

A novel turn-on Schiff-base fluorescent sensor for Aluminum (III) ions in living cells

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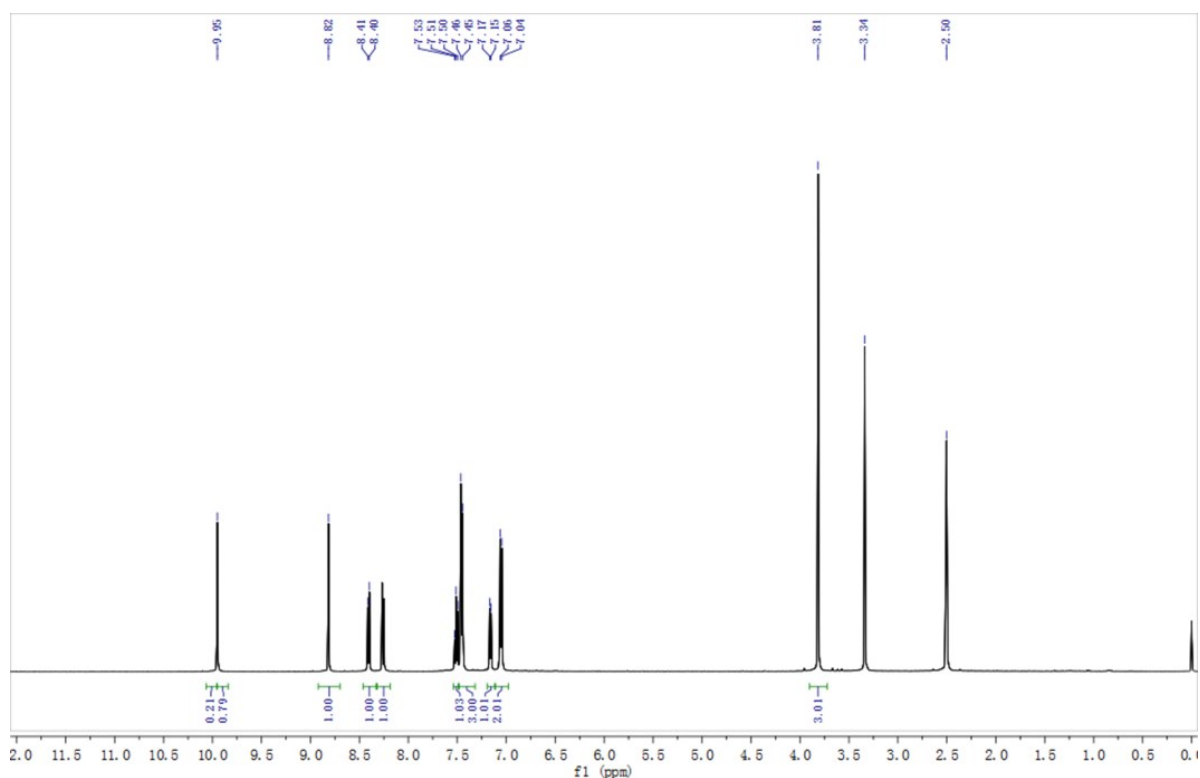


