Supplementary Materials

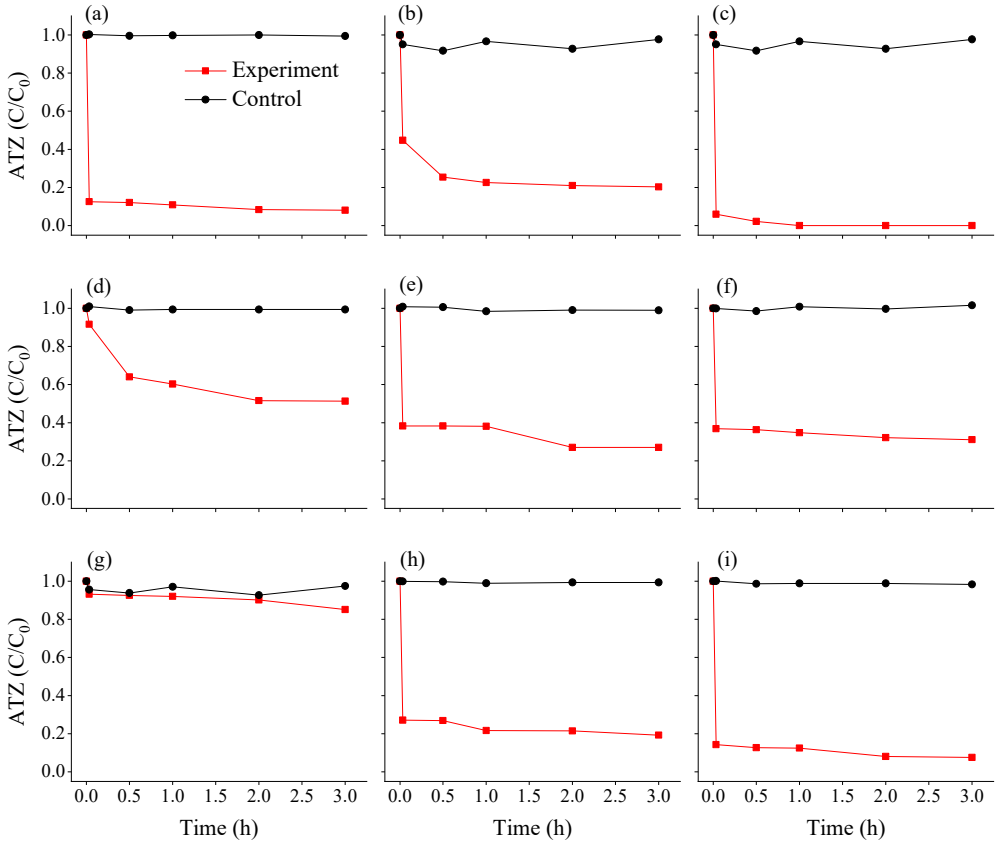

Fig. S1. The ATZ degradation during the course of Fe^{2+}-AP process under different experimental conditions. (a) to (i) based on the experimental design of L9 orthogonal array.

