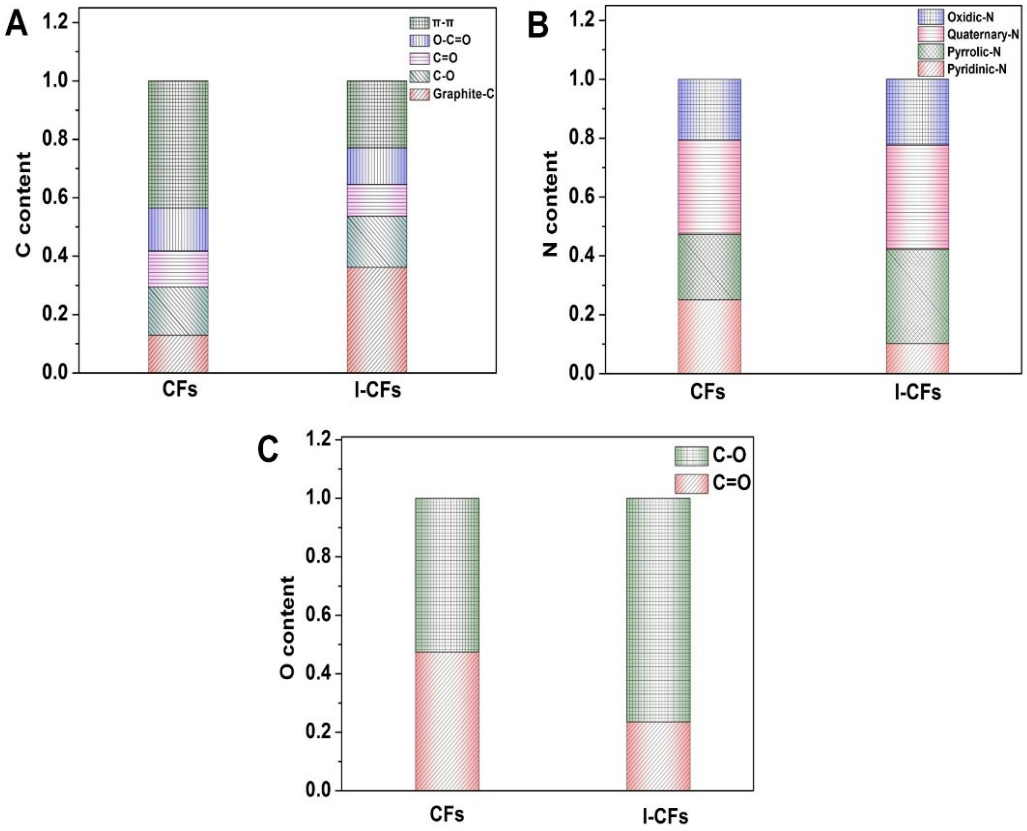

Fig. S1 (A) Contents of five carbon species. (B) Contents of four nitrogen species. (C) Contents of two oxygen species.

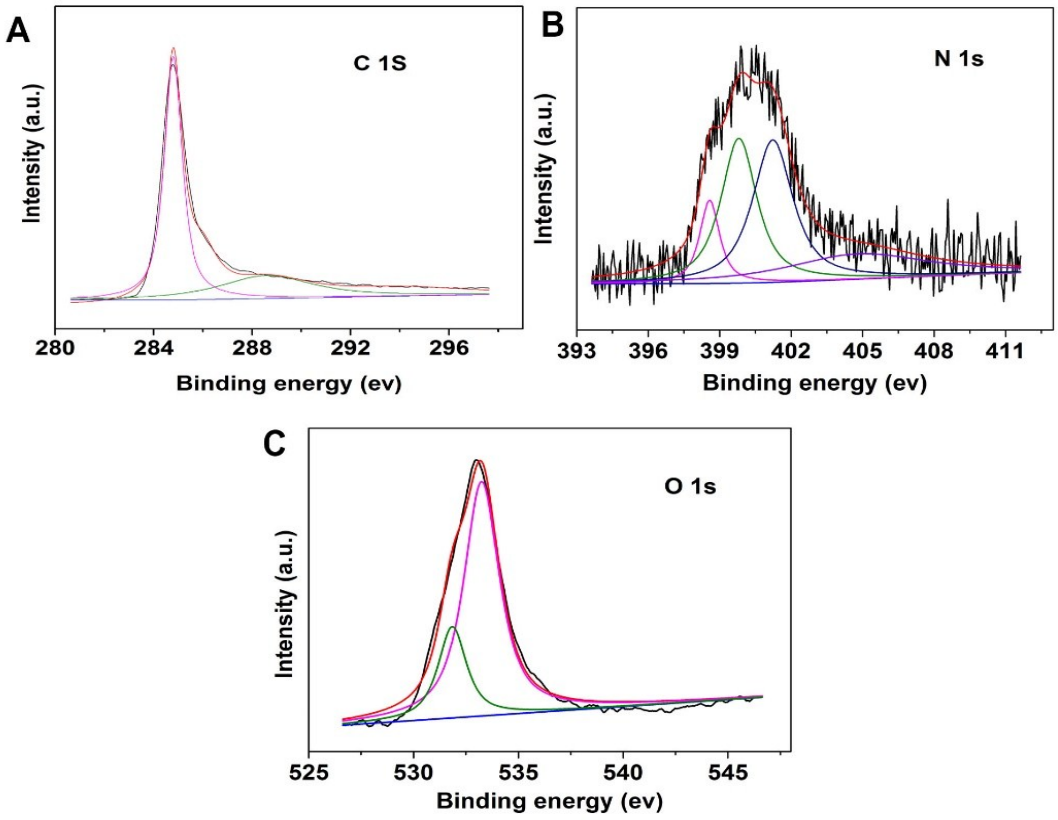

Fig. S2 (A-C) C 1s, N 1s and O 1s spectra, respectively.

