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Water-soluble host-guest system from β-cyclodextrin as a fluorescent sensor for Alumnium ion: synthesis and sensing studies

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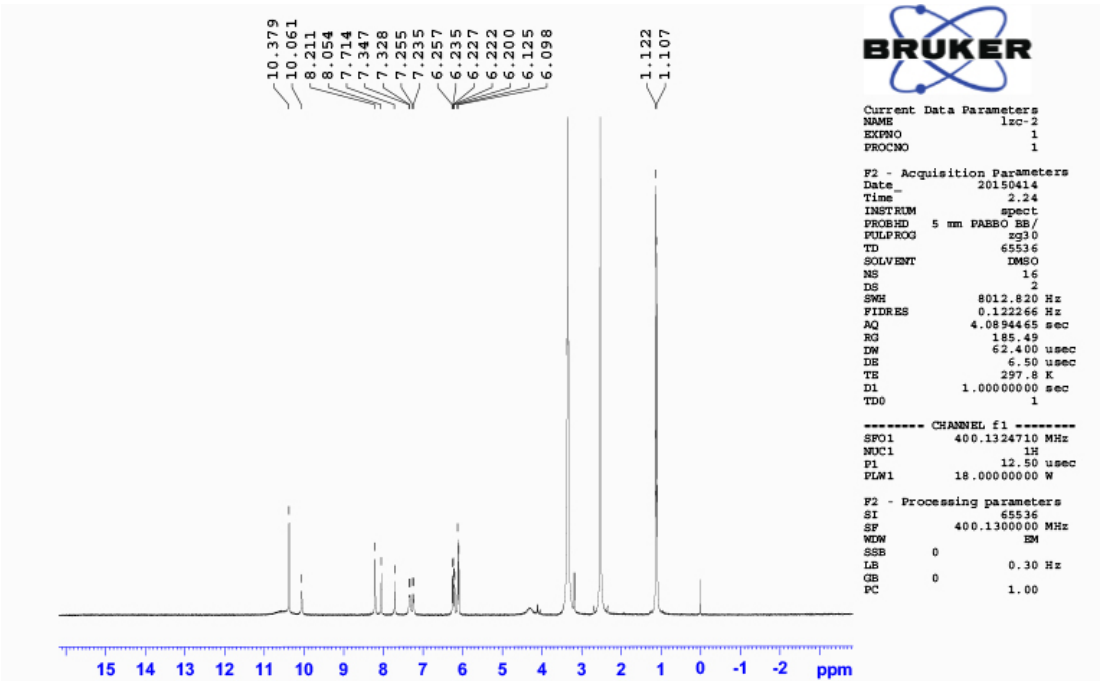

