Halogen Substitution Effects on the Molecular Packing and Thin Film Transistor Performances of Carbazoledioxazine Derivatives

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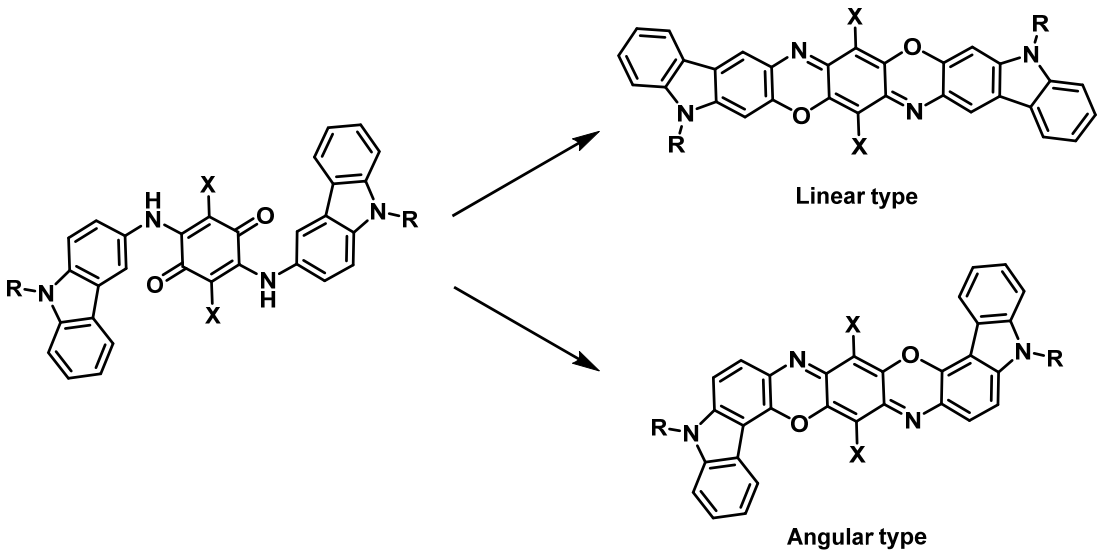
1. Supplementary Figures



Scheme S1 Ring closure reactions producing linear and angular type carbazoledioxazine derivatives.

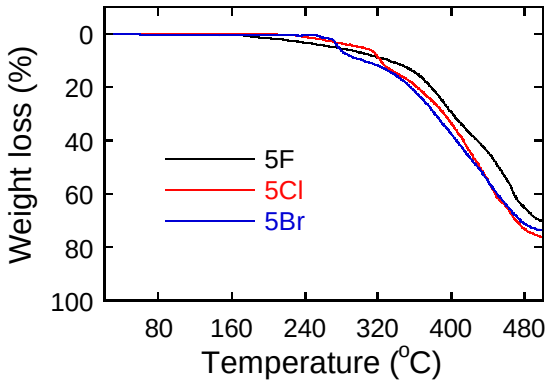


Figure S1 Thermogravimetric analysis (TGA) of **5F**, **5Cl**, and **5Br** at the heating rate of 10 °C min^{-1}.

