

**Unraveling the Molecular Recognition of “three methylene spacer”
Bis(benzimidazolium) Moiety by Dibenzo-24-crown-8: Pseudorotaxanes Under
Study**

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Supplementary Information
Part 2

*Copy of NMR spectra of all systems studied recorded on a Bruker
300 MHz spectrometer at room-temperature (308 K).*

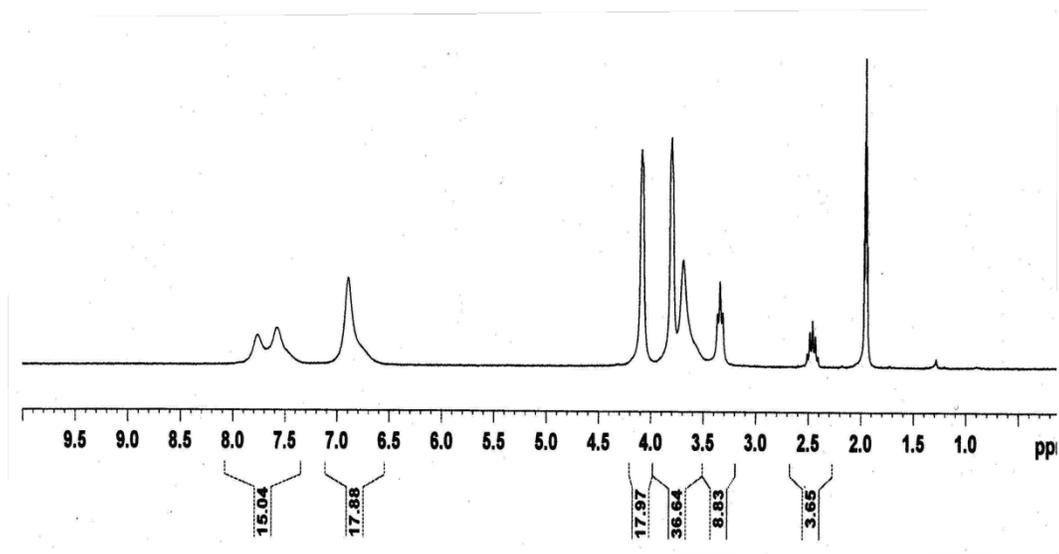


Figure S9. ¹H-NMR (300 MHz) spectrum for 1a \subset dibenzo-24-crown-8 (BF₄)₂ in CD₃CN at 308 K.

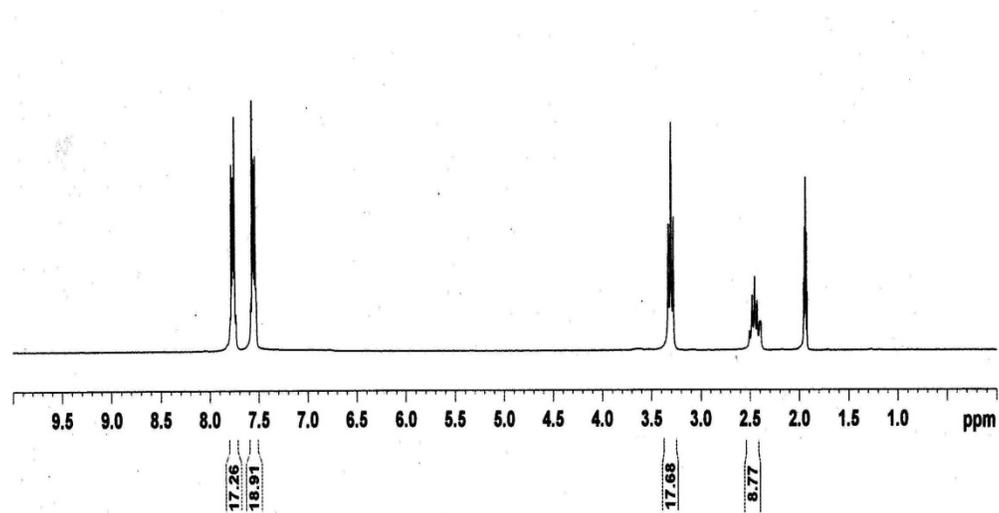


Figure S10. ¹H-NMR (300 MHz) spectrum for salt 1a in CD₃CN at 308 K.

