Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Copper(I) catalyzed Sonogashira reactions promoted by monobenzyl nicotinium chloride a *N*- donor quaternary ammonium salt

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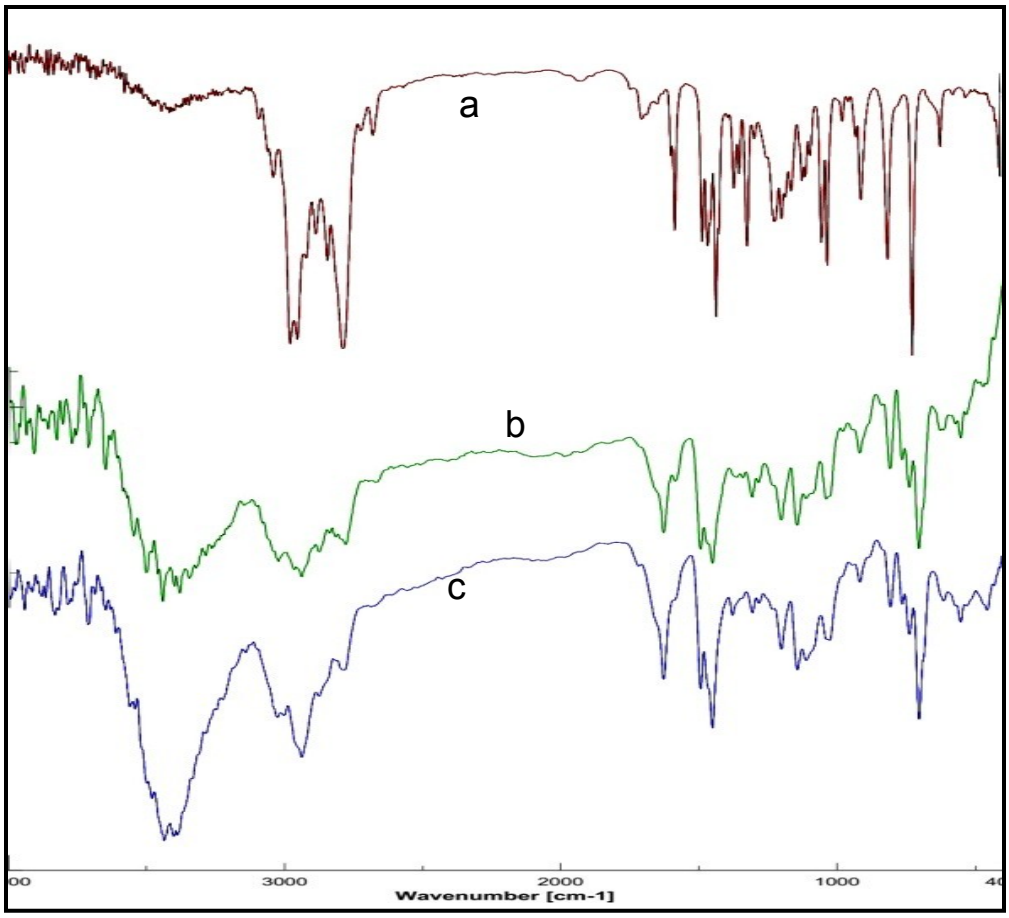


Figure 1 FT-IR spectra, a)Nicotine, b)[MBNT]Cl, c)[MBNT][Cu_4Cl_5]

Nicotine: FT-IR (KBr, cm^{-1}): ν = 3025, 2970, 2870, 1691, 1677, 904, 717.

[MBNT]Cl: FT-IR (KBr, cm^{-1}): ν =3412, 3043, 2958, 1632, 1610, 1451, 1197, 916, 703, 472.

[DBNT][Cu_4Cl_5]: FT-IR (KBr, cm^{-1}): ν =3401, 3040, 2945, 1635, 1611, 1455, 1213, 918, 704, 475.

