

## Electronic Supplementary Information

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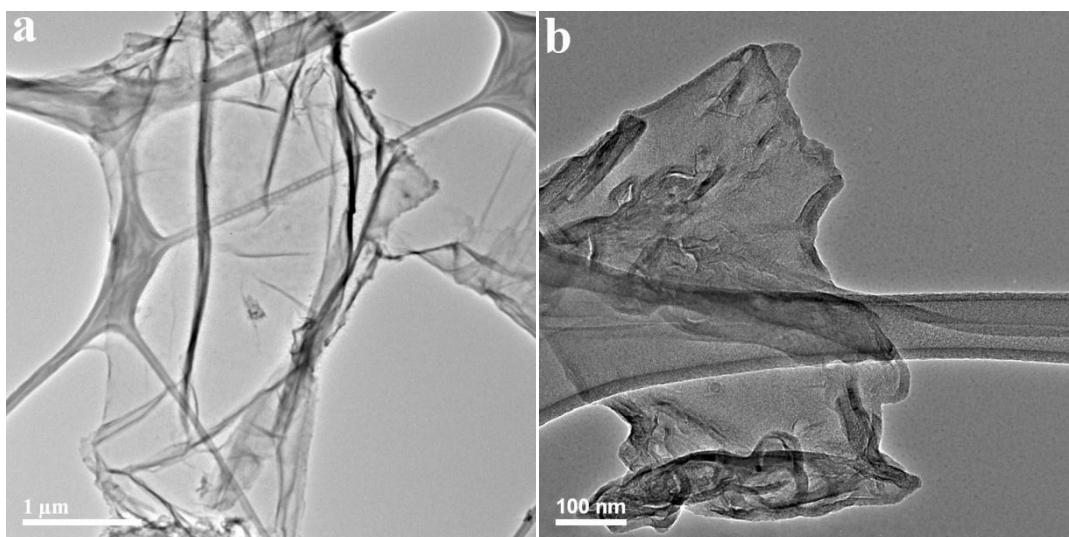
# Multifunctional nanostructured membrane for reclamation from wastewater with various pH conditions

**Peng Gao,<sup>a, b</sup> Darren Delai Sun<sup>\*a</sup> and Wun Jern Ng<sup>a, b</sup>**

<sup>a</sup>School of Civil and Environmental Engineering, Nanyang Technological University, 50 Nanyang Avenue, Singapore 639798, Singapore

<sup>b</sup>Nanyang Environment & Water Research Institute, Nanyang Technological University, 50 Nanyang Avenue, Singapore 639798, Singapore

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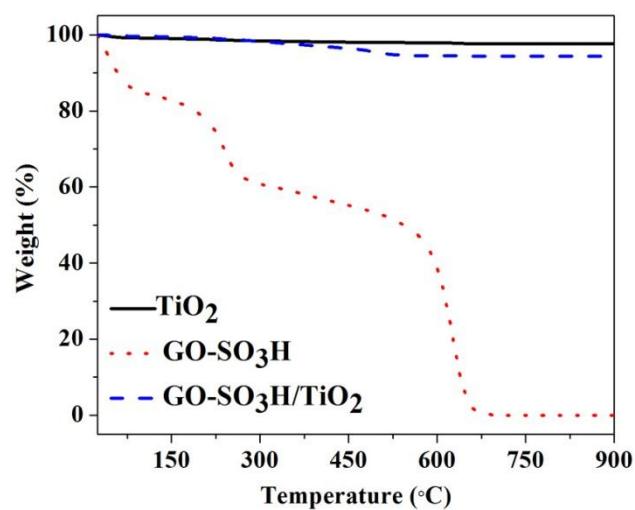


