SUPPORTING INFORMATION

Iodine catalyzed one-pot synthesis of highly substituted *N*-methyl pyrrole *via* [3+2] annulation and their *in vitro* evaluation as antibacterial agents

*Biguvu Balachandra[a], Sivakumar Shanmugam,[a] * Thillaichidambaram Muneeswaran[b], Muthiah Ramakritinan[b]*

[a]Department of Organic Chemistry, School of Chemistry, Madurai Kamaraj University, Madurai - 625 021, Tamil Nadu, India

[b]Department of Marine and Coastal Studies, School of Energy, Environment and Natural Resorurces, Madurai Kamaraj University, Madurai - 625 021, Tamil Nadu, India

**Email: shivazzen@mkuniversity.org*

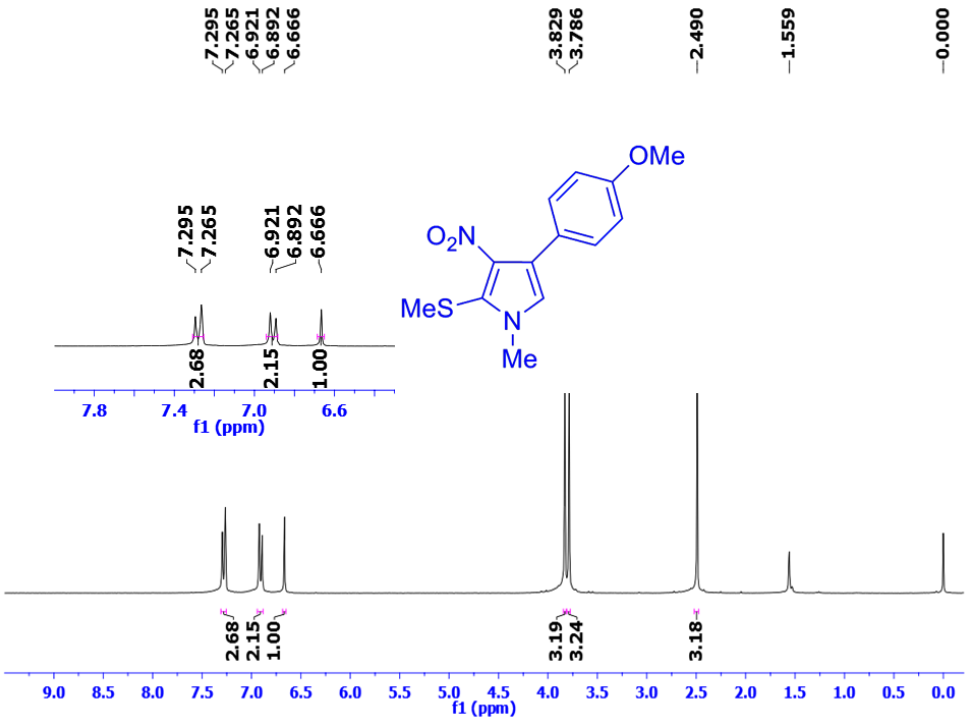
Table of contents **Page no**

I General consideration 2

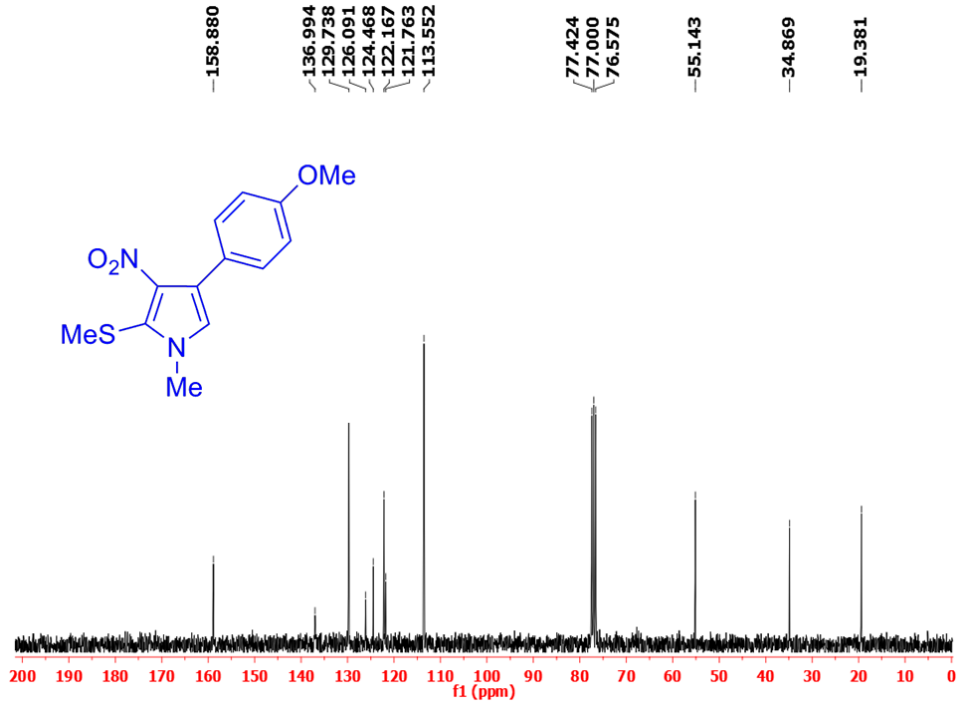
II Copies of ^{1}H&^{13}C NMR of **4** 3-22

I General Remarks

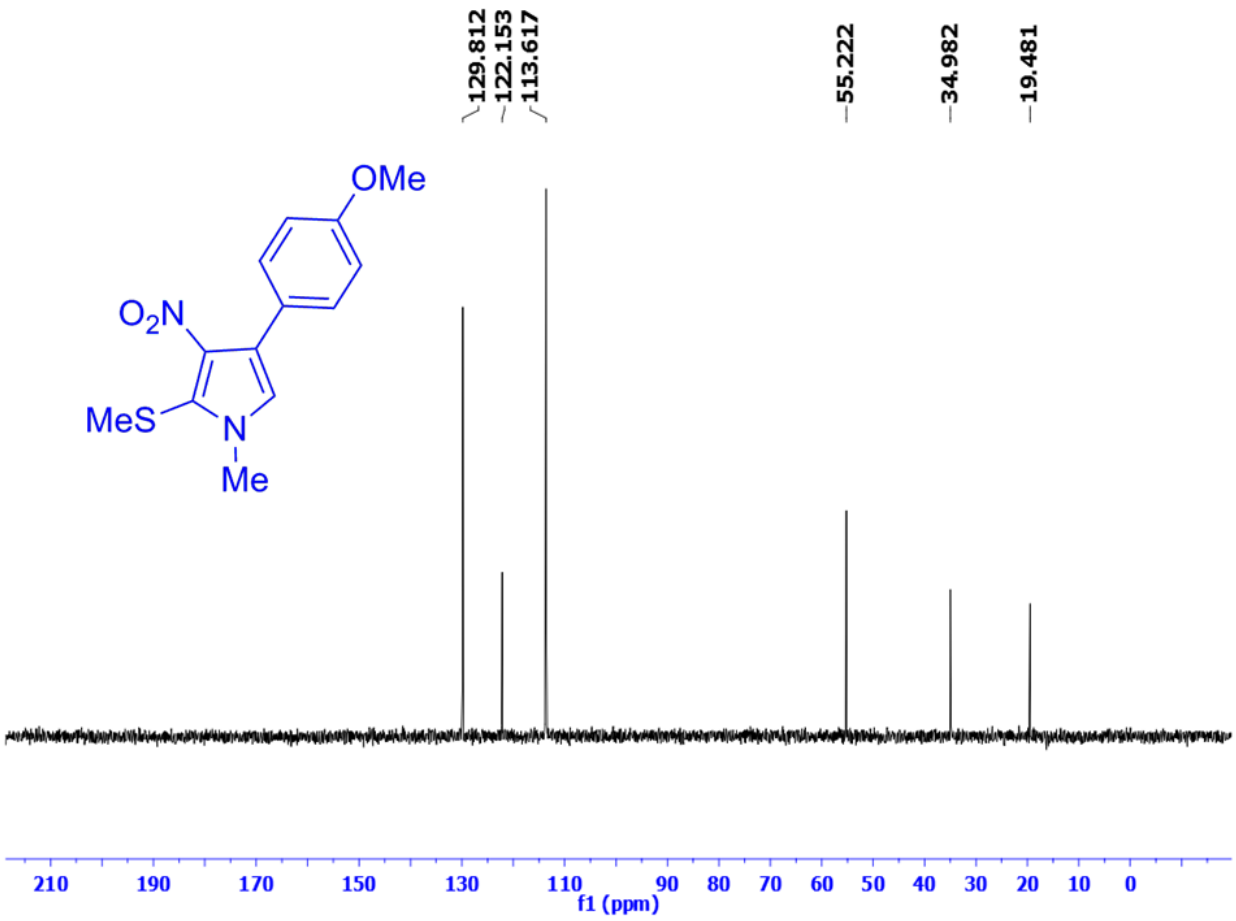
Melting points were determined in open capillary tubes and were uncorrected. IR spectra were taken on a Jasco FT-IR instrument in KBr pellets and reported in cm^{-1}. Mass spectra were performed with Agilent mass spectrometer and recorded in positive & negative mode with an ESI source. The ^{1}H and ^{13}C NMR spectra of the new compounds were measured at 300 MHz and 75MHz in $CDCl_3$ and DMSO-d_6 with TMS as the internal standard. Chemical shifts are expressed in ppm, coupling constant (*J* values) are given in Hertz (Hz) and spin multiplicities are indicated by the following symbols: s (singlet), d (doublet), t (triplet), q (quartet), m (multiplet), dd (doublet of doublets), td (triplet of doublets). Elemental analyses were carried out with Perkin Elmer 2400 Series II analyzer. Silica gel-G plates (Merck) were used for TLC analysis with a mixture of petroleum ether (60-80 ºC) and ethyl acetate as eluent. All chemicals were purchased and used without further purification.



