

## Electronic supplementary information

Stability and deactivation of Fe-ZSM-5 zeolite catalyst for catalytic wet  
peroxide oxidation of phenol in a membrane reactor

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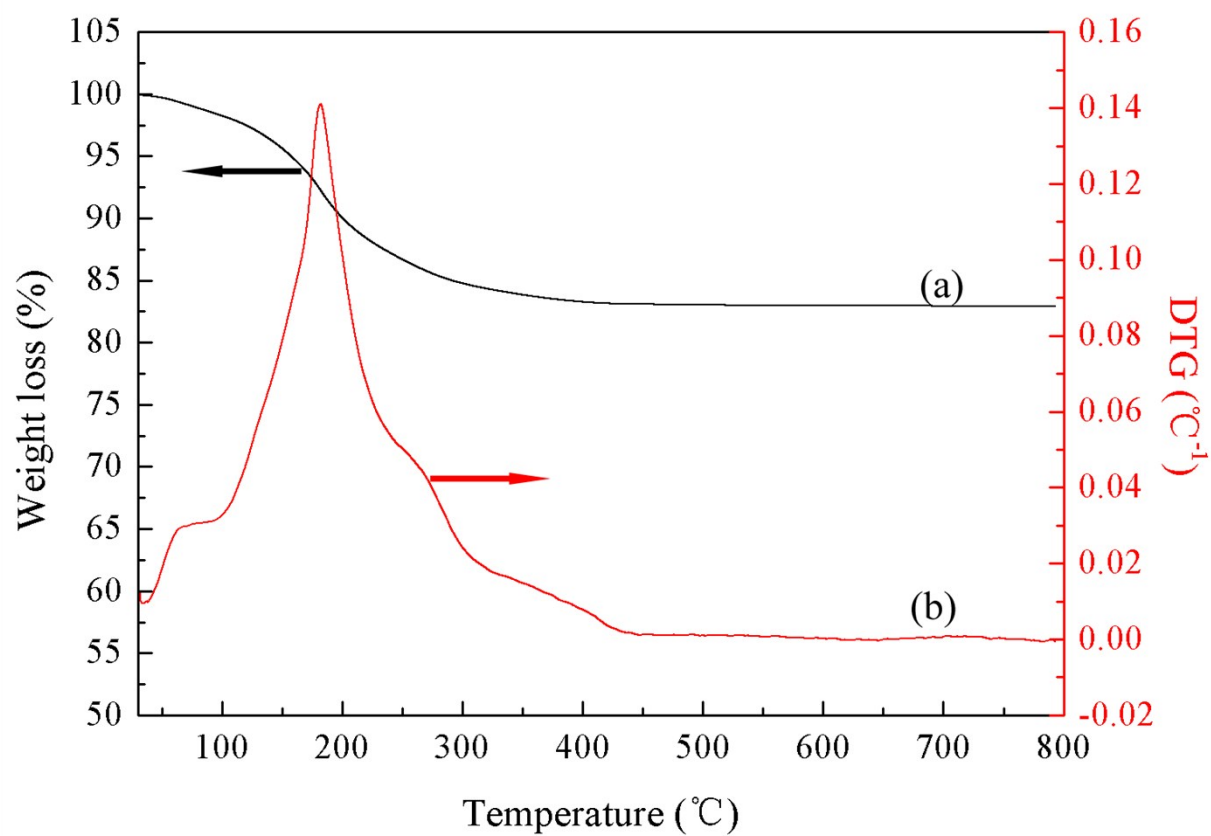
E-mail address: cexyzh@scut.edu.cn (X.Y. Zhang).

**Figure contents:**

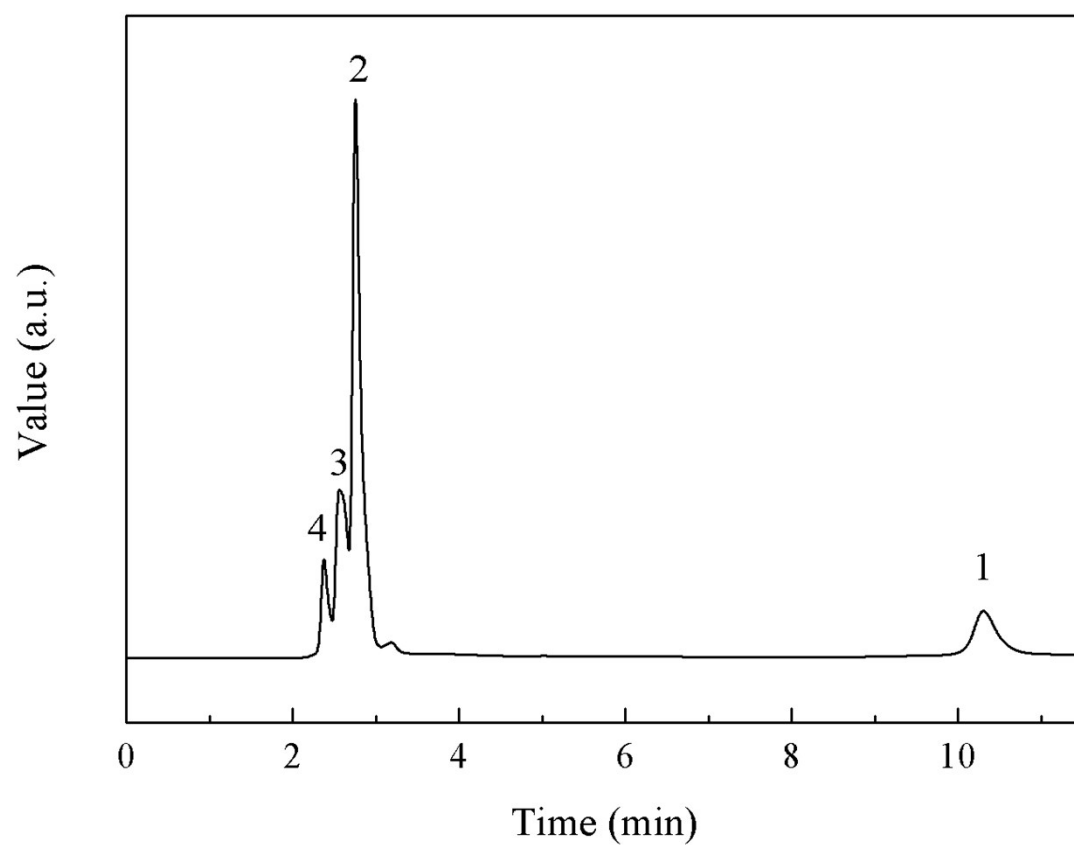
**Fig. S1.** TGA profiles of the uncalcined Fe-ZSM-5 zeolite membrane catalyst.

