

Supporting Information

Org. Commun. 17:4 (2024) 241-248

Synthesis of β -enaminoesters from β -ketoesters and amines by solvent-drop grinding approach in PEG 400

Swanand S. Mukhedkar^{1*}, Kokane Balaji Digambar²,

Jitendra Hanmantrao Deshmukh³ and Shivraj Shankarrao Anjanikar⁴

¹Head and Associate Professor, Department of Chemistry, Shahir Annabhau Sathe Mahavidyalaya, Mukhed, Nanded-431715, Maharashtra, India

²Department of Chemistry, Shri Kumarswami Mahavidyalaya, Ausa, Latur-413520, Maharashtra, India

³Department of Chemistry, Mahatma Basweshwar Mahavidyalaya, Latur, Maharashtra, India

⁴Department of Chemistry, Sharadchandra College, Naigaon, Maharashtra, India

Table of Contents	Page
S1: General Information	2
Figure S1: ¹ H NMR Spectrum of (I)	3
Figure S2: ¹³ C NMR Spectrum (I)	3
Figure S3: ¹ H NMR Spectrum of (III)	4
Figure S4: ¹³ C NMR Spectrum of (III)	4
Figure S5: ¹ H NMR Spectrum of (IV)	5
Figure S6: ¹³ C NMR Spectrum of (IV)	5
Figure S7: ¹ H NMR Spectrum of (V)	6
Figure S8: ¹³ C NMR Spectrum of (V)	7
Figure S9: ¹ H NMR Spectrum of (VII)	8
Figure S10: ¹³ C NMR Spectrum of (VII)	8
Figure S11: ¹ H NMR Spectrum of (VIII)	9
Figure S12: ¹³ C NMR Spectrum of (VIII)	10
Figure S13: ¹ H NMR Spectrum of (IX)	11
Figure S14: ¹³ C NMR Spectrum of (IX)	11

S1: General Information

All the chemicals and solvents employed in the synthesis were supplied by Sigma Aldrich, Merck, Loba, SRL and Spectrochem and used without purification. The melting points were measured by open capillary method and uncorrected. The reaction mixtures were irradiated by a 100W tungsten lamp (Philips India Ltd). The IR spectrums (NaCl) were recorded on a Nicolet Fourier Transform spectrometer. The ^1H and ^{13}C NMR spectra were recorded on a Bruker AV-300 instrument. As internal standards served TMS (0.00) for ^1H NMR and CDCl_3 (77.0) for ^{13}C NMR spectroscopy J values are given in Hz. The multiplicities of the signals in the ^1H NMR spectra are abbreviated by s (singlet), d (doublet), t (triplet), q (quarted), m (multiplet), br (broad) and combinations thereof. Thin-layer chromatography (TLC) was performed on GF-25U (Anal. Tech.) plates and silica gel glass-backed plates. All the chemical reactions were carried out in dried glassware.

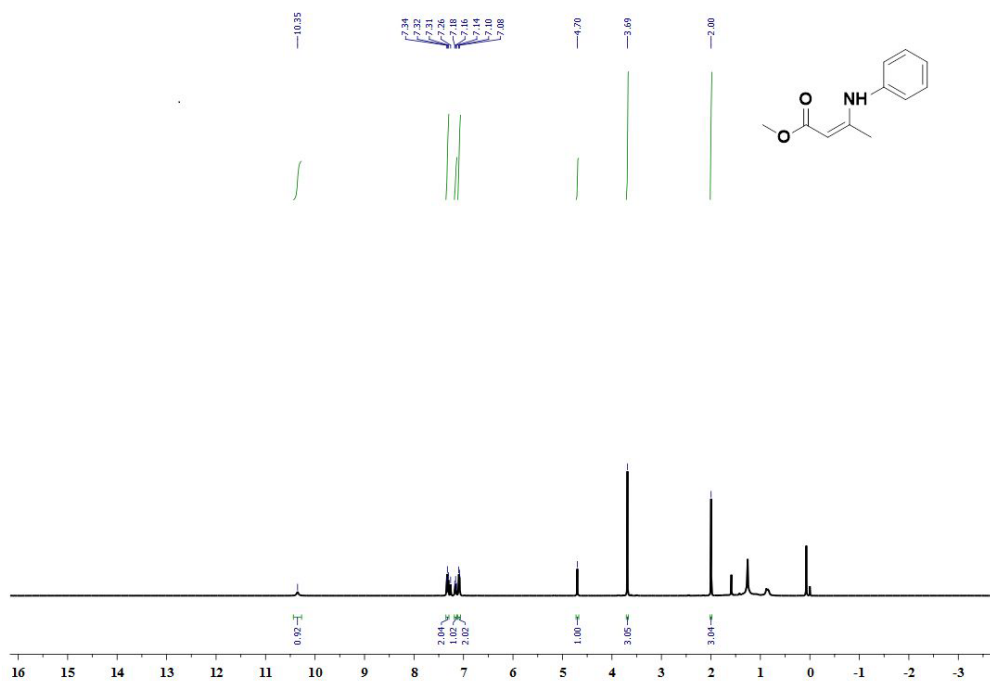


Figure S1: $^1\text{H NMR}$ Spectrum of (I)

