

Supplementary material

Azo doped polymer thin films for active and passive optical power limiting applications †

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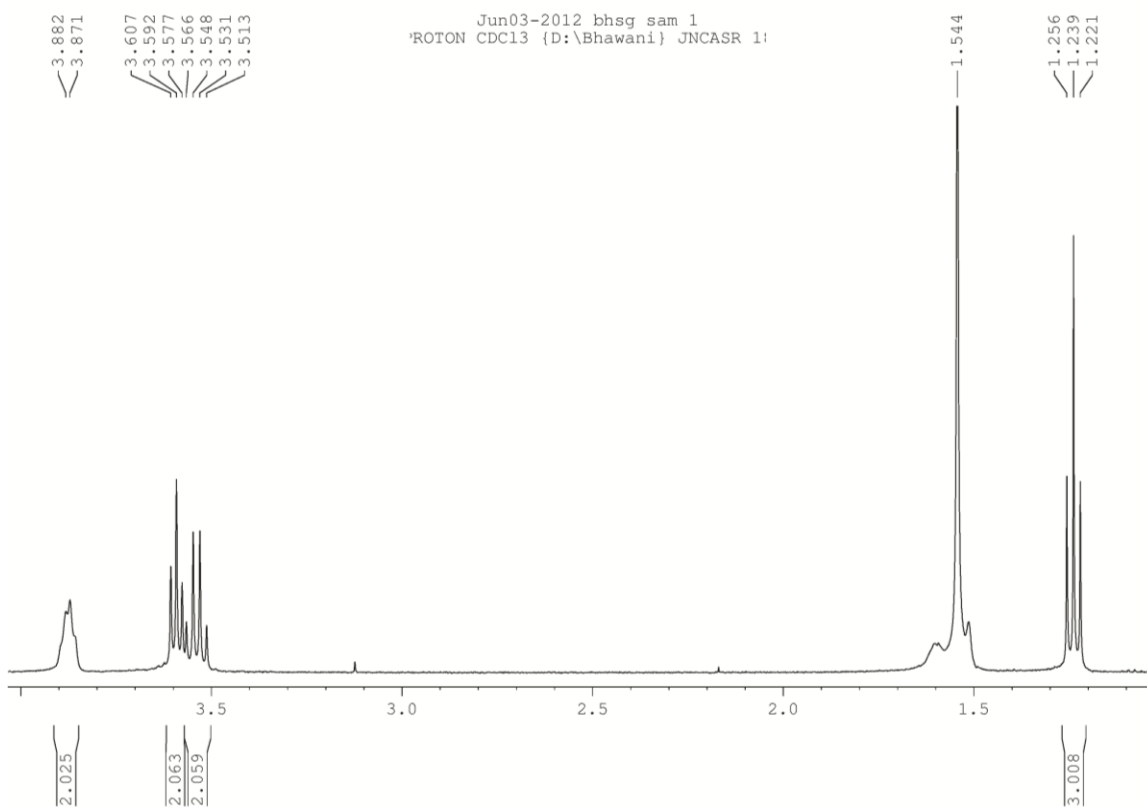
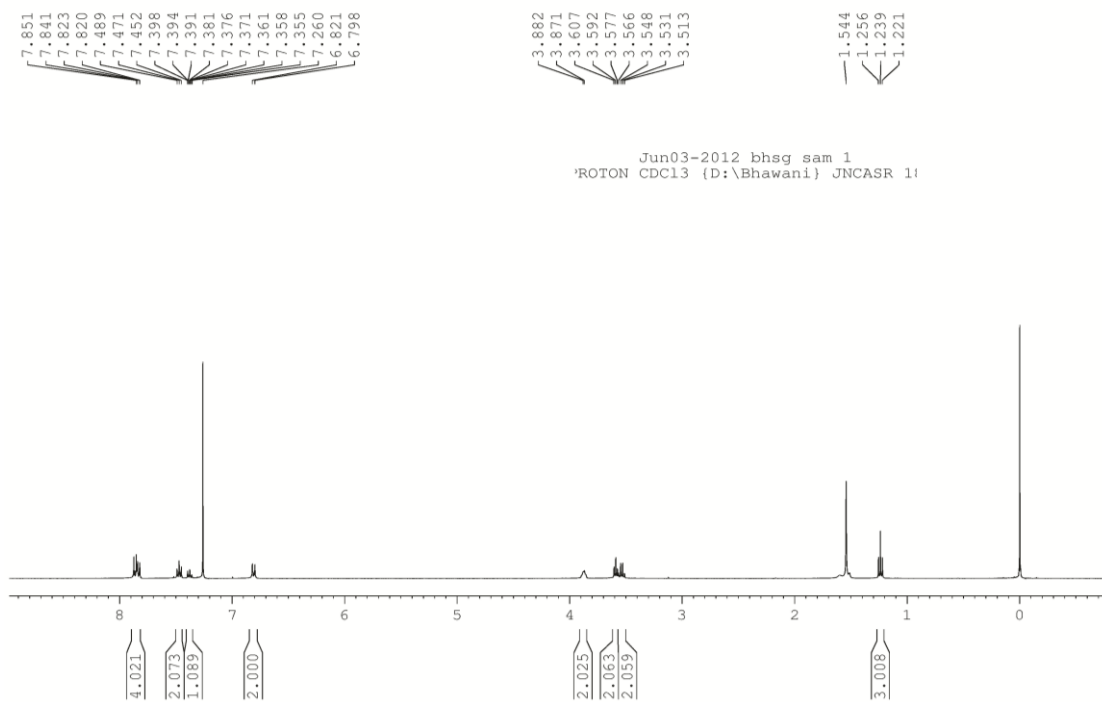
