**Electronic Supplementary Information (ESI)**

# Glycerol group substituted bis(2-pyridylimino)isoindoline (BPI) complexes: Synthesis, characterization and investigation of their biological properties

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## Experimental

### Chemical and Materials

All the reagents and solvents were of reagent-grade quality obtained from commercial suppliers. 4-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]phthalonitrile was prepared as given in the literatüre [1]. All solvents were dried and purified, as described by Perrin and Armarego [2]. The homogeneity of the products was tested in each step by TLC (silica gel).

### Instruments

$^{1}$H NMR spectra were recorded on an Agilent 500 MHz spectrometer using TMS as the internal reference. $^{13}$C NMR spectrum was recorded on an Agilent 126 MHz NMR. IR spectra were recorded on a Perkin-Elmer Spectrum One FT-IR (ATR sampling accessory) spectrophotometer. Electronic spectra were recorded on a Scinco LabProPlus UV/vis spectrophotometer. Mass spectra were performed on Agilent 6530 QTOF-LC-MS mass spectrometer. Elemental analyses were performed on LECO, CHNS-932 elemental analyzer.

### References

[1] M. Kimura, T. Kuroda, K. Ohta, K. Hanabusa, H. Shirai, N. Kobayashi, *Langmuir*, 2003, **19**, 4825.
[2] D.D. Perrin, W.L.F. Armarego, Purification of Laboratory Chemicals (2nd ed.), Pergamon Press: Oxford, 1989.