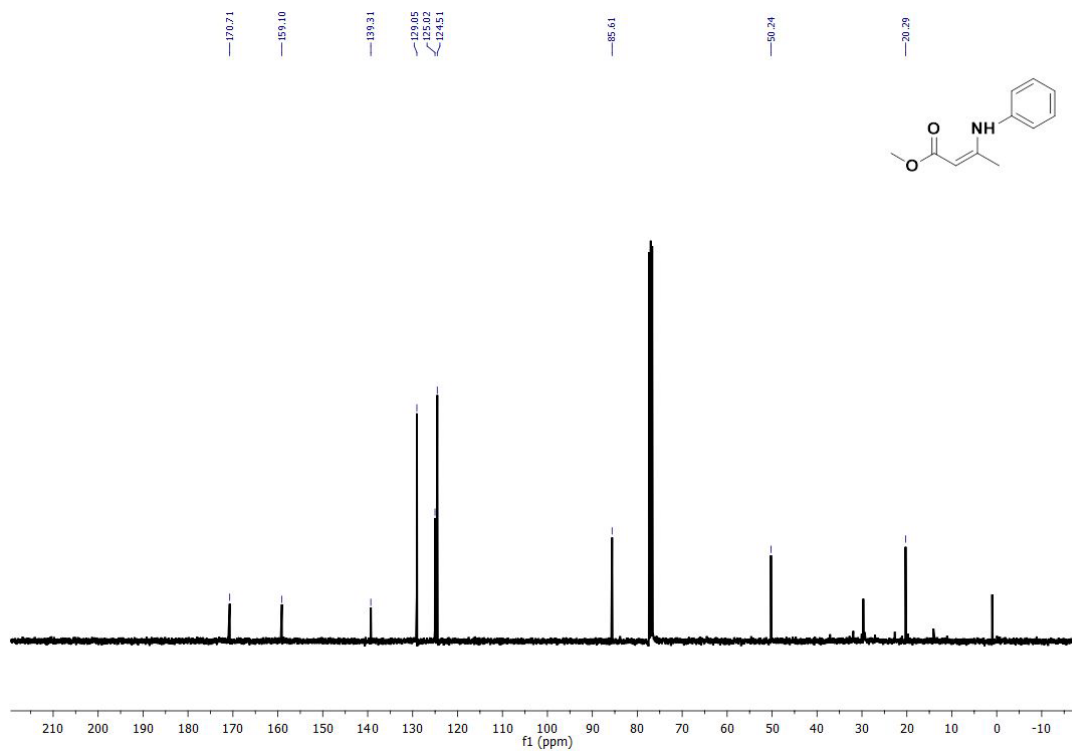


Figure S2: $^{13}\text{C NMR}$ Spectrum of (I)

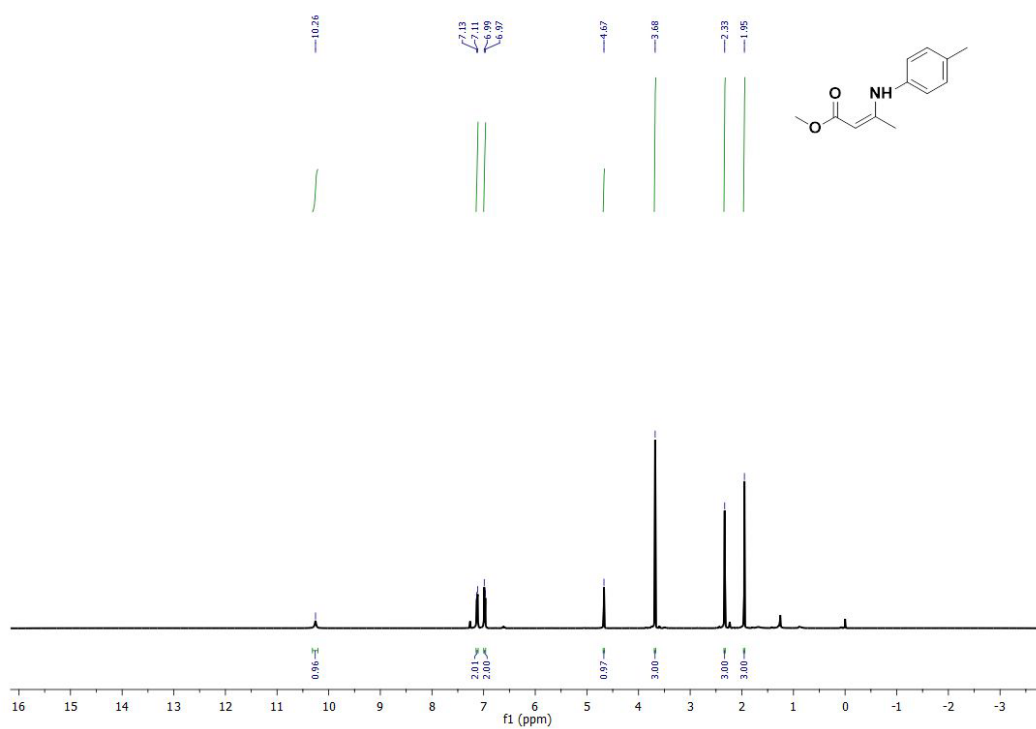


Figure S3: ^1H NMR Spectrum of (III)