2. NMR Charts

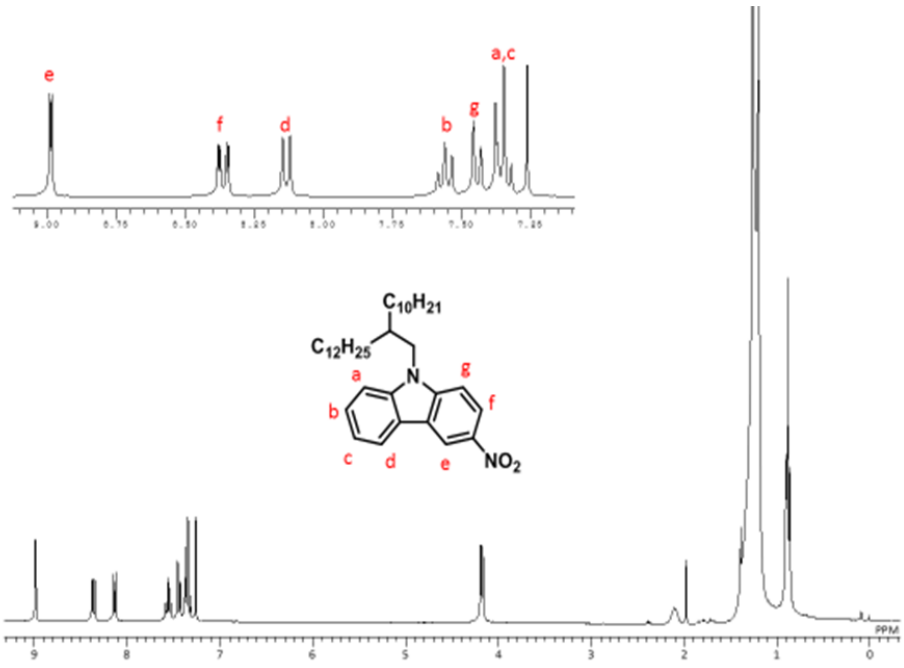


Figure S2 ^{1}H NMR spectrum of **3** in $CDCl_3$.

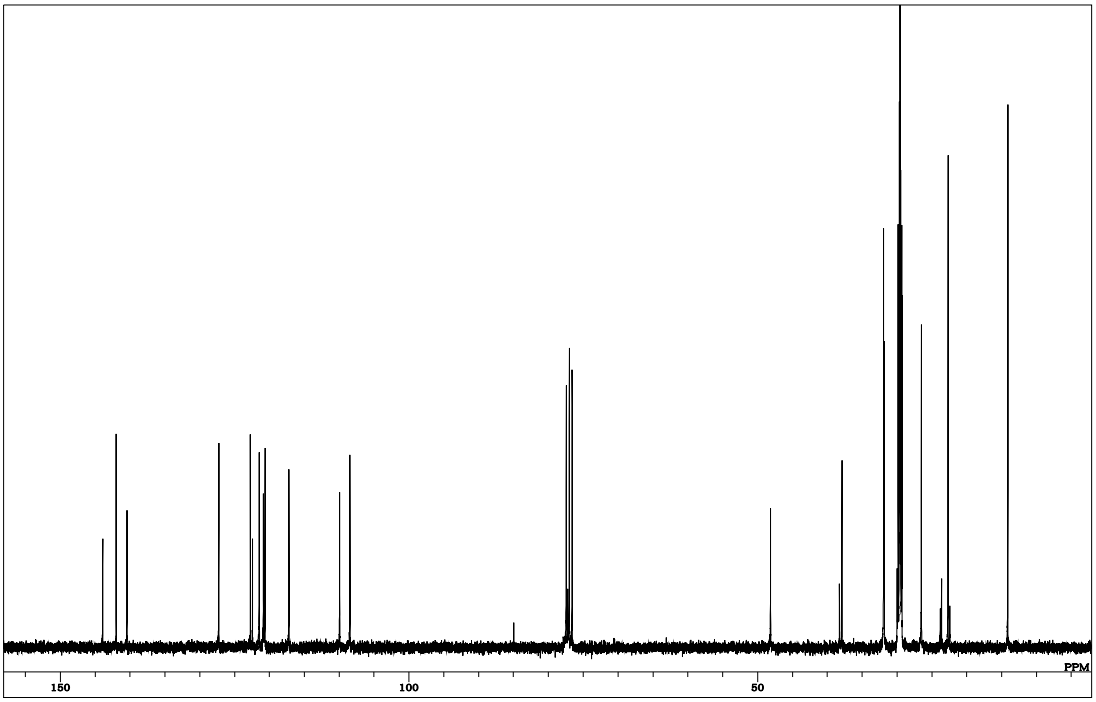


Figure S3 ^{13}C NMR spectrum of **3** in $CDCl_3$.

