

Supporting Information

Disproportionation-induced solid-state fluorescence in 6,13-dihdropentacenes

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