

Supplementary Materials: Photochemistry of 1,4-dihydropyridine Derivatives: Diradical Formation, Delocalization and Trapping as a Route to Novel Tricyclic and Tetracyclic Nitrogen Heterocyclic Ring Systems

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Table S1. Optimization of photoreaction conditions of **1a** with **2a**.

Run	Lamp/time	Vessel	Solvent	Molar ratio of 1a:2a	Photoproducts%			
					3a	4a	5a	6a
1	16 W/6 h	Quartz	CH ₃ CN	1:1	40	-	-	-
2	16 W/16 h	Quartz	CH ₃ CN	1:1	45	-	-	-
3	16 W/24 h	Quartz	CH ₃ CN	1:1	65	-	-	-
4	400 W/3 h	Quartz	CHCl ₃	1:2	70	11	7.5	-
5	400 W/3 h	Pyrex	CH ₃ C ₆ H ₅	1:2	-	-	-	-
6	400 W/3 h	Pyrex	CH ₂ Cl ₂	1:2	40	12	8	-
7	400 W/3 h	Pyrex	CH ₃ CN	1:3	48	23	15	13

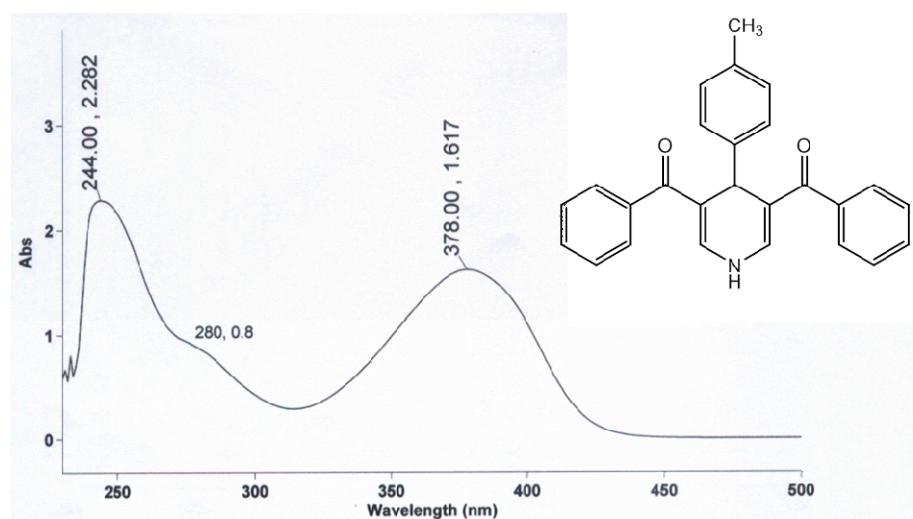


Figure S1. UV-spectrum of 1,4-DHP **3b**.

