

Electronic Supplementary Information

‘Pourbaix Sensors’: A New Class of Fluorescent pE-pH Molecular AND Logic Gates based on Photoinduced Electron Transfer

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INSTRUMENTATION

^1H , ^{13}C and ^{13}C DEPT NMR spectra were recorded at room temperature on a Bruker AM 250 NMR spectrometer equipped with a $^1\text{H}/^{13}\text{C}$ 5mm dual probe at 250.1 and 62.9 MHz, respectively, with CDCl_3 as the solvent. Spectra are reported in ppm versus tetramethylsilane ($\delta = 0.00$) for ^1H NMR and CDCl_3 ($\delta = 77.00$) for ^{13}C NMR. The infra-red spectrum was recorded on a Shimadzu IR-Affinity 1 spectrometer as a thin film from dichloromethane between NaCl plates. Electron impact (EI) spectra were performed on a Thermo Finnigan Trace DSQ spectrometer. The melting point was recorded on a Griffin melting point apparatus and is uncorrected. UV-visible absorption and fluorescence spectra were recorded on a Jasco V-650 spectrophotometer and Jasco FP-8300 fluorescence spectrometer, respectively. Fluorescence experiments were performed in emission mode with the excitation and emission slit widths both at 2.5 nm.

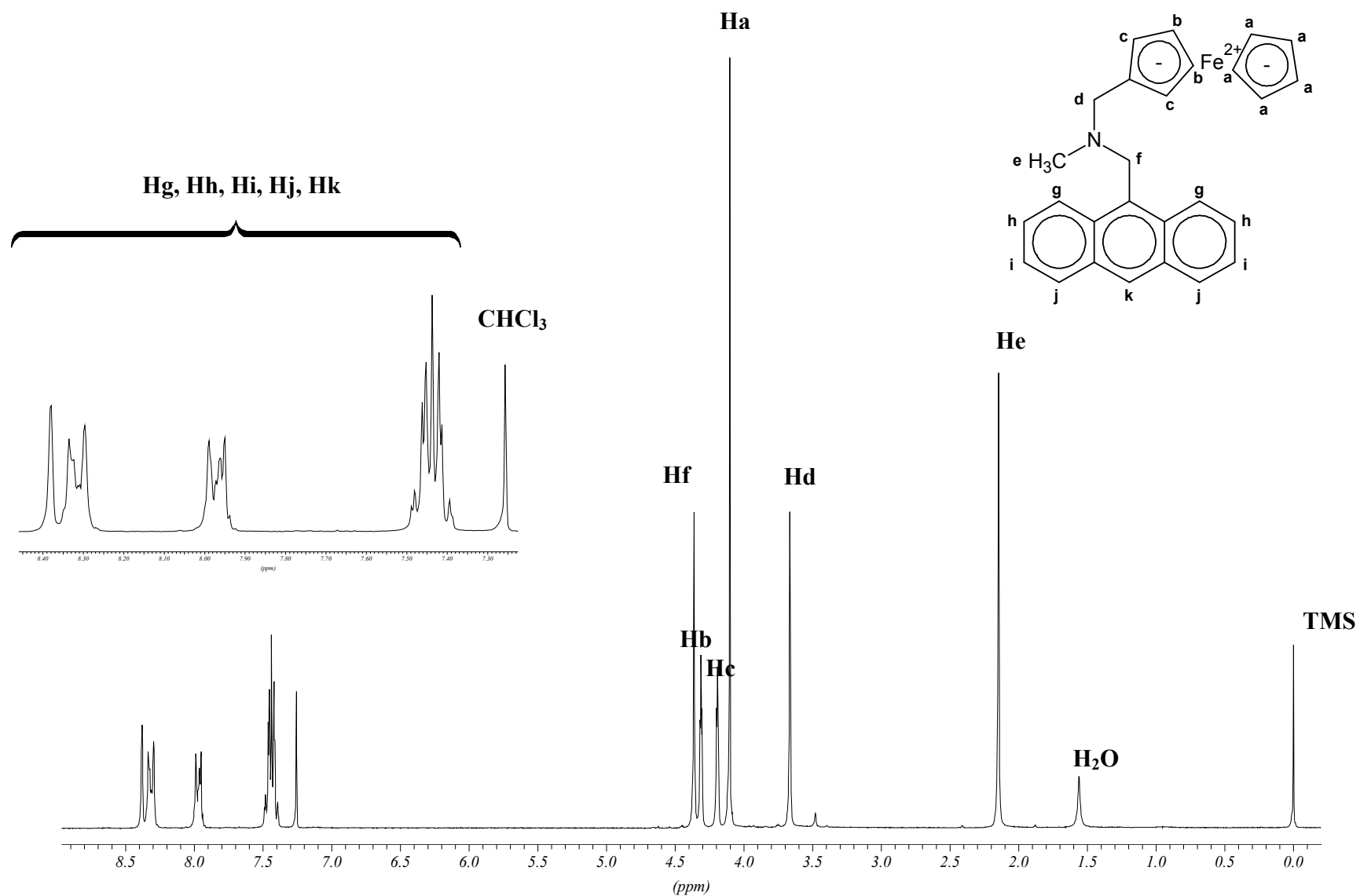


Figure S1. ¹H NMR spectrum of compound **2** in CDCl₃.

