

Supplementary Materials

Table S1. The Average Removal Efficiency of Pollutants

pollutant	T Fe	COD	TP	SS
average removal efficiency	99.70%	34.50%	99.80%	98.60%

Table S2. Membrane Pore Characteristics before and after Fouling

	Total intrusion volume (mL/g)	Median pore diameter(volume; nm)	Median pore diameter(area; nm)	Apparent density (g/mL)
New membrane	0.70	5,592	1,009	2.06
Fouled membrane	0.63	6,746	4,804	1.68
	Porosity (%)	Characteristic length (nm)	Permeability (mdarcy)	Tortuosity
New membrane	59.0	11,9	112	7.64
Fouled membrane	51.4	7,298	92.1	8.84

Table S3. Particle Size Distribution of Wastewater before and after Membrane

	Mean particle diameter(nm)	X ₁₀ (nm)	X ₅₀ (nm)	X ₉₀ (nm)
wastewater before membrane	3,343	2,112	2,872	5,230
wastewater after membrane	2,627	2,394	2,394	3,320

Table S4. Major Membrane Components before and after Fouling

Type of membrane	Main components		
New membrane	N-Perfluoroeicosane	Ultradispersive Teflon	Hexamethylenetetramine
Fouled membrane	Polytetrafluoroethylene	Ultradispersive Teflon	——