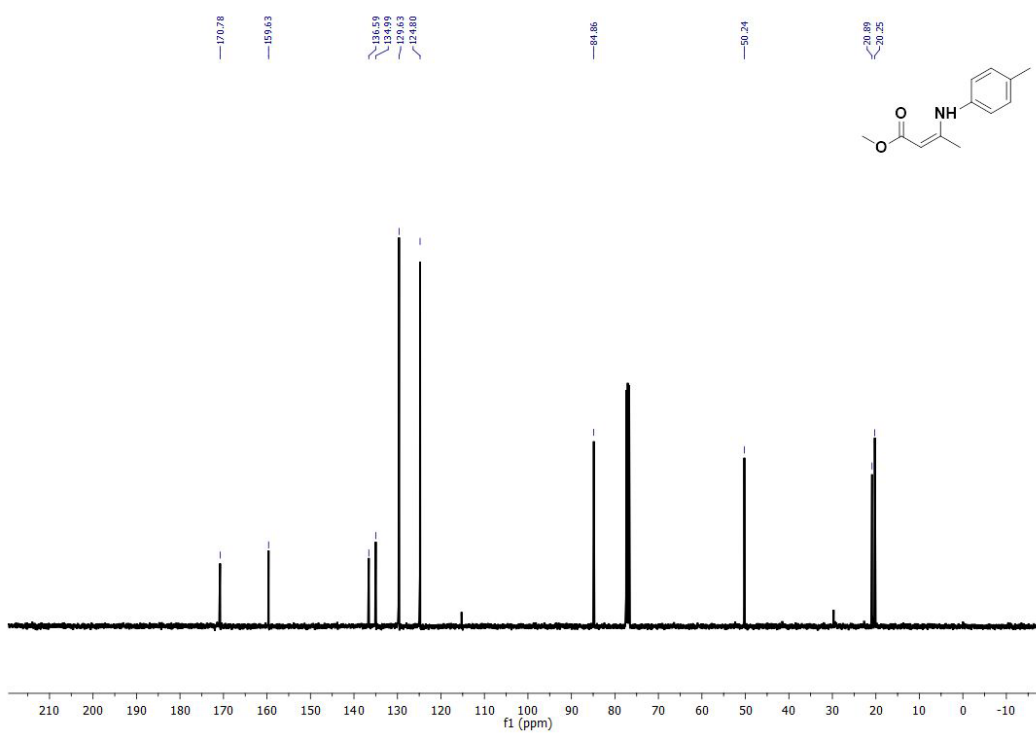


Figure S4: ^{13}C NMR Spectrum of (III)

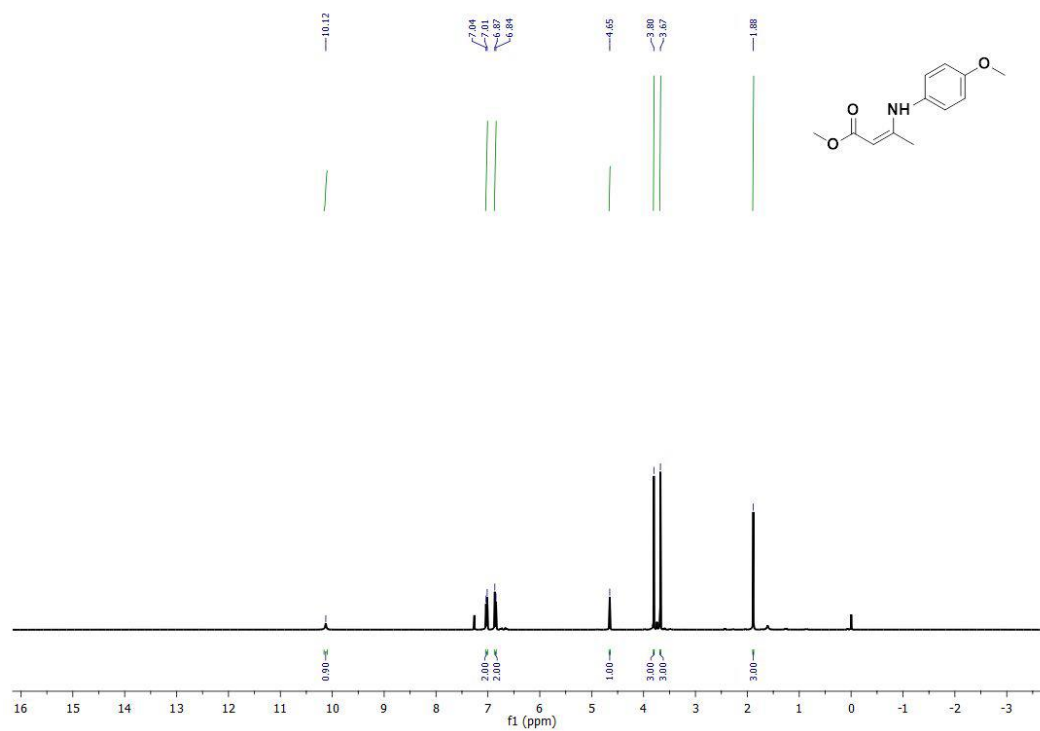


Figure S5: ^1H NMR Spectrum of (IV)

