

Supplementary Material

Brønsted acid-catalyzed metal-free one-pot synthesis of benzimidazoles via [4+1] heteroannulation of *ortho*-phenylenediamines with β -oxodithioesters

Abhijeet Srivastava, Gaurav Shukla, Dhananjay Yadav, and Maya Shankar Singh*

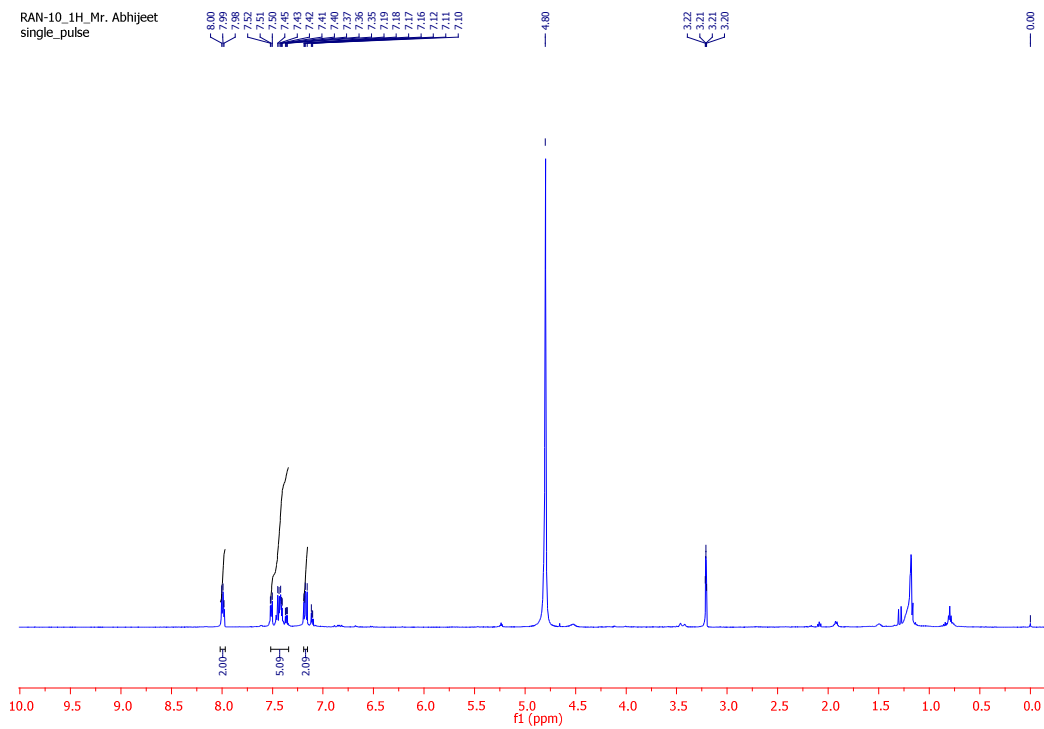
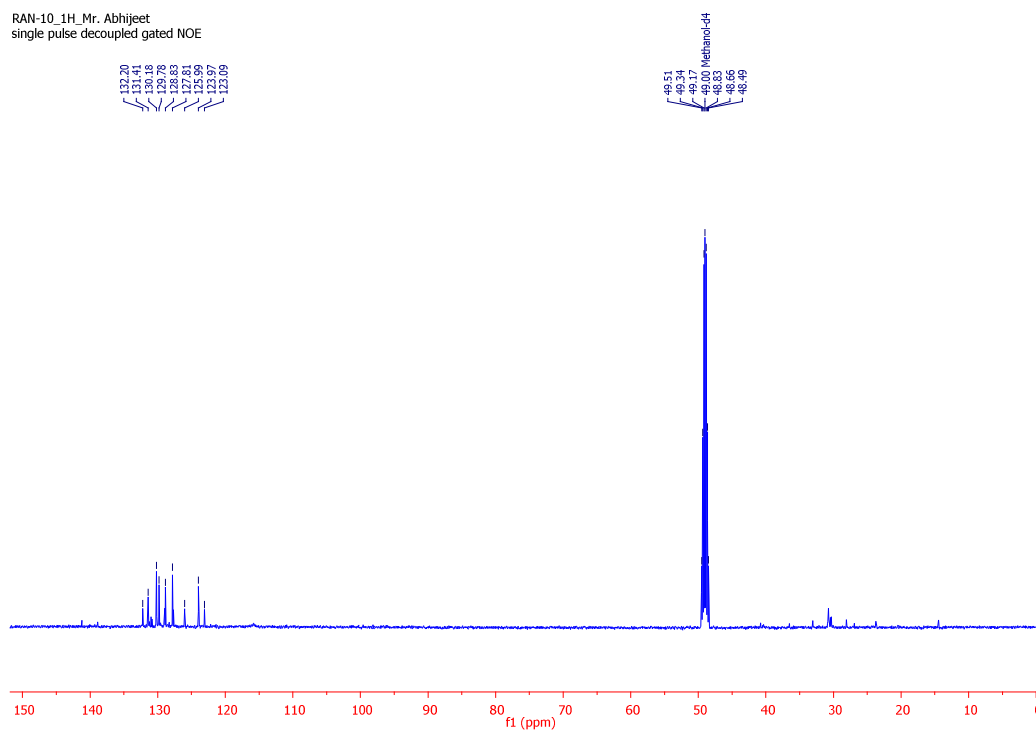
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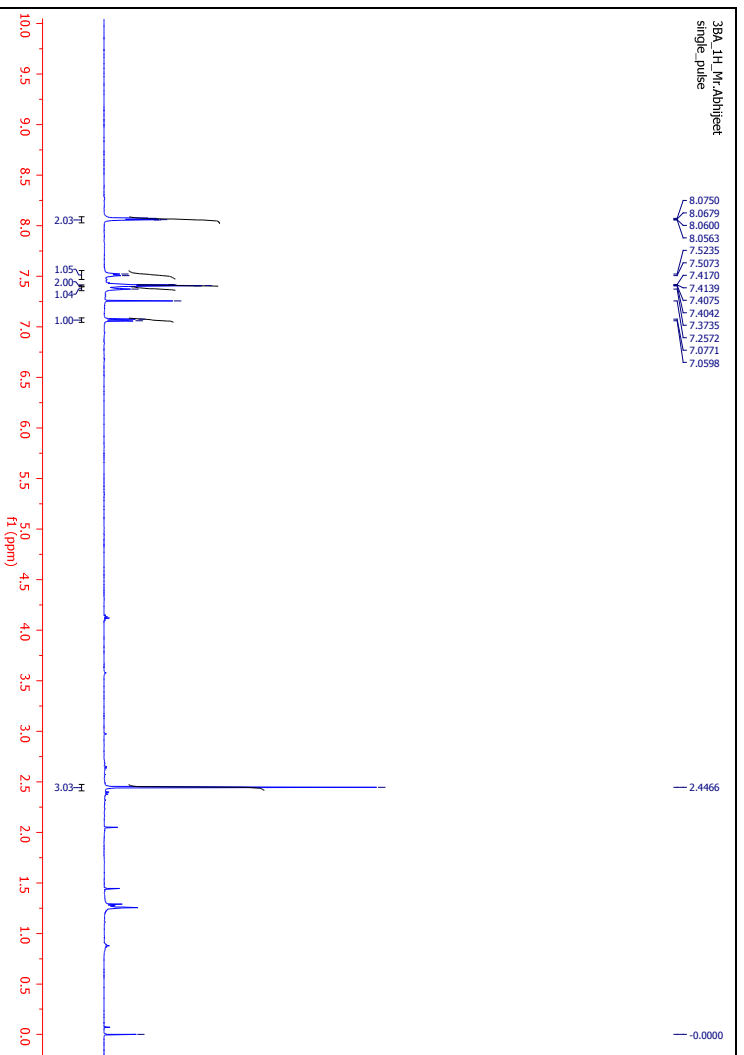
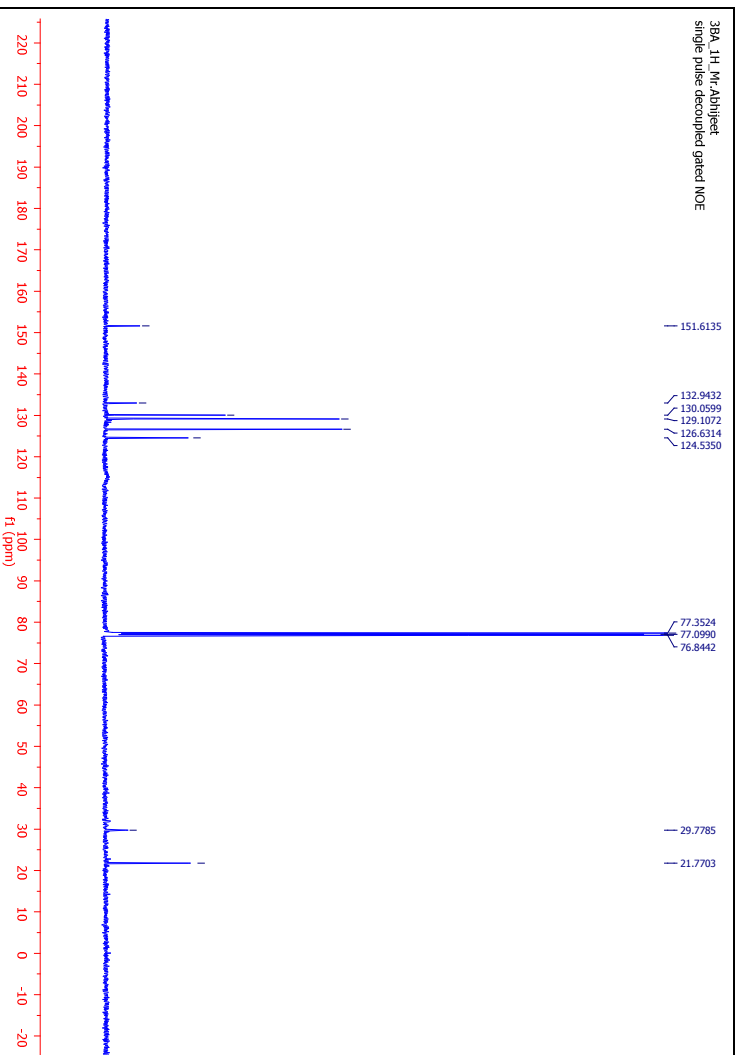
Email: mayashankarbhu@gmail.com

