

*Supplementary Materials*

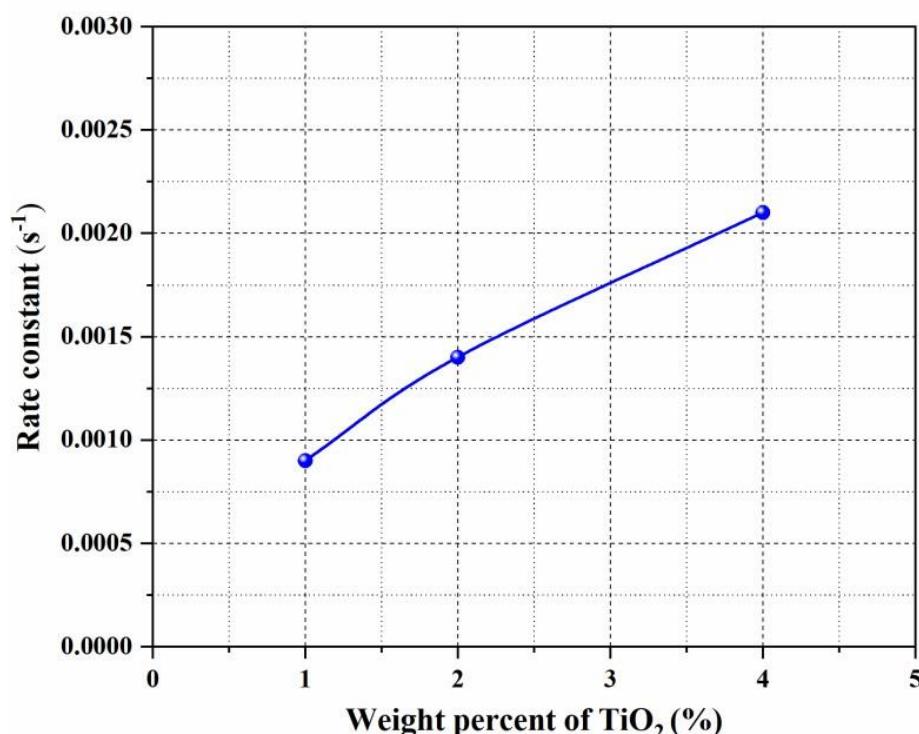
# Efficient Photocatalytic Degradation of Organic Pollutant in Wastewater by Electrospun Functionally Modified Polyacrylonitrile Nanofibers Membrane anchoring TiO<sub>2</sub> Nanostructured

