

Supporting Information

Excitation–emission matrix of organic foulants on membrane

The organic matter retained on fouled membranes was reduced by the storage pretreatment (Figure S1). The excitation–emission matrix (EEM) of the foulants extracted by alkaline cleaning is shown in Figure S1. The fluorescence peaks were divided into five regions according to Chen et al. (2003) [1]. For both extracted foulant samples, the EEM spectra of Region II, which is attributed to aromatic proteins, was dominant, followed by Regions I and III. The peak in Region III was significantly diminished, while the peaks in Regions IV and V were noticeably weakened. The fluorescence areas in Regions I and II became smaller with storage. These results suggest that various kinds of organic matter were removed by storage, which might be effective in improving the quality of treated water.

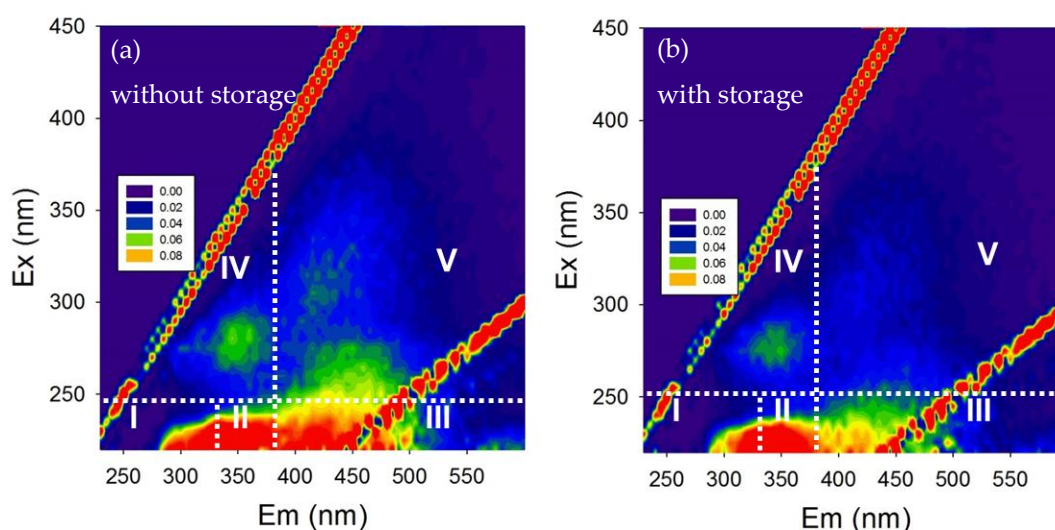


Figure S1. Excitation–emission matrix (EEM) of alkaline cleaning solutions for the conditions without (a) and with (b) storage. I: Aromatic Protein I; II: Aromatic Protein II; III: Fluvic acid-like; IV: Soluble microbial by-product-like; V: Humic acid-like.

1. Chen, W.; Westerhoff, P.; Leenheer, J.A.; Booksh, K. Fluorescence Excitation–Emission Matrix Regional Integration to Quantify Spectra for Dissolved Organic Matter. *Environ. Sci. Technol.* **2003**, *37*, 5701–5710, doi:10.1021/es034354c.