Supporting Information

The MnO$_2$ in-situ formed in the pores of C-dots/ZIF-8 hybrid nanocomposites as an effective quencher for fluorescence sensing ascorbic acid

Guangming Li,$^{a,b}$ Nan Lv,$^{a,b}$ Jilin Zhang,*$^a$ and Jiazuan Ni$^a$

$^a$ State Key Laboratory of Rare Earth Resource Utilization, Changchun Institute of Applied Chemistry, Changchun 130022, P. R. China, E-mail: zjl@ciac.ac.cn.

$^b$ University of Science and Technology of China, Hefei 244100, P. R. China.

Figure S1. (a) HRTEM image of the C-dots; (b) Fluorescence emission spectra of the C-dots with different excitation wavelengths (300, 320, 340, 360, 380 and 400 nm).
Figure S2. The FTIR spectrum of the C-dots.

Figure S3. SEM image of pure ZIF-8 (inset: the corresponding TEM image)

Figure S4. The FTIR spectrum of the C-dots/ZIF-8 and C-dots/ZIF-8/MnO$_2$. 
Figure S5. UV-vis absorption spectrum of CDs/ZIF-8/MnO$_2$ (red) and the fluorescence emission spectrum of the C-dots (black).

Figure S6. EDS spectrum of C-dots/ZIF-8/MnO$_2$ (Amount of manganese added to the system is 30 μM).

Figure S7. (a) TEM image of C-dots/ZIF-8/MnO$_2$; (b) High-angle annular dark field scanning transmission electron microscopy (HAADF-STEM) and (c) Part of the HAADF-STEM-EDS mapping images of C-dots /ZIF-8/MnO$_2$ (Amount of manganese added to the system is 300 μM ). The manganese signals within red circle are from the manganese dioxide inside the sample rather than on the sample surface.
Table S1. AA detection in vitamin C tablet.

<table>
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<tr>
<th>Sample number</th>
<th>The content of AA per tablet (mg)</th>
<th>Amount of AA recorded using our system (mg)</th>
<th>Recovery rate (%)</th>
<th>Average recovery rate (%)</th>
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