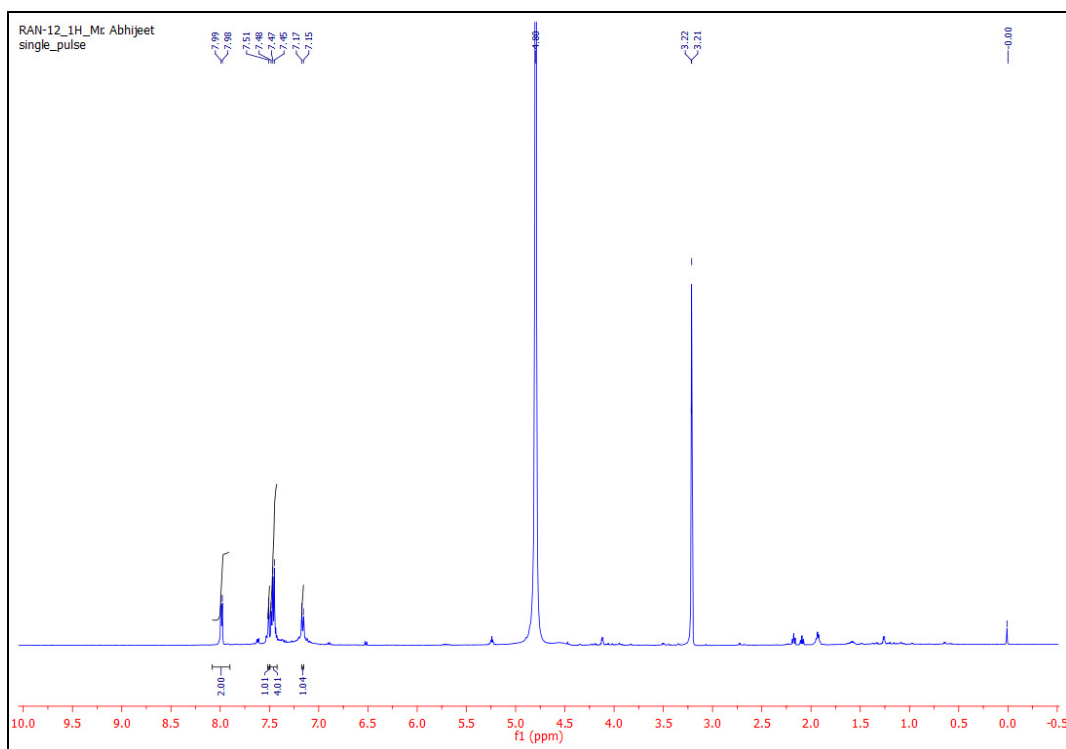
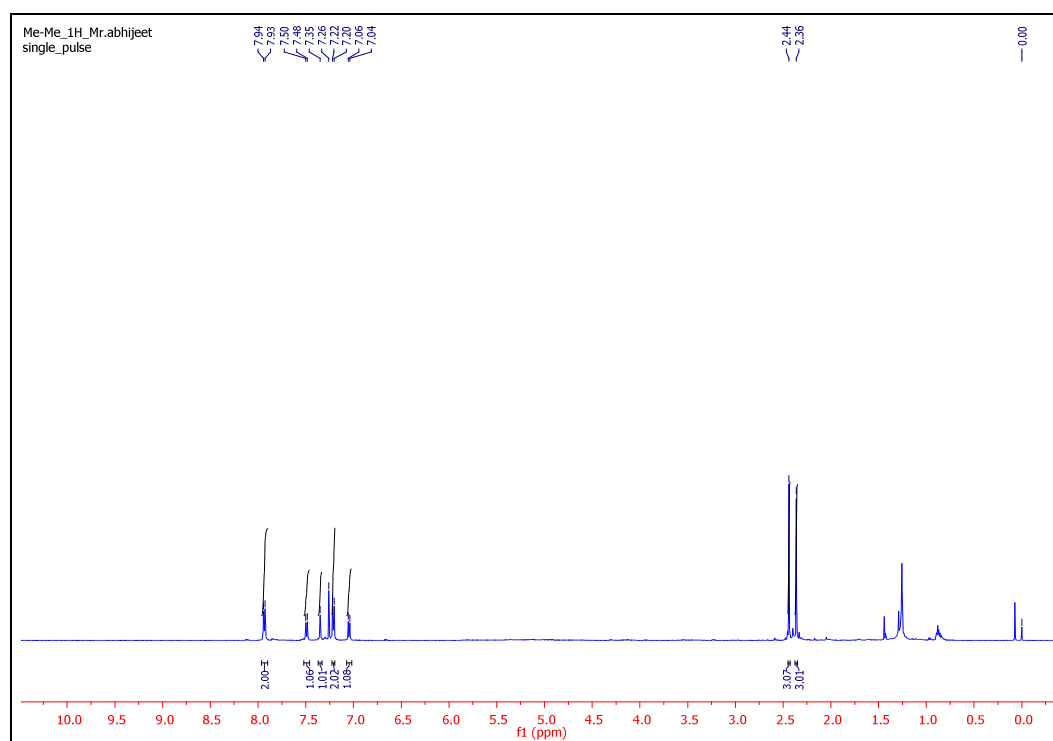
Dedicated to Professor Kenneth K. Laali in his Honor

