Electronic Supplementary Material (ESI) for RSC Advances.

Facile synthesis of highly water-soluble and selective fluorescent sensor toward zinc ion derived from β-cyclodextrin based on unexpected sensing process

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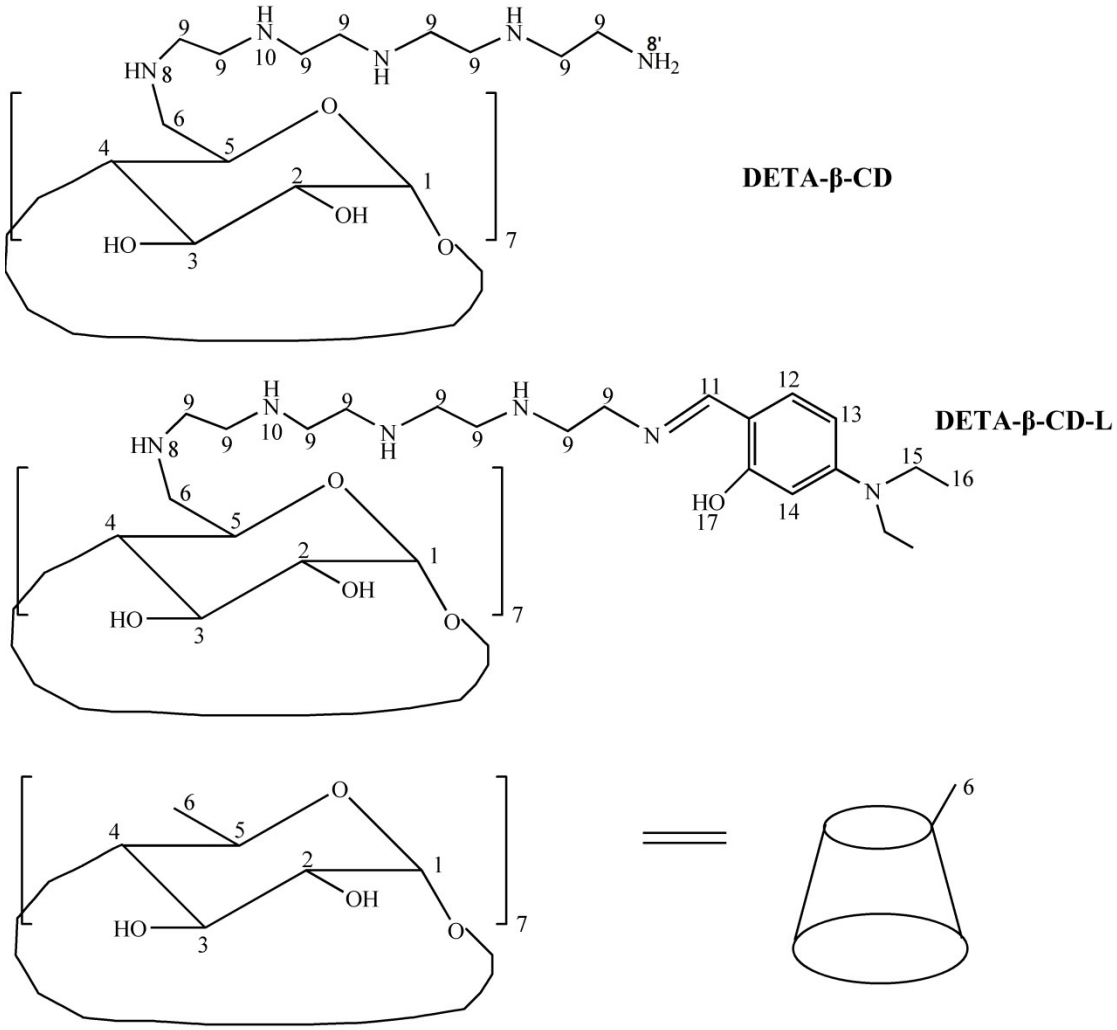

Scheme. S1 The abbreviation of the molecules structures.

