

Supplementary Materials: A Sustainable Approach to the Stereoselective Synthesis of Diazaheptacyclic Cage Systems Based on a Multicomponent Strategy in an Ionic Liquid

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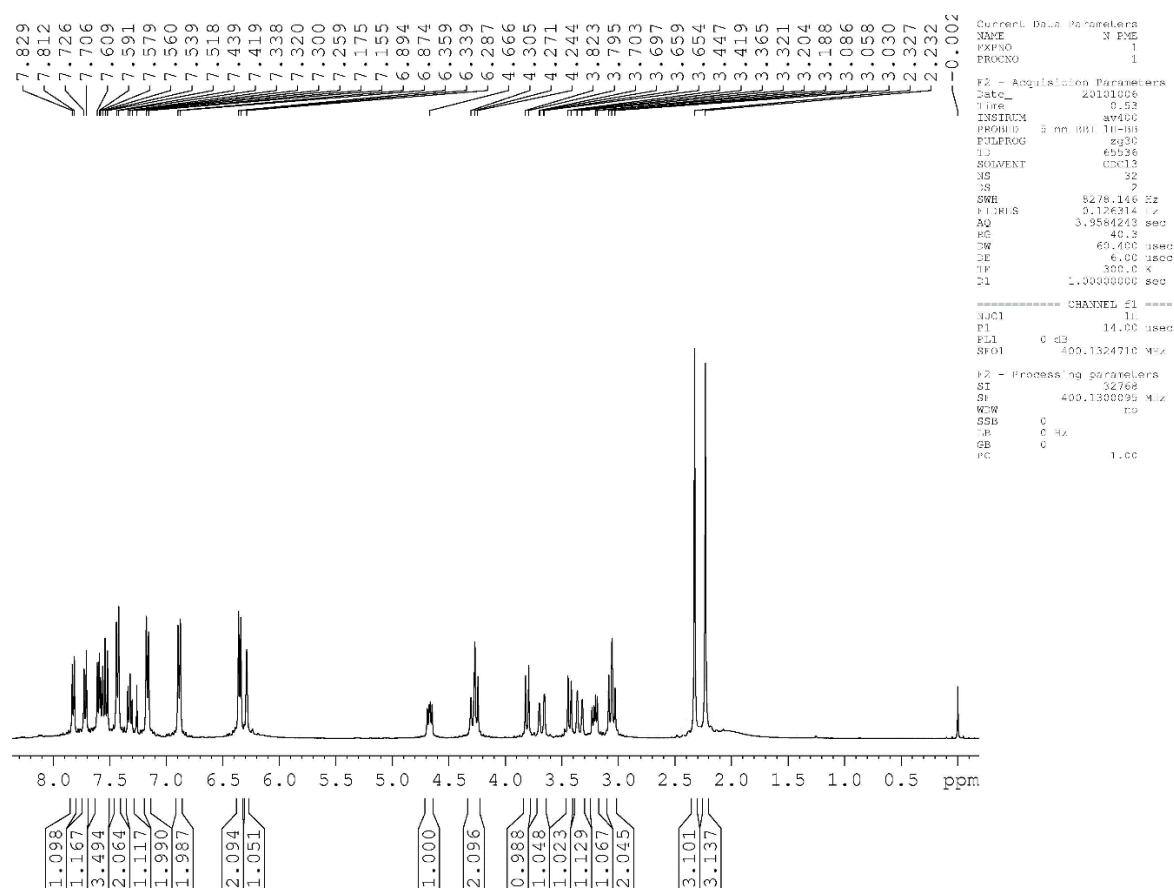


Figure 1. ¹H-NMR spectrum of 4i.

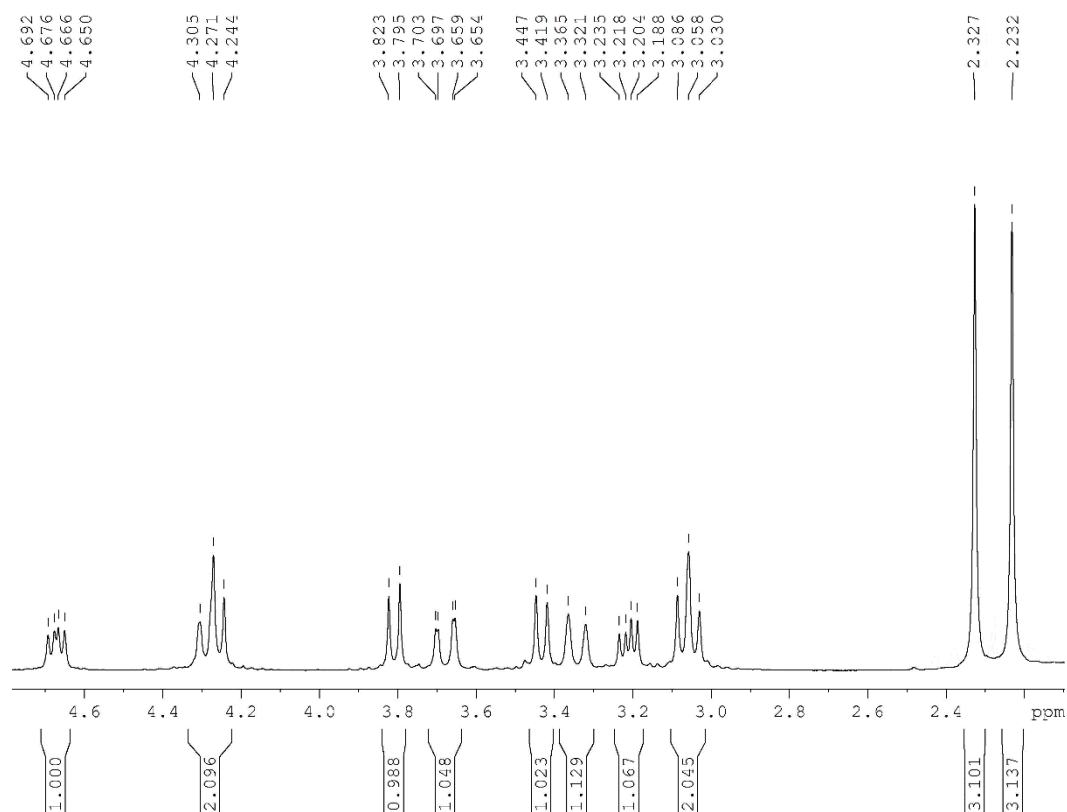


Figure 2. ¹H-NMR spectrum of 4i (Expansion).