**SUPPLEMENTARY FIGURES**

**NMR spectra of 1a,b and 2a,b**

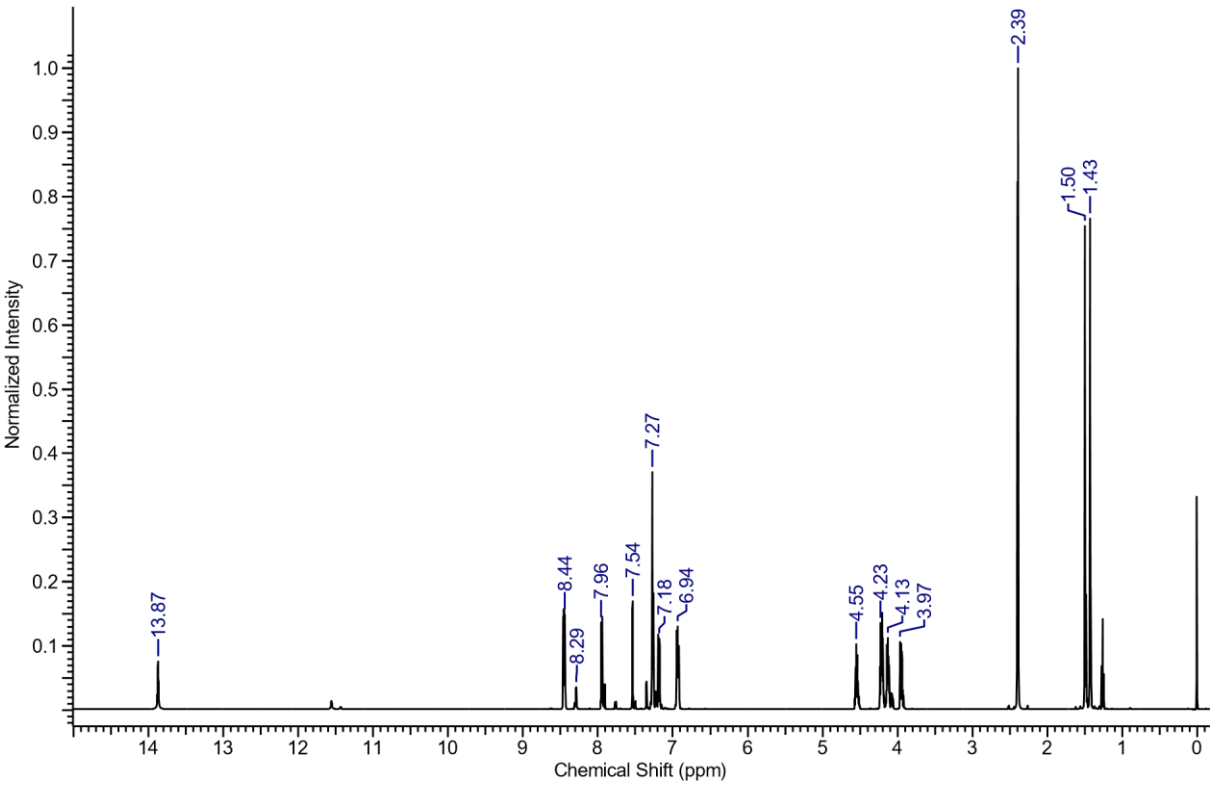


**Figure S1:** $^{1}$H NMR spectrum of **1a** in $CDCl_3$.

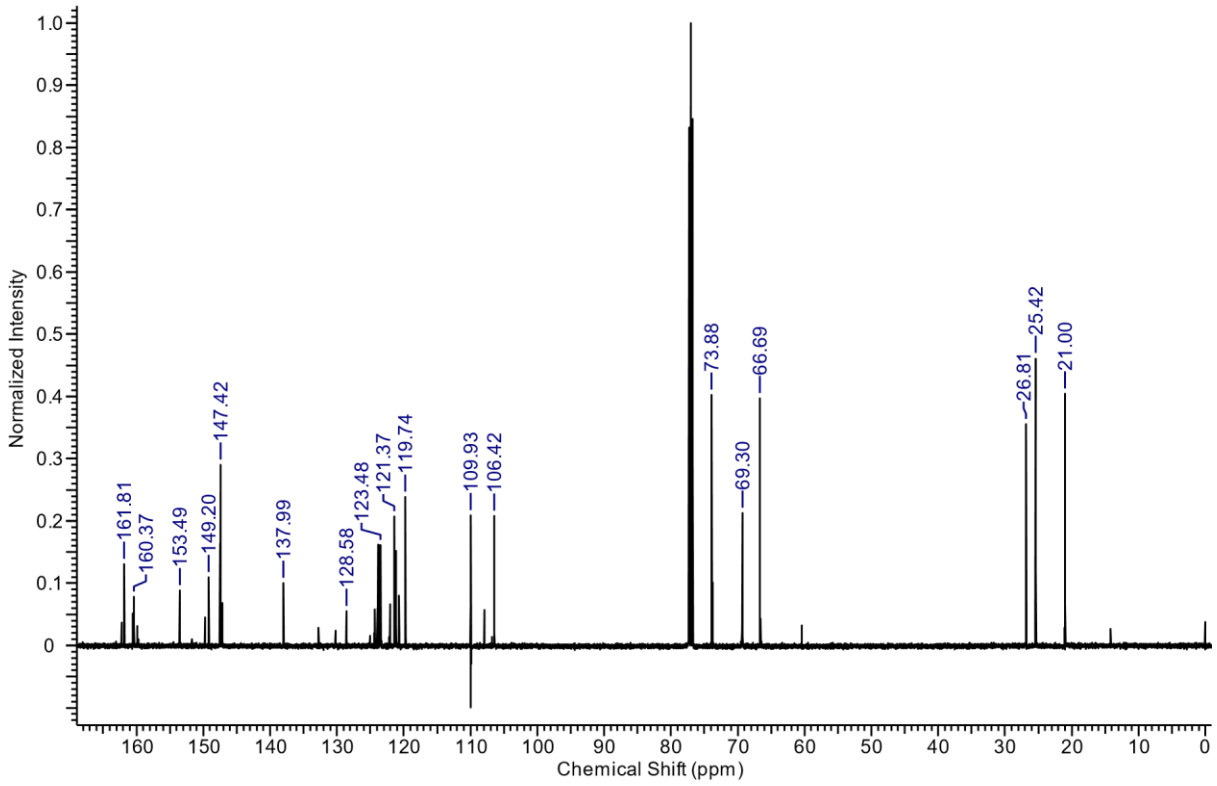


**Figure S2:** $^{13}$C NMR spectrum of **1a** in $CDCl_3$.

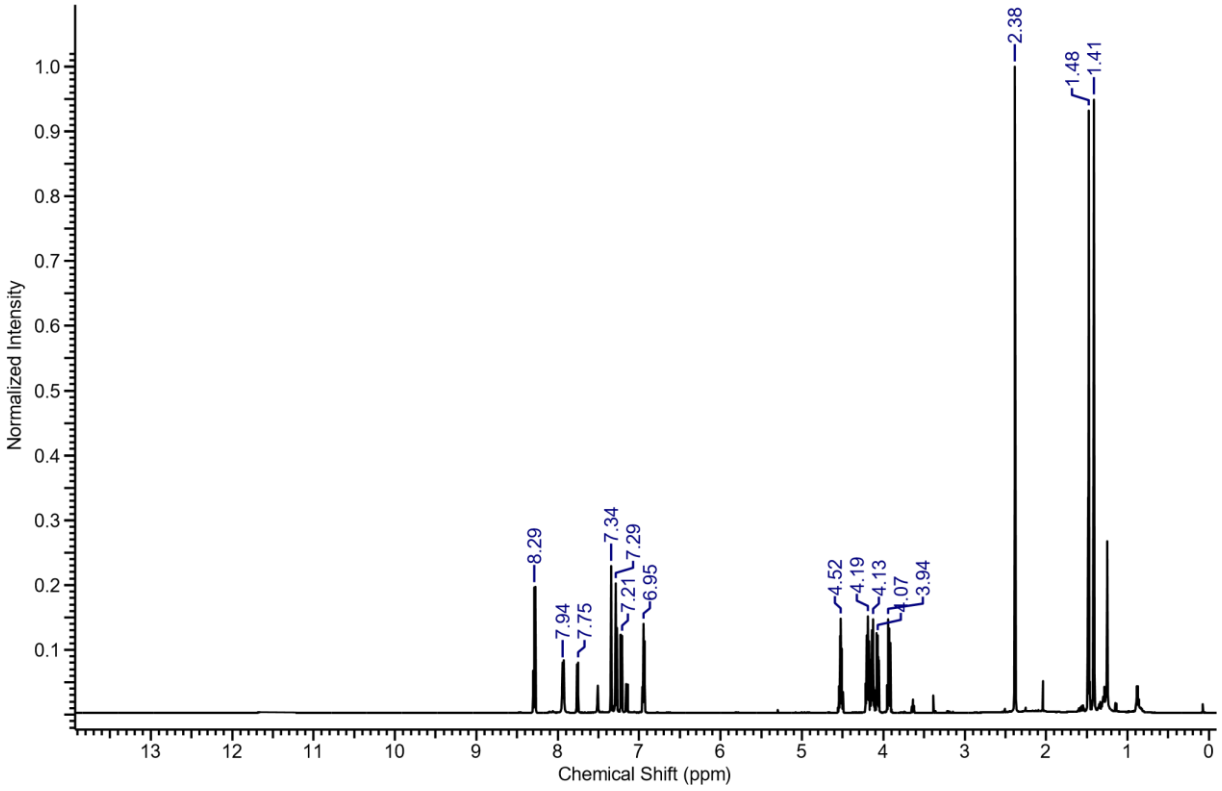


