Electronic Supplementary Material (ESI) for RSC Advances.

Electronic Supporting Information

Acridine derivative as a "turn on" probe for selective detection of picric acid via PET deterrence

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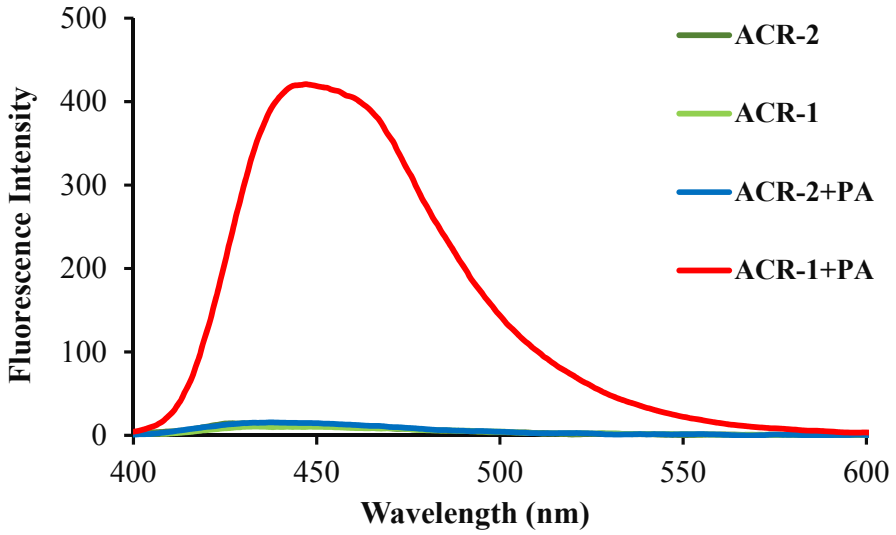
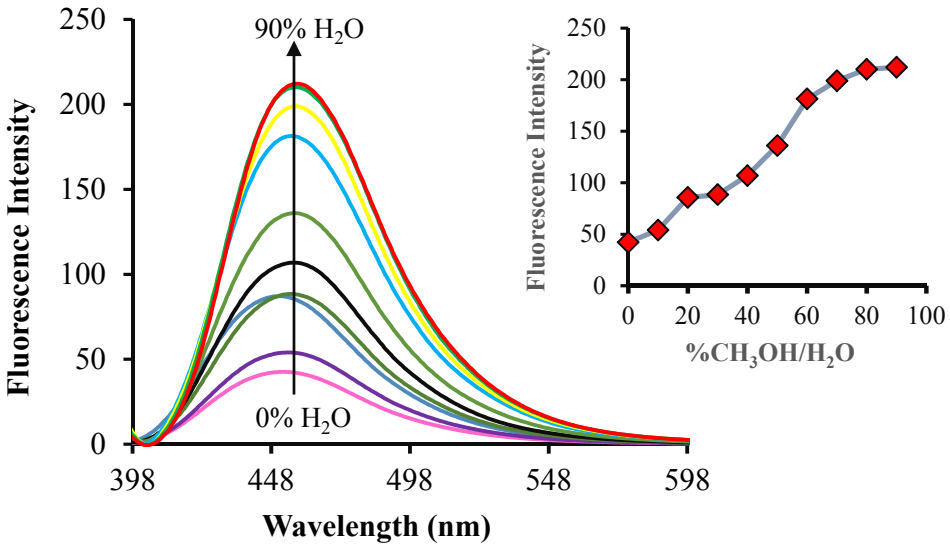
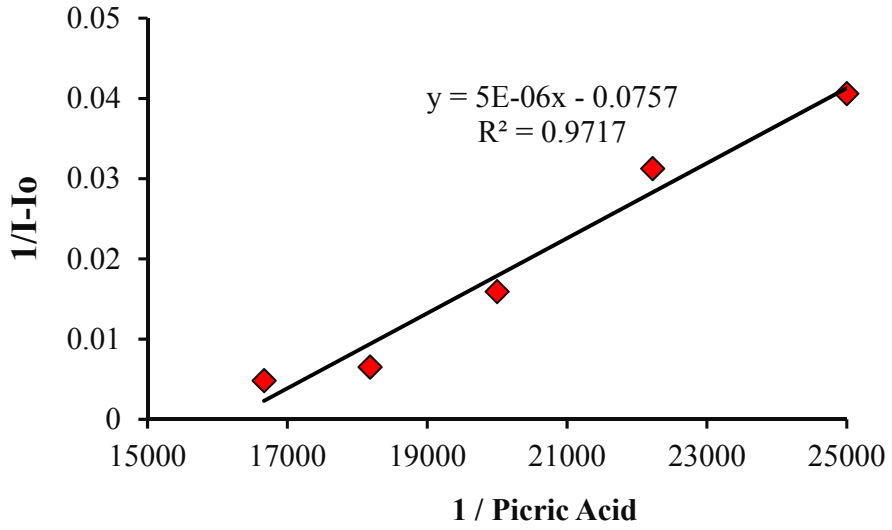
Table of contents:



