Electronic Supplementary Material (ESI) for RSC Advances.

Highly effective chemosensor of luminescent silica@lanthanide complex@MOF heterostructure composite for metal ion sensing

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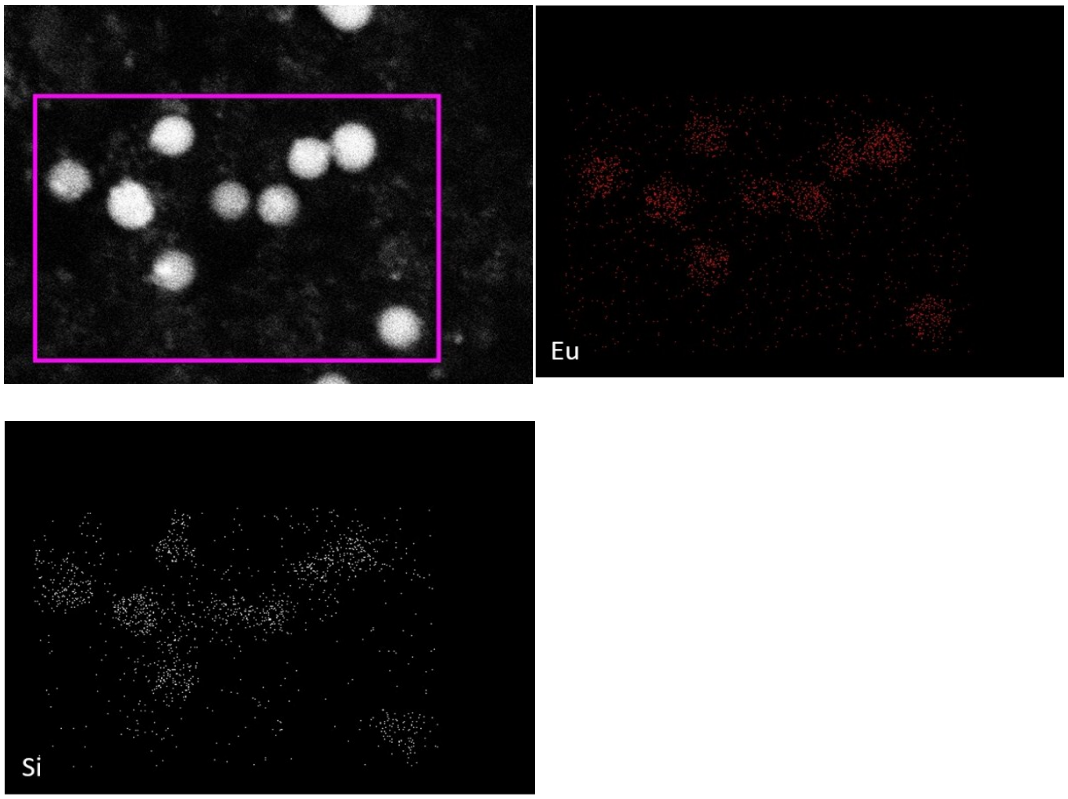

Figure S1 SEM images and corresponding elemental mappings of SiO_2@ETTA.

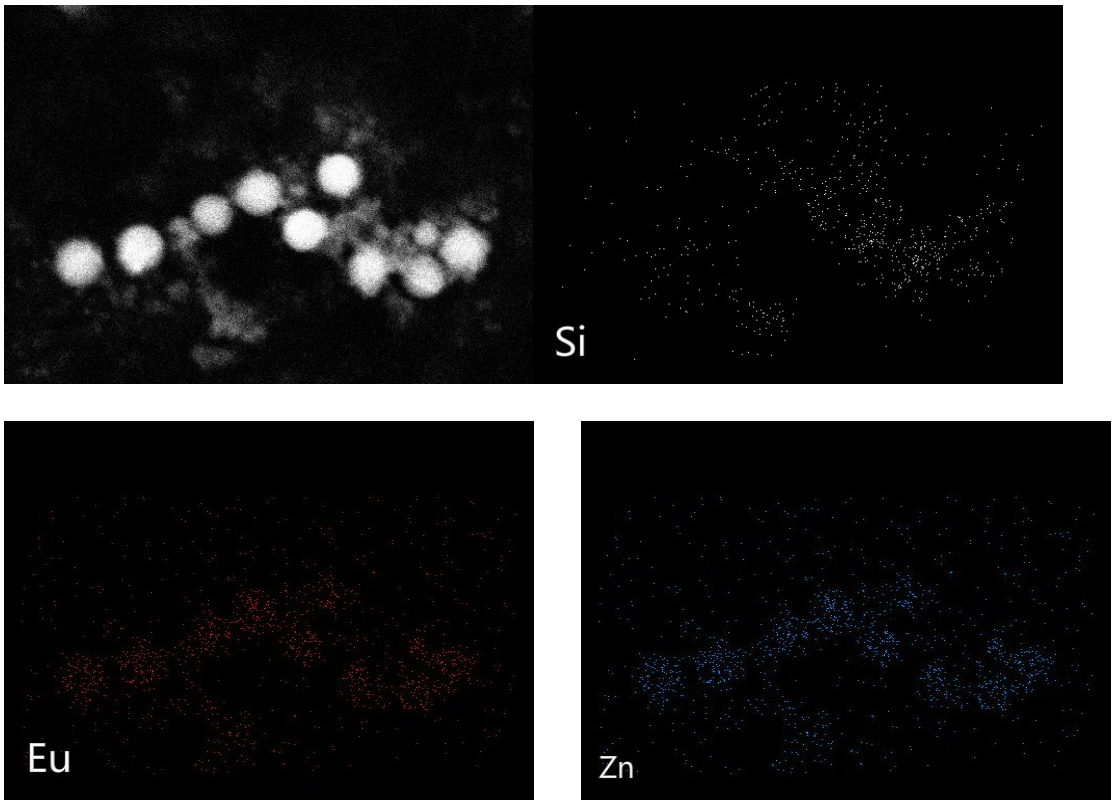

Figure S2 SEM images and corresponding elemental mappings of SiO_2@ETTA@ZIF-8.