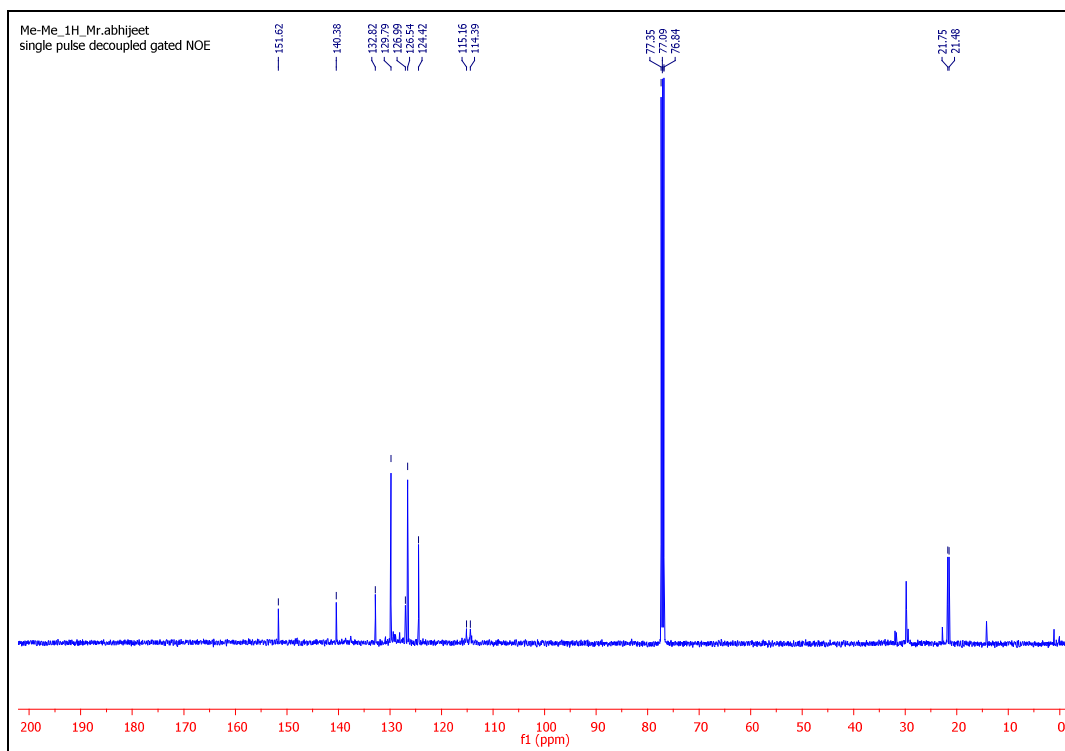
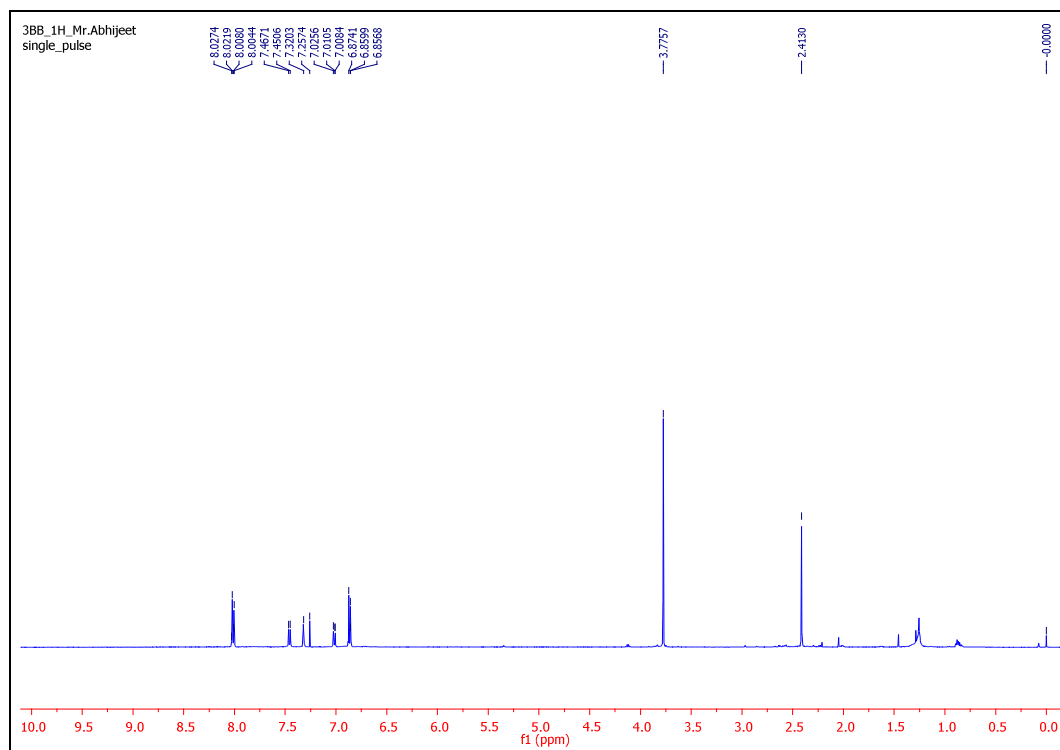
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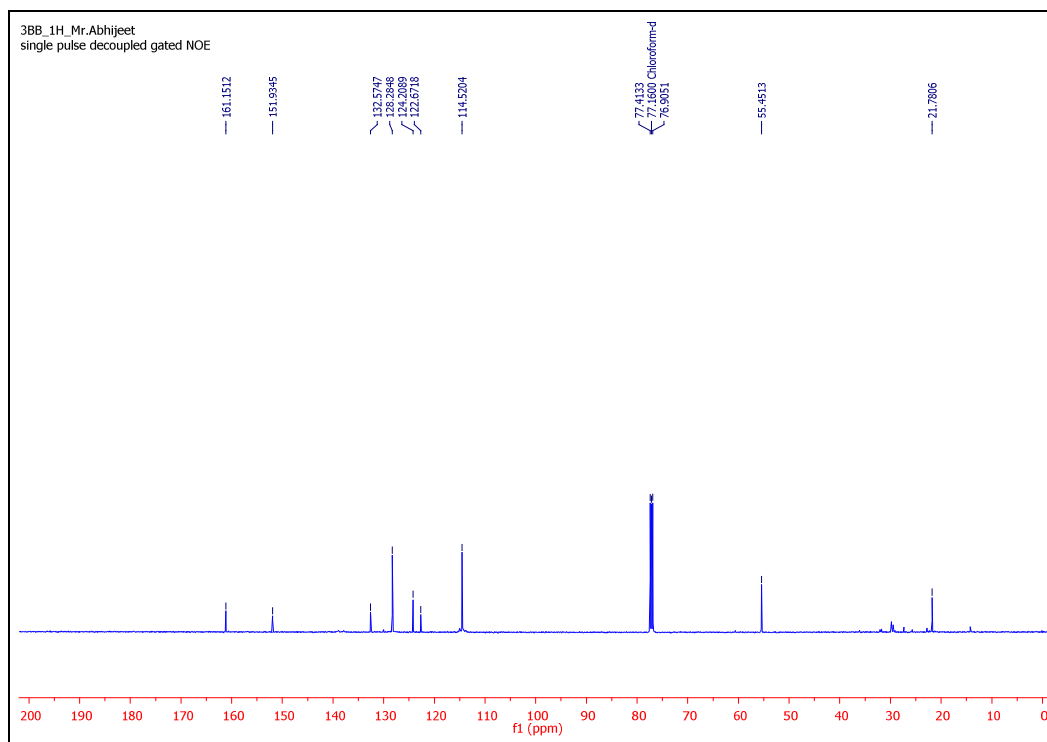
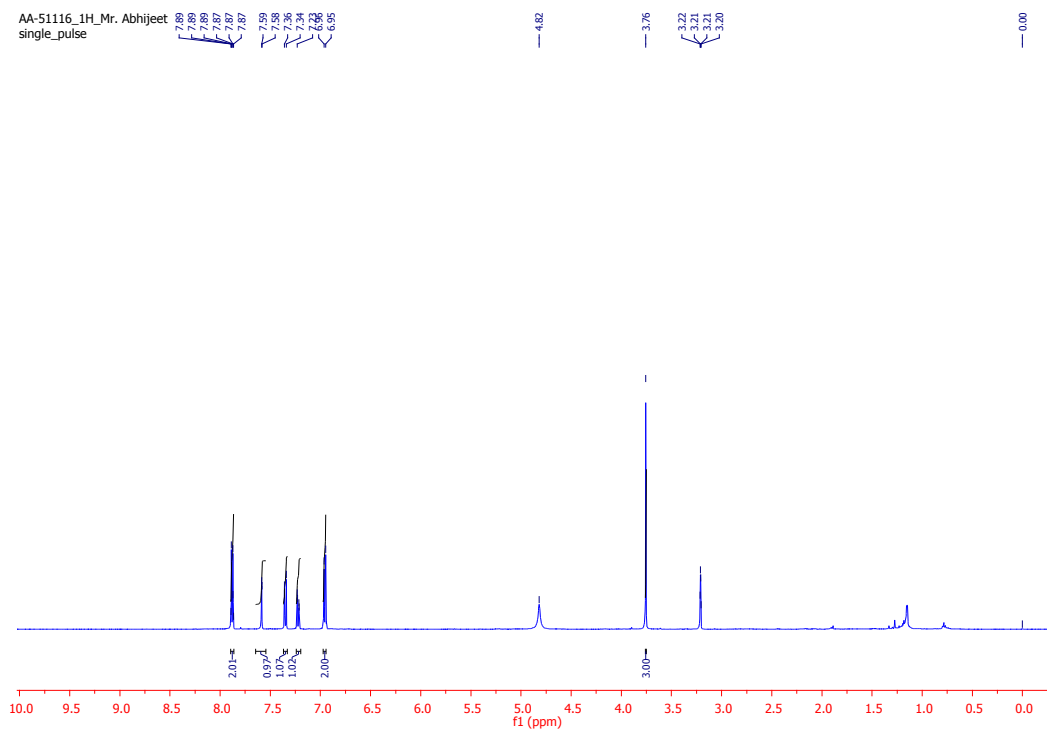
¹ H and ¹³ C Spectra of Benzimidazoles 3aa-3ch	S2
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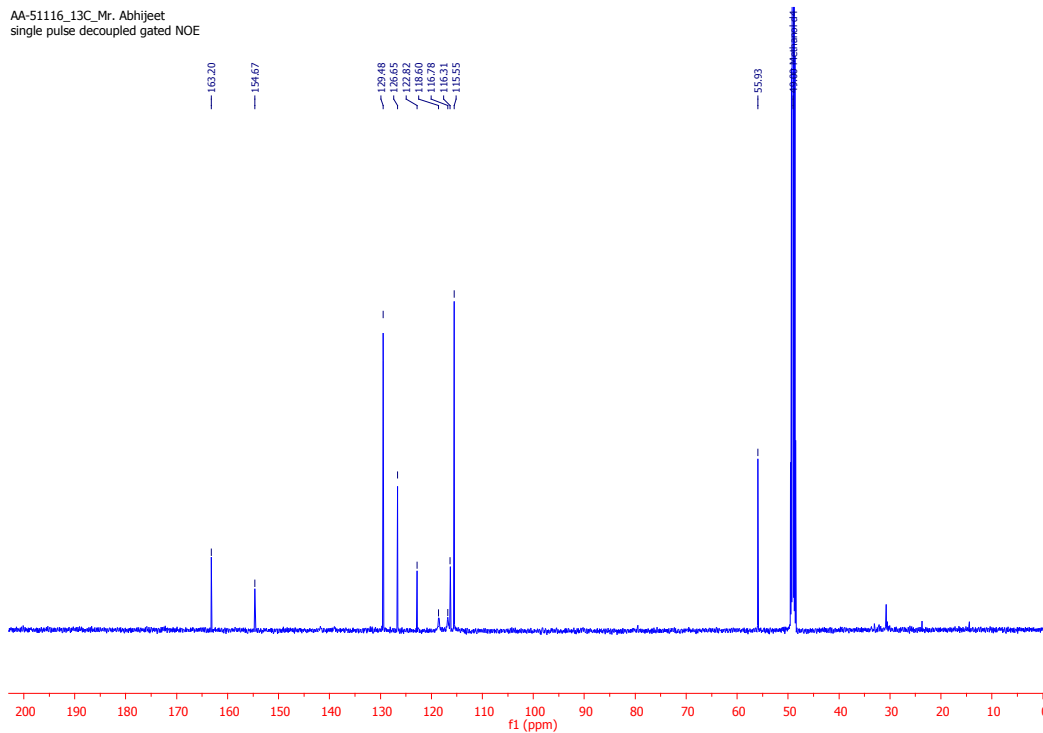
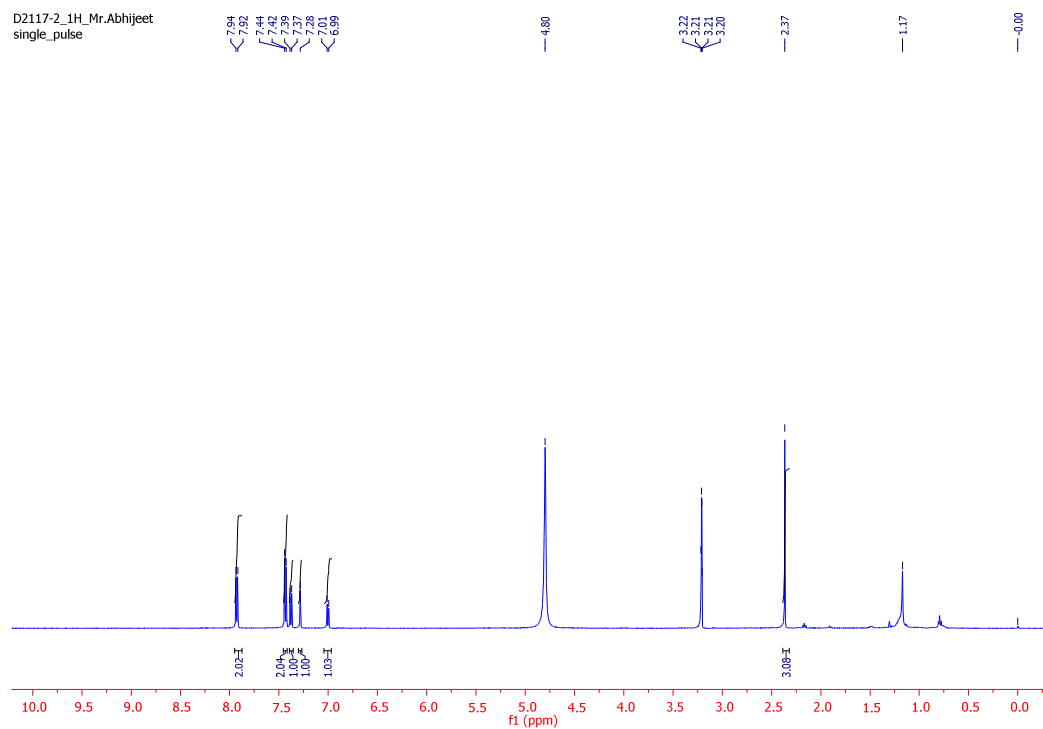
^1H NMR (CD_3OD , 500 MHz) of **3aa** **^{13}C NMR (CD_3OD , 125 MHz) of **3aa****

