

## Supplementary Information

### Adsorptive removal of aqueous bezafibrate by magnetic ferrite modified carbon nanotubes

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Table. S1 Physicochemical properties and structure of BZF.

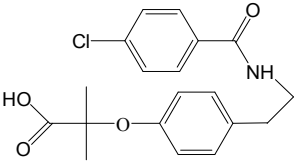
| Chemical name                           | Mr     | Log $K_{OW}$ | CAS DataBase | Chemical structure                                                                  |
|-----------------------------------------|--------|--------------|--------------|-------------------------------------------------------------------------------------|
| Bezafibrate<br>( $C_{19}H_{20}ClNO_4$ ) | 361.82 | 4.25         | 41859-67-0   |  |

Table. S2 Surface chemistry of  $\text{MFe}_2\text{O}_4/\text{CNTs}$  determined by the Boehm titration method

| Adsorbents                            | Carboxyl<br>(mmol/g) | Lactonic<br>(mmol/g) | Phenolic<br>(mmol/g) | Total acidic<br>groups<br>(mmol/g) | Total basic<br>groups<br>(mmol/g) | $\text{pH}_{\text{PZC}}$ |
|---------------------------------------|----------------------|----------------------|----------------------|------------------------------------|-----------------------------------|--------------------------|
| $\text{MnFe}_2\text{O}_4/\text{CNTs}$ | 1.87                 | 0.37                 | 0.20                 | 2.44                               | 1.47                              | 3.5                      |
| $\text{CoFe}_2\text{O}_4/\text{CNTs}$ | 1.63                 | 0.27                 | 0.23                 | 2.13                               | 1.35                              | 4.0                      |

Table. S3 Parameters of Dubinin–Radushkevich isotherm for BZF adsorption on  $\text{MnFe}_2\text{O}_4/\text{CNTs}$ . (adsorbent dosage 0.02 g, neutral pH and temperature 25 °C)

| Adsorbents                            | $q_e$<br>(mg/g) | $C_e$<br>(mg/L) | $\varepsilon^2$ | $\ln q_e$ | $q_m$<br>(mg/g) | $\ln q_m$ | K<br>( $\text{mol}^2 \cdot \text{kJ}^2$ ) | E<br>(kJ/mol) |
|---------------------------------------|-----------------|-----------------|-----------------|-----------|-----------------|-----------|-------------------------------------------|---------------|
| $\text{MnFe}_2\text{O}_4/\text{CNTs}$ | 30.11           | 13.90           | 7.05            | 3.40      | 35.50           | 3.57      | 0.02                                      | 4.63          |
| $\text{CoFe}_2\text{O}_4/\text{CNTs}$ | 24.49           | 15.02           | 6.98            | 3.20      | 29.10           | 3.37      | 0.02                                      | 4.50          |

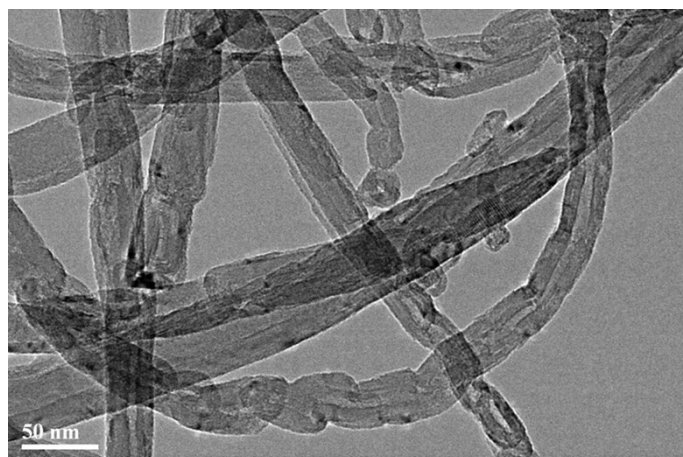


Fig. S1 TEM micrographs of CNTs.