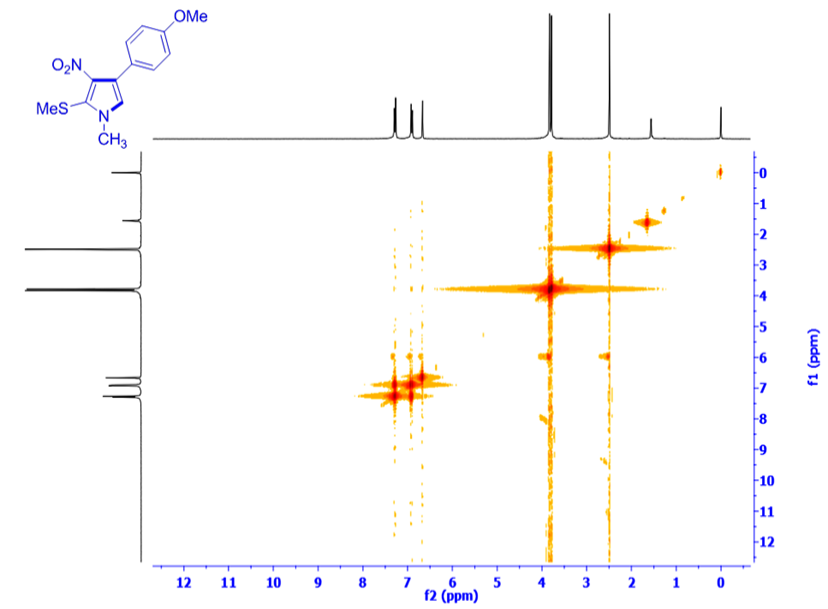
(300MHz, $CDCl_3$) ^1H NMR spectrum of **4a**



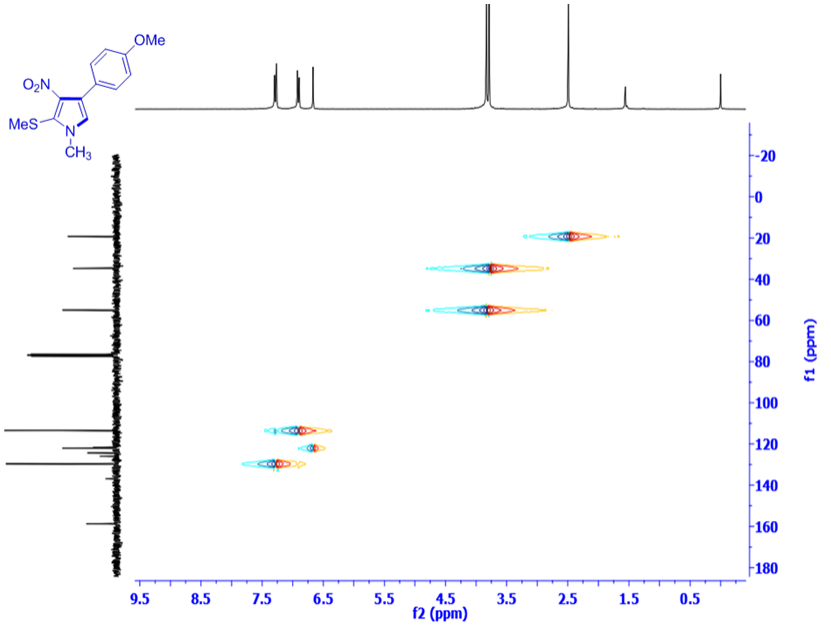
(75MHZ, $CDCl_3$) ^{13}C NMR spectrum of **4a**