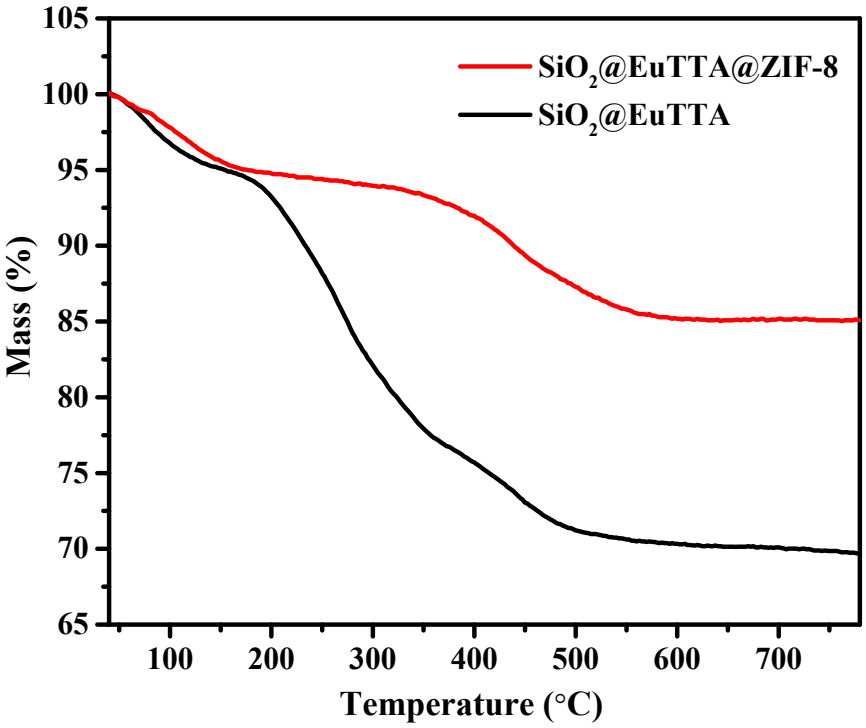

Figure S3 Thermogravimetric analysis of SiO_2@EuTTA and SiO_2@EuTTA@ZIF-8.

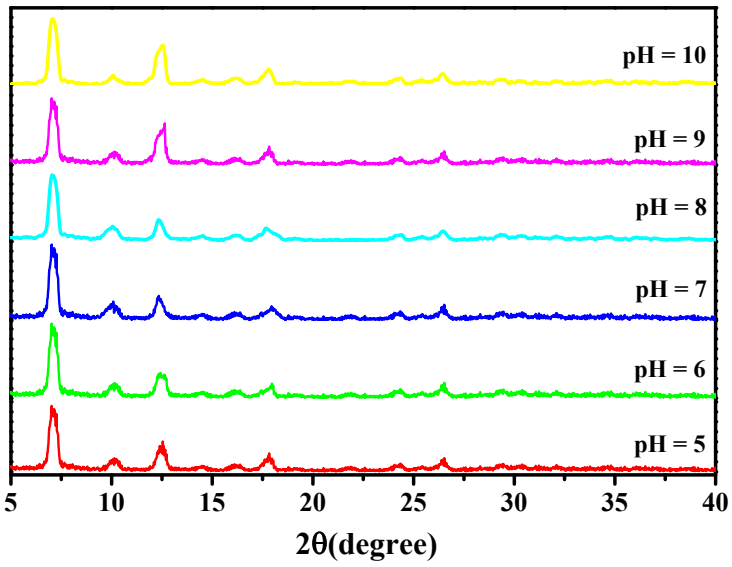

Figure S4 PXRD profiles for SiO_2@ETTA@ZIF-8 soaked aqueous solutions with pH values of 5–10 for 24 h.

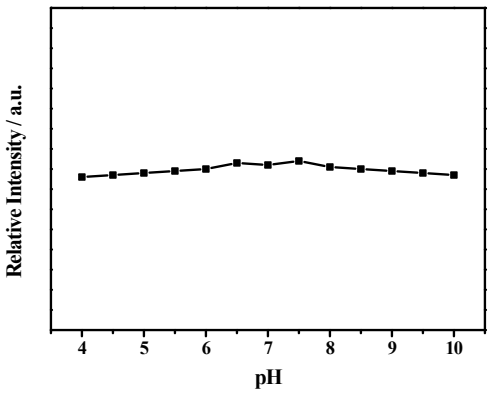

Figure S5 The fluorescent stability of SiO_2@EuTTA@ZIF-8 t in a series of pH solutions upo0n excitation 396nm.

Table S1 Response of luminescence lifetime of SiO_2@EuTTA@ZIF-8 towards aqueous solutions of various metal cations.

Metal ions	τ (μs)
Original	509
Cd^{2+}	653
Ca^{2+}	500
Ni^{2+}	649
Fe^{3+}	515
Hg^{2+}	734
Pb^{2+}	723
Co^{2+}	664
Fe^{2+}	423
Cu^{2+}	12