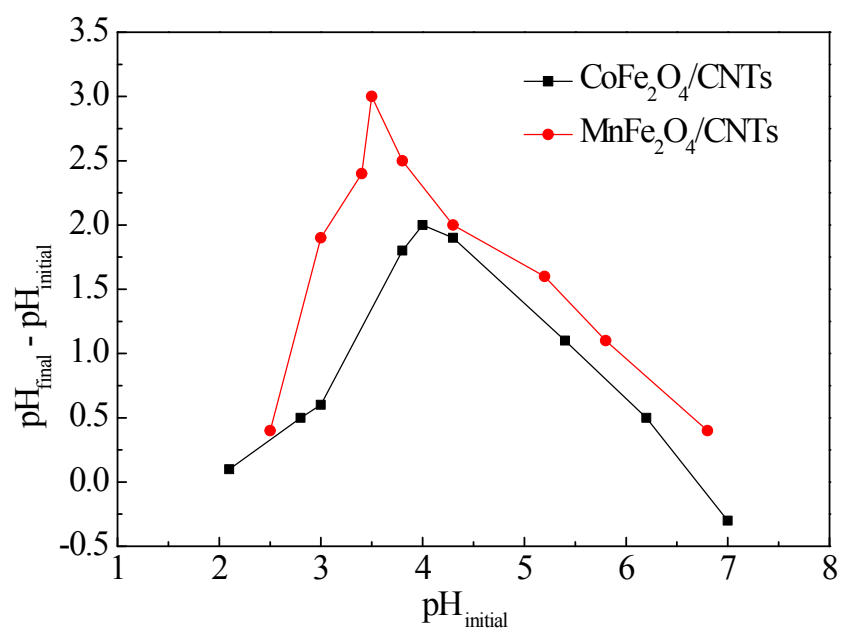


Fig. S2  $\text{pH}_{\text{PZC}}$  studies plot of  $\text{MnFe}_2\text{O}_4/\text{CNTs}$ .

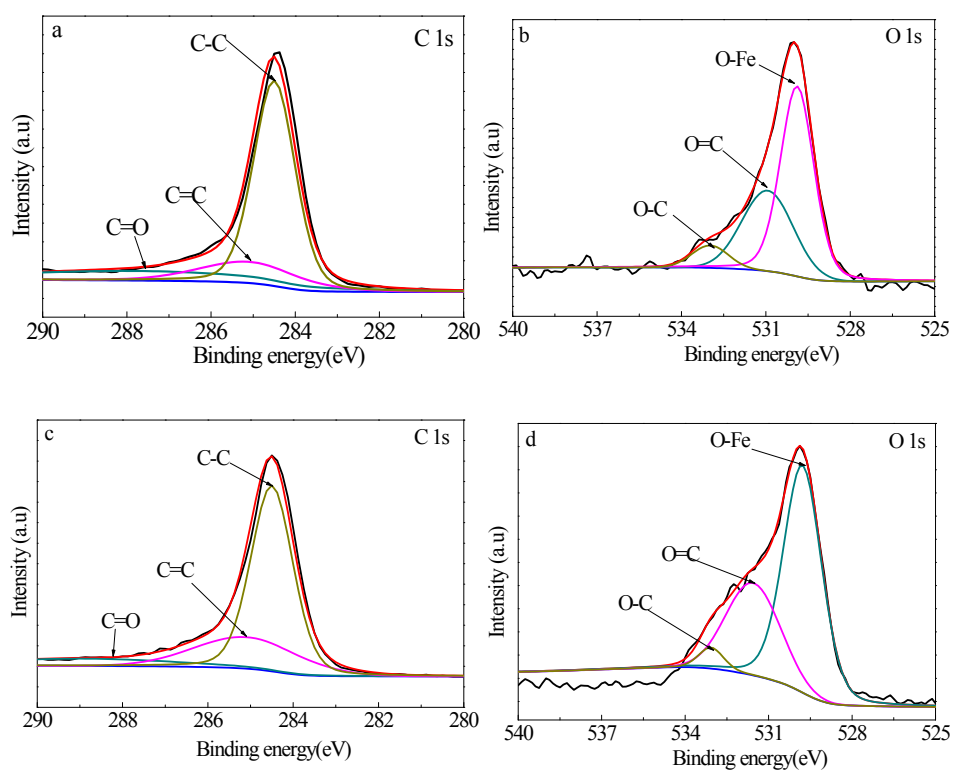


Fig. S3 The C 1s deconvolution (a) and the O 1s deconvolution (b) of MnFe<sub>2</sub>O<sub>4</sub>/CNTs; the C 1s deconvolution (c) and the O 1s deconvolution (d) of CoFe<sub>2</sub>O<sub>4</sub>/CNTs.