**Fig. S2.** HPLC pattern of reaction by-products after CWPO of phenol (peak 1: phenol; peak 2: acetic acid; peak 3: formic acid; peak 4: oxalic acid).

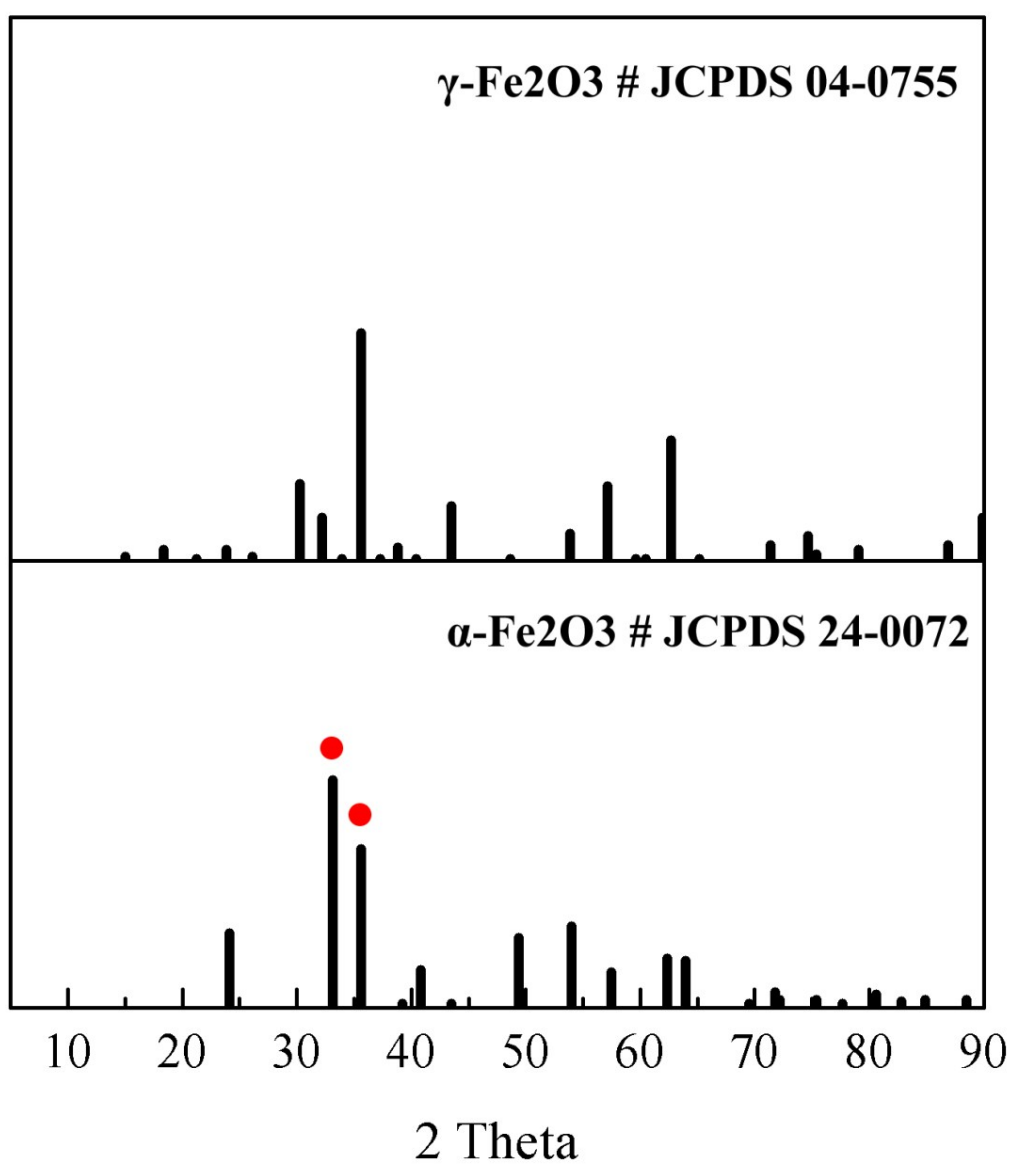
**Fig. S3.** The standard XRD patterns of  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> and  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub> from JCPDS files.



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