

## Supplementary documents

### A reversible fluorescent-colorimetric imino-pyridyl bis-Schiff base sensor for expeditious detection of $\text{Al}^{3+}$ and $\text{HSO}_3^-$ in aqueous media

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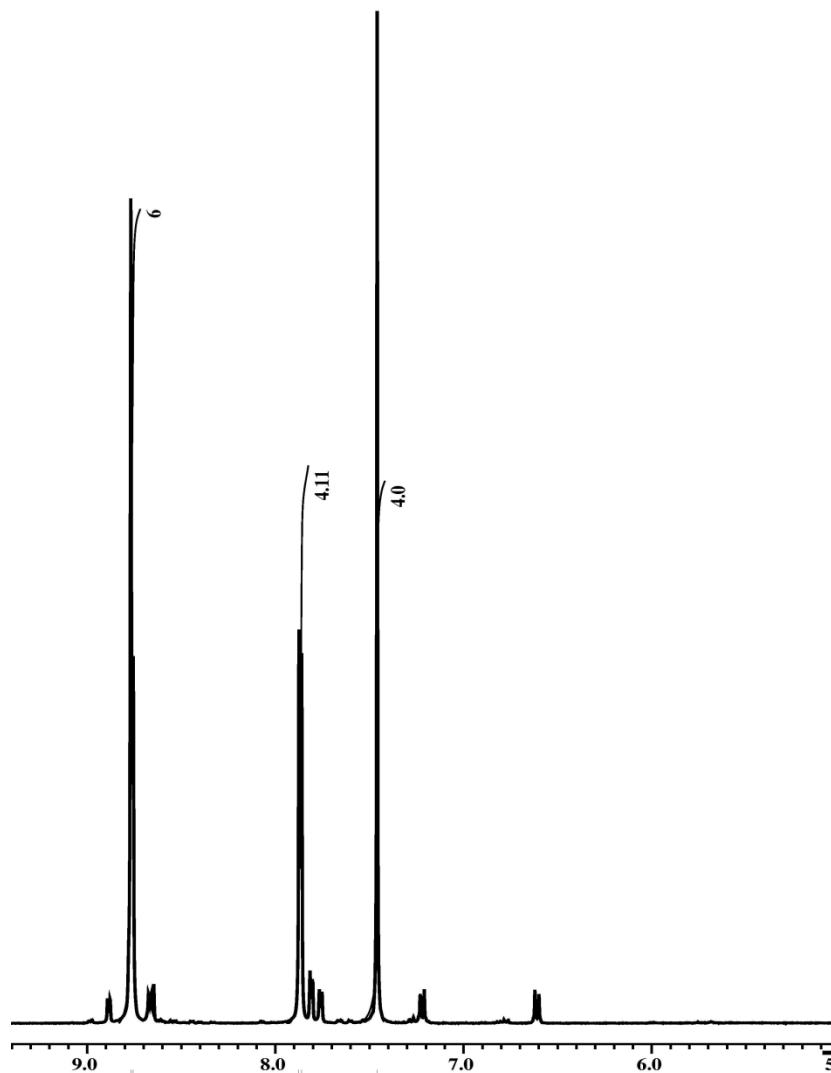
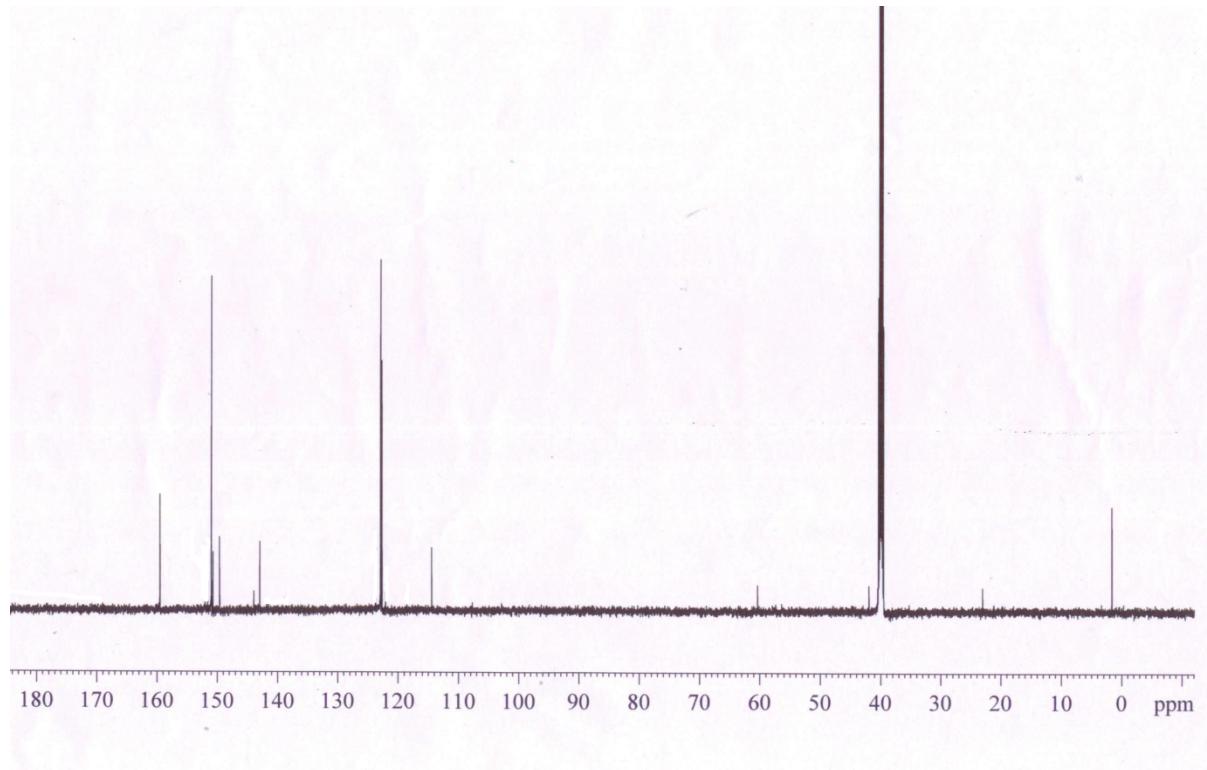