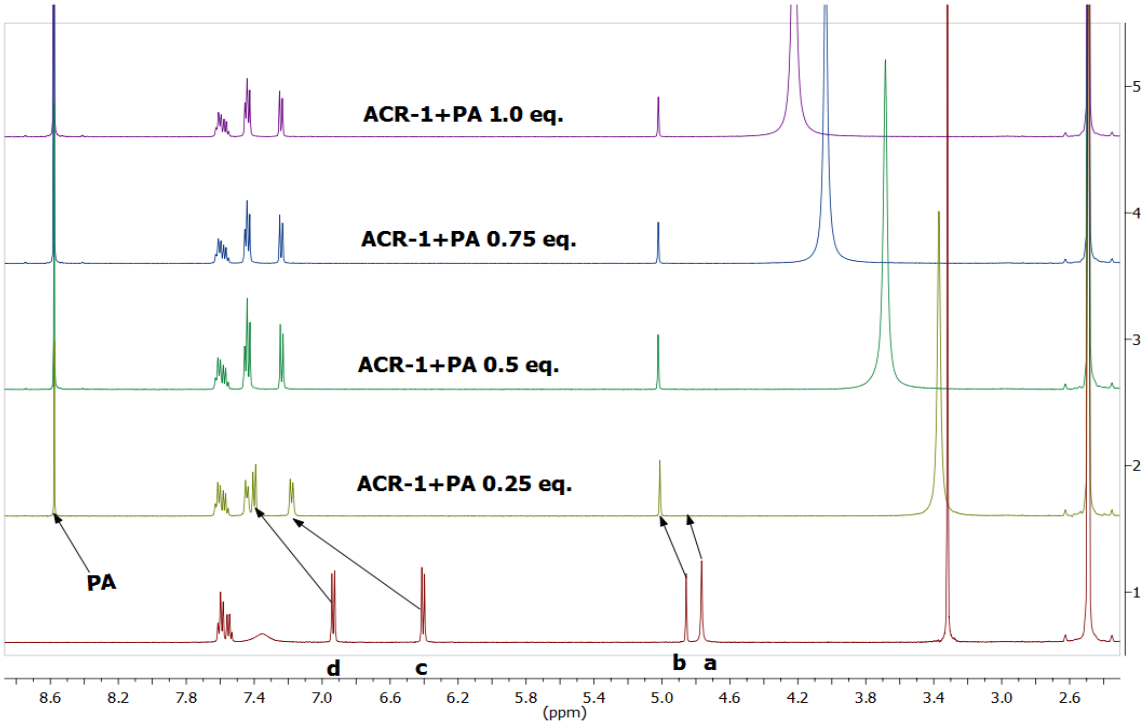
SI Fig. 1 Changes in the fluorescence emission spectra of **ACR-1** and **ACR-2** (10 μM) in presence and absence of Picric acid (10 eq.) in MeOH. λex = 378 nm (Slit widths: 5 nm/5 nm).