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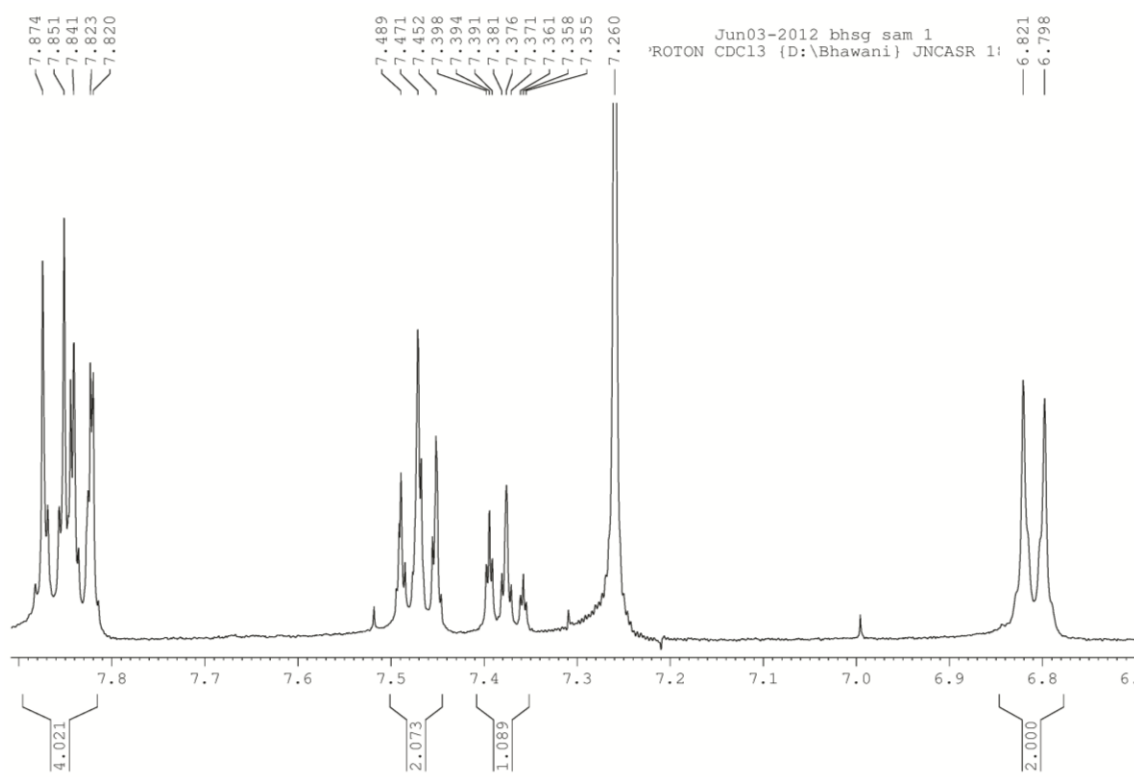
Structural determination by ¹H-NMR, ¹³C-NMR and Mass spectroscopic techniques

S.No.	Compound name	¹ H-NMR (δ)	¹³ C-NMR (δ)	M.S data (m/z)