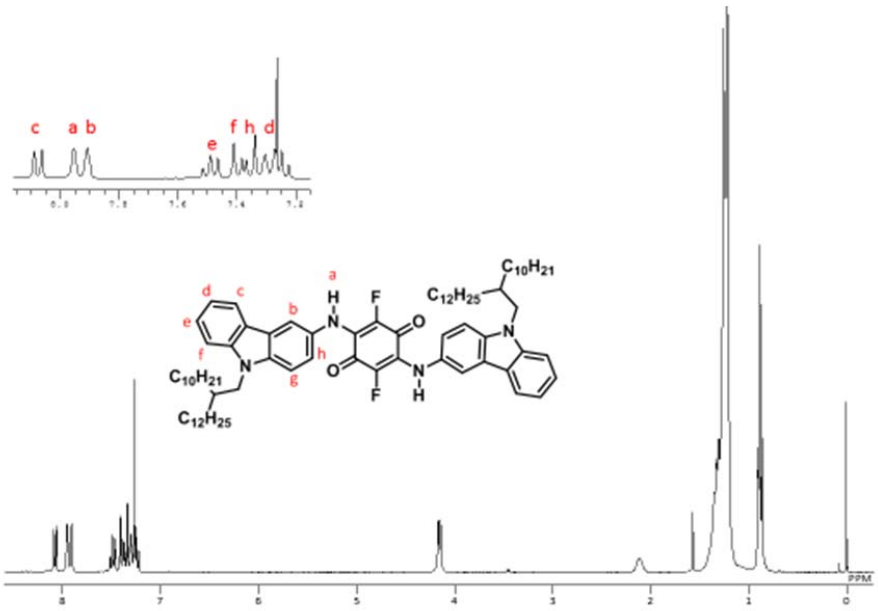


Figure S4 ^{1}H NMR spectrum of **4F** in $CDCl_3$.

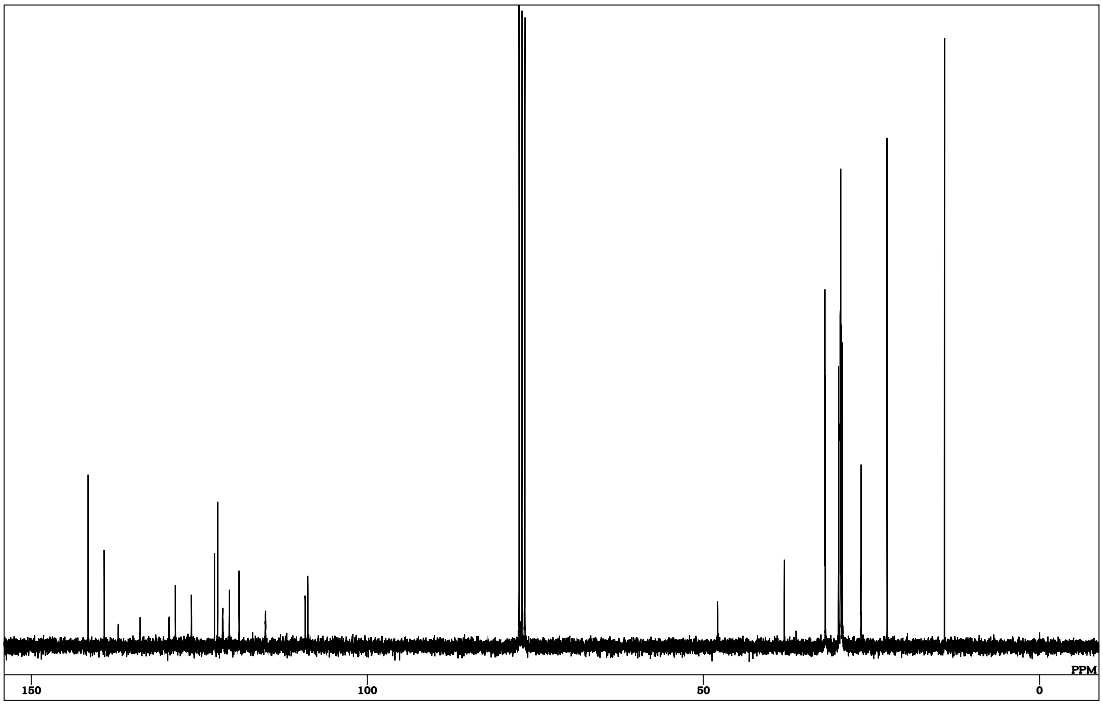


Figure S5 ^{13}C NMR spectrum of **4F** in $CDCl_3$.