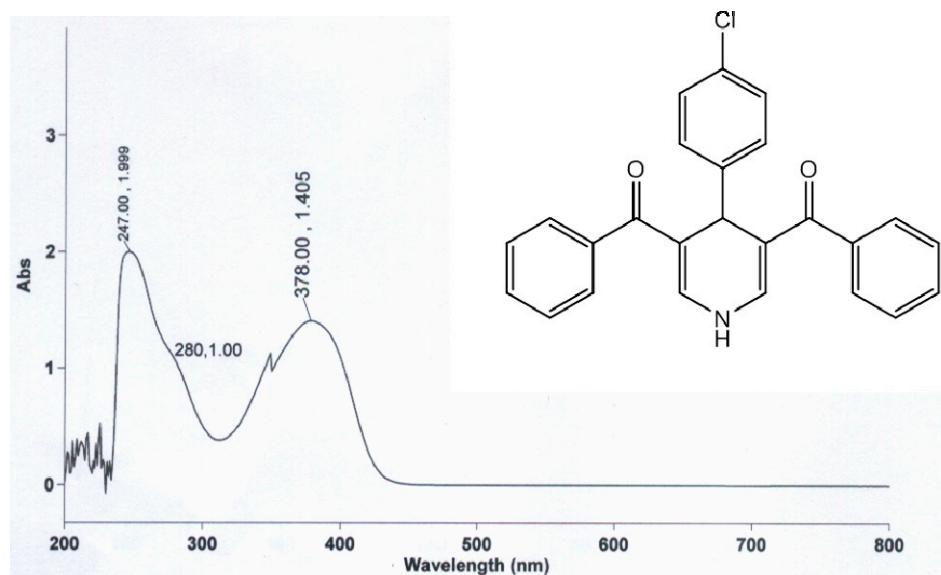
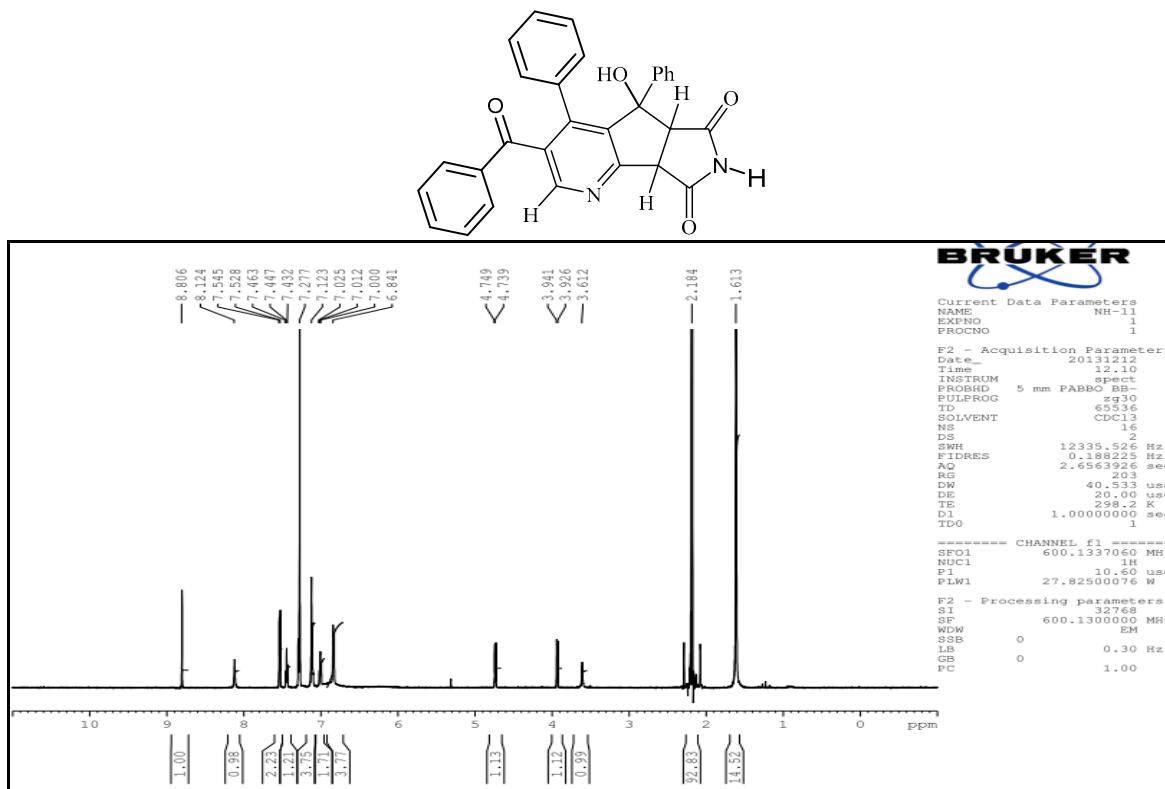
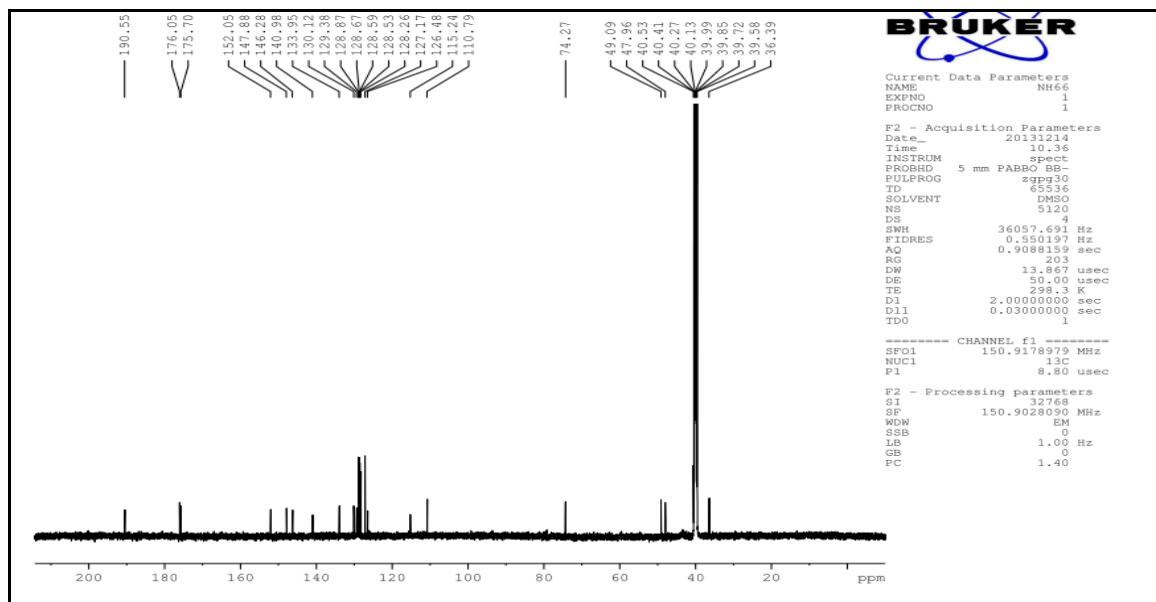
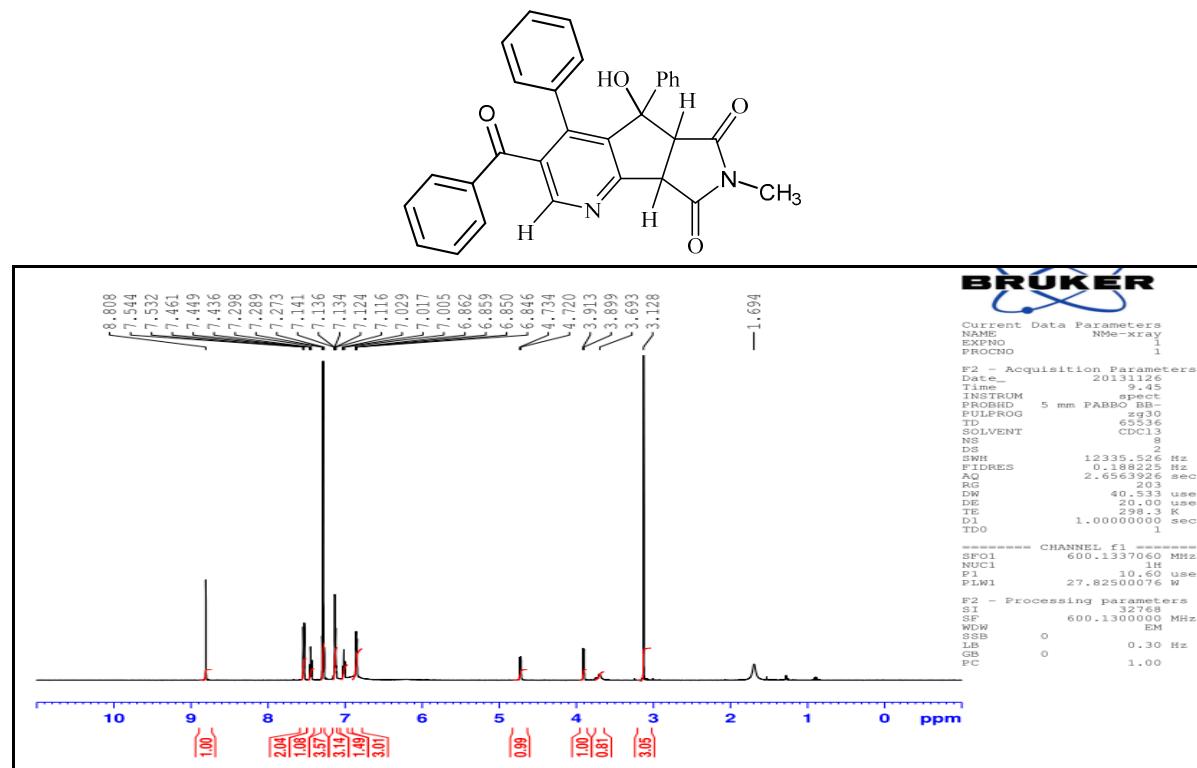
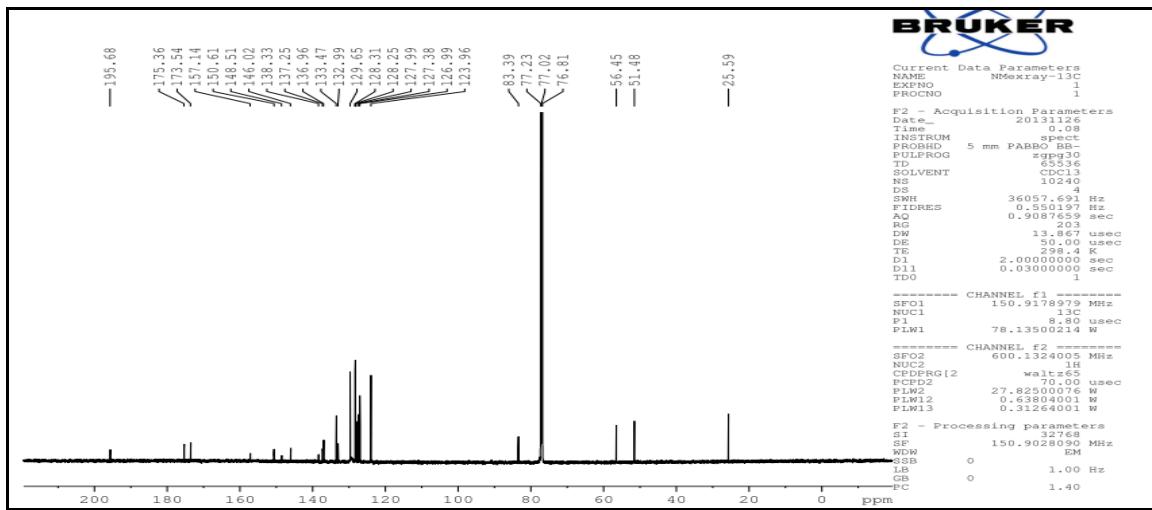