**Figure S1** | (a) and (b) TEM images of GO and GO-SO<sub>3</sub>H sheets, respectively.

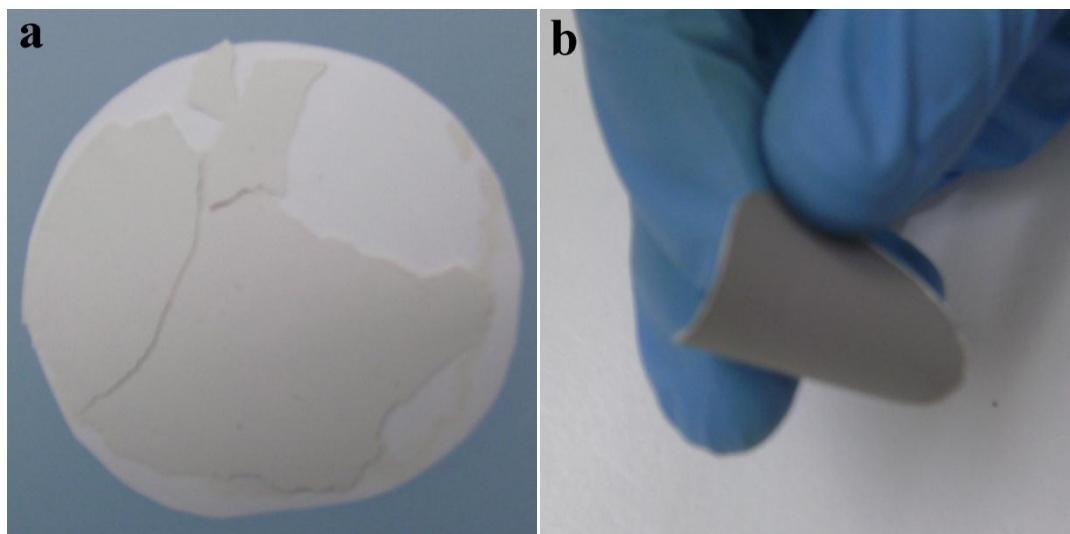


**Figure S2** | Digital photo of GO and GO-SO<sub>3</sub>H solution.

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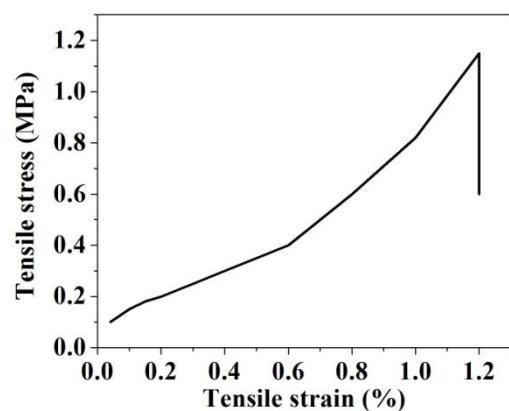


**Figure S3** | TGA curves of  $\text{TiO}_2$ ,  $\text{GO-SO}_3\text{H}$  and  $\text{GO-SO}_3\text{H/TiO}_2$ .

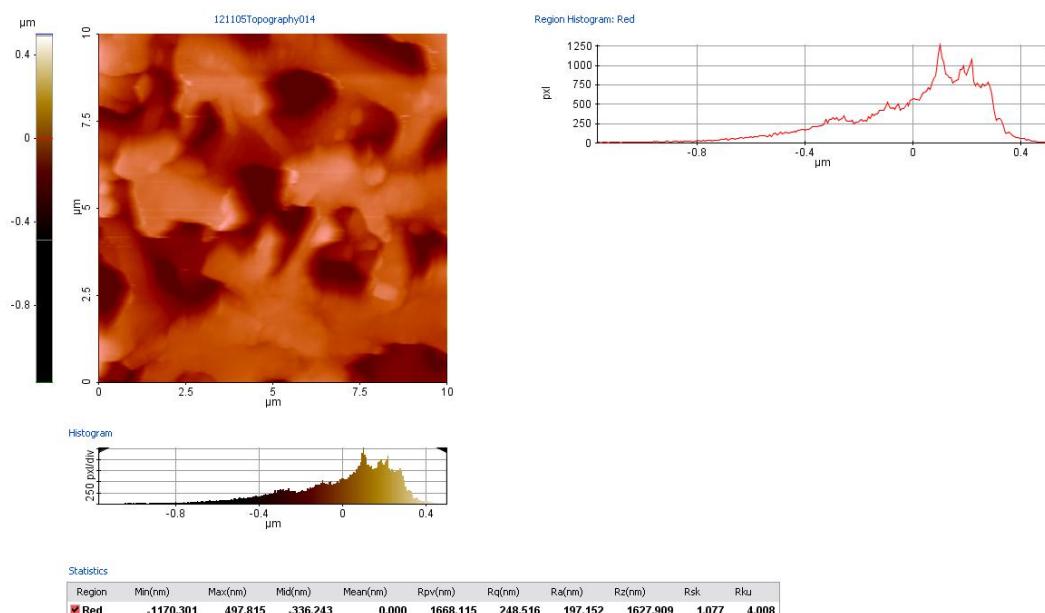


**Figure S4** | (a) and (b) Digital photos of pure  $\text{TiO}_2$  membrane and  $\text{GO-SO}_3\text{H/TiO}_2$  membrane, respectively.

