

Supporting information

Efficient and Facile Synthesis of Chromenopyrano[2,3-*b*]pyridine Derivatives Catalyzed by Sodium Carbonate

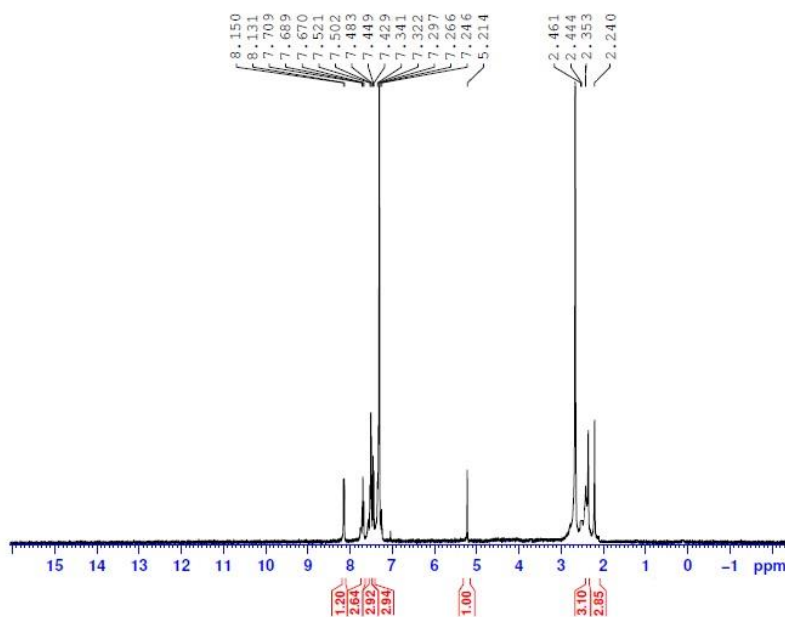
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¹H NMR spectrum of 7a

Sample Code: R1 (keshavarz)

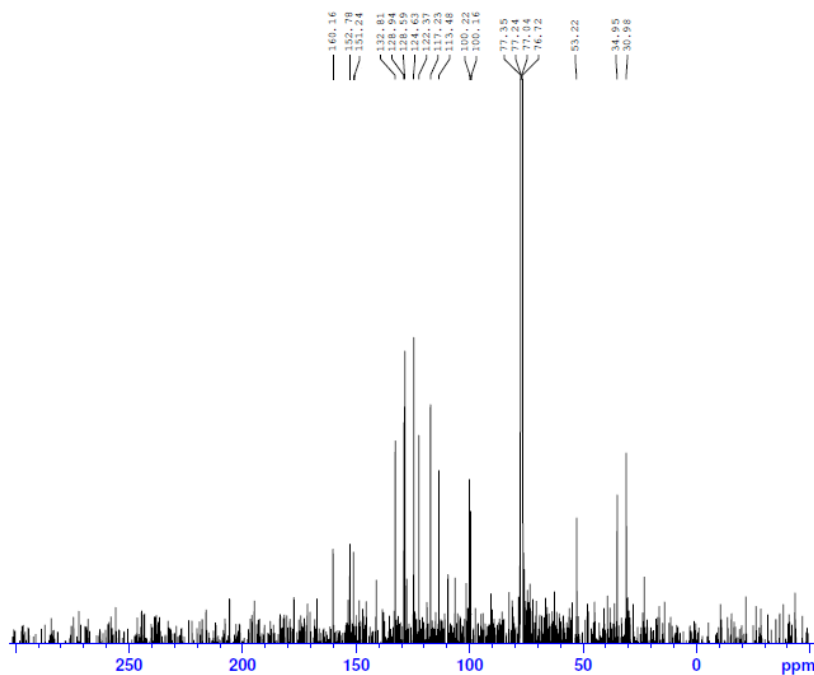


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PROCNO 1
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TD 65536
SOLVENT CDCl3
NS 20
DS 0
SWH 9615.385 Hz
FIDRES 0.146719 Hz
AQ 3.4079220 sec
RG 228
DW 52.000 usec
DE 6.50 usec
TE 292.3 K
D1 4.00000000 sec
TD0 1

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NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2228015 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

¹³C NMR spectrum of 7a

Sample Code: R1 (Keshavarz)