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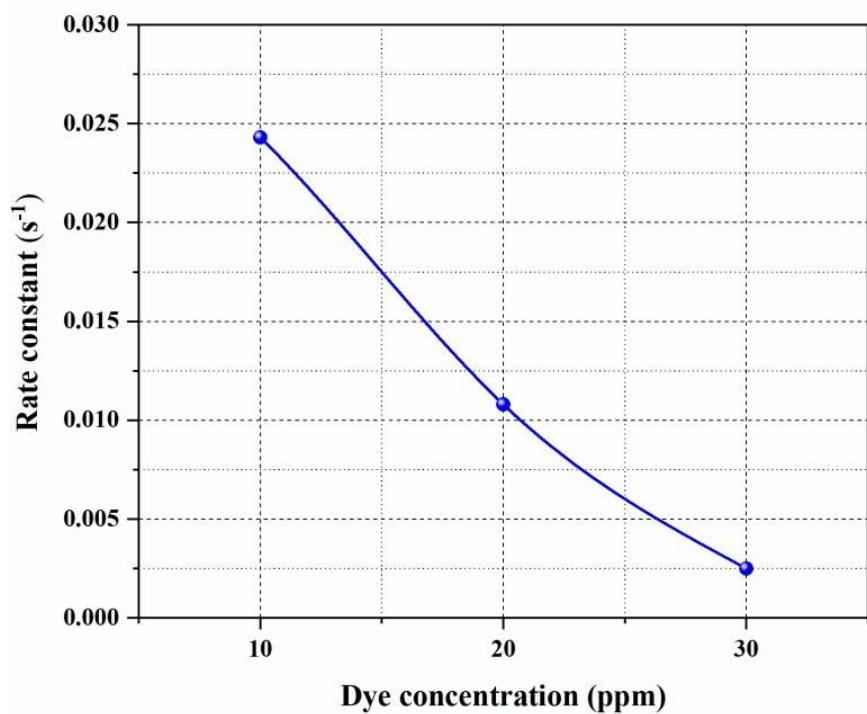
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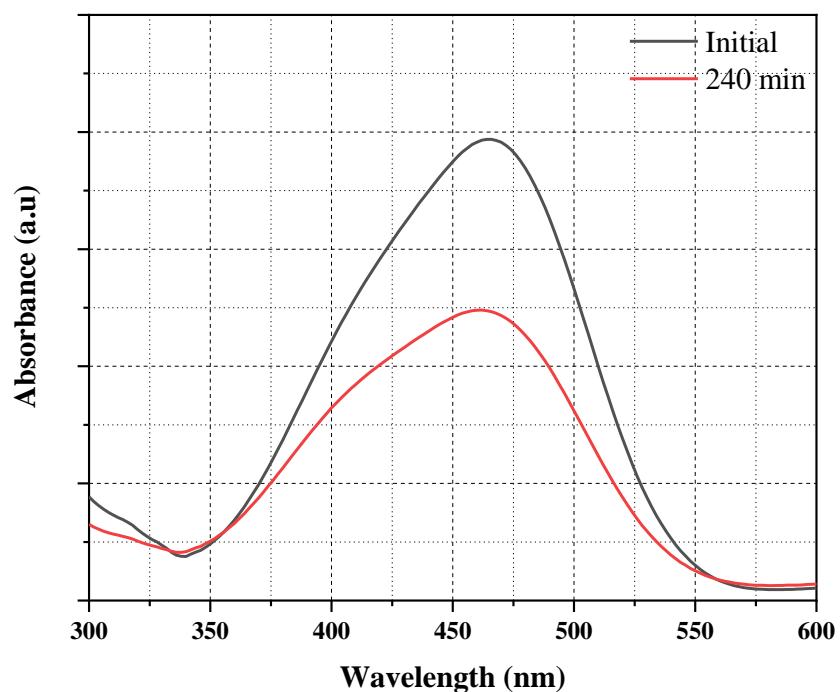
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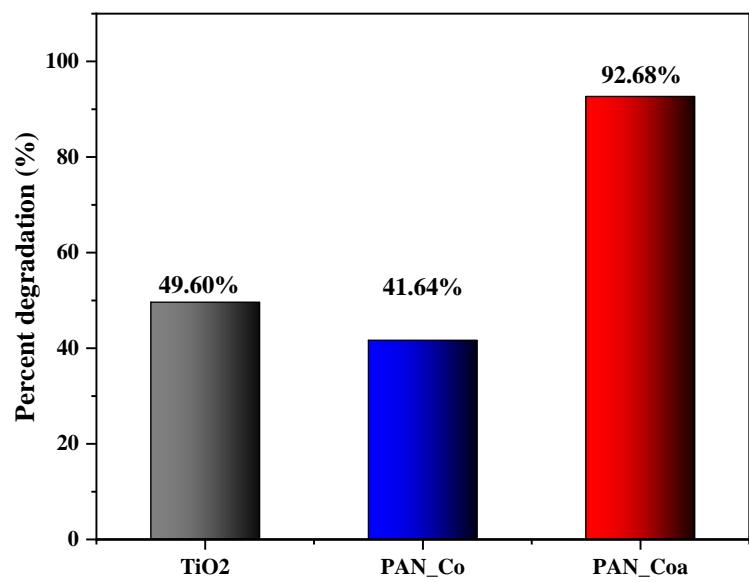
**Figure S1.** Rate constant for TiO<sub>2</sub> coated DETA-f-PAN NFs membrane with variation in wt.% of TiO<sub>2</sub>/PAN membrane Keeping the concentration of methyl orange 20 ppm and dose 60 mg.



**Figure S2.** Rate constant for TiO<sub>2</sub> coated DETA-f-PAN NFs membrane with variation in membrane concentration of methyl orange keeping the dose constant (60 mg).



**Figure S3.** Spectrophotometer spectra of the 20 ppm methyl orange at 0 min and 240 min. TiO<sub>2</sub> NPs dose was 60 mg.



**Figure S4.** Comparative data of the bare  $\text{TiO}_2$  NPs,  $\text{PAN\_Co}$  and  $\text{PAN\_Coa}$  at 20 ppm methyl orange and 60 mg dose.