Electronic Supplementary Material (ESI) for Analytical Methods.

Supporting Information for

An excited-state intramolecular proton transfer - based probe for discrimination of thiophenols over aliphatic thiols

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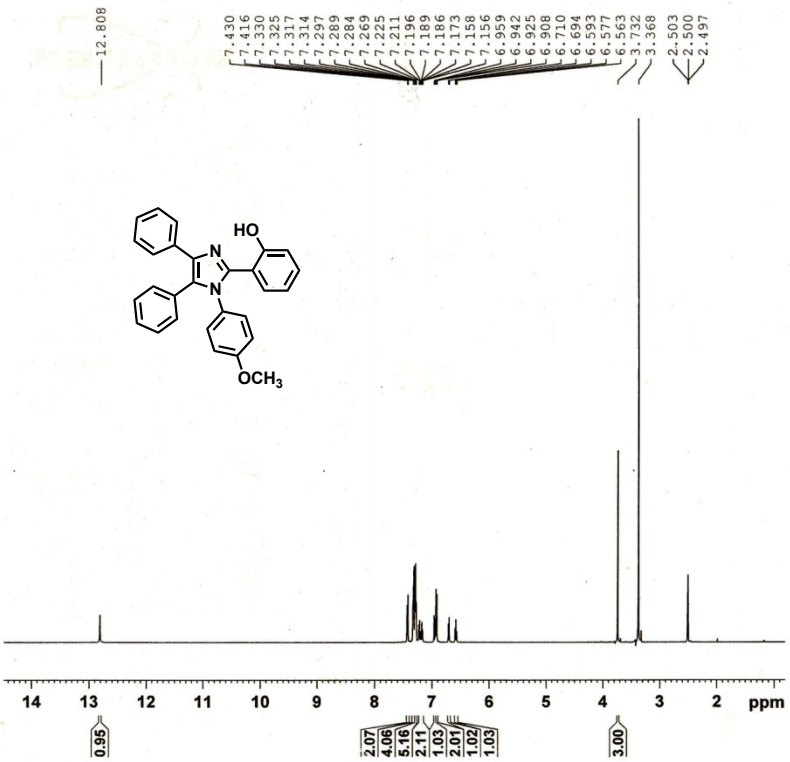