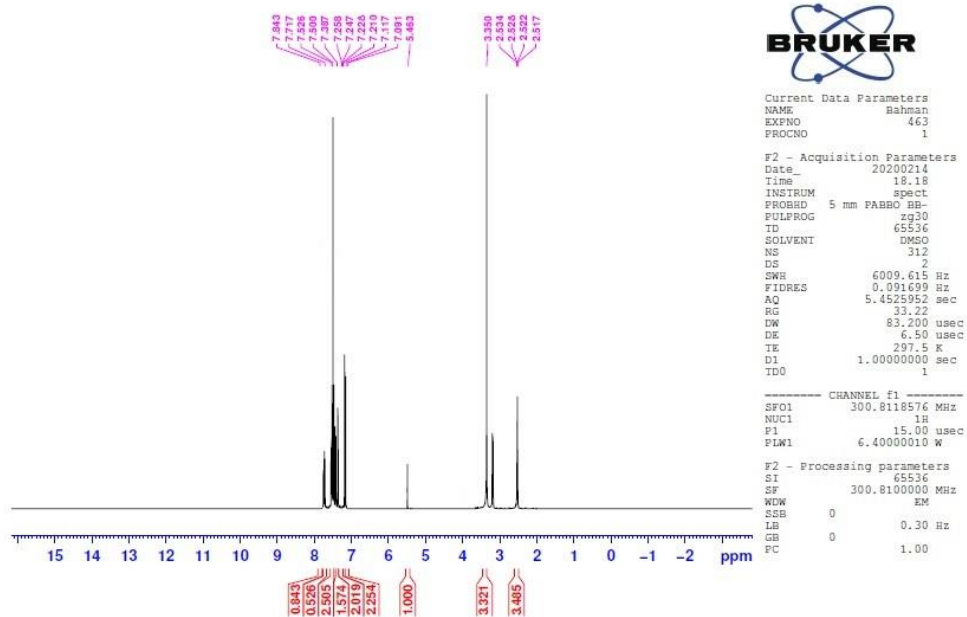
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SOLVENT CDCl3
NS 10240
DS 0
SWH 35714.285 Hz
FIDRES 0.544957 Hz
AQ 0.9175540 sec
RG 2050
DW 14.000 usec
DE 6.50 usec
TE 294.2 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 1

==== CHANNEL f1 =====
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P1 9.00 usec
PL1 -0.90 dB
PL1W 42.02801895 W
SFO1 100.6479784 MHz

==== CHANNEL f2 =====
CPDPRG2 waitz16
NUC2 1H
PCPD2 90.00 usec
PL2 -2.00 dB
PL12 14.16 dB
PL13 17.90 dB
PL2W 11.86359406 W
PL12W 0.28722104 W
PL13W 0.12139934 W
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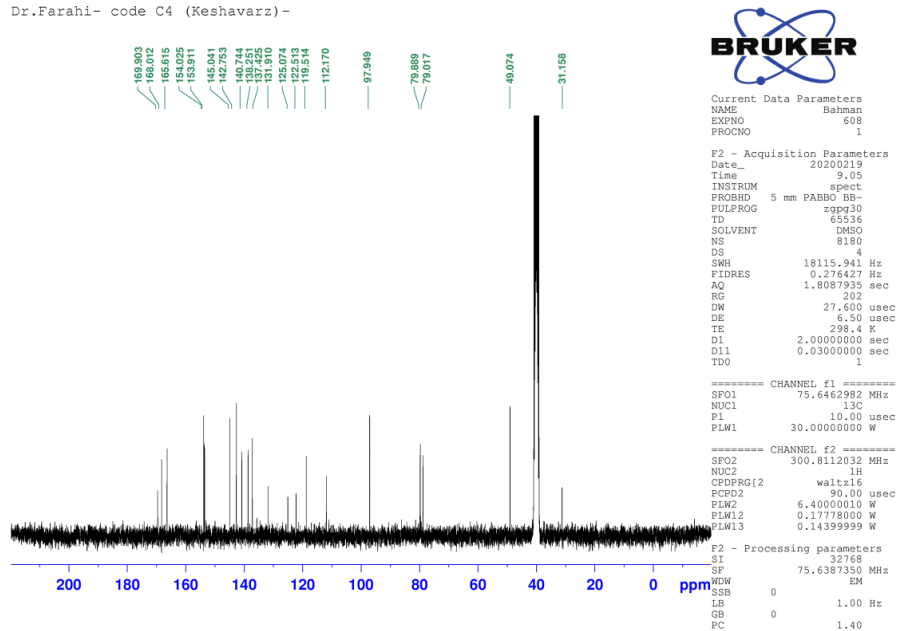
¹H NMR spectrum of 7b