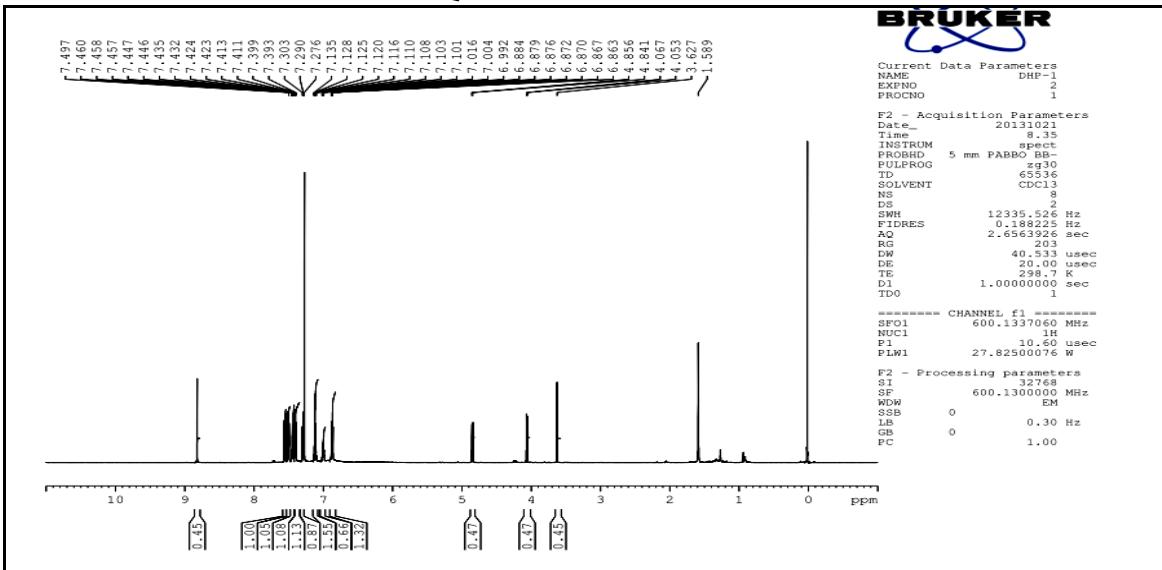
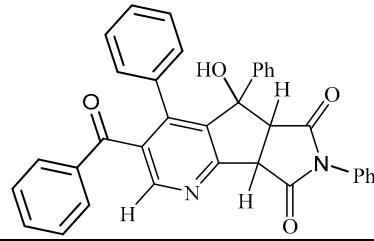
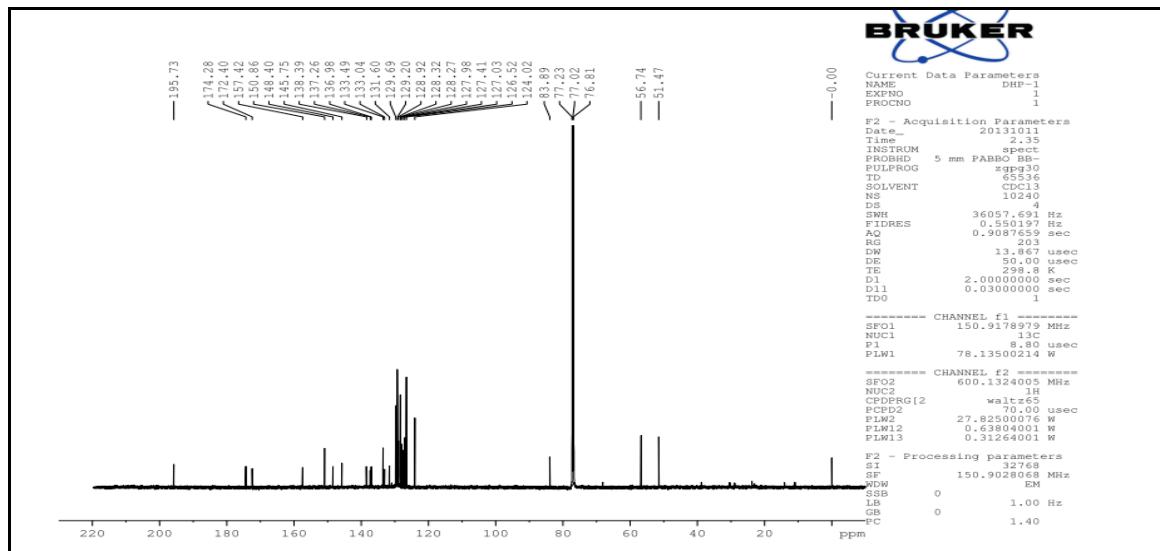
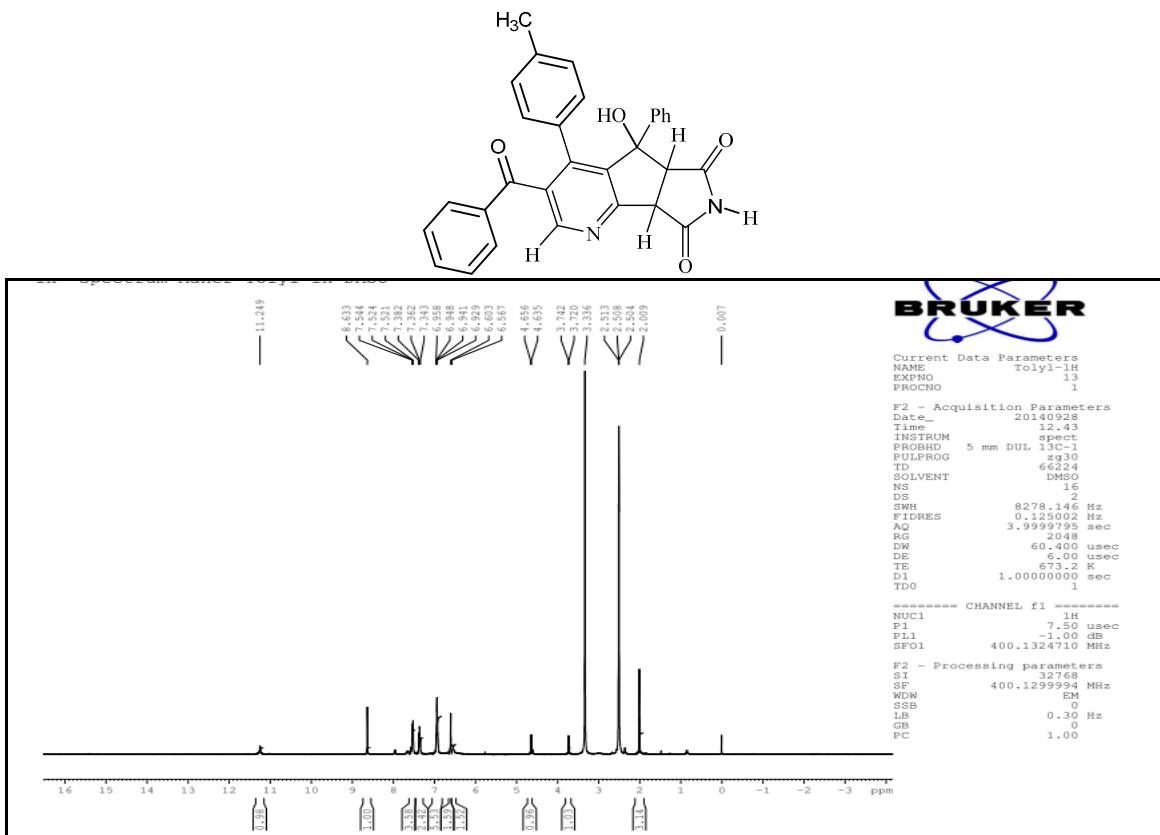