Fig. S1. ^{1}H NMR spectra of compound **DIP** in DMSO-*d*6

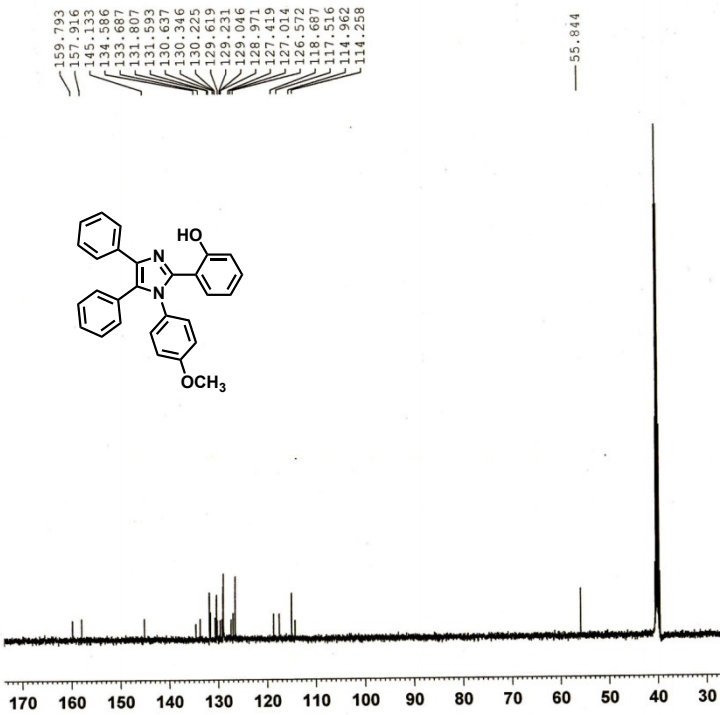

Fig. S2. ^{13}C NMR spectrum of compound **DIP** in DMSO-*d*6

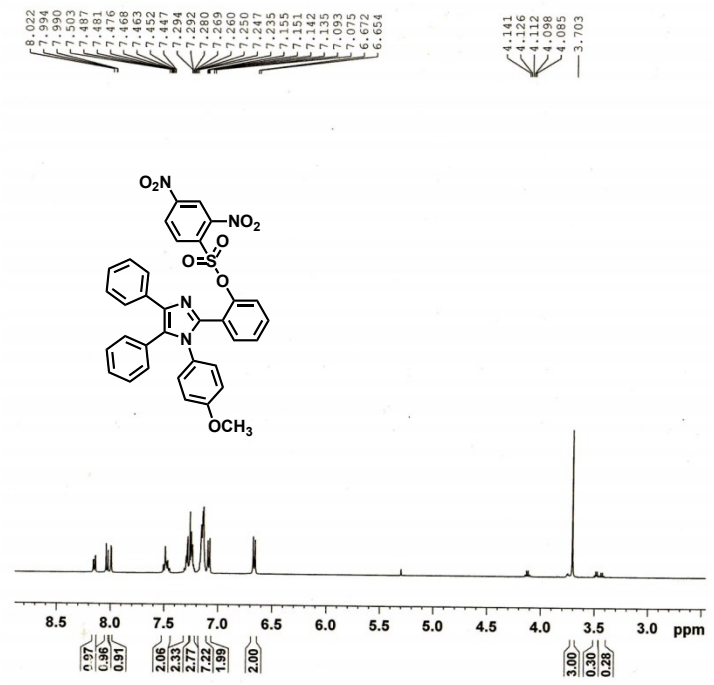

Fig. S3. ^{1}H NMR spectrum of **DIPD** in $CDCl_3$

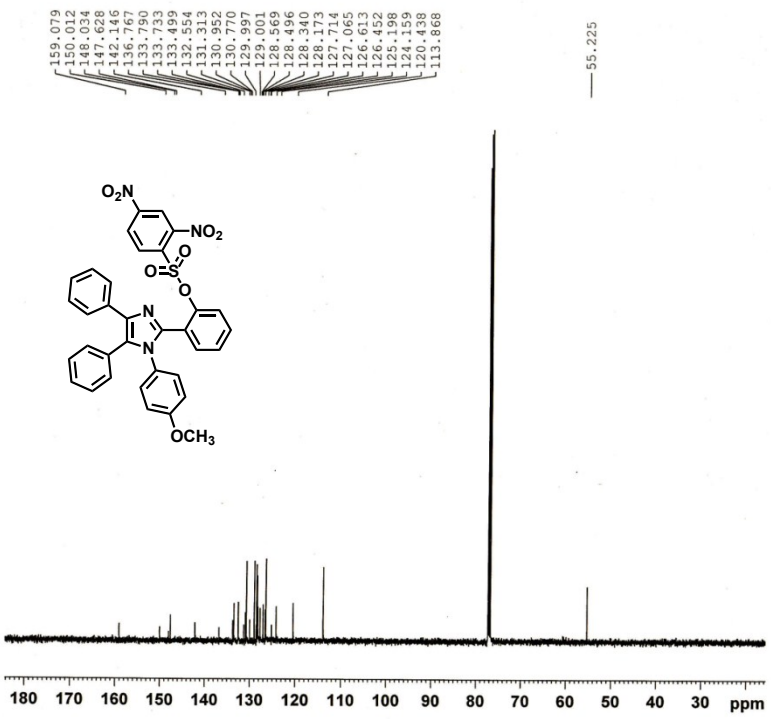

Fig. S4. ^{13}C NMR spectrum of **DIPD** in $CDCl_3$

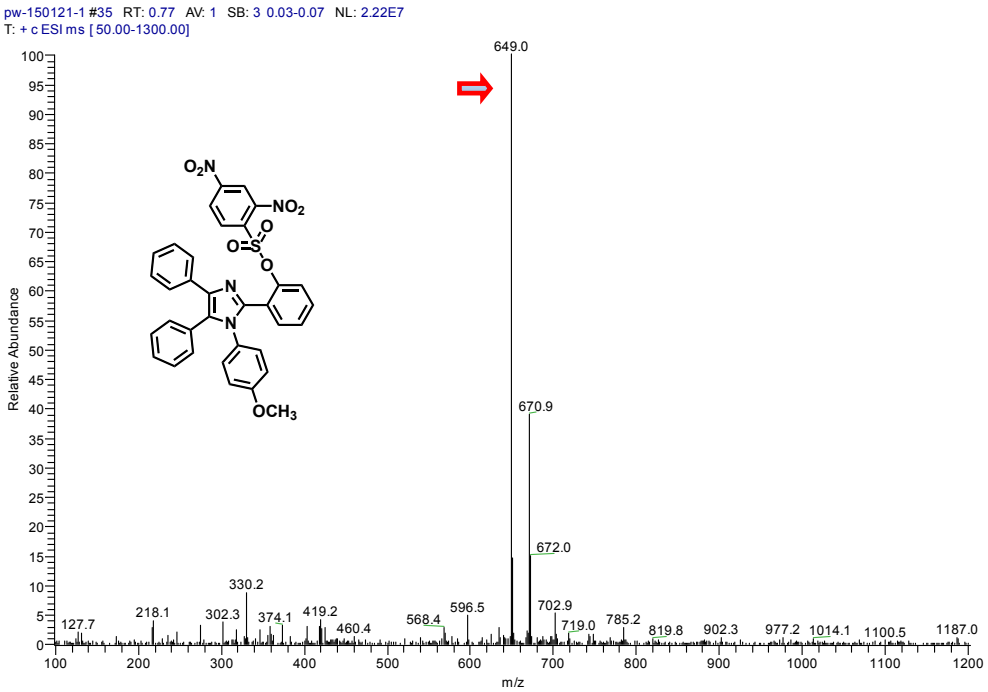

Fig. S5 ESI-MS spectrum of compound **DIPD**

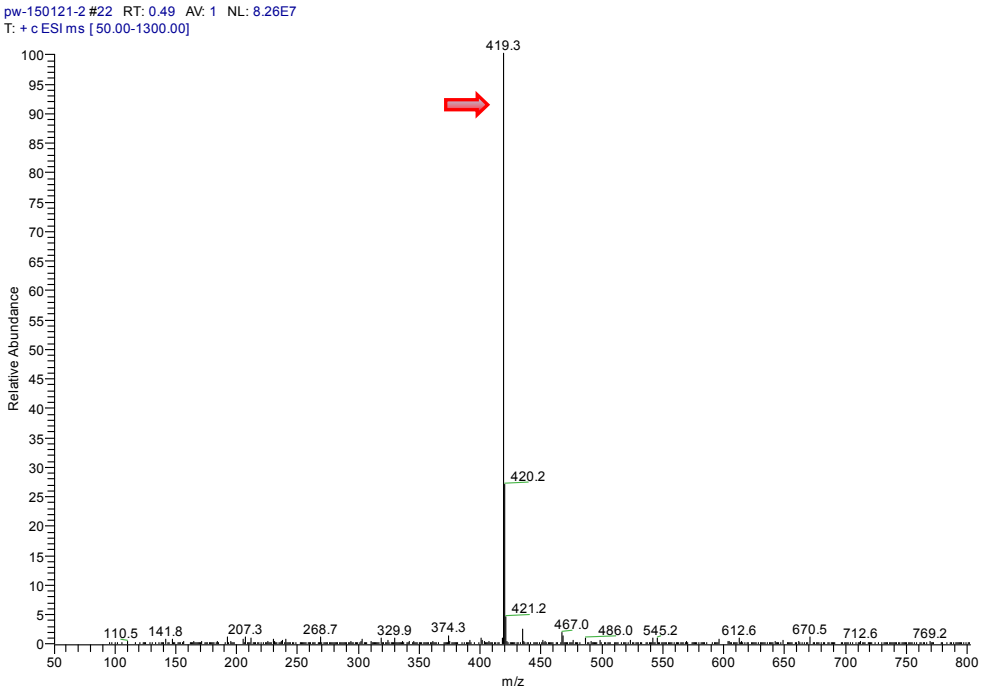

Fig. S6 ESI-MS spectrum of probe + PhSH

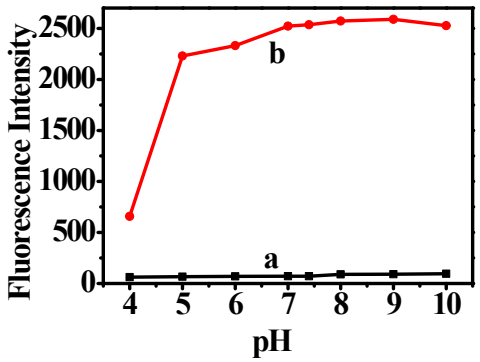