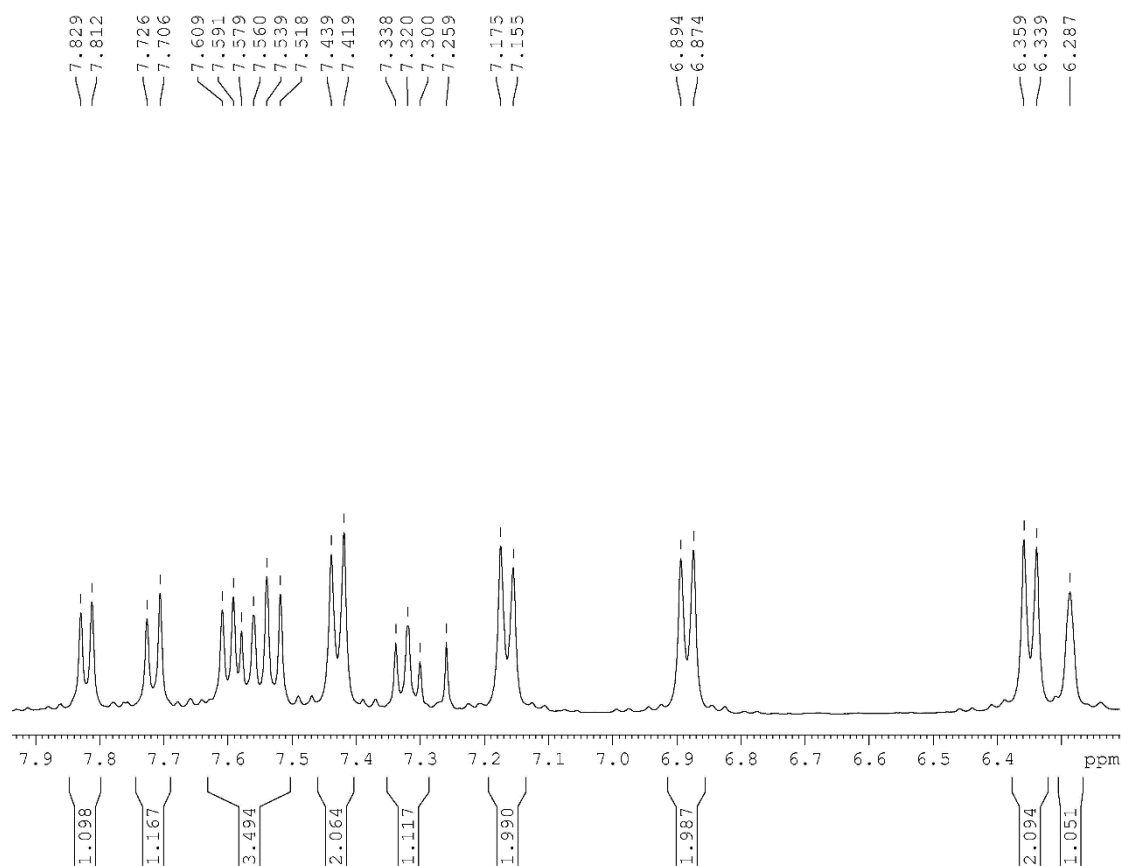
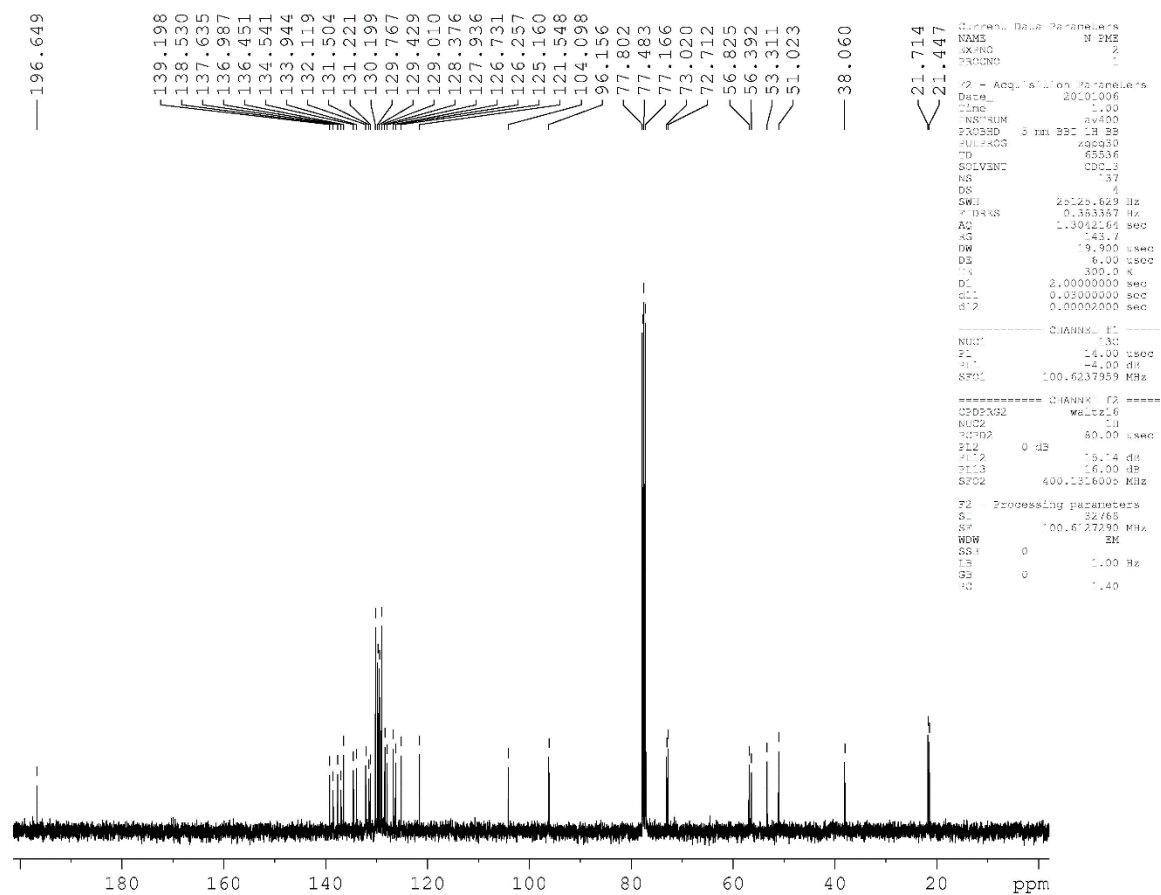
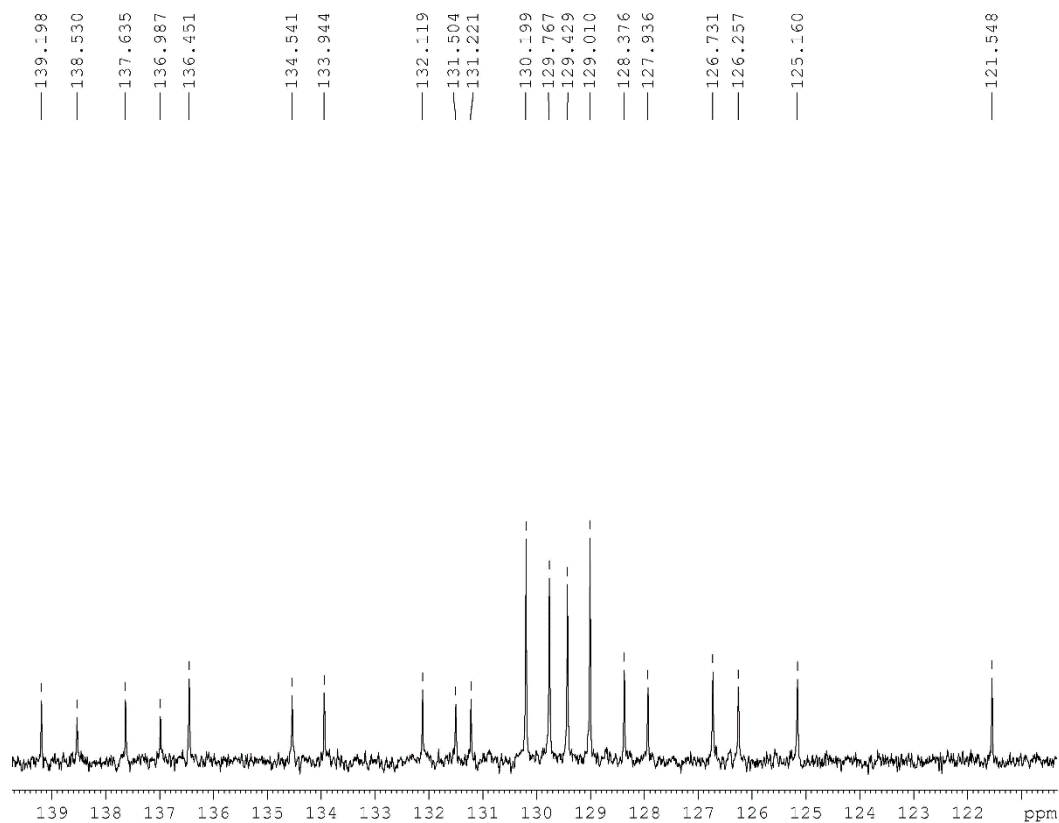
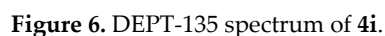