**Figure S3:** $^{1}H$ NMR spectrum of **2a** in $CDCl_3$.

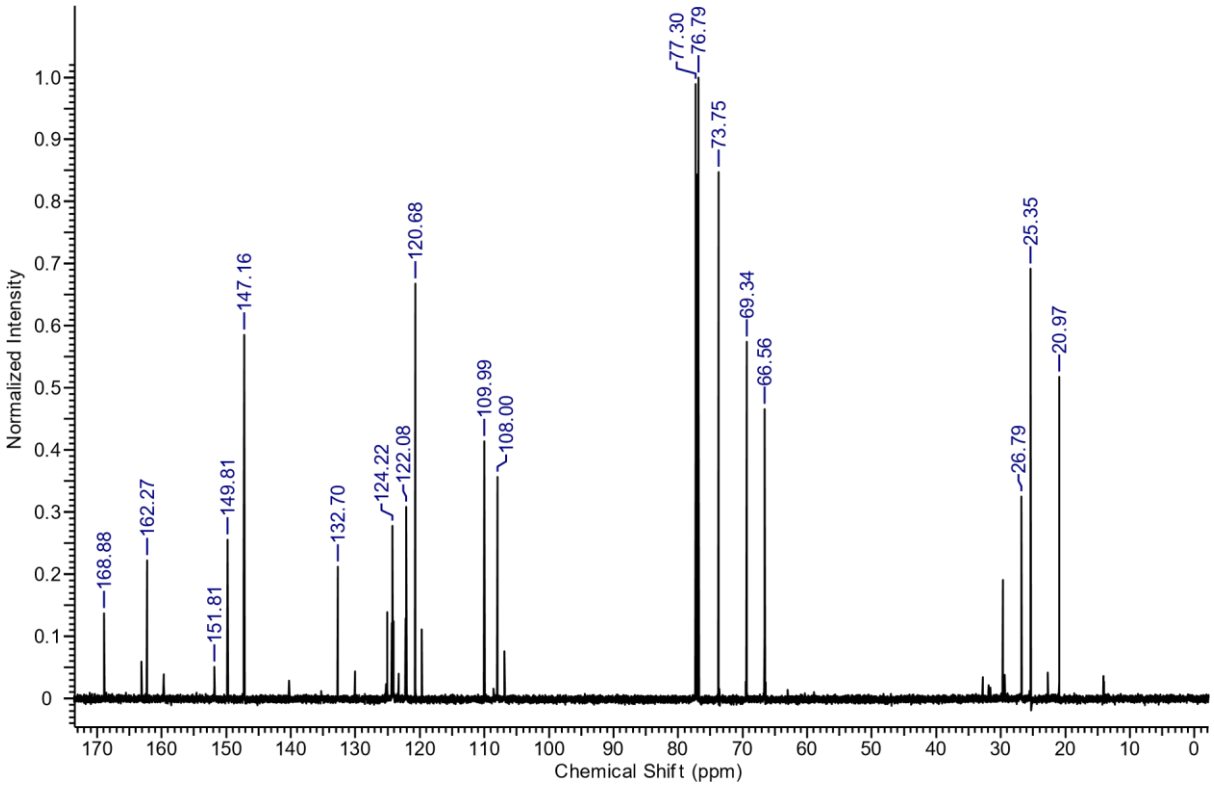


**Figure S4:** $^{13}C$ NMR spectrum of **2a** in $CDCl_3$.

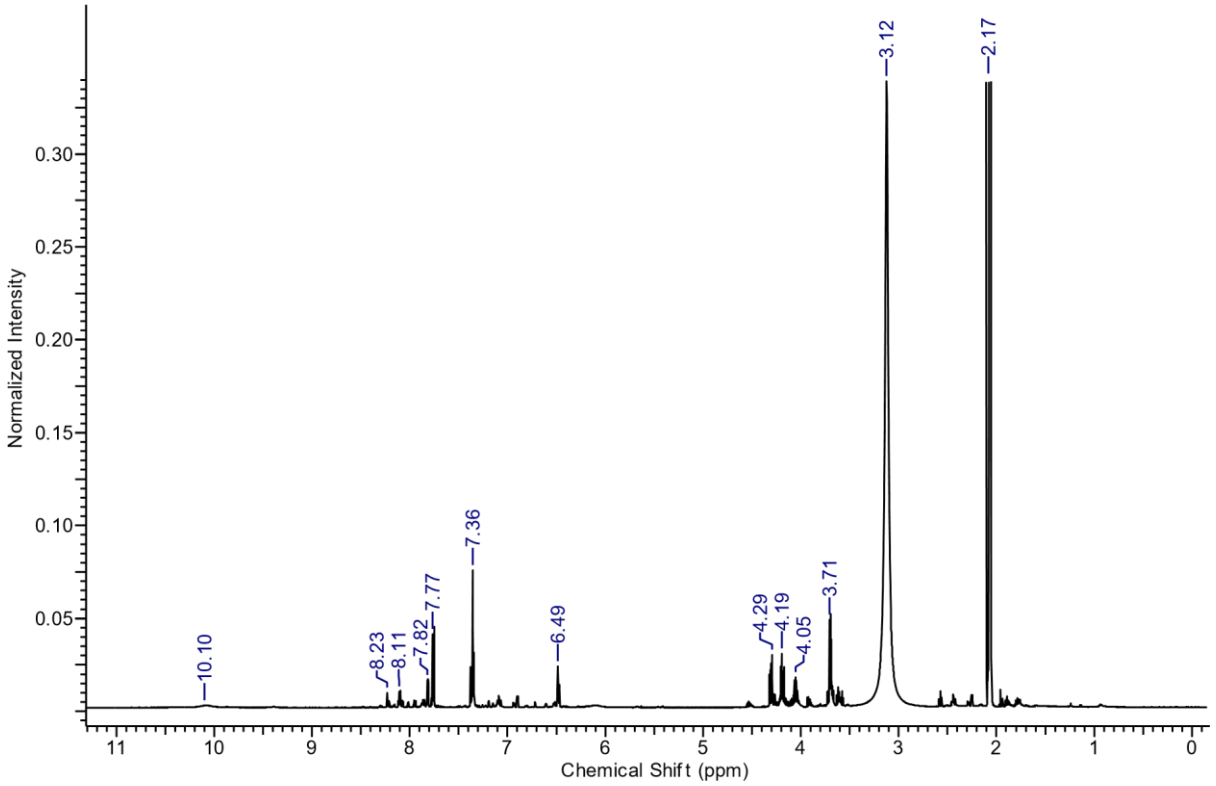


**Figure S5:** $^{1}$H NMR spectrum of **1b** in $d_6$-acetone.

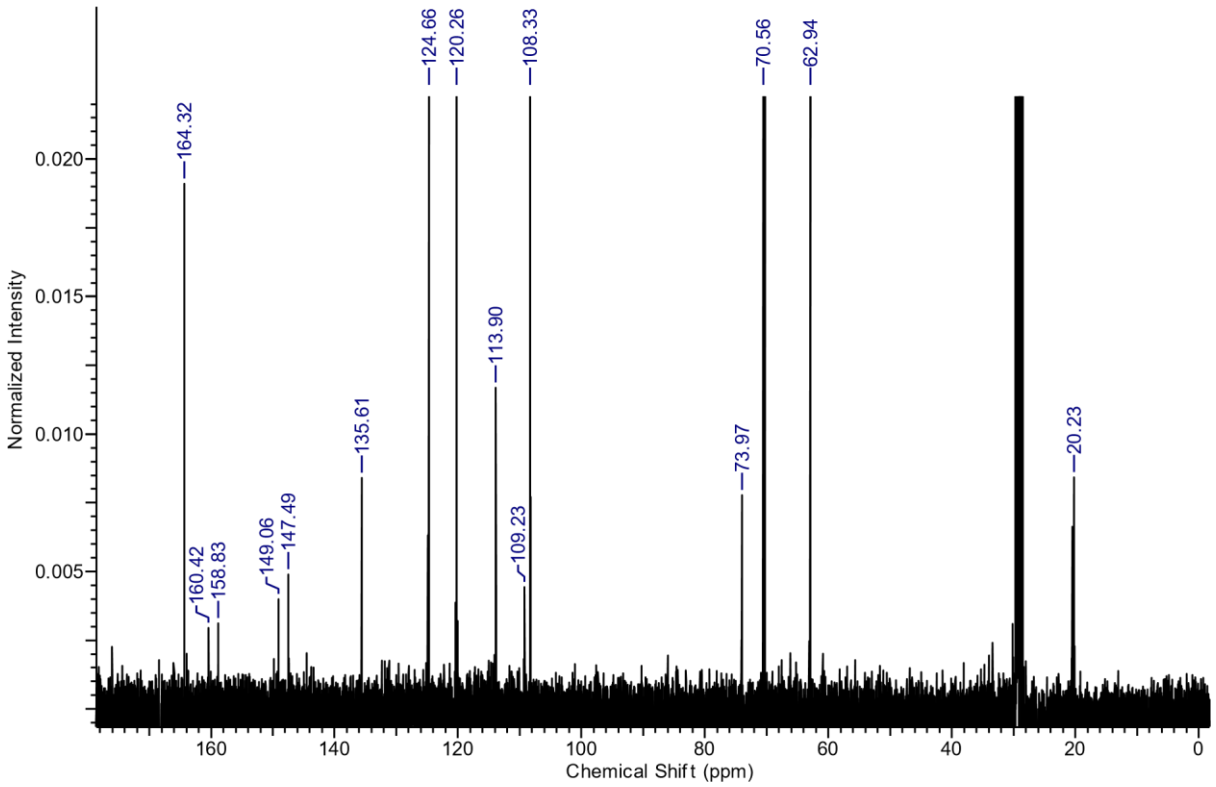