1)	E4PA	1.23 (3H, t, H-8, J=7.2 Hz) 1.6 (1H, unresolved, -OH) 3.54 (2H, q, H-7, J=7.2 Hz) 3.59 (2H, t, H-5, J=6.6 Hz) 3.82 (2H, d, H-6, J=6.6 Hz) 6.79 (1H, d, H-4, J=9 Hz) 7.37 (1H, triplet of a triplet, H-9, J=2.07Hz) 7.47 (2H, triplet, H-1, J=7.2 Hz) 7.82 (2H, doublet of doublet, H-2, J=7.2 Hz) 7.85 (2H, doublet, H-3, J=9 Hz)	12.19, 1C (C-8) 45.96, 1C (C-7) 52.526, 1C (C-5) 60.376, 1C (C-6) 111.71, 2C (C-4) 122.329, 2C (C-1) 125.310, 2C (C-3) 129.088, 2C (C-2) 129.568, 1C (C-9) 143.791, 1C (C-12) 150.647, 1C (C-11) 153.421, 1C (C-10)	269 (M) ⁺ 238 (M - CH ₂ OH) ⁺ 164 (238 - Ph-N ₂) ⁺ 105 (Ph-N ₂) ⁺ 77 (C ₆ H ₅) ⁺
2)	E4TPA	1.251 (3H, t, H-8, J=7.2 Hz) 1.601 (1H, t, OH, J=5.6 Hz) 3.547 (2H, q, H-7, J=7.2 Hz) 3.609 (2H, q, H-5, J=6 Hz) 3.881 (2H, q, H-6, J=6 Hz) 6.80 (2H, d, H-4, J=9 Hz) 7.72 (d, 2H, H-2, J=8.4 5Hz) 7.88 (d, 2H, H-3, J=9 Hz) 7.90, (d, 2H, H-1, J=8.4 Hz)	12.08, 1C (C-8) 46, 1C (C-7) 52.412, 1C (C-5) 60.33, 1C (C-6) 111.5, 2C (C-4) 122.32, 4C (C-2, C-3) 125.5, 2C (C-1) 126, 1C (C-9)	337 (M) ⁺ 306 (M - CH ₂ OH) ⁺ 164 (M - Ph-(C ₂ H ₅)(C ₂ H ₄ OH)) ⁺ 133 (306 - CF ₃ -Ph-N=N) ⁺ 105 (C ₆ H ₄ N ₂) ⁺

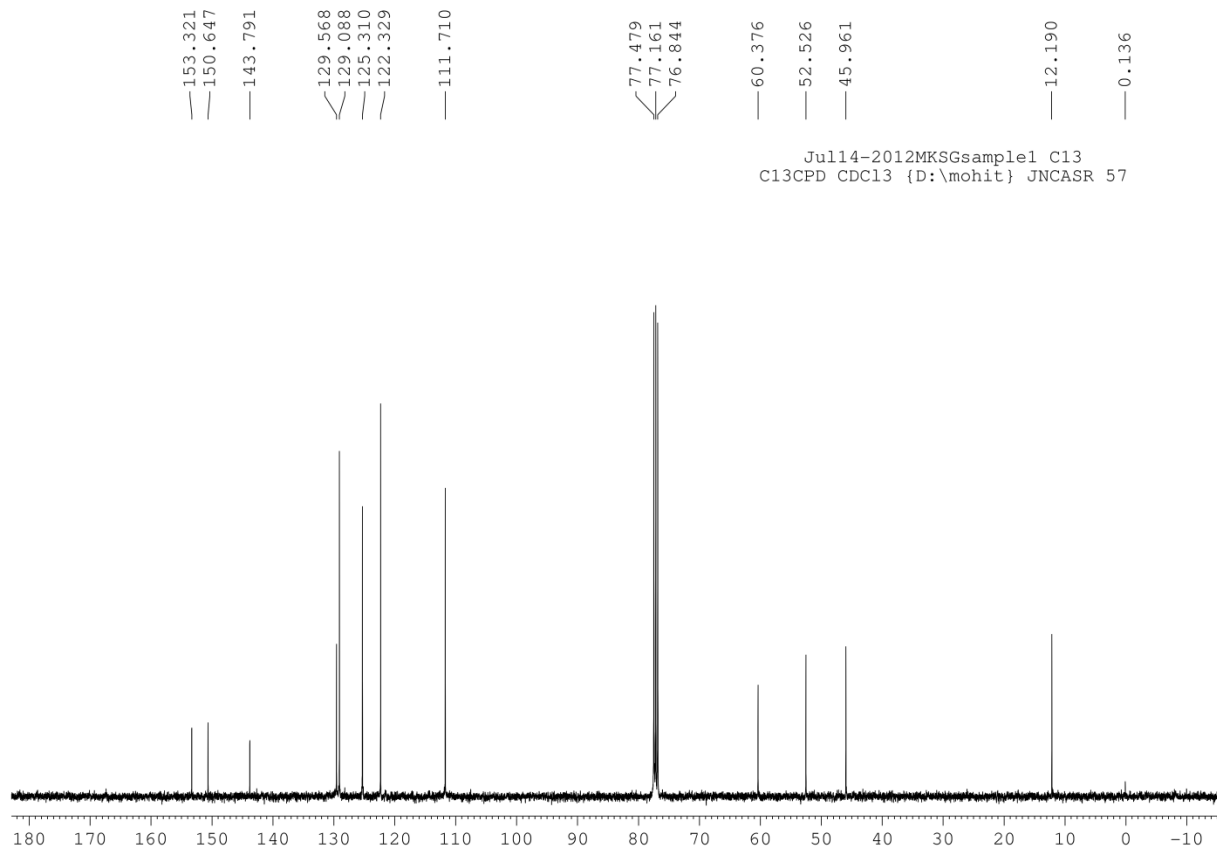
E4PA

¹H NMR

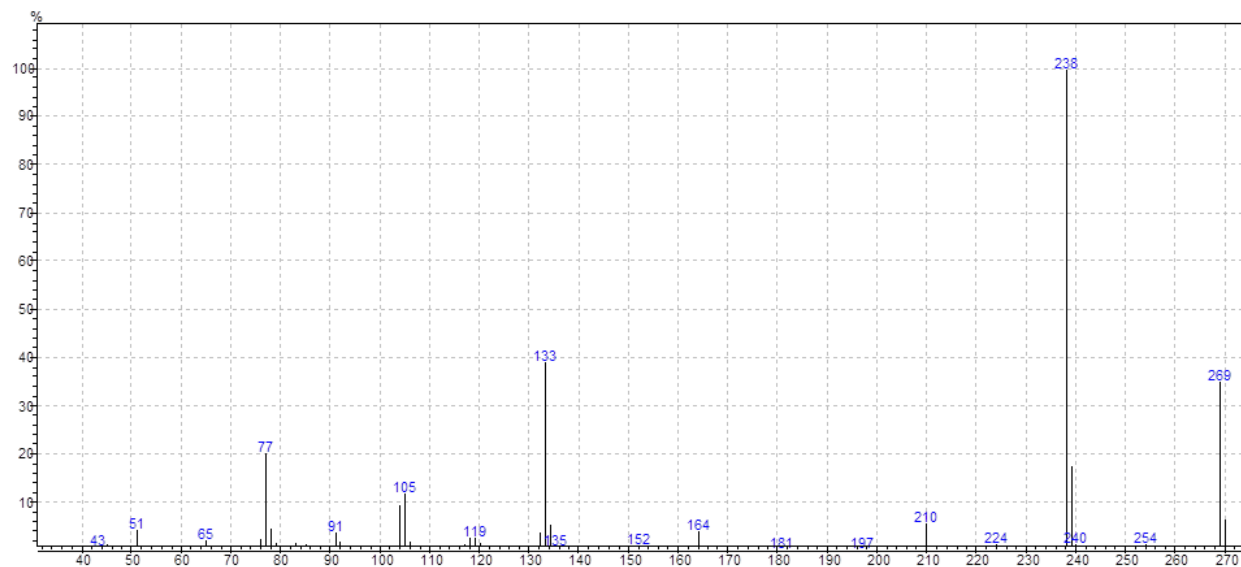




¹³CNMR

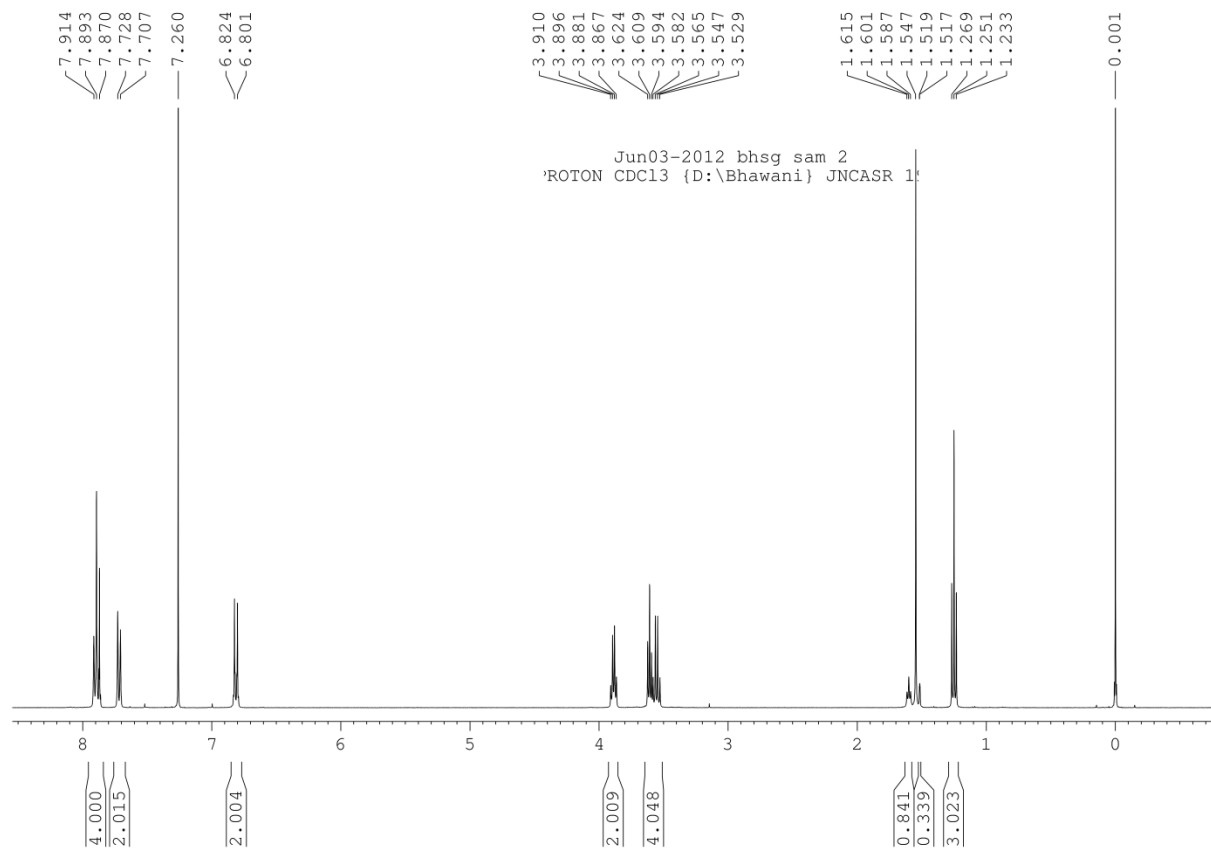