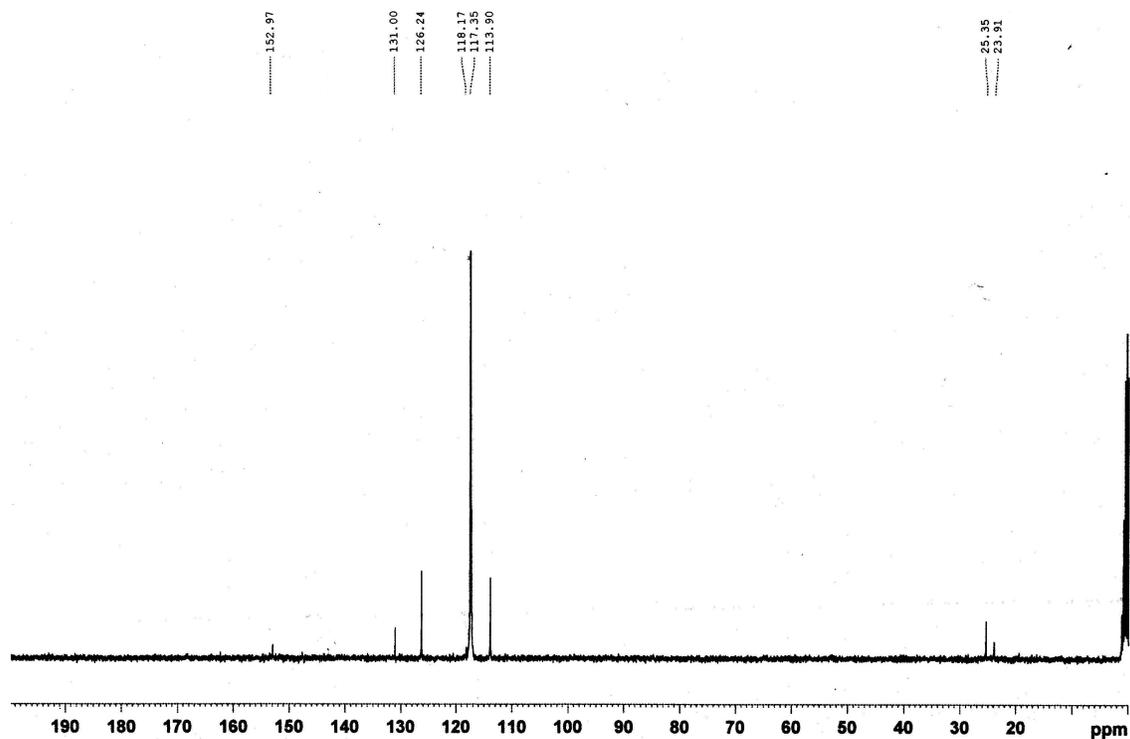


Figure S11. ^{13}C -NMR spectrum for salt 1a in CD_3CN at 308 K.

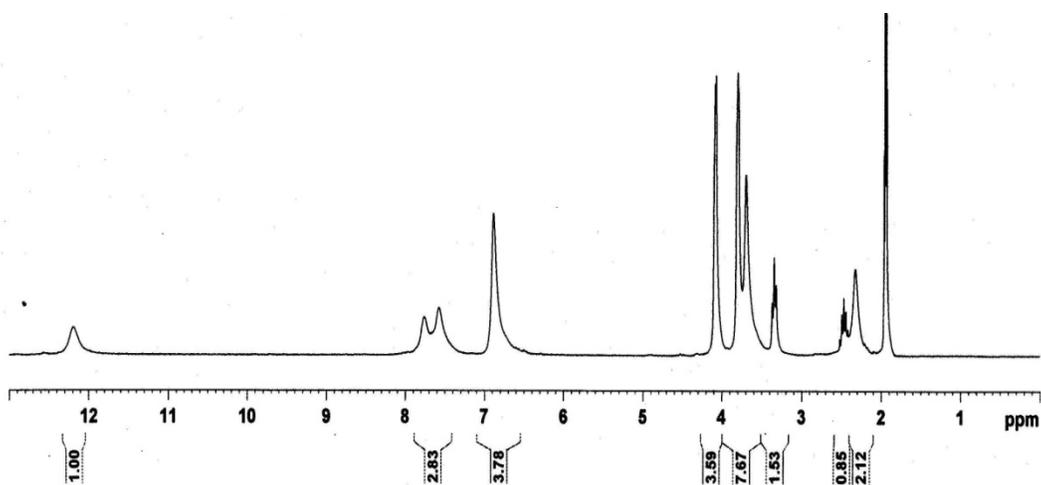


Figure S12. ^1H -NMR (300 MHz) spectrum for 1b = dibenzo-24-crown-8 (ClO_4) $_2$ in CD_3CN at 308 K.

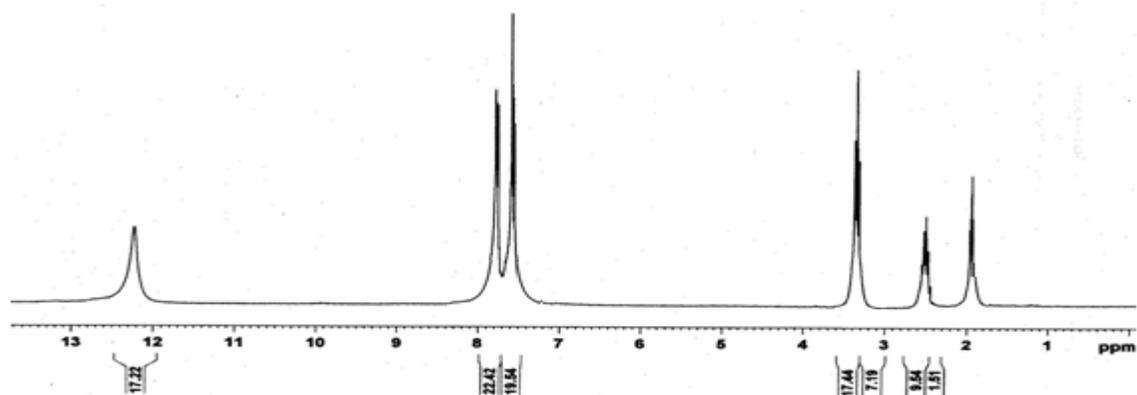


Figure S13. ^1H -NMR (300 MHz) spectrum for 1b in CD_3CN at 308 K.