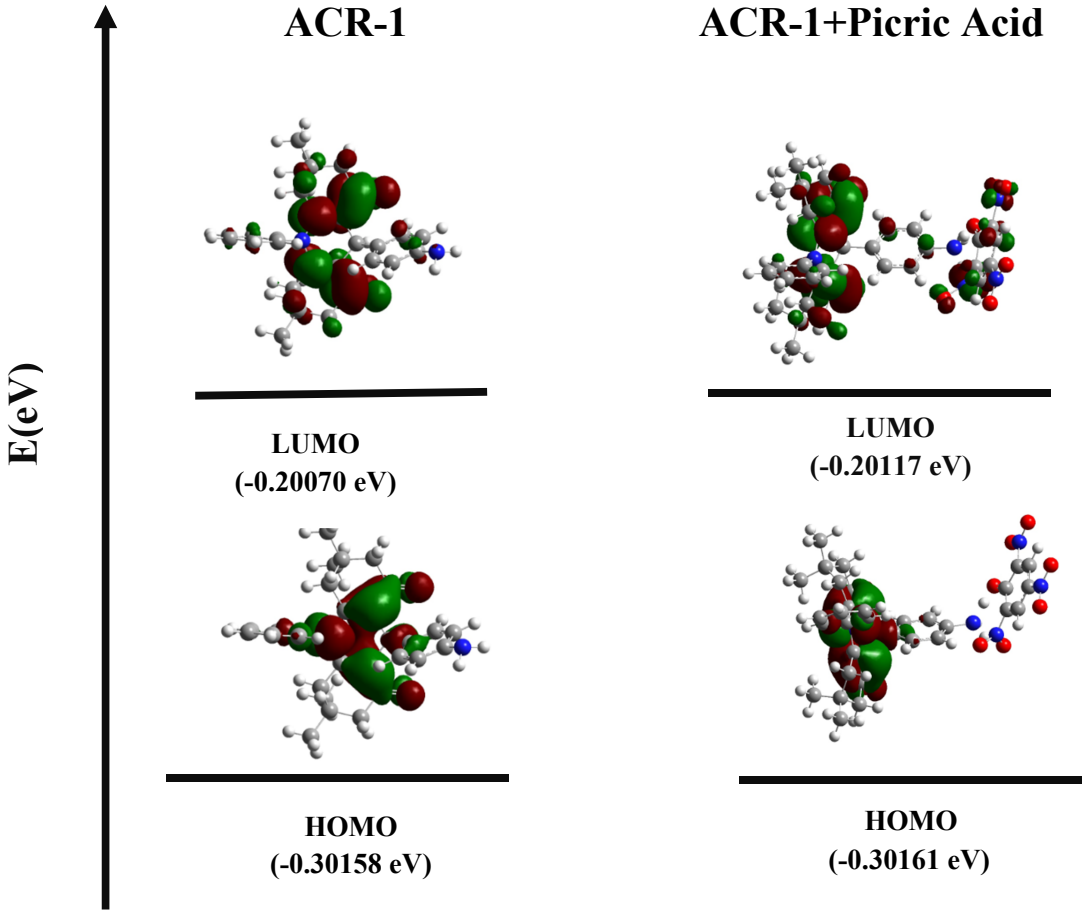
SI Fig. 2 Changes in the fluorescence emission spectra of **ACR-1** (5 μM) in CH_3OH/H_2O mixture presence Picric acid (10 eq.). Inset: The fluorescence intensity (F.I.) at 443 nm as a function of CH_3OH/H_2O mixture. λex = 378 nm (Slit widths: 5 nm/5 nm).