Fig. S1  $^1\text{H}$  NMR spectra of L in  $d_6$ -DMSO

**Fig. S1**  $^1\text{H}$  NMR spectra of **L** in  $\text{d}_6\text{-DMSO}$

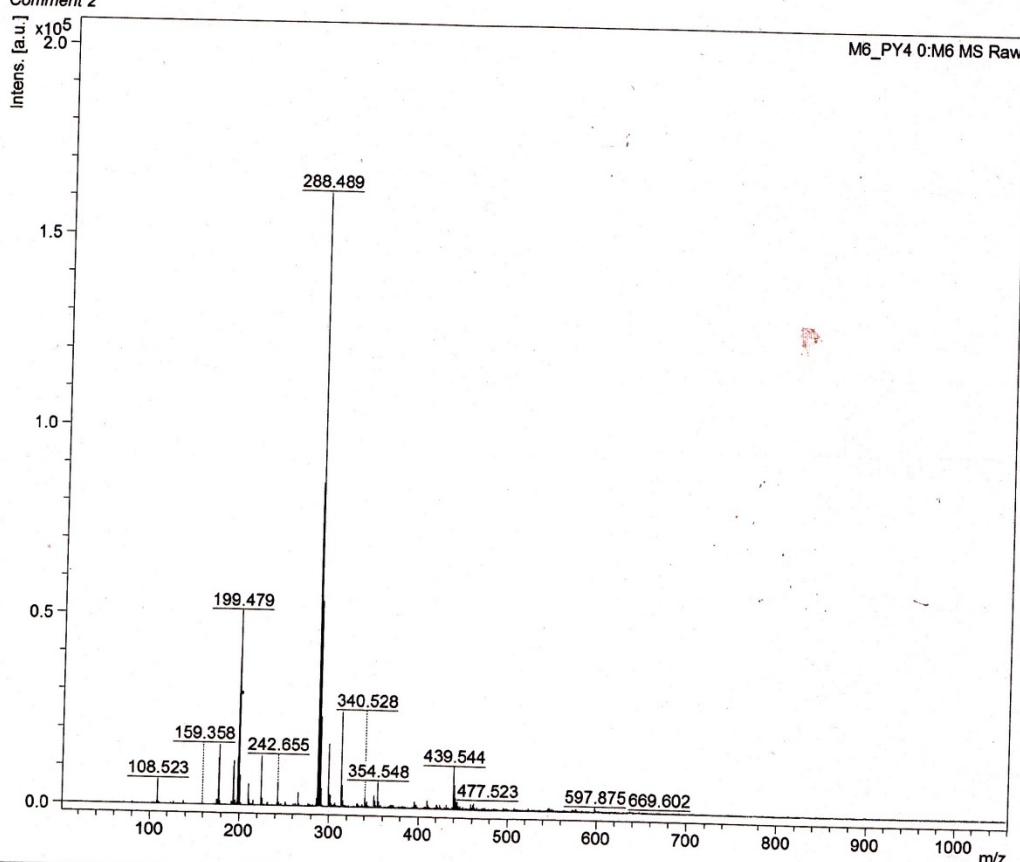


**Fig. S2**  $^{13}\text{C}$  NMR Spectra of **L** in  $\text{d}_6\text{-DMSO}$

D:\User Data\RTC\DENIAL\G.PATRA\02.01.2015\_230\M6\_PY4\0\_M6\1\ISRef

Comment 1

Comment 2



Acquisition Parameter

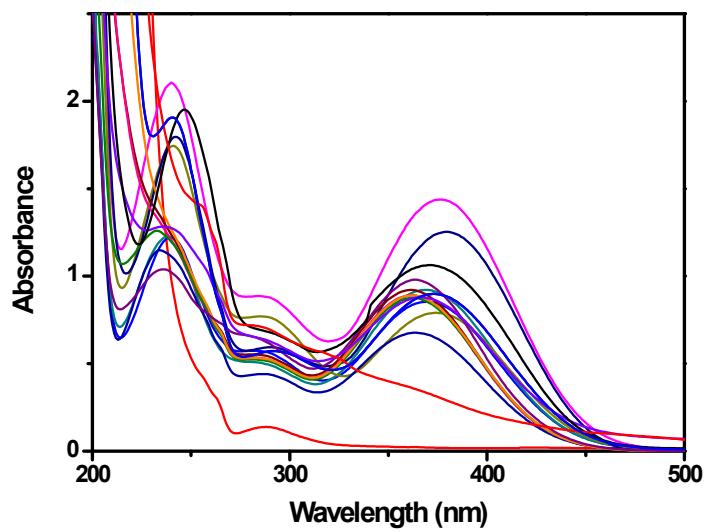
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Acquisition method name	D:\User Methods\Low Mass_RP_100-1500.Da.par
Aquisition operation mode	Reflector
Voltage polarity	POS
Number of shots	1000
Name of spectrum used for calibration	
Calibration reference list used	PeptideCalibStandard mono