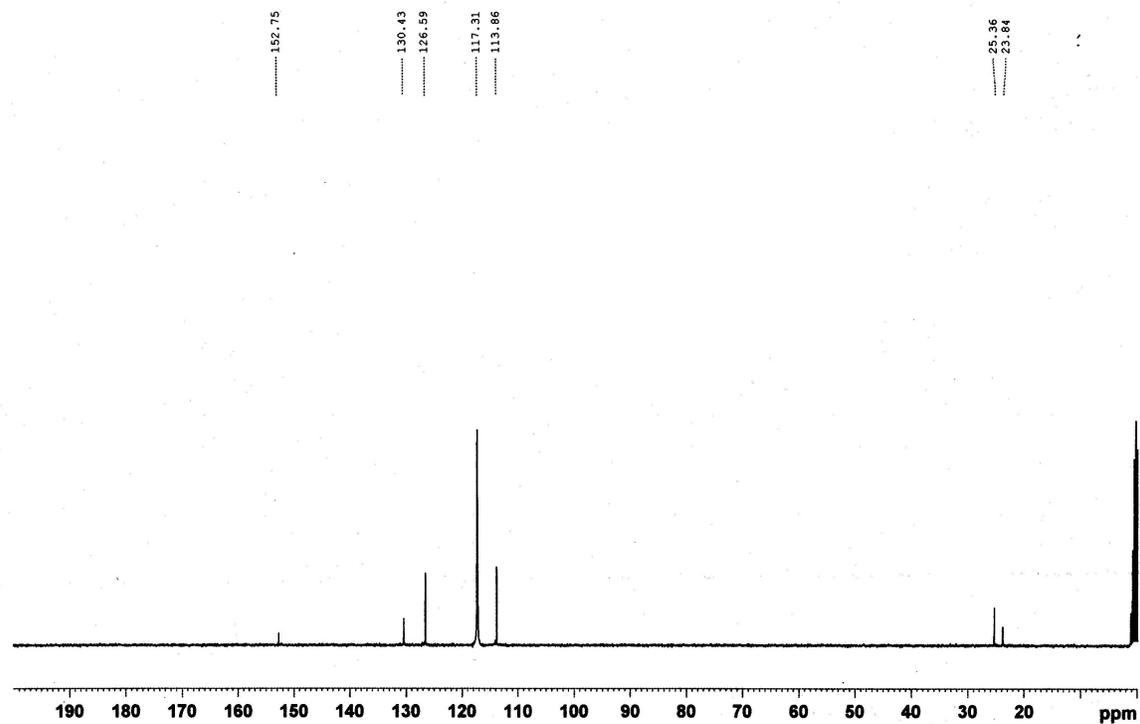


Figure S14. ^{13}C -NMR spectrum for salt 1b in CD_3CN at 308 K.

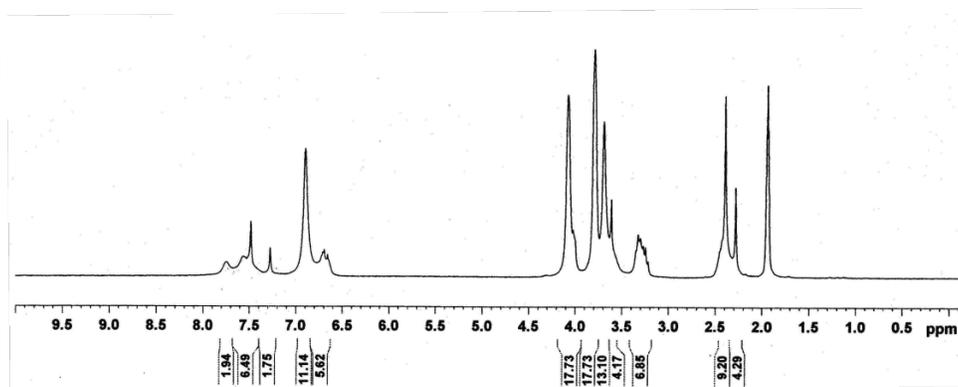


Figure S15. ¹H-NMR (300 MHz) spectrum for 1c ⊂ dibenzo-24-crown-8 (BF₄)₂ in CD₃CN at 308 K.

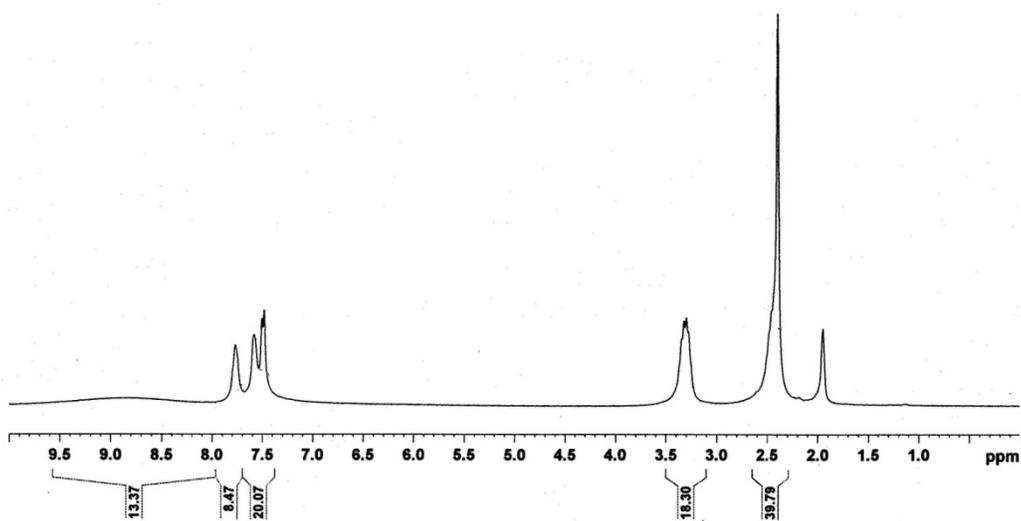


Figure S16. ¹H-NMR (300 MHz) spectrum for salt 1c in CD₃CN at 308 K.

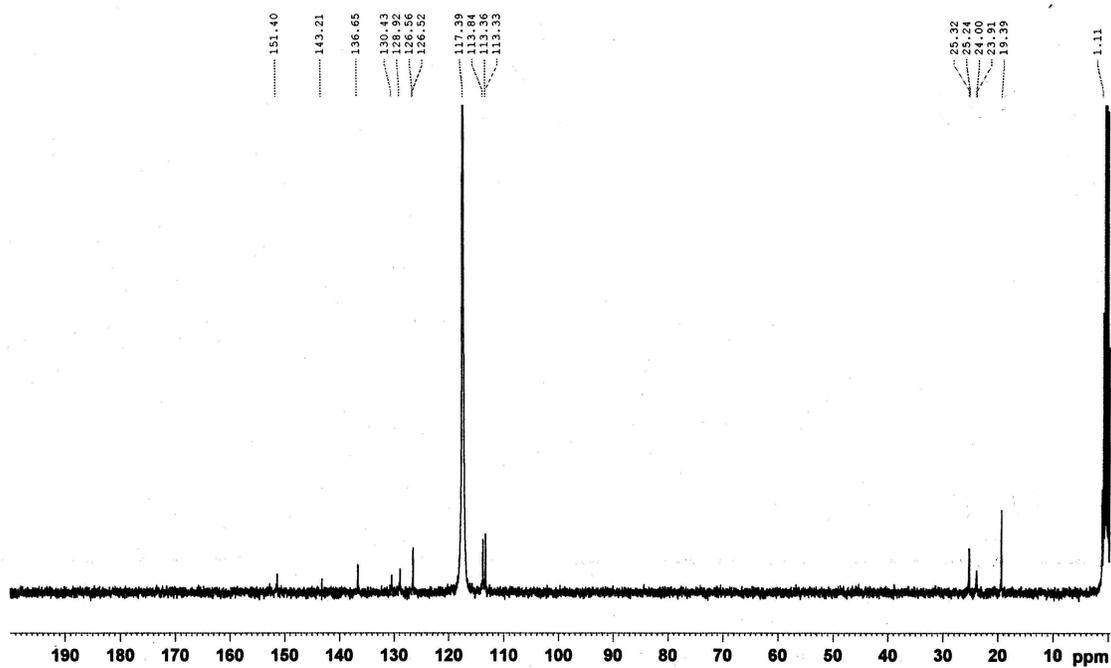


Figure S17. ^{13}C -NMR spectrum for salt 1c in CD_3CN at 308 K.