Figure 3. ¹H-NMR spectrum of 4i (Expansion).

Figure 4. ^{13}C -NMR spectrum of **4i**.Figure 5. ^{13}C -NMR spectrum of **4i** (Expansion).



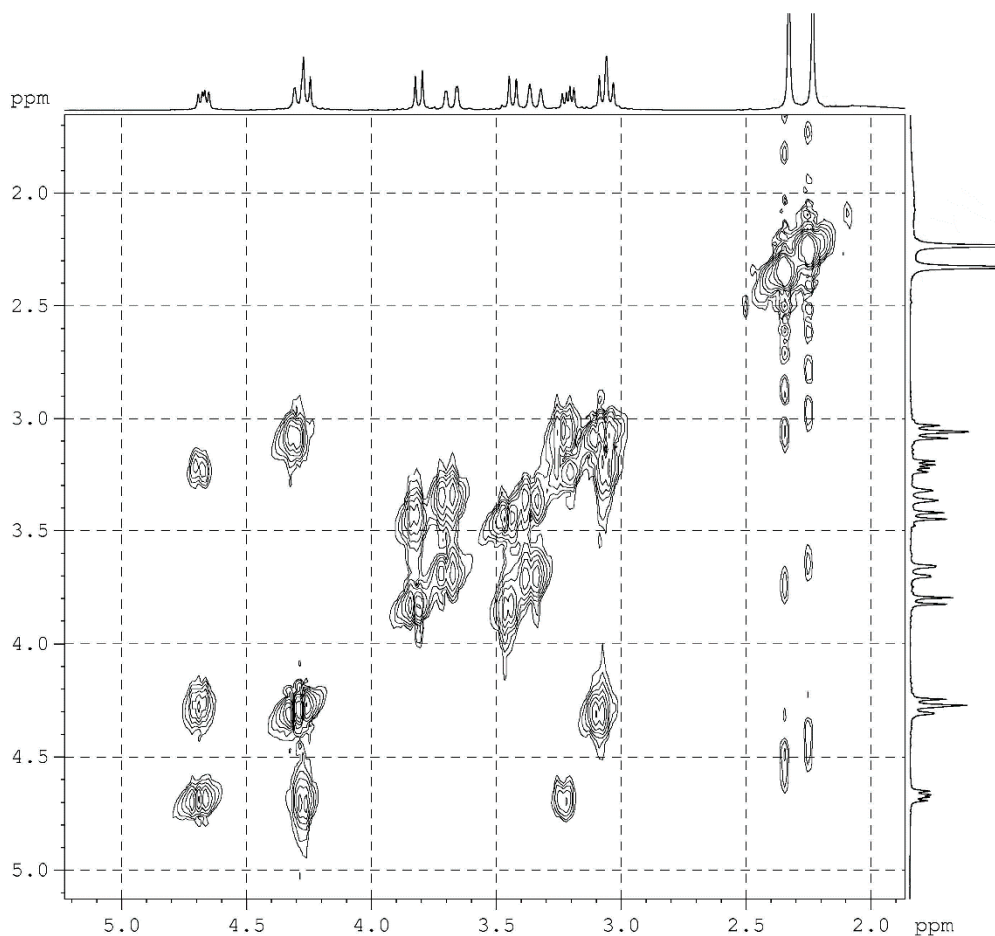


Figure 8. H,H-COSY spectrum of **4i** (Expansion).