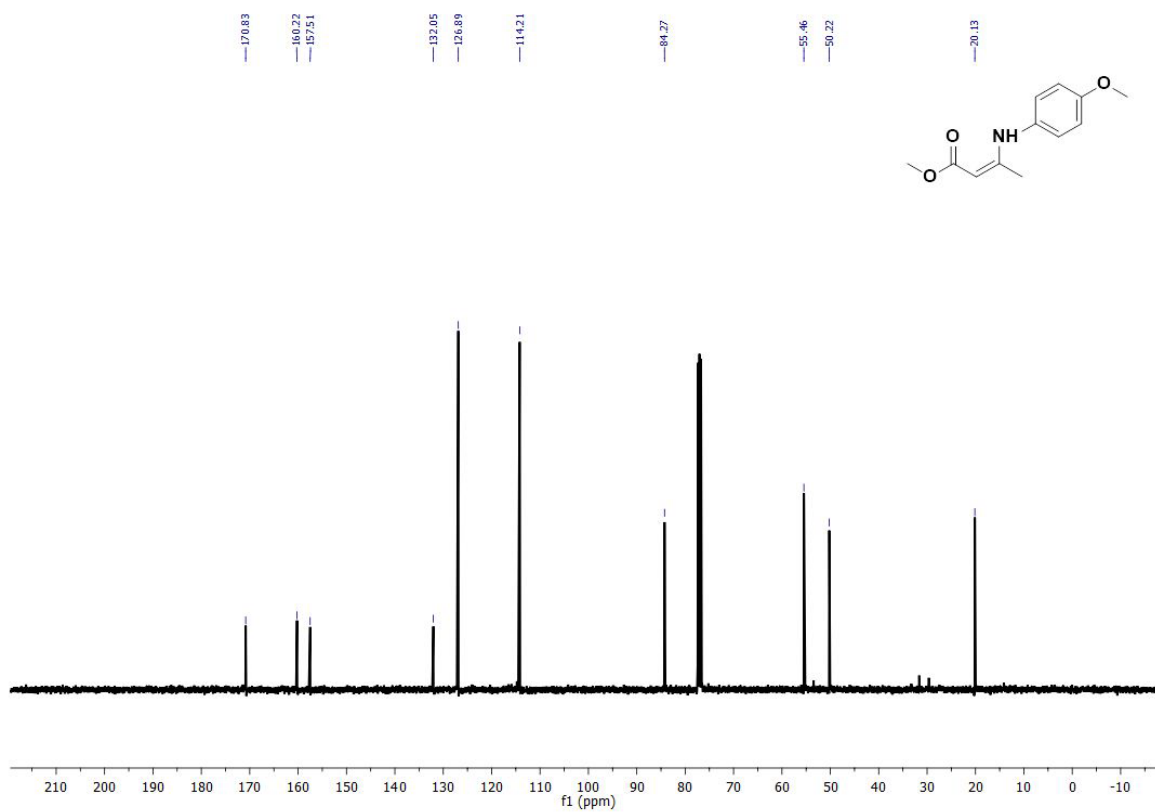


Figure S6: ^{13}C NMR Spectrum of (IV)

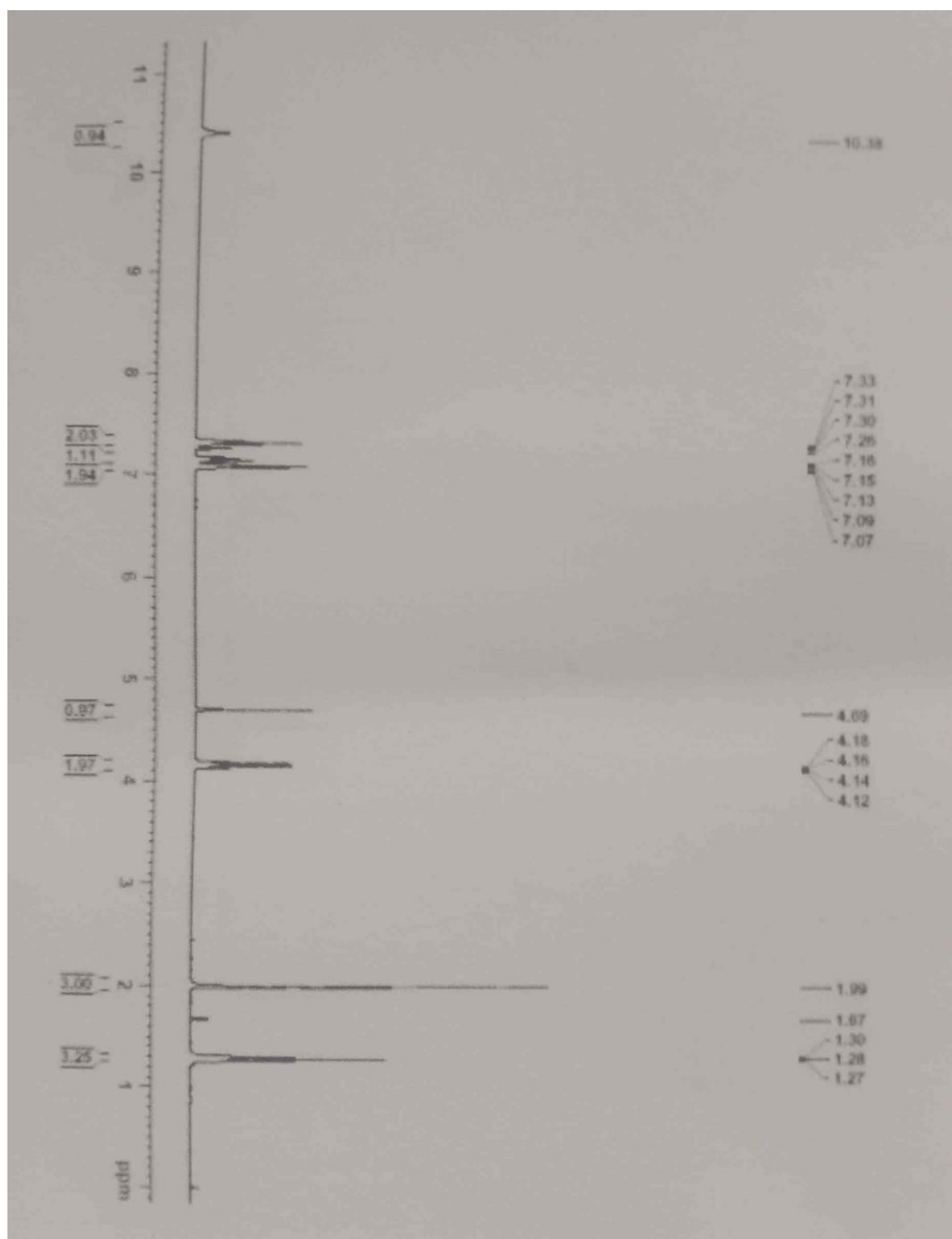


Figure S7: ^1H NMR Spectrum of (V)