Instrument Info

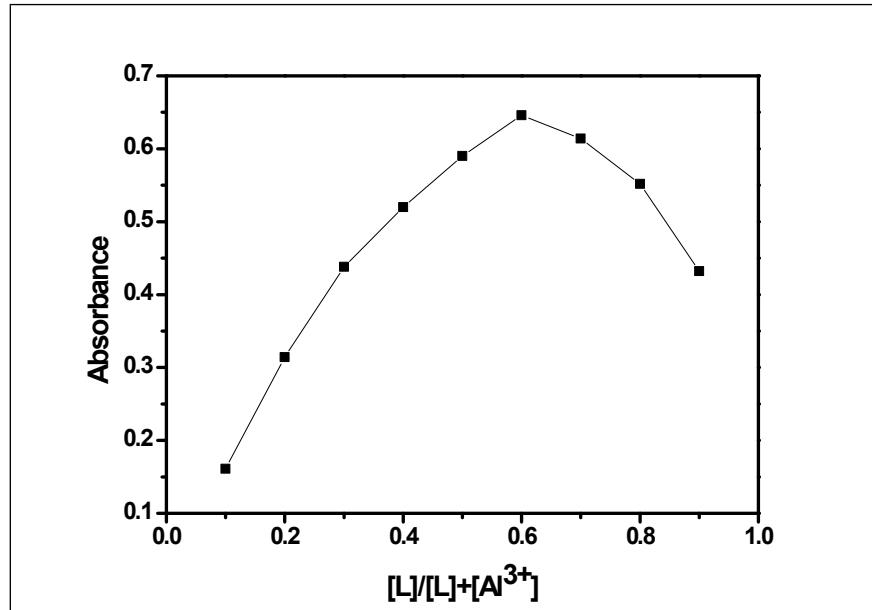
Bruker Daltonics flexAnalysis

printed: 1/2/2015 6:01:56 PM

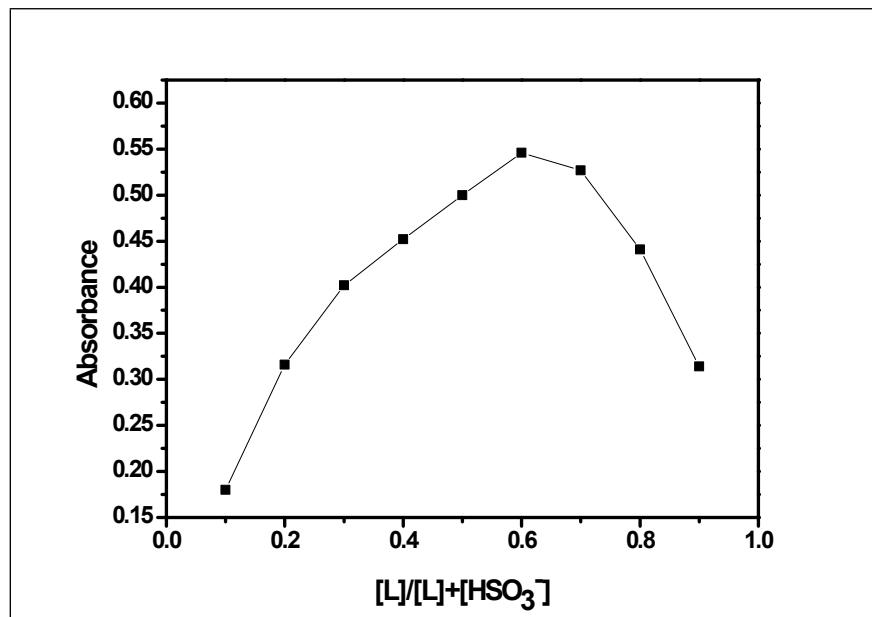
**Fig. S3** Mass spectra of L



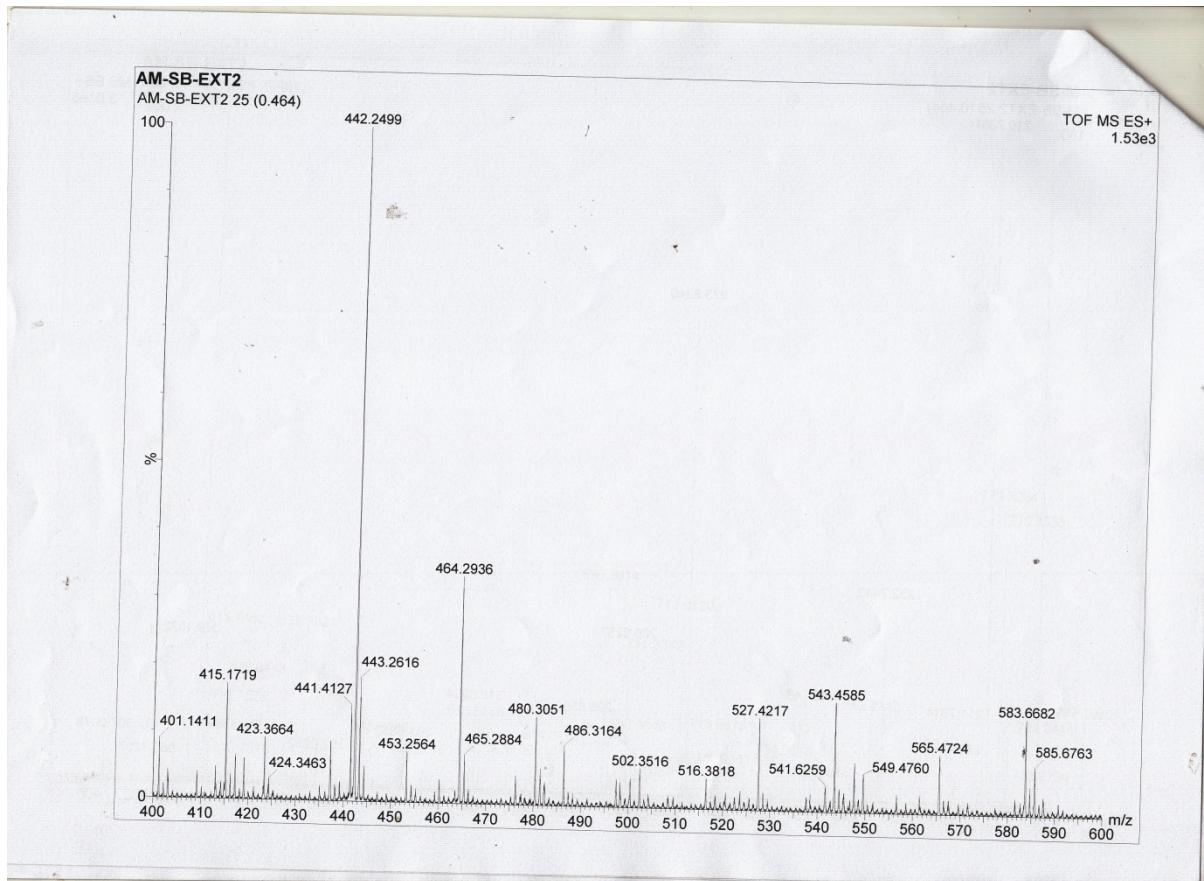