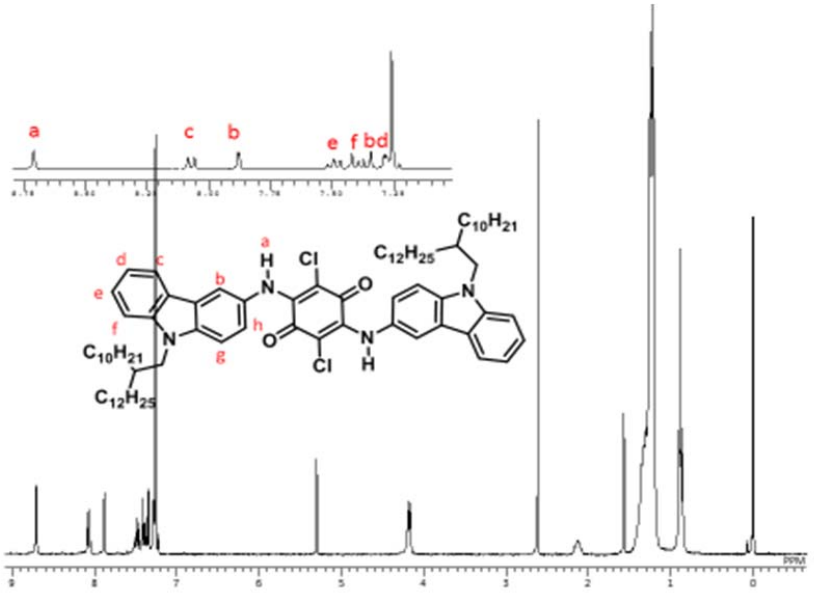


Figure S6 ^{1}H NMR spectrum of **4Cl** in $CDCl_3$.

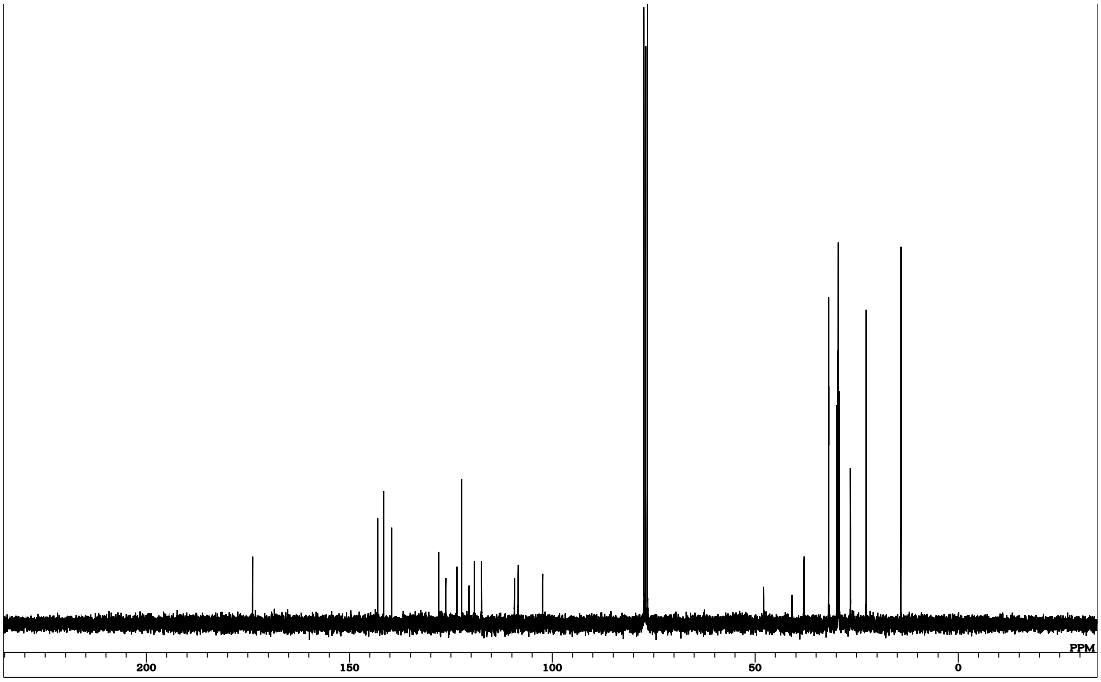


Figure S7 ^{13}C NMR spectrum of **4Cl** in $CDCl_3$.

