

Supporting Information

**Treatment of cationic red X-GRL in high salt printing and dyeing wastewater by
electrocatalytic ozonation system: treatment efficiency and degradation
mechanism**

Zhiwei Shang^a, Jing Zhu^{a,b}, Guoyu Zhang^{a,b,···*}, Zhipeng Li^{a,b}, Jiapeng Zhang^a,
Weirun Li^b, Wenye Li^a, Fanbo Zeng^a, Shuyu Zhao^a, Hong You^{a,b}, ZhiPeng Li^b

^a School of Marine Science and Technology, Harbin Institute of Technology at Weihai,
Weihai 264209, China;

^b State Key Laboratory of Urban Water Resource and Environment, School of
Environment, Harbin Institute of Technology, Harbin 150090, China;

* Corresponding author:

Guoyu Zhang

Tel.: 0451-86283001

E-mail: guoyuzh@hit.edu.cn

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21 Text Captions:

22 Text S1. Detailed information of chemicals and materials.

23 Figure Captions:

24 Fig. S1. Reaction apparatus diagram for electrochemical generation of H_2O_2 .

25 Fig. S2. Reaction apparatus diagram of the electrocatalytic ozonation system.

26 Table Captions:

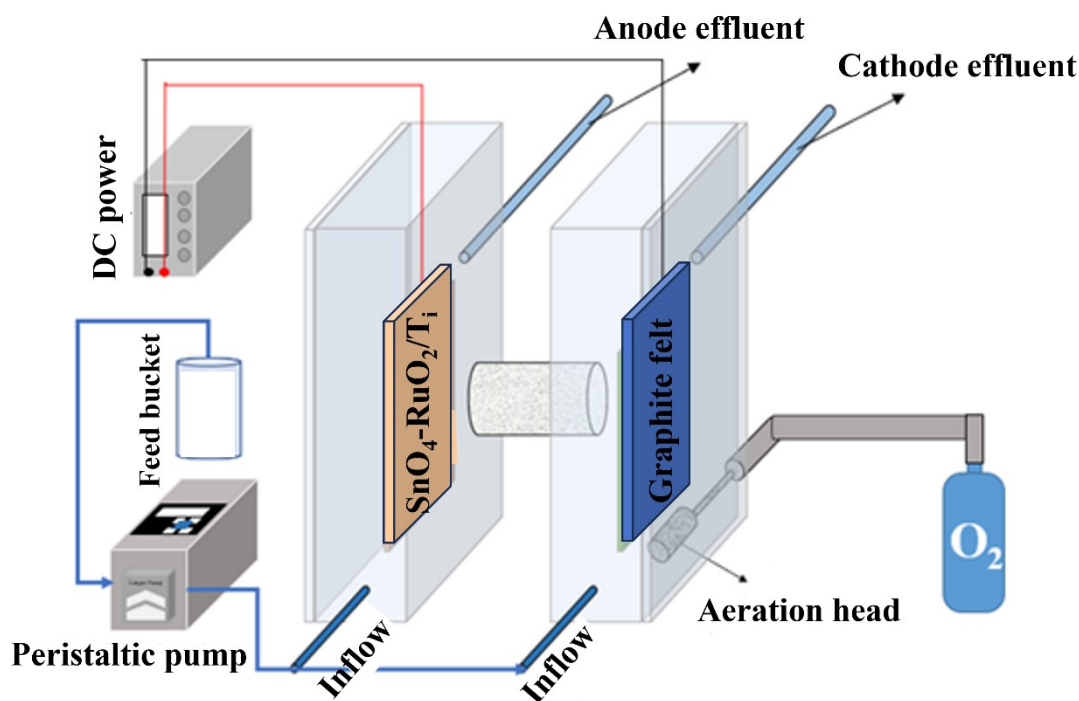
27 Table S1. Main water quality indexes of the high salt printing and dyeing wastewater

28 used in this study.

29 **Text S1.** Detailed information of chemicals

30 The diameter of GAC particles was 1 mm, and length of that was 5-7mm.

31 Sodium hydroxide (NaOH), manganous nitrate ($\text{Mn}(\text{NO}_3)_2$), magnesium nitrate
32 ($\text{Mg}(\text{NO}_3)_2$), titanous sulfate (Ti_2SO_4), sodium chloride (NaCl), potassium
33 hypermanganate (KMnO_4), silver sulfate (Ag_2SO_4), urea ($\text{CH}_4\text{N}_2\text{O}$), ammonium
34 ferrous sulfate ($\text{Fe}(\text{NH}_4)_2 \cdot (\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$), mercury sulfate (HgSO_4), were all of
35 analytical grade from Macklin (Shanghai, China) and used as received without further
36 treatment. Sulfuric acid (H_2SO_4) were analytical grade from Beijing Chemical Industry
37 Group Co., Ltd. (Beijing, China) and used as received. (Shanghai, China) and used as
38 received without further treatment. Nitric acid (HNO_3), hydrogen peroxide (H_2O_2 30
39 %) were obtained from Aladdin Reagent Co., Ltd. (Shanghai, China).

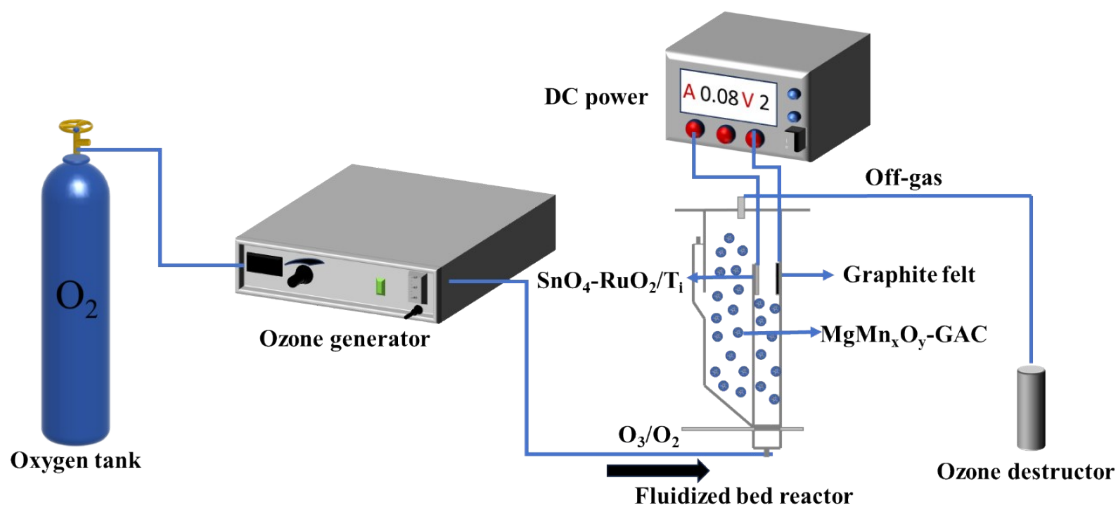


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41 **Fig. S1.** Reaction apparatus diagram for electrochemical generation of H_2O_2 .

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46 Fig. S2. Reaction apparatus diagram of the electrocatalytic ozonation system.

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48 Table S1. Main water quality indexes of the high salt printing and dyeing wastewater

49 used in this study.

Content	pH	NaCl (g/L)	Temperatur e (°C)	Cationic red X-GRL (mg/L)	COD (mg/L)
Value	7-8	12	19-22	160	80

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