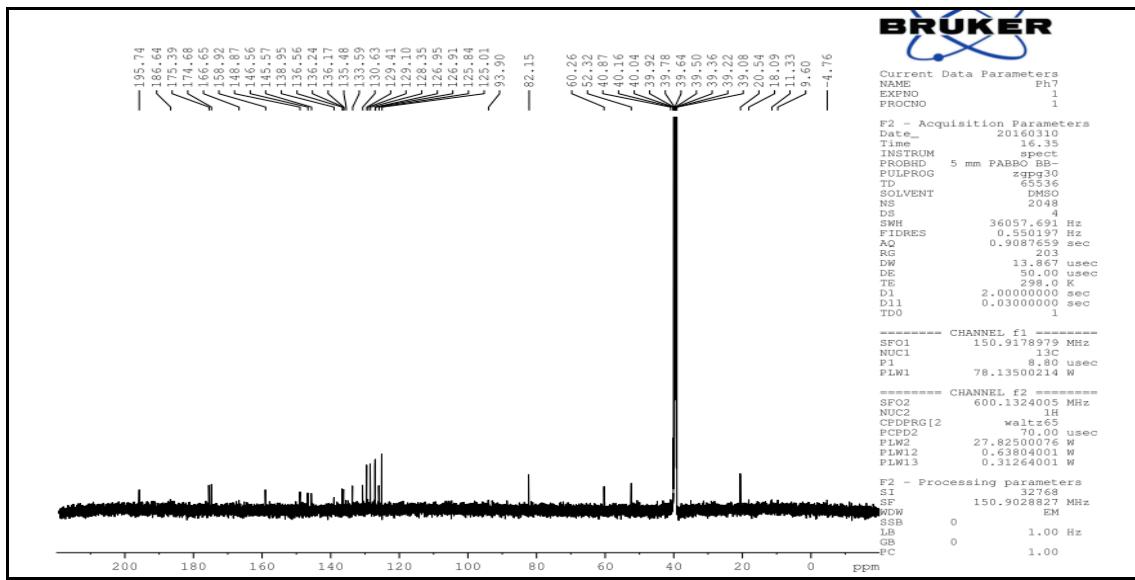
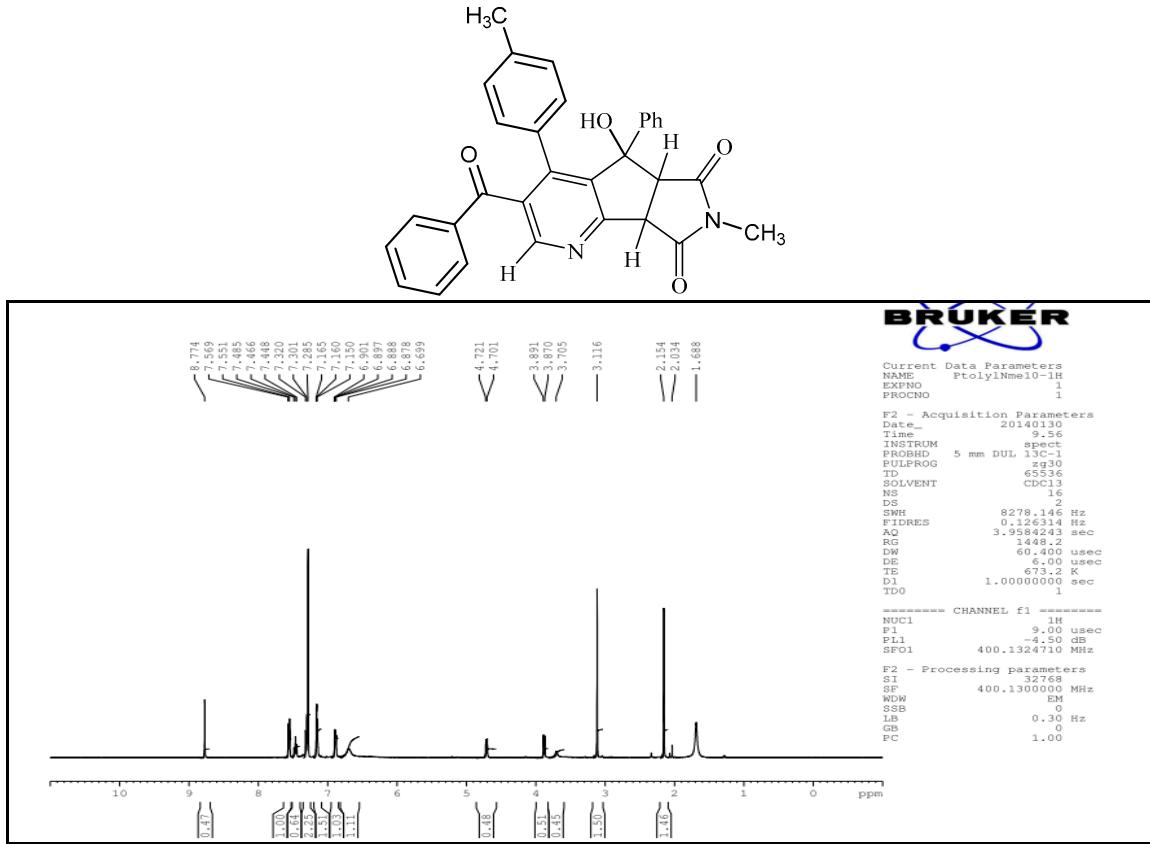
Figure S2. UV-spectrum of 1,4-DHP 3c.