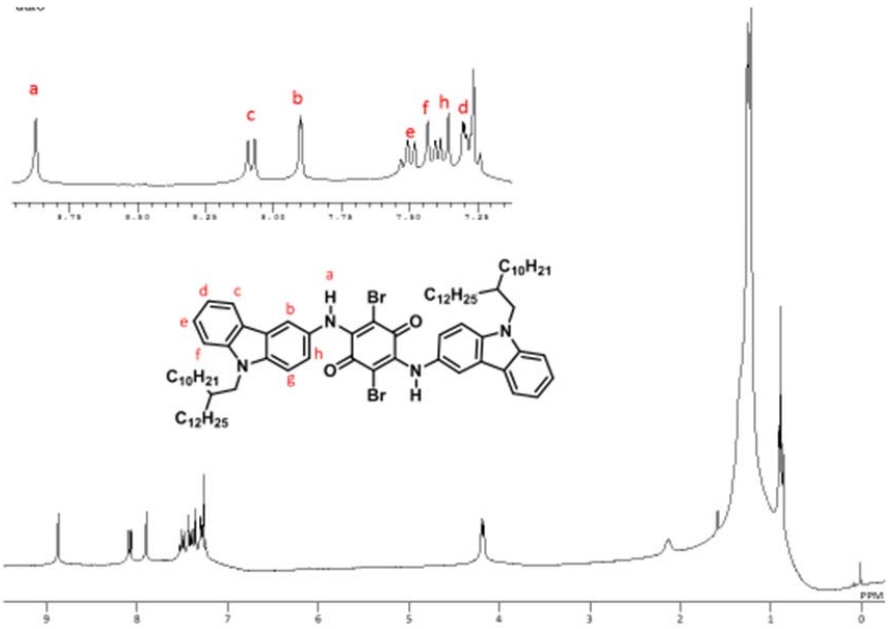


Figure S8 ^{1}H NMR spectrum of **4Br** in $CDCl_3$.

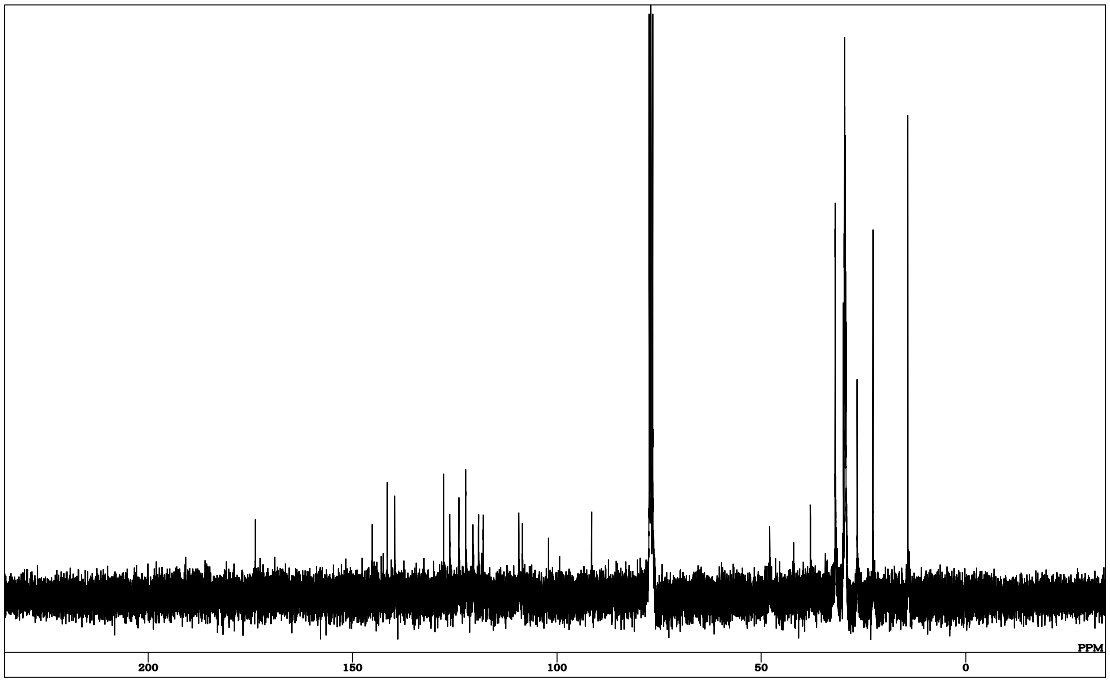


Figure S9 ^{13}C NMR spectrum of **4Br** in $CDCl_3$.

