Supporting Information for

In-situ generation of hydrogen peroxide from formic acid and air using polymetallic Co-doped g-C_3N_4 for pollutant removal

Liyan Wang [1,2], Jianqing Ma [1,3,*], Qianhui Guo [1], Liang Liu [4], Jiangnan Shou [1], Aojie Sun [1] and Liaoyuan Zhao [4]

[1] School of Civil Engineering and Architecture, NingboTech University, Ningbo 315100, China; cpgzwly@163.com (L.W.); guoqh@nbt.edu.cn (Q.G.); shoujn@nbt.edu.cn (J.S.); 3190621168@nbt.edu.cn (A.S.)
[2] Polytechnic Institute of Technology, Zhejiang University, Hangzhou 310015, China
[3] Ningbo Research Institute, Zhejiang University, Ningbo 315100, China
[4] Blue City Ecological Co., Ltd, Ningbo 315100, China；liuliang@bluecityeco.com (L.L.); zhaoly@bluecityeco.com (L.Z.)
* Correspondence: majq@nit.zju.edu.cn; Tel./Fax: +86 18367463842

Summary of Content: 8 pages including 6 figures and 1 table.

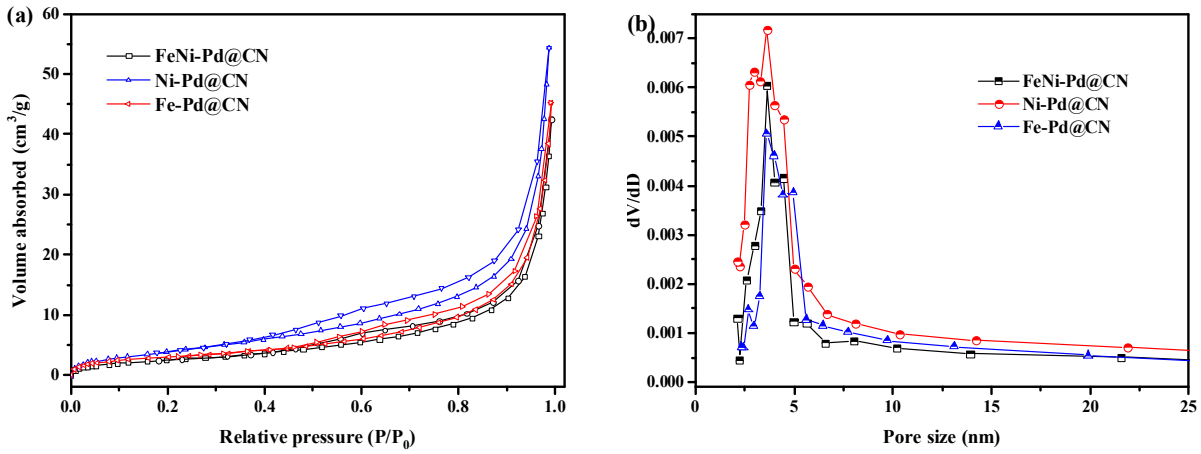

Figure S1. (a) Nitrogen adsorption-desorption isotherms and (b) Pore size distribution curves of the FeNi-Pd@CN, Ni-Pd@CN and Fe-Pd@CN.

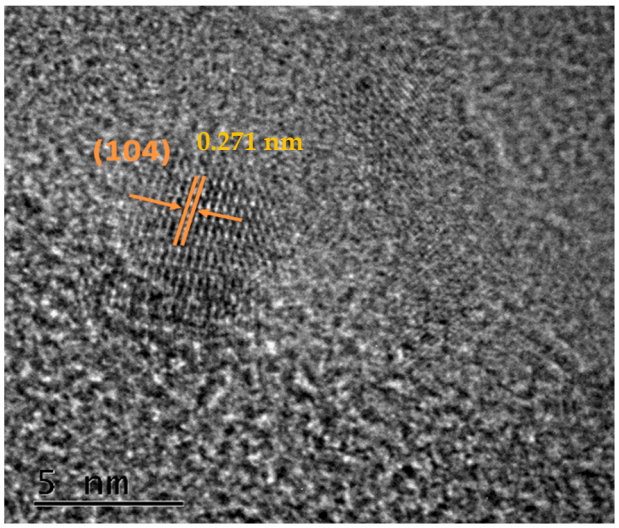

Figure S2. α-Fe2O3 (104) facet in the HRTEM image of FeNi-Pd@CN.