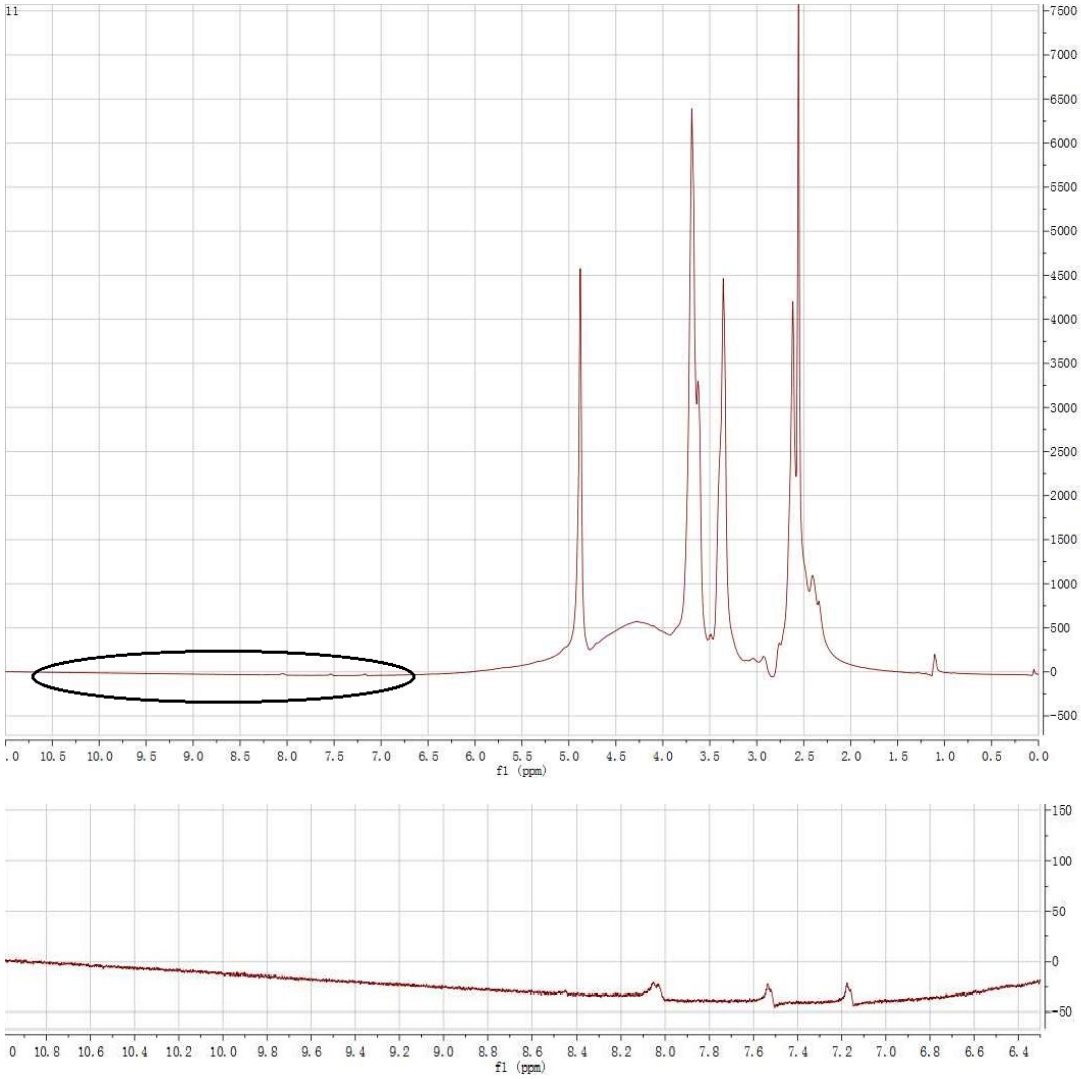

Fig. S1 The [1]HNMR spectrum of TEPA-β-CD