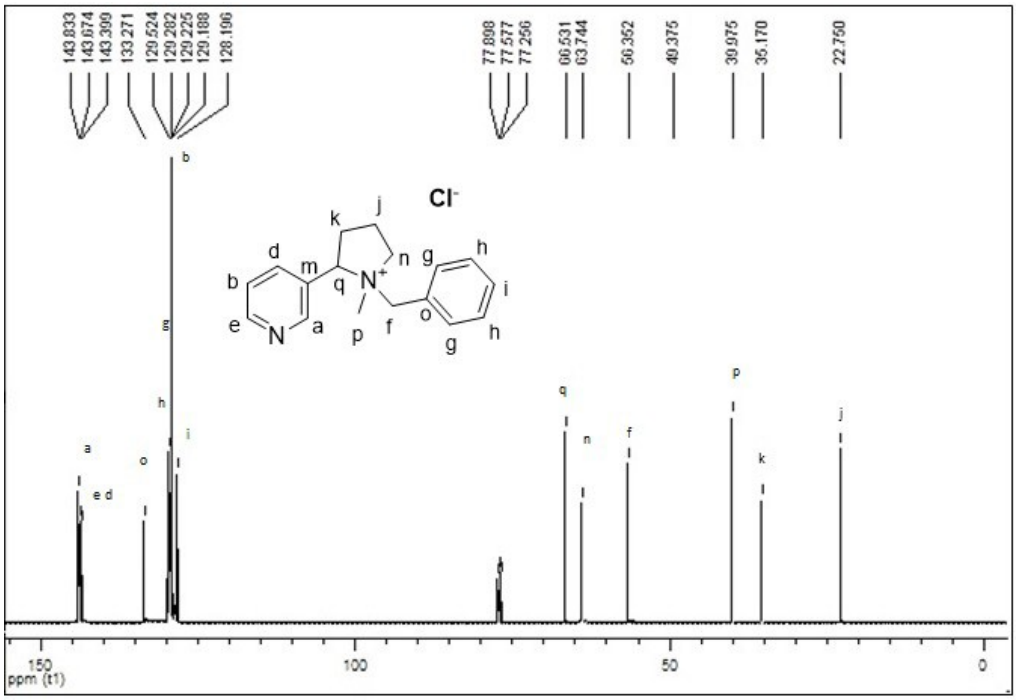


Figure 2. ^{13}C-NMR ($CDCl_3$, 100 MHz) spectrum of monobenzyl nicotinium chloride

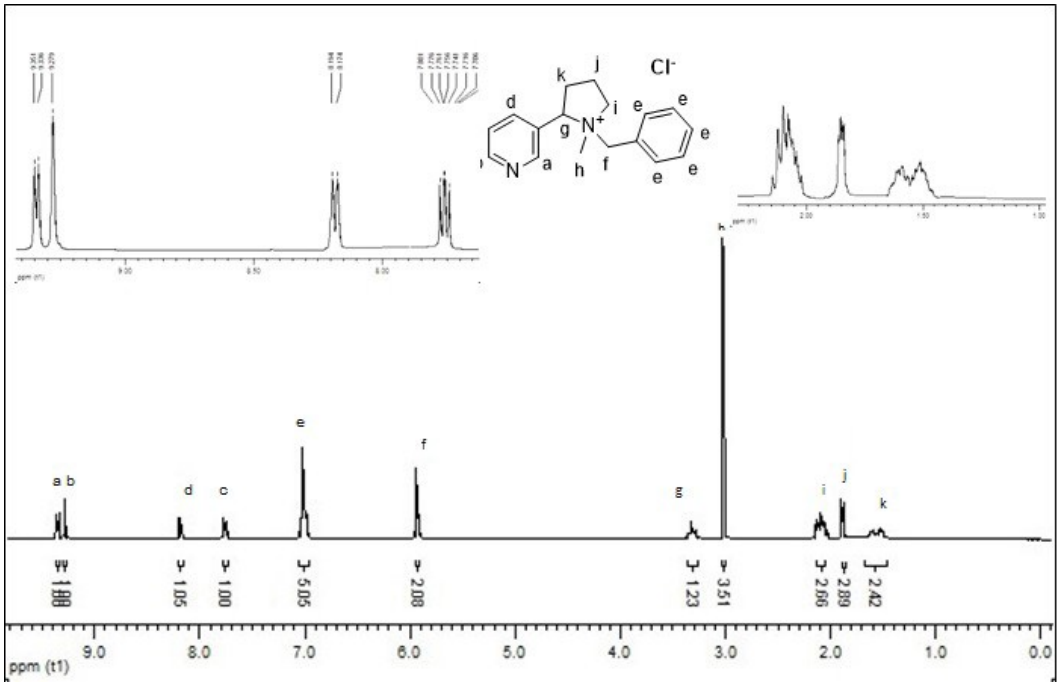


Figure 3. ^{1}H-NMR ($CDCl_3$, 400 MHz) spectrum of monobenzyl nicotinium chlorid