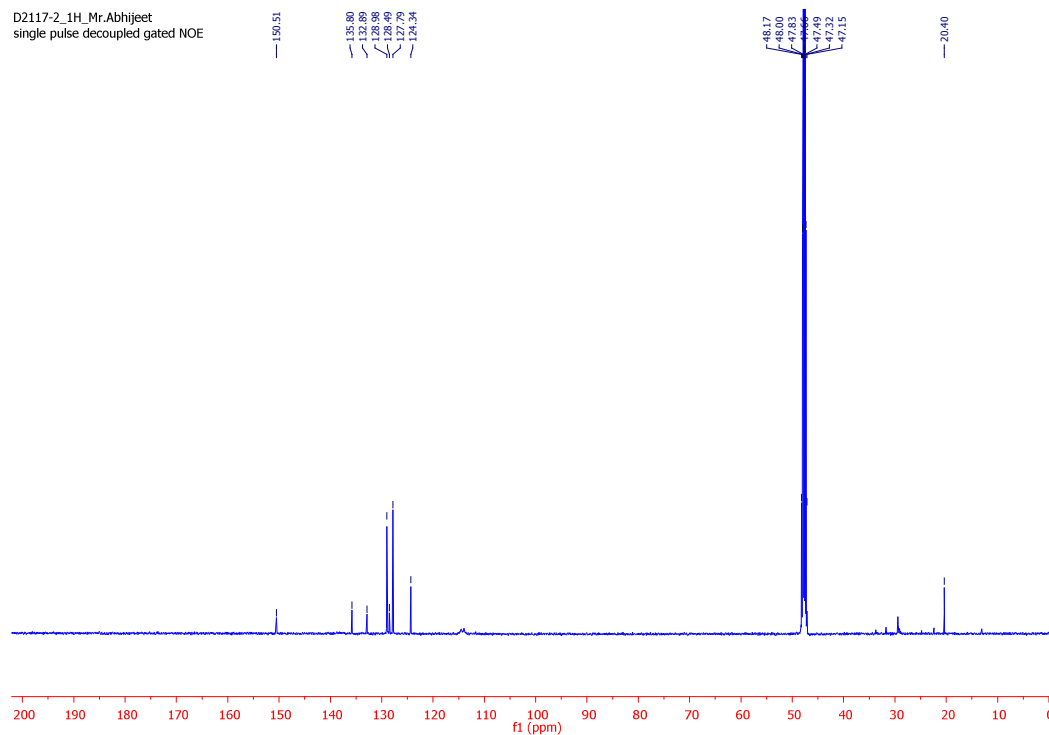
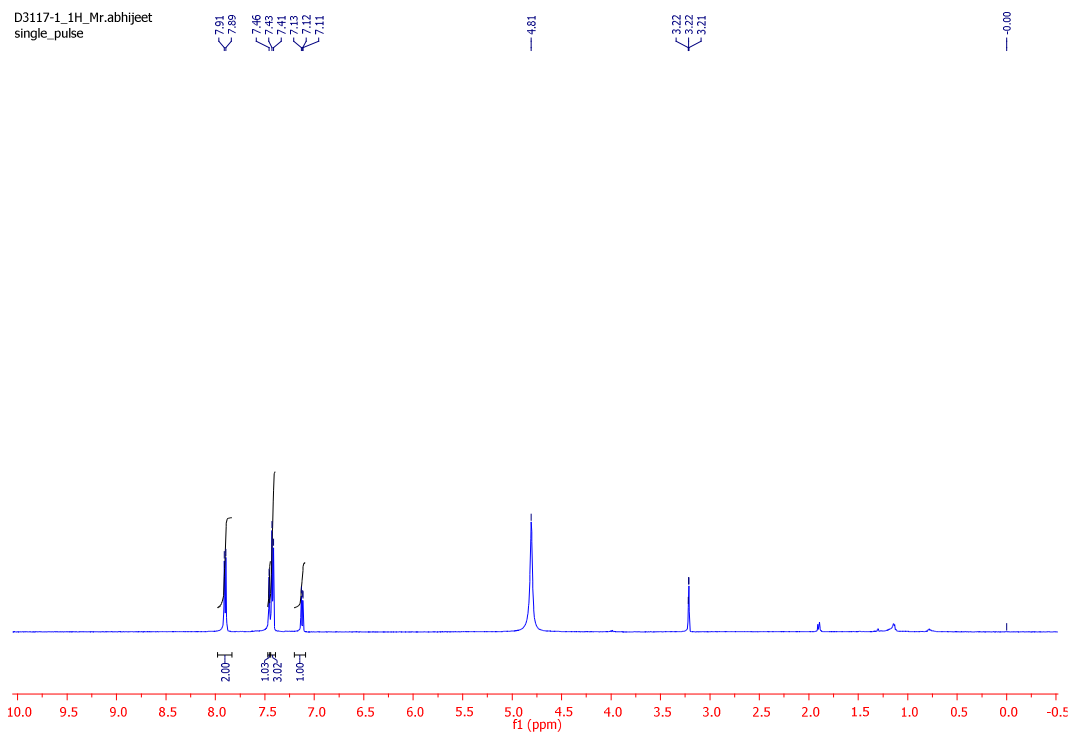
^1H NMR (CD_3OD , 500 MHz) of 3ba **^{13}C NMR (CD_3OD , 125 MHz) of 3ba**

