In Supplementary Information

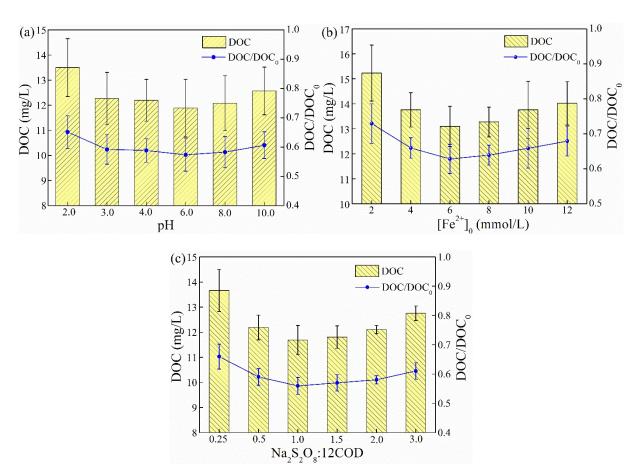


Fig. S1 Factors of DOC removal in PS process. (a) different initial pH value. Conditions: $[Fe^{2+}]0 = 6.0 \text{ mmol/L}$, $[Na_2S_2O_8]_0 = 6.0 \text{ mmol/L}$; (b) different $[Fe^{2+}]_0$ at $[Na_2S_2O_8]_0 = 6.0 \text{ mmol/L}$; (c) different ratio of initial $Na_2S_2O_8:12COD$ at $[Fe^{2+}]_0 = 6.0 \text{ mmol/L}$.

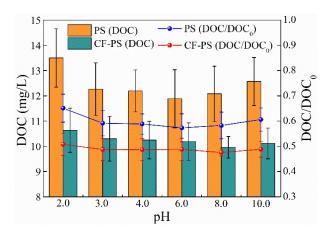


Fig. S2 The effect of initial pH on DOC removal in the PS and CF-PS processes. Conditions: $[PAC]_0 = 20.0 \text{ mg/L}$; $[Fe^{2+}]_0 = 6.0 \text{ mmol/L}$; $[Na_2S_2O_8]_0 = 6.0 \text{ mmol/L}$

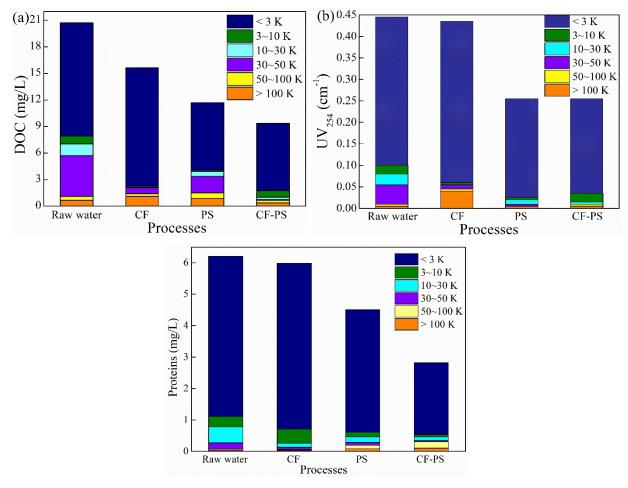
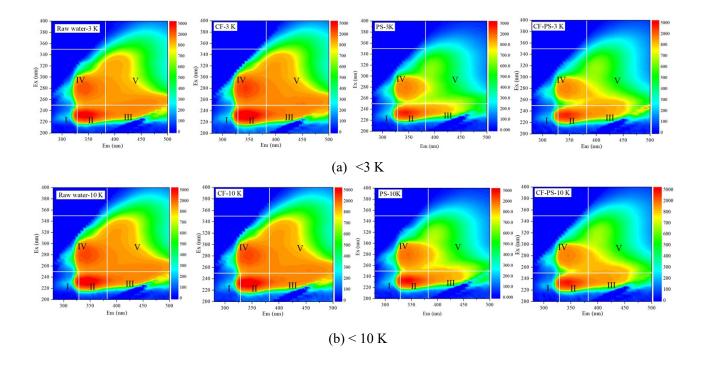
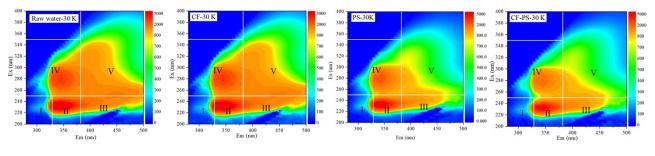
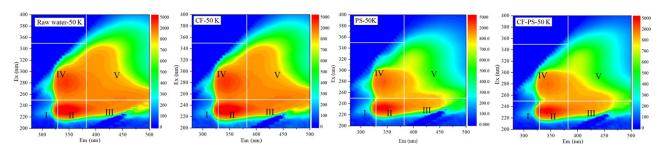


Fig. S3. MW distribution of organic matter under different processes. (a) DOC; (b) UV₂₅₄; (c) Proteins.

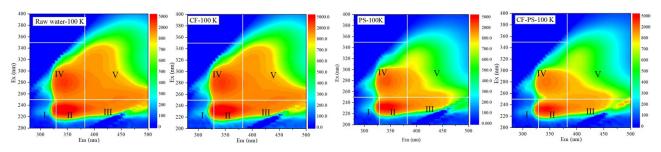




(c) < 30 K



(d) < 50 K



(e) < 100 K

Fig. S4 3D-EEM spectra of organic components with different MWs