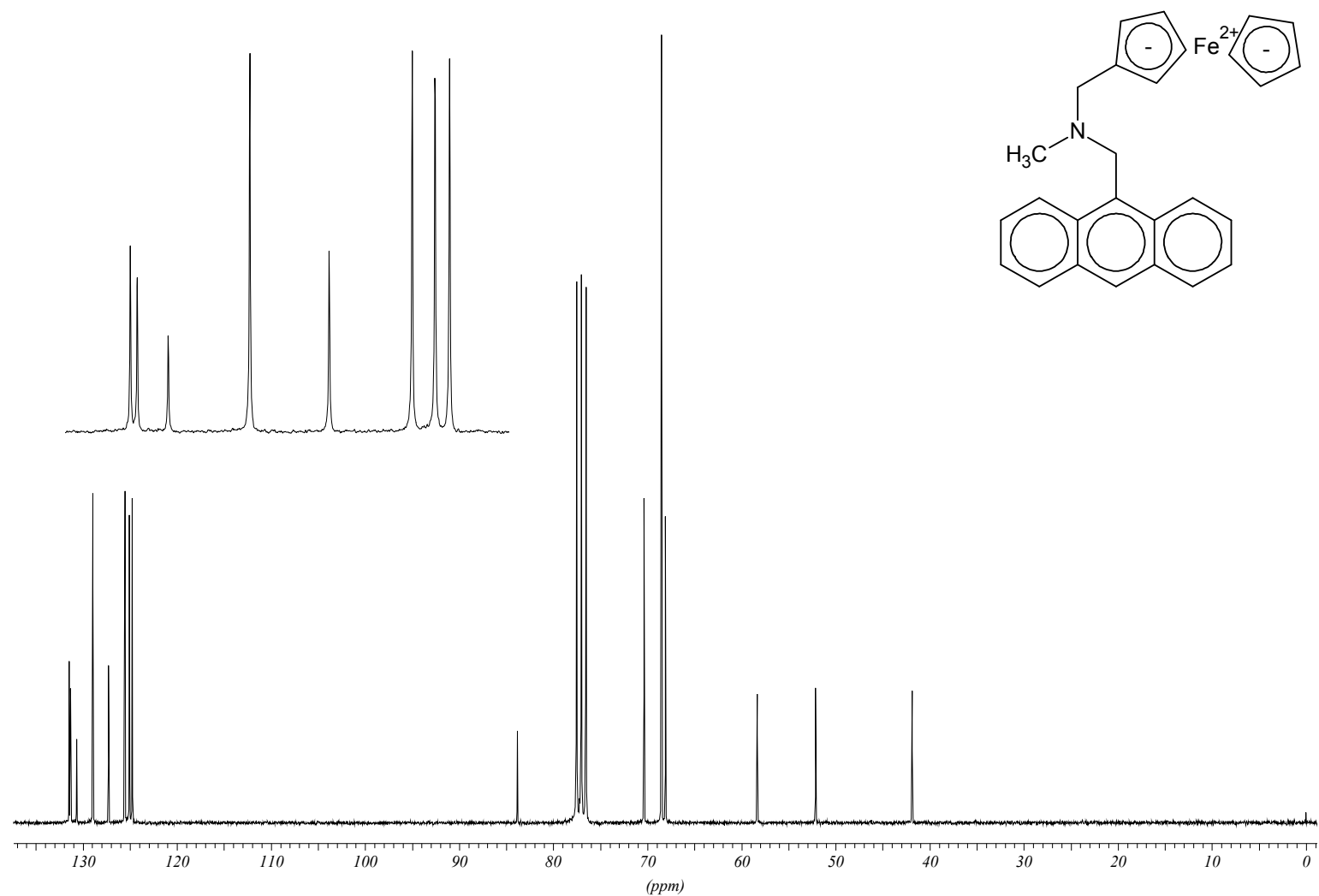


Figure S2. ^{13}C NMR spectrum of compound **2** in CDCl_3 .