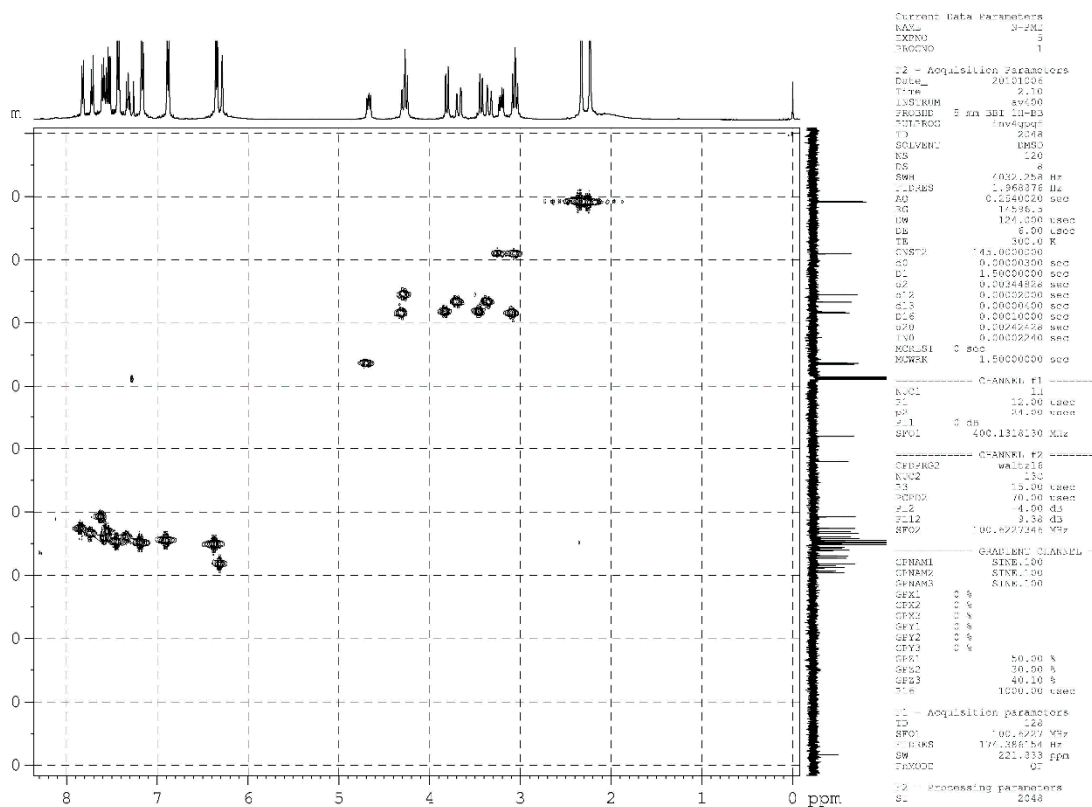


Figure 9. C,H-COSY spectrum of **4i**.

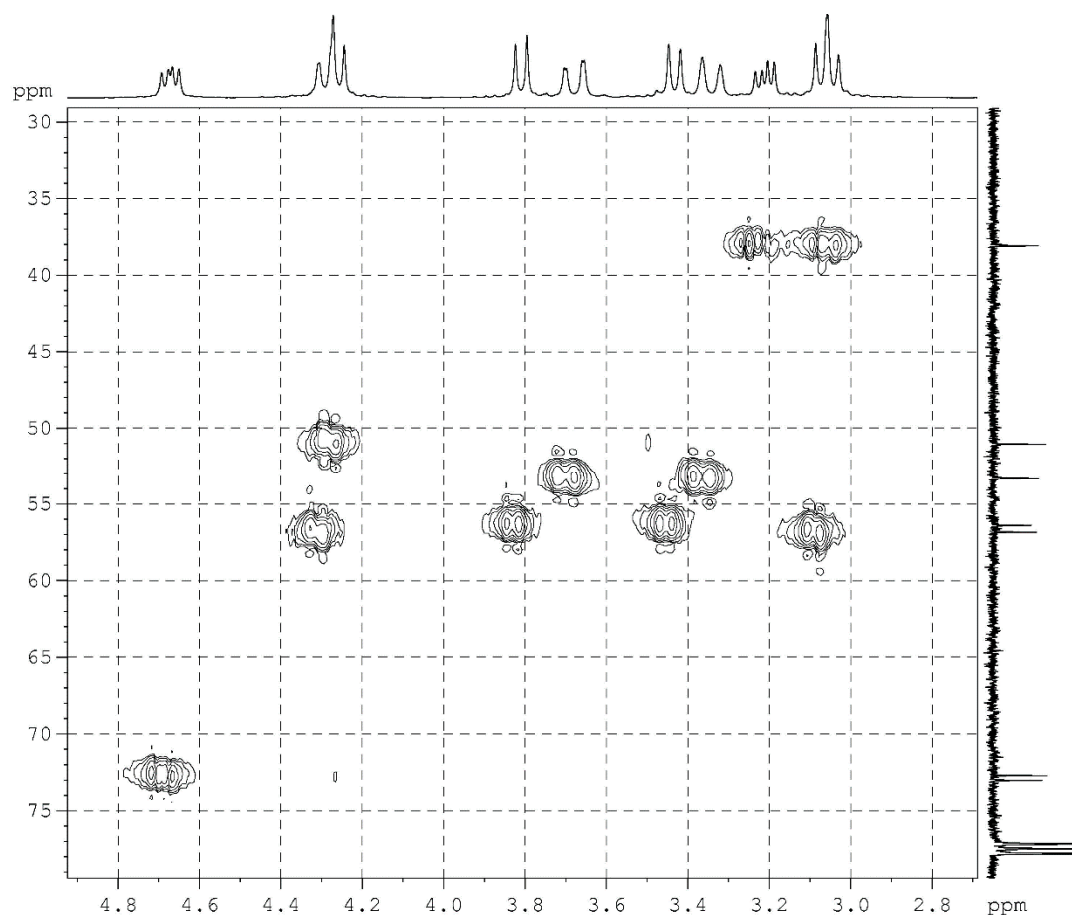


Figure 10. C,H-COSY spectrum of 4i (Expansion).