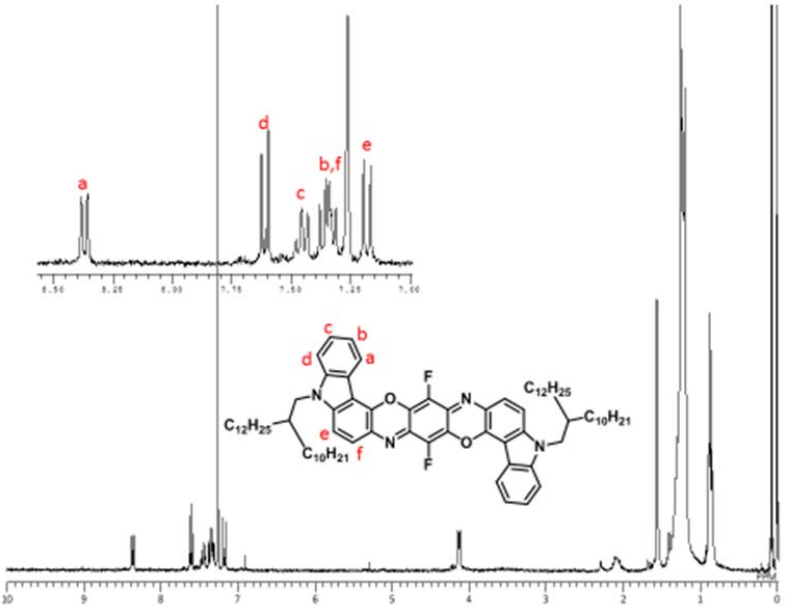


Figure S10 ^{1}H NMR spectrum of **5F** in $CDCl_3$.

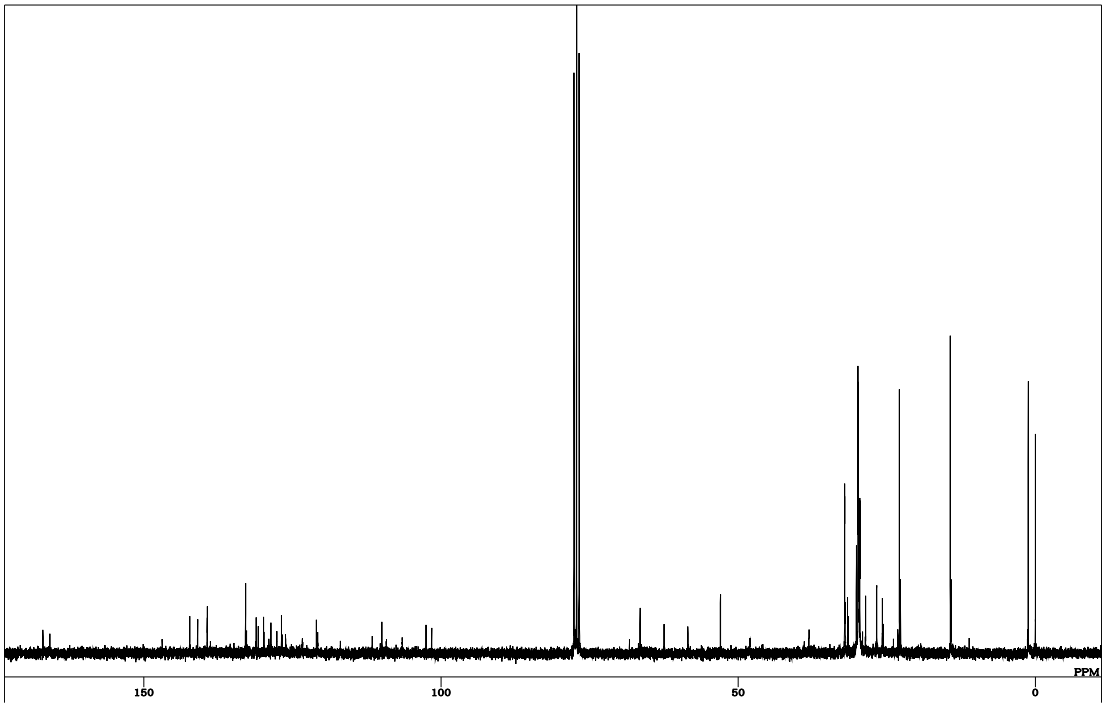


Figure S11 ^{13}C NMR spectrum of **5F** in $CDCl_3$.