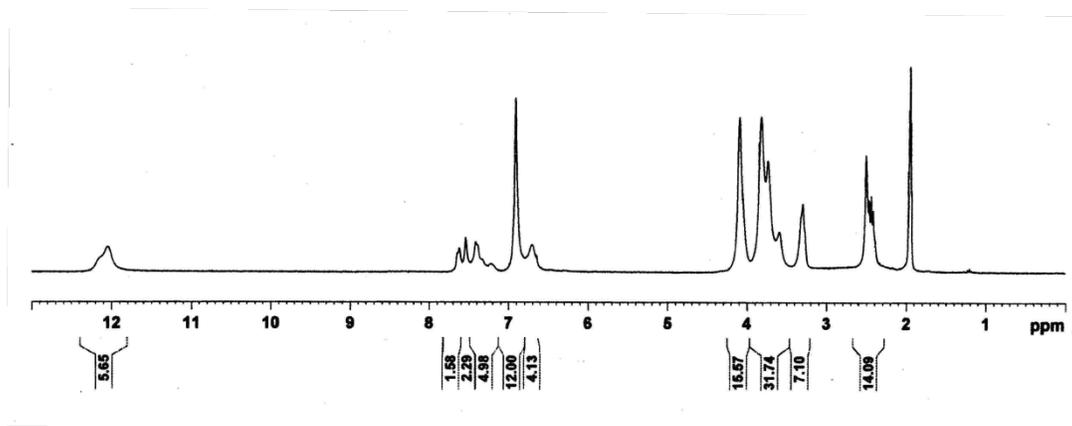


Figure S18. ^1H -NMR spectrum for 1d c dibenzo-24-crown-8 (ClO_4)₂ in CD_3CN at 308 K.

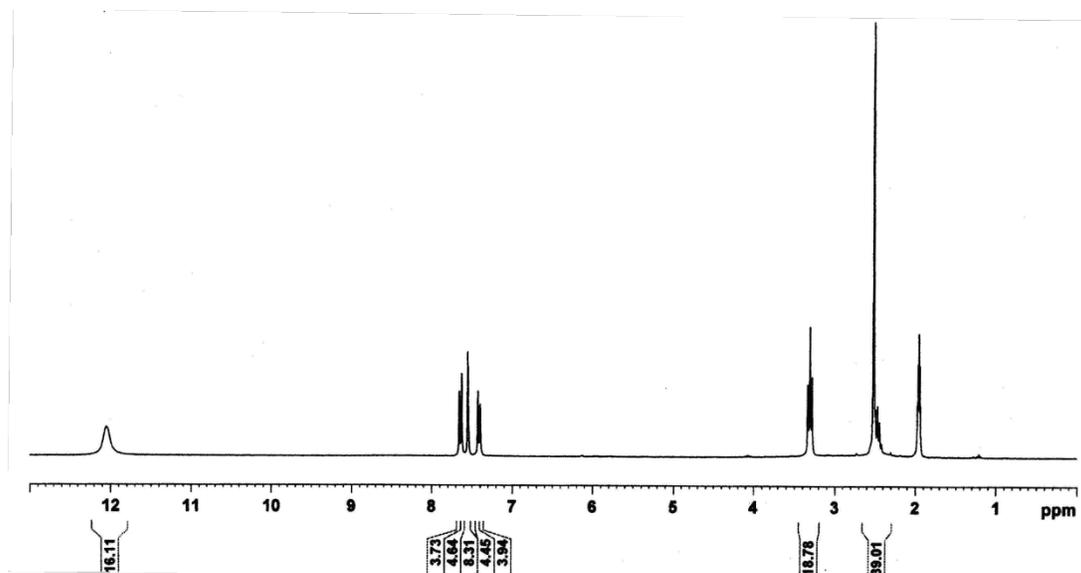


Figure S19. ¹H-NMR (300 MHz) spectrum for salt 1d in CD₃CN at 308 K.

