

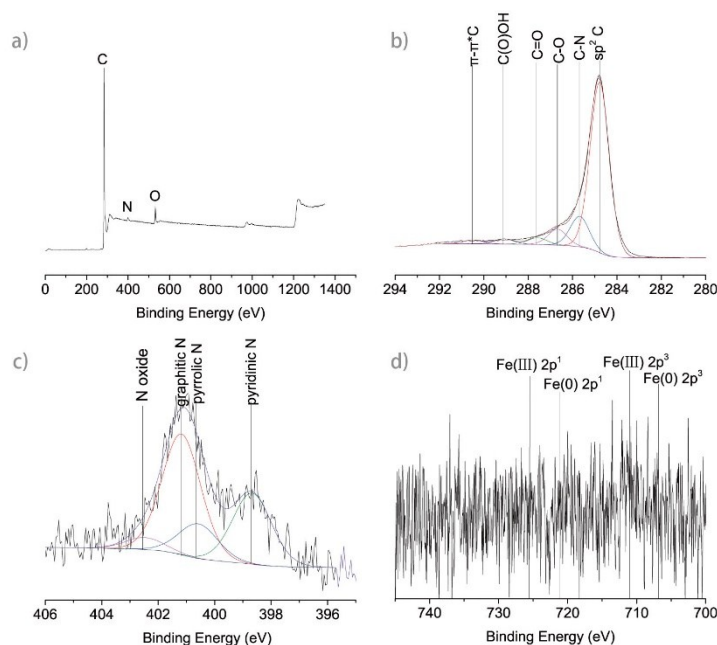
## Magnetic N-containing carbon spheres derived from sustainable chitin for selective oxidation of C-H bonds

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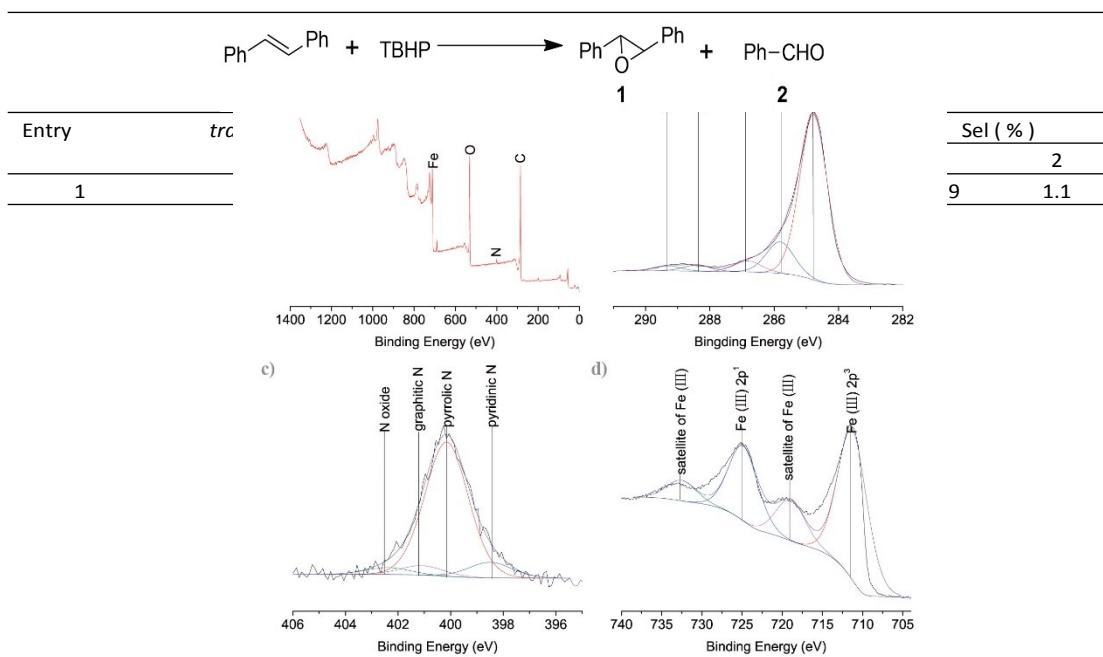
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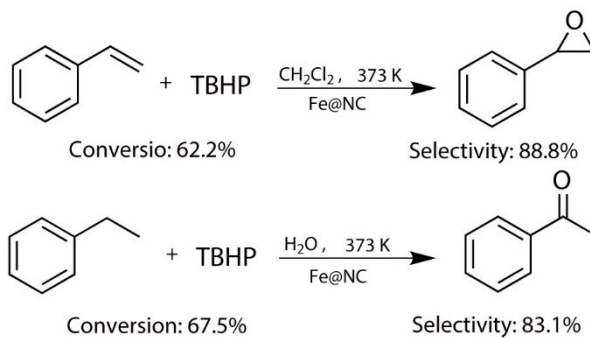
**Figure S1.** XPS full spectra, C 1S spectra, N 1S spectra, Fe2p spectra of the Fe@NC800 after hydrochloric washing.

The catalyst Fe@NC ( 10 mg ) was boiled in 3 mL CH<sub>2</sub>Cl<sub>2</sub> for five hours and then filtered out. The filtrate was used as solvent to conduct the next blank reaction. The detailed reaction conditions were as following: trans-stilbene 1 mmol, filtrated CH<sub>2</sub>Cl<sub>2</sub> 2 mL, urea 0.5 mmol, 373K.

**Table S1** The catalytic performance of the filtrate of Fe@NC dispersion.



**Figure S2.** XPS full spectra, C 1S spectra, N 1S spectra, Fe2p spectra of the Fe@NC800 after the reaction.



**Figure S3.** The oxidation results of styrene and ethylbenzene with Fe@NC as catalyst.