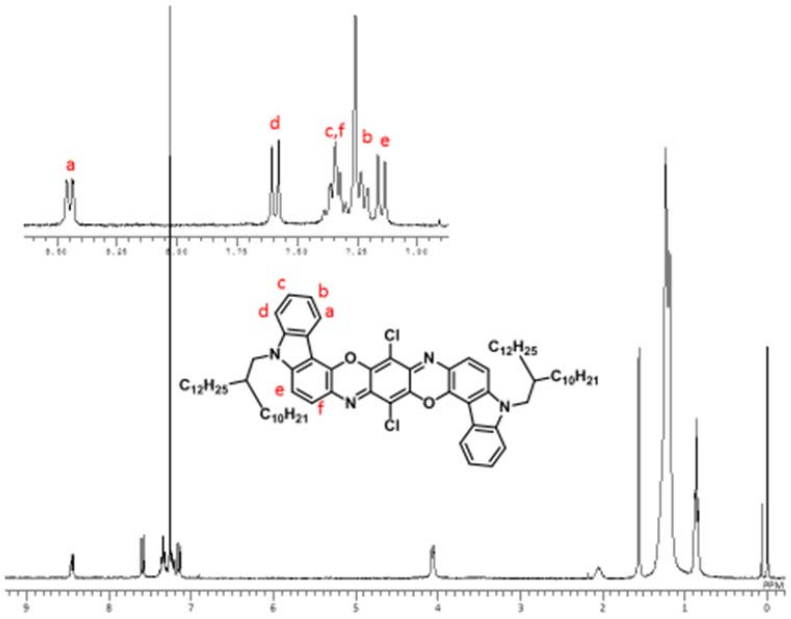


Figure S12 ^{1}H NMR spectrum of **5Cl** in $CDCl_3$.

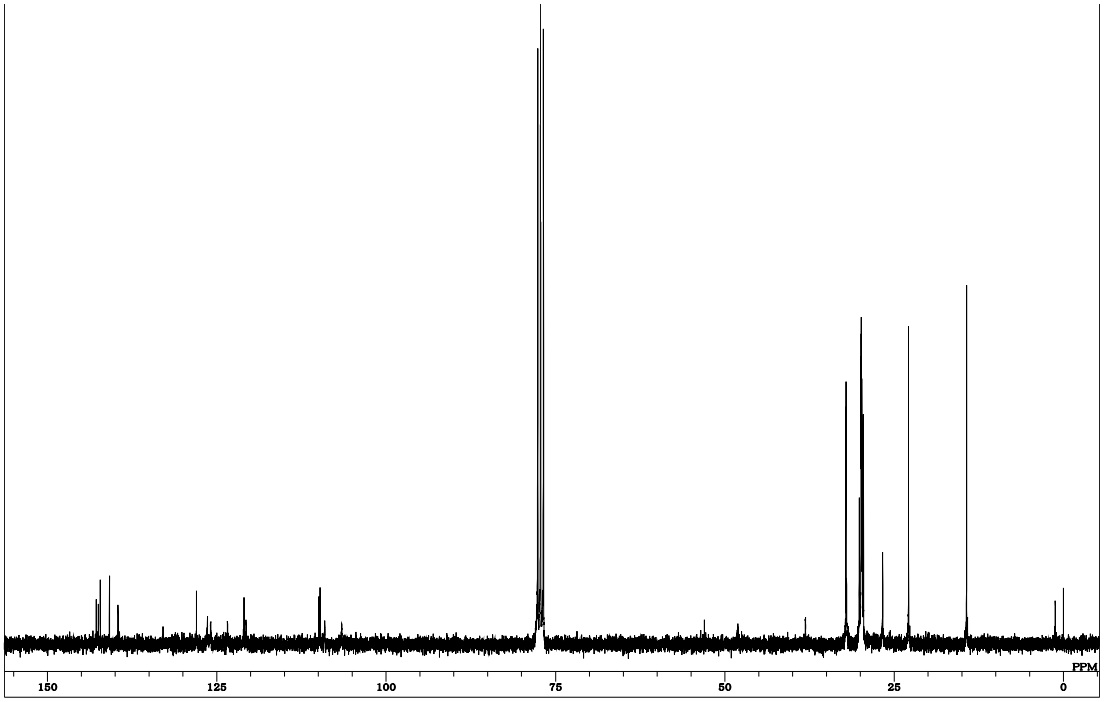


Figure S13 ^{13}C NMR spectrum of **5Cl** in $CDCl_3$.

