

Supporting information

Design and synthesize a chemosensor for the detection of Al³⁺ based on ESIPT

Jing-can Qin, Zheng-yin Yang*, Long Fan, Xiao-ying Cheng, Tian-rong Li, Bao-dui Wang

College of Chemistry and Chemical Engineering, State Key Laboratory of Applied Organic Chemistry, Lanzhou University, Lanzhou 730000, P.R. China

**Corresponding author. Tel.: +86 931 8913515; Fax: +86 931 8912582; e-mail:

yangzy@lzu.edu.cn

(Z.Y.

Yang)

Fig. S1 The ^1H NMR of ethyl 2-methyl quinoline-4-carboxylate

Fig. S2 The ^1H NMR of 2-methyl quinoline-4-carboxylic acid hydrazide.

Fig. S3 The ^1H NMR of HL.

Fig. S4 The ESI-MS spectra of HL.

Fig. S5 The ESI-MS spectra of HL and Al^{3+} .

Fig. S6 ^1H NMR titration, Al^{3+} (1.0 equiv.) was added to the DMSO-d_6 solution of HL.

Fig. S7 The IR spectra of HL.

Fig. S8 The IR spectra of HL and Al^{3+} .

Fig. S1 The ^1H NMR of ethyl 2-methyl quinoline-4-carboxylate

Fig. S2 The ^1H NMR of 2-methyl quinoline-4-carboxylic acid hydrazide.