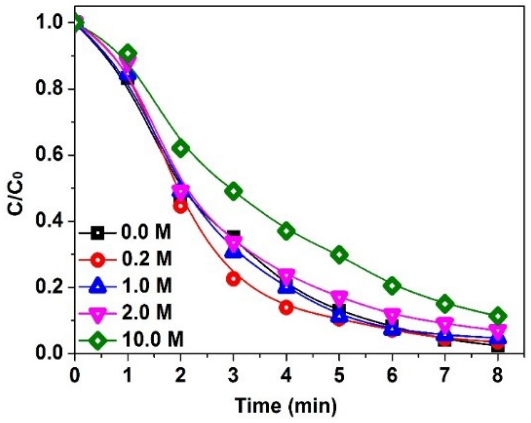

Fig. S3 Effect of EA on the removal of AR1 in I-CFs/PMS system. Conditions: I-CFs dosage: 1 g/L, [AR1]=50 μM, [PMS]=2 mM, sample's pH 7.0, T=20 ºC.

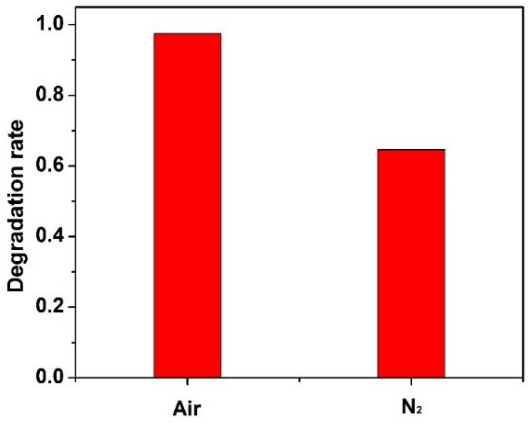

Fig. S4 Effects of AR1 removal with different ambient in the I-CFs/PMS system. Conditions: I-CFs dosage: 1 g/L, [AR1]=50 μM, [PMS]=2 mM, sample's pH 7.0, T=20 ºC.

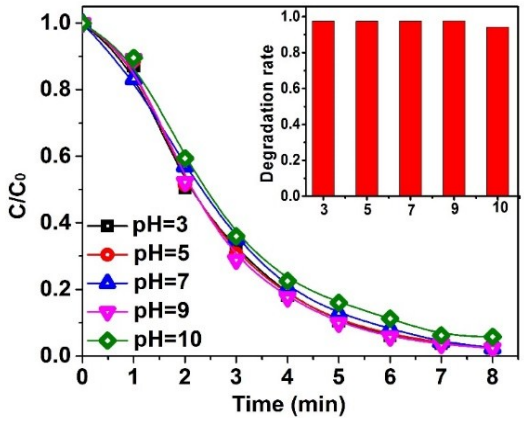

Fig. S5 Effects of initial pH on the removal rate of AR1 in the I-CFs/PMS system. Conditions: I-CFs dosage: 1 g/L, [AR1]=50 μM, [PMS]=2 mM, T=20 ºC.

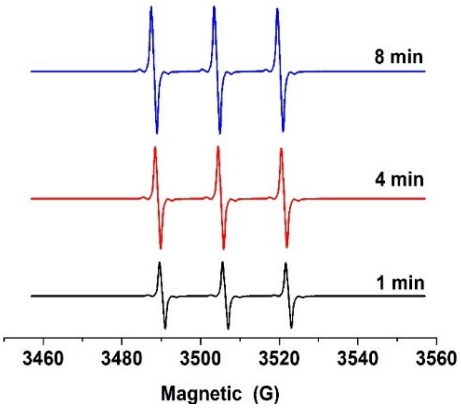

Fig. S6 Different time intervals of TEMP spin-trapping EPR spectra in I-CFs/PMS system. Conditions: I-CFs dosage: 1 g/L, [AR1]=50 μM, [PMS]=2 mM, sample's pH 7.0, T=20 ºC.

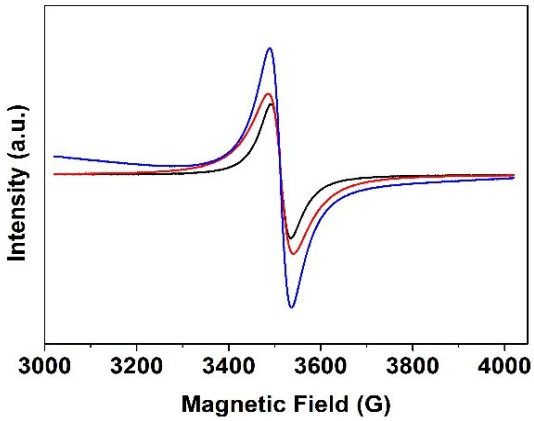

Fig. S7 EPR spectra of I-CFs at different reaction time under room temperature. Conditions: I-CFs dosage: 1 g/L, [AR1]=50 μM, [PMS]=2 mM, sample's pH 7.0, T=20 ºC.