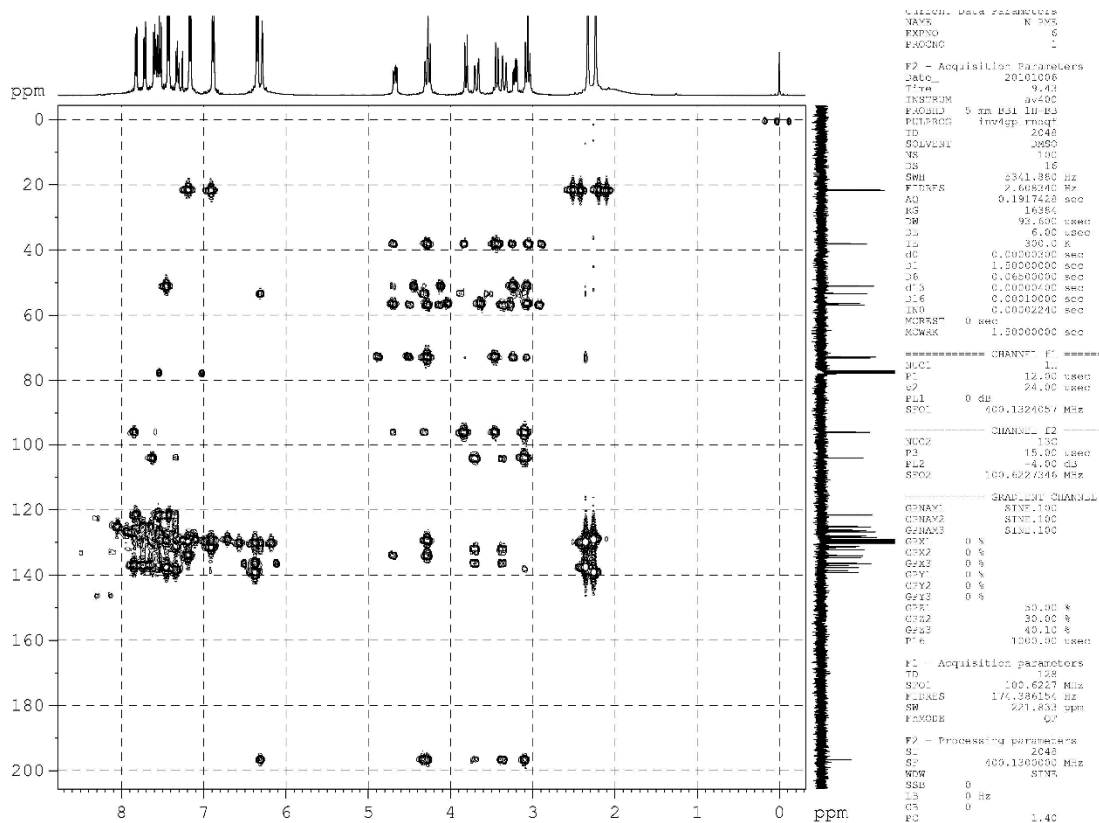


Figure 11. HMBC spectrum of 4i.