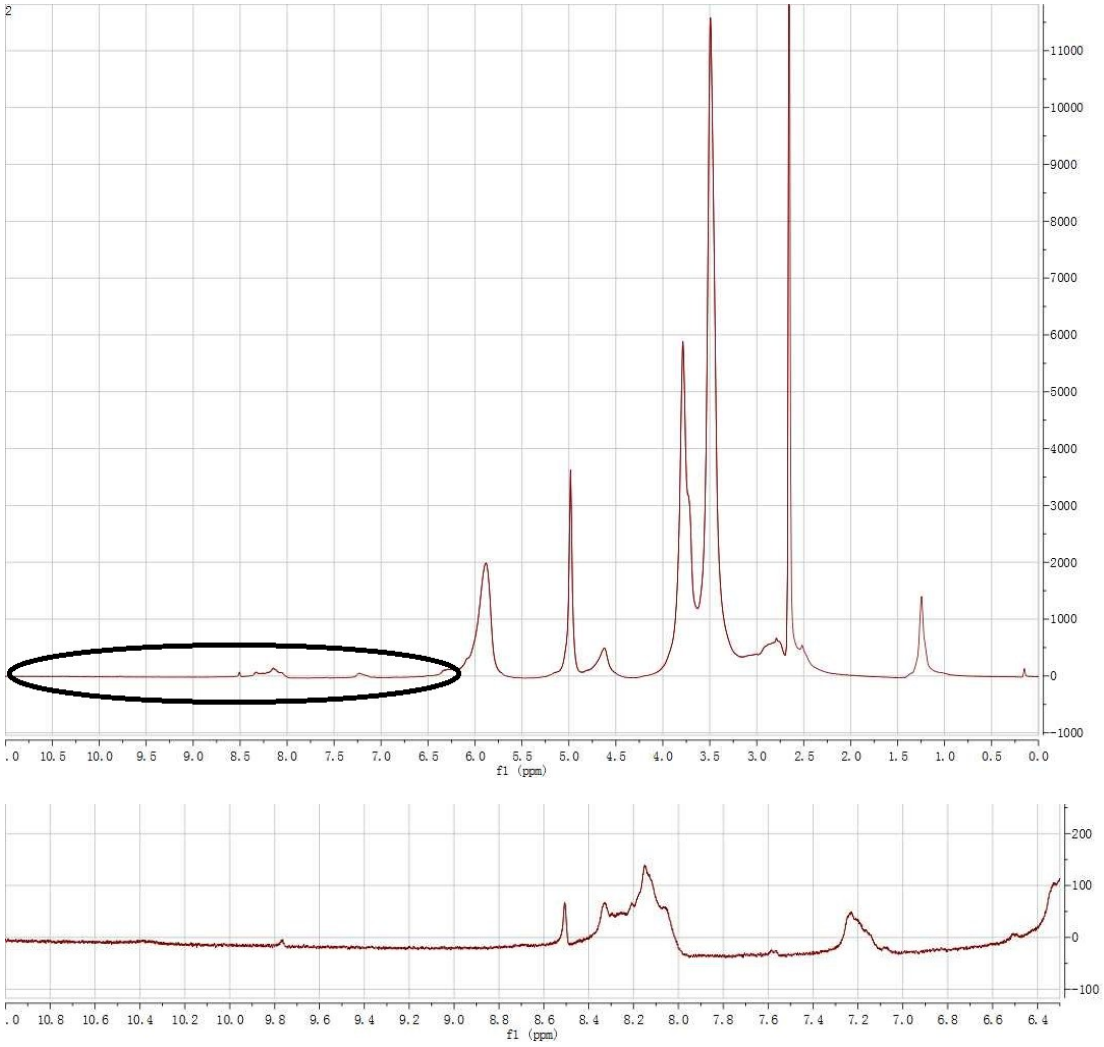

Fig. S2 The [1]HNMR spectrum of TEPA-β-CD-L

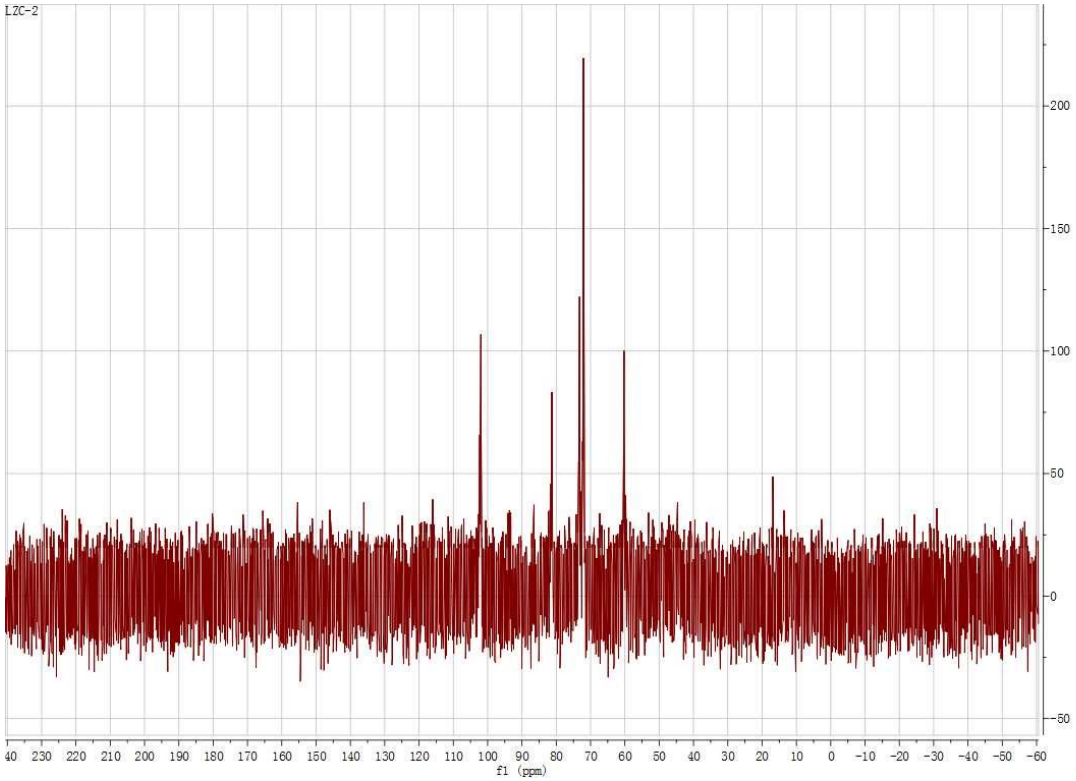