code c4 (Keshavarz)-



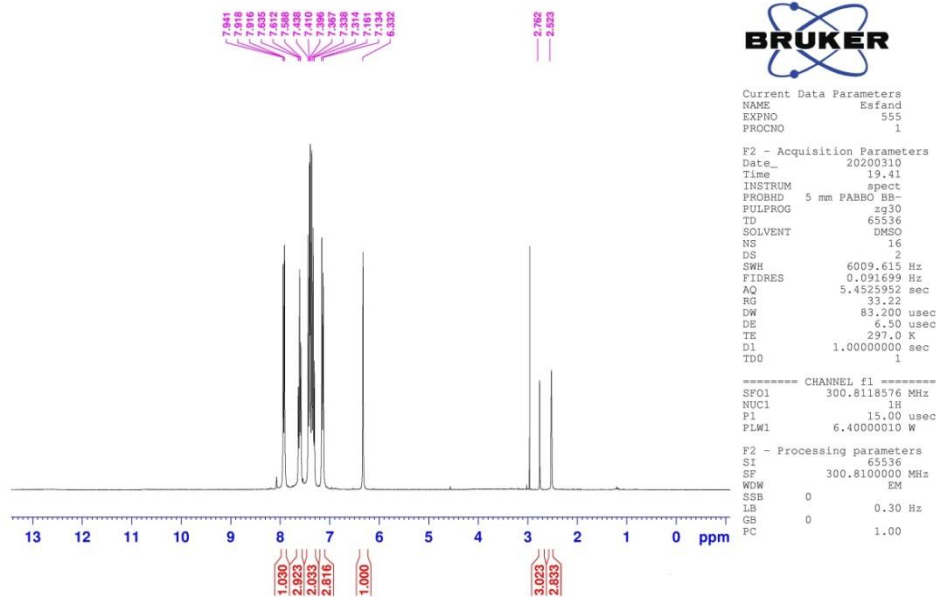
¹³C NMR spectrum of 7b

Dr.Farahi- code C4 (Keshavarz)-



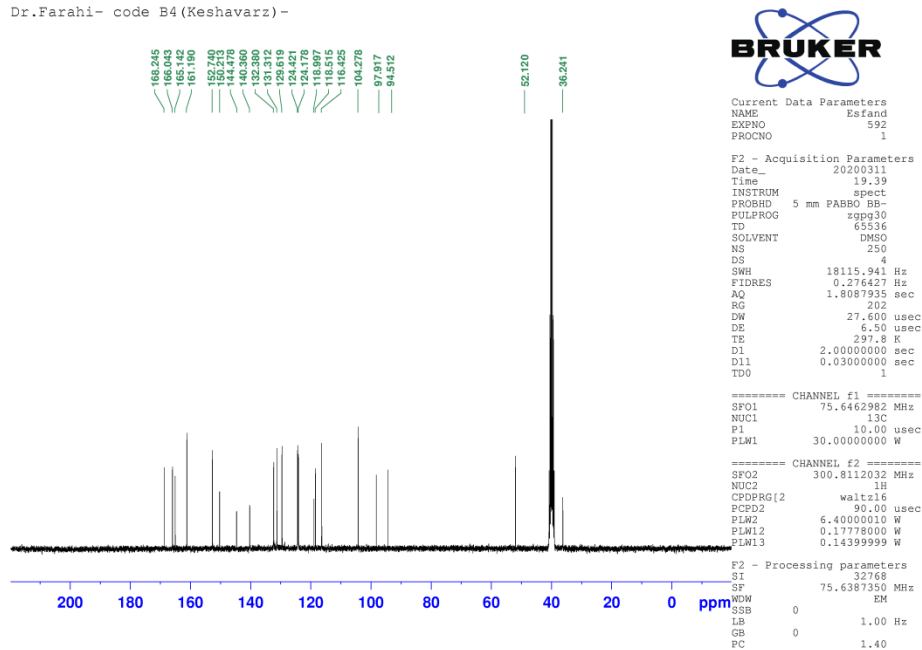
