

Supporting Information

Oxidation of cefalexin by permanganate: Reaction kinetics, mechanism, and residual antibacterial activity

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Table S1. Characteristics of the wastewater samples

pH	DOC	Cl ⁻	PO ₄ ³⁻	Alkalinity
7.31	21.2	145	0.73	42.1

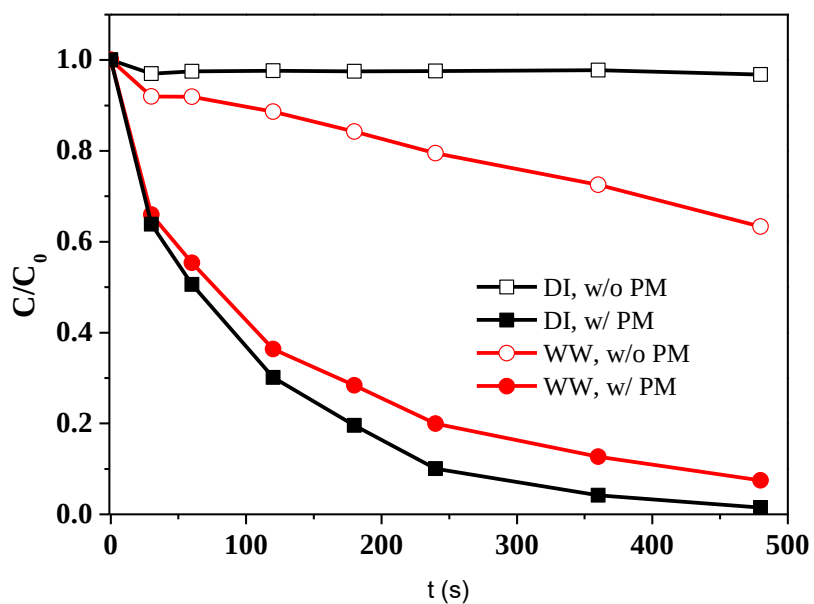


Figure S1. PM-induced degradation of CFX in the real water matrix. Conditions: [CFX] = 0.2 μ M; [PM] = 400 μ M; and pH = 7 (10 mM PB). Note: DI: deionized water, WW: wastewater, w/: with, w/o: without.

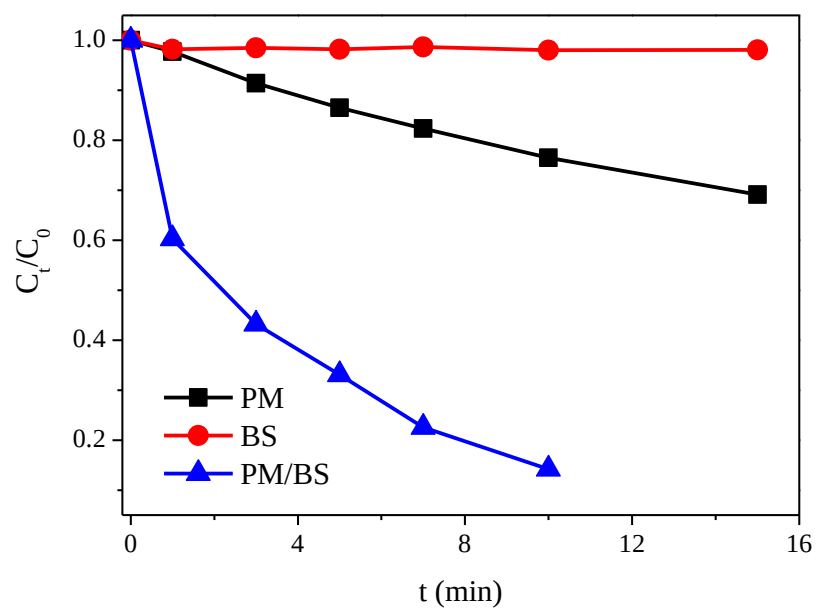


Figure S2. The degradation efficiency of CFX by PM and PM/BS. [PM] = 40 μ M, [BS] = 600 μ M, pH = 7.

