

SUPPLEMENTARY MATERIAL

A novel coumarin-based fluorescence chemosensor containing L-histidine for  
aluminium(III) ions in aqueous solution

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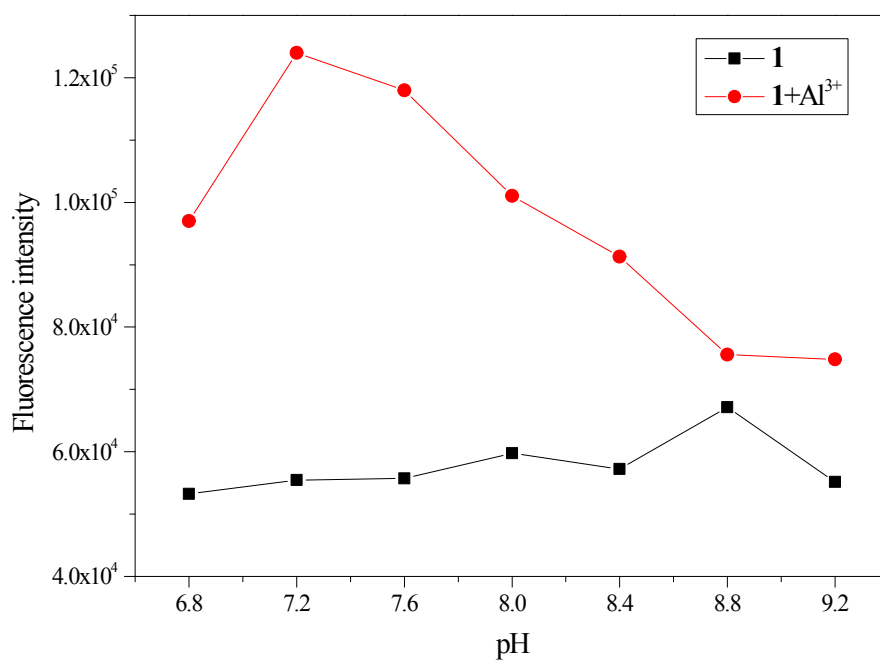


Fig.S1. The variation in fluorescence intensity with the pH of the Sensor 1 (10.0 μM) in the presence of Al<sup>3+</sup> (1.5 equiv.) at λ<sub>ex</sub> = 334nm.