Fig. S3 The ^{13}CNMR spectrum of TEPA-β-CD-L

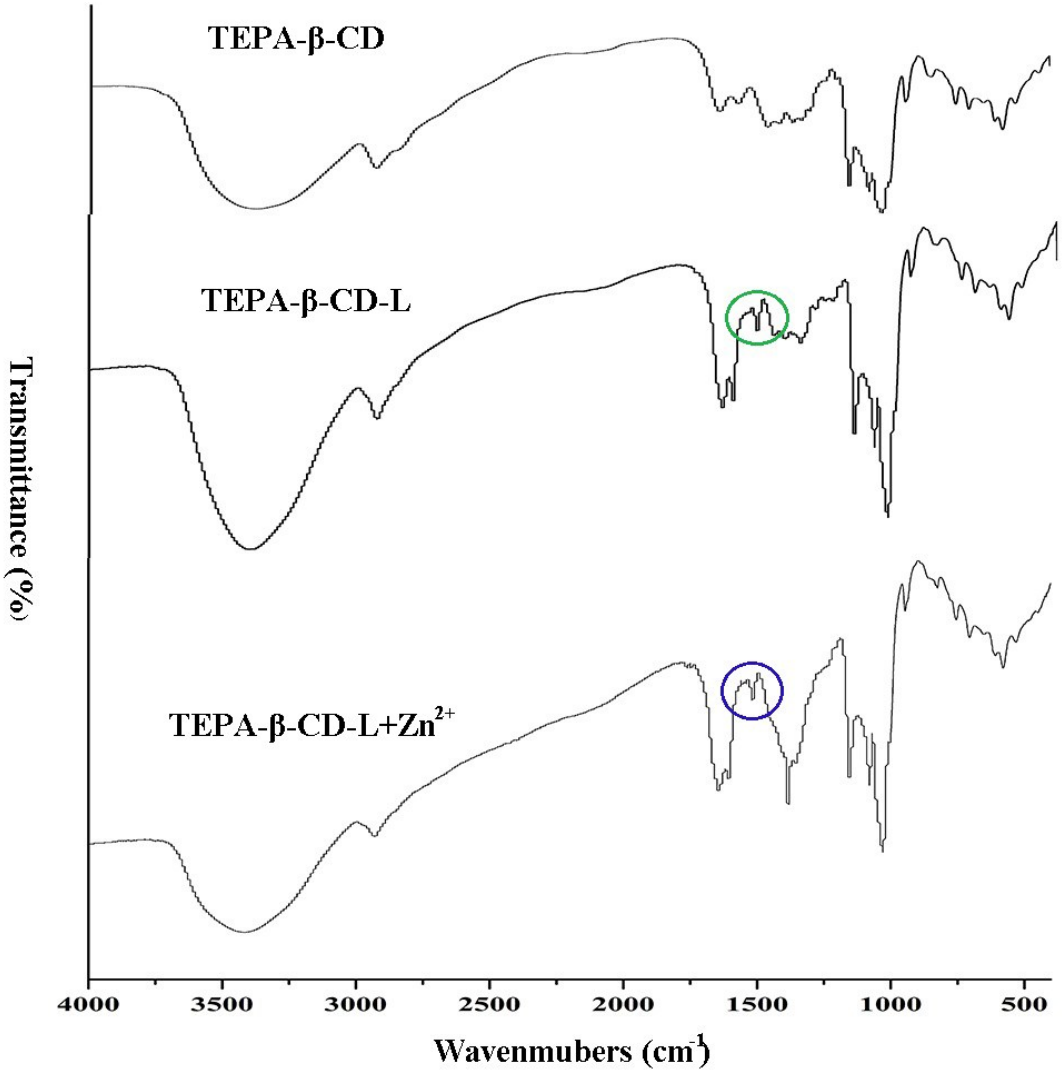

Fig. S4 The IR spectra of TEPA-β-CD, TEPA-β-CD-L and TEPA-β-CD-L treated with Zn^{2+}.