**Figure S6:** $^{13}$C NMR spectrum of **1b** in $d_6$-acetone.

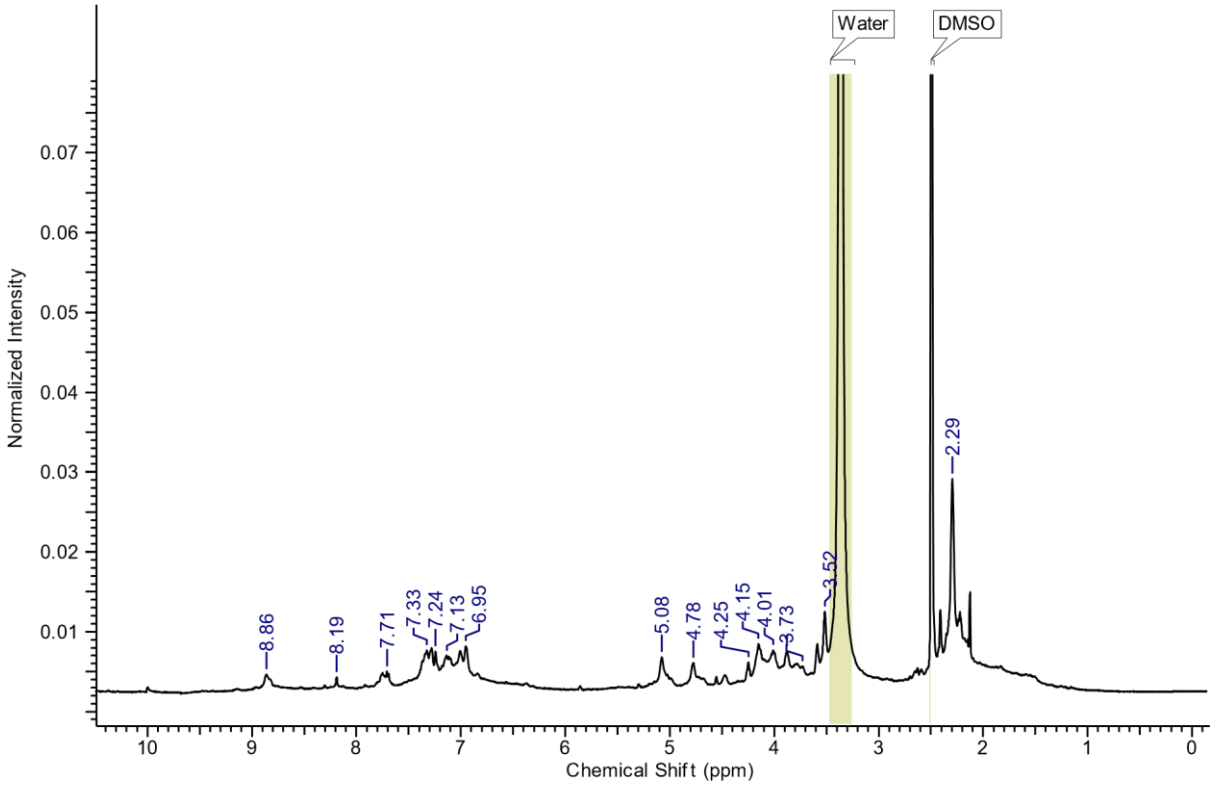


**Figure S7:** $^{1}$H NMR spectrum of **2b** in $d_6$-DMSO.

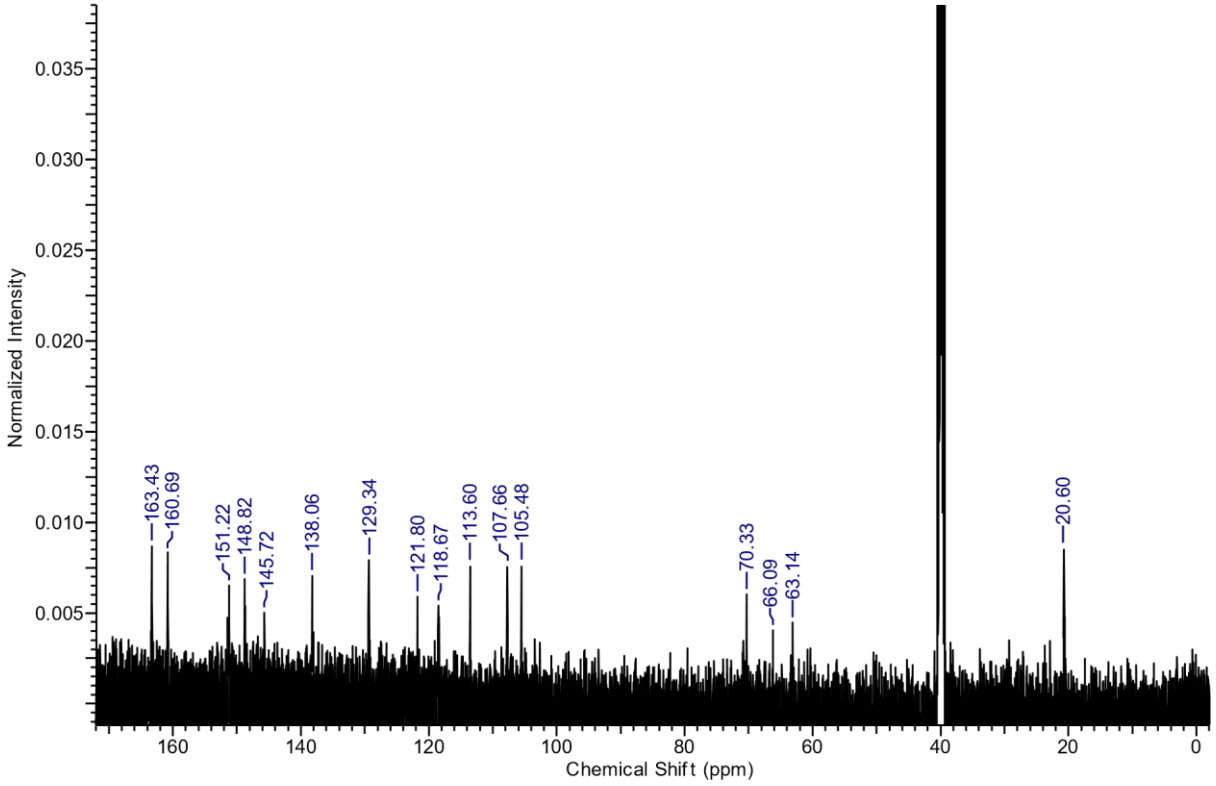


**Figure S8:** $^{13}$C NMR spectrum of **2b** in $d_6$-DMSO.

**MS spectra of BPI compounds**

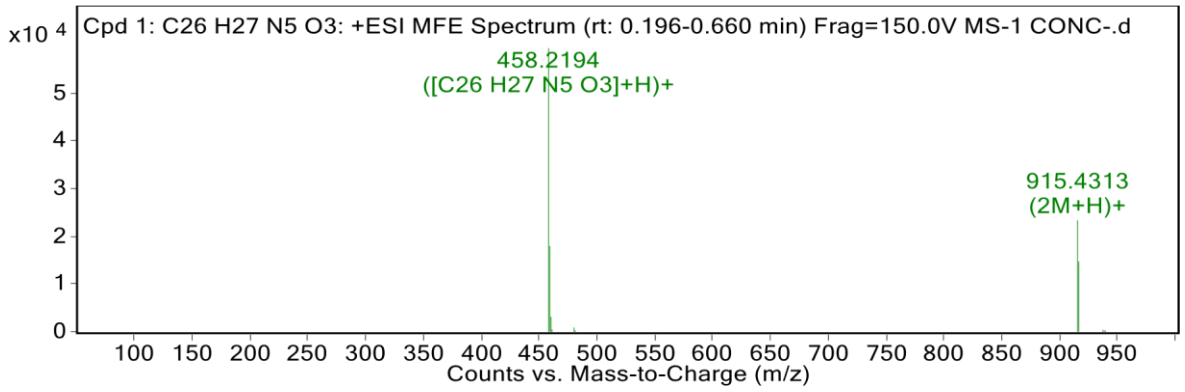