Fig. S1 a. [1]HNMR of 4-diethylaminobenzaldehyde-carbohydrazide schiff-base

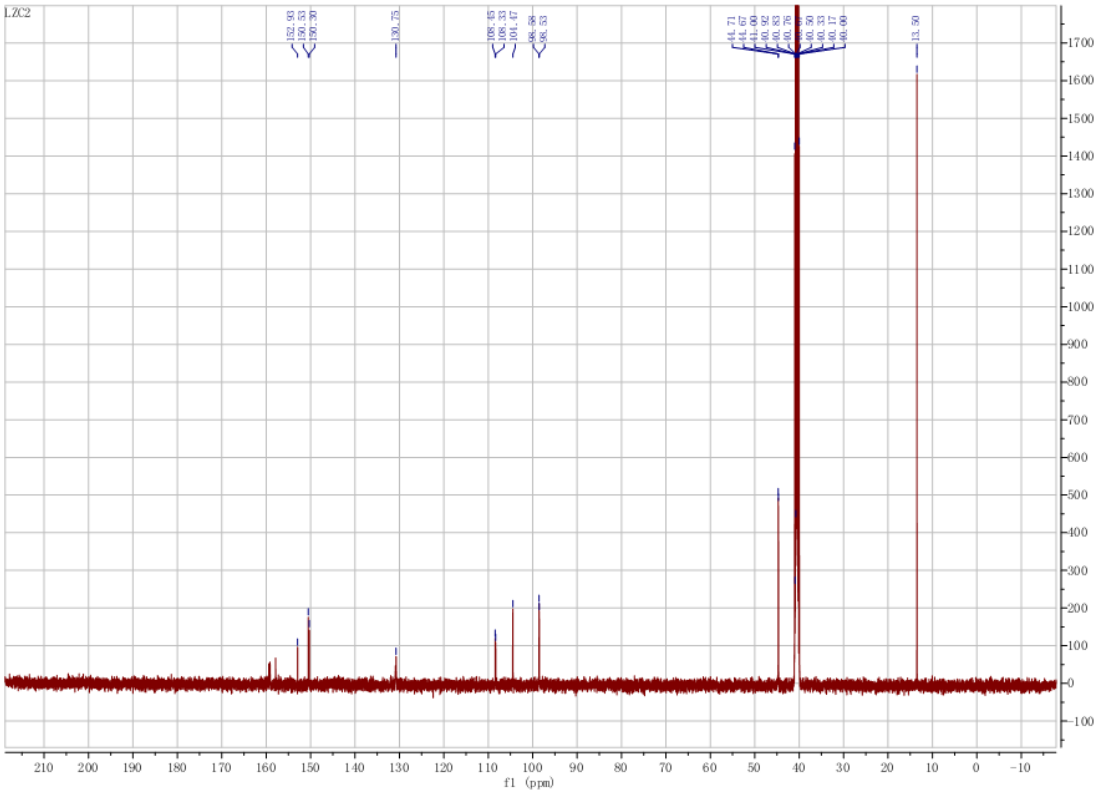

Fig. S1 b. [13]CNMR of 4-diethylaminobenzaldehyde-carbohydrazide schiff-base