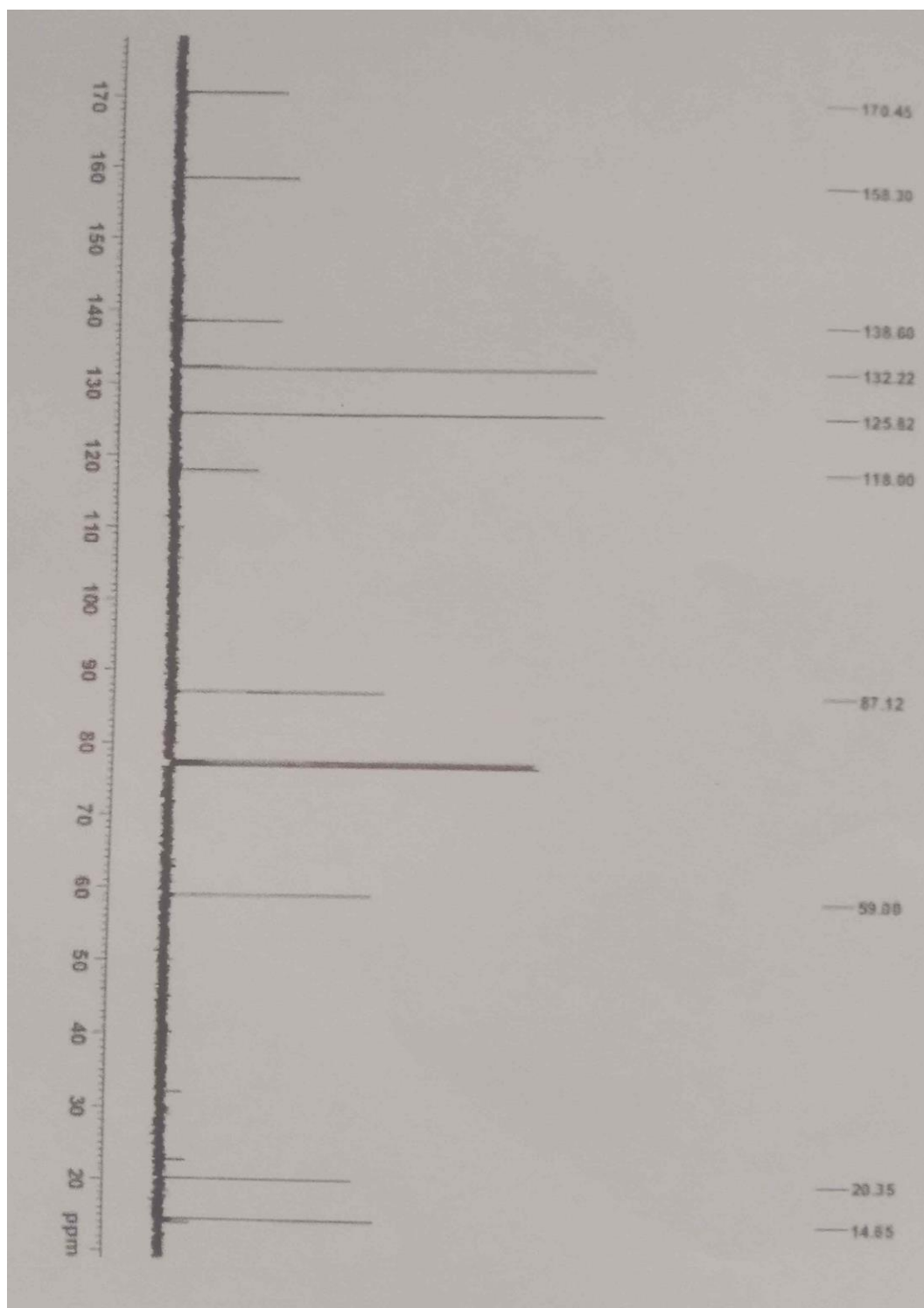


Figure S8: ^{13}C NMR Spectrum of (V)

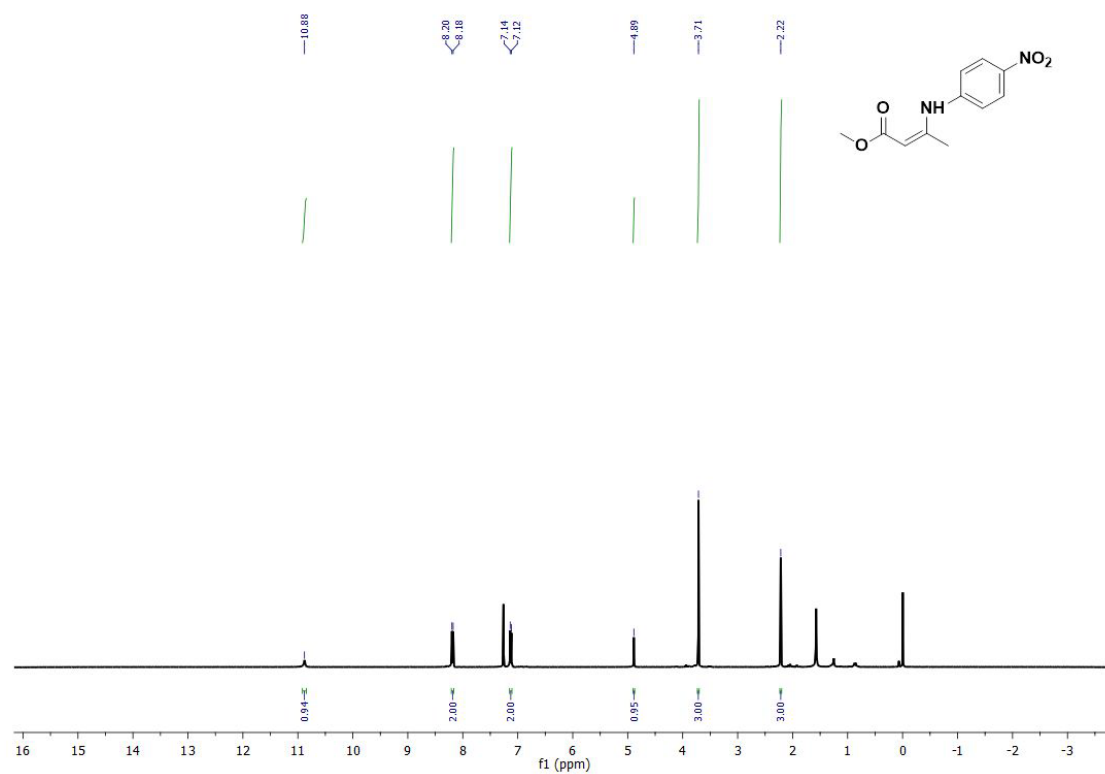


Figure S9: ¹H NMR Spectrum of (VII)