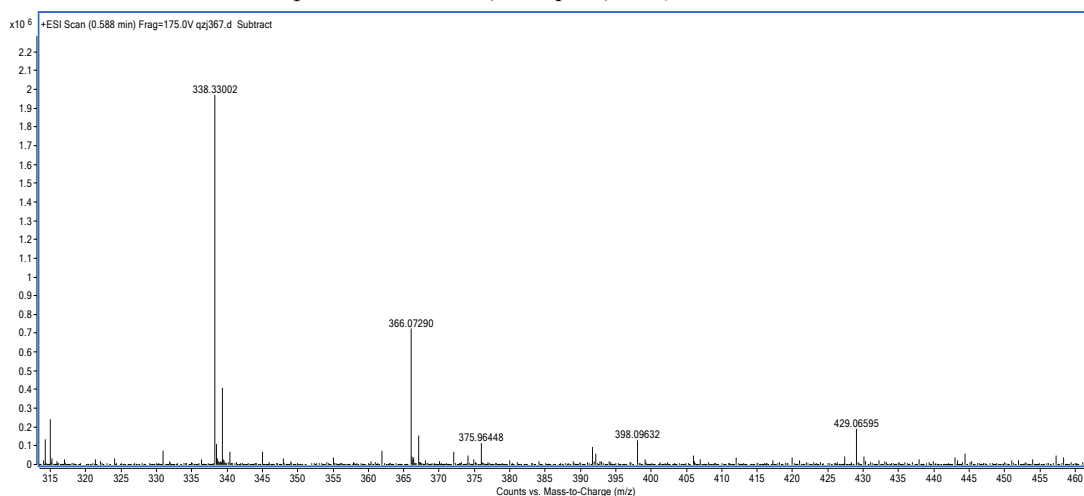
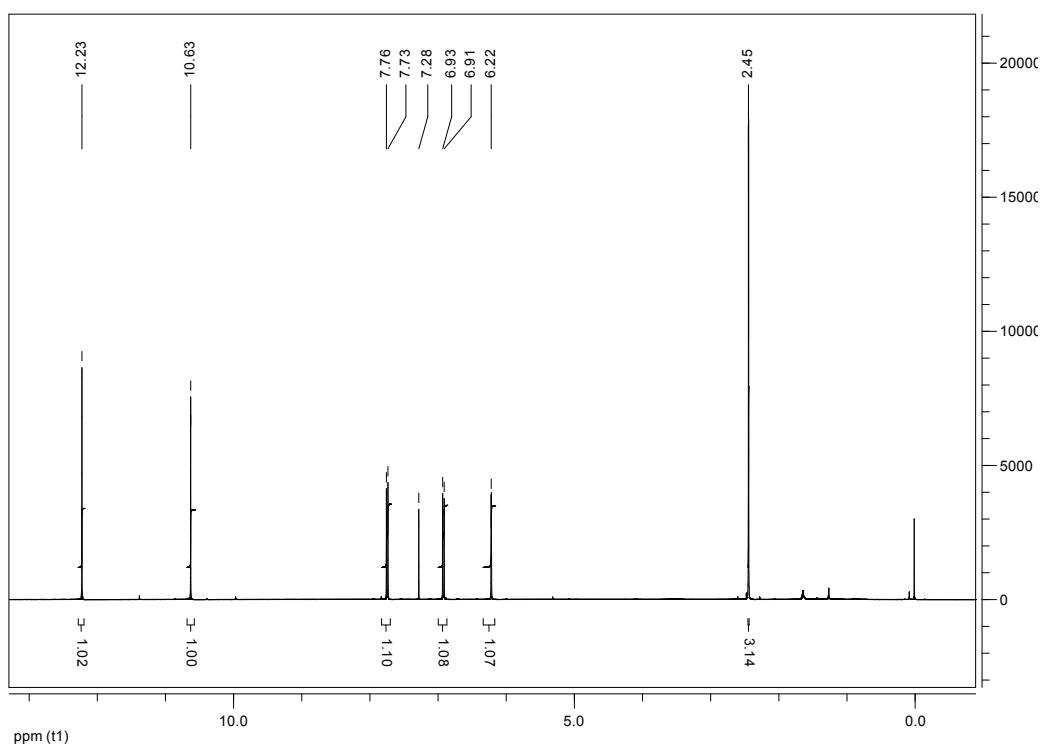
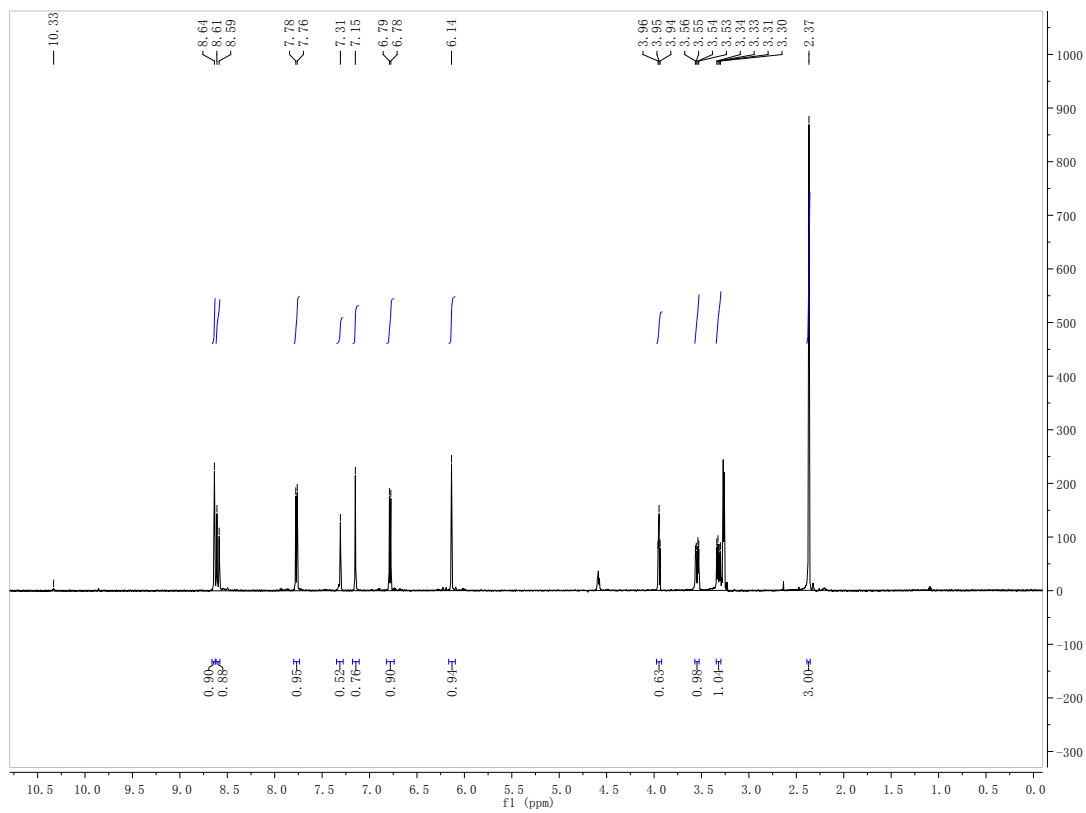


