

Supporting Information

Self- assembly, photophysical, electrochemical properties and activation of TiO₂ photocatalyst by perylene bisimide

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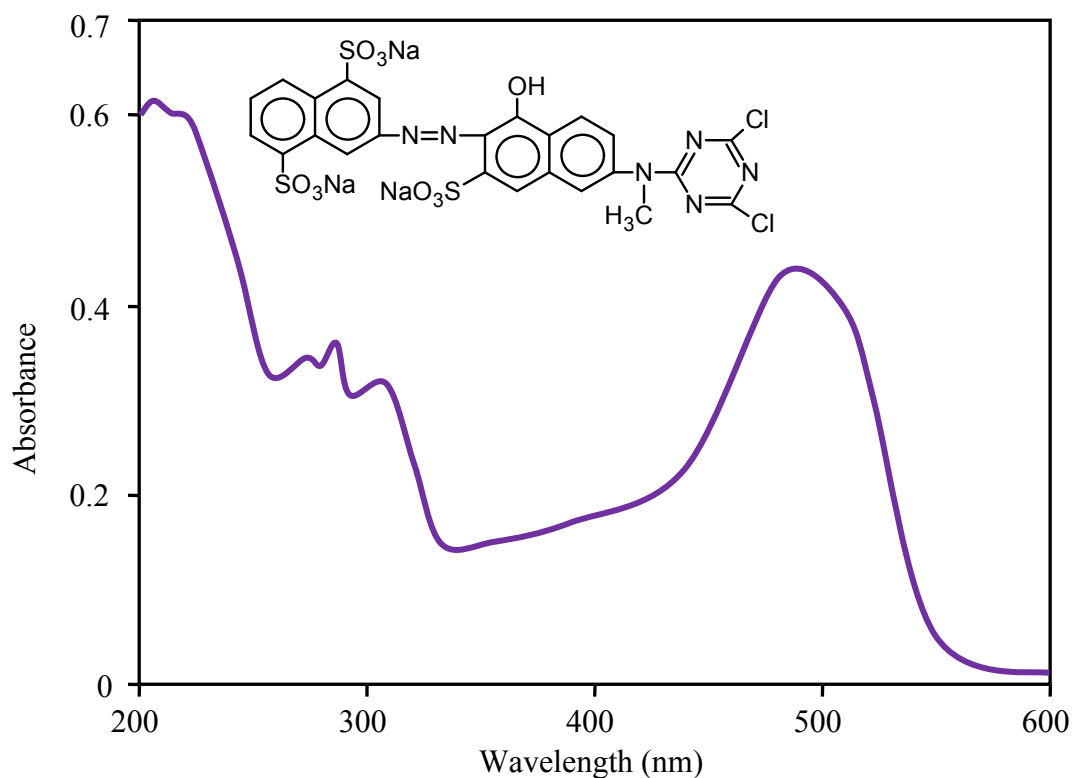