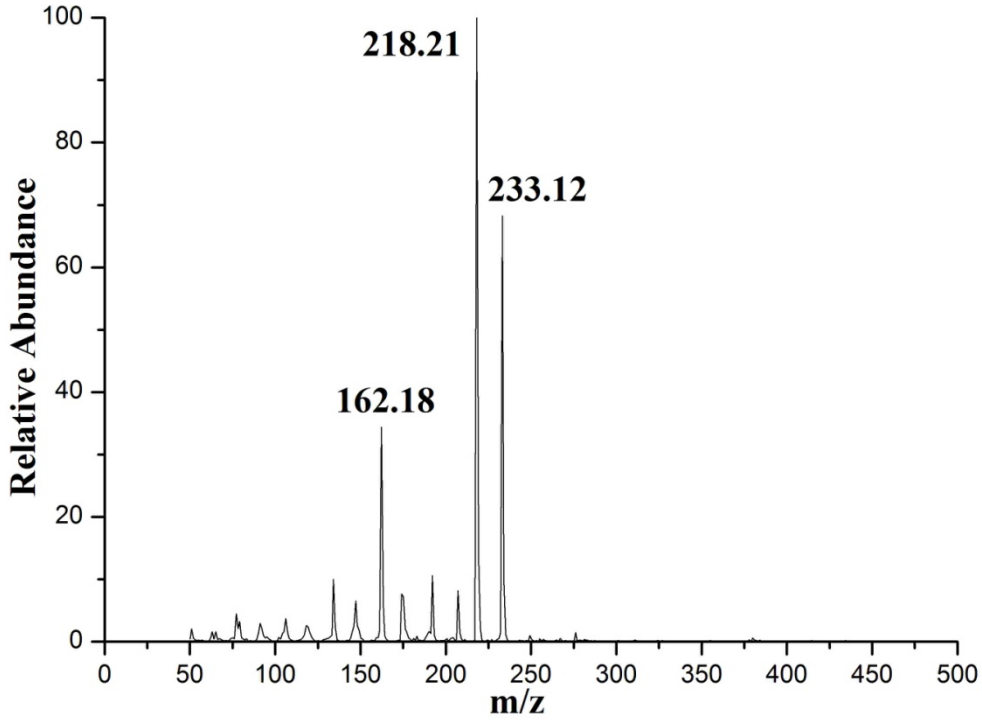

Fig. S2. EI-MS of 4-diethylaminobenzaldehyde-carbohydrazide schiff-base

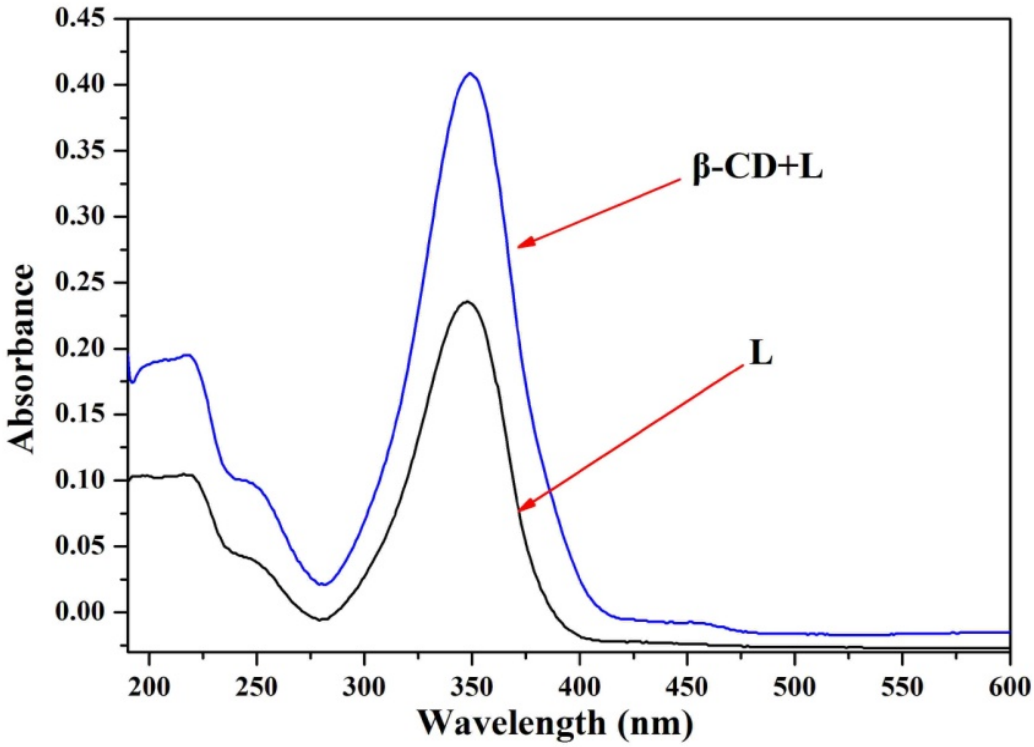