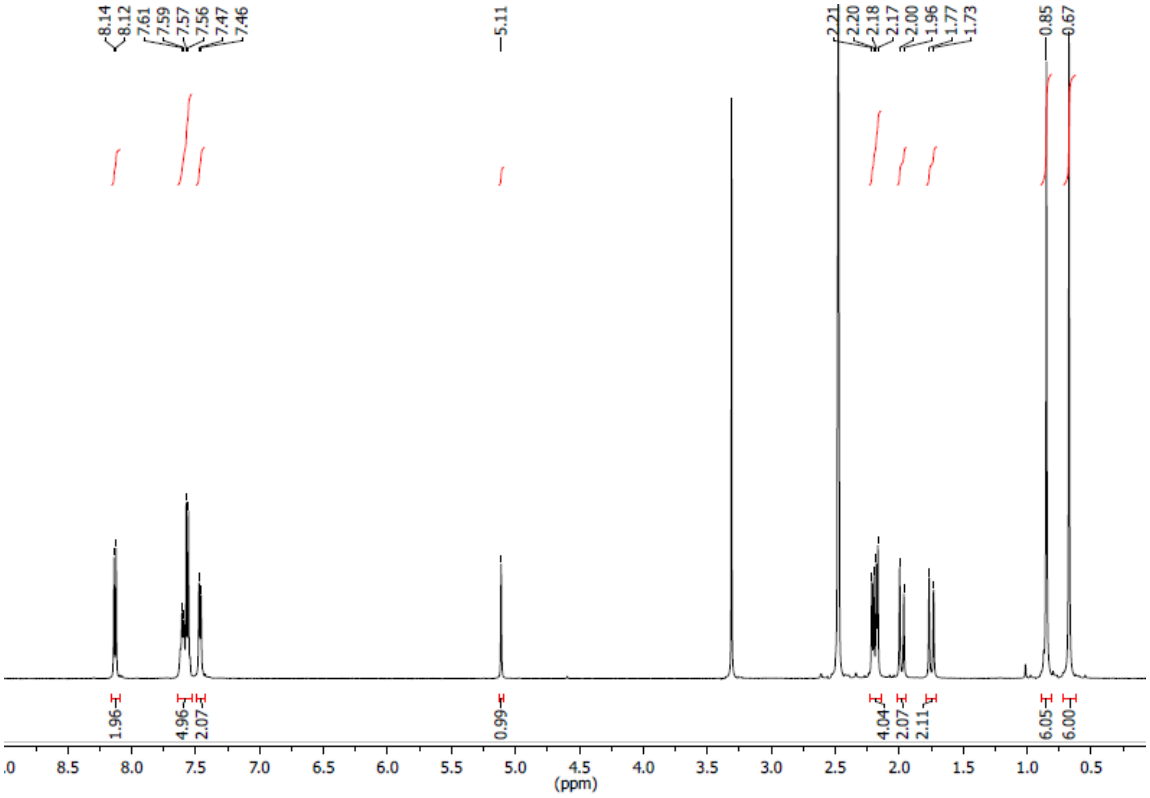
SI Fig. 3 Benesi−Hildebrand plot for **ACR-1** and Picric acid to calculate the binding association constant (Ka=1.5 × 10^4 M^{-1})