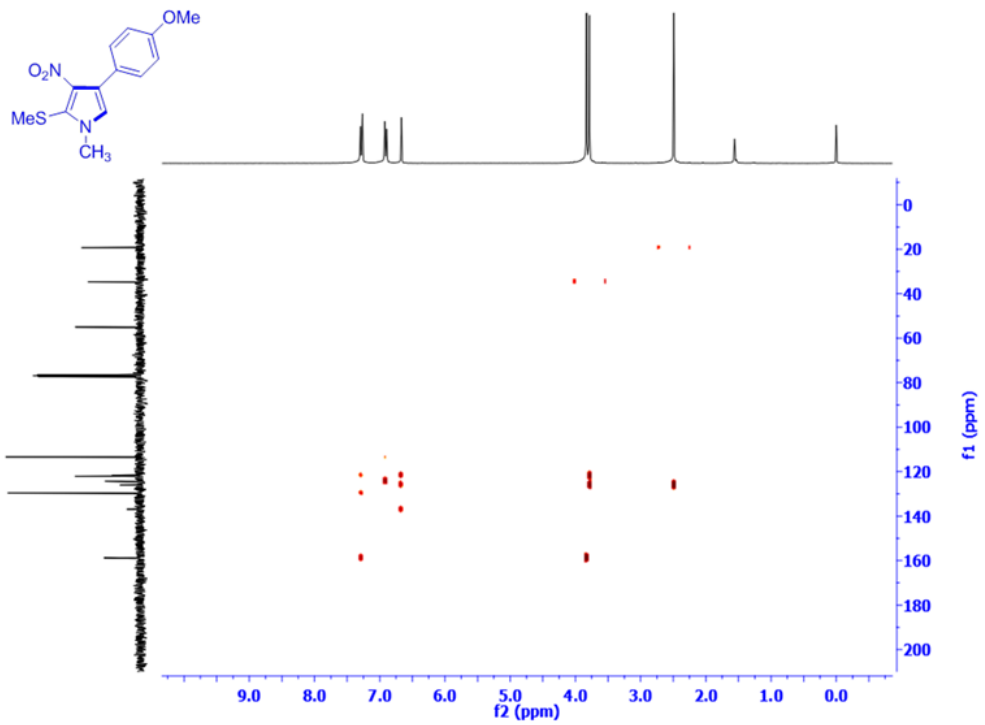
(75MHZ, $CDCl_3$) DEPT-135 **4a**



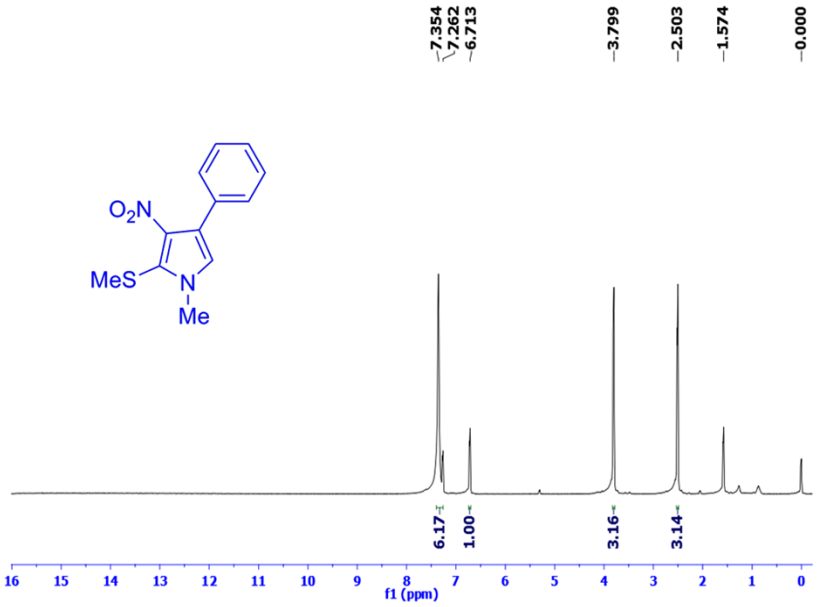
H, H- COSY Spectrum of **4a**



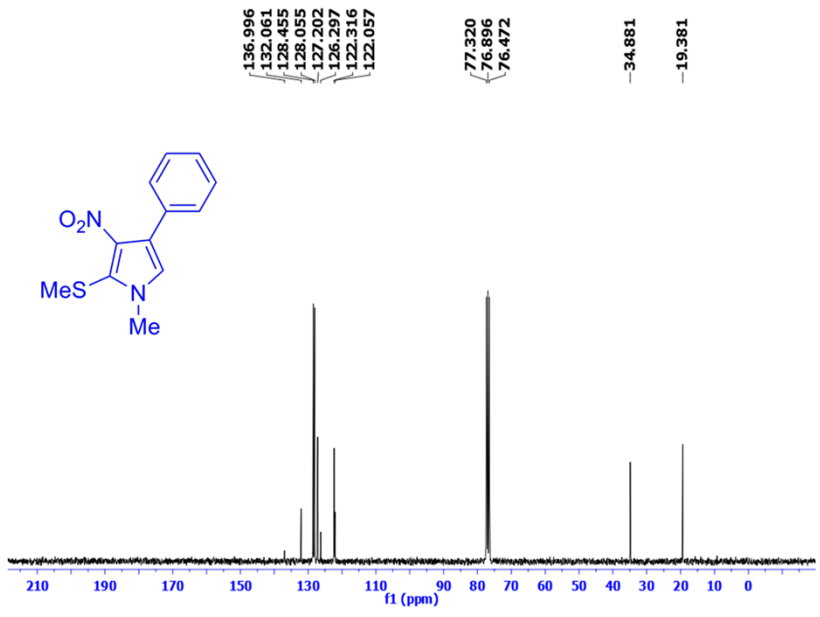
C, H- COSY Spectrum of **4a**



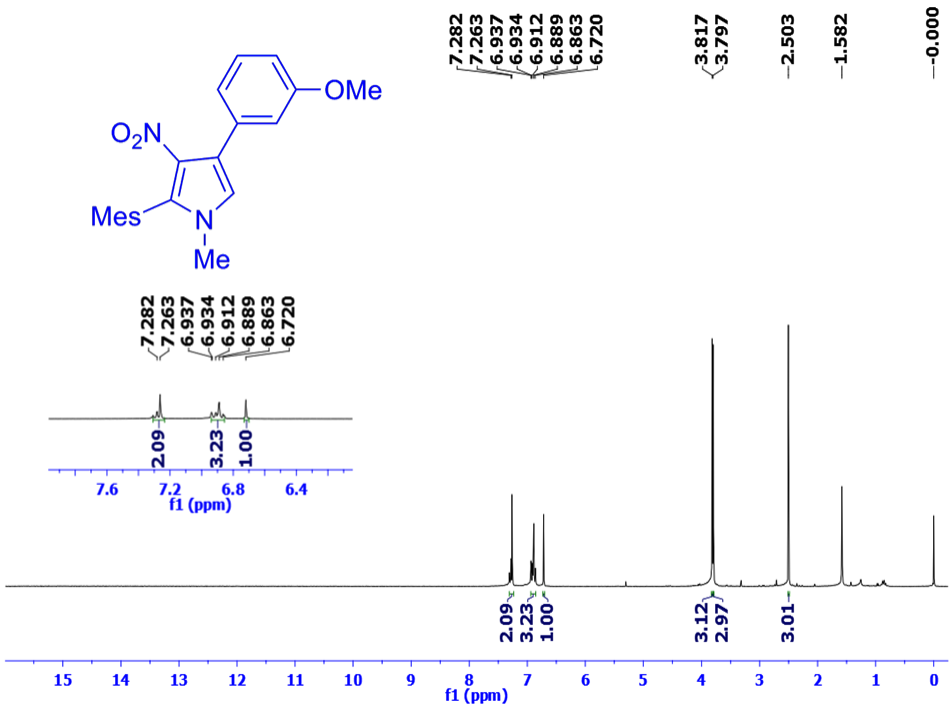
HMBC Spectrum of **4a**



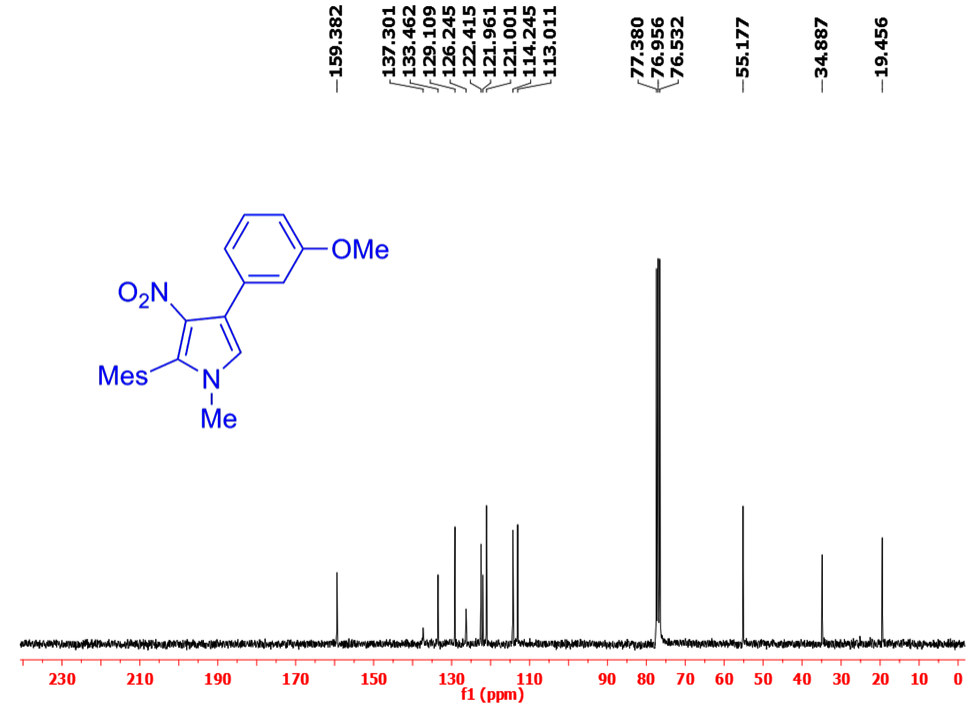
(300MHz, $CDCl_3$) ^1H NMR spectrum of **4b**



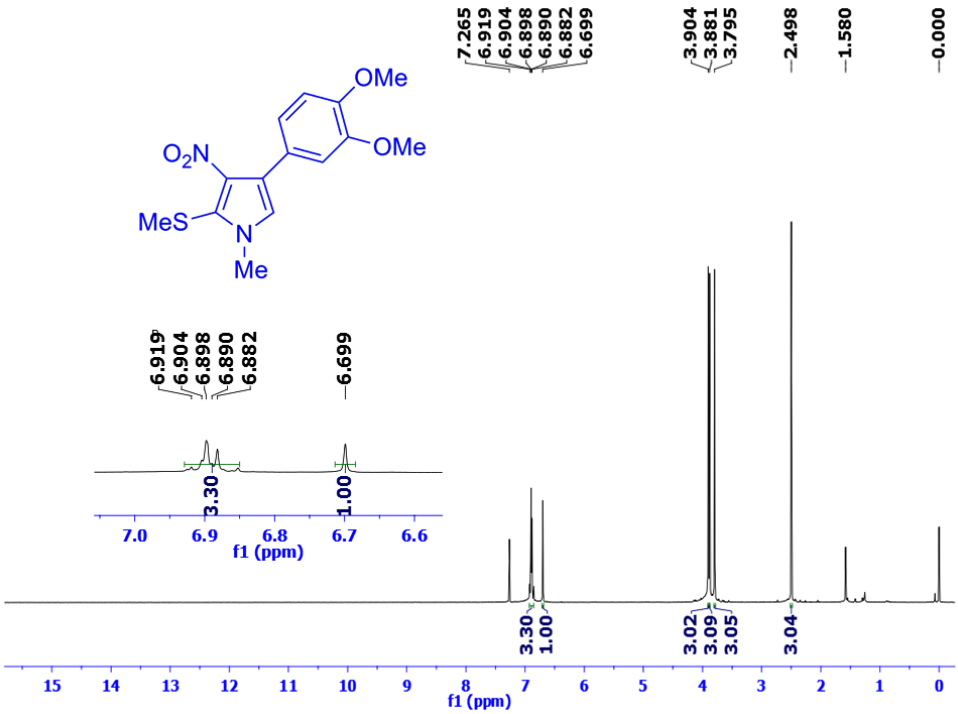
(75MHZ, $CDCl_3$) ^{13}C NMR spectrum of **4b**



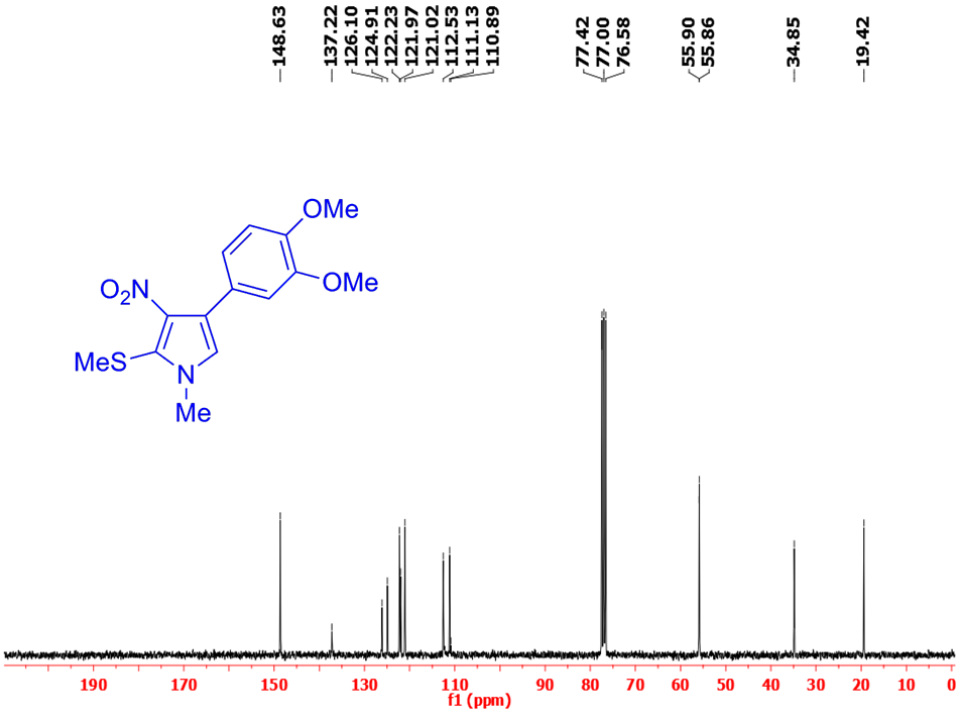
(300MHz, $CDCl_3$) ^1H NMR spectrum of **4c**



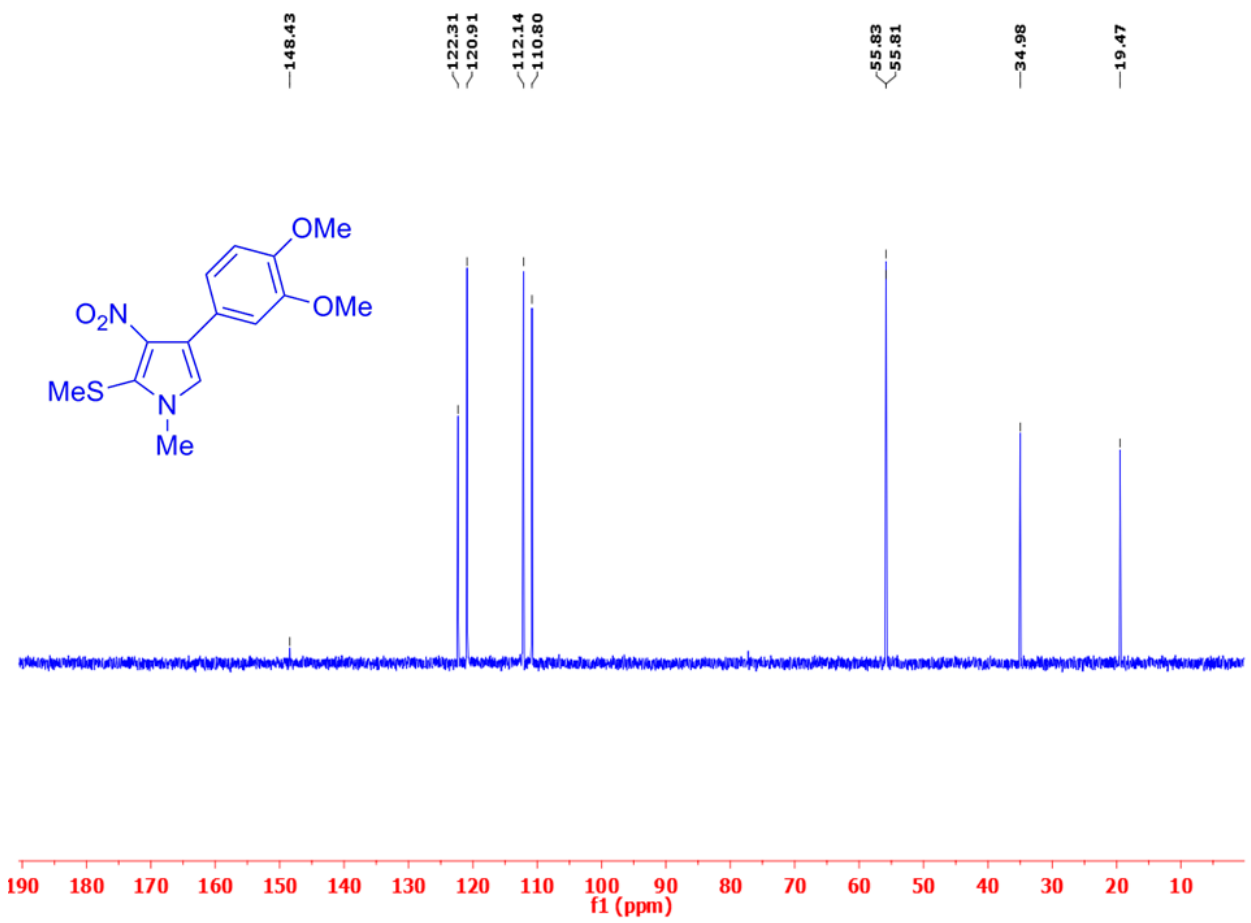
(75MHZ, $CDCl_3$) ^{13}C NMR spectrum of **4c**