Fig.S1 Dye RO 4 structure and UV spectrum

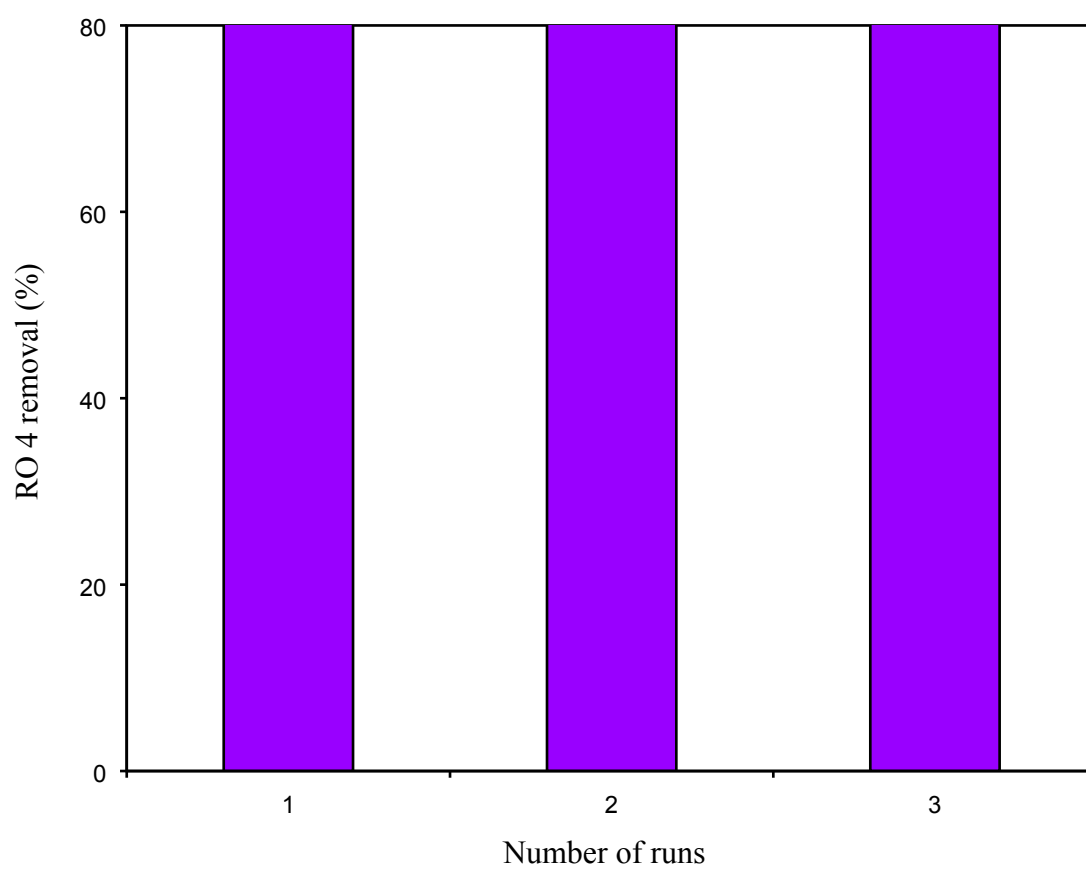


Fig. S2. Catalyst reusability; $[\text{RO 4}] = 5 \times 10^{-4} \text{M}$, $\text{pH} = 7$, catalyst suspended = 2g L^{-1} , airflow rate = 8.1 mLs^{-1} , $I_{UV} = 1.381 \times 10^{-6} \text{einstein L}^{-1} \text{ s}^{-1}$, irradiation time = 60 min

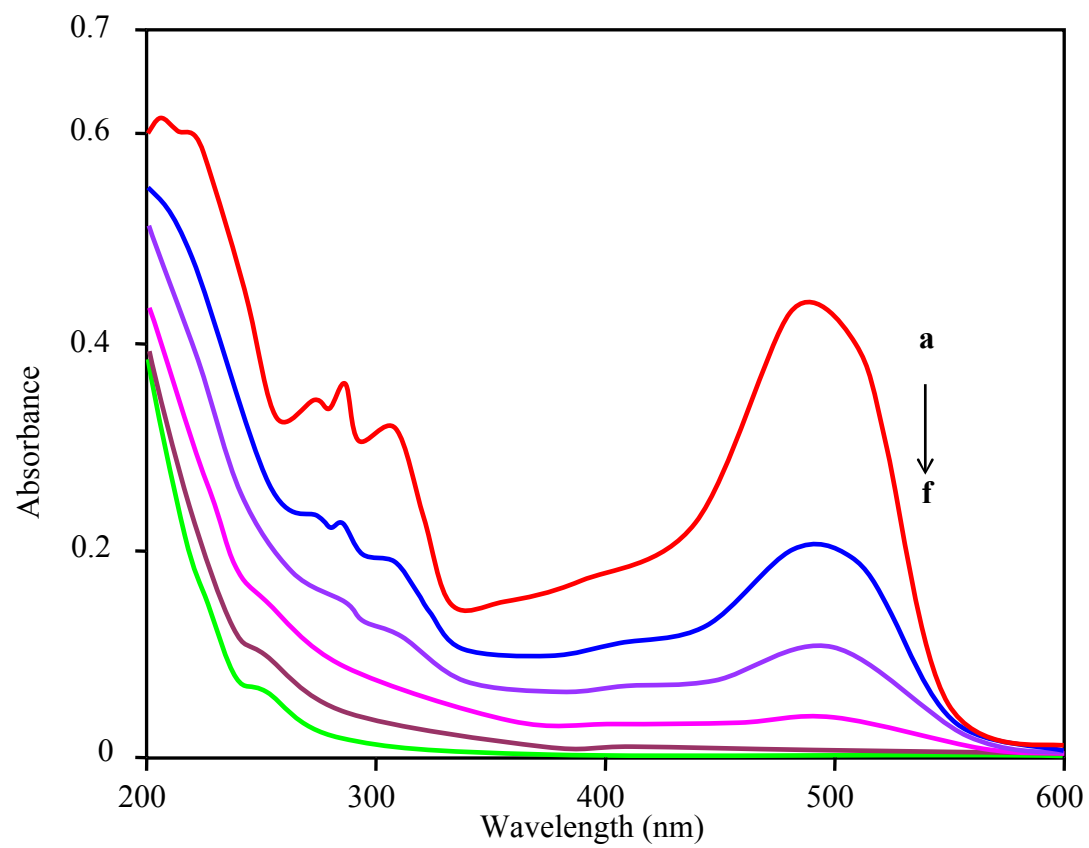


Fig.S3 The changes in UV-vis spectra of RO 4 on irradiation with UV light in the presence of 0.05 wt% DPBI loaded TiO₂
a) 0 min, b) 10 min, c) 20 min, d) 30 min, e) 40 min and f) 60 min
[RO 4] = 5×10⁻⁴M, pH=7, catalyst suspended = 2gL⁻¹, airflow rate = 8.1 mLs⁻¹,
 $I_{UV} = 1.381 \times 10^{-6}$ einstein L⁻¹ s⁻¹