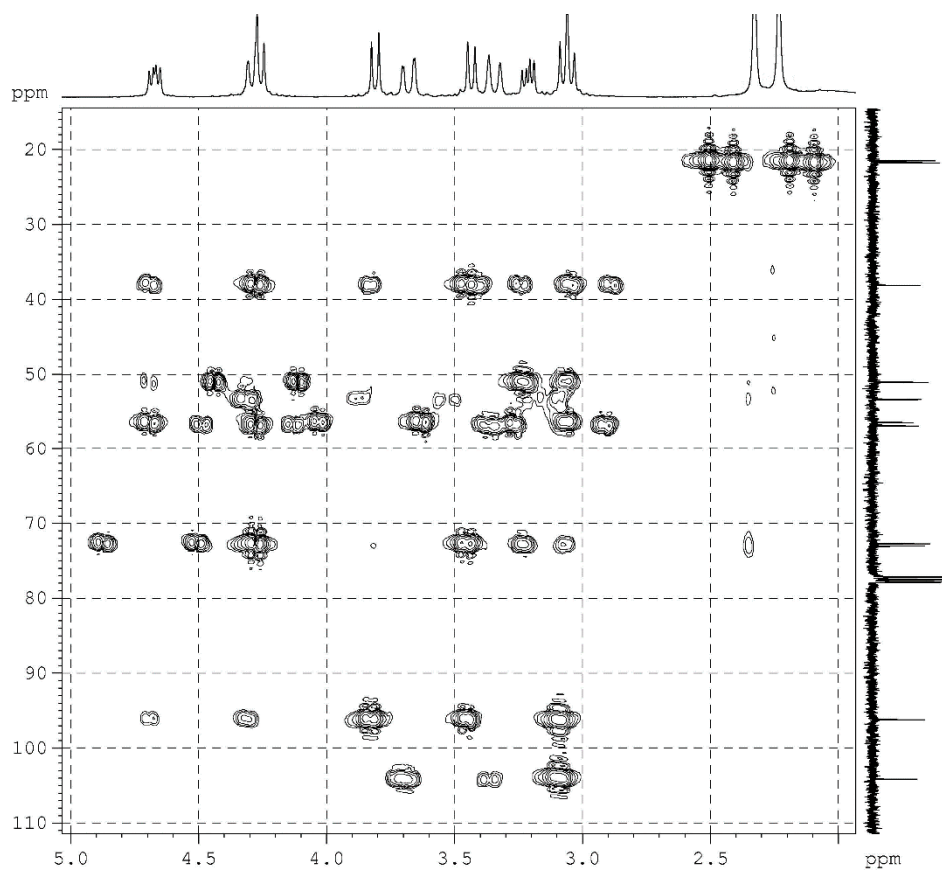
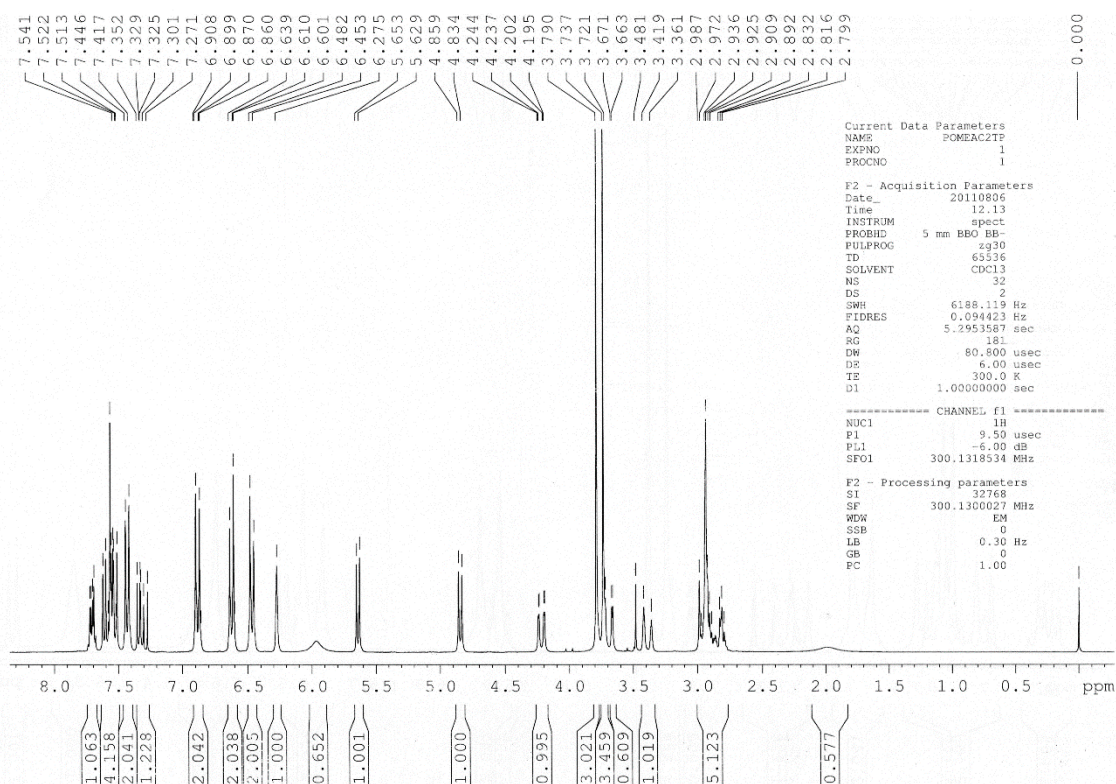
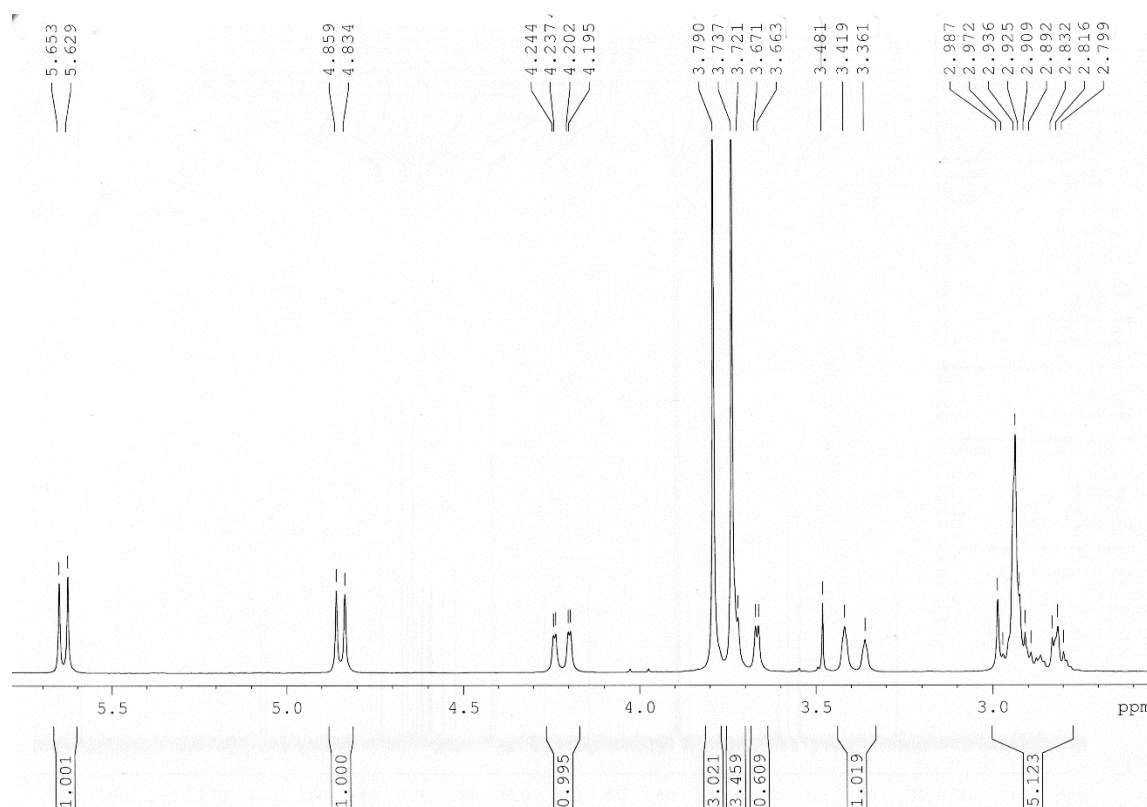
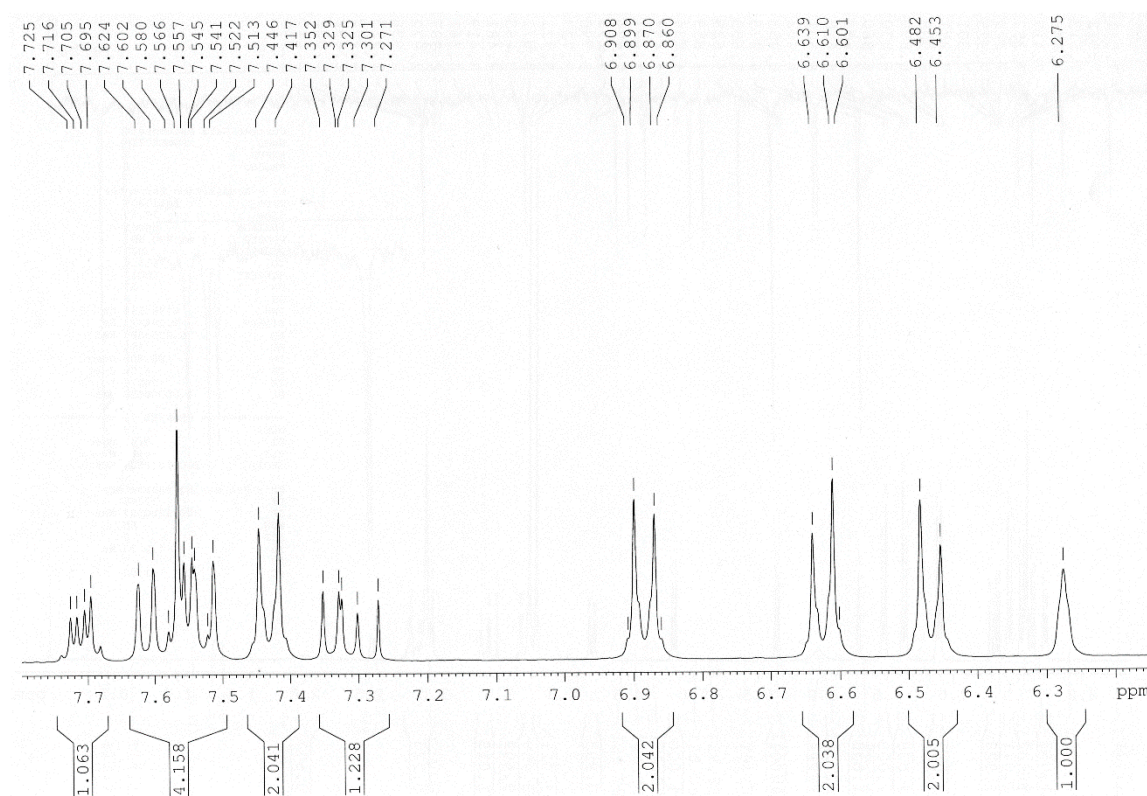