**Fig. S4** Absorption spectra of L (10  $\mu\text{M}$ ) changes in presence of 10 equiv. of different metal ion



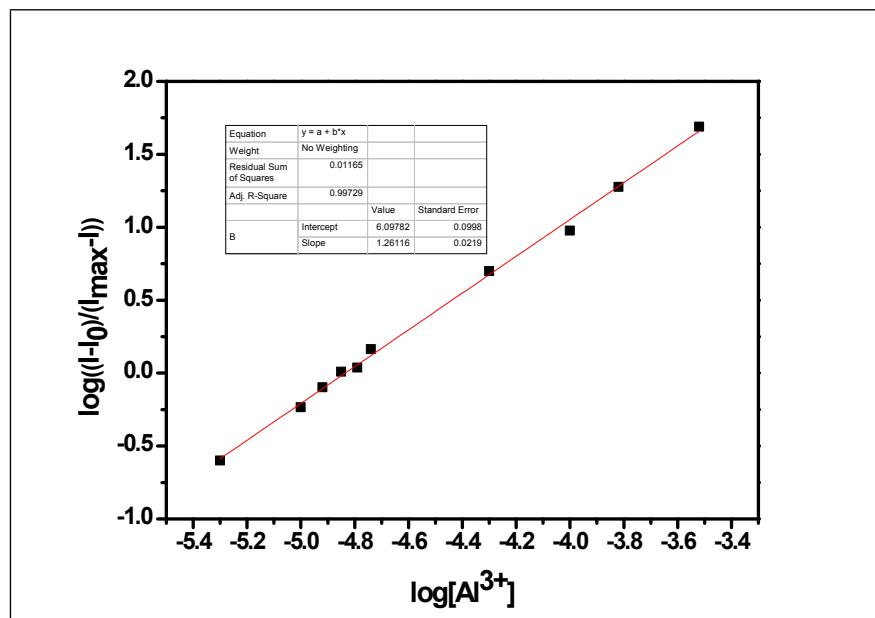
**Fig. S5 (a)** Job plot for Al<sup>3+</sup>