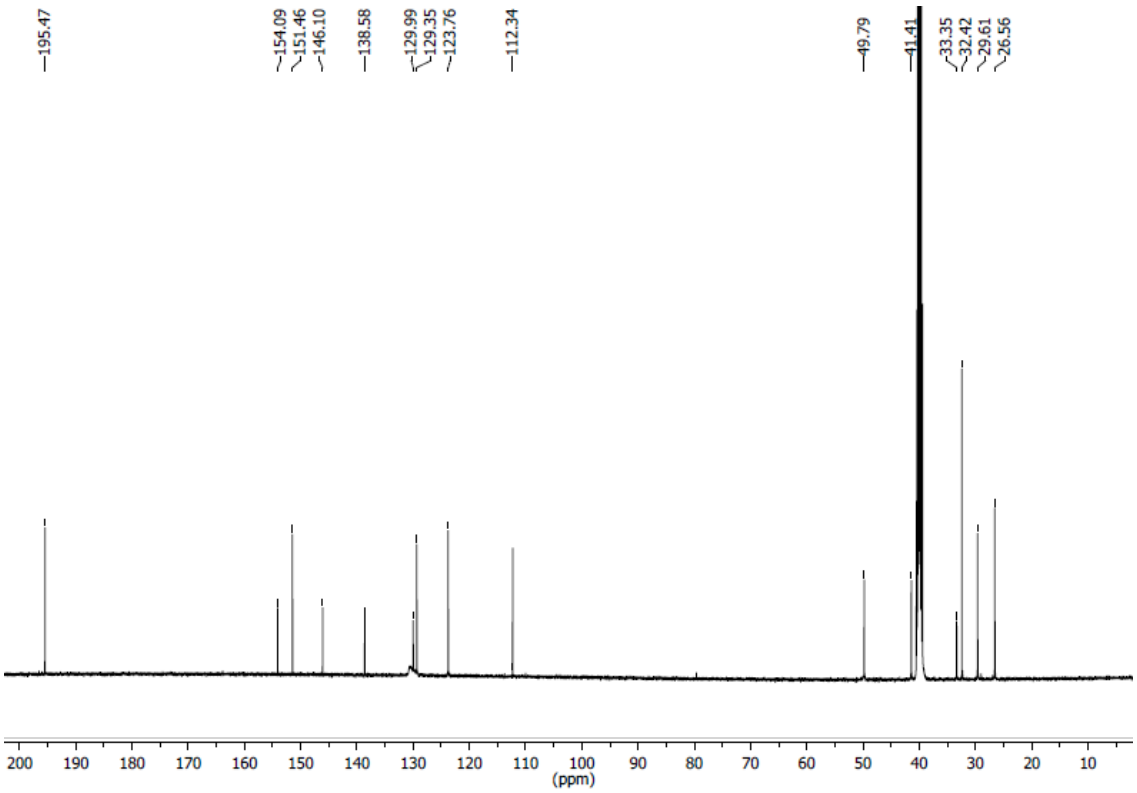
SI Fig. 4 ^{1}H-NMR stacked plots showing the change in the proton signal of **ACR-1** on binding with Picric acid in DMSO-*d6*.



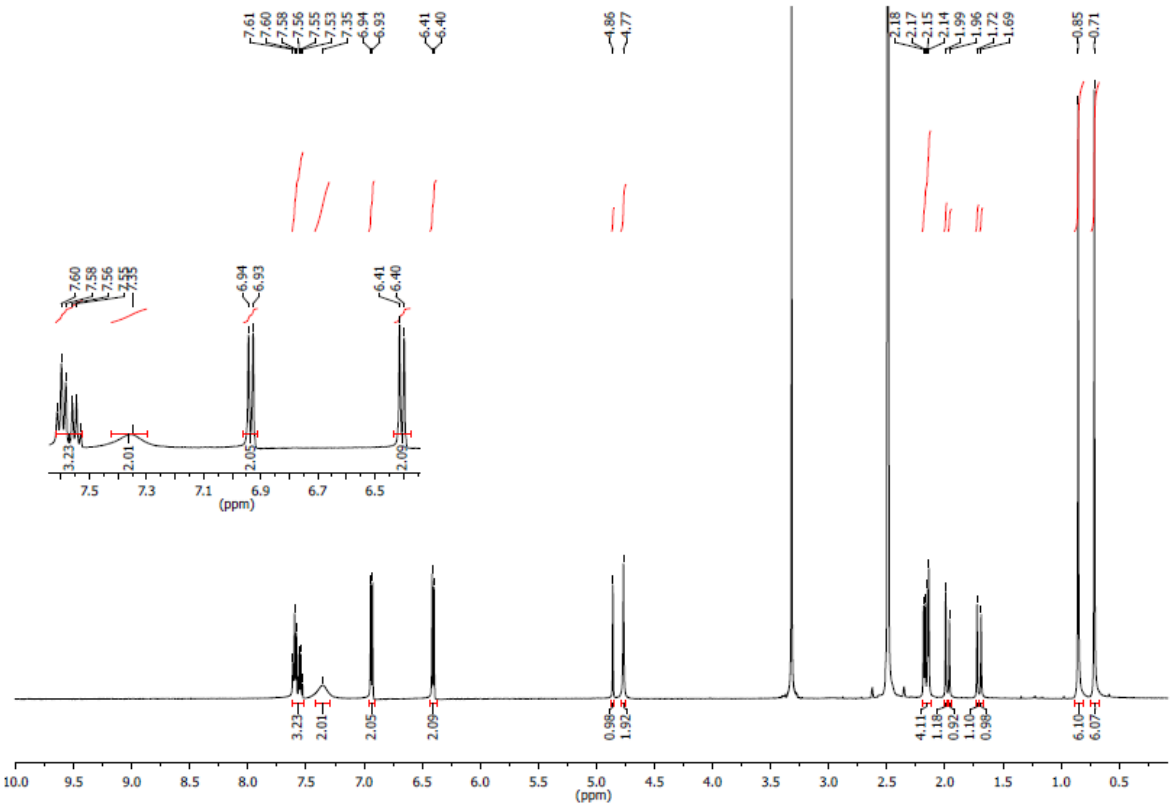
SI Fig. 5 HOMO and LUMO orbital of receptor ACR-1 and **ACR-1+PA** calculated by B3LYP method with the 6-31G* basis set.



