Supporting Information

Electrochemical oxidation of Ciprofloxacin in two different processes: the electron transfer process on anode surface and the indirect oxidation process in bulk solutions

Environmental Science: Processes &Impacts

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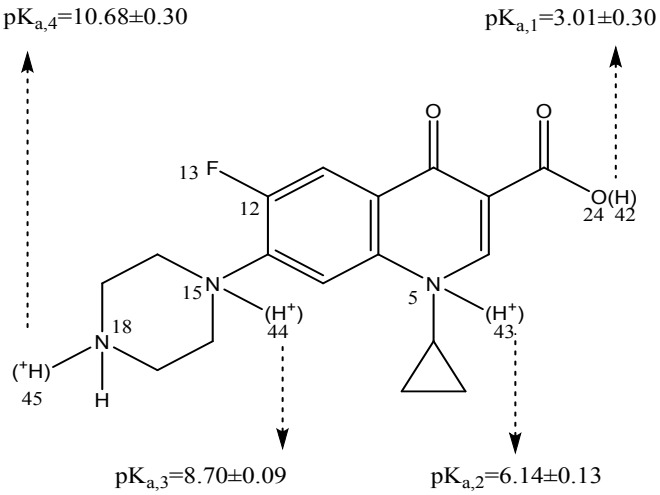

Fig. S1. Molecular structure and dissociation positions of CPX. The pKa values are taken from ref [1].

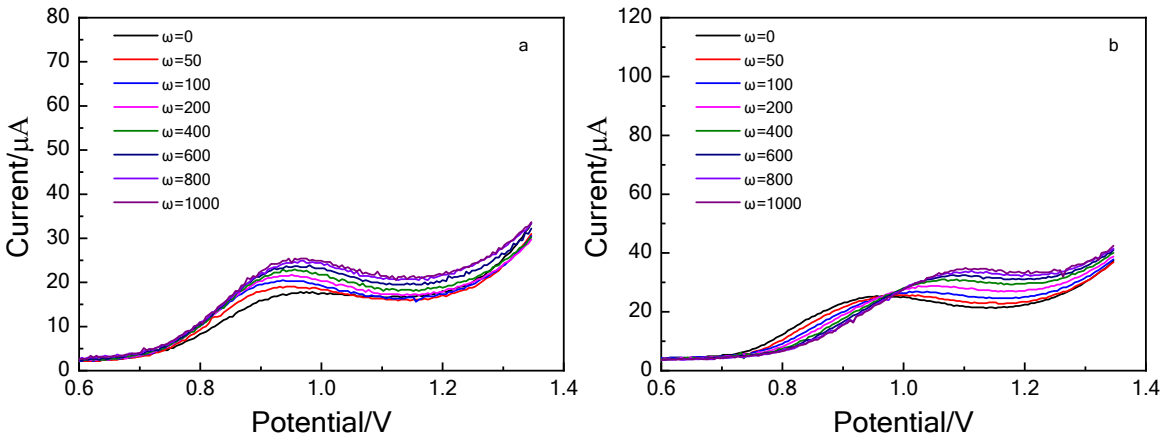

Fig. S2. Linear sweep curves of different blank water matrixes on GC RDE. a) Lake Water; b) Secondary Effluent. Background electrolyte: 0.01 M phosphate buffer, pH=7; scan rate: 100 mV s^{-1}.

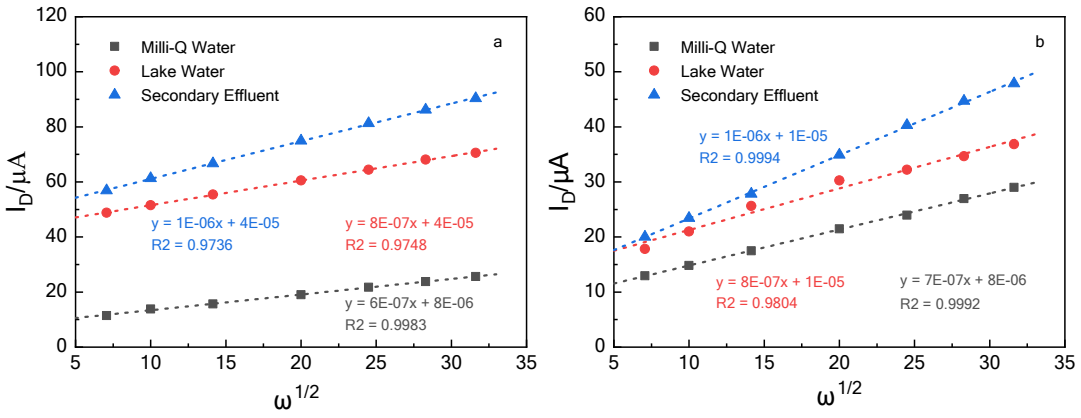

Fig. S3. Linear fitting plot of I_D-$\omega^{1/2}$ of 10^{-4} M CPX in different water matrixes on GC RDE. a) without deducting of blank values; b) blank values deducted. Background electrolyte: 0.01 M phosphate buffer, pH=7; scan rate: 100 mV s^{-1}.

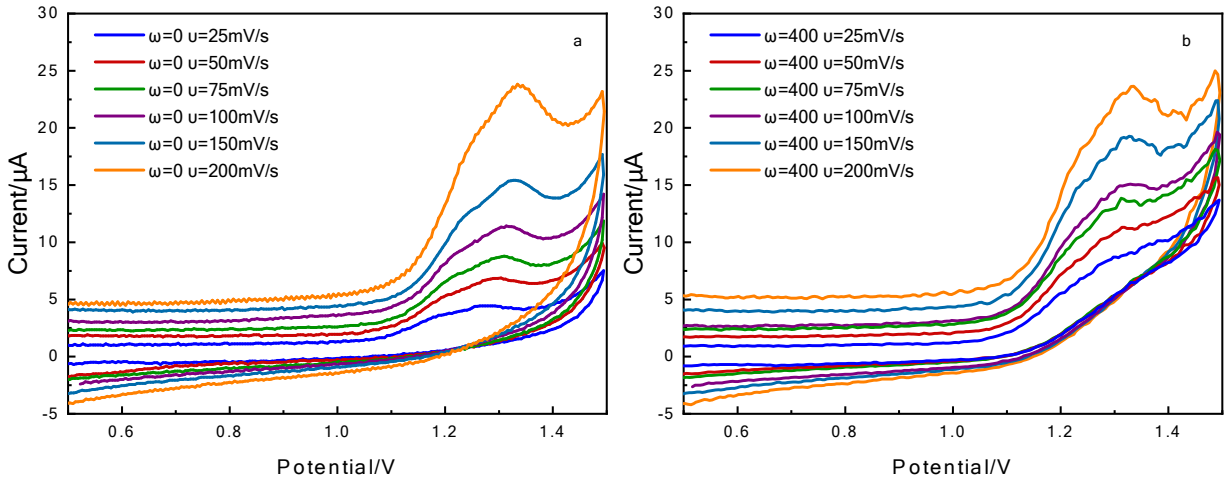

Fig.S4. Cyclic voltammetry curves of CPX at various scan rates on GC RDE with rotating speed of a) 0 and b) 400, respectively. CPX concentration: 10 μM; background solution: 0.01 M phosphate buffer, pH=2.

References:

1. Z. M. Qiang and C. Adams, *Water Res.*, 2004, **38**, 2874-2890.