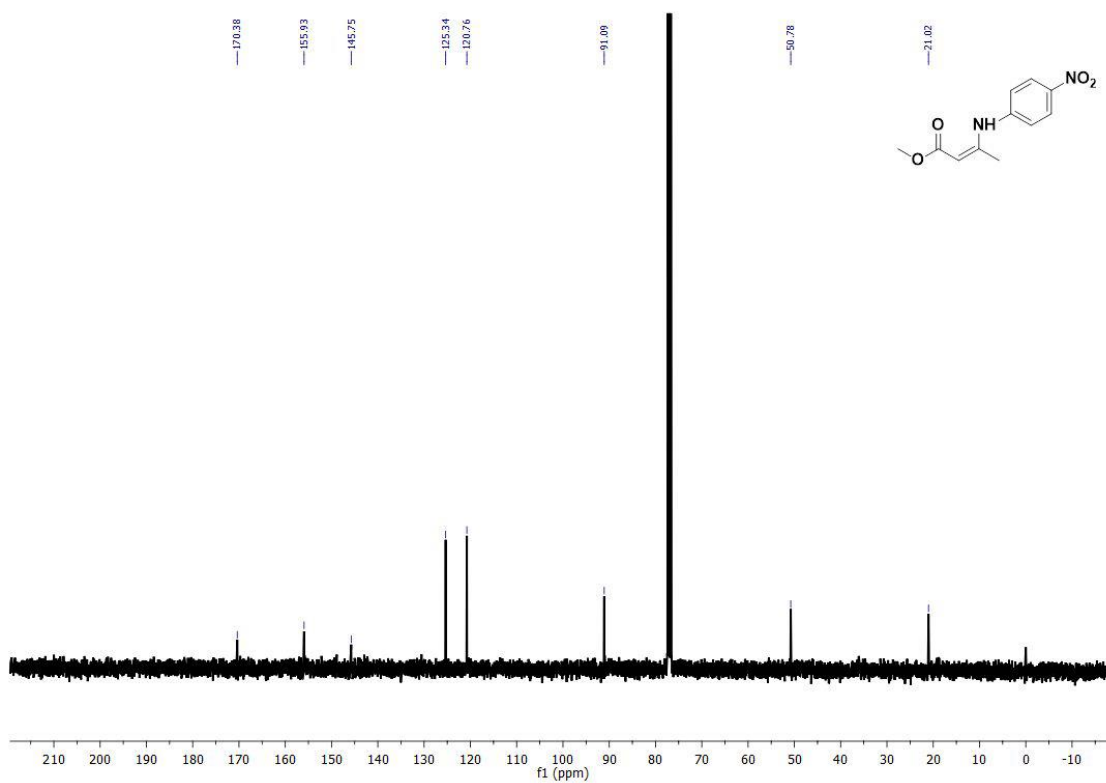


Figure S10: ¹³C NMR Spectrum of (VII)