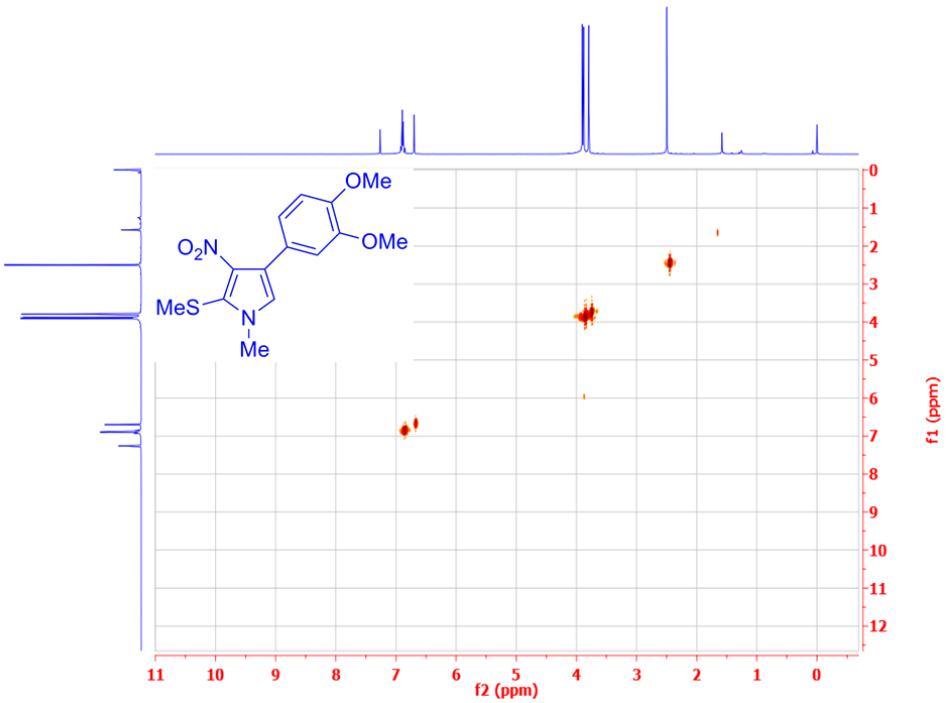
(300MHz, $CDCl_3$) ^1H NMR spectrum of **4d**



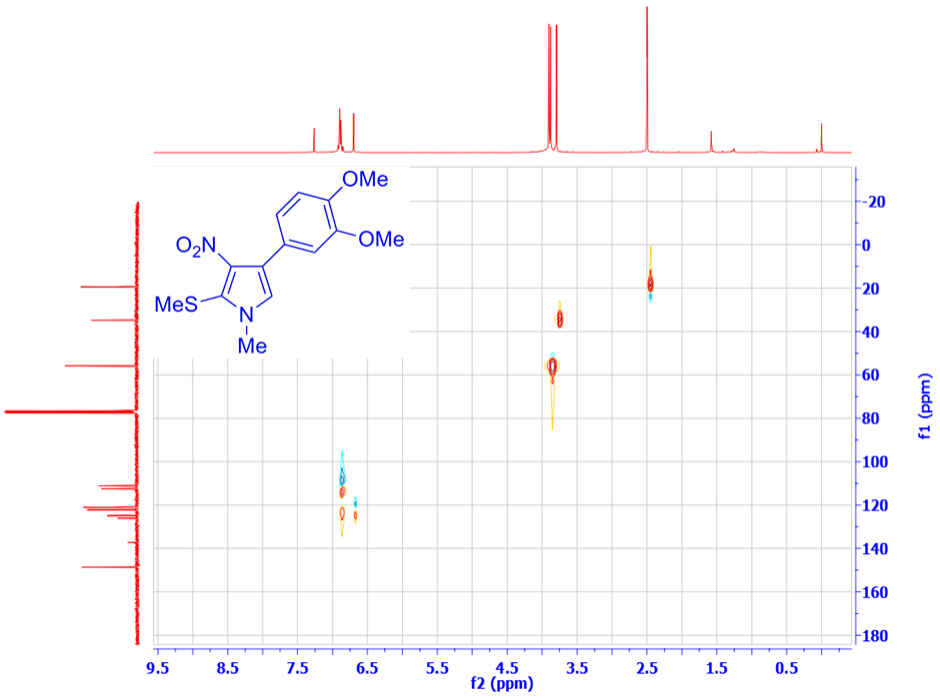
(75MHZ, $CDCl_3$) ^{13}C NMR spectrum of **4d**