**Figure S9:** ESI MS spectrum of **1a**.

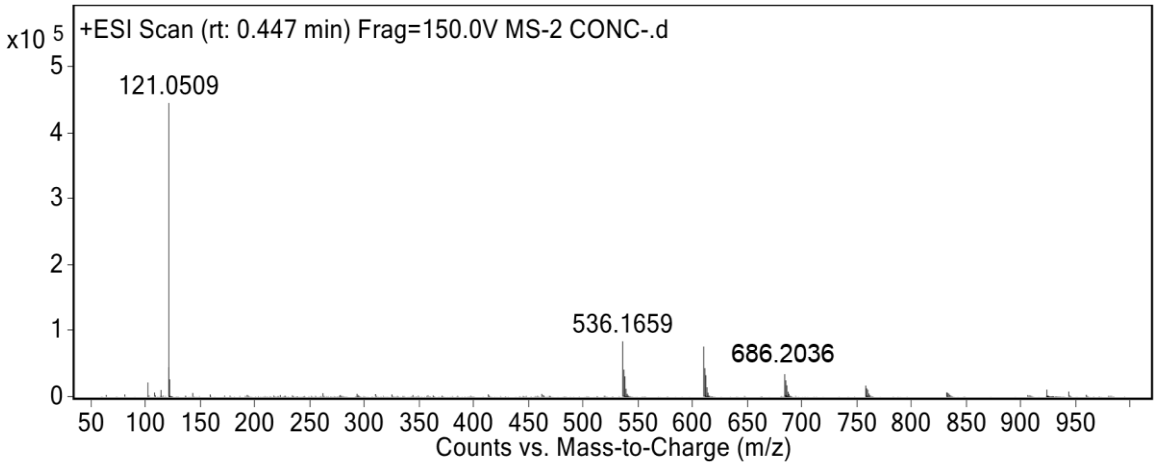


**Figure S10:** ESI MS spectrum of **2a**.

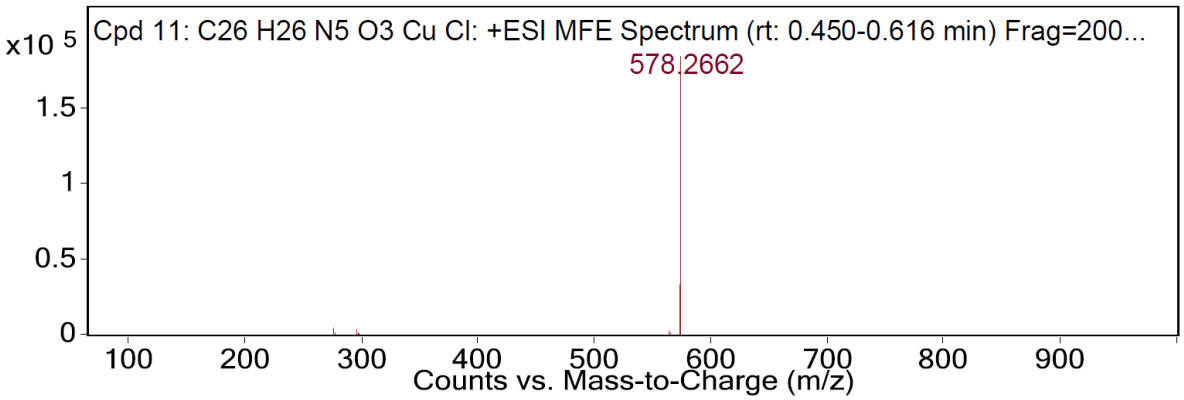


**Figure S11:** ESI MS spectrum of **3a**.

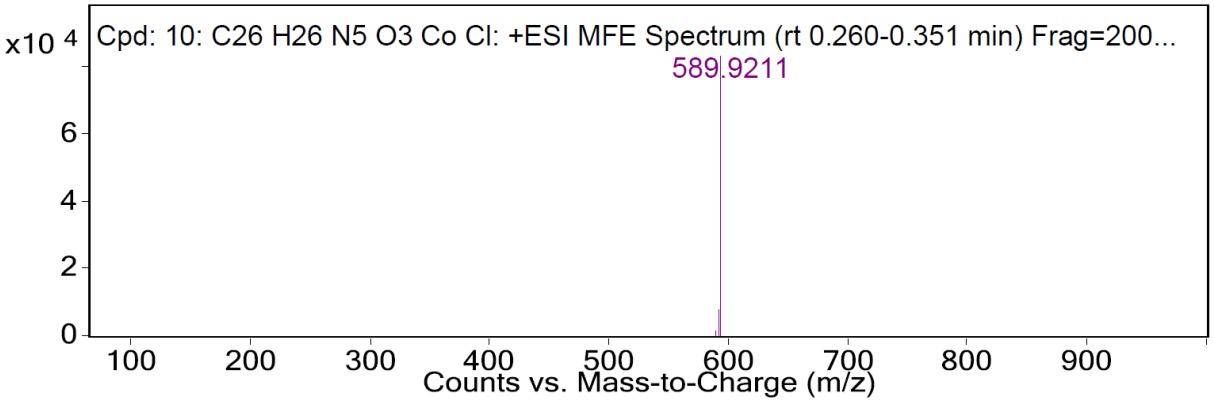


**Figure S12:** ESI MS spectrum of **4a**.

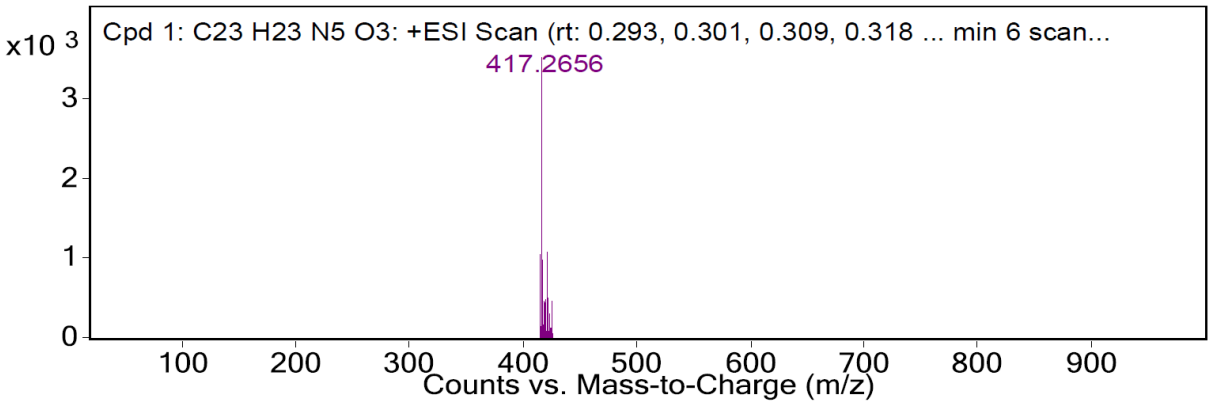