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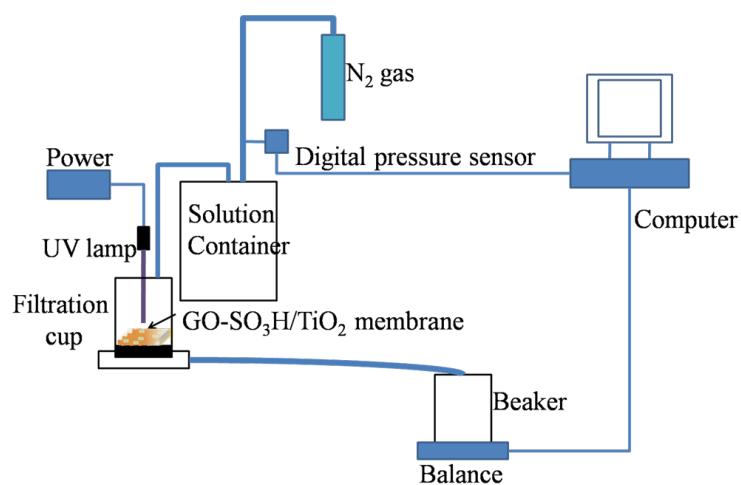


**Figure S5** | The tensile test measurement of GO-SO<sub>3</sub>H/TiO<sub>2</sub> membrane.

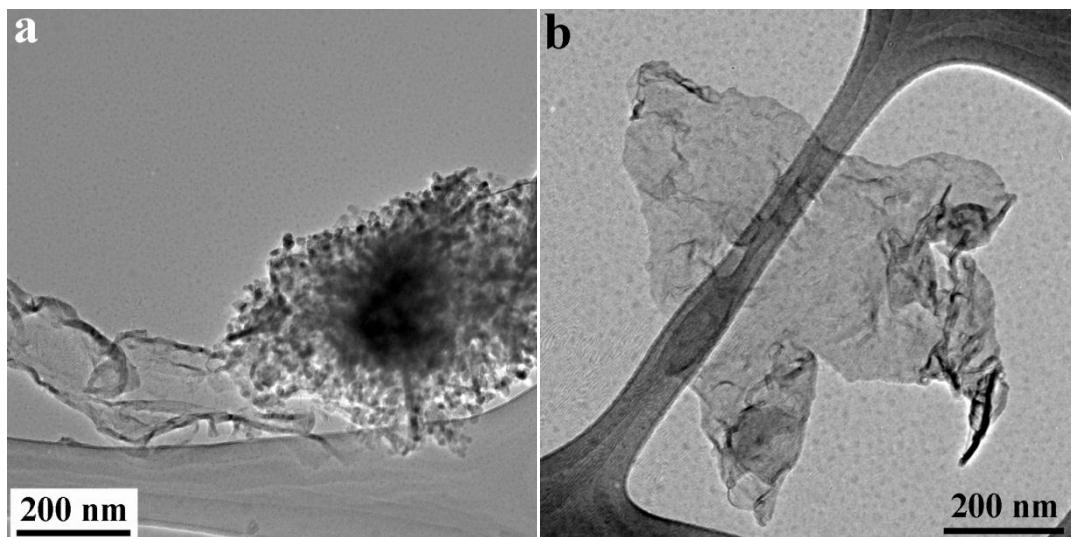


**Figure S6** | AFM image of GO-SO<sub>3</sub>H/TiO<sub>2</sub> membrane.

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**Figure S7** | Schematic diagram of lab-scale dead end water filtration setup.



**Figure S8** | (a) and (b) TEM images of GO/TiO<sub>2</sub> after water purification under pH=11.