

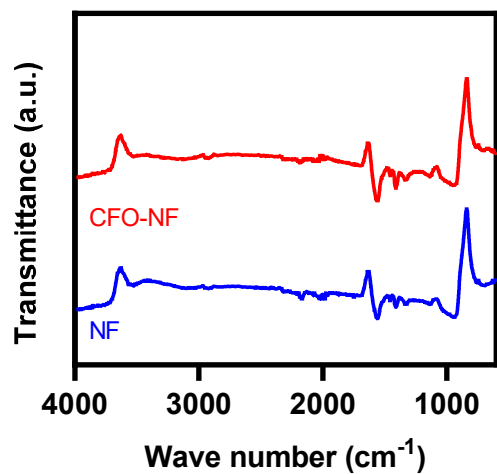
# Peroxymonosulfate Activation by CuO-Fe<sub>2</sub>O<sub>3</sub>-Modified Ni Foam: A <sup>1</sup>O<sub>2</sub> Dominated Process for Efficient and Stable Degradation of Tetracycline

Xueqing Ren <sup>1</sup>, Peng Xu <sup>2,\*</sup>, Ke Tian <sup>1</sup>, Menghan Cao <sup>1</sup>, Fengyin Shi <sup>1</sup> and Guangshan Zhang <sup>1,\*</sup>

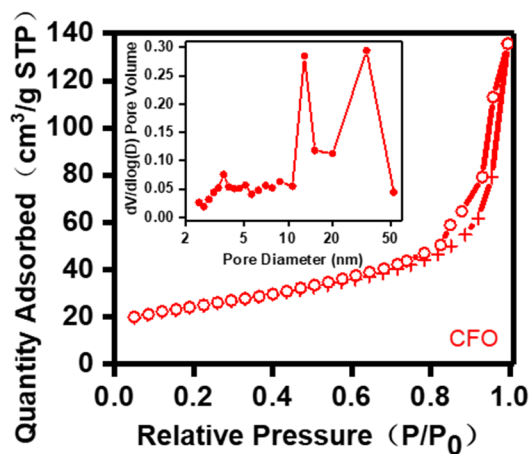
<sup>1</sup> College of Resource and Environment, Qingdao Engineering Research Center for Rural Environment, Qingdao Agricultural University, Qingdao 266109, China

<sup>2</sup> State Key Laboratory of Urban Water Resource and Environment, School of Environment, Harbin Institute of Technology, Harbin 150090, China

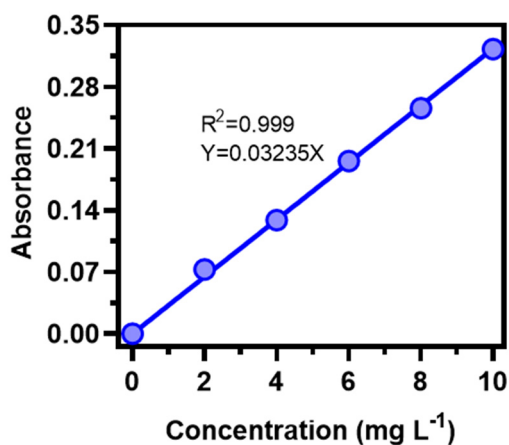
\* Correspondence: 18636284364@163.com (P.X.); gszhang@qau.edu.cn (G.Z.); Tel./Fax: +86-1556-1566-038 (P.X.); +86-532-5895-7461 (G.Z.)



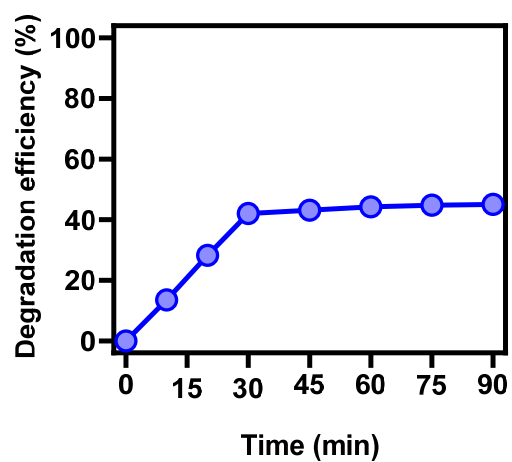
**Figure. S1.** FTIR spectra of NF and CFO-NF.



**Figure. S2.** N<sub>2</sub> adsorption/desorption isotherms of CFO scratched from CFO-NF (insert: Barrett-Joyner-Halenda (BJH) analyzes).



**Figure. S3.** The standard curve of TC.



**Figure. S4.** The adsorption performance of CFO-NF towards TC.

**Table S1.** Specific surface areas and pore characteristics of different catalysts.

Catalysts	$S_{\text{BET}} (\text{m}^2 \text{g}^{-1})$	Pore volume ( $\text{cm}^3 \text{g}^{-1}$ )	Pore size (nm)
CFO	81.80	0.192	14.91
NF	3.87	0.0033	5.77
CFO-NF	4.25	0.0040	5.13

**Table S2.** The content of various elements in fresh and used catalysts.

	Fe(II)	Fe(III)	Cu(I)	Cu(II)	Ni(II)	Ni(III)	Ni <sup>0</sup>	O <sub>v</sub>	O <sub>lat</sub>
Fresh	0	100%	0%	100%	66.2%	29.2%	4.6%	74.2%	25.8%
Used	36.1%	63.9%	78.6%	21.4%	35.1%	54.6%	10.2%	46.7%	27.0%
△	+36.1%	-36.1%	+78.6%	-78.6%	-31.1%	+25.4%	+5.6%	-27.5%	+1.2%