Figure 12. HMBC spectrum of 4i (Expansion).

Figure 13. ¹H-NMR spectrum of 6j.

Figure 14. ¹H-NMR spectrum of 6j (Expansion).Figure 15. ¹H-NMR spectrum of 6j (Expansion).

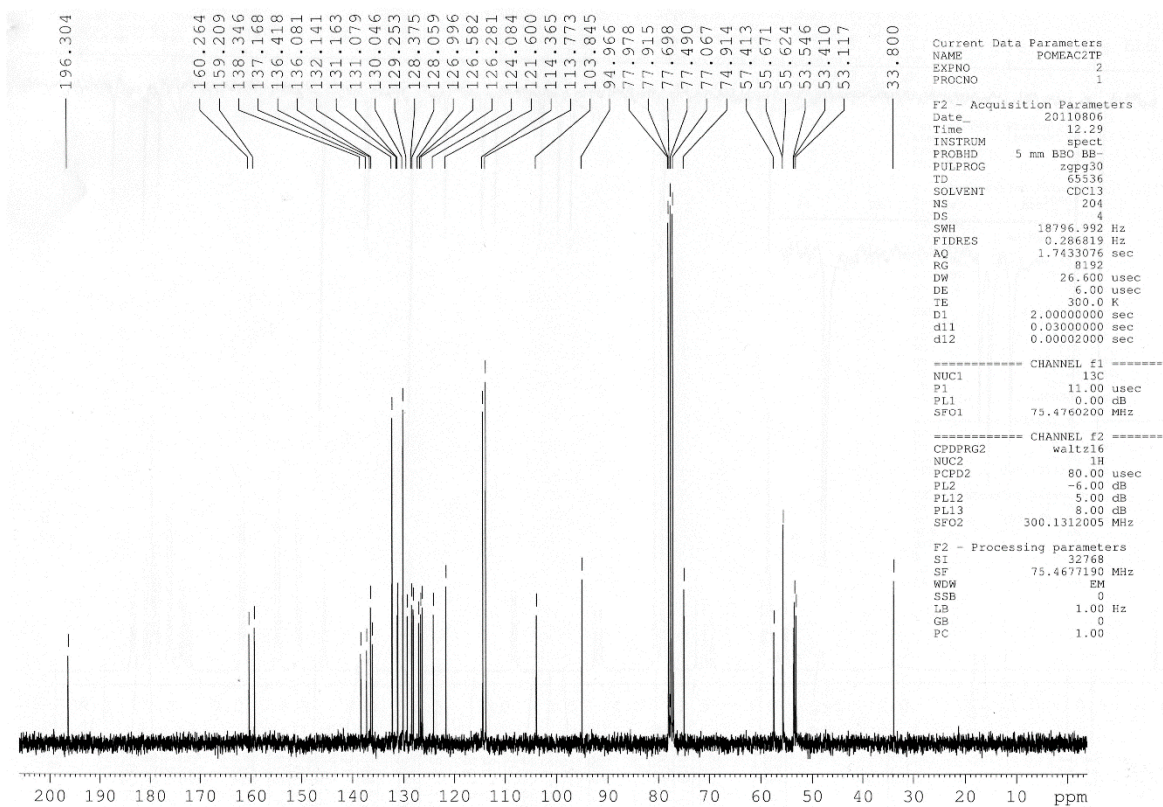
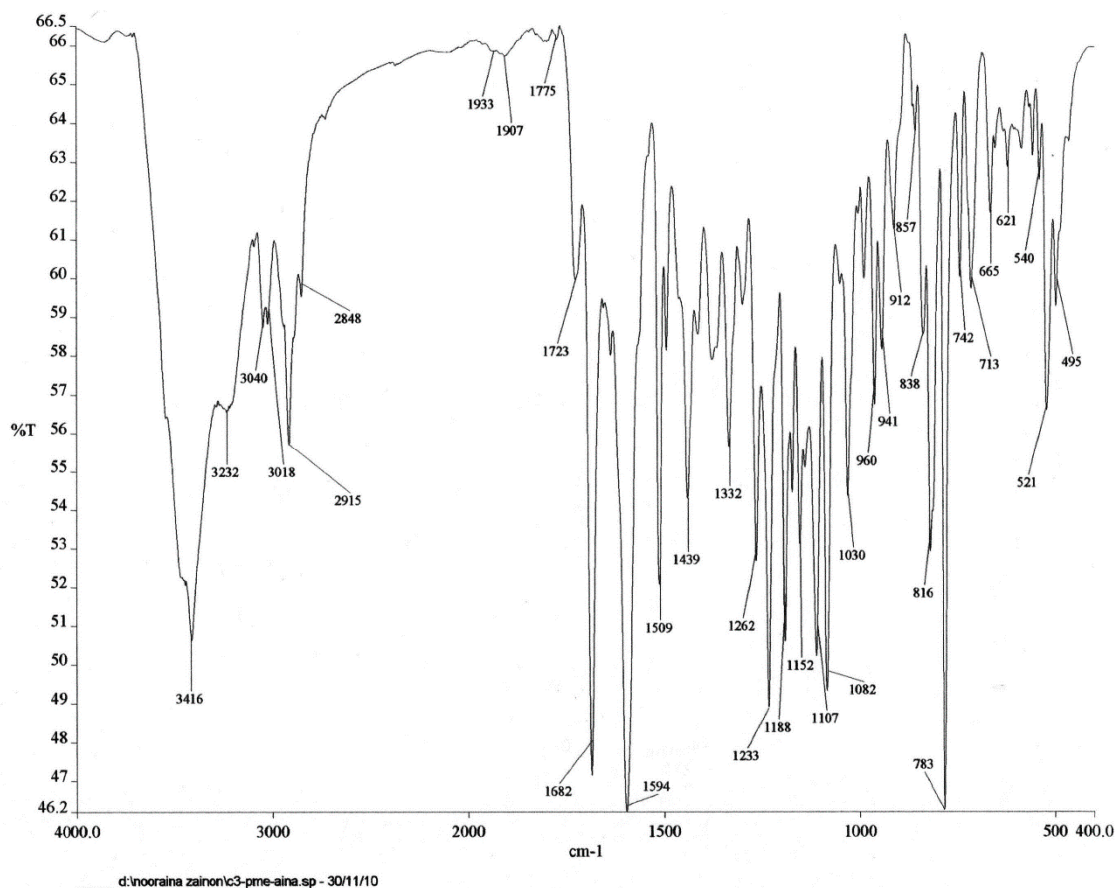
Figure 16. ^{13}C -NMR spectrum of 6j.