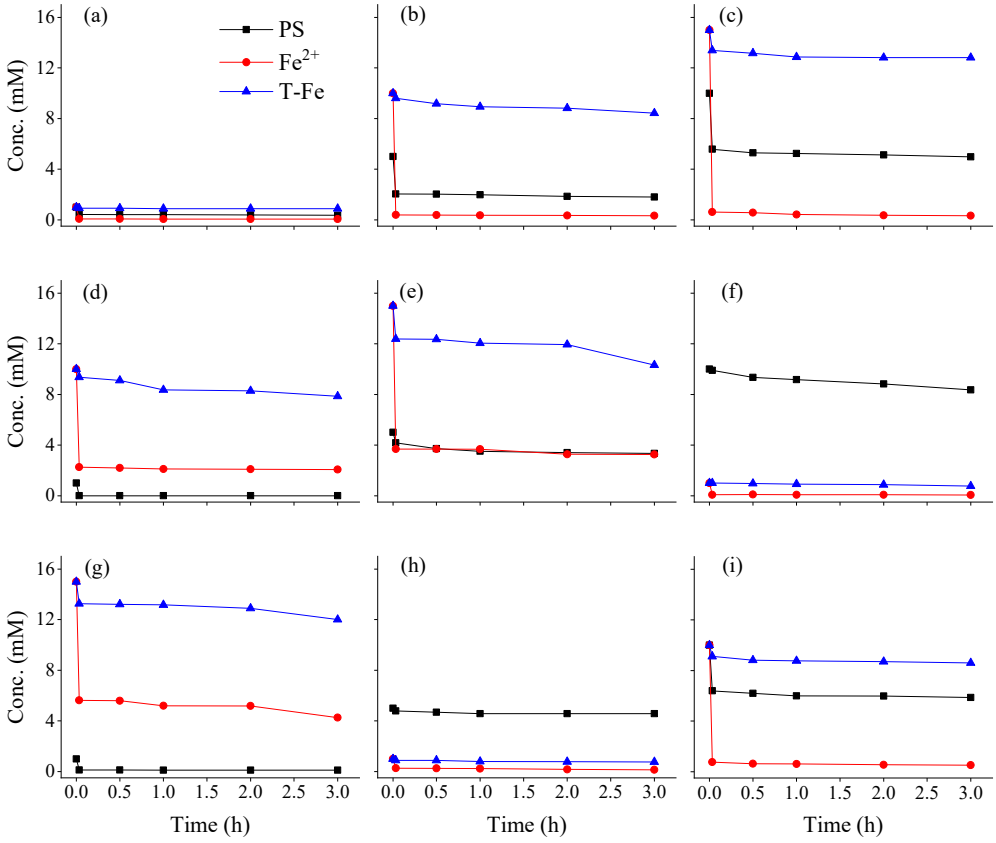

Fig. S2. The concentration variation of PS, Fe^{2+} and T-Fe during the course of Fe^{2+}-AP process under different experimental conditions. (a) to (i) based on the experimental design of L9 orthogonal array.