Fig. S1 ^1H NMR (500MHz) spectra of compound L

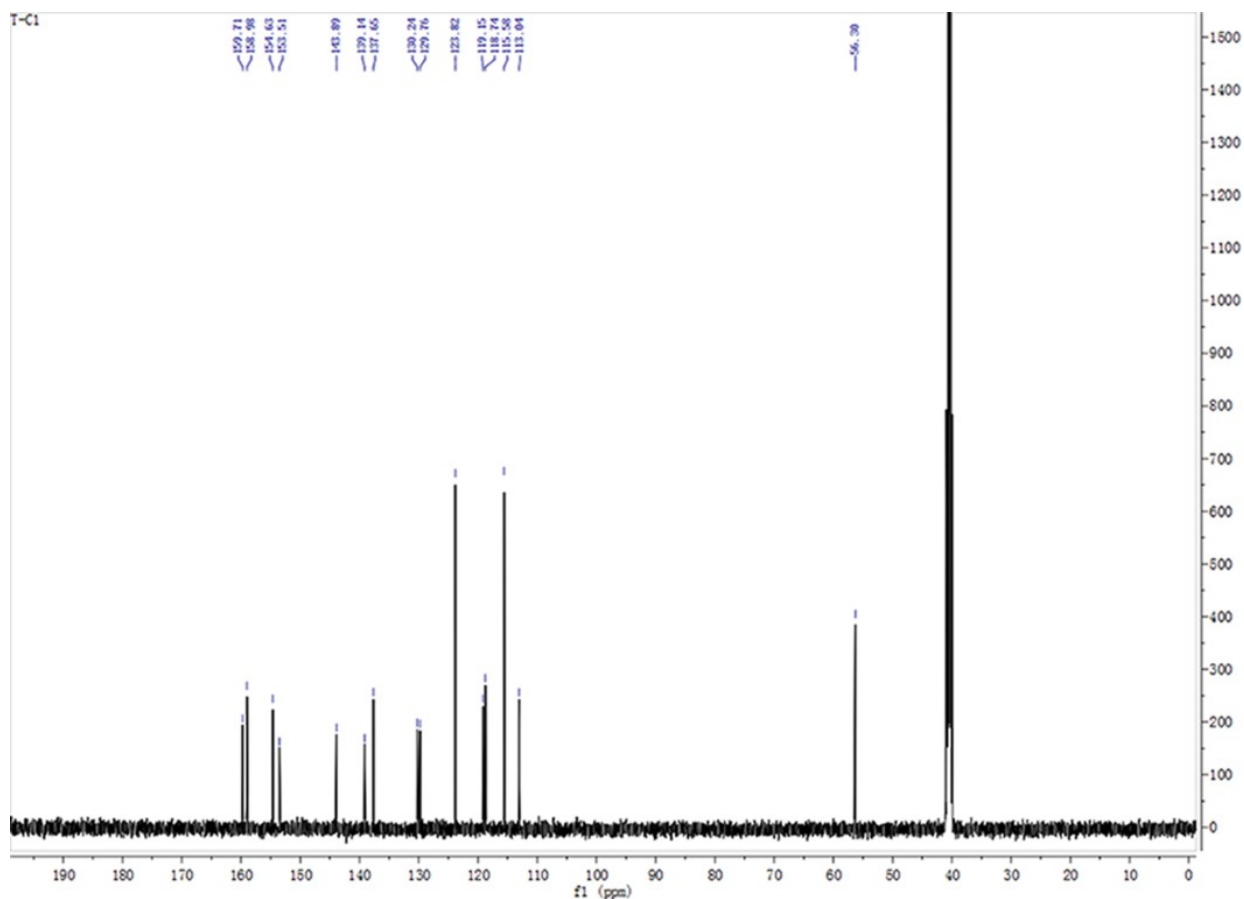


Fig.S2 ^{12}C NMR (500MHz) spectra of compound L

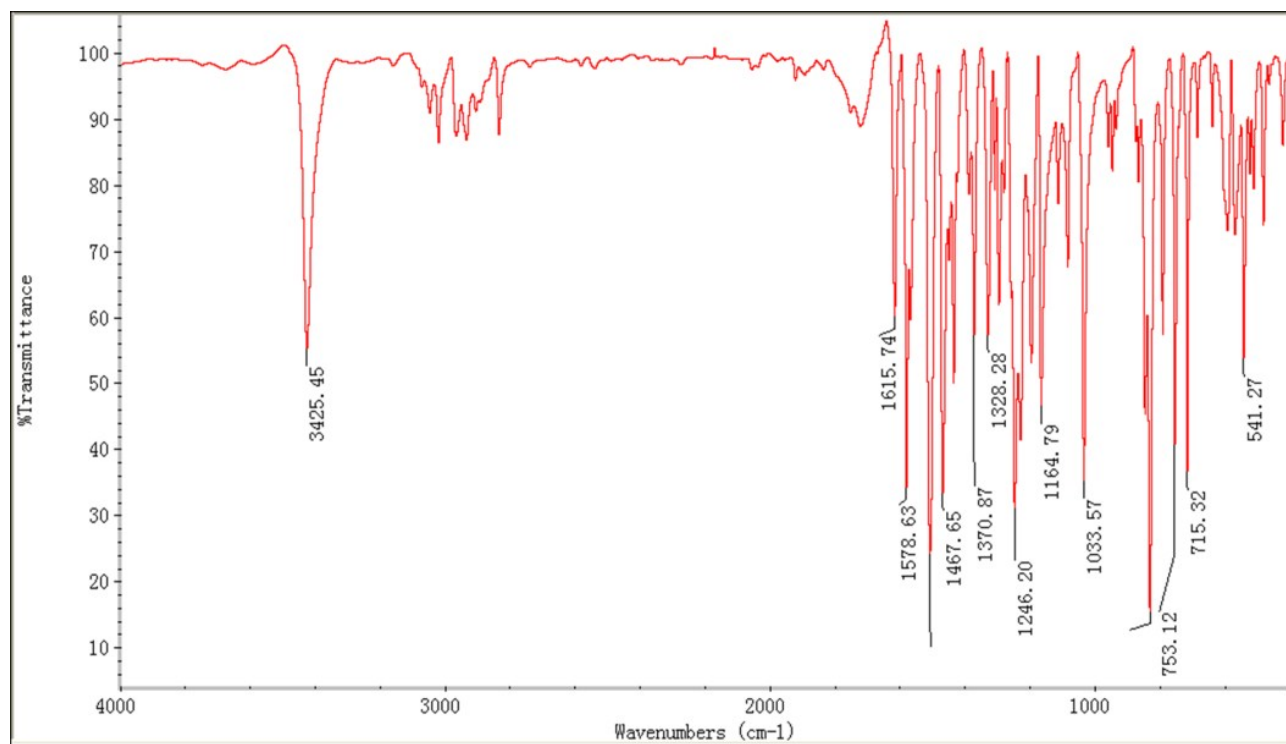


Fig. S3 IR spectra of compound L

ANGYUTIAN1 #21-30 RT: 0.41-0.52 AV: 10 SB: 17 0.02-0.31 , 0.55-0.70 NL: 1.30E7
+ c ESI Full ms [150.00-800.00]