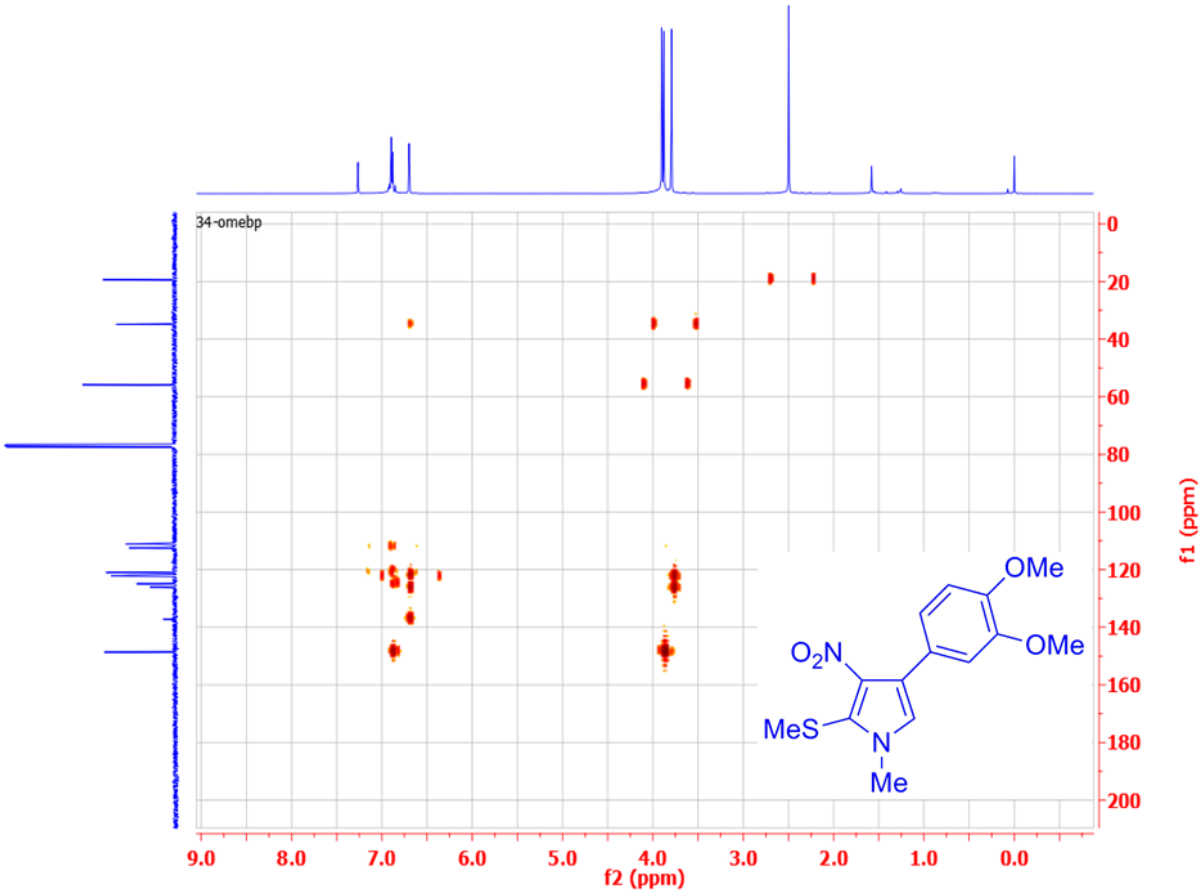
(75MHZ, $CDCl_3$) DEPT-135 **4d**



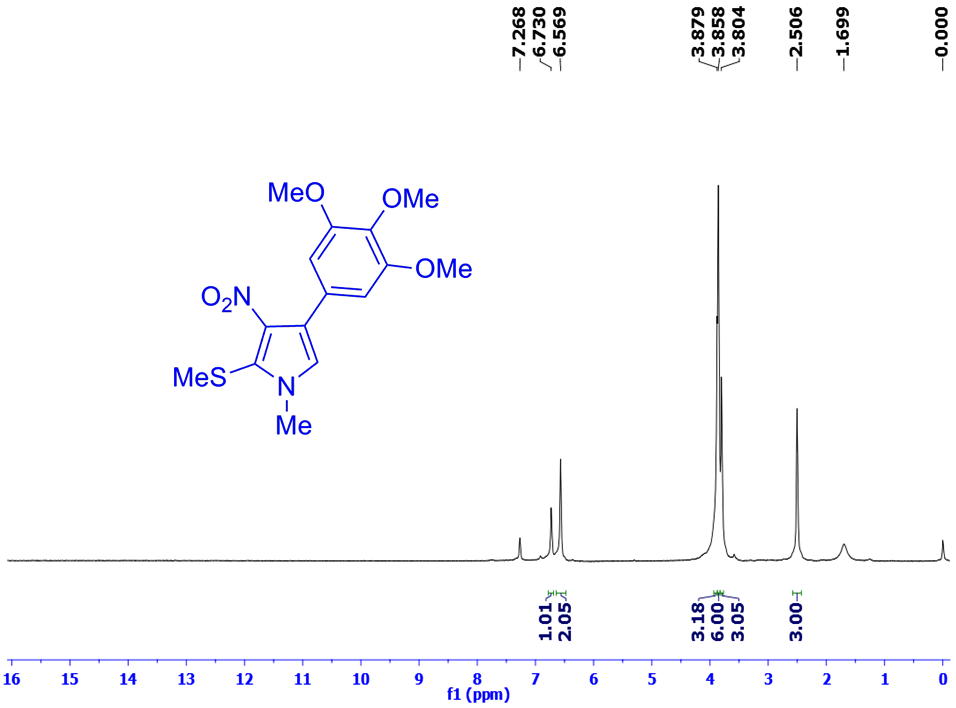
H, H- COSY Spectrum of **4d**



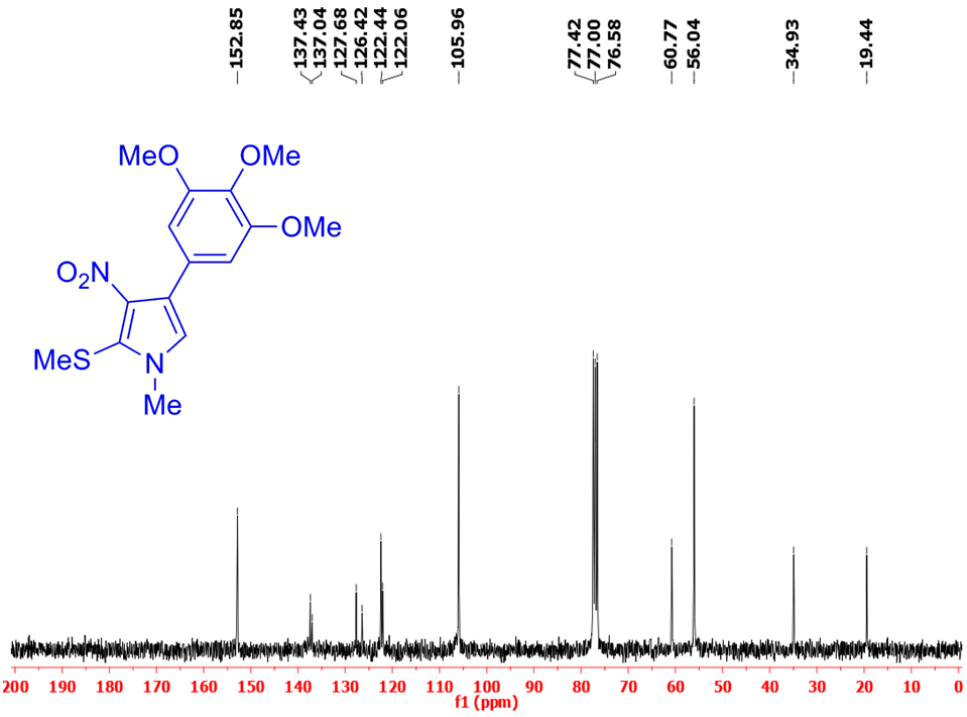
C, H- COSY Spectrum of **4d**



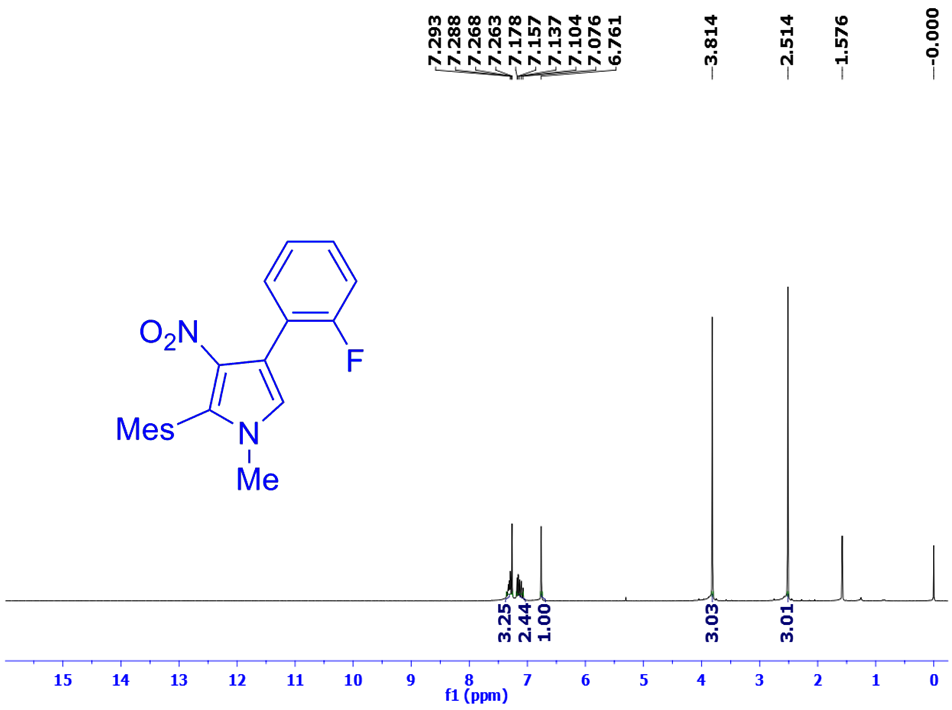
HMBC Spectrum of **4d**



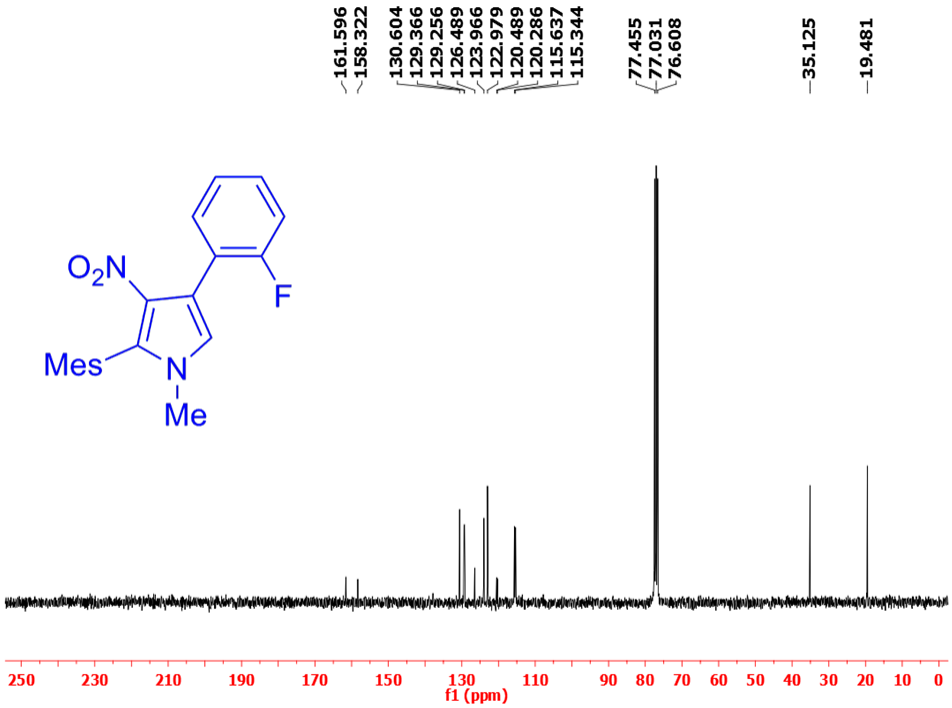
(300MHz, $CDCl_3$) ^1H NMR spectrum of **4e**



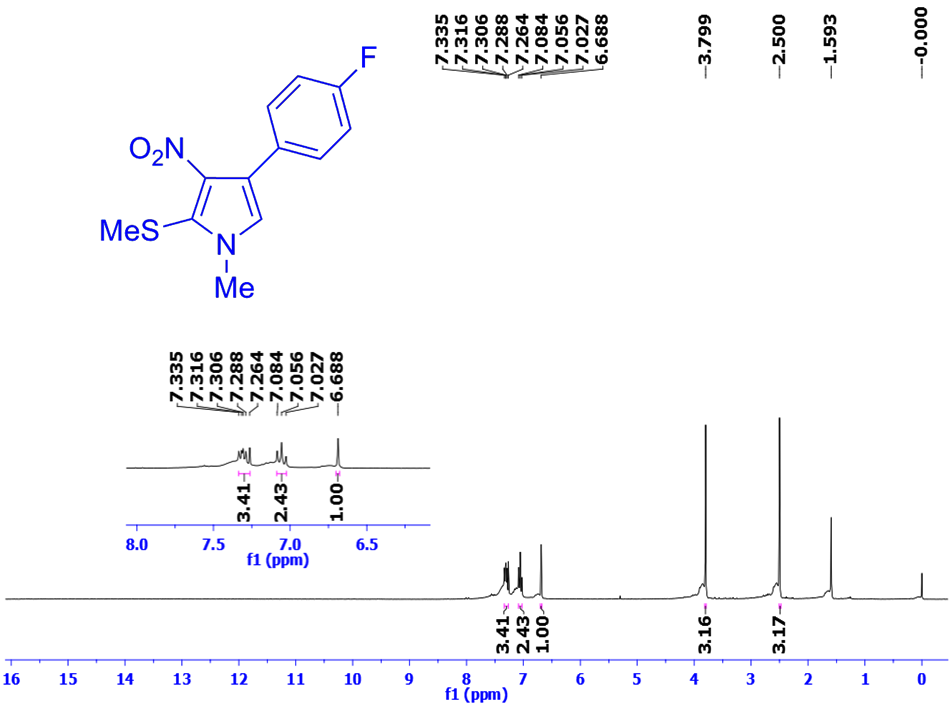
(75MHZ, $CDCl_3$) ^{13}C NMR spectrum of **4e**



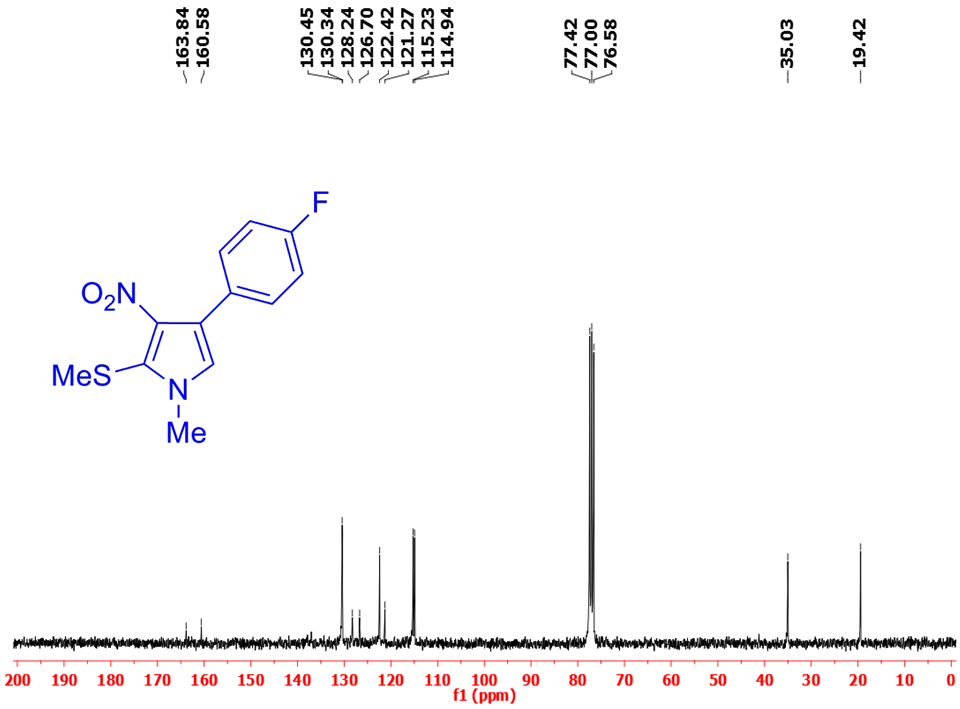
(300MHz, $CDCl_3$) ^1H NMR spectrum of **4f**