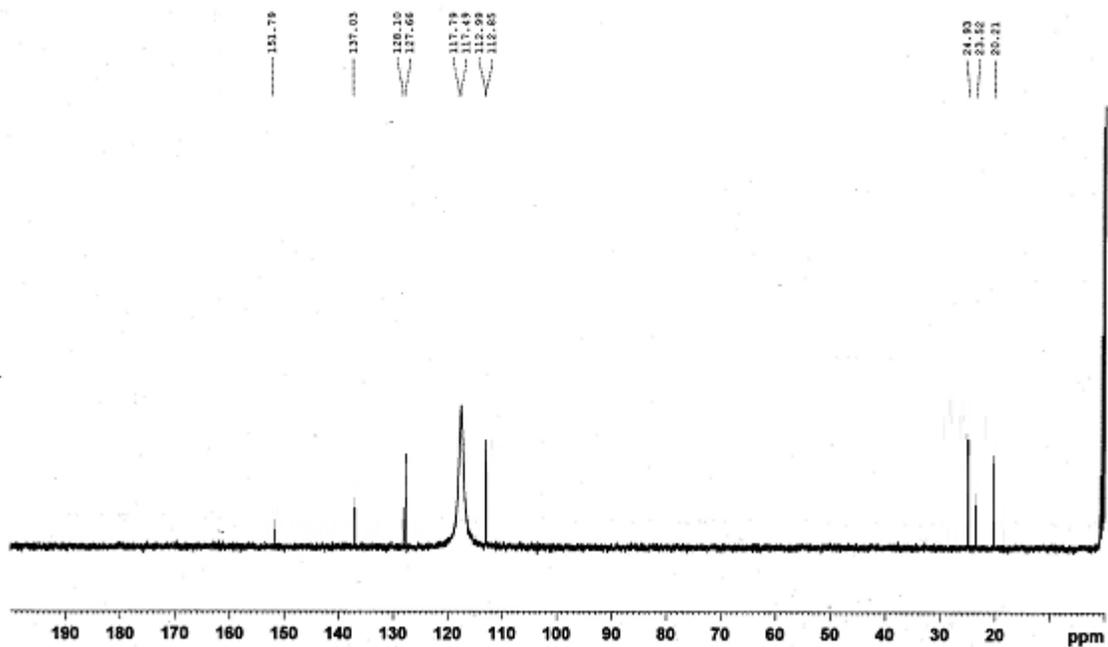


Figure S20. ¹³C-NMR spectrum for salt 1d in CD₃CN at 308 K.

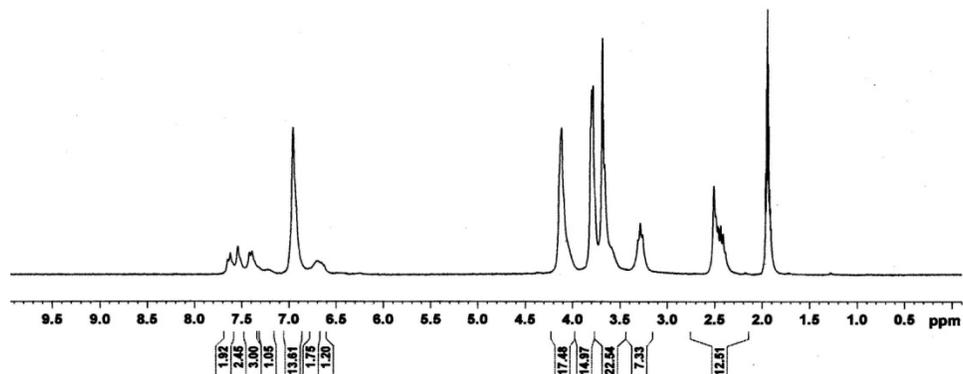


Figure S21. ¹H-NMR (300 MHz) spectrum for **1e** = dibenzo-24-crown-8 (BF₄)₂ in CD₃CN at 308 K.

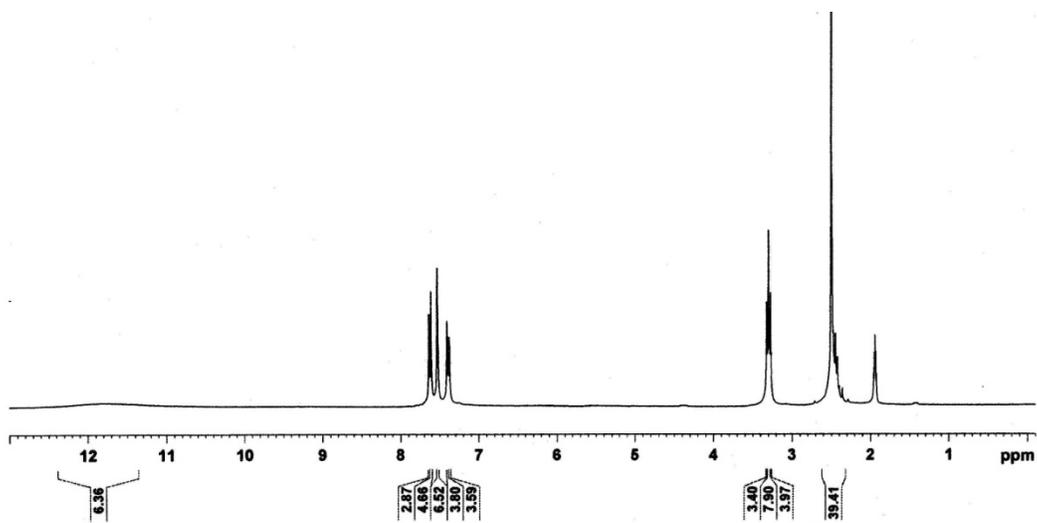


Figure S22. ¹H-NMR (300 MHz) spectrum for salt **1e** in CD₃CN at 308 K.

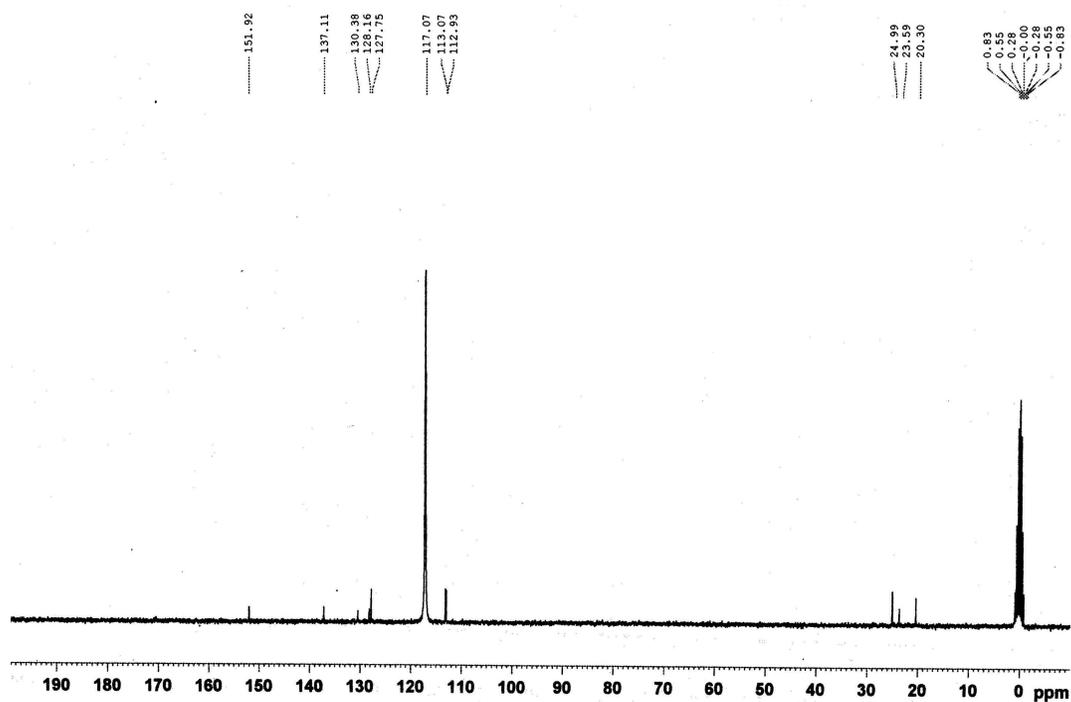


Figure S23. ^{13}C -NMR spectrum for salt 1e in CD_3CN at 308 K.