^1H NMR spectrum of 7c

Dr. Keyvanlo- code B4 (Keshavarz)-



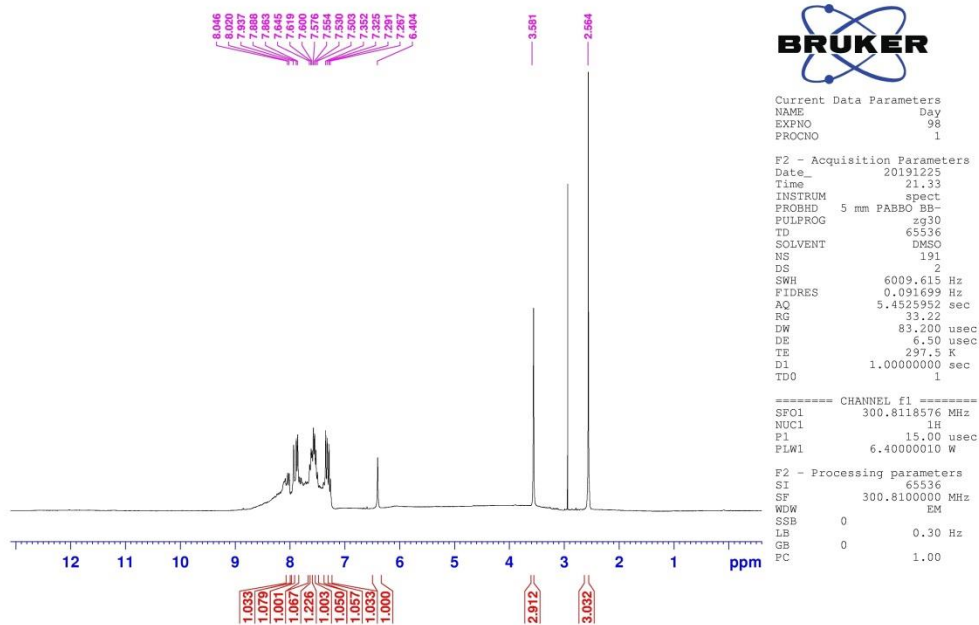
^{13}C NMR spectrum of 7c

Dr. Farahi- code B4 (Keshavarz)-