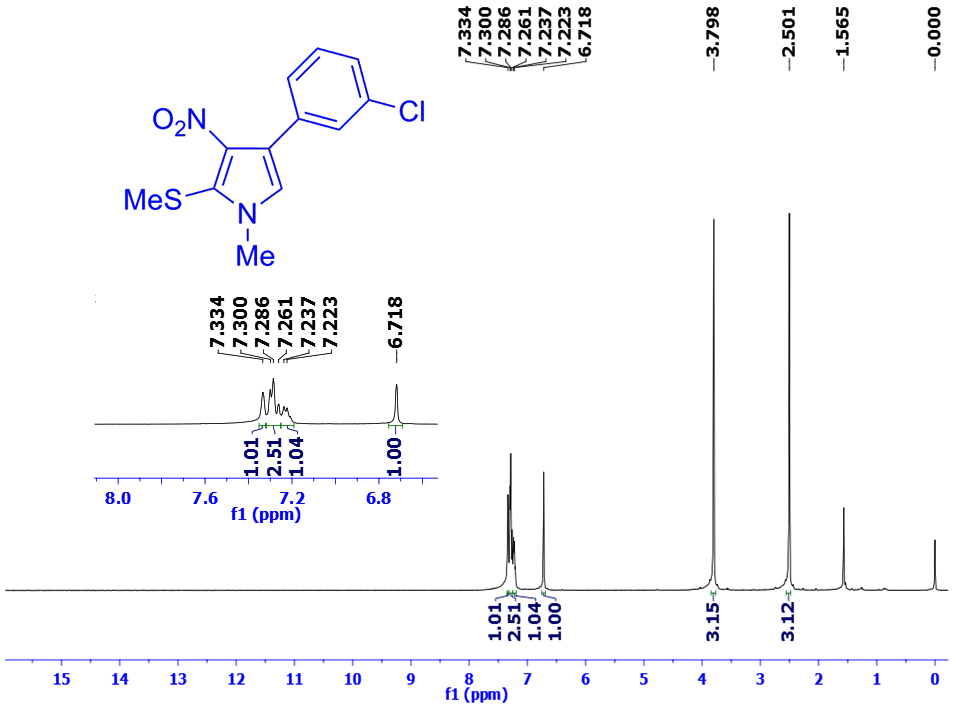
(75MHZ, $CDCl_3$) ^{13}C NMR spectrum of **4f**



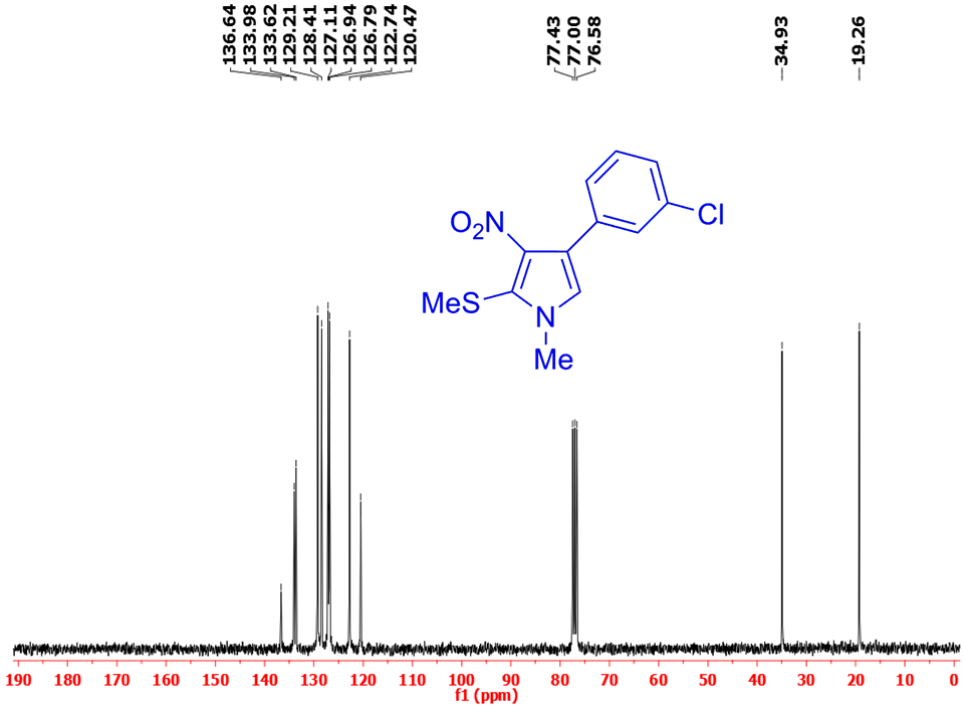
(300MHz, $CDCl_3$) ^1H NMR spectrum of **4g**



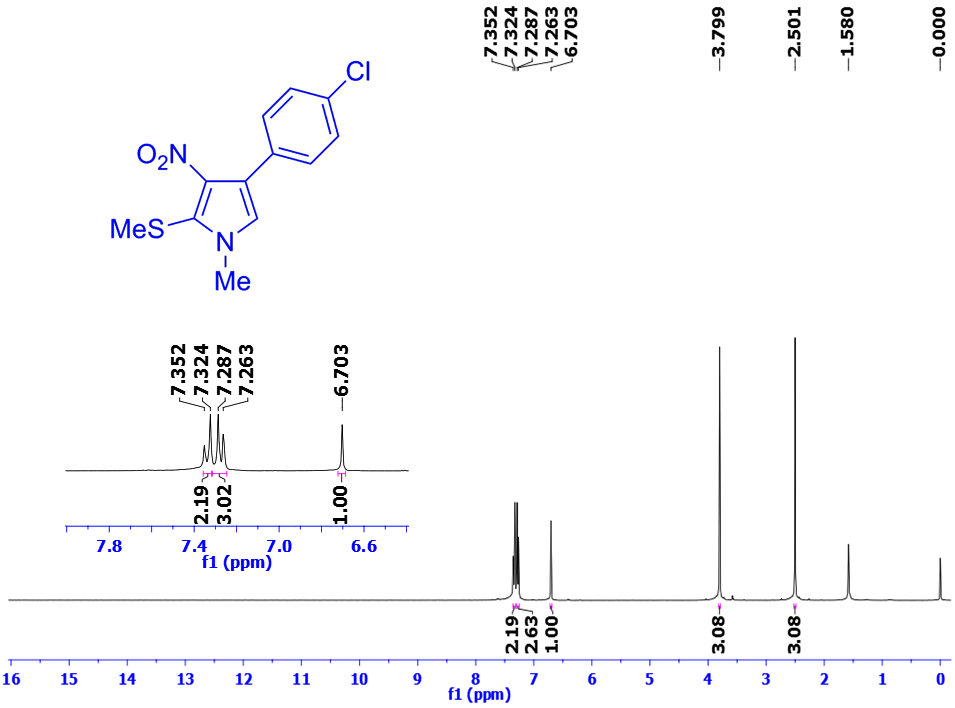
(75MHZ, $CDCl_3$) ^{13}C NMR spectrum of **4g**



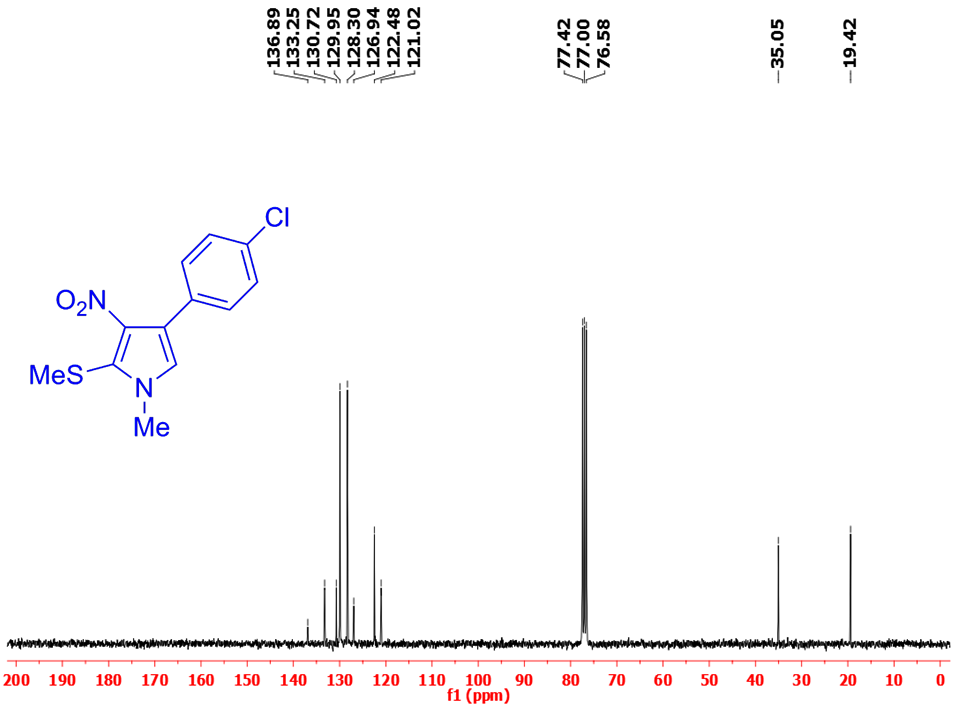
(300MHz, $CDCl_3$) ^1H NMR spectrum of **4h**



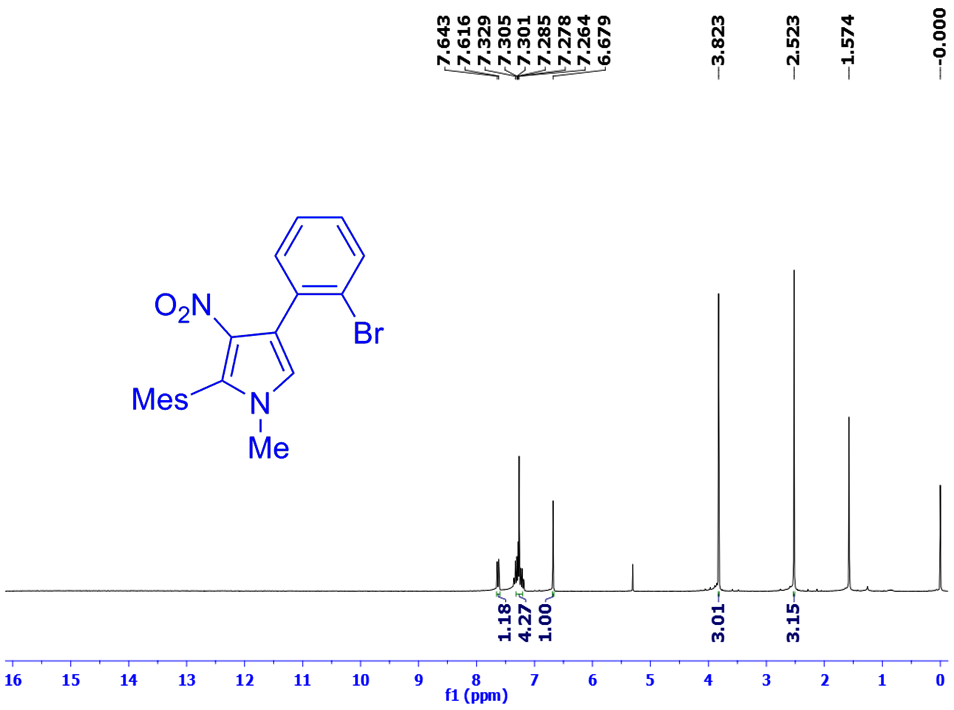
(75MHZ, $CDCl_3$) ^{13}C NMR spectrum of **4h**