**Figure S13:** ESI MS spectrum of **1b**.

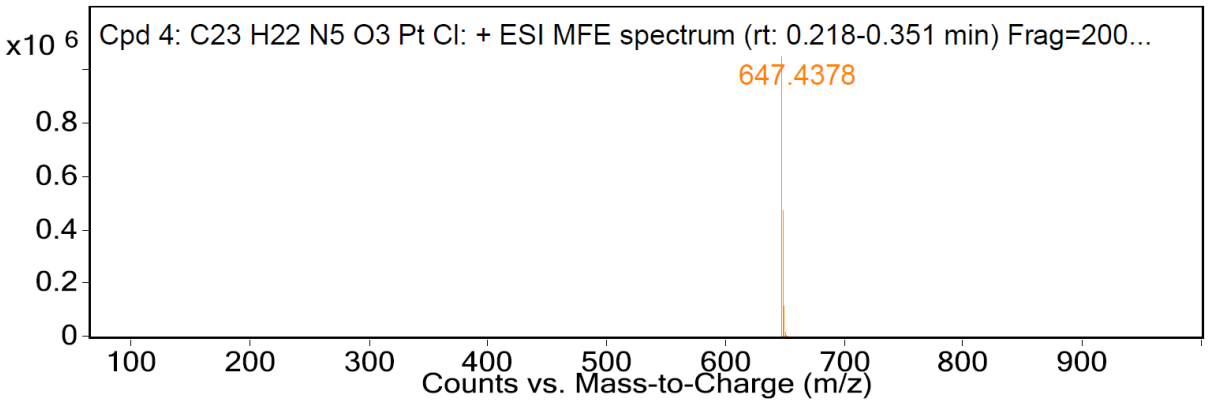


**Figure S14:** ESI MS spectrum of **2b**.

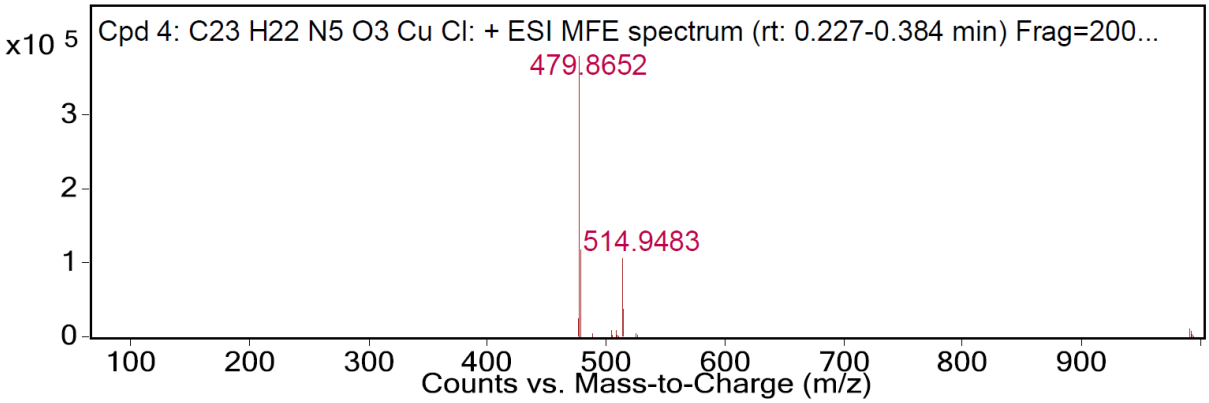


**Figure S15:** ESI MS spectrum of **3b**.

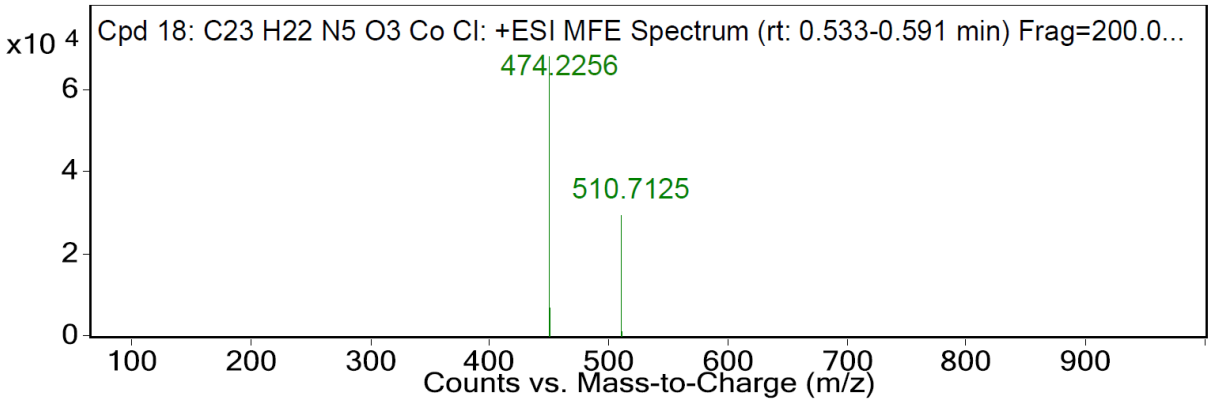


**Figure S16:** ESI MS spectrum of **4b**.

**FT IR spectra of BPI compounds**

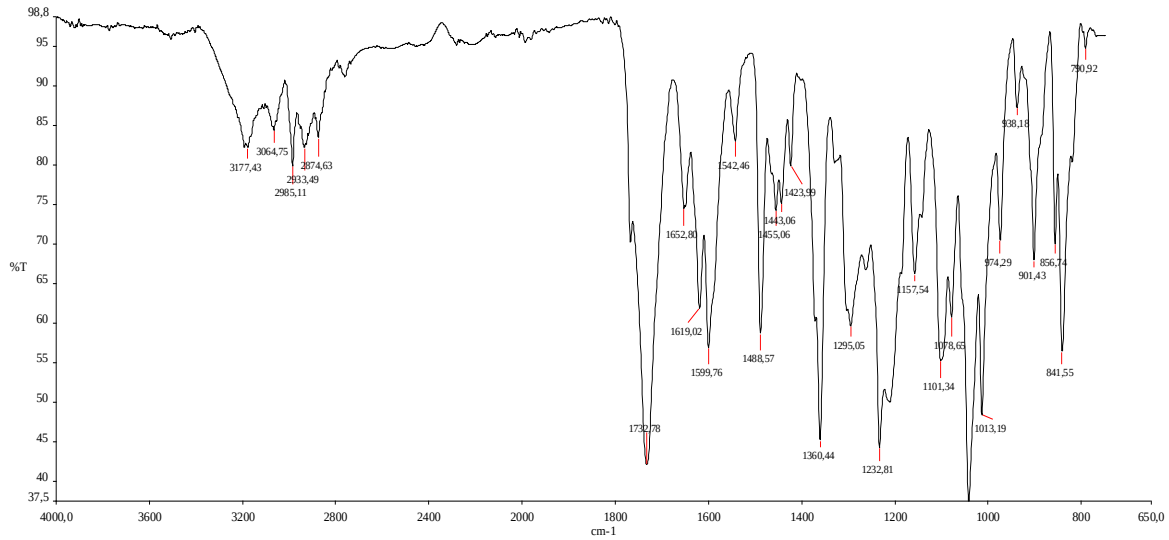