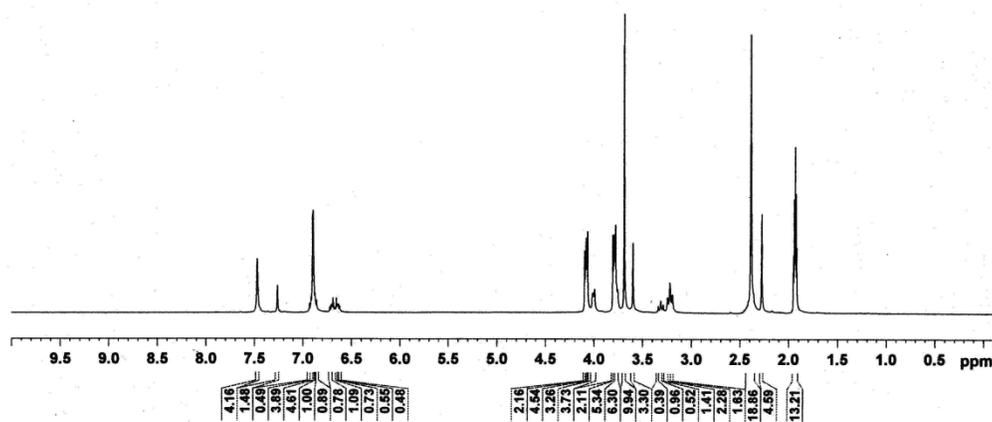


Figure S24. ^1H -NMR (300 MHz) spectrum for 1f = dibenzo-24-crown-8 (BF_4) $_2$ in CD_3CN at 308 K.

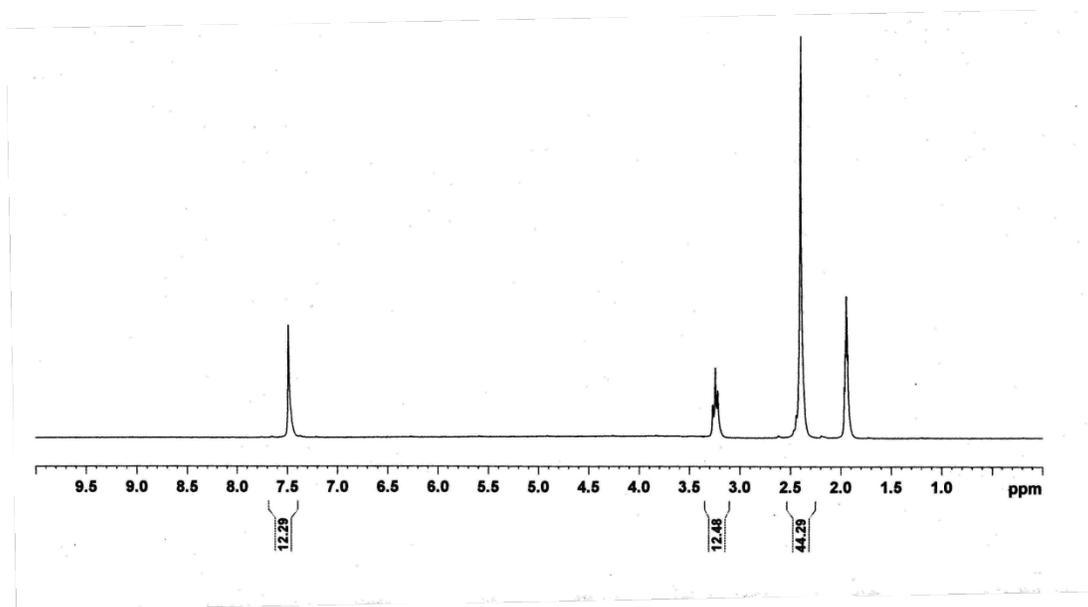


Figure S25. ^1H -NMR (300 MHz) spectrum for salt 1f in CD_3CN at 308 K.