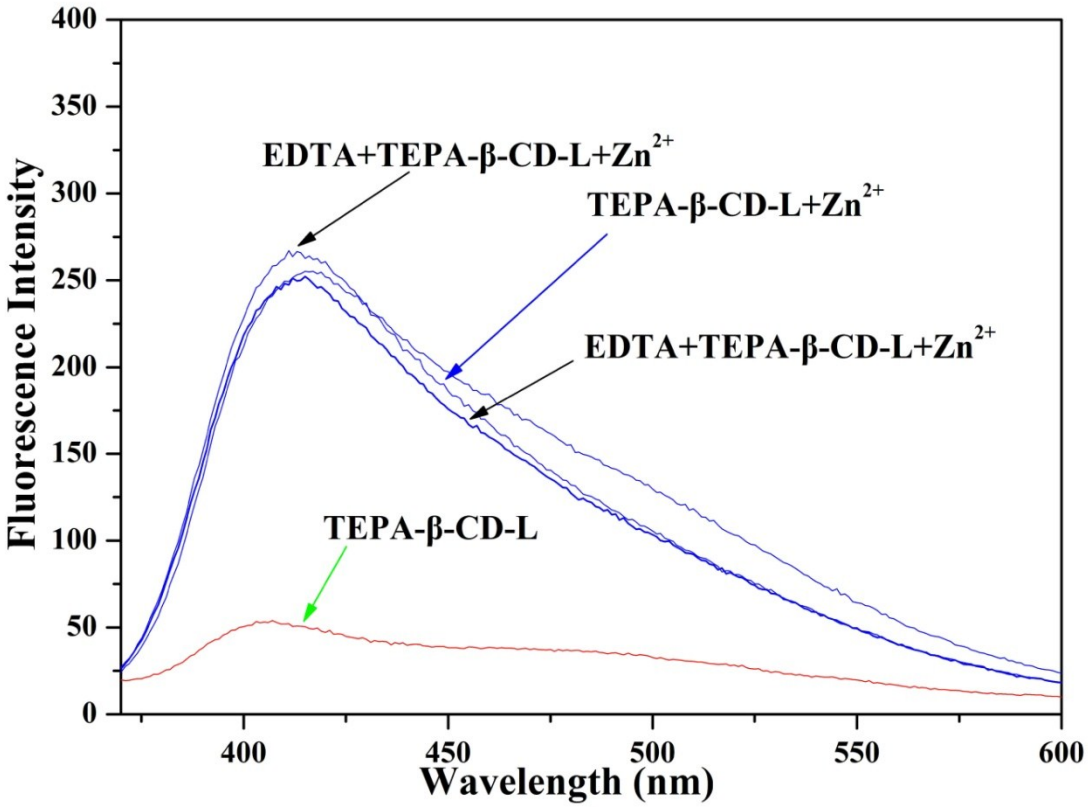

Fig. S5 The reversibility experiment of TEPA-β-CD-L (0.3 mM) with Zn^{2+} (1 mM) in pure water solution, the concentration of EDTA is 1 mM

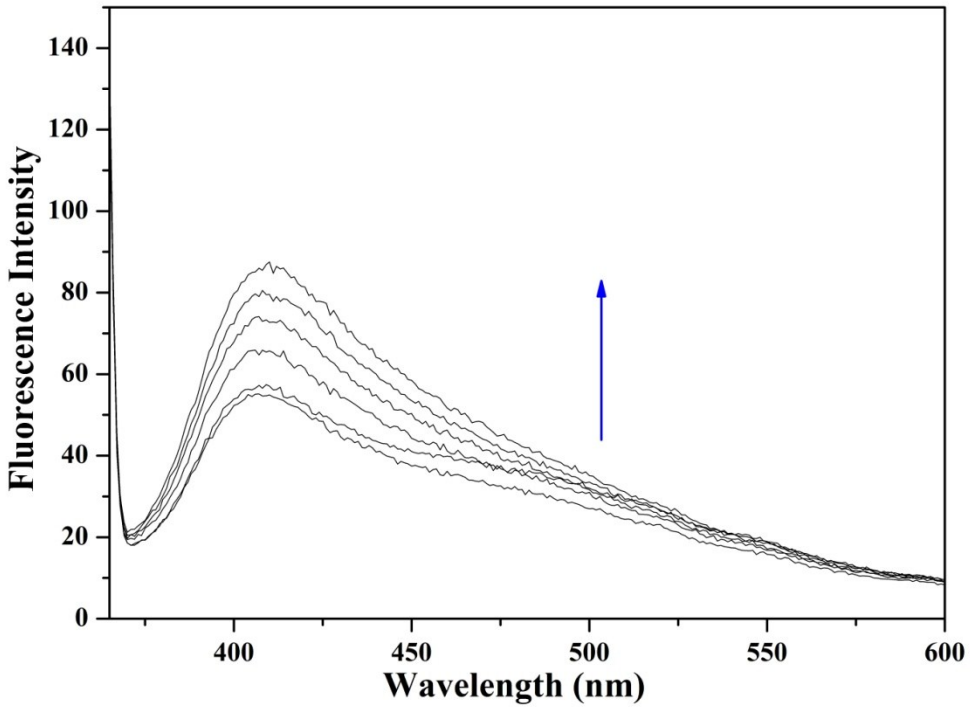

Fig. S6 The detecting level of TEPA-β-CD-L with Al^{3+}