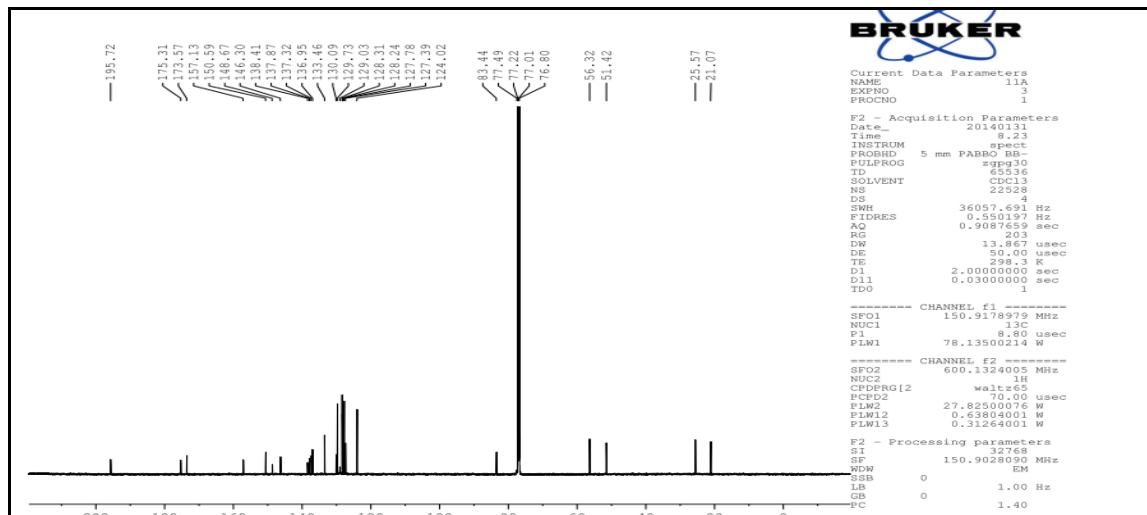
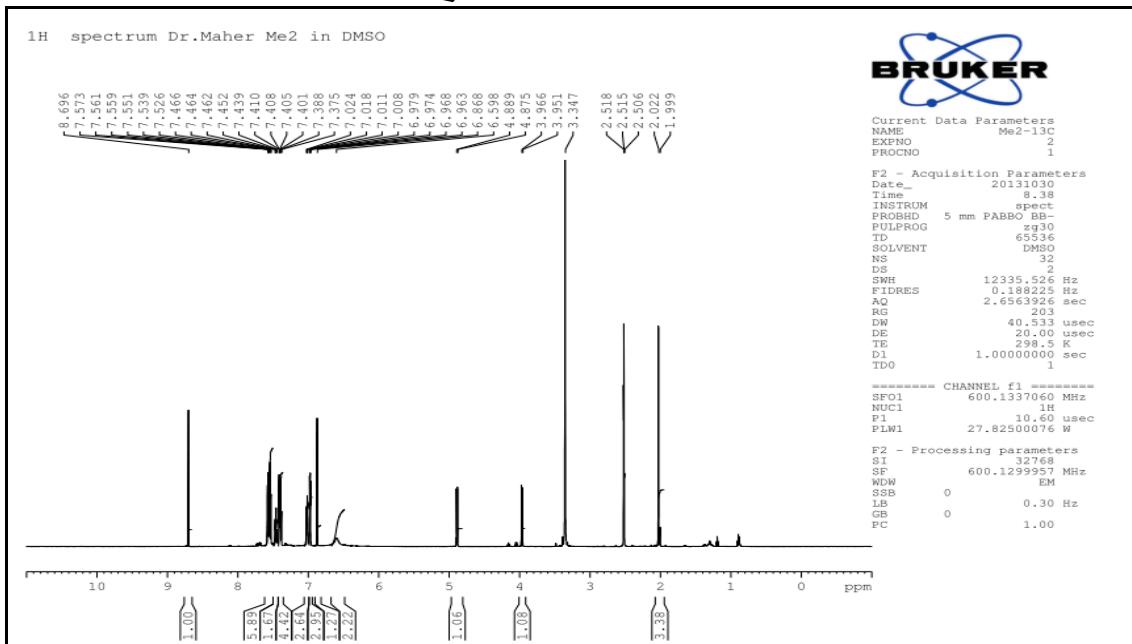
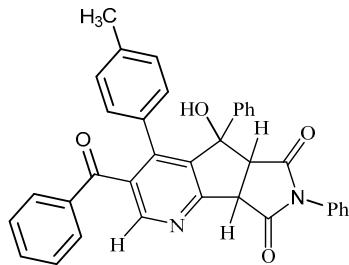


Figure S3. ^1H -NMR and ^{13}C -NMR spectra of compound 4a.

Figure S4. ^1H -NMR and ^{13}C -NMR spectra of compound 4b.

Figure S5. ^1H -NMR and ^{13}C -NMR spectra of compound 4c.

Figure S6. ^1H -NMR and ^{13}C -NMR spectra of compound 4d.

Figure S7. ^1H -NMR and ^{13}C -NMR spectra of compound 4e.