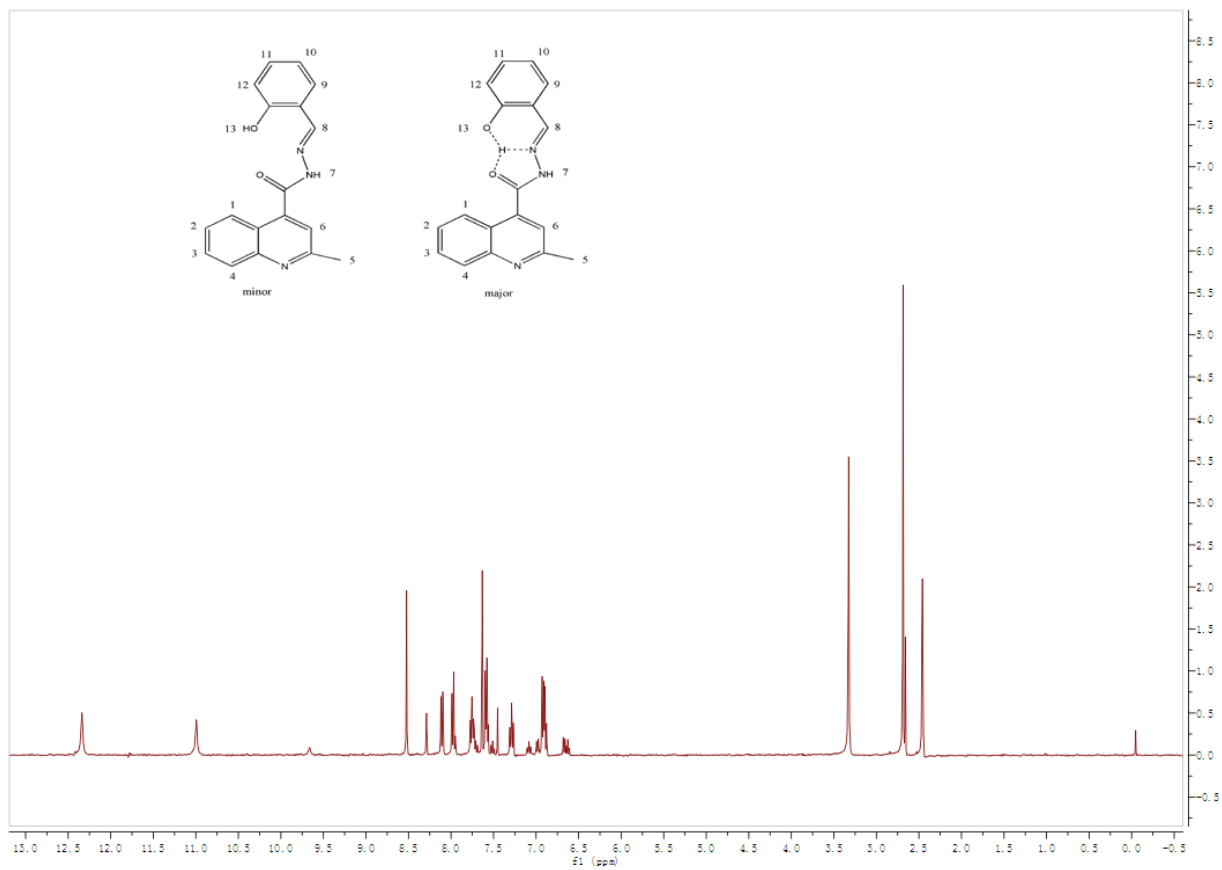


Fig. S3 The ^1H NMR of HL.

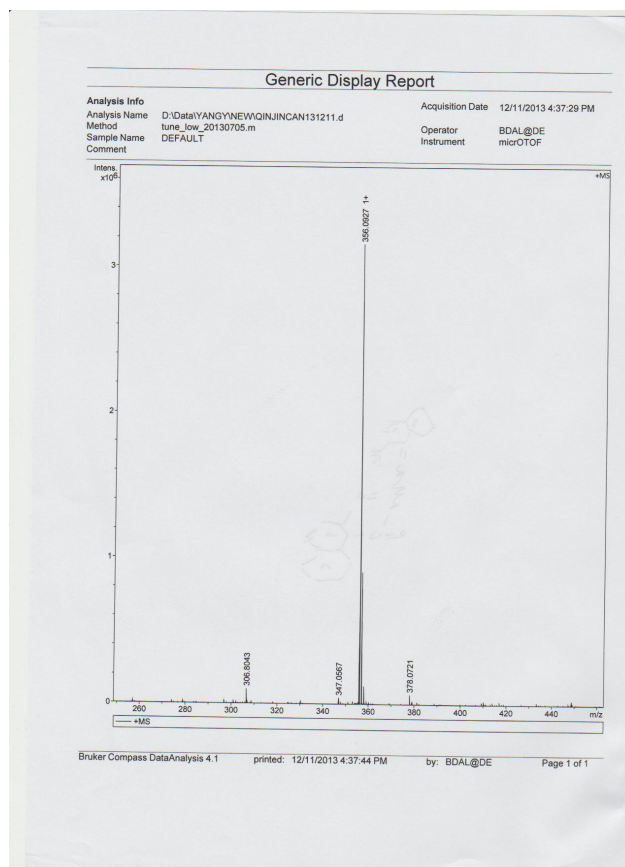


Fig. S4 The ESI-MS spectra of HL.