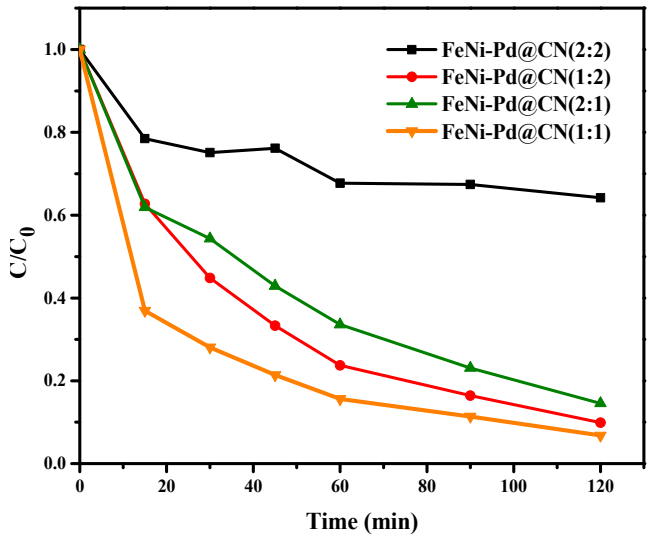

Figure S3. Degradation of TC by different catalysts (TC 10 mg/L; catalyst dosage: 2 g/L; FA: 46.6 mmol/L; air；200 mL/min).

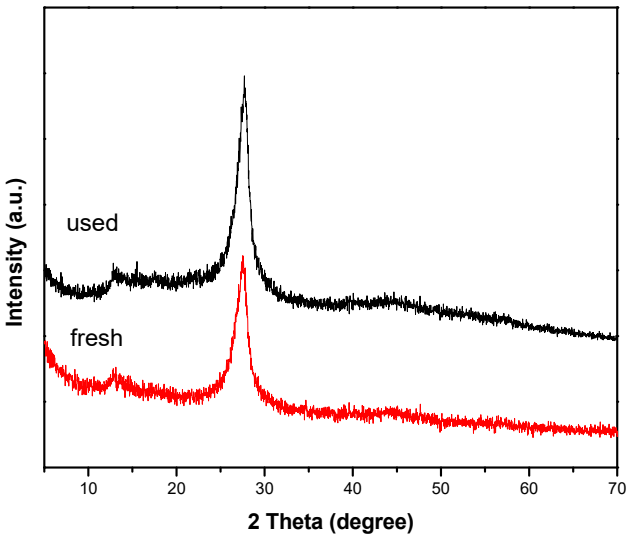

Figure S4. XRD of fresh catalyst and after the fourth reused catalyst.

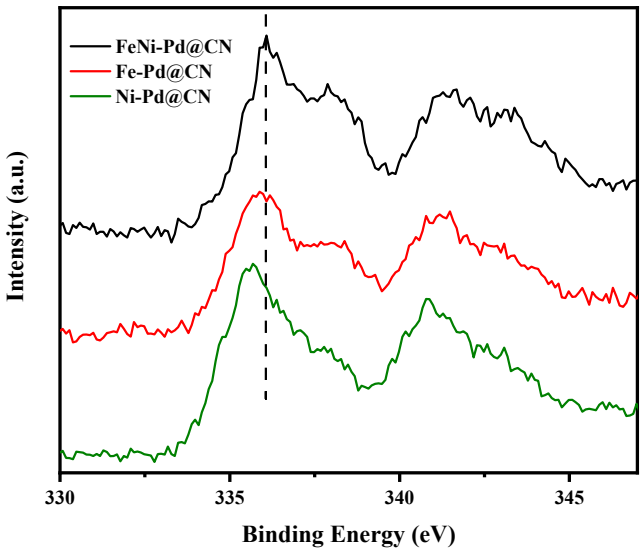

Figure S5. The comparison of Pd 3d XPS spectra of different samples.

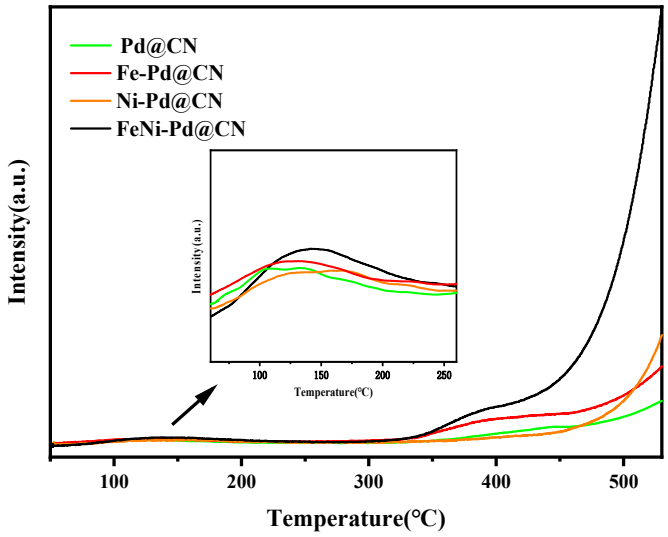

Figure S6. O_2-TPD curves of different catalysts.

Table S1 Elements contents of FeNi-Pd@CN calculated from the EDS results

Element	C	N	O	Fe	Ni	Pd
Weight %	51.69	34.97	6.19	2.98	3.90	0.27
Atomic %	58.88	34.16	5.30	0.72	0.91	0.03