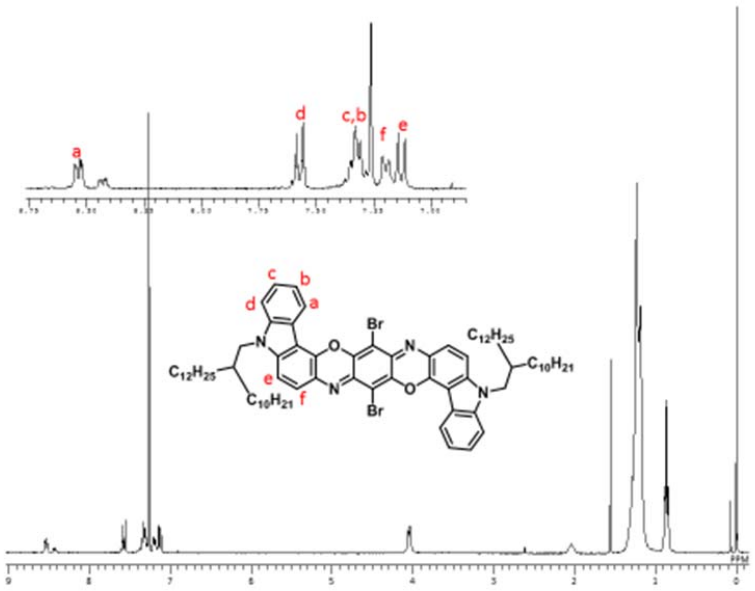


Figure S14 ^{1}H NMR spectrum of **5Br** in $CDCl_3$.

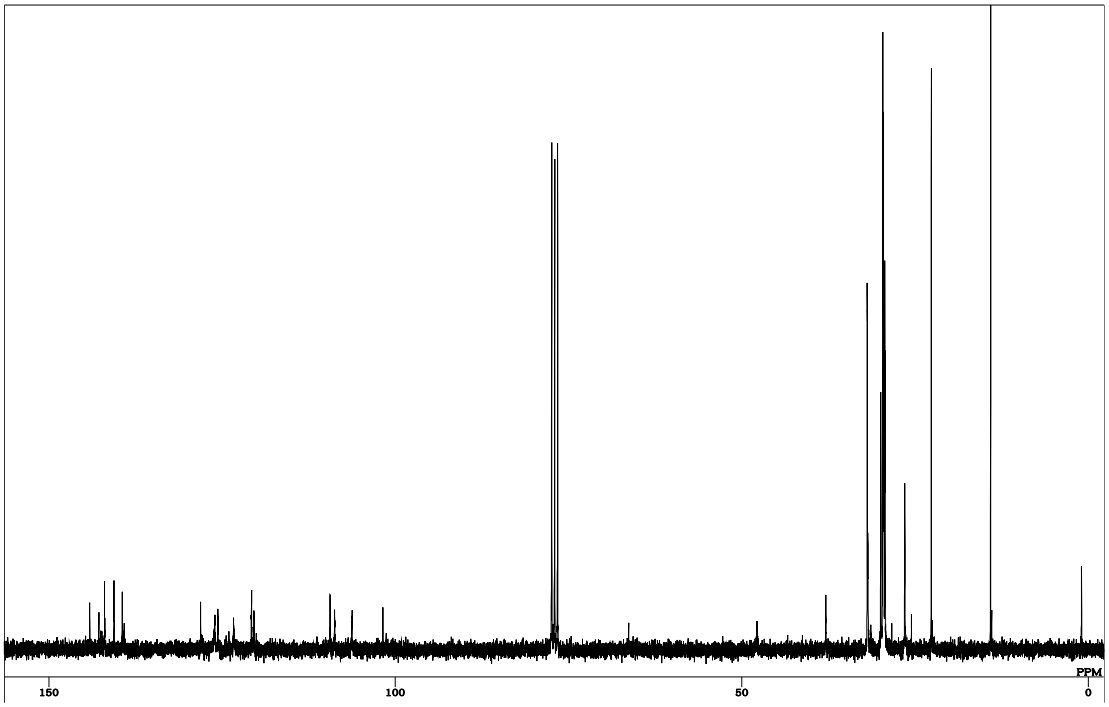


Figure S15 ^{13}C NMR spectrum of **5Br** in $CDCl_3$.

3. Complete References

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