## **Supplementary Material**

## Selective decolorization of cationic dyes by peroxymonosulfate: non-radical mechanism and effect of chloride

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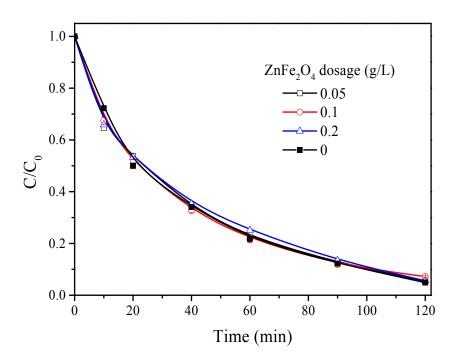
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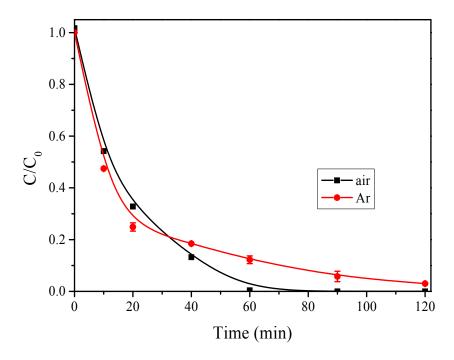
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**Figure S1**. Influence of ZnFe<sub>2</sub>O<sub>4</sub> dosage on the degradation of RhB in PMS/ZnFe<sub>2</sub>O<sub>4</sub> system. Conditions: [PMS] = 2.5 mM, [RhB] = 10 mg/L, pH<sub>0</sub> =  $4.5 \pm 0.1$ .



**Figure S2**. Influence of Ar purging on the degradation of RhB. Conditions: [PMS] = 2.5 mM, pH<sub>0</sub> =  $4.5 \pm 0.1$ . [Ar] = 3 L/min, [RhB] = 10 mg/L.

**Table S1.** The final pH of RhB solution at different initial solution pH. Conditions: [PMS] = 2.5 mM, [RhB] = 10 mg/L, Time = 120 min.

Initial pH	2.0	4.5	7.0	10.0	12.0
After adding PMS	1.92	2.57	2.56	2.55	11.72
Final pH	0.97	2.53	2.5	2.46	11.56