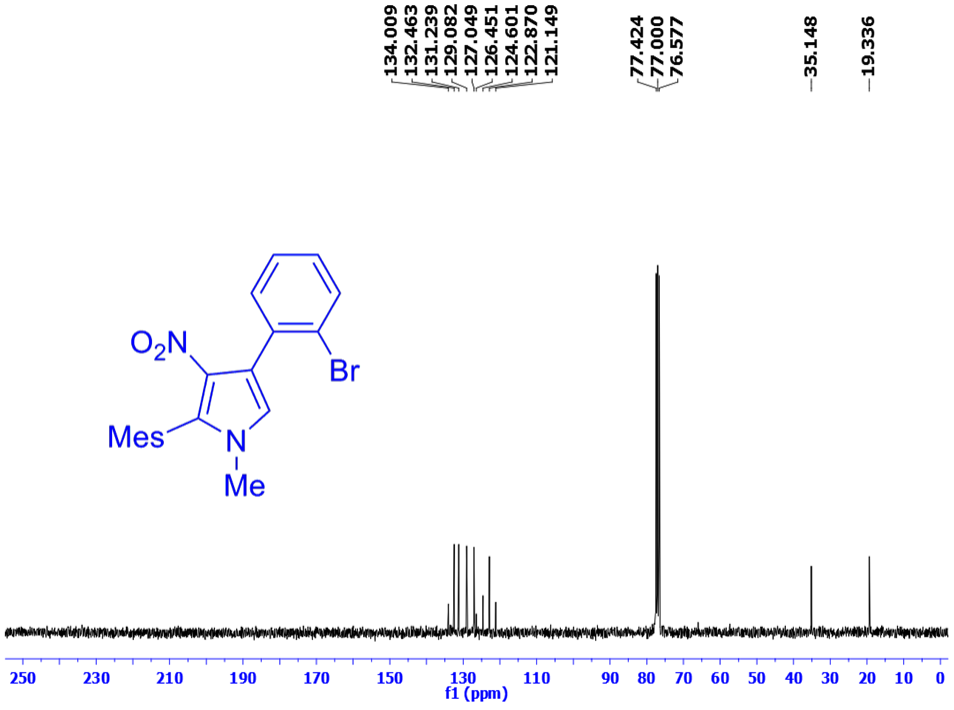
(300MHz, $CDCl_3$) ^1H NMR spectrum of **4i**



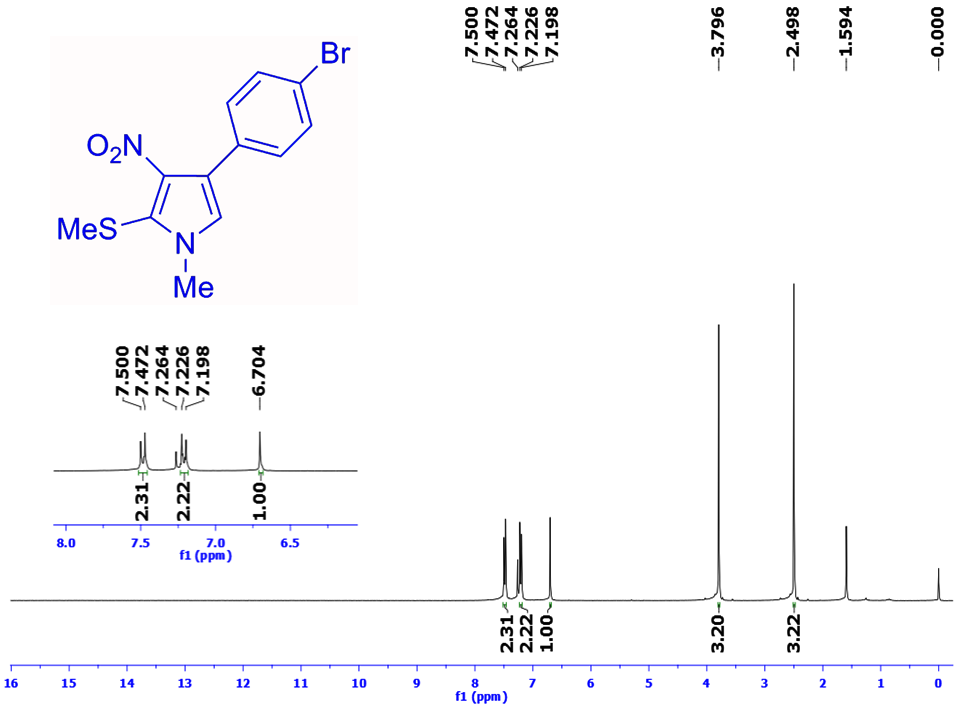
(75MHZ, $CDCl_3$) ^{13}C NMR spectrum of **4i**



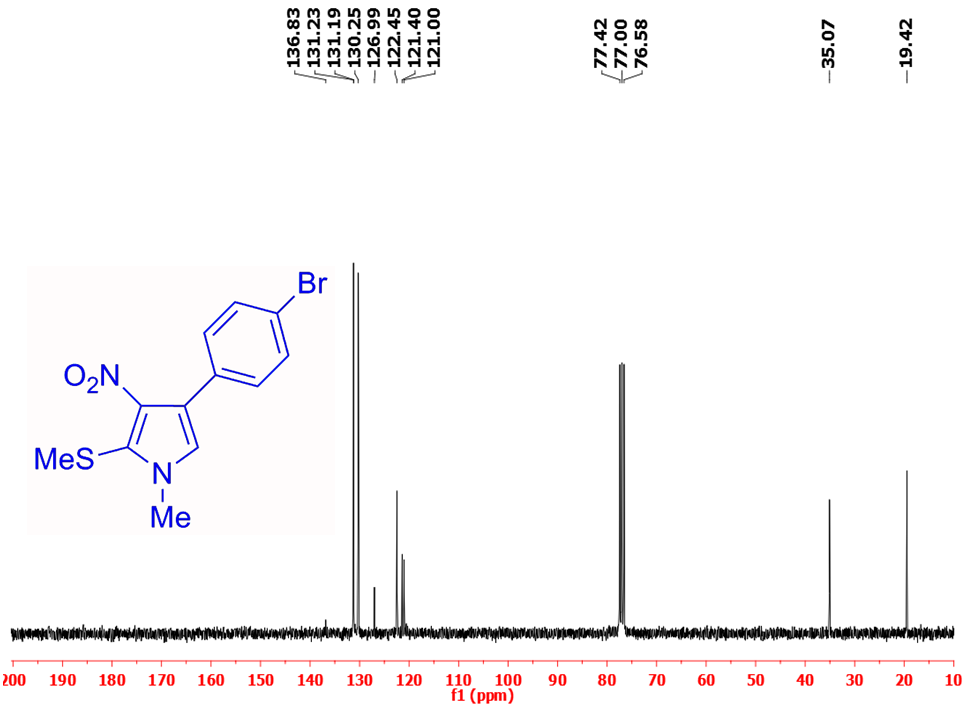
(300MHz, $CDCl_3$) ^1H NMR spectrum of **4j**



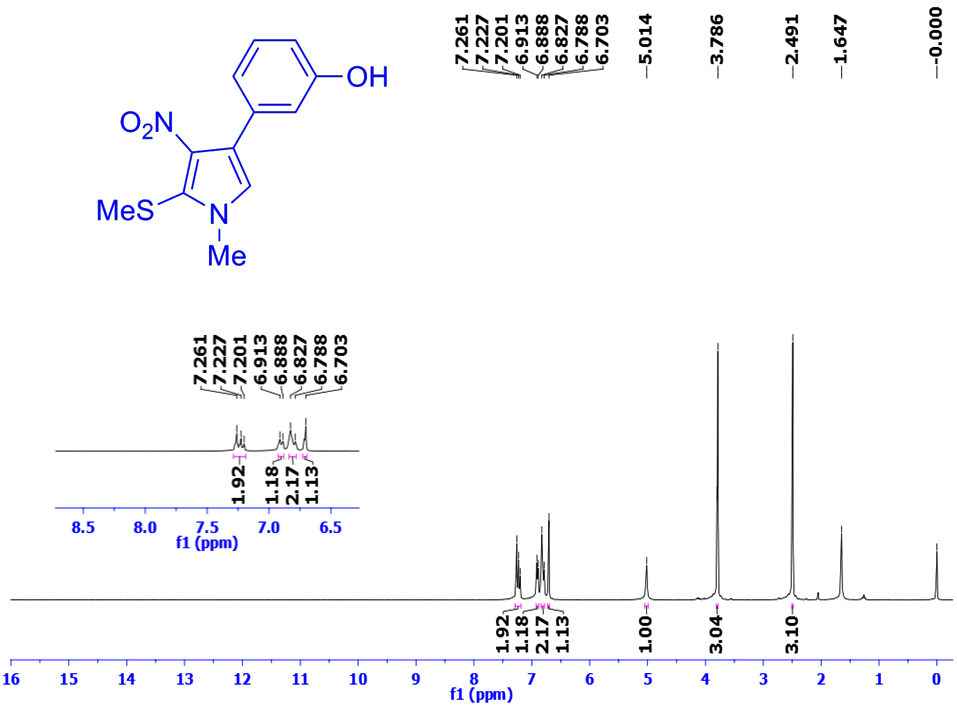
(75MHZ, $CDCl_3$) ^{13}C NMR spectrum of **4j**



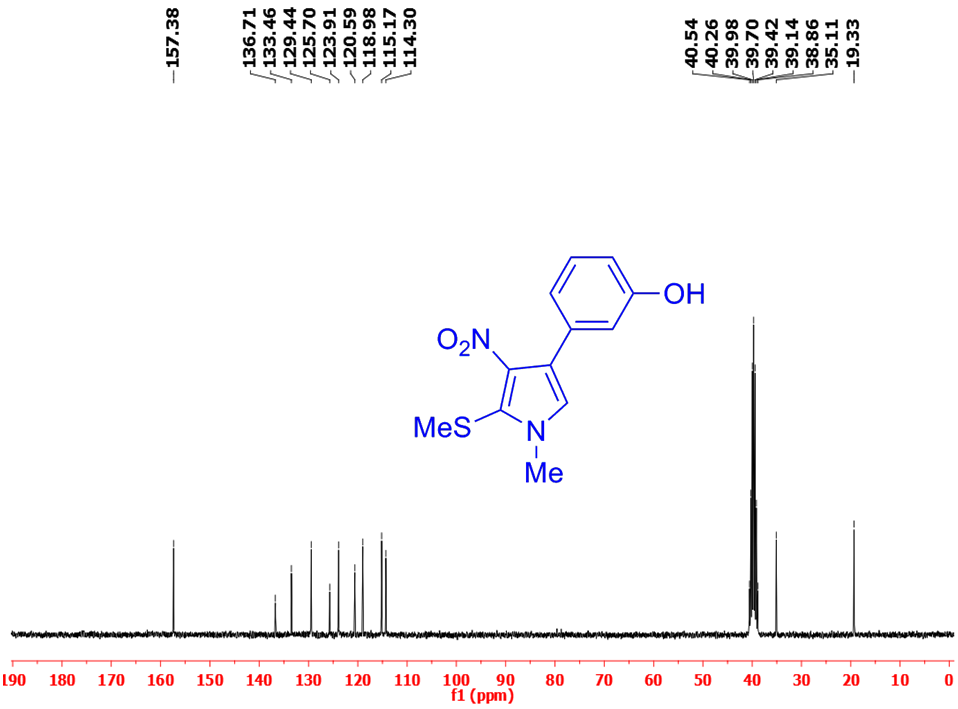
(300MHz, $CDCl_3$) ^1H NMR spectrum of **4k**