Fig. S7. Fluorescence intensity of probe **DIPD** (10 μmol/L) before (a) and after (b) addition of PhSH (10 μmol/L) in 10 mM PBS buffer of different pH containing 50 percent acetonitrile λ_{ex} = 290 nm, λ_{em} = 460 nm. Slit: 2.5, 2.5 nm.

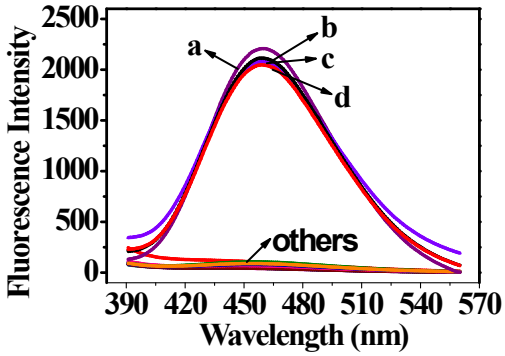

Fig. S8. Fluorescence responses of probe **DIPD** (10 μmol/L) toward thiophenos (6 μmol/L) and other substances (60 μmol/L) in 10 mM PBS buffer at room temperature. The fluorescence intensity at λ_{em} = 460 nm was plotted versus substances: (a) probe + *p*-Toluenethiol, (b) probe + 2-aminobenzenethiol, (c) probe + PhSH, (d) probe + 4-chlorothiophenol and probe + others (NaN_3, KI, PhOH, $PhNH_2$, Ala, Pro, Arg, GSH, Hcy, Cys, $CH_3(CH_2)_{10}CH_2SH$).