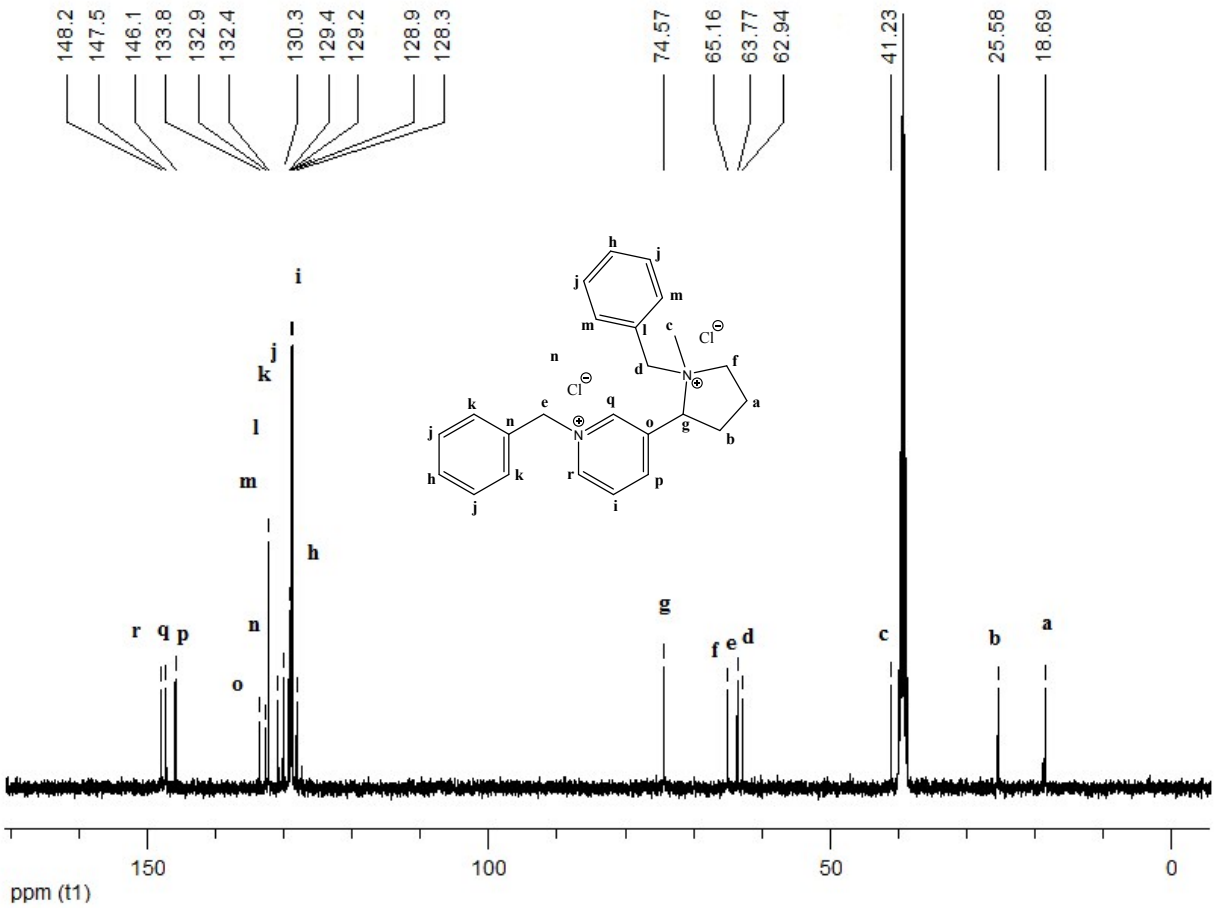


Figure 4 ^{13}C-NMR ($CDCl_3$, 100 MHz) spectrum of dibenzyl nicotinium chloride

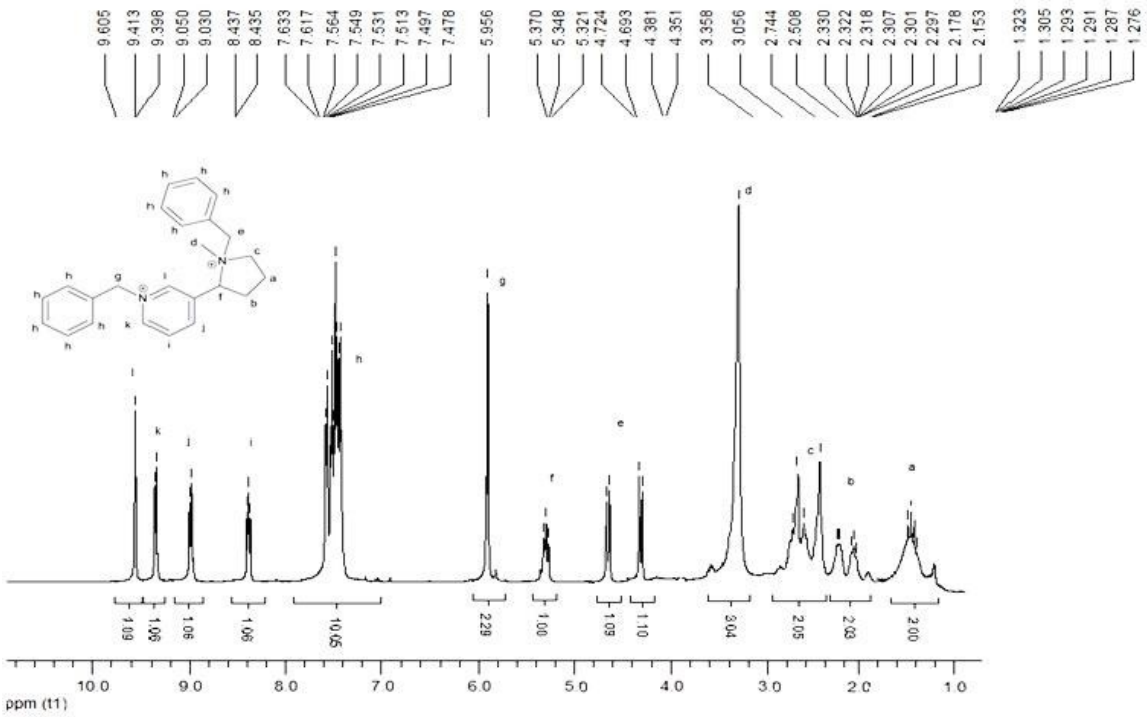
