

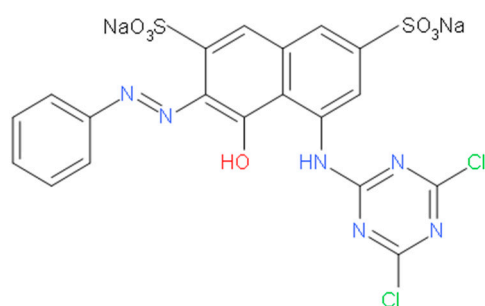
Supplementary Materials

# Sulfate Decelerated Ferrous ion-Activated Persulfate Oxidation of Azo Dye Reactive Brilliant Red: Influence Factors, Mechanisms, and Control Methods

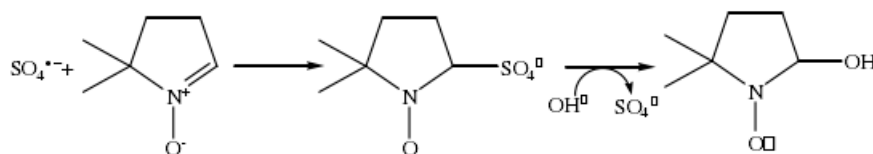
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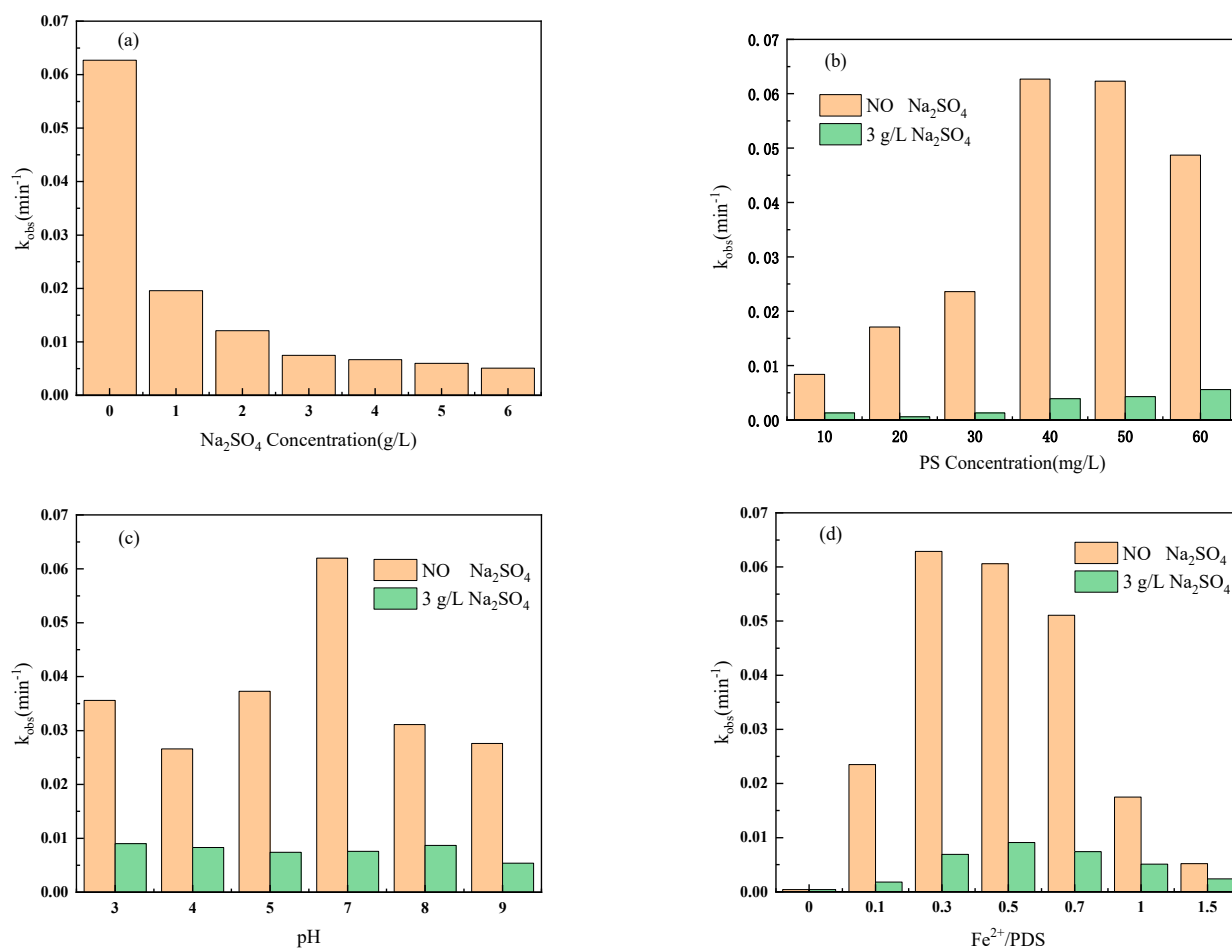
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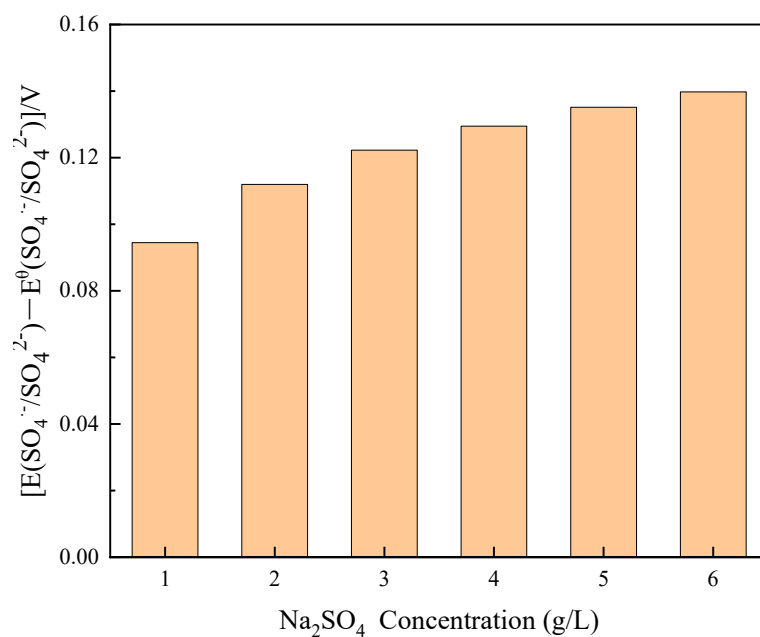
**Figure S1.** Molecular structure formula of reactive brilliant red X-3B.



**Figure S2.** Conversion of DMPO-SO<sub>4</sub> to DMPO-OH.



**Figure S3.** Variation of the chemical reaction rate constant  $k_{obs}$  for the system under different reaction conditions: (a)  $\text{Na}_2\text{SO}_4$  concentration, (b) PS concentration, (c) pH, (d)  $\text{Fe}^{2+}/\text{PDS}$ .



**Figure S4.** Variation of  $[E(\text{SO}_4^{\cdot-}/\text{SO}_4^{2-}) - E^0(\text{SO}_4^{\cdot-}/\text{SO}_4^{2-})]/V$  of the system at different  $\text{Na}_2\text{SO}_4$  concentrations.