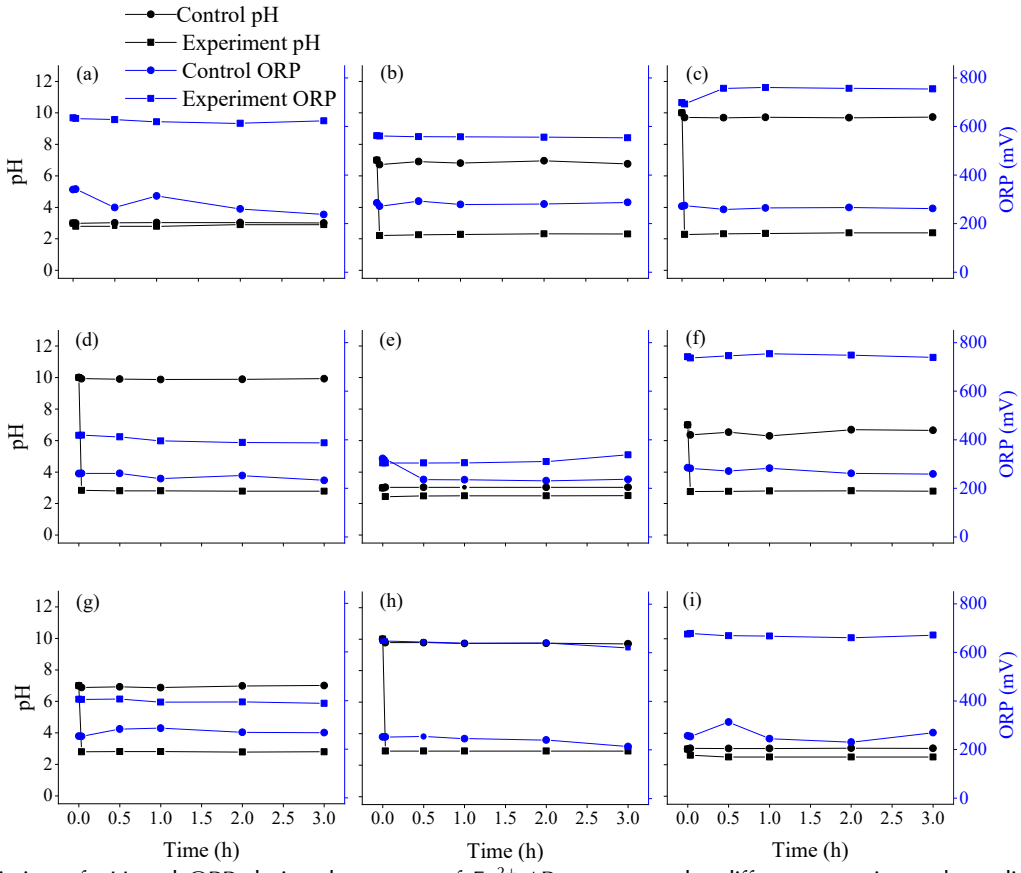

Fig. S3. The variation of pH and ORP during the course of Fe^{2+}-AP process under different experimental conditions. (a) to (i) based on the experimental design of L9 orthogonal array.

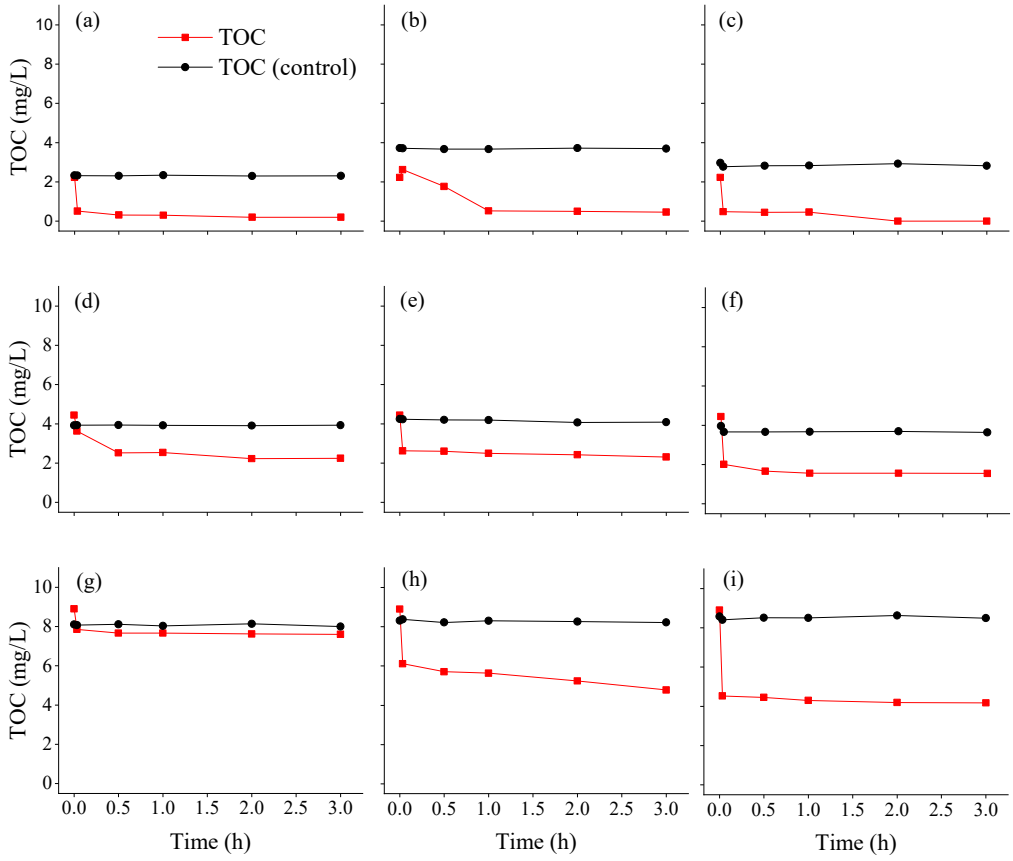

Fig. S4. The concentration variation of TOC during the course of Fe^{2+}-AP process under different experimental conditions. (a) to (i) based on the experimental design of L9 orthogonal array.