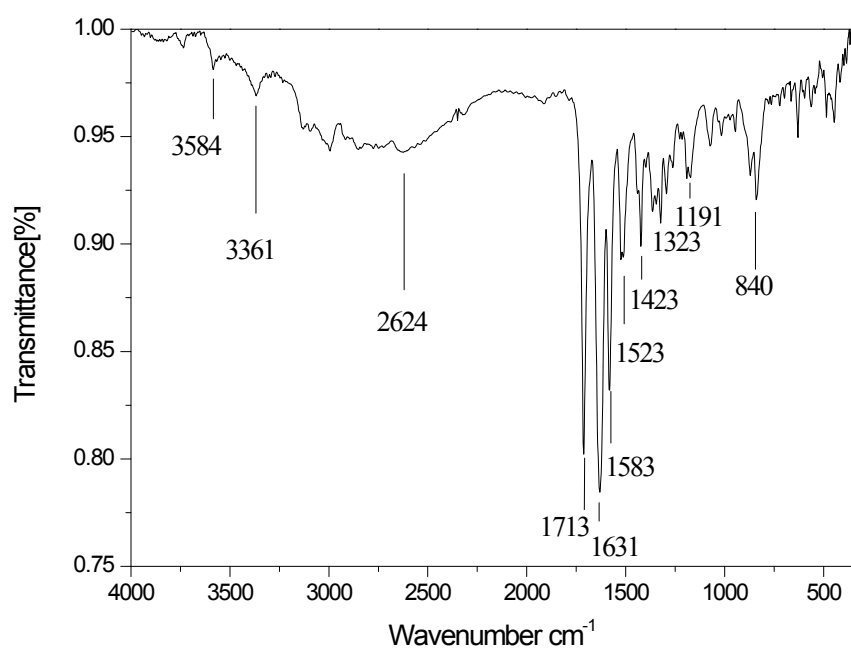
Fig.S2. Compound 1+Al<sup>3+</sup> EI-MS (m/z)



**Fig.S3.** 8-Formyl-7-hydroxy-4-methylcoumarin  $^1\text{H-NMR}$  ( $\text{CDCl}_3$ , 400MHz)



**Fig.S4.** Compound 1+ $\text{Al}^{3+}$   $^1\text{H-NMR}$  ( $\text{D}_2\text{O}$ , 600MHz)



**Fig.S5.** Compound 1 FT-IR (KBr, cm<sup>-1</sup>)