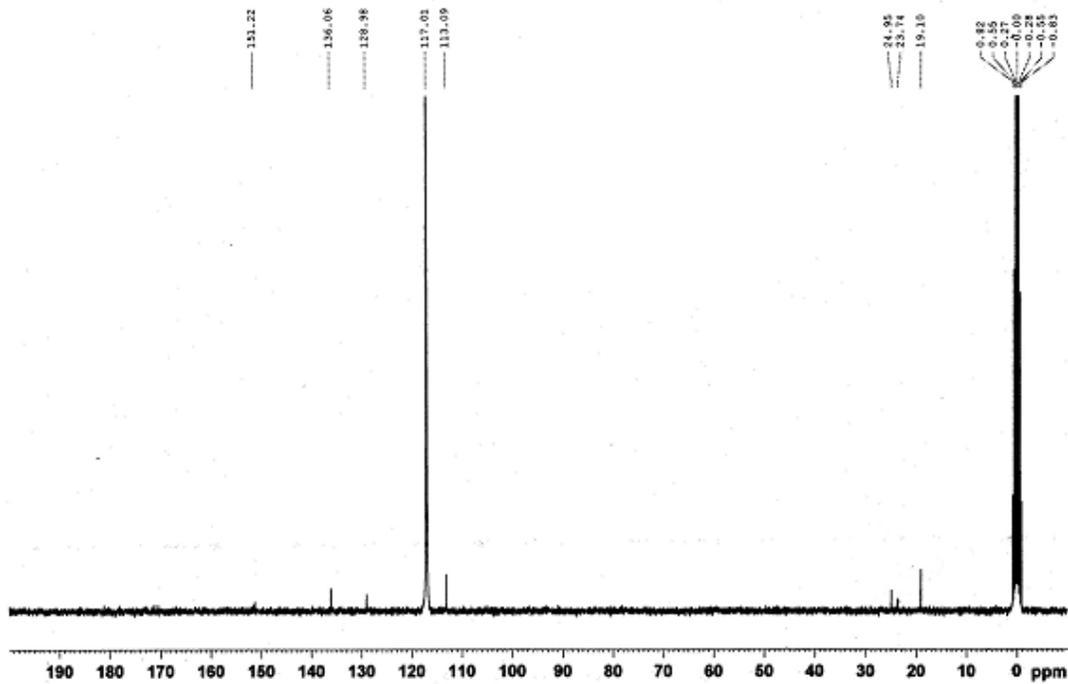


Figure S26. ^{13}C -NMR spectrum for salt 1f in CD_3CN at 308 K.

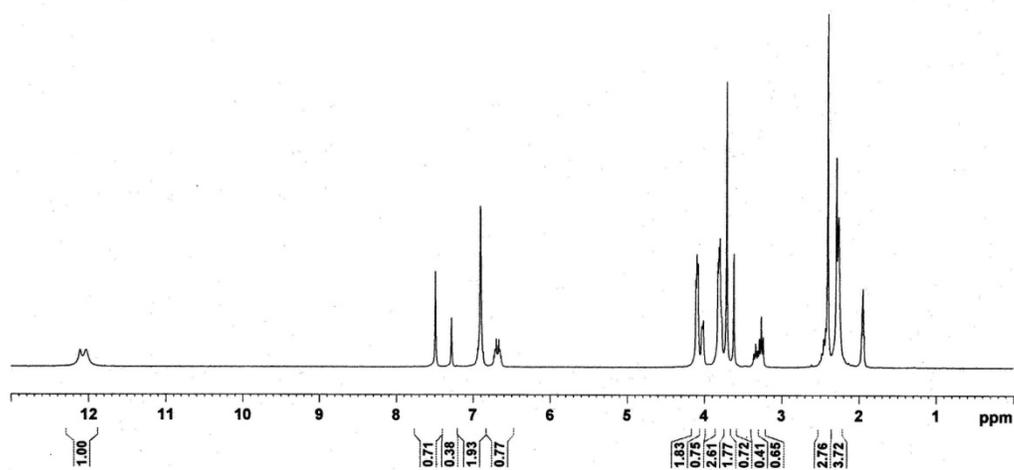


Figure S27. ¹H-NMR (300 MHz) spectrum for 1g c dibenzo-24-crown-8 (ClO₄)₂ in CD₃CN at 308 K.

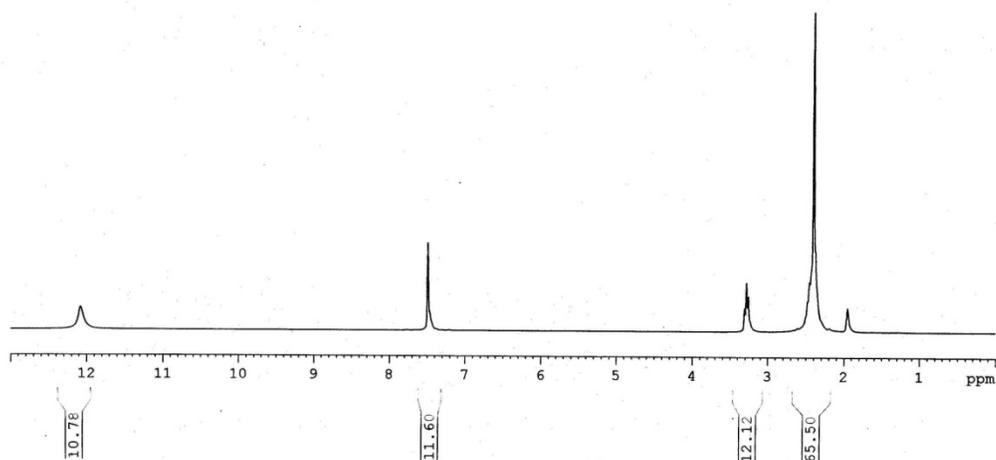


Figure S28. ¹H-NMR (300 MHz) spectrum for salt 1g in CD₃CN at 308 K.