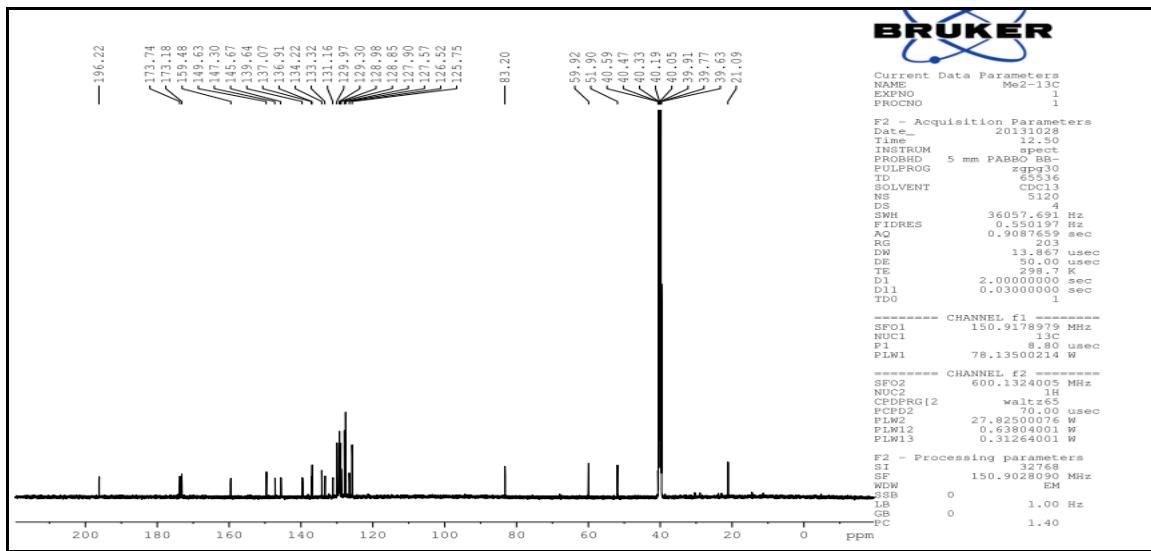
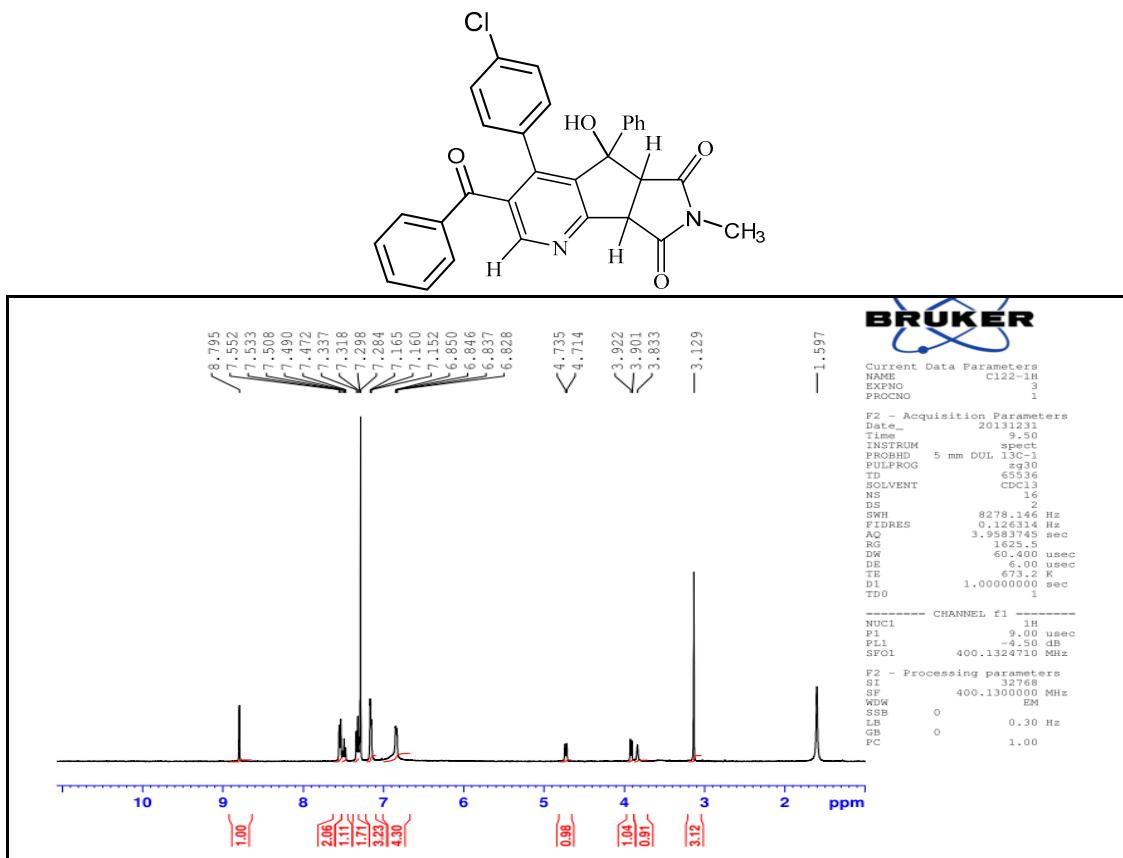
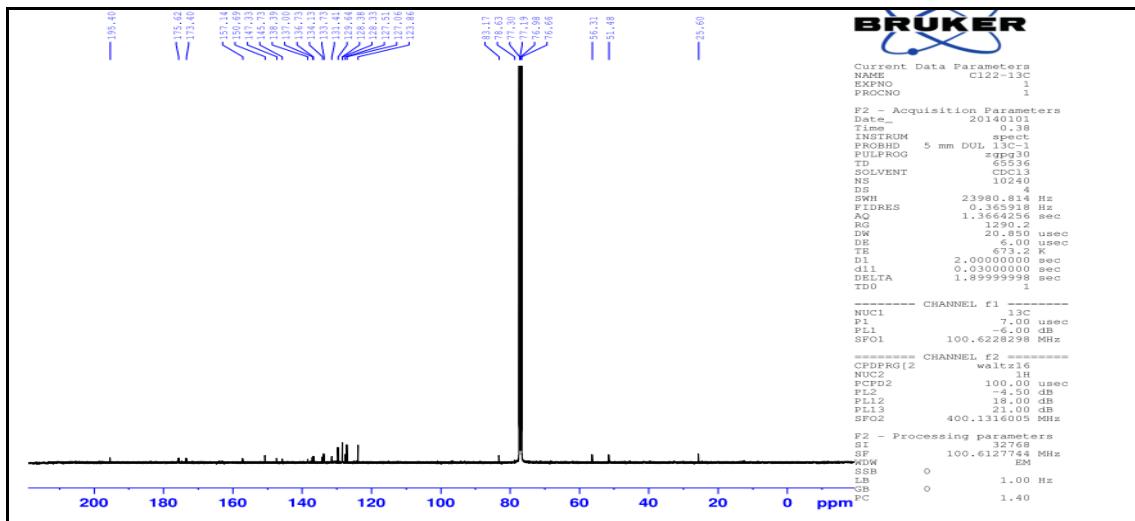
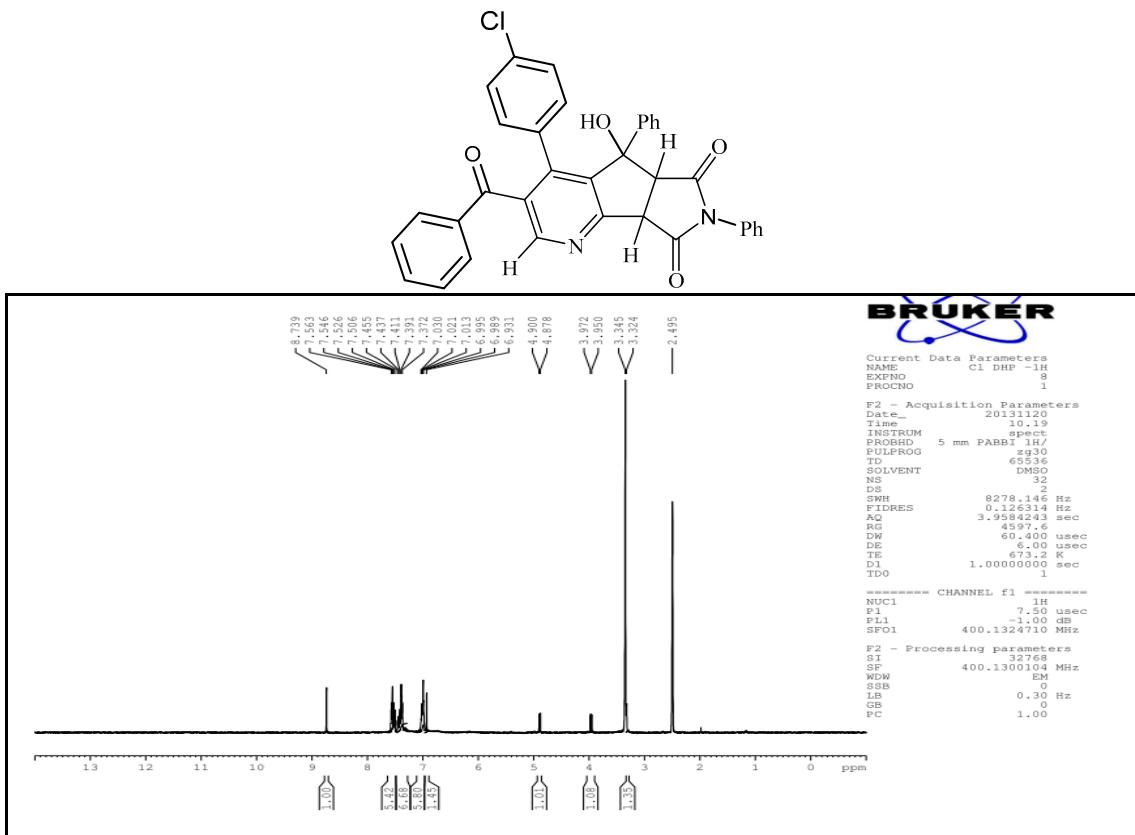
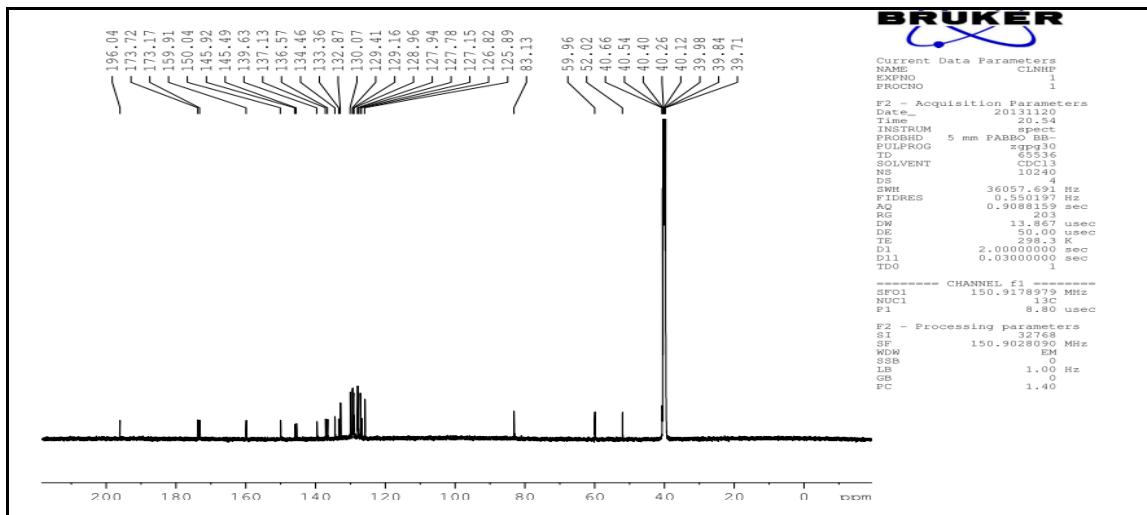
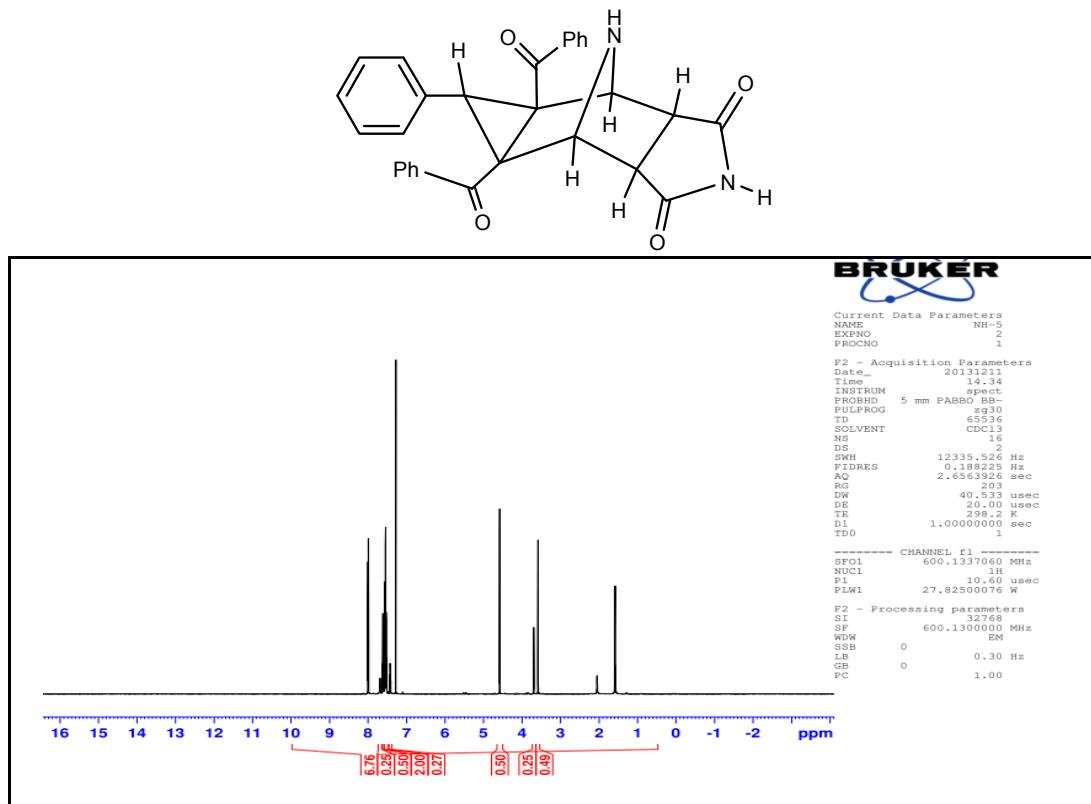
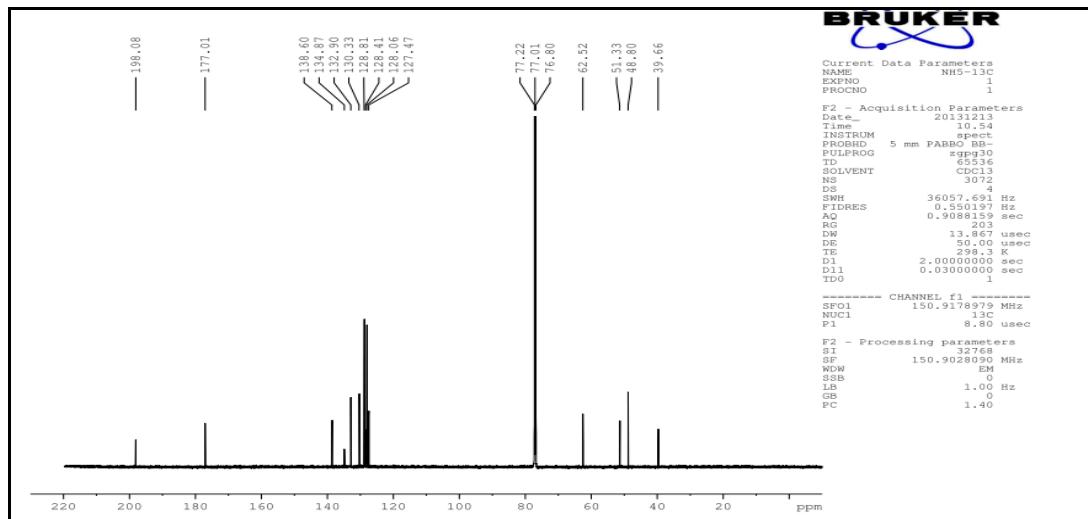
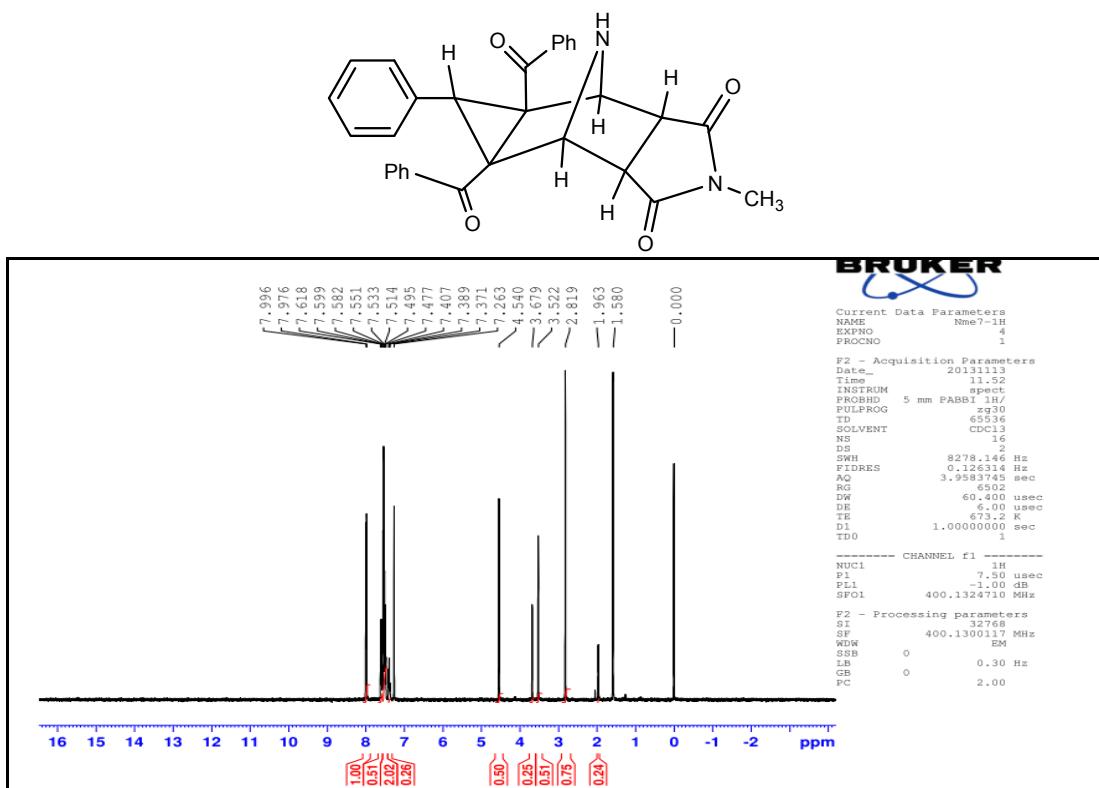