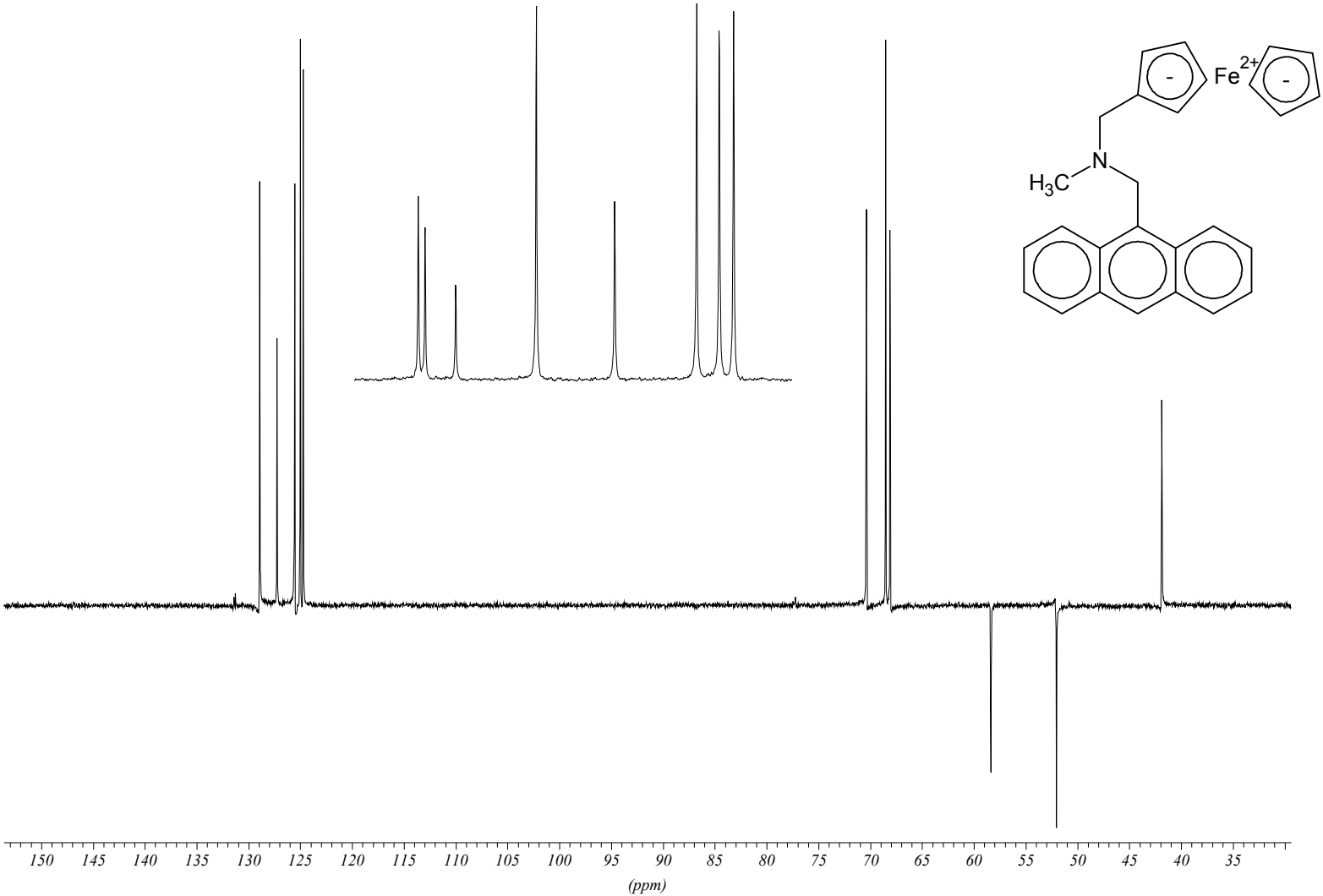


Figure S3. ^{13}C DEPT NMR spectrum of compound **2** in CDCl_3 .