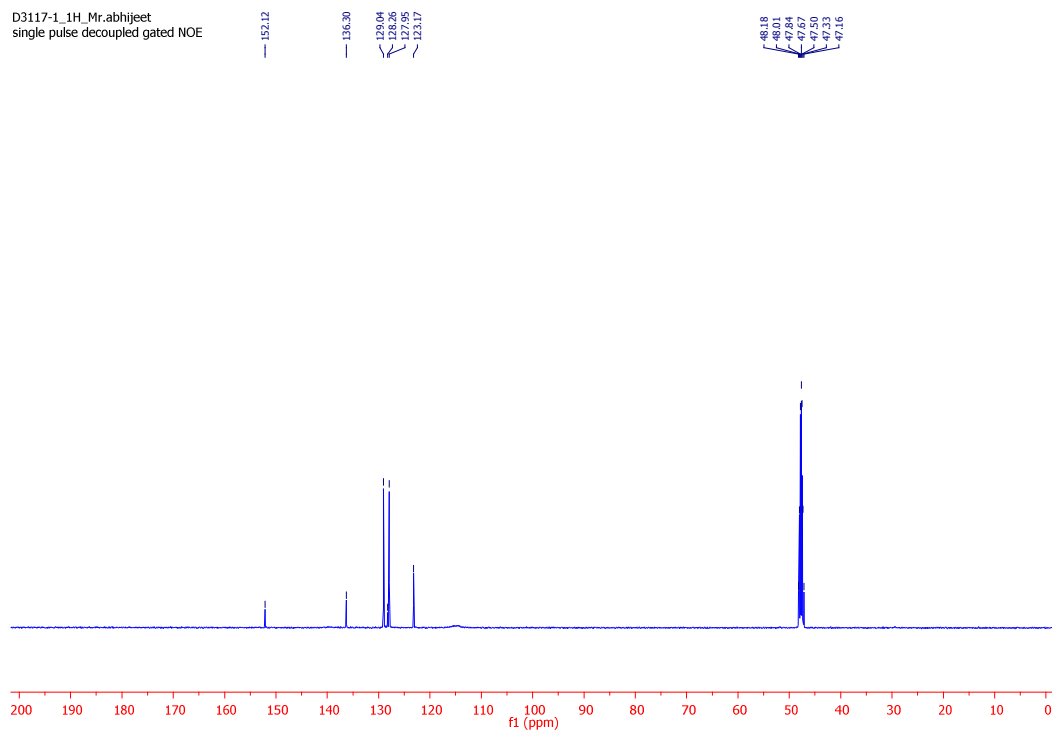
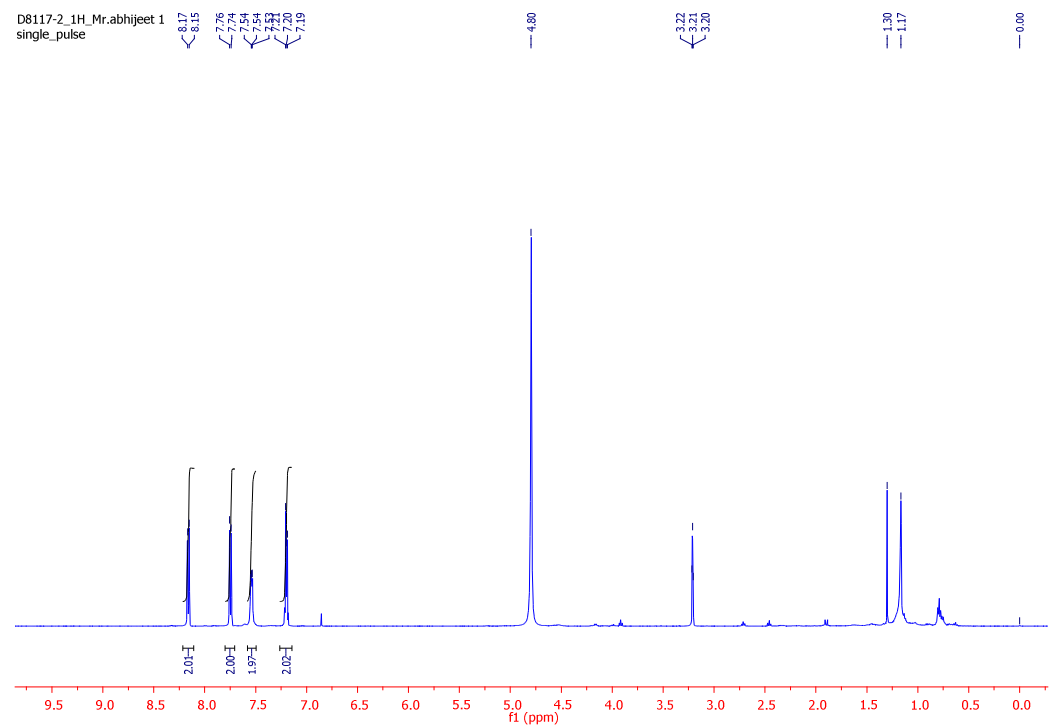
^1H NMR (CD_3OD , 500 MHz) of **3ca** ^1H NMR (CDCl_3 , 500 MHz) of **3bb**