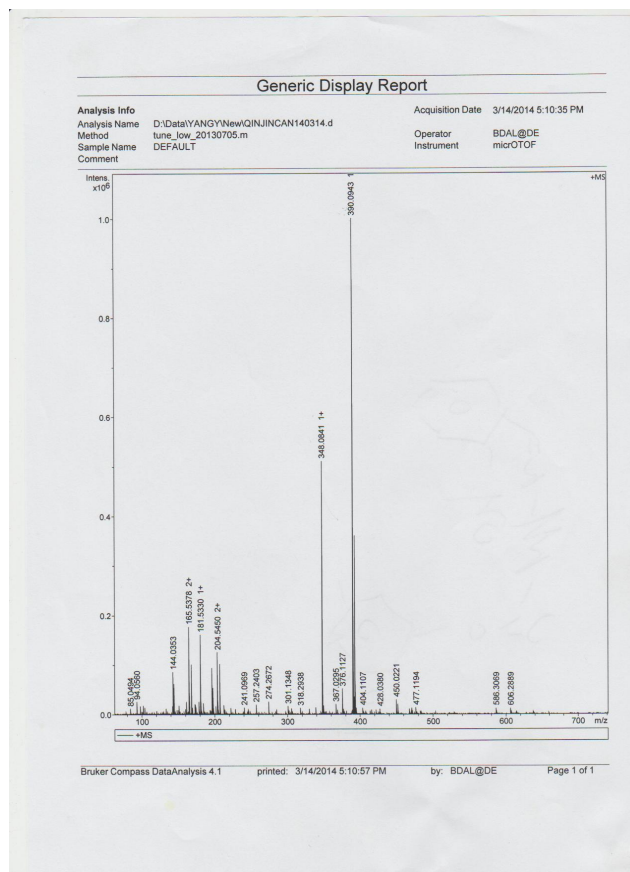


Fig. S5 The ESI-MS spectra of HL and Al³⁺.

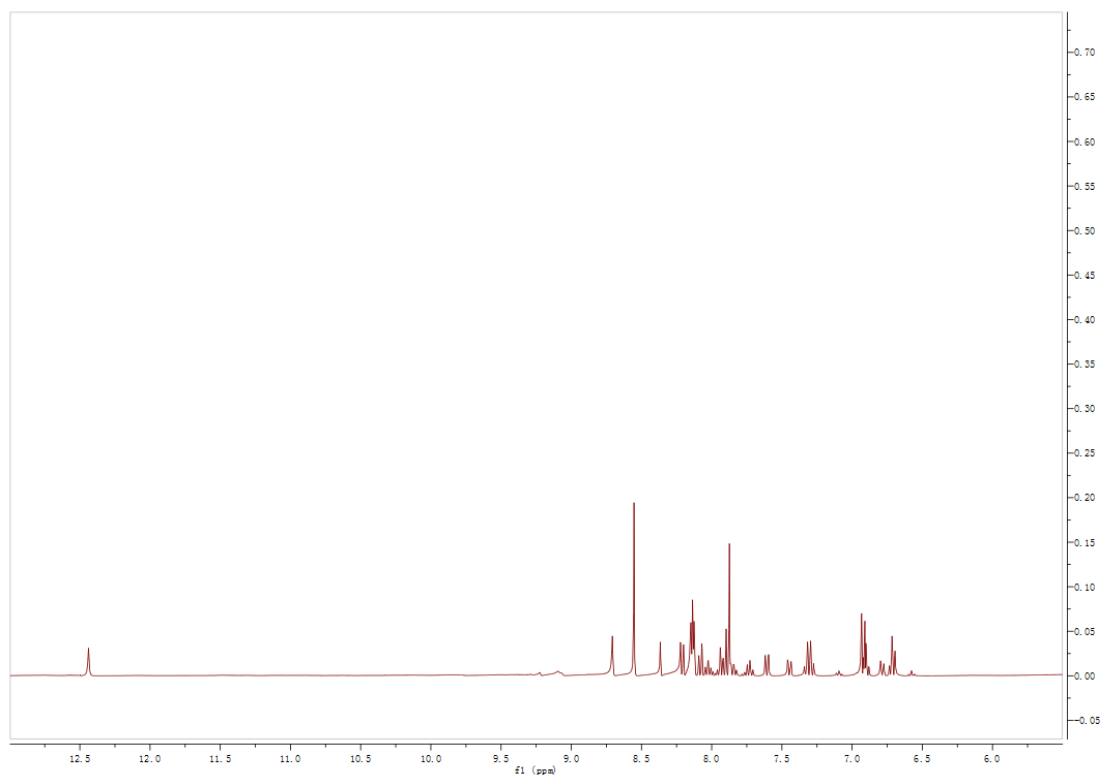


Fig. S6 ¹H NMR titration, Al³⁺ (1.0 equiv.) was added to the DMSO-d₆ solution of HL.

Fig. S7 The IR spectra of HL.

Fig. S8 The IR spectra of HL and Al³⁺.