Figure 17. IR spectrum of 4i.

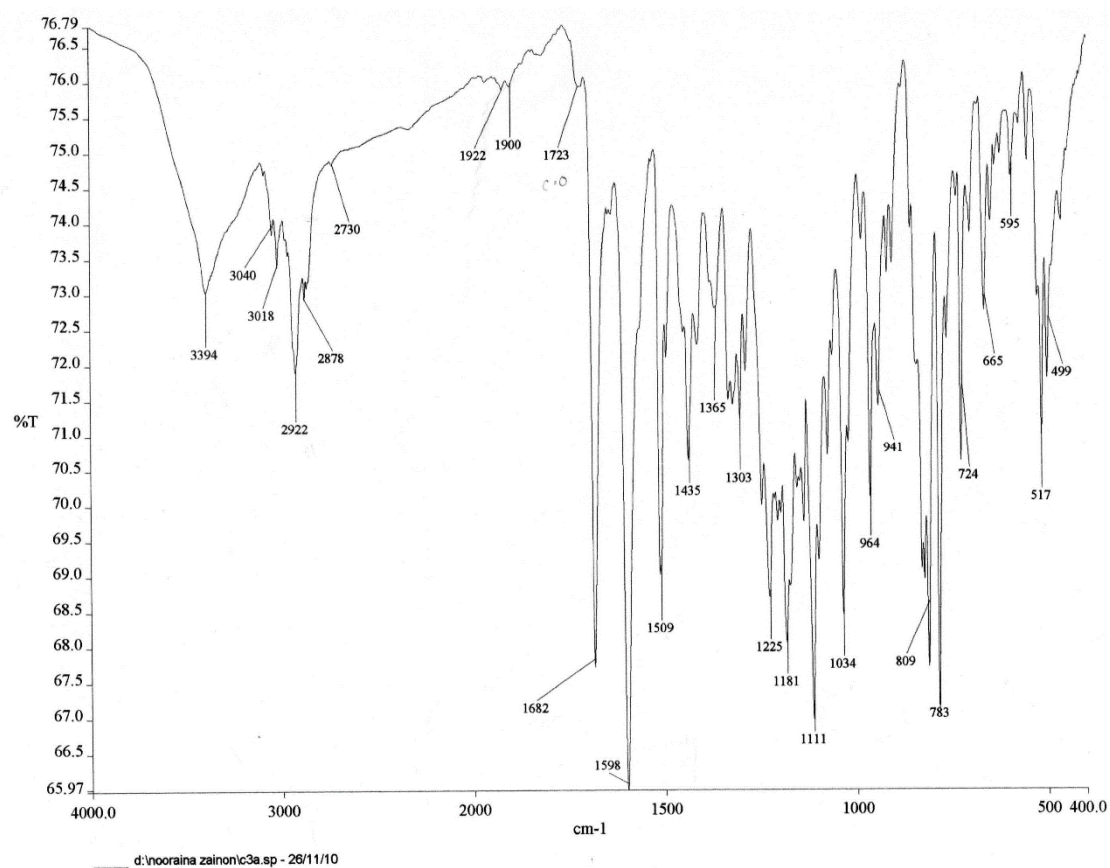


Figure 18. IR spectrum of 6i.