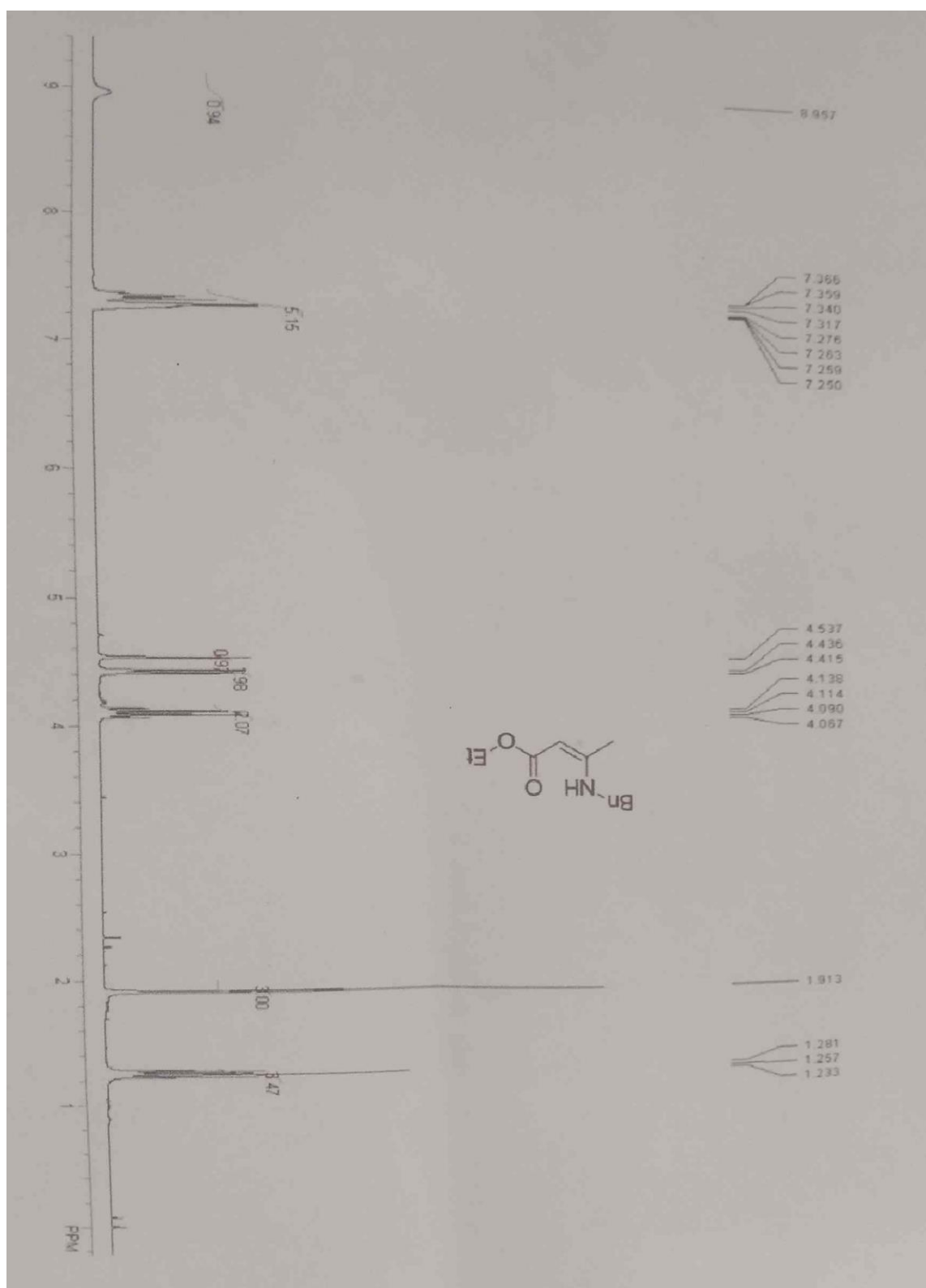


Figure S11: ¹H NMR Spectrum of (VIII)

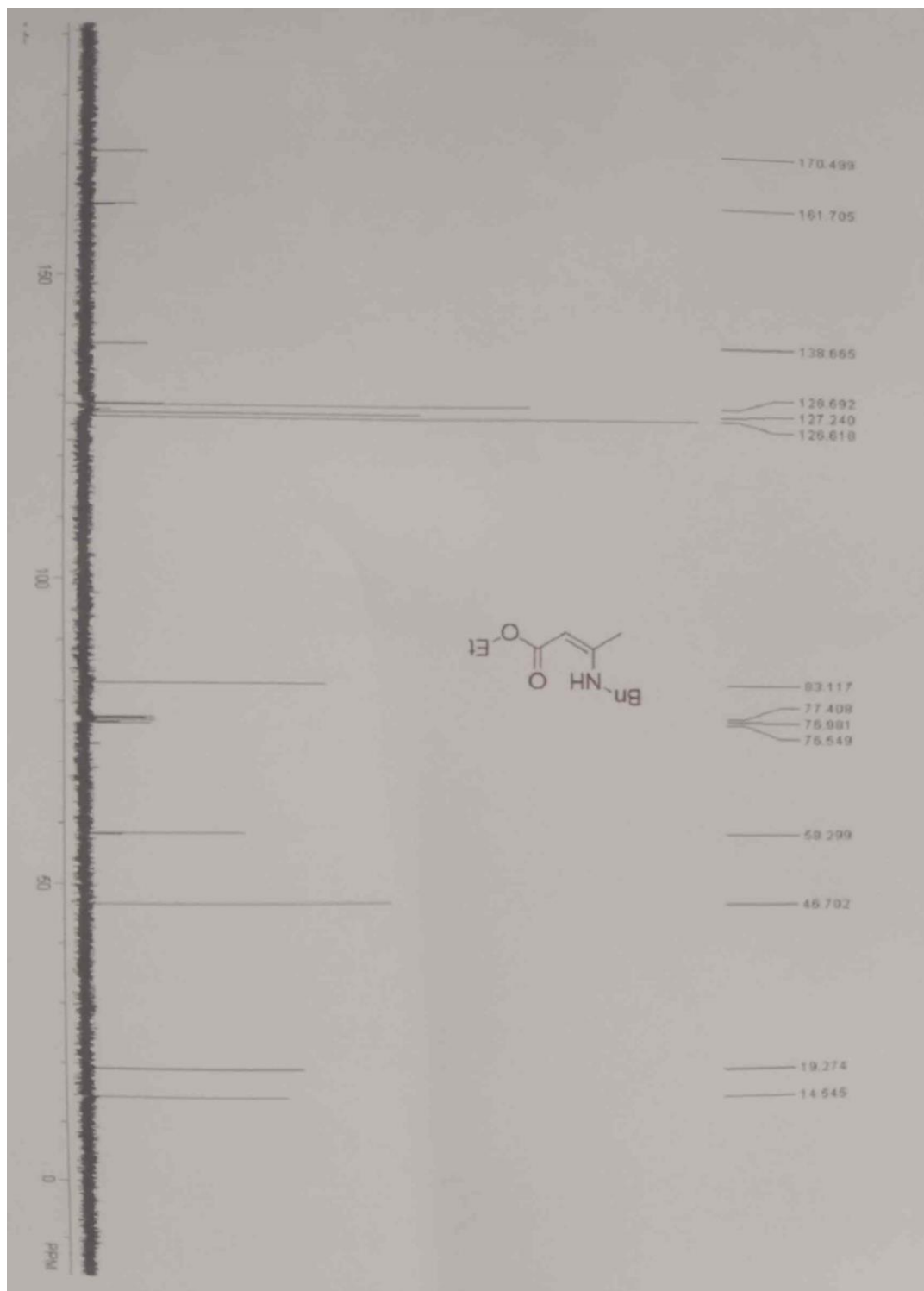


Figure S12: ¹³C NMR Spectrum of (VIII)