**Figure S17:** FT IR spectrum of **1a**.

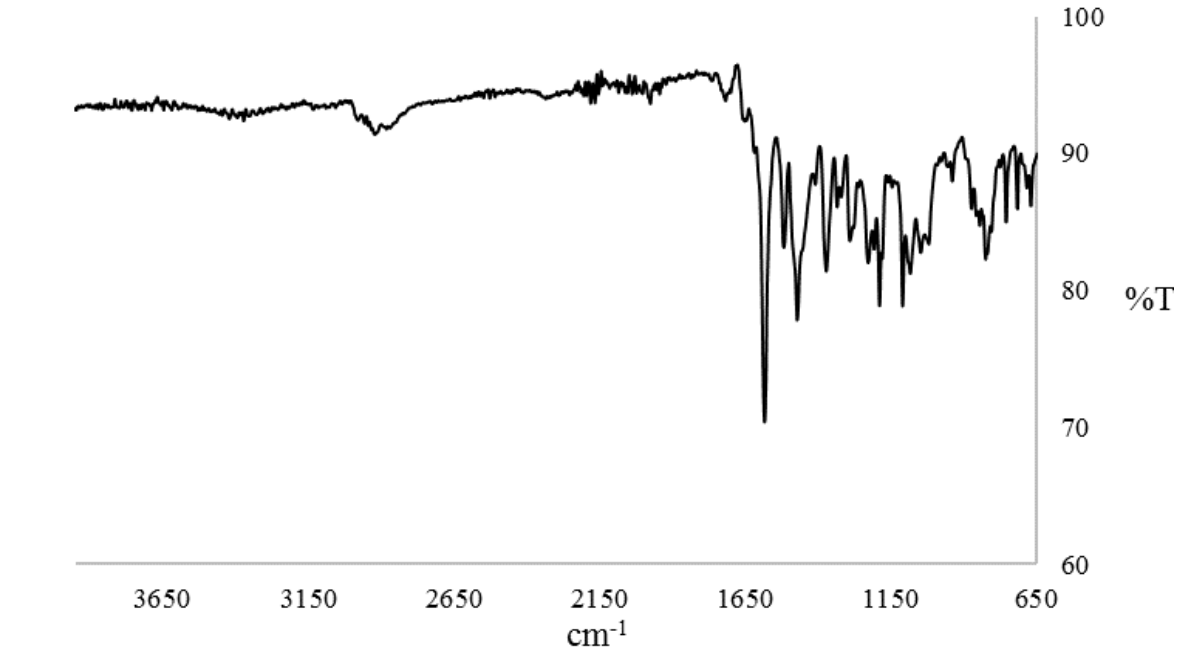


**Figure S18:** FT IR spectrum of **2a**.

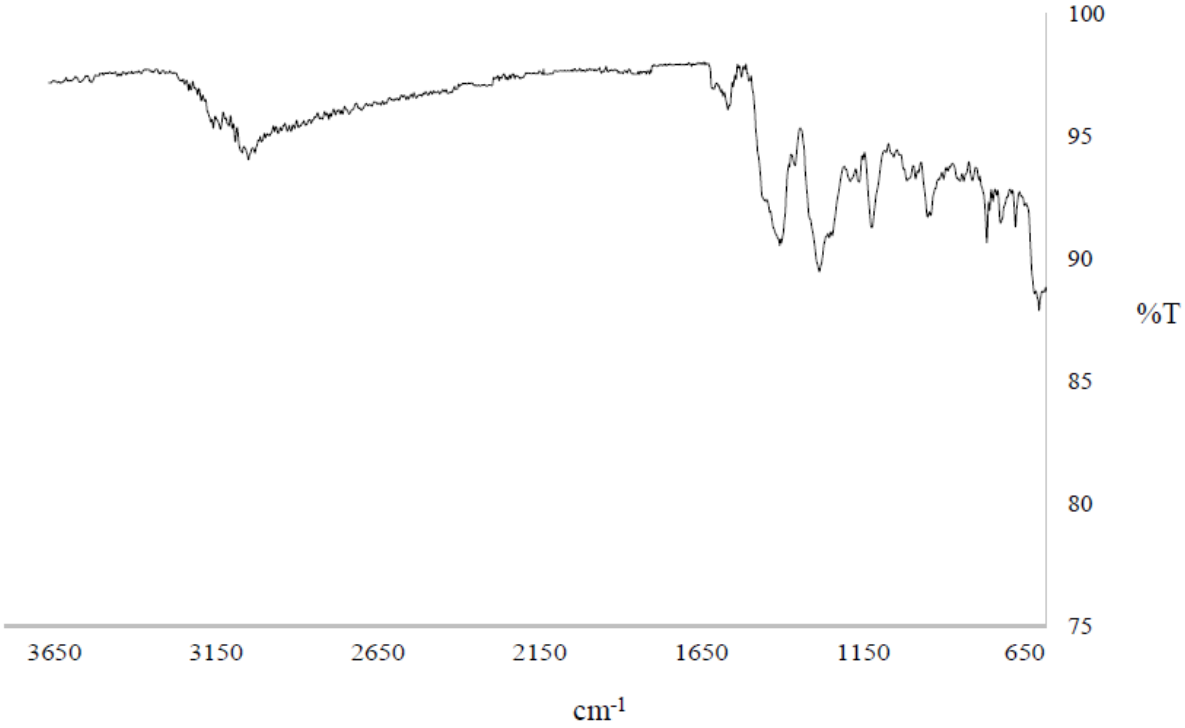


**Figure S19:** FT IR spectrum of **3a**.

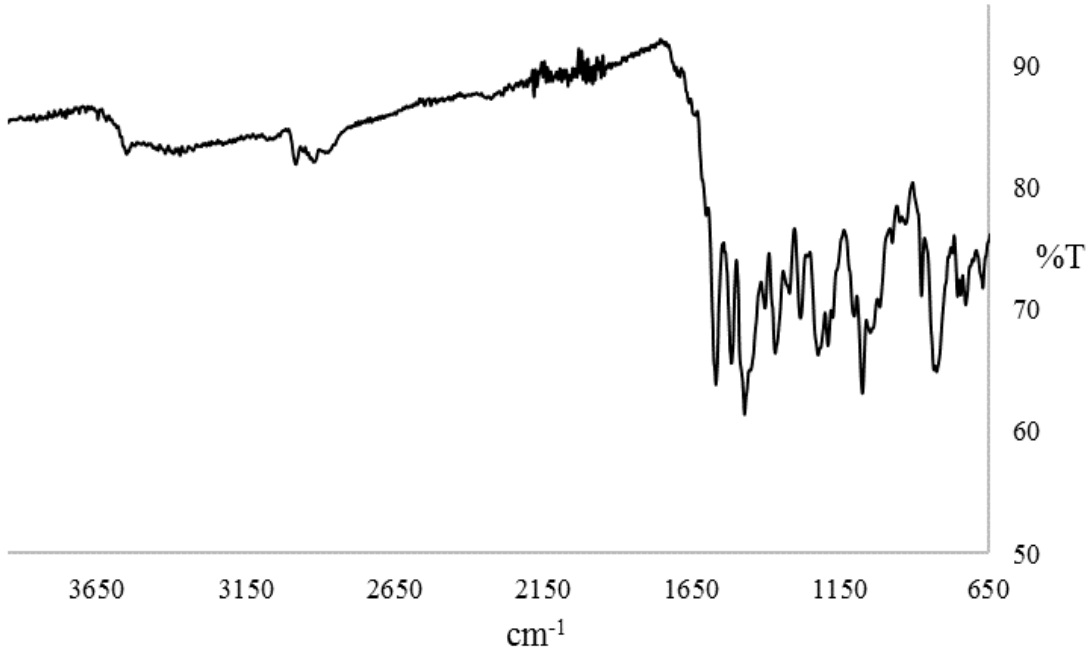


**Figure S20:** FT IR spectrum of **4a**.

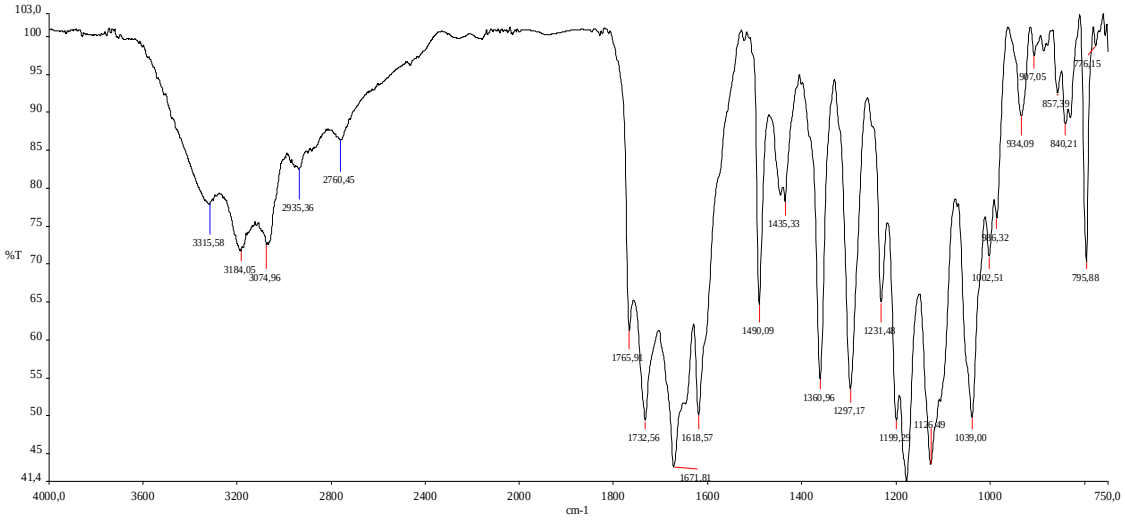