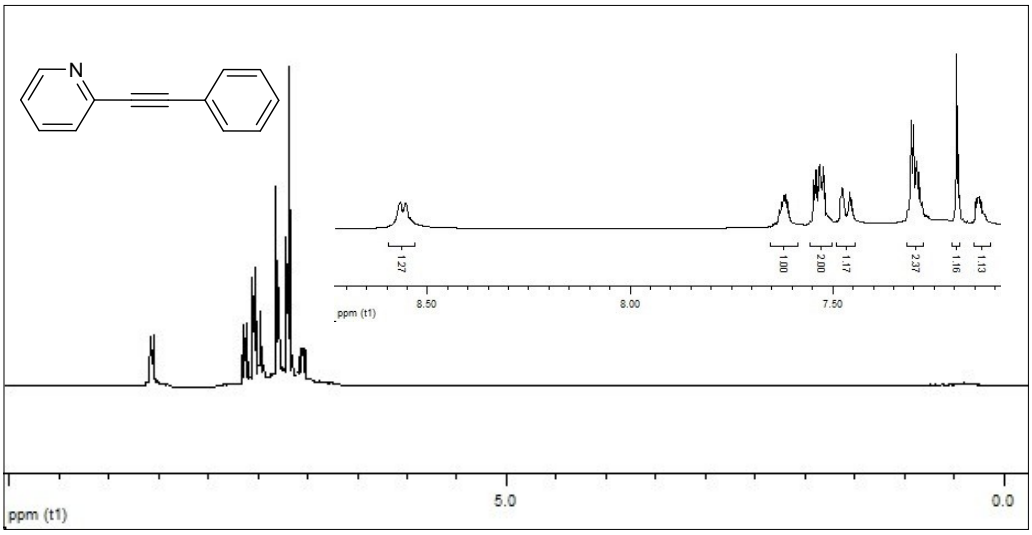
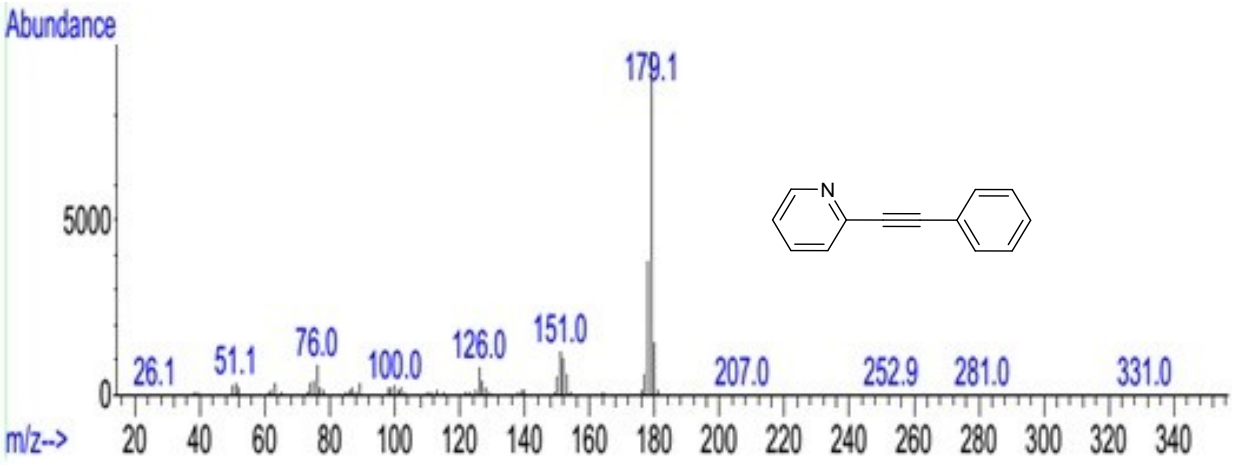


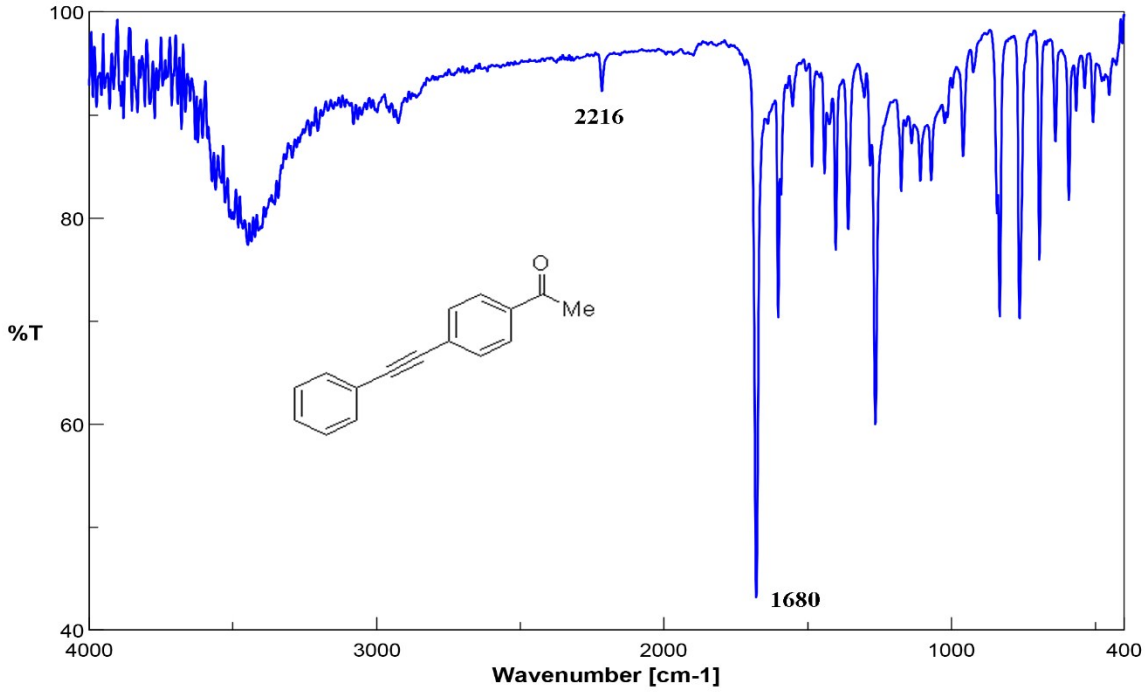
Figure 5 ^{1}H-NMR ($CDCl_3$, 400 MHz) spectrum of dibenzyl nicotinium chlorid