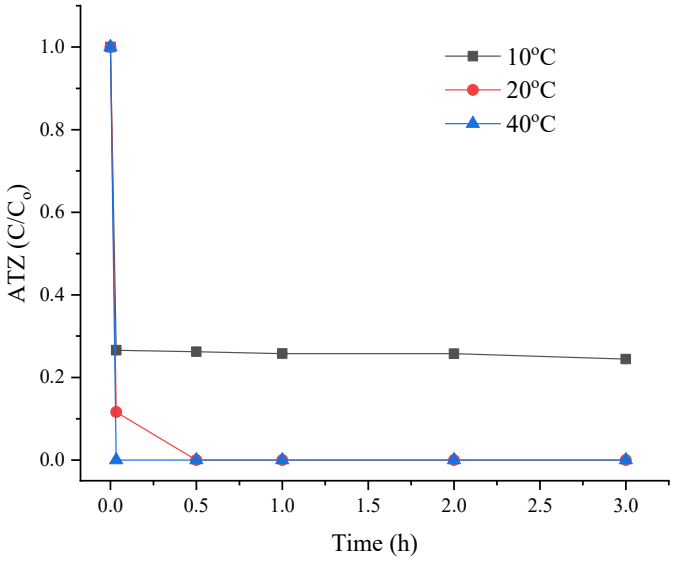

Fig. S5. Effect of the reaction temperature on the ATZ degradation in the Fe^{2+}-AP process (experimental conditions: concentration of ATZ = 5 mg/L, dosages of PS = 10 mM, Fe^{2+} = 1 mM, and pH = 3).

Table S1. Averaged Responses of S/N Ratio of ATZ Removal by Fe^{2+}-AP Process for Each Level.

Level	S/N ratio (dB) [1]			
	Factors			
	ATZ	**PS**	**Fe^{2+}**	**pH**
1	39.10	32.15	38.06	38.62
2	35.93	37.81	37.03	32.74
3	33.63	38.70	33.57	37.30
Delta [2]	5.47	6.55	4.49	5.88

Note: [1] S/N ratio at each level = (S/N_1 + S/N_2 + S/N_3)/3, where: S/N_1, S/N_2, and S/N_3 are S/N ratios of individual factor at level 1, 2, and 3, respectively. [2] Delta represents the difference between the maximum and minimum S/N ratio for each factor.

Table S2. Averaged ATZ Removal Efficiency by Fe^{2+}-AP Process for Each Level.

Level	Averaged ATZ removal efficiency (%)			
	Factors			
	ATZ	PS	Fe^{2+}	pH
1	90.5	51.8	80.5	85.8
2	63.6	77.8	73.6	54.5
3	62.7	87.1	62.6	76.5
Delta [1]	27.9	35.3	17.9	31.3

Note: [1] Delta represents the difference between the maximum and minimum S/N ratio for each factor.

Table S3. Comparison of Prediction and Confirmation Experiment for Degradation of ATZ by Fe^{2+}-AP Process.

Optimal levels of process parameters	Predicted optimal values (%) [1]	Average of confirmation experiment (%) [2]
PS 10 mM (A) pH 3 (B) ATZ 5 mg/L (C) Fe^{2+} 1 mM (D)	100	100

Note: [1] Predicted optimal values = $\bar{y}$ + (A - $\bar{y}$) + (B - $\bar{y}$) + (C - $\bar{y}$) + (D - $\bar{y}$), where: $\bar{y}$ is the averaged ATZ removal efficiency of the total experimental results; A, B, C, and D are averaged ATZ removal efficiencies of individual factor under optimal conditions.
[2] Averaged ATZ removal efficiency of confirmation experiment.