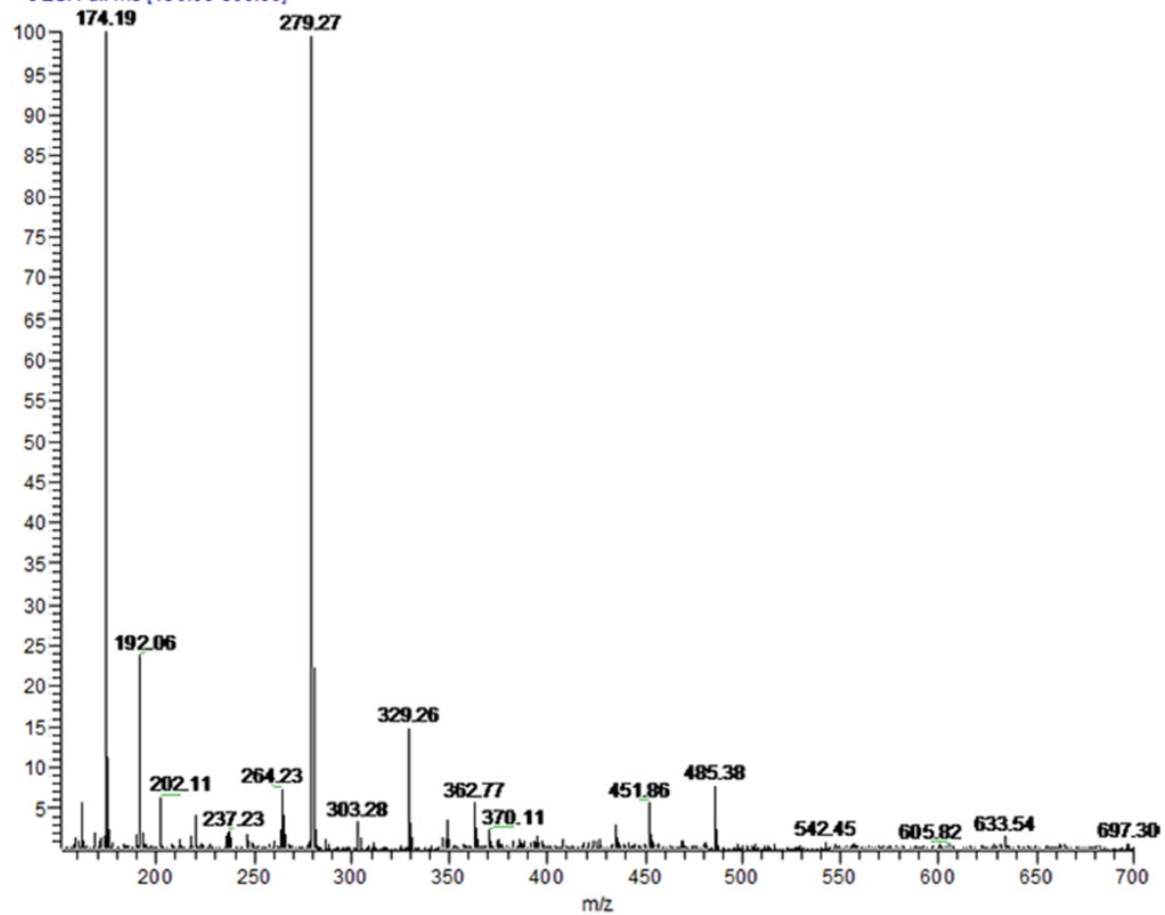


Fig. S4 The electrospray ionization mass spectra (ESI-MS) of compound L

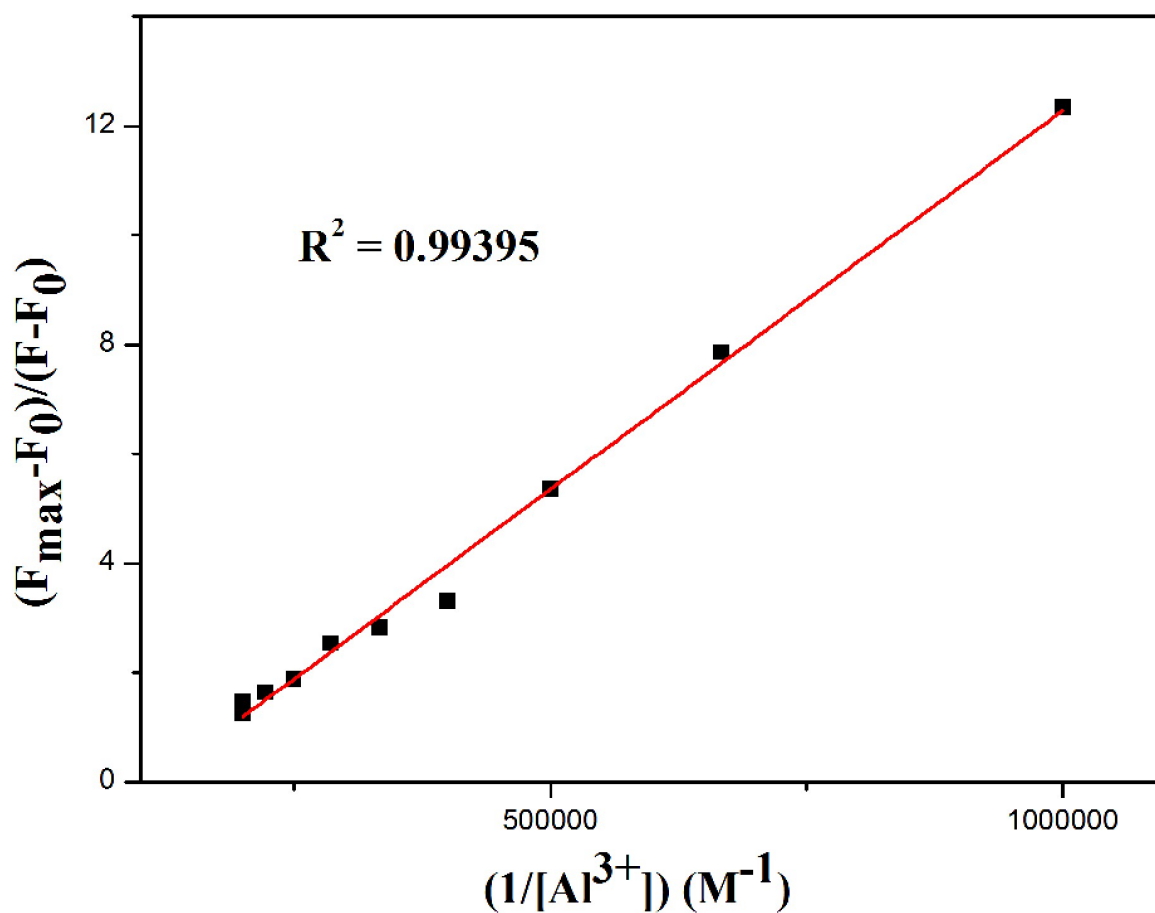


Fig. S5 Benesi-Hildebrand analysis of the emission changes for the complexation between L and Al^{3+}

Table S1

The comparison of the sensor L with some other fluorescence surface sensors for the measurement of Al^{3+} .

Fluorescence surface sensor	Excitation wavelength(nm)	Working media	Detection limit($\mu\text{mol/L}$)
[37]	364	CH ₃ OH	7.41
[38]	330	C ₂ H ₅ OH/H ₂ O	7.35
[39]	375	CH ₃ OH	0.525
[40]	353	CH ₃ OH	0.5
[41]	370	CH ₃ CN/H ₂ O	15.6
The Sensor L	373	CH ₃ OH	0.12