Figure S8. ^1H -NMR and ^{13}C -NMR spectra of compound 4f.



Figure S9. ^1H -NMR and ^{13}C -NMR spectra of compound 4g.

Figure S10. ^1H -NMR and ^{13}C -NMR spectra of compound 4h.

Figure S11. ^1H -NMR and ^{13}C -NMR spectra of compound 5a.

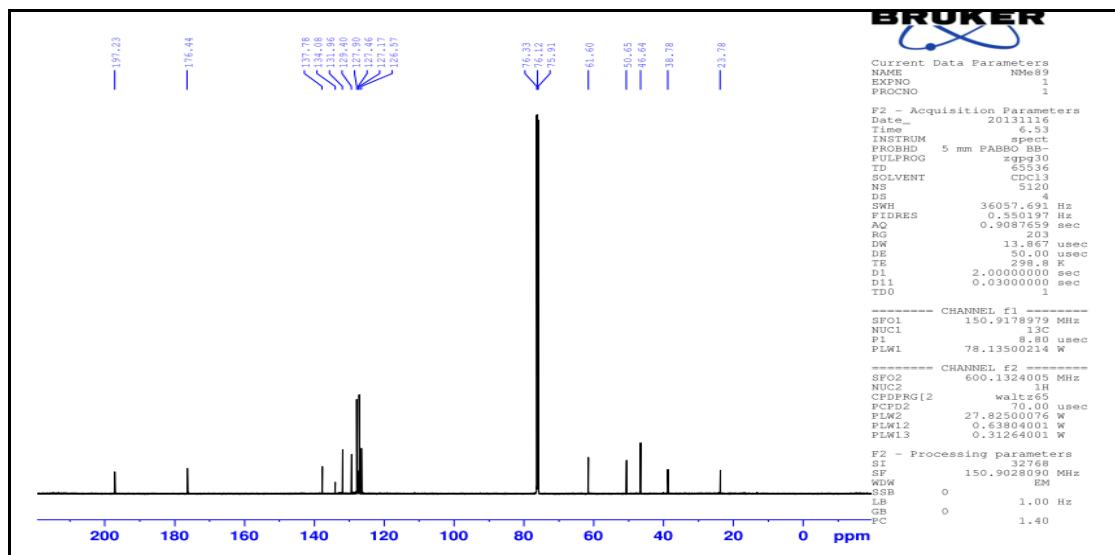
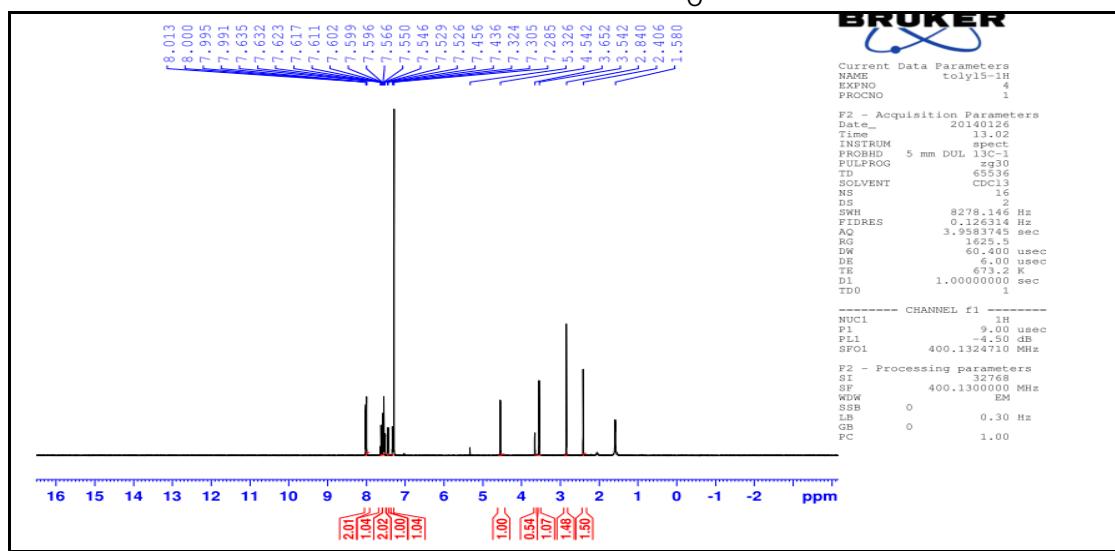
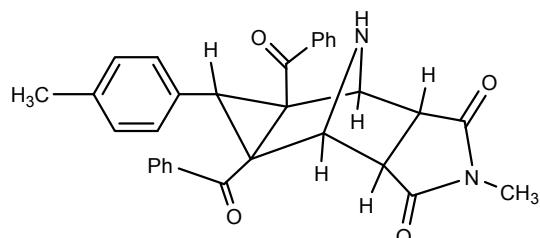
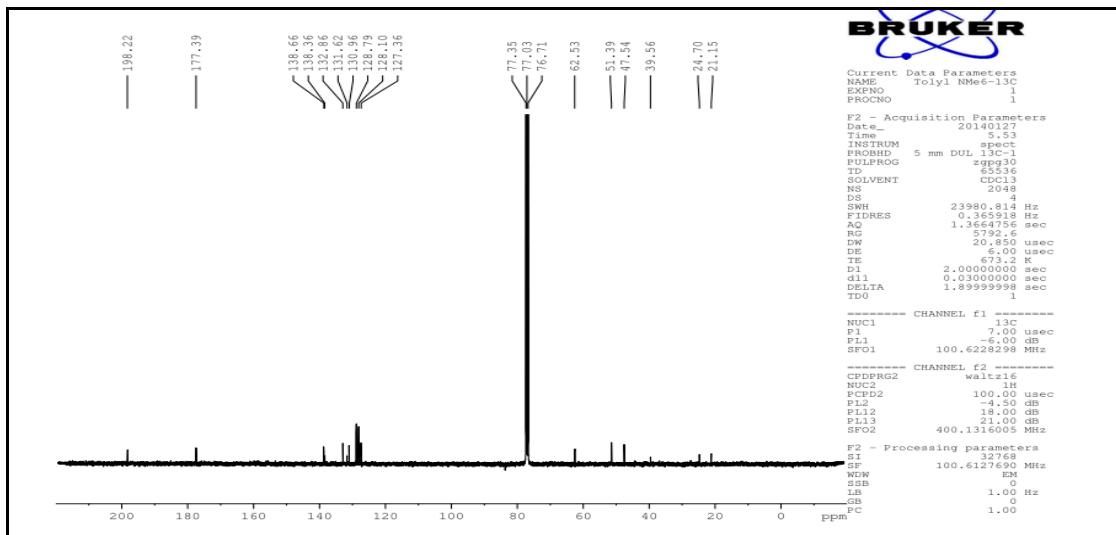
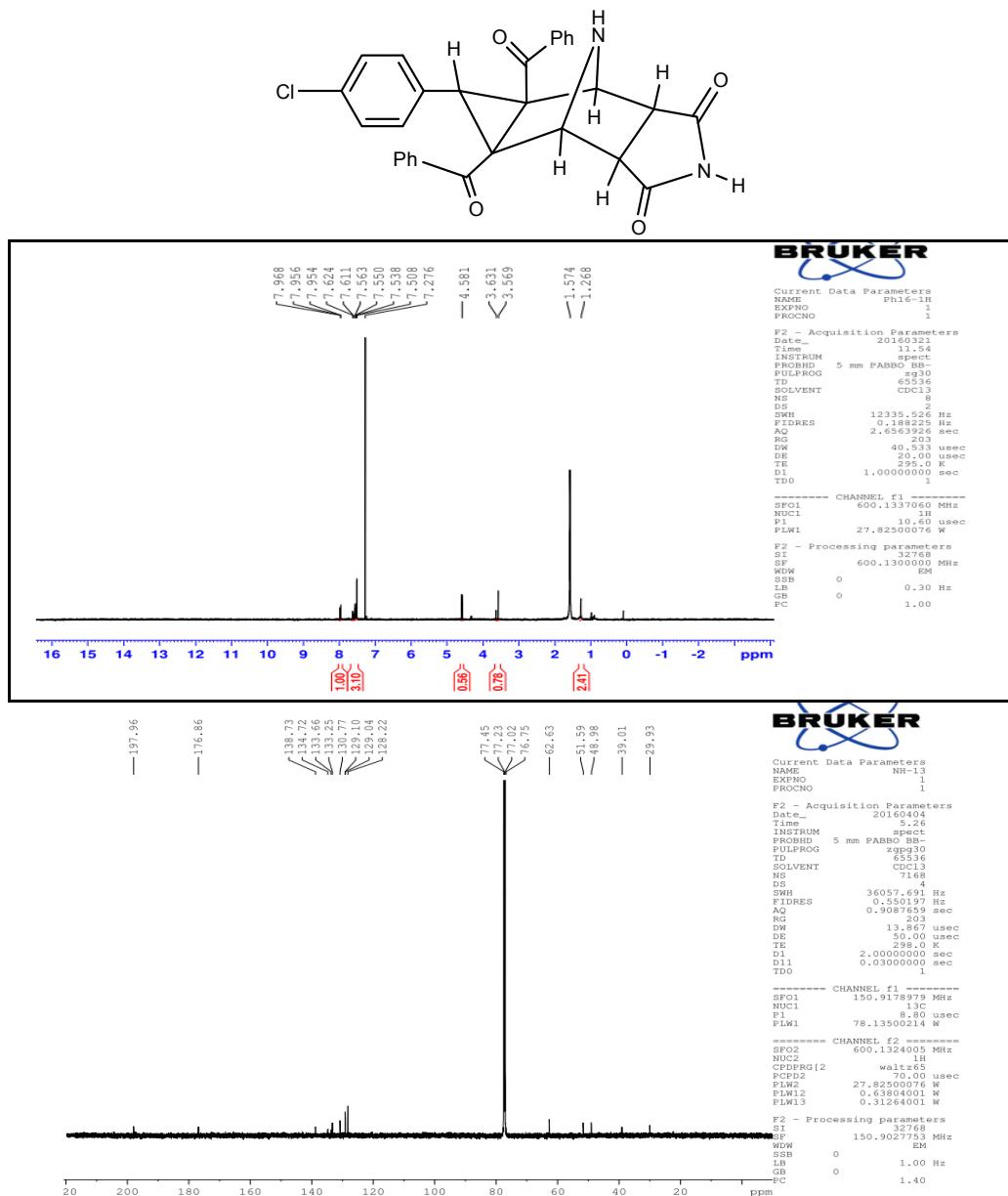


Figure S12. ^1H -NMR and ^{13}C -NMR spectra of compound **5b**.