**Figure S21:** FT IR spectrum of **1b**.

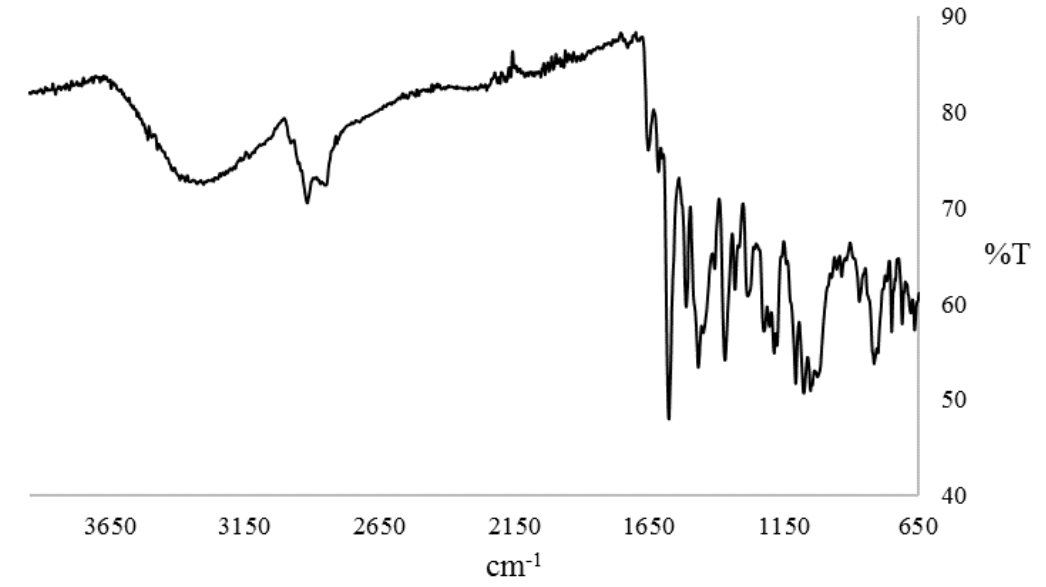


**Figure S22:** FT IR spectrum of **2b**.

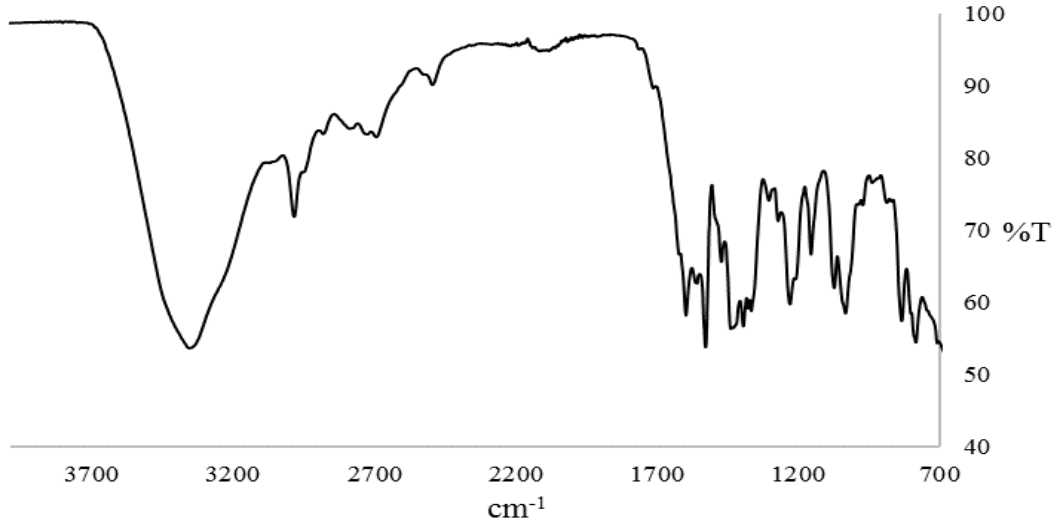


**Figure S23:** FT IR spectrum of **3b**.

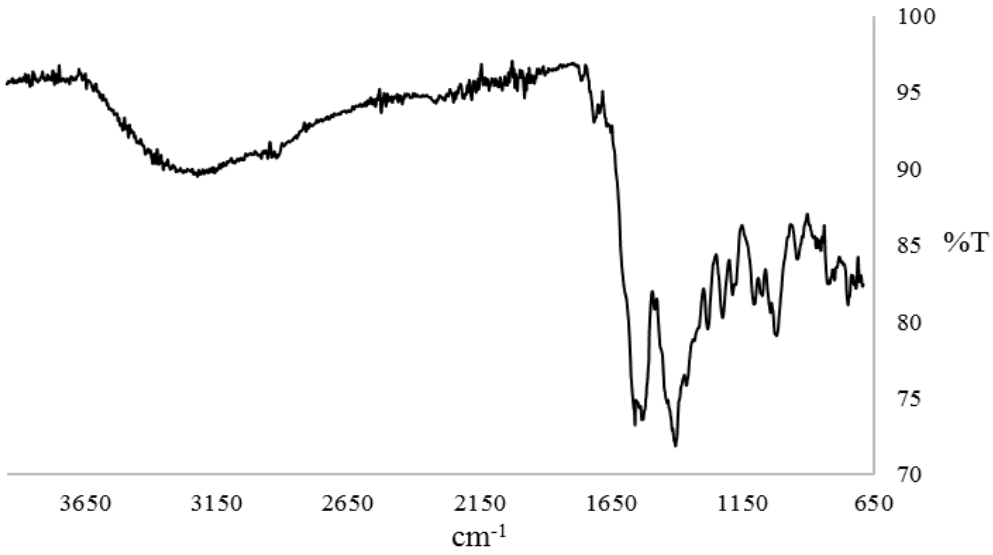


**Figure S24:** FT IR spectrum of **4b**.