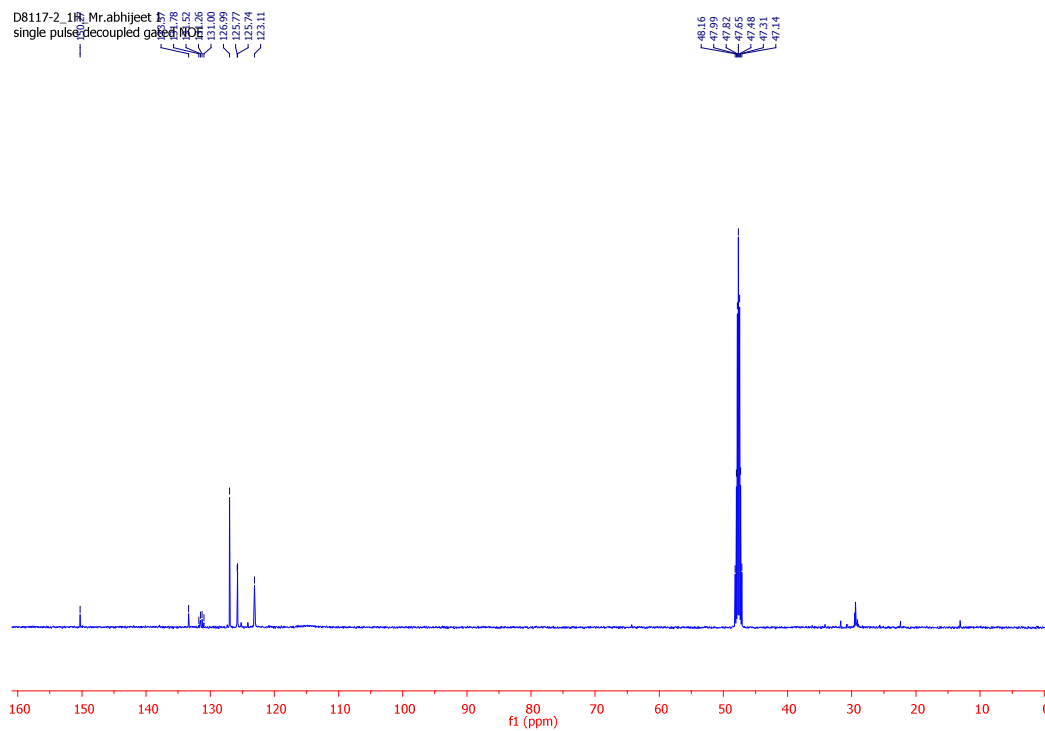
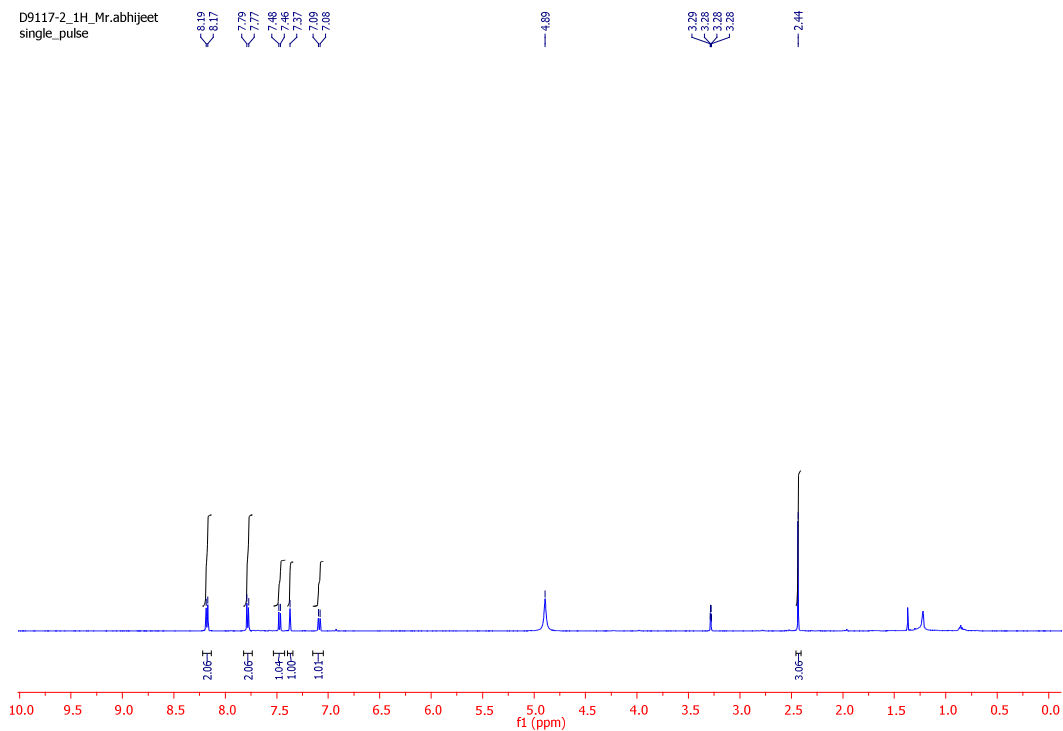
^{13}C NMR (CD_3OD , 125 MHz) of **3bb** ^1H NMR (CD_3OD , 500 MHz) of **3bc**

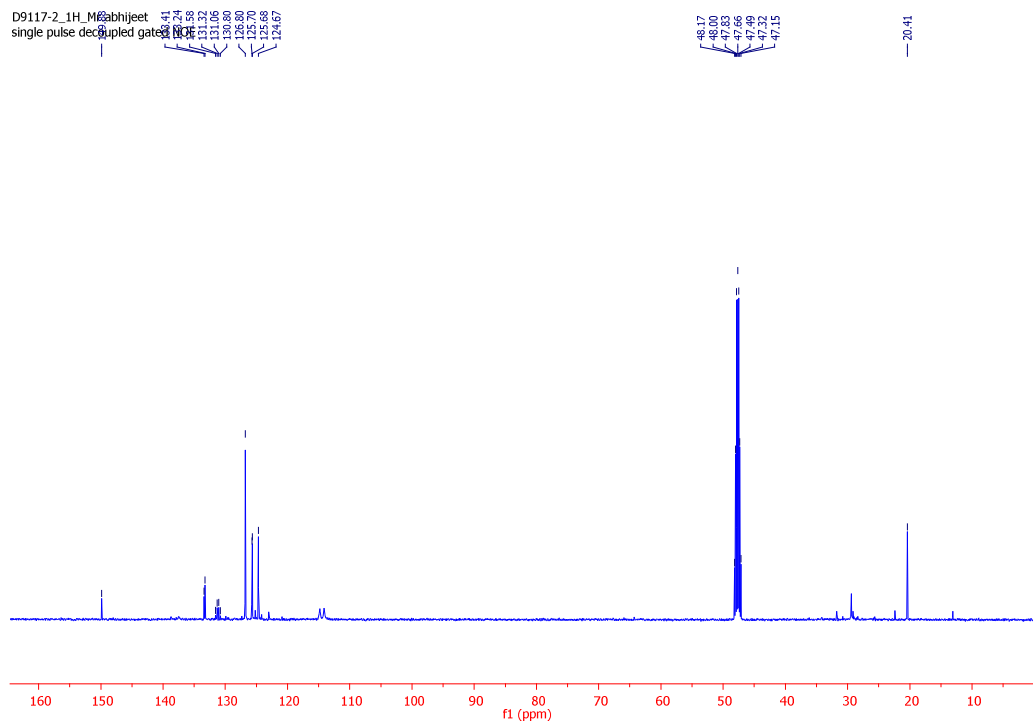
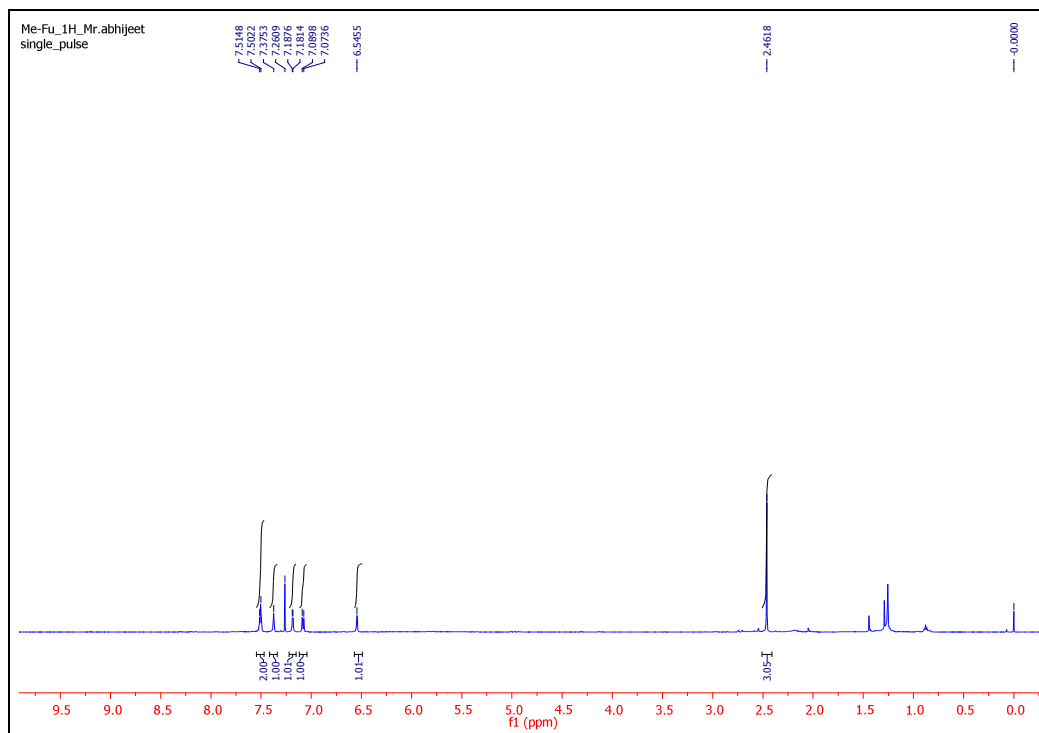
^{13}C NMR (CD_3OD , 125 MHz) of **3bc** ^1H NMR (CD_3OD , 500 MHz) of **3dc**

