Support Information

Zeolitic imidazolate metal organic framework ZIF-8 with ultra-high adsorption capacity bound tetracycline in aqueous solution

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The characterization of MWCNTs and PAC

Multiwalled carbon nanotubes (MWCNTs) and powdered activated carbon (PAC) were purchased from Jiang Tian Chemical Technology Co., Ltd. (Tianjin, China). The properties of these two materials were provided as follows:

![Figure S1. The TEM image of MWCNTs.](image)

![Figure S2. The SEM images of PAC.](image)

The transmission electron microscopy (TEM) image of MWCNTs was obtained by Philips CM10 transmission electron microscope at 100KV. The SEM images of PAC were recorded on a JSM-7800F field emission scanning electron microscope, and the accelerating voltage is 2.0 KV.

Nitrogen adsorption-desorption isotherms of MWCNTs and PAC were conducted on a Surface Area and Porosity Analyzer (Micromeritics, Tristar II 3020). The textural properties of MWCNTs
and PAC were obtained based on the Brunauer-Emmett-Teller (BET) method and the Bopp-Jancso-Heinzinger (BJH) method. The specific results are summarized in Table S1.

Table S1 N$_2$ adsorption data of MWCNTs and PAC.

<table>
<thead>
<tr>
<th>Adsorbent</th>
<th>BET surface area (m$^2$/g)</th>
<th>Total pore volume (m$^3$/g)</th>
<th>Average pore diameter (nm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWCNTs</td>
<td>307.85</td>
<td>0.648</td>
<td>2.195</td>
</tr>
<tr>
<td>PAC</td>
<td>729.27</td>
<td>0.393</td>
<td>2.153</td>
</tr>
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