Supplementary Materials

Self-Assembly Cationic Cellulose Nanocomplex via Electrostatic Interaction for the Fluorescent Detection of Fe$^{3+}$ Ions

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Scheme S1. Synthesis of SPOTPE.

Figure S1. $^1$H NMR spectra of TPEOH and SPOTPE in DMSO-$d_6$ at 25 °C.
Figure S2. Fluorescence emission spectra of QC, SPOTPE/QC, and SPOTPE/QC+Fe$^{3+}$ aqueous solutions ($c_{QC}=0.2$ mg/mL, $c_{SPOTPE}=0.01$ mg/mL, $c_{Fe^{3+}}=300$ μM).

Figure S3. Fluorescence intensity kinetics of SPOTPE/QC solution with the addition of Fe$^{3+}$ ions ($c_{QC}=0.2$ mg/mL, $c_{SPOTPE}=0.01$ mg/mL, $c_{Fe^{3+}}=9$ mM).
Figure S4. In vitro SPOTPE-released profiles of SPOTPE/QC complex with/without Fe$^{3+}$ ions (300 μM) in water.

Figure S5. Fluorescence emission spectra of Fe$^{3+}$, SPOTPE, and SPOTPE+Fe$^{3+}$ aqueous solutions (c$_{SPOTPE}$=0.2 mg/mL, c$_{Fe}^{3+}$=300 μM).