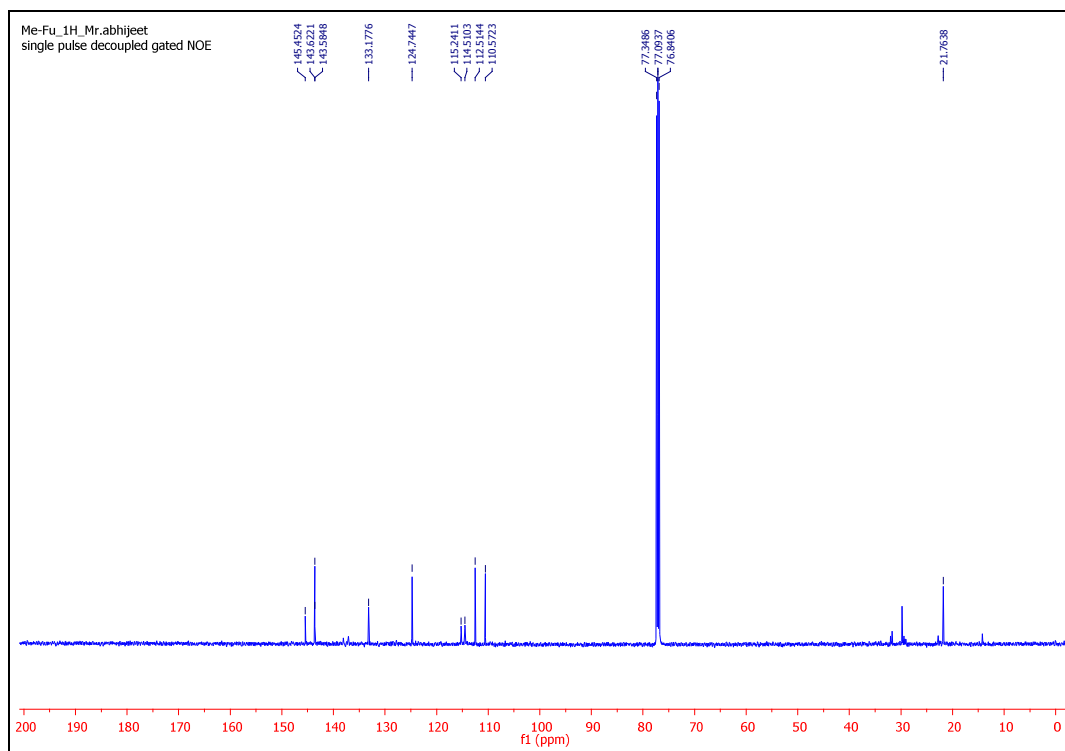
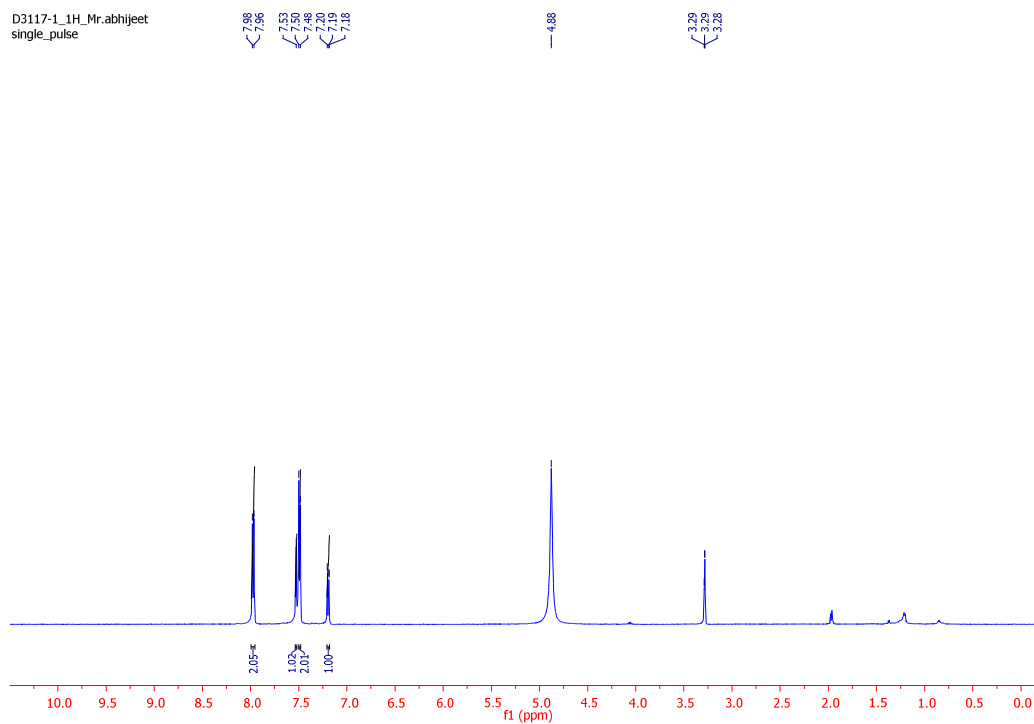
^{13}C NMR (CD_3OD , 125 MHz) of **3dc** **^1H NMR (CD_3OD , 500 MHz) of **3bd****

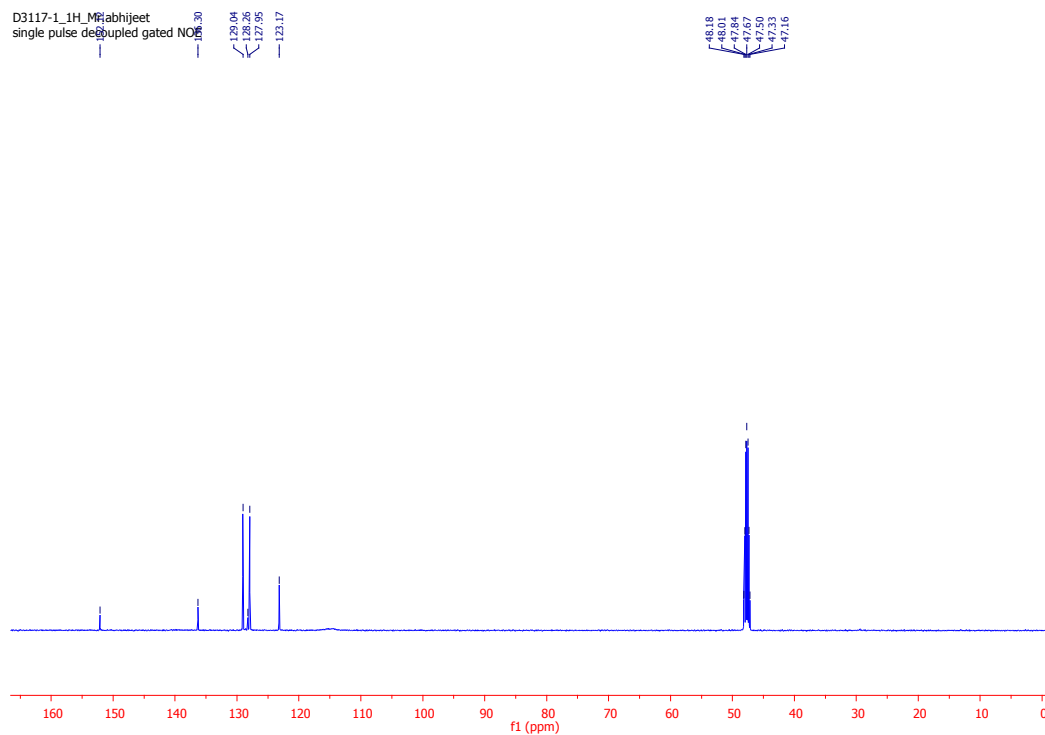
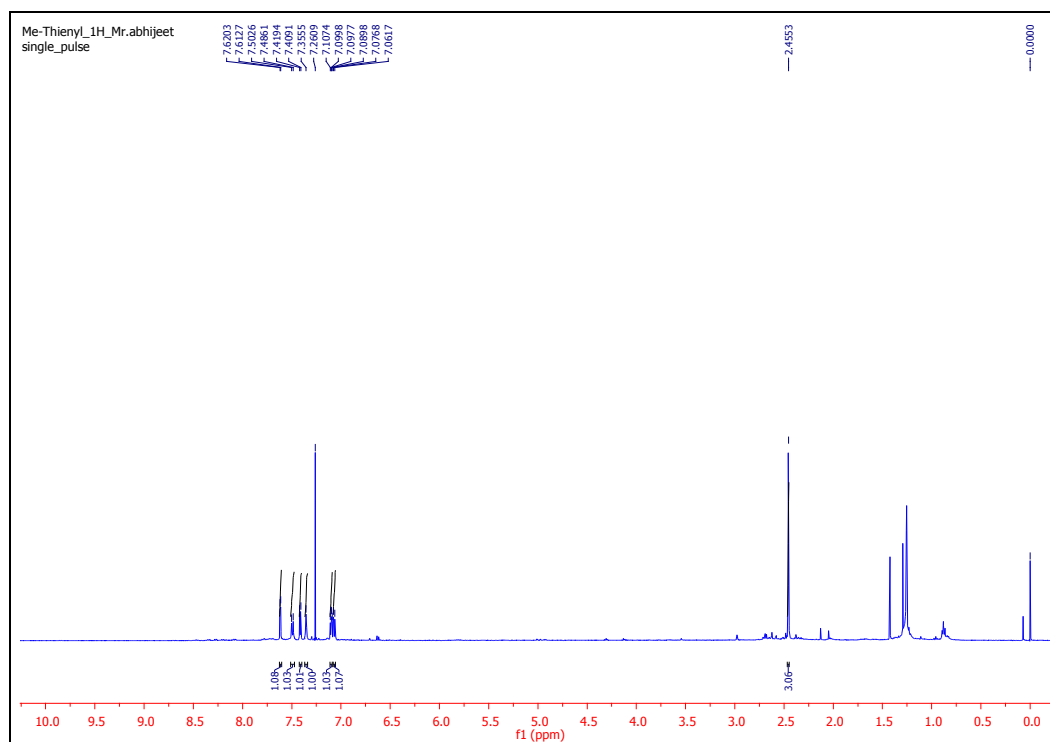
^{13}C NMR (CD₃OD, 125 MHz) of **3bd** **^1H NMR (CD₃OD, 500 MHz) of **3cd****

