Electronic Supplementary Information

Multifunctional nanostructured membrane for reclamation from wastewater with various pH conditions

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Figure S1 | (a) and (b) TEM images of GO and GO-SO$_3$H sheets, respectively.

Figure S2 | Digital photo of GO and GO-SO$_3$H solution.
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**Figure S3** | TGA curves of TiO$_2$, GO-SO$_3$H and GO-SO$_3$H/TiO$_2$.

**Figure S4** | (a) and (b) Digital photos of pure TiO$_2$ membrane and GO-SO$_3$H/TiO$_2$ membrane, respectively.
**Figure S5** | The tensile test measurement of GO-SO$_3$H/TiO$_2$ membrane.

**Figure S6** | AFM image of GO-SO$_3$H/TiO$_2$ membrane.
**Figure S7** | Schematic diagram of lab-scale dead end water filtration setup.

**Figure S8** | (a) and (b) TEM images of GO/TiO₂ after water purification under pH=11.