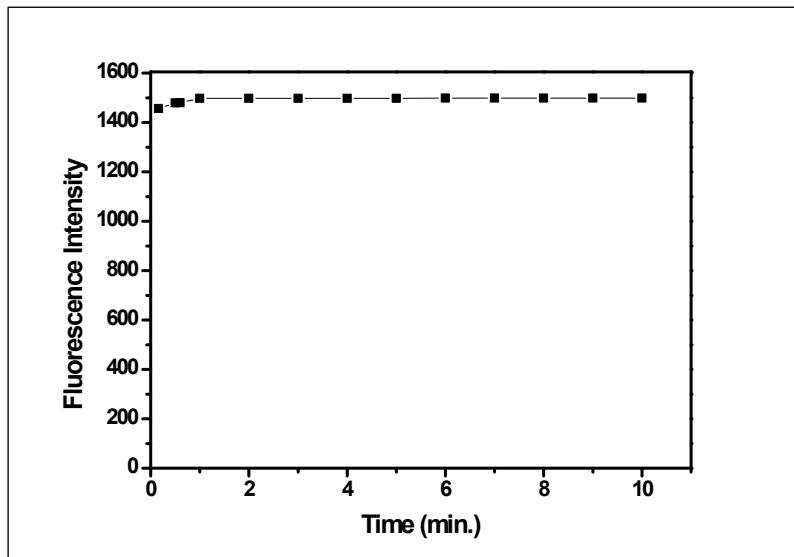
**Fig. S5 (b)** Job plot for  $HSO_4^-$



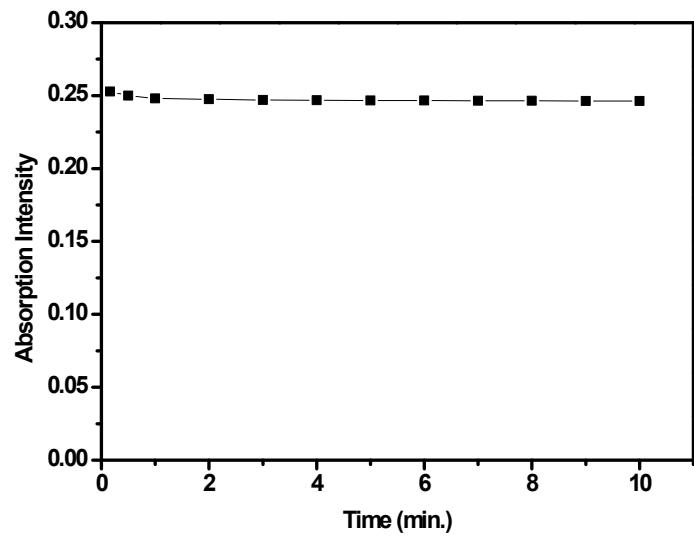
**Fig. S6** Mass spectra  $L\text{-Al}^{3+}$  complex