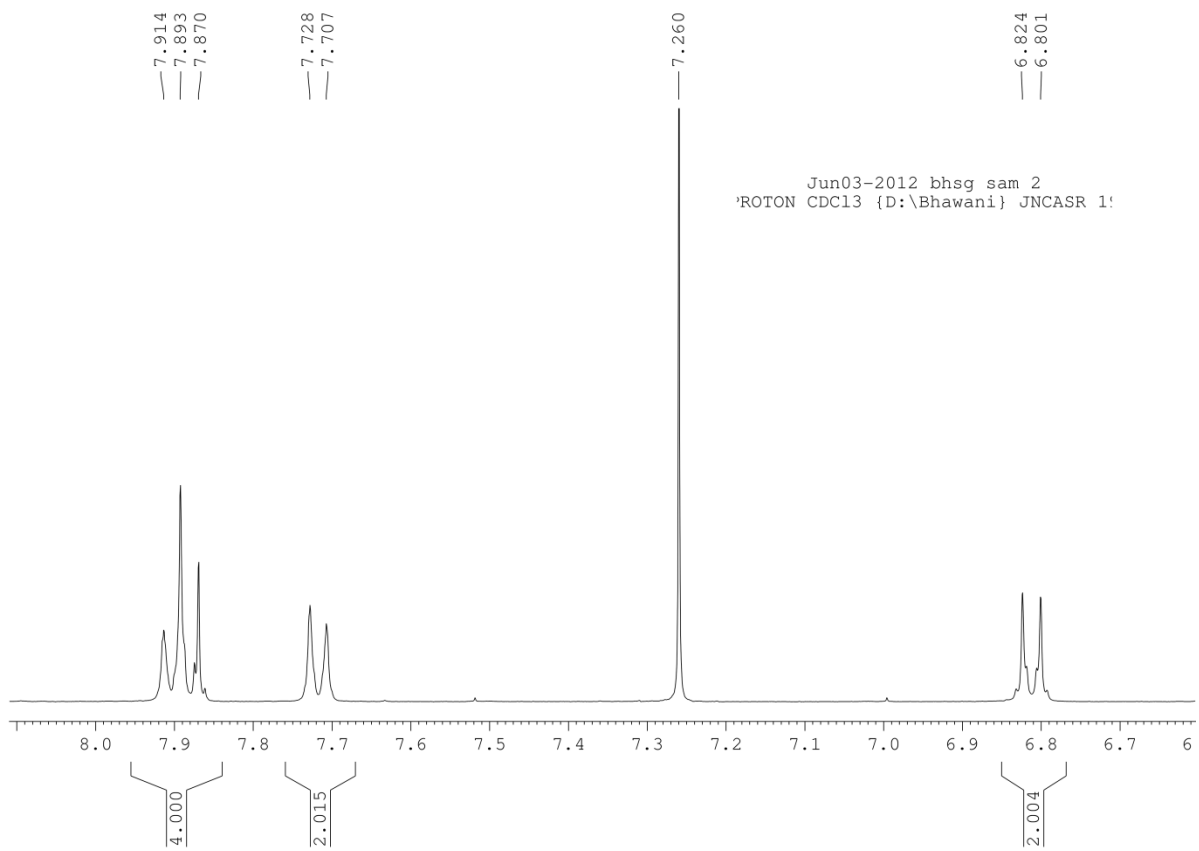
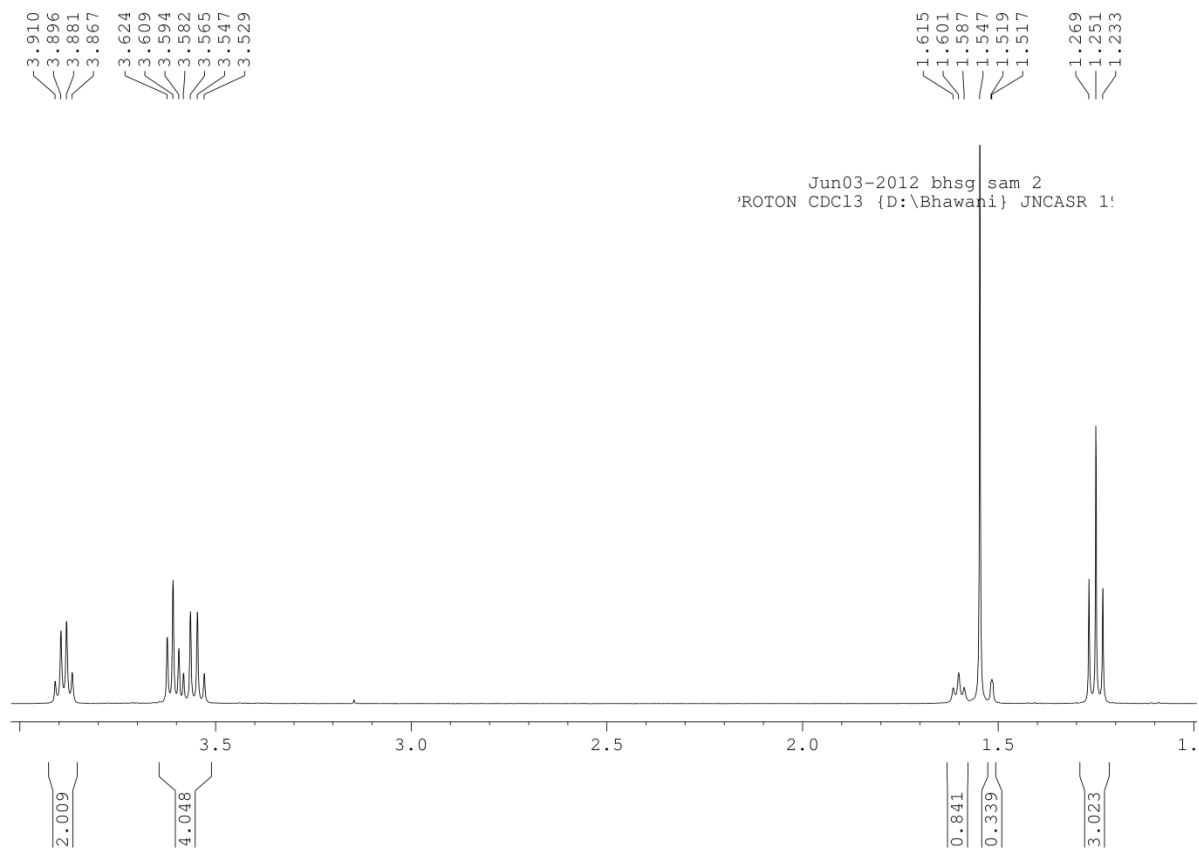
Mass Spectra



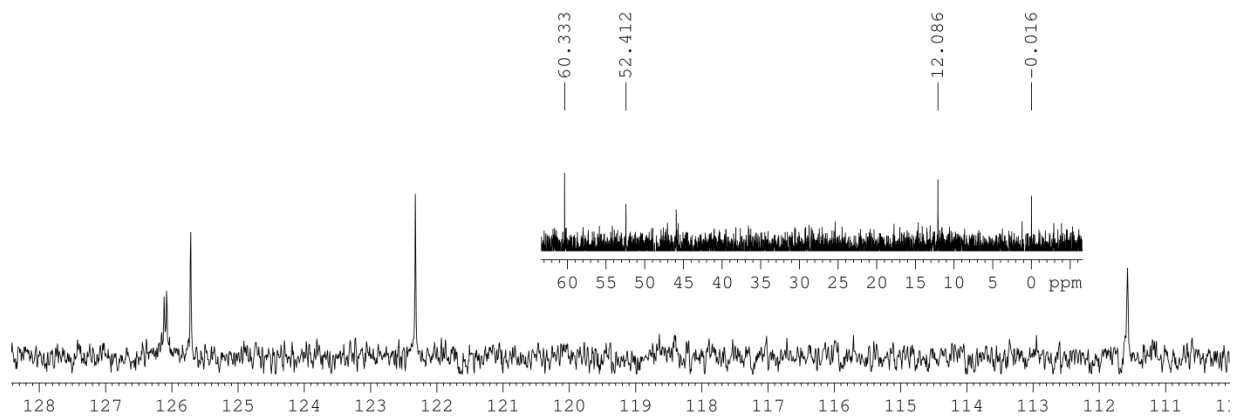
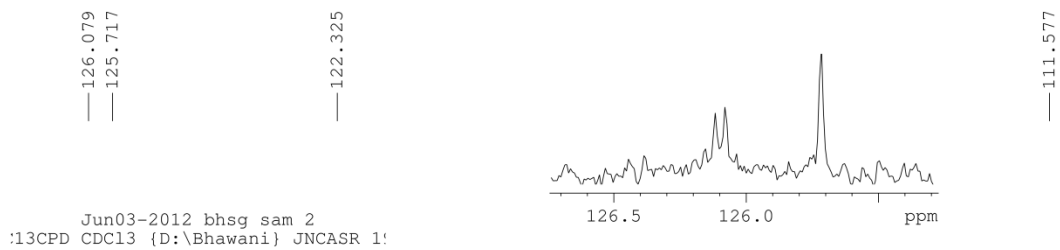
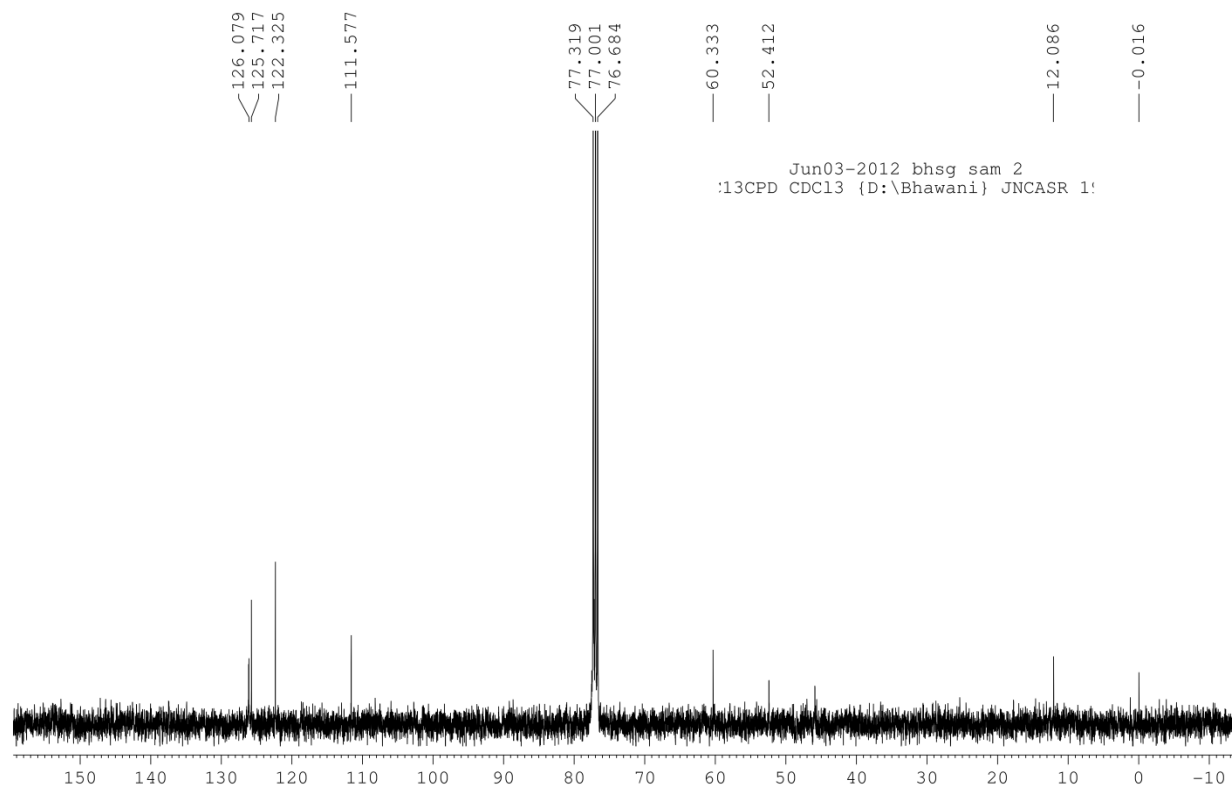
E4TPA

¹H NMR





¹³CNMR



Mass Spectra