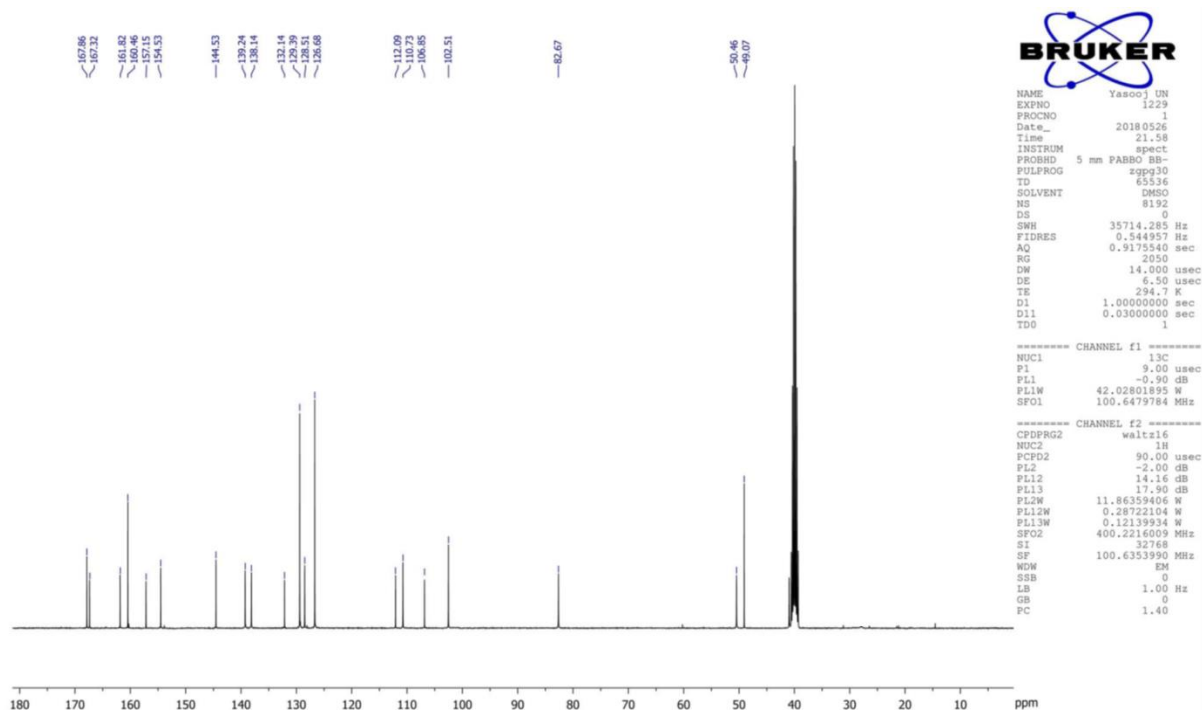


¹H NMR spectrum of 7d

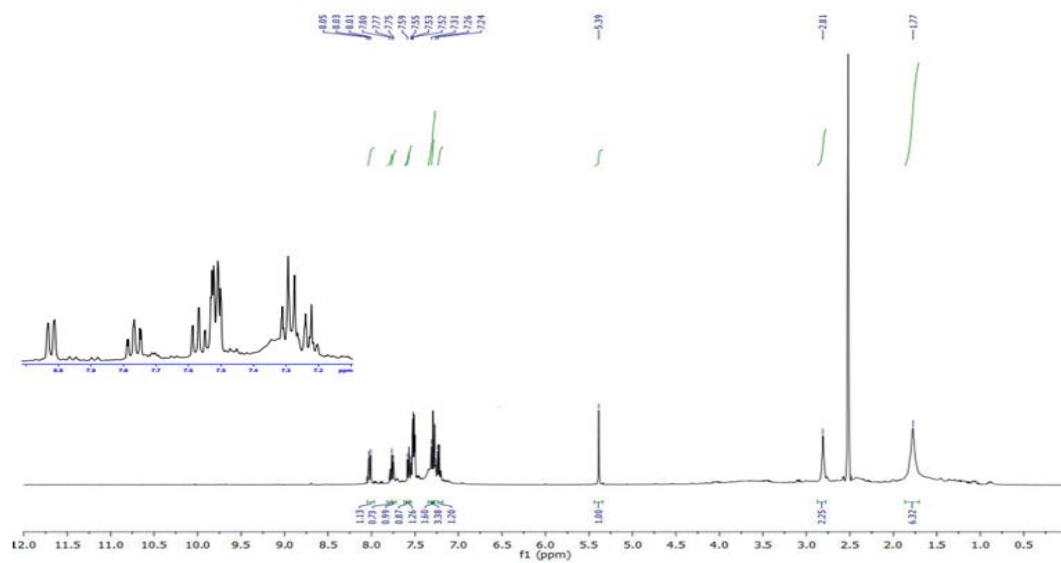
Dr.Farahi- code M1(keshavarz)-



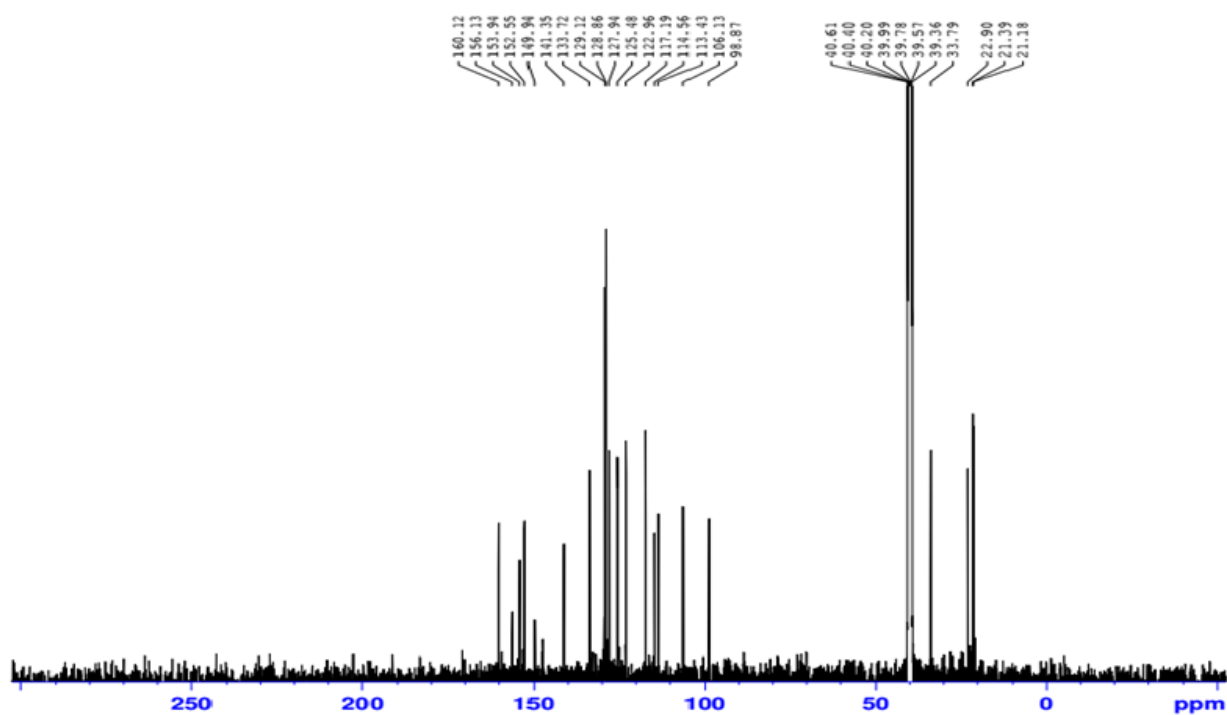