Fig. S3. The Uv-vis spectra of L and β-CD-L

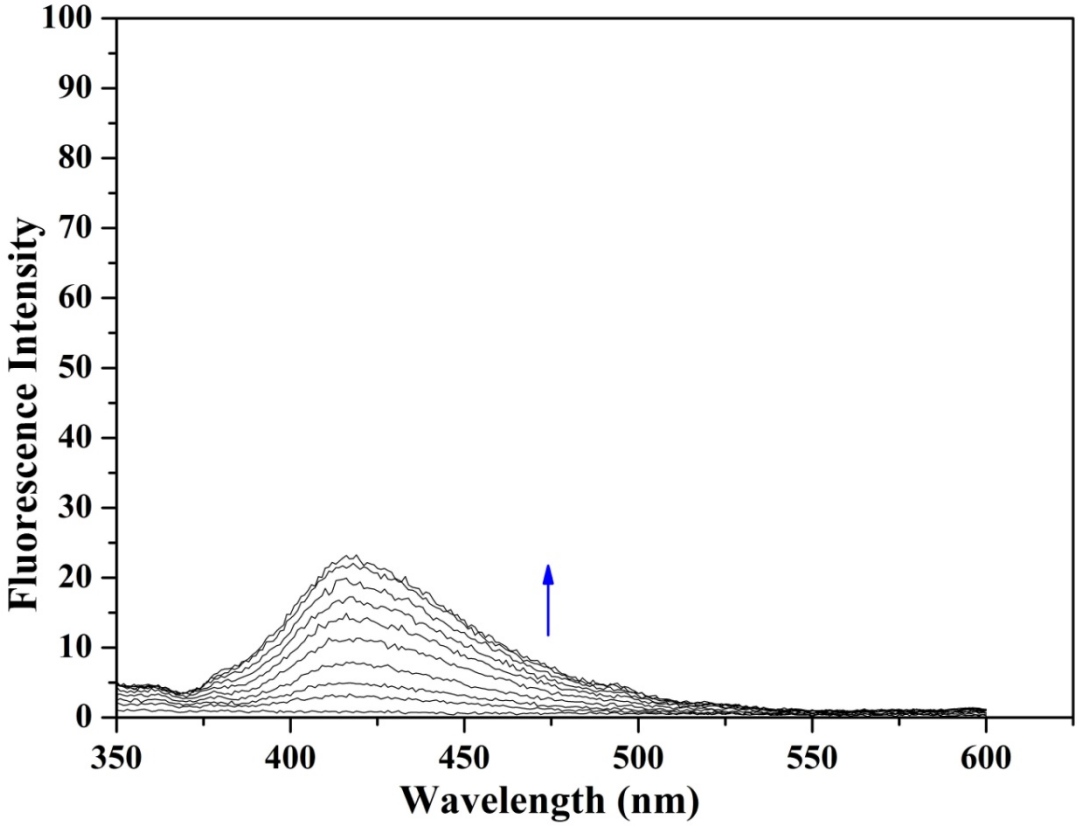

Fig. S4. The fluorescence titration spectrum of L(1 mM) with Al^{3+}(1 mM) in Ethanol-H_2O (1:9) solution