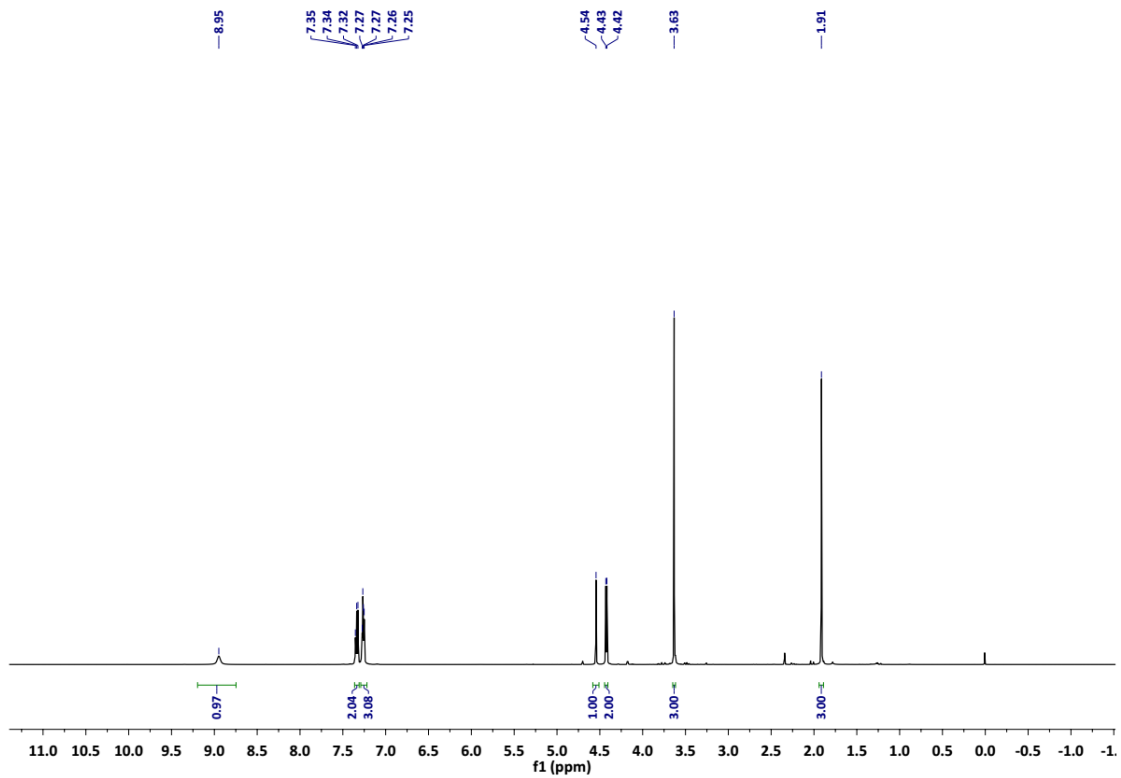


Figure S13: ^1H NMR Spectrum of (IX)

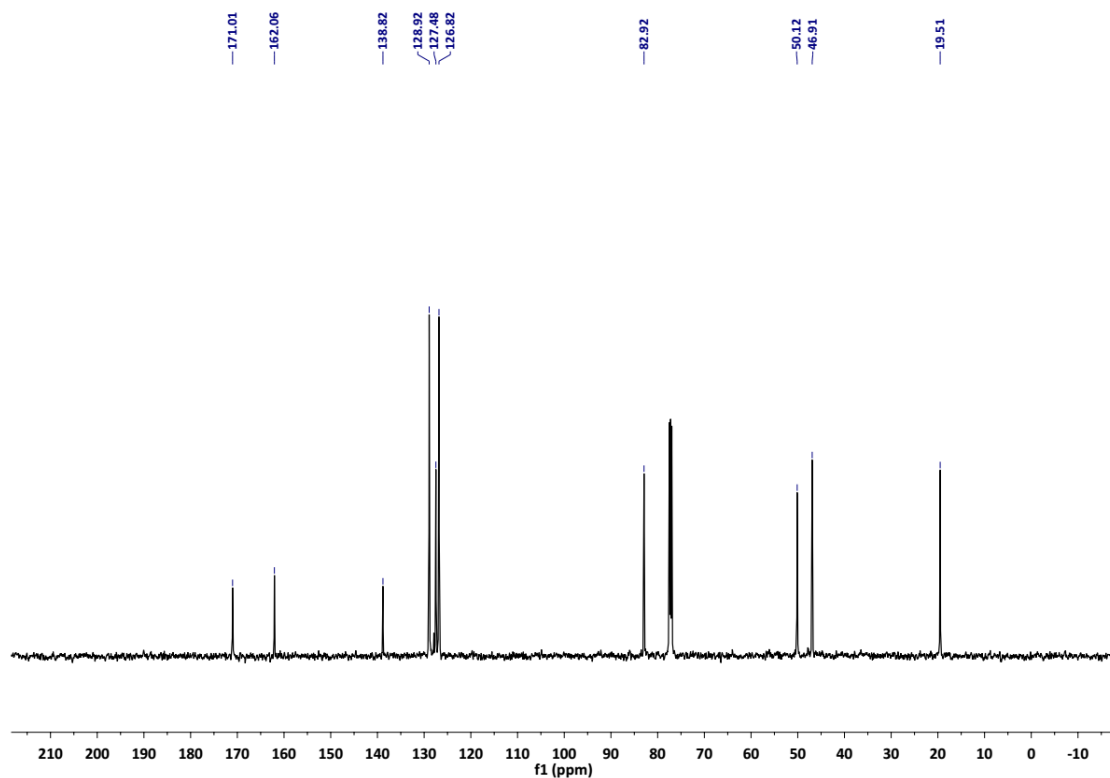


Figure S14: ^{13}C NMR Spectrum of (IX)