An electrochemical sensor based on Fe₃O₄@PANI nanocomposites for sensitive detection of Pb²⁺ and Cd²⁺

Ying Kong a, Tingting Wu a, Di Wu a, Yong Zhang b, Yaoguang Wang b*, Bin Du a,b, Qin Wei b

a School of Water Conservancy and Environment, University of Jinan, Jinan 250022, China.
b Key Laboratory of Interfacial Reaction & Sensing Analysis in Universities of Shandong, School of Chemistry and Chemical Engineering, University of Jinan, Jinan 250022, China

Corresponding author: Tel. + 15154109298
E-mail address: wangyaoguang9002@163.com
Figure S1. HRTEM image of Fe$_3$O$_4$@PANI
Table S1. Detection of Pb$^{2+}$ in real water samples

<table>
<thead>
<tr>
<th>Samples</th>
<th>Added (nmol·L$^{-1}$)</th>
<th>Found (nmol·L$^{-1}$)</th>
<th>RSD (%)</th>
<th>Recovery (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tap water</td>
<td>20.0</td>
<td>20.7, 20.4, 19.5, 20.2, 18.7</td>
<td>4.04</td>
<td>99.5</td>
</tr>
<tr>
<td></td>
<td>100.0</td>
<td>101.6, 105.4, 99.2, 98.7, 102.5</td>
<td>2.67</td>
<td>101</td>
</tr>
<tr>
<td>Lake water</td>
<td>20.0</td>
<td>21.7, 20.3, 19.8, 21.1, 20.5</td>
<td>3.58</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>100.0</td>
<td>105.1, 101.7, 107.8, 102.6, 103.7</td>
<td>2.29</td>
<td>104</td>
</tr>
</tbody>
</table>