¹³C NMR spectrum of 7d



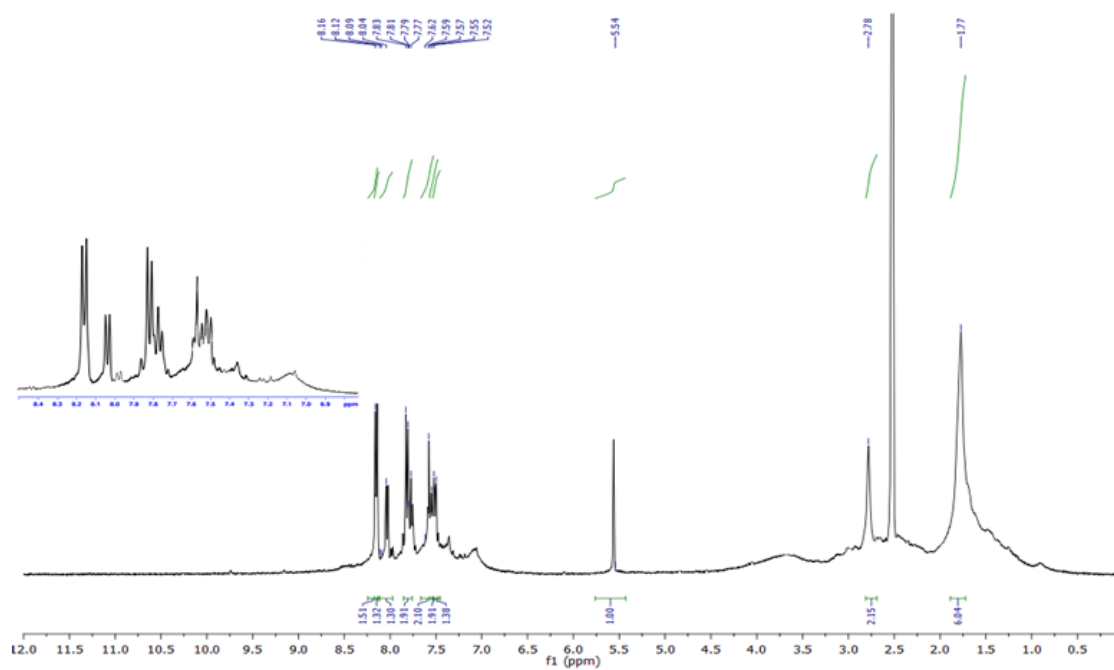
^1H NMR spectrum of 8a



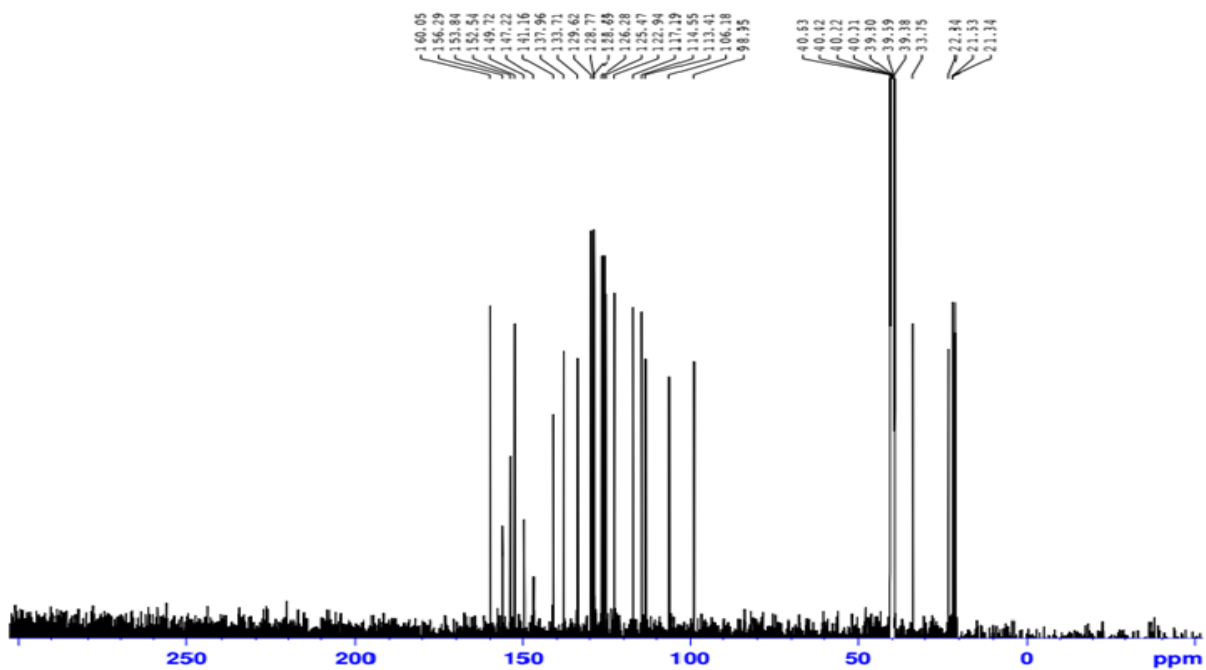
