

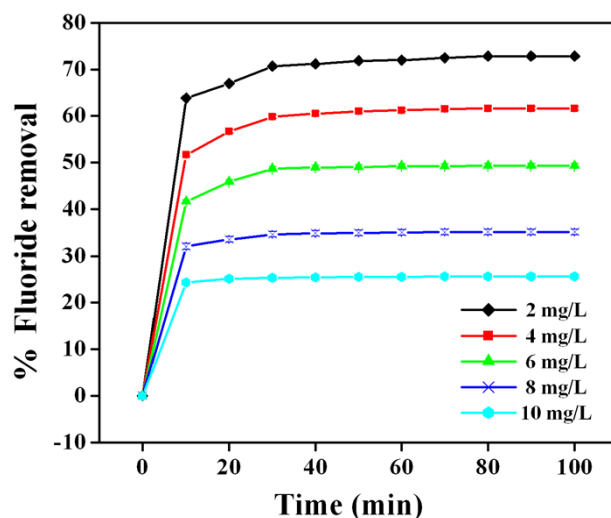
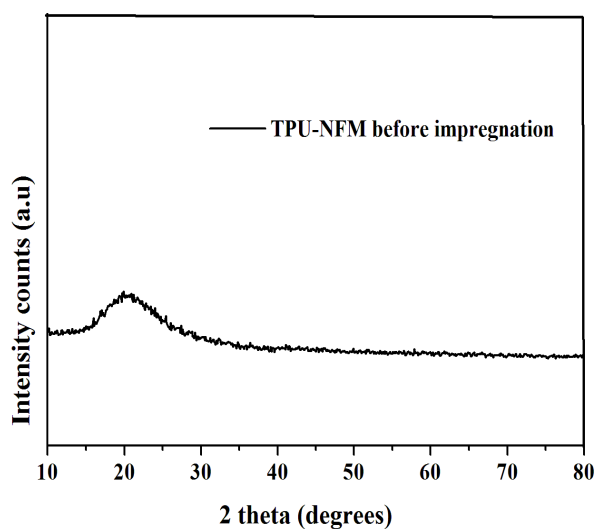
## Supplementary information

**Table S1** Properties of the TPU nanofiber and ABN/TPU-NFM

S. no	Properties	Control TPU nanofiber	Al <sub>2</sub> O <sub>3</sub> /TiO <sub>2</sub> impregnated TPU nanofiber
1.	Thickness (μm)	21.7 ± 2.08	21.9 ± 1.3
2.	Weight (g/cm <sup>2</sup> )	0.02 ± 0.3	0.02 ± 0.7
3.	Swelling ratio (%)	6.8 ± 1.11	6.0 ± 0.7
4.	Porosity (%)	48 ± 4	43 ± 4.3

**Table S2** First order and second order kinetics for F<sup>-</sup> adsorption by ABN

Initial F <sup>-</sup> conc (mg/L)	q <sub>e</sub> (exp) (mg/g)	First order kinetic model			Second order kinetic model		
		k <sub>1</sub> (L/ min)	q <sub>e</sub> (cal) (mg/g)	R <sup>2</sup>	k <sub>2</sub> (g/mg/min)	q <sub>e</sub> (cal) (mg/ g)	R <sup>2</sup>
2.0	1.456	0.064	1.786	0.909	0.572	1.475	0.999
4.0	2.463	0.083	1.303	0.967	0.320	2.500	0.999
6.0	2.956	0.094	1.416	0.95	0.337	2.994	0.999
8.0	2.806	0.085	1.021	0.94	0.549	2.833	0.999
10.0	2.566	0.076	1.766	0.853	0.978	2.577	0.999



**Fig. S1** XRD pattern of TPU-NFM before ABN impregnation

**Fig. S2** Effect of contact time and initial concentration on F<sup>-</sup> adsorption by ABN (Adsorbent dosage: 0.2 g/200mL of F<sup>-</sup>; pH: 7; temp: 30±2 °C)