

Supplementary Materials

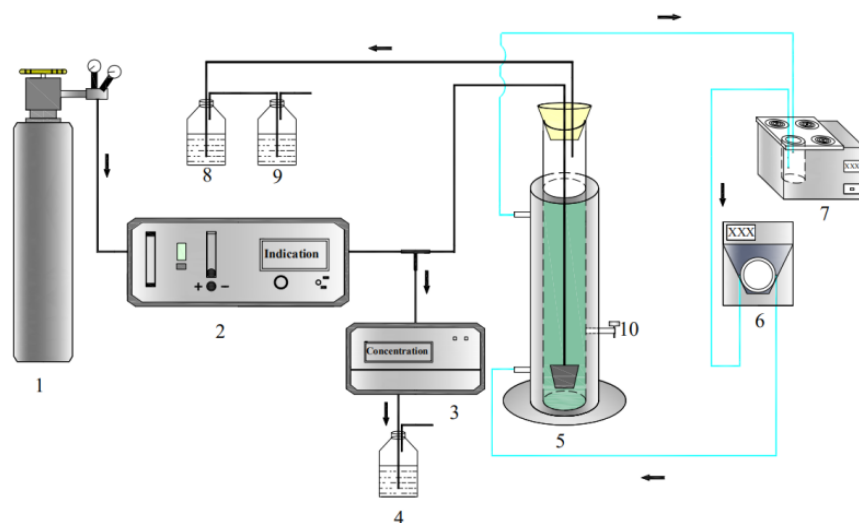


Fig. S1. Experimental reactor.

1: oxygen cylinder; 2: ozone generator gas flowmeter; 3: ozone detector ;
 5: integrated adsorption-catalytic ozonation reactor; 6: peristaltic pump ;
 7: water sampling port; 4,8,9: vehicle absorption bottle; 10: Sampling mouth

Table S1. The Kinetics Parameters of Pseudo First-Order and Pseudo Second-Order Reaction

catalyst	Reaction			
	pseudo first-order reaction kinetics		pseudo second-order reaction kinetics	
	K_1/min^{-1}	R^2	$K_2/(\text{mg/L})^{-1}\text{min}^{-1}$	R^2
without catalyst	0.00258	0.96905	0.00297	0.97155
$\text{MnO}_2\text{-Cl}^-$	0.00294	0.91353	0.00367	0.93562
$\text{MnO}_2\text{-SO}_4^{2-}$	0.00300	0.94453	0.00377	0.95609
$\text{MnO}_2\text{-AC}^-$	0.00405	0.95152	0.00544	0.96617
$\text{MnO}_2\text{-NO}_3^-$	0.00438	0.92404	0.00625	0.95258