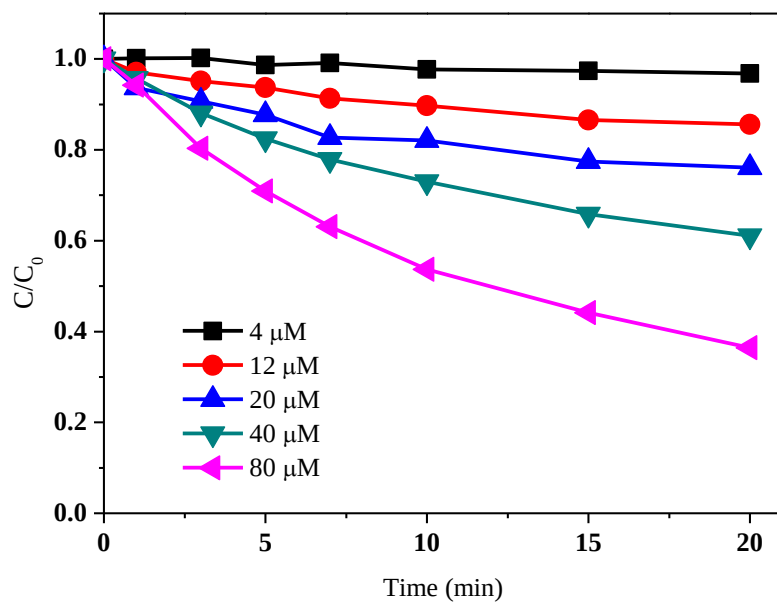


Figure S3. Effect of PM concentration on CFX oxidation by PM. [CFX] = 40 μ M, pH = 7.

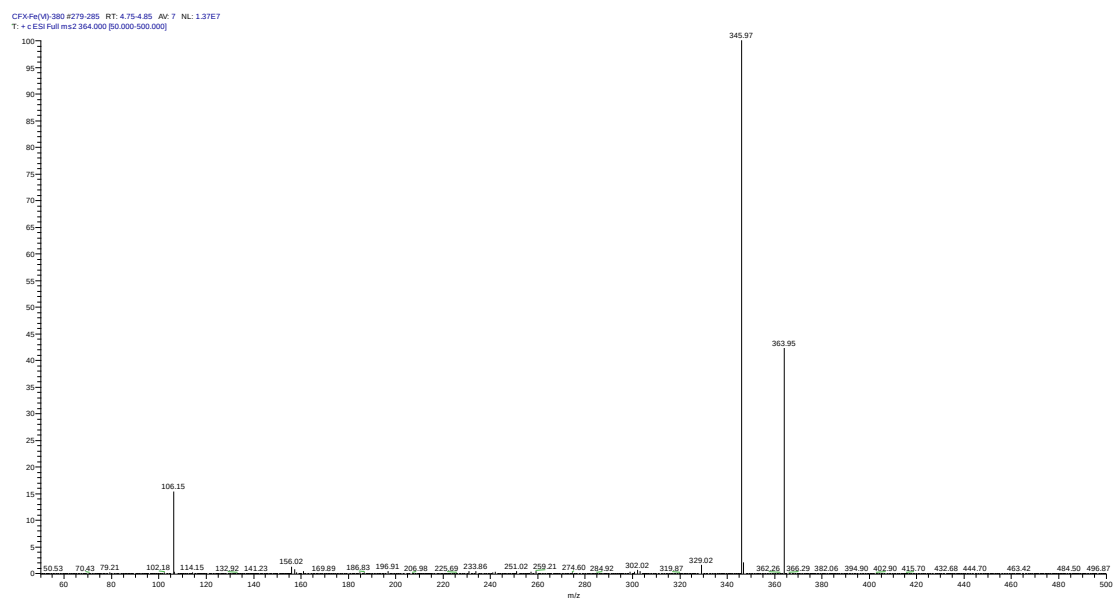


Figure S4. ESI MS² spectrum acquired for 363a.