Figure S13. ^1H -NMR and ^{13}C -NMR spectra of compound 5c.Figure S14. ^1H -NMR and ^{13}C -NMR spectra of compound 5d.

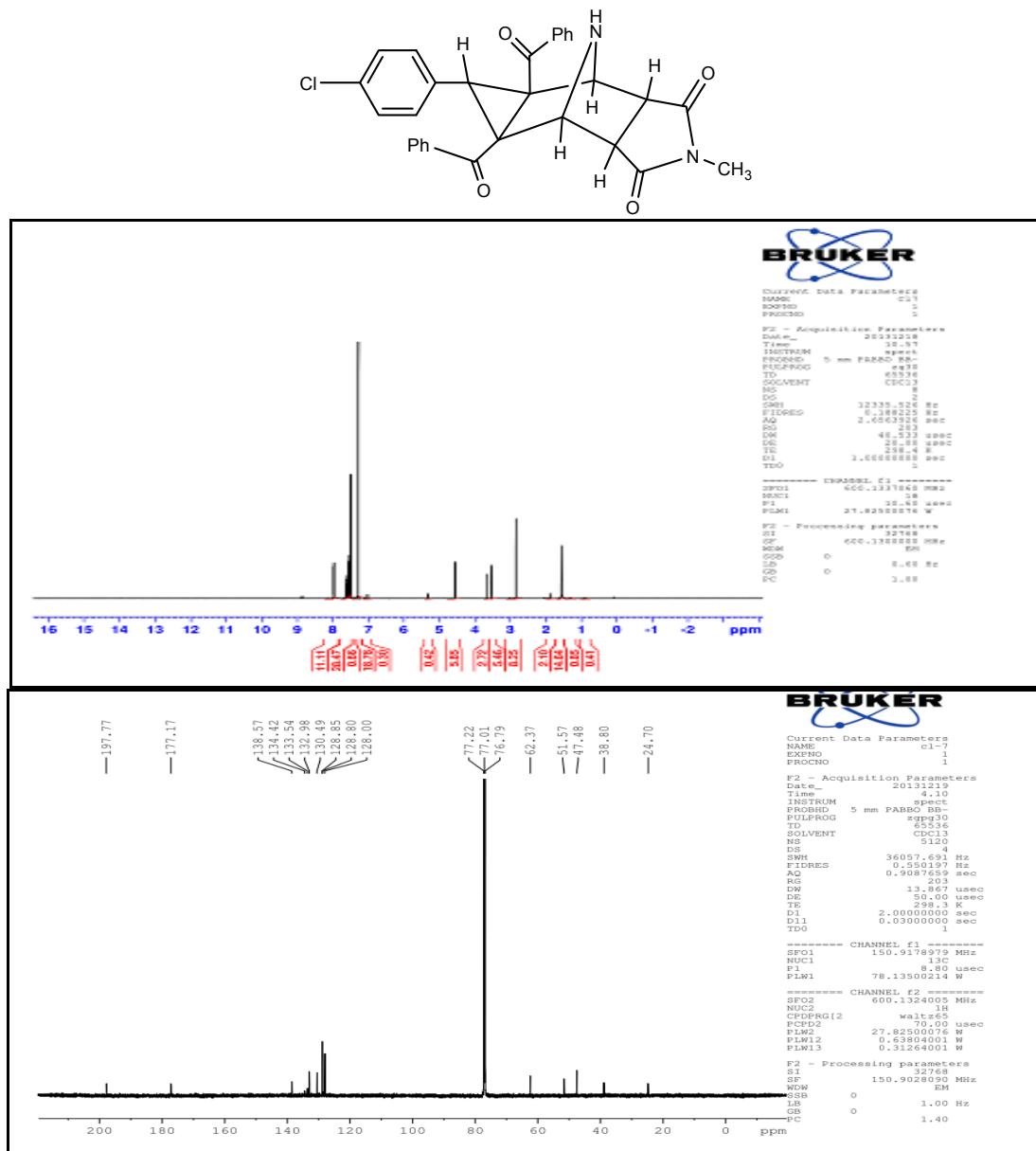
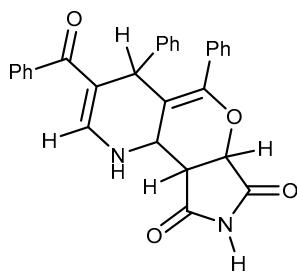
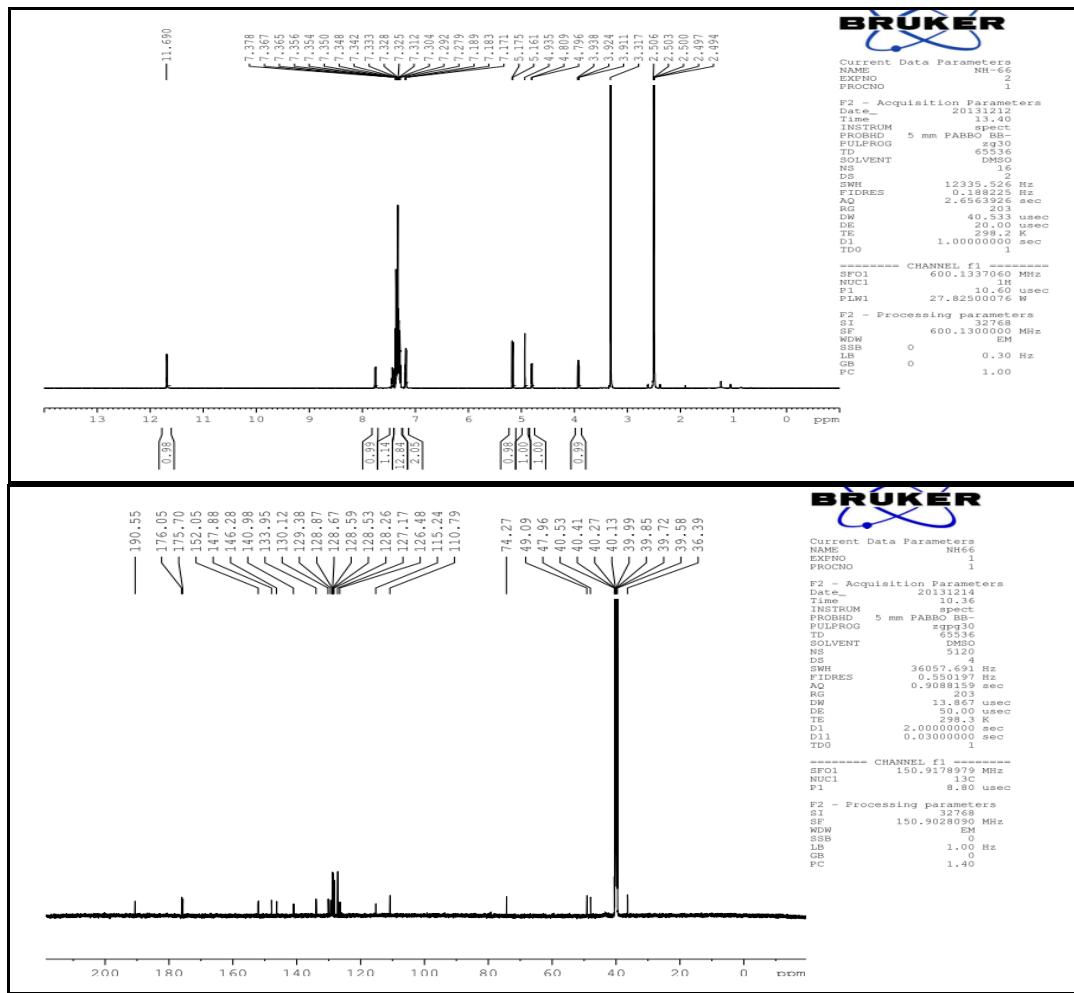


Figure S15. ^1H -NMR and ^{13}C -NMR spectra of compound **5e**.



Figure S16. ^1H -NMR and ^{13}C -NMR spectra of compound 6a.