^{13}C NMR spectrum of 8a



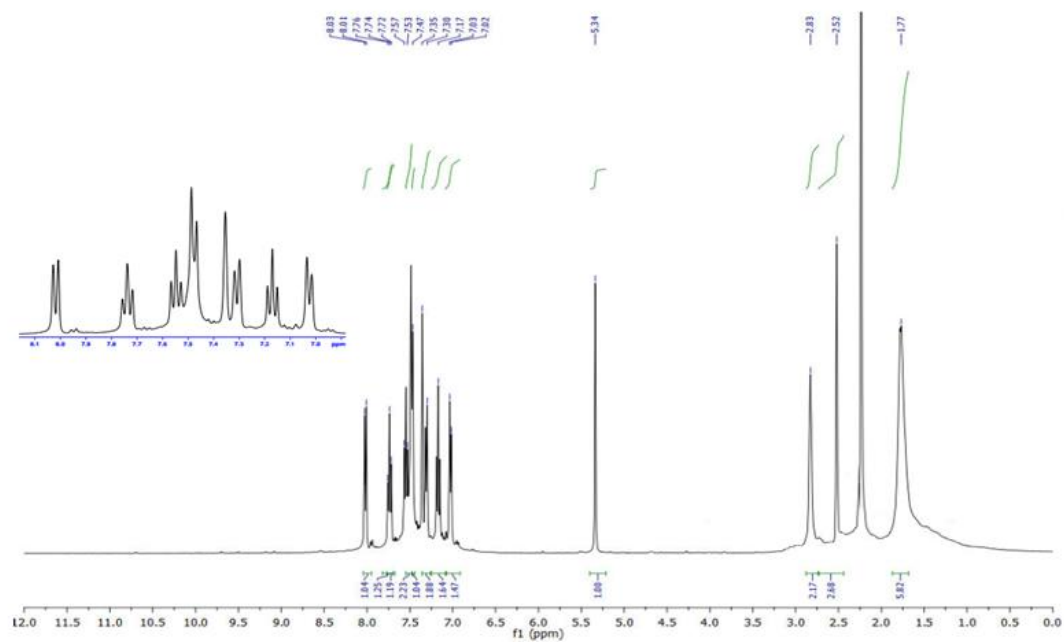
^1H NMR spectrum of 8b



^{13}C NMR spectrum of 8b



^1H NMR spectrum of 8c



^{13}C NMR spectrum of 8c