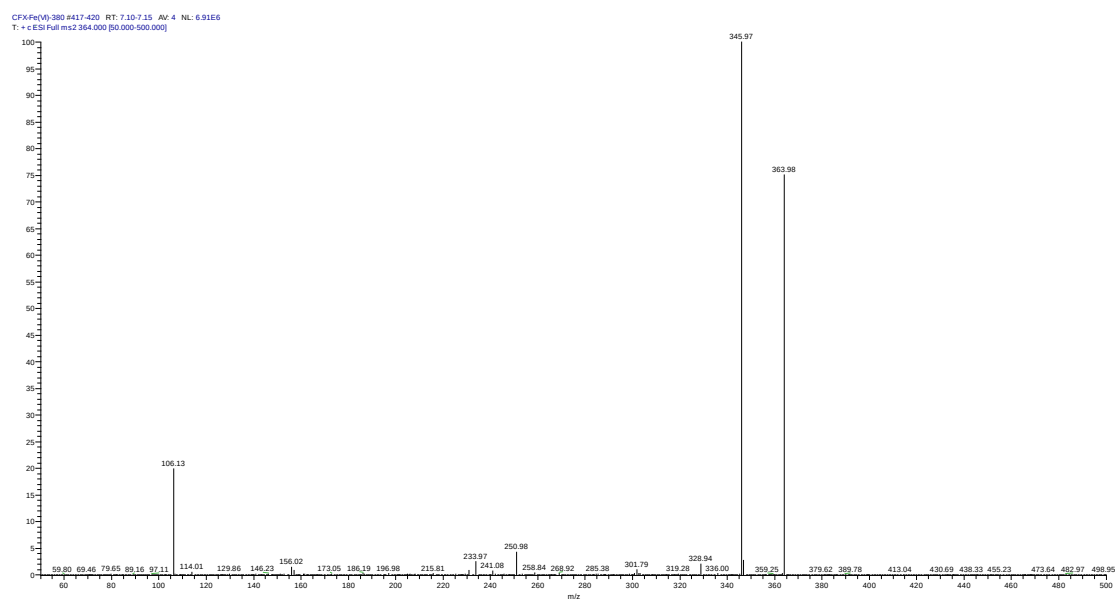


Figure S5. ESI MS² spectrum acquired for 363b.

c1-10 #533 RT: 9.09 Av: 1 NL: 1.73E7
T: + c ESI Full ms2 380.000 [50.000-500.000]

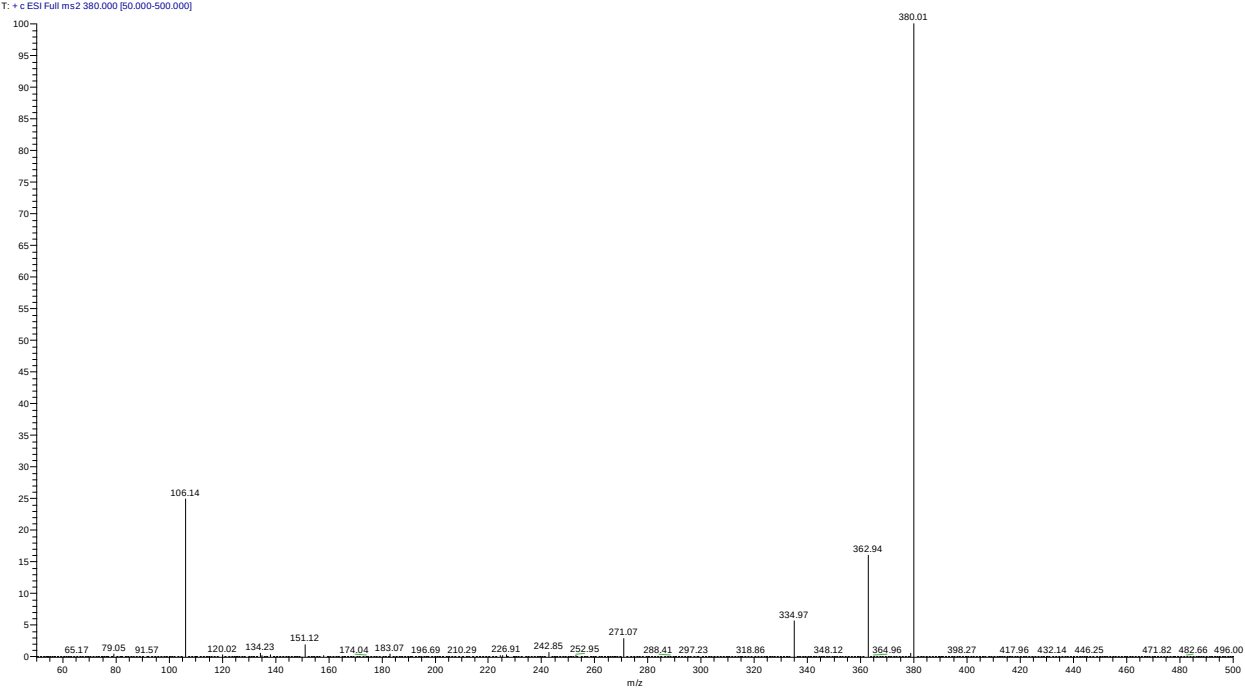


Figure S6. ESI MS² spectrum acquired for 379.