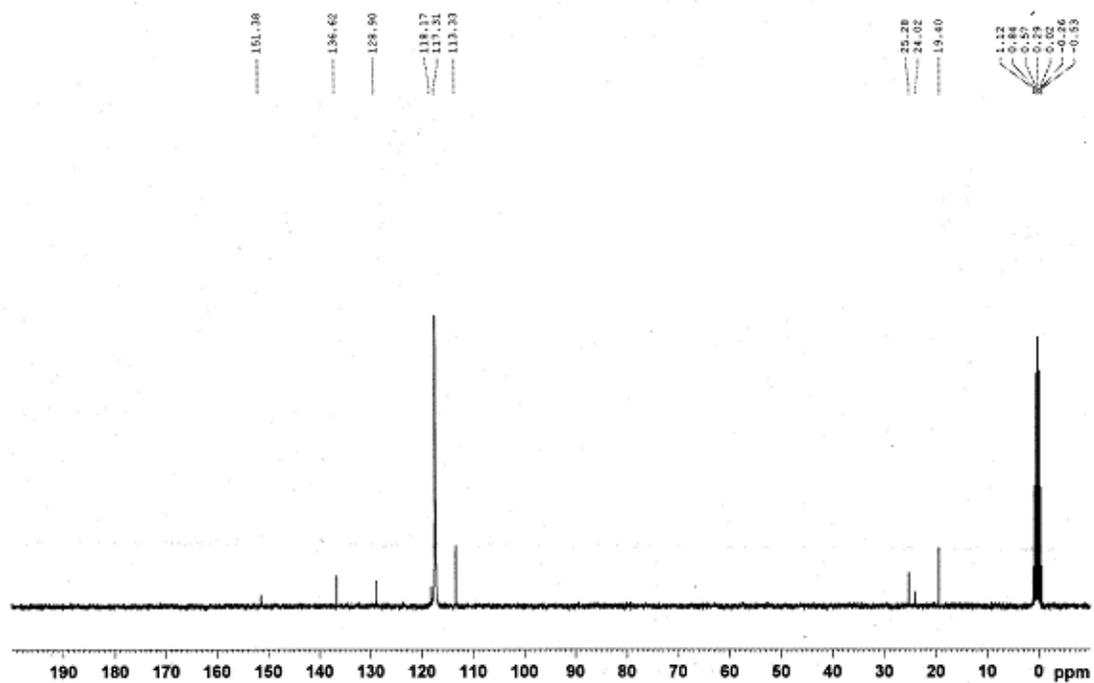


Figure S29. ¹³C-NMR spectrum for salt 1g in CD₃CN at 308 K.

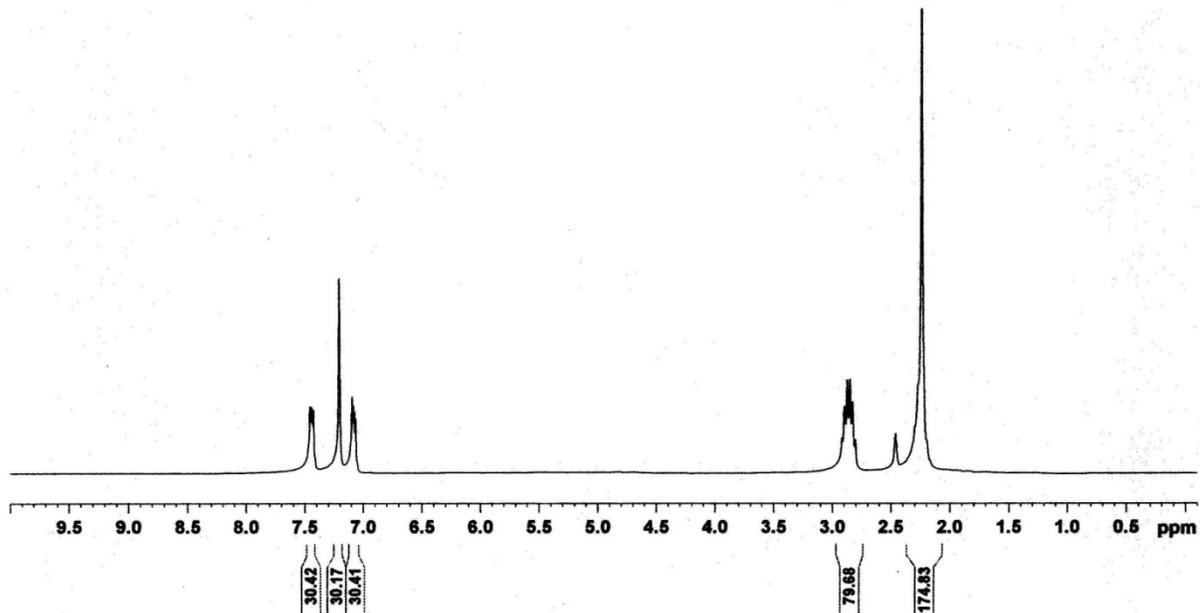


Figure S30. ¹H-NMR (300 MHz) spectrum for 5,6-Dimethyl-2,2'-(1,3-propanediyl)bis-1H-benzimidazole in DMSO-*d*₆ at 308 K.

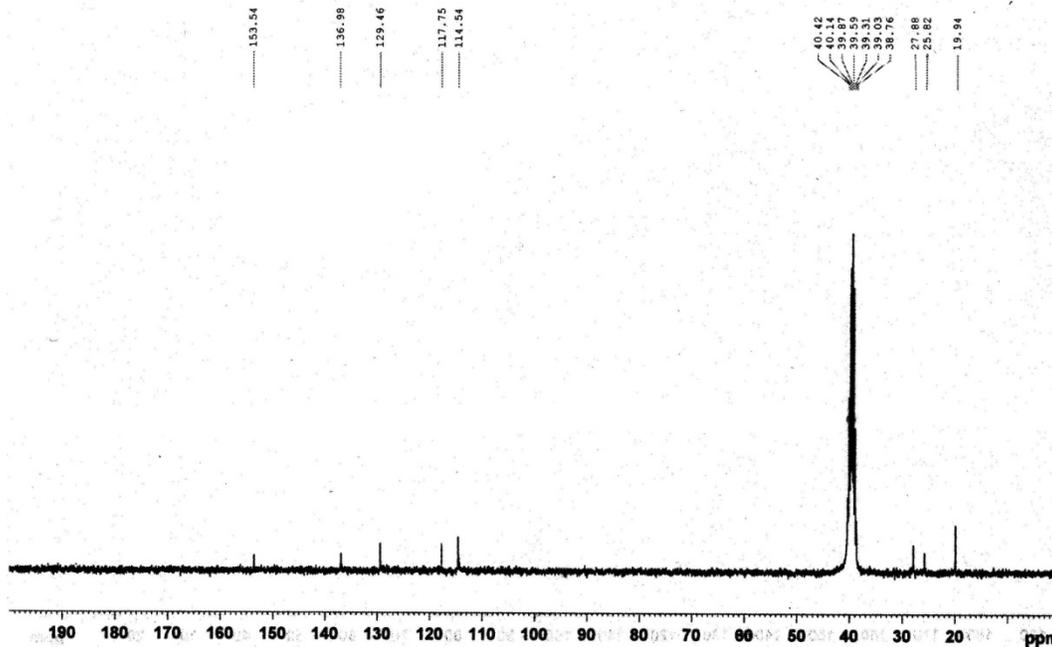


Figure S31. ^{13}C -NMR spectrum for 5,6-Dimethyl-2,2'-(1,3-propanediyl)bis-1*H*-benzimidazole in $\text{DMSO-}d_6$ at 308 K.