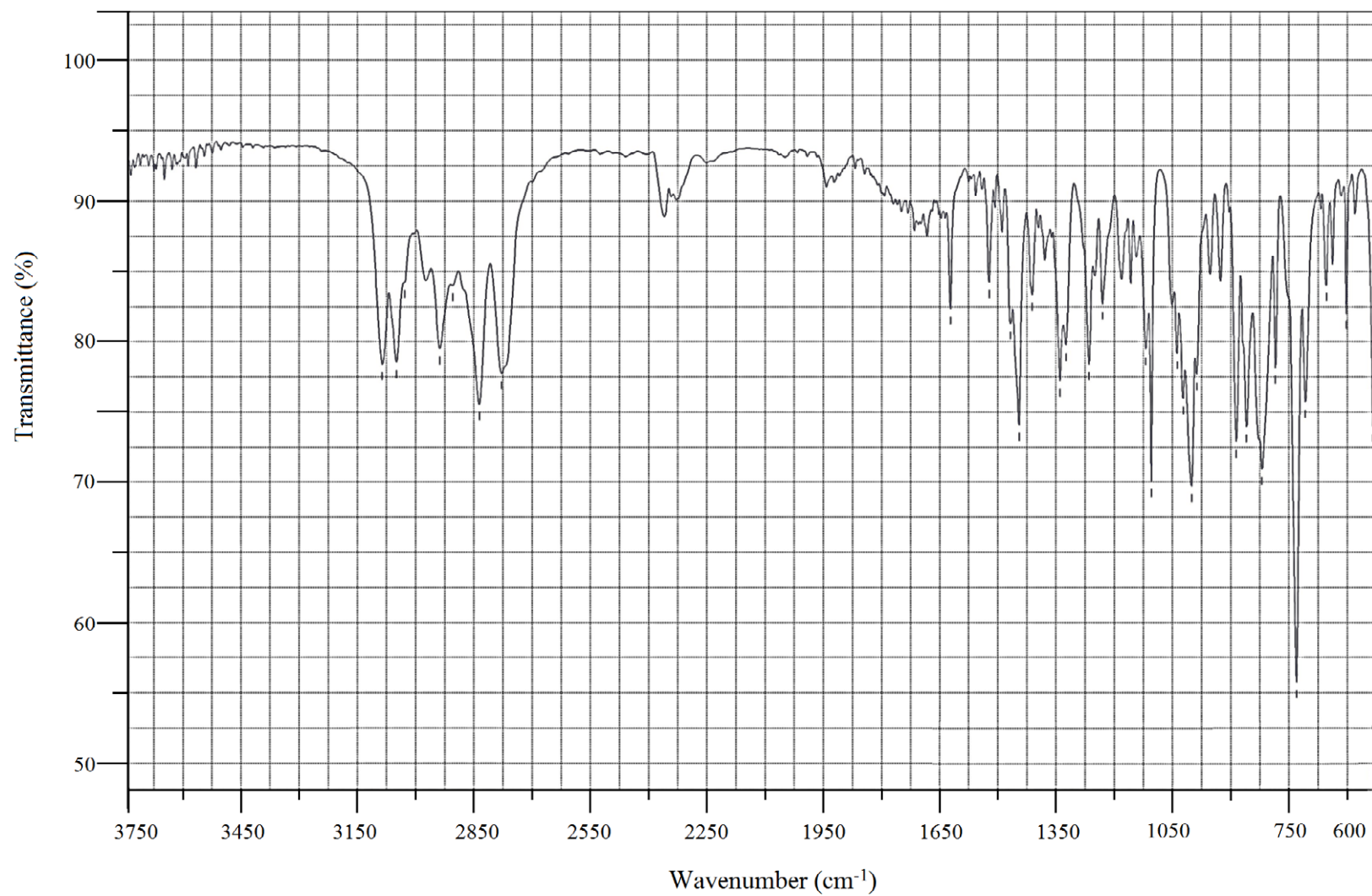


Figure S4. FT-IR spectrum of compound **2** as a thin film between NaCl plates.

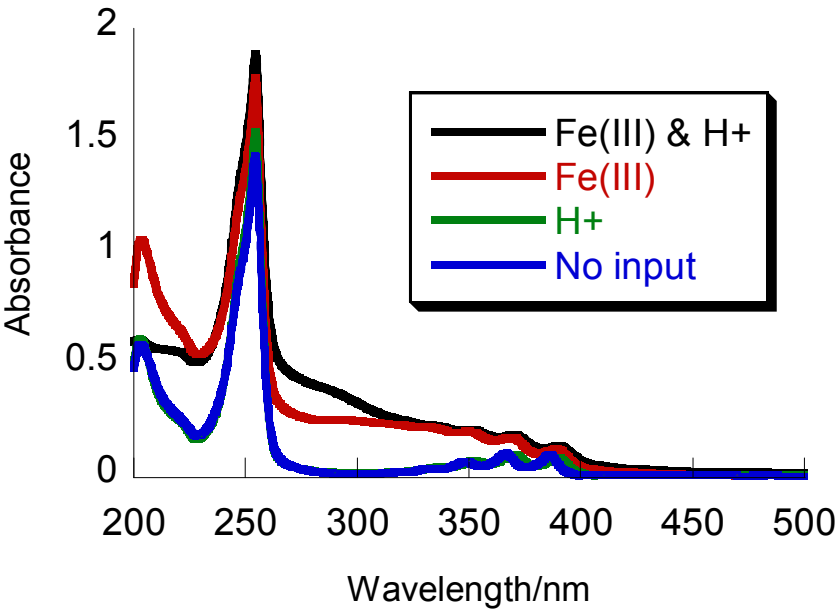


Figure S5. UV-visible absorption spectra of **2** in methanol.