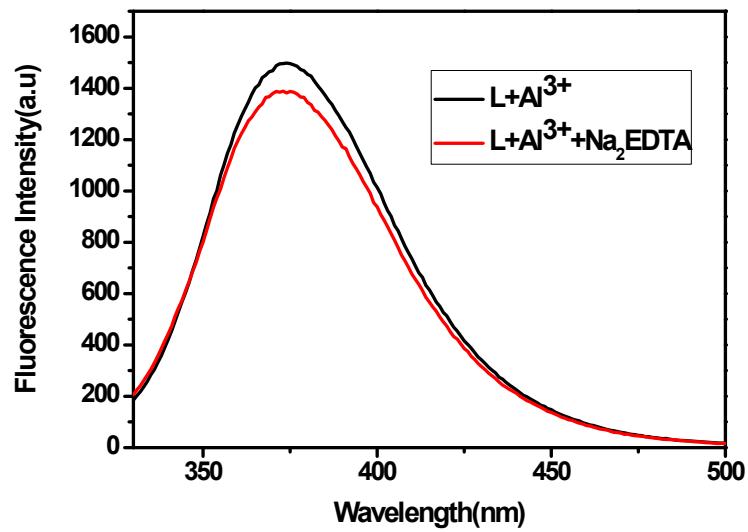
**Fig. S7** Hill Plot



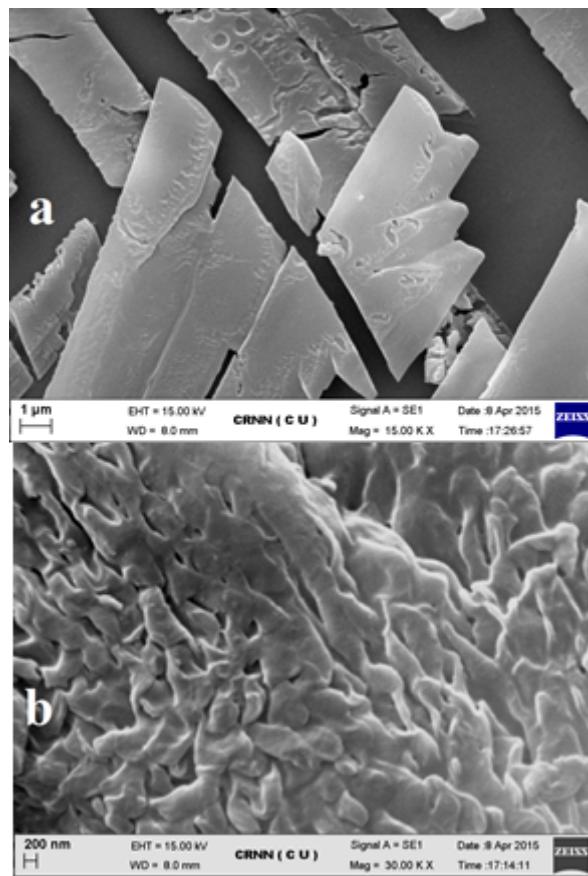
**Fig. S8(a)** Time evolution for  $\text{Al}^{3+}$



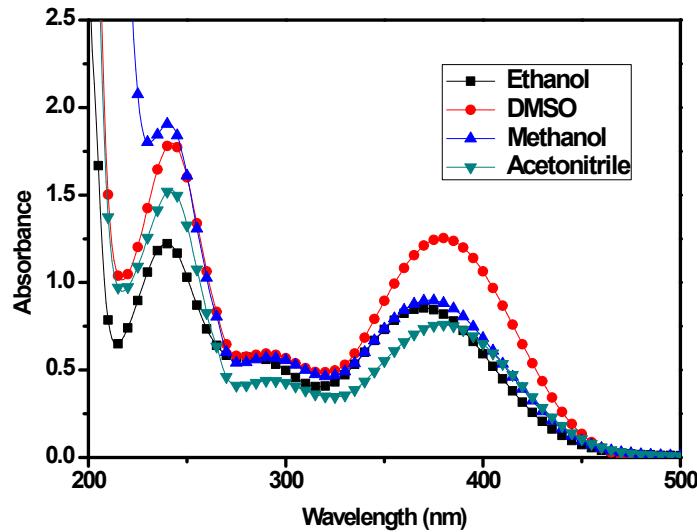
**Fig. S8(b)** Time evolution for  $\text{HSO}_3^-$



**Fig. S9** Fluorescence spectrum of  $\mathbf{L} + \text{Al}^{3+}$  and  $\mathbf{L} + \text{Al}^{3+} + \text{Na}_2\text{EDTA}$ .



**Fig. 10** (a) Monolayer SEM image of **L** (b) SEM image of the **L-Al<sup>3+</sup>** complex



**Fig. S11** Absorption behavior of **L** in different solvents