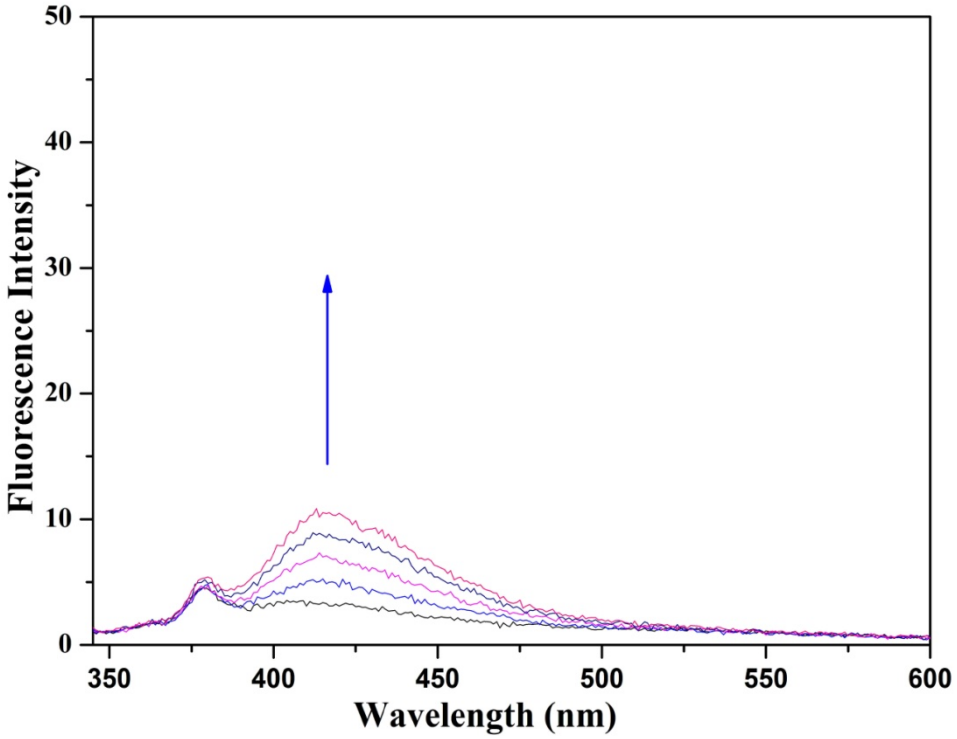

Fig. S5. The detecting level of β-CD-L with Al^{3+}

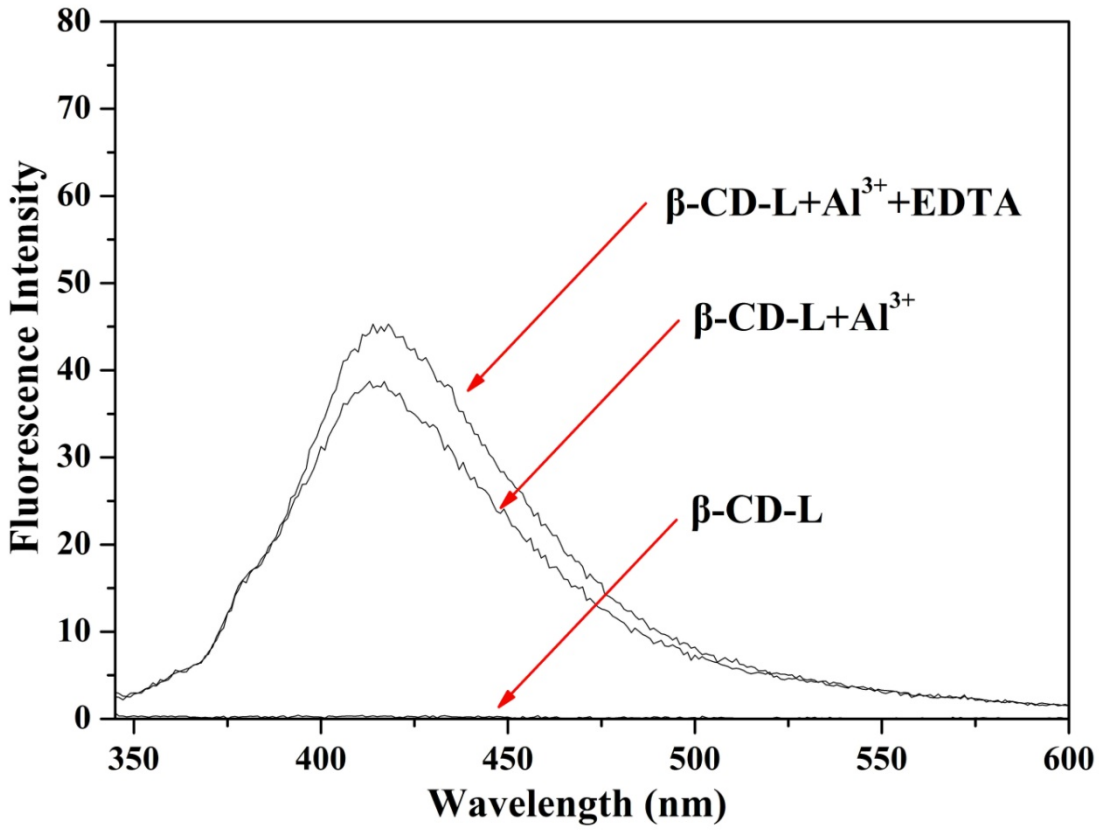

Fig. S6. The reversibility experiment of β-CD-L (1 mM) with Al^{3+} (1 mM) in pure water solution, the concentration of EDTA is 1 mM