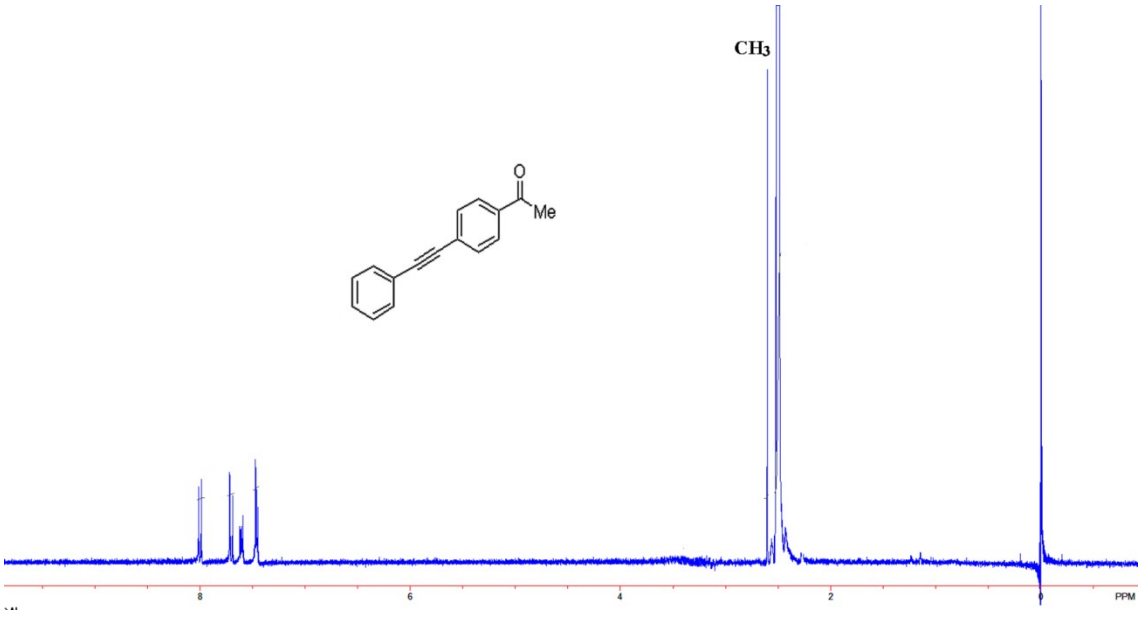
NMR, Mass and FTIR spectra



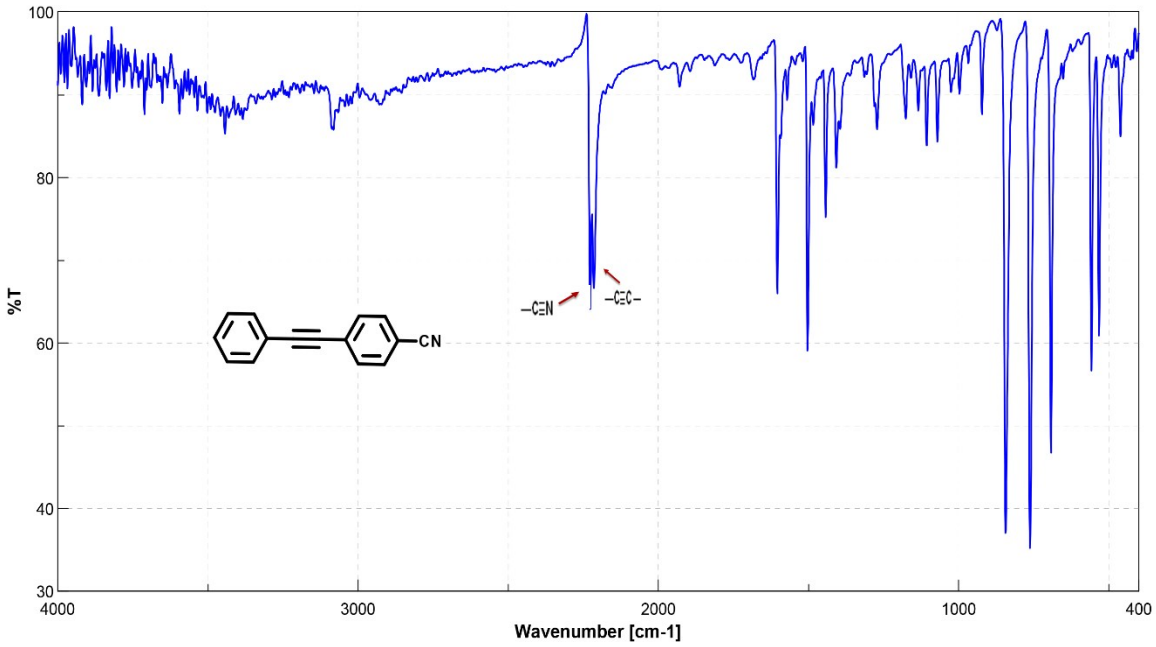
^{1}H-NMR ($CDCl_3$, 400 MHz)