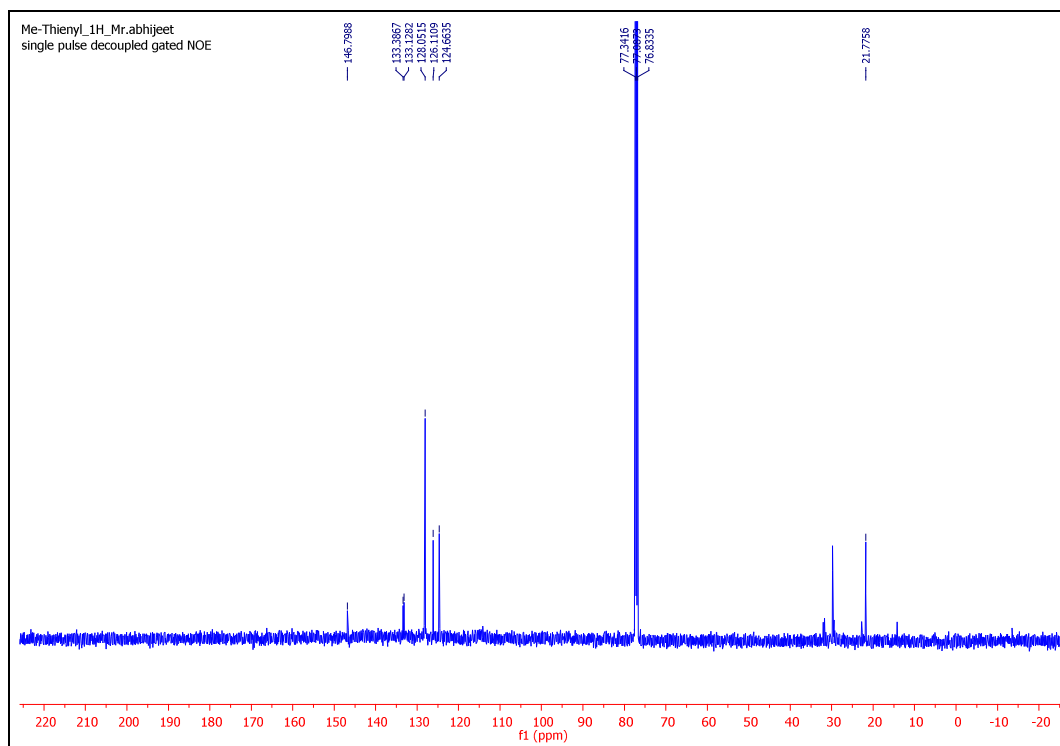
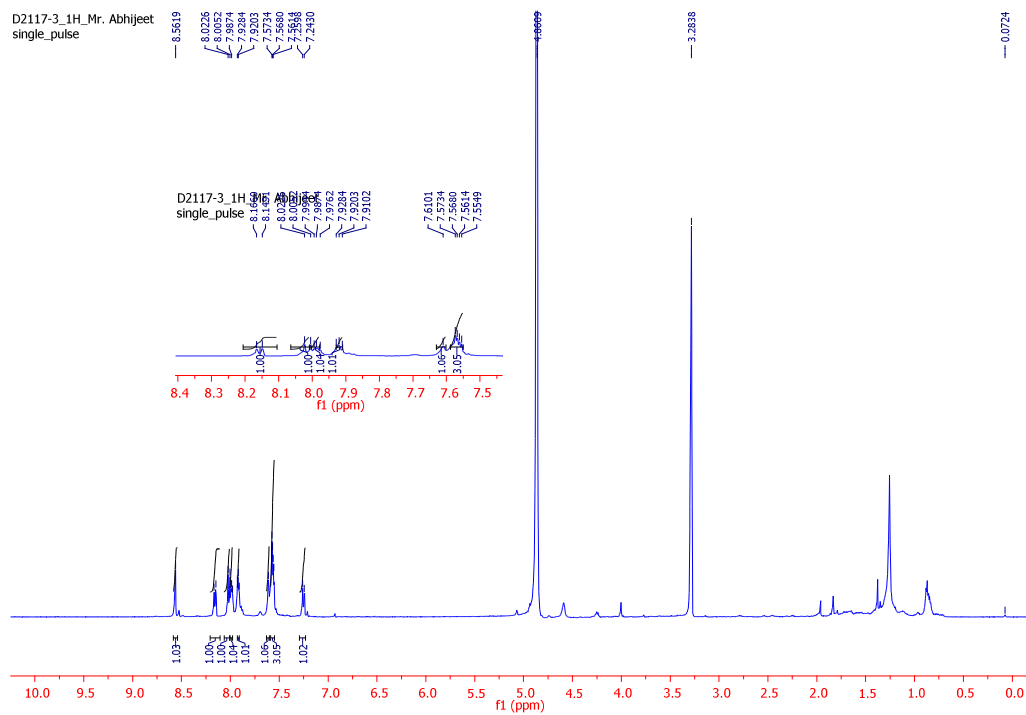
^{13}C NMR (CD₃OD, 125 MHz) of **3cd** **^1H NMR (CD₃OD, 500 MHz) of **3ae****

^{13}C NMR (CD₃OD, 125 MHz) of **3ae** **^1H NMR (CD₃OD, 500 MHz) of **3be****

^{13}C NMR (CD_3OD , 125 MHz) of **3be** ^1H NMR (CDCl_3 , 500 MHz) of **3bf**

^{13}C NMR (CDCl_3 , 125 MHz) of **3bf** **^1H NMR (CD_3OD , 500 MHz) of **3df****

^{13}C NMR (CD₃OD, 125 MHz) of **3df** **^1H NMR (CDCl₃, 500 MHz) of **3bg****

^{13}C NMR (CDCl_3 , 125 MHz) of **3bg** **^1H NMR (CD_3OD , 500 MHz) of **3ch****

^{13}C NMR (CD_3OD , 125 MHz) of **3ch**D2117-3_1H_Mr. Abhijeet
single pulse decoupled gated NOE