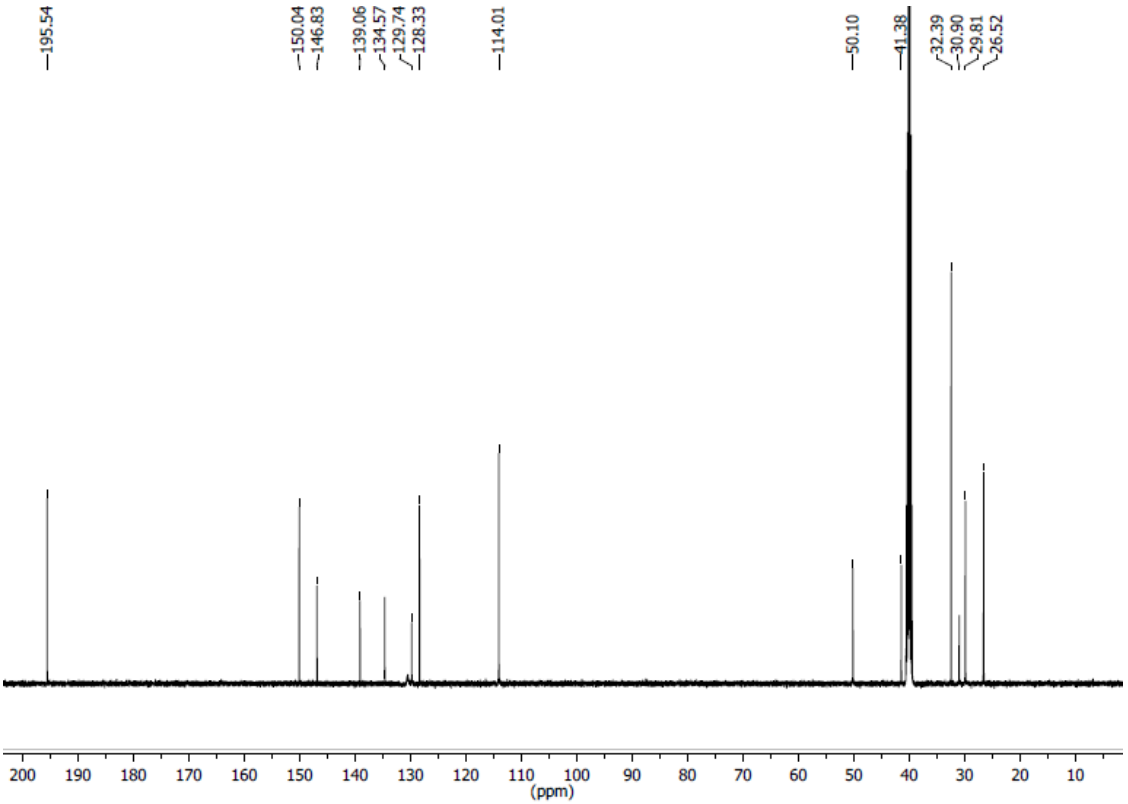
SI Fig. 5 ^{1}H NMR of 1a in DMSO-*d6*



SI Fig. 6 ^{13}C NMR of 1a in DMSO-*d6*



SI Fig. 7 ^{1}H NMR of 2a in DMSO-*d6*



SI Fig. 8 ^{13}C NMR of 2a in DMSO-*d6*