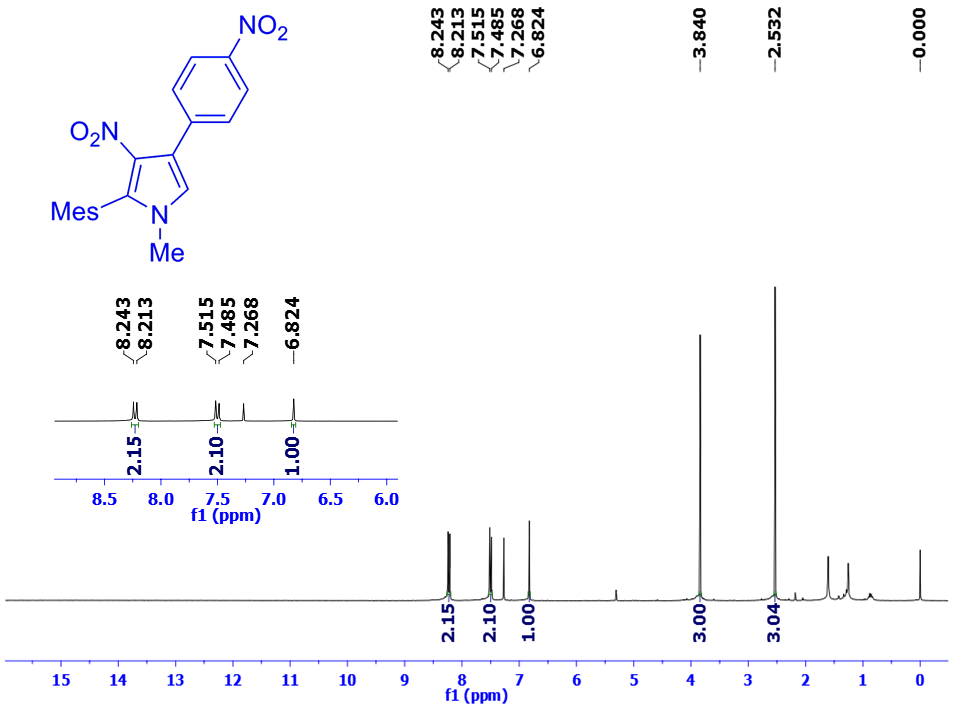
(75MHZ, $CDCl_3$) ^{13}C NMR spectrum of **4k**



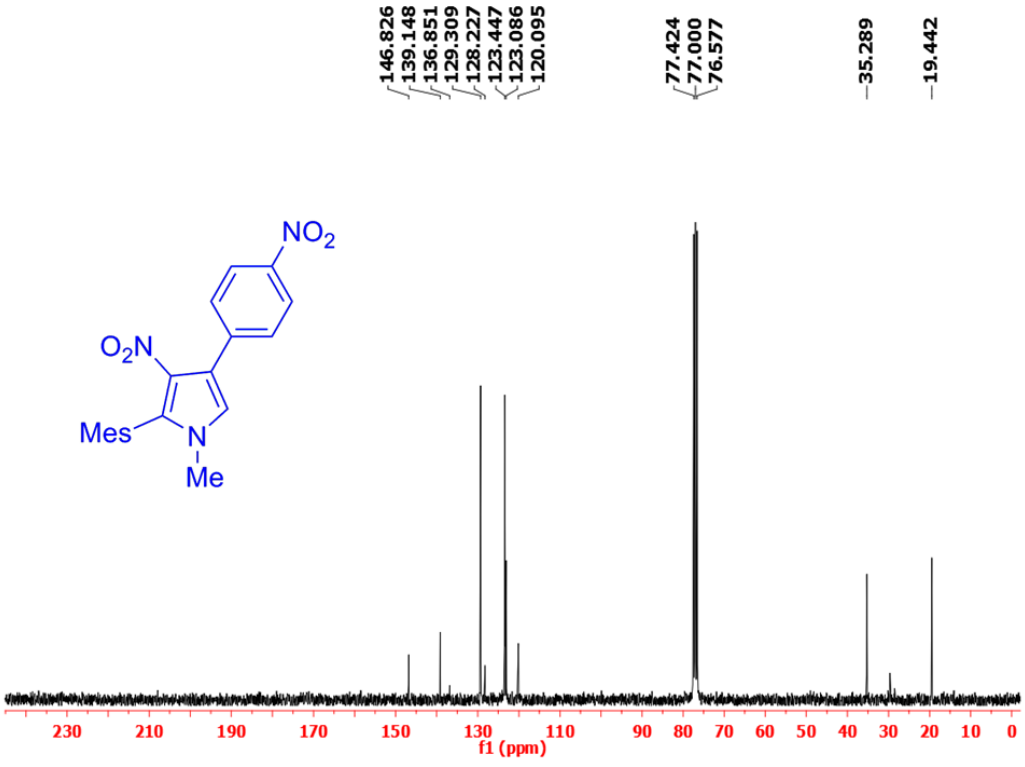
(300MHz, $CDCl_3$) ^1H NMR spectrum of **4l**



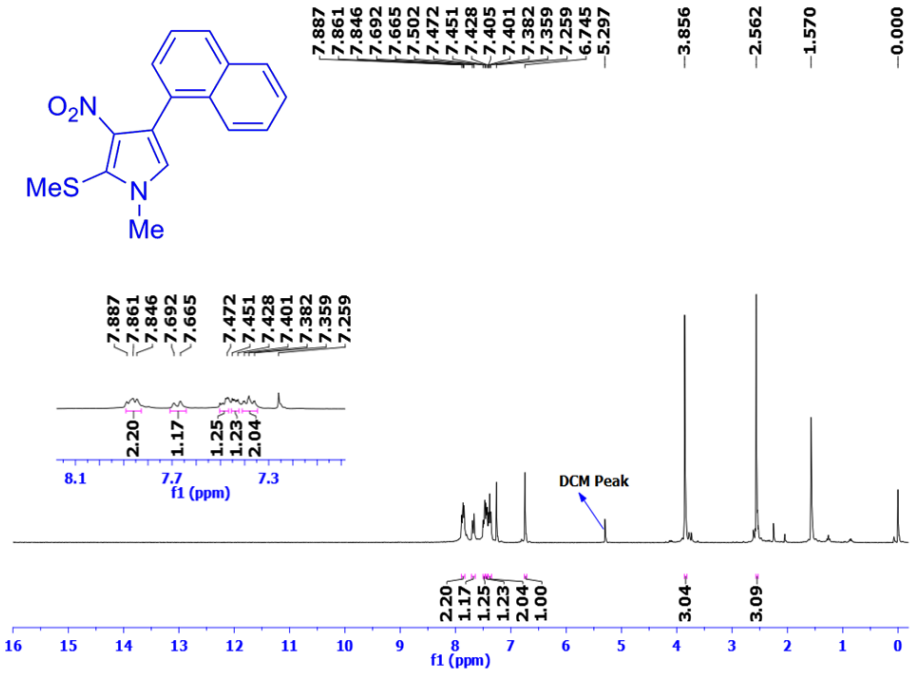
(75MHZ, DMSO-d_6) ^{13}C NMR spectrum of **4l**



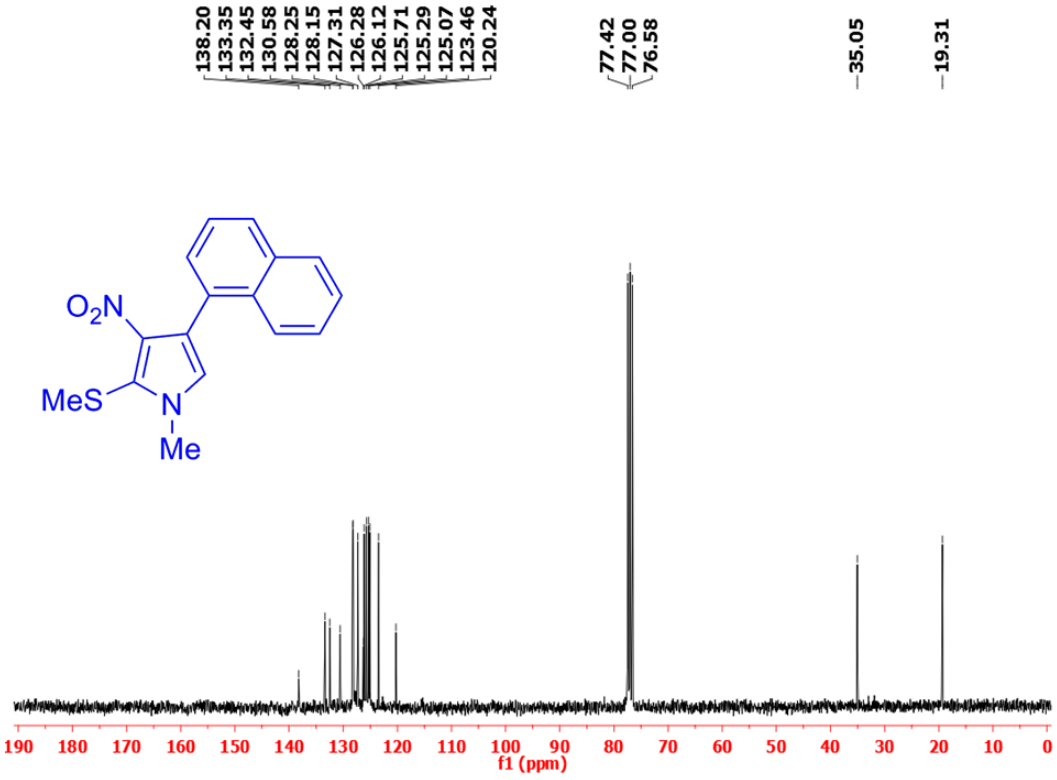
(300MHz, $CDCl_3$) ^1H NMR spectrum of **4m**



(75MHZ, $CDCl_3$) ^{13}C NMR spectrum of **4m**



(300MHz, $CDCl_3$) ^1H NMR spectrum of **4n**



(75MHZ, $CDCl_3$) ^{13}C NMR spectrum of **4n**