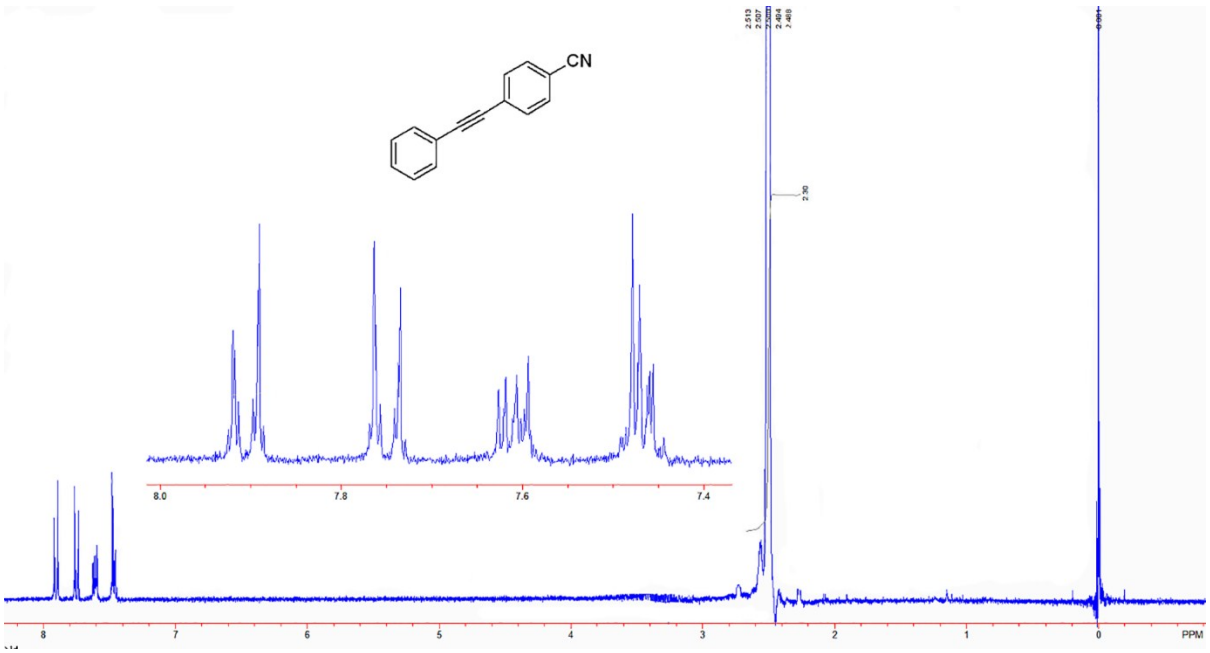




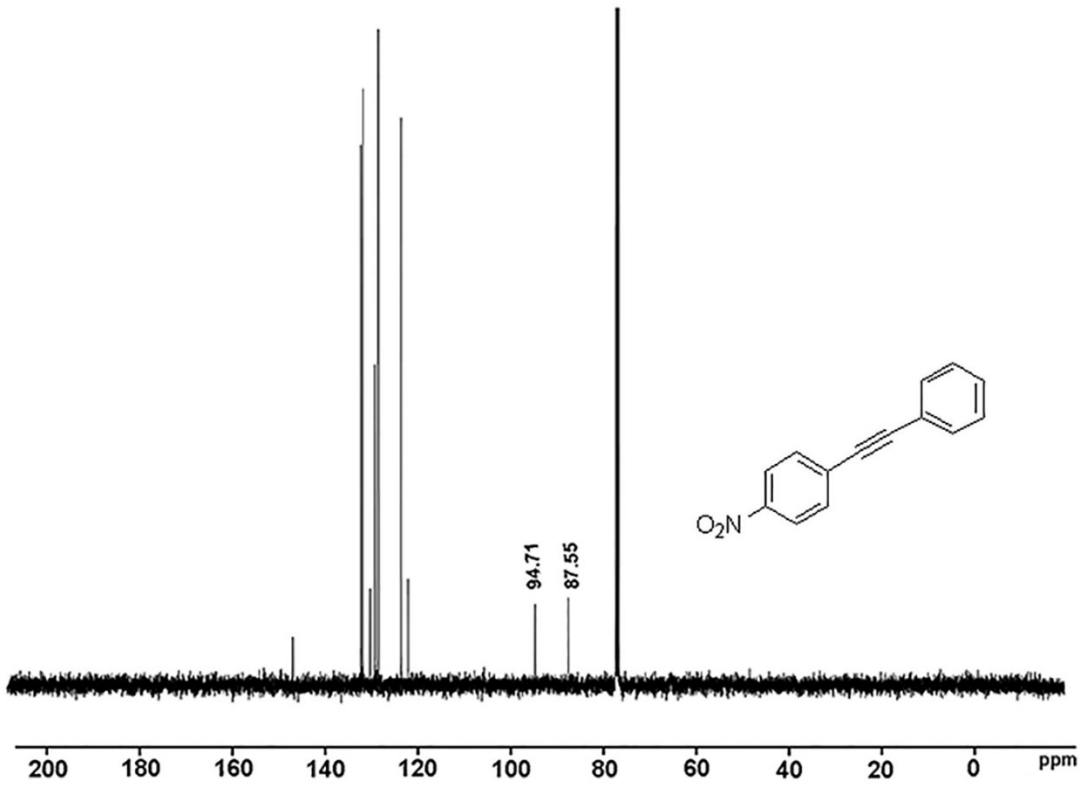


^{1}H-NMR (DMSO, 300 MHz)

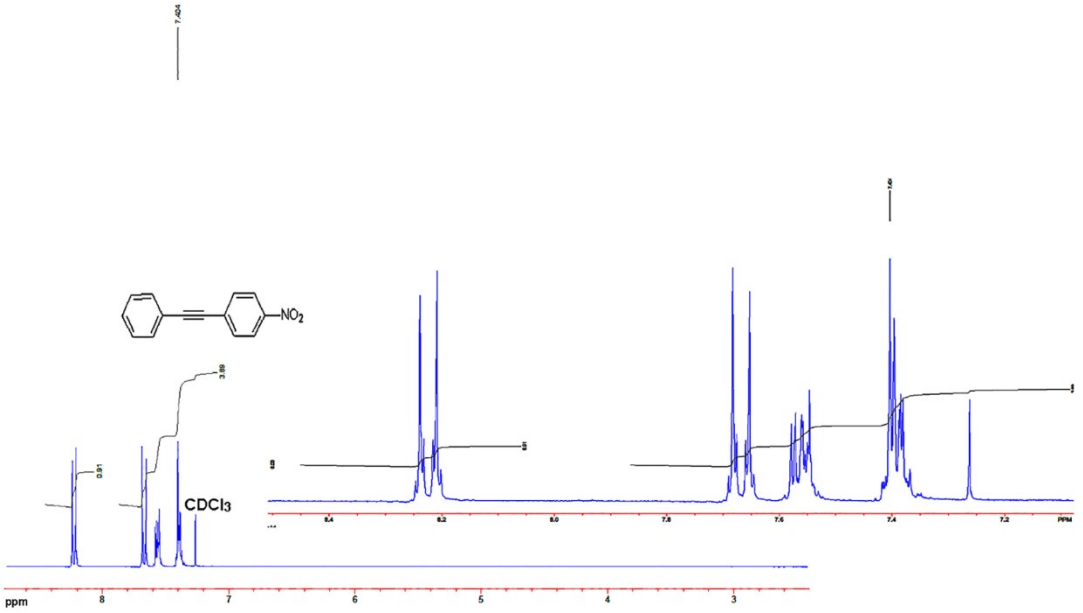




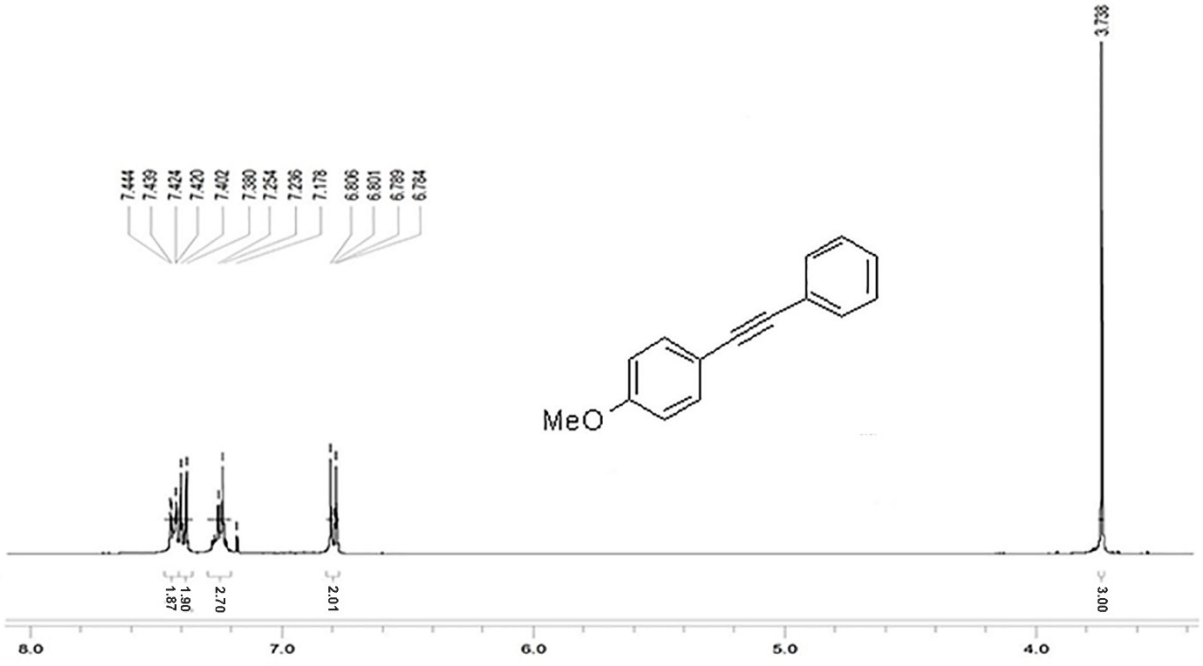
^{1}H-NMR (DMSO, 300 MHz)



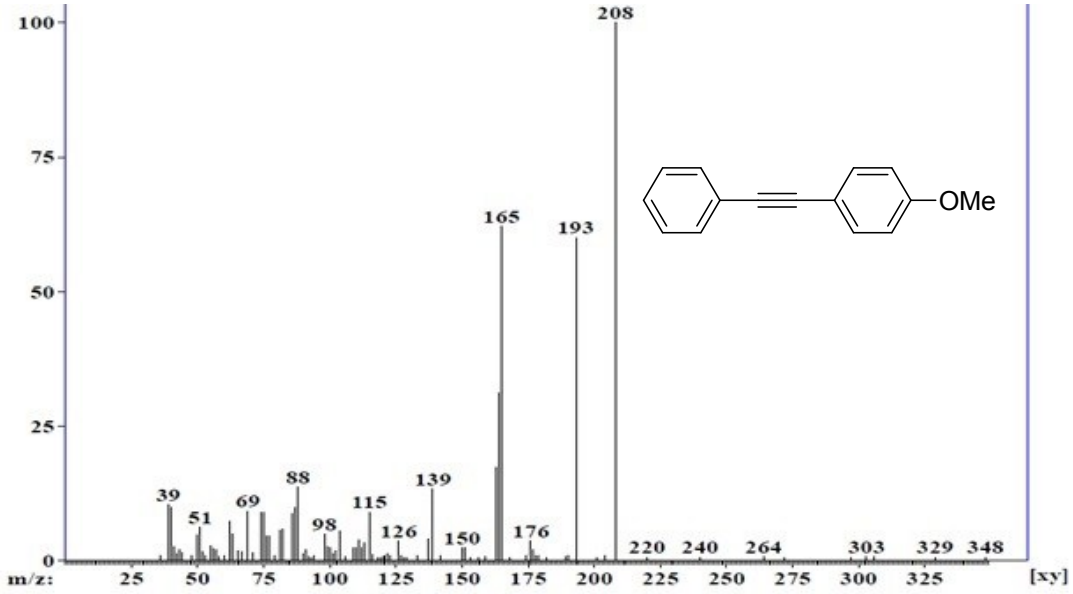
^{13}C-NMR ($CDCl_3$)

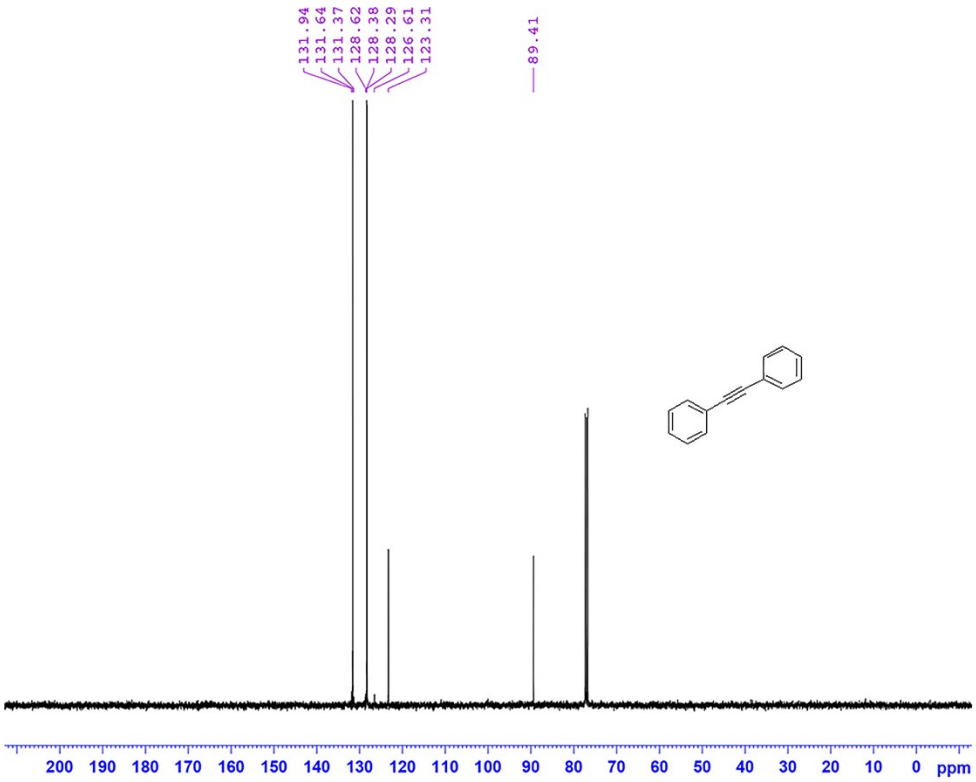


^{1}H-NMR (DMSO, 300 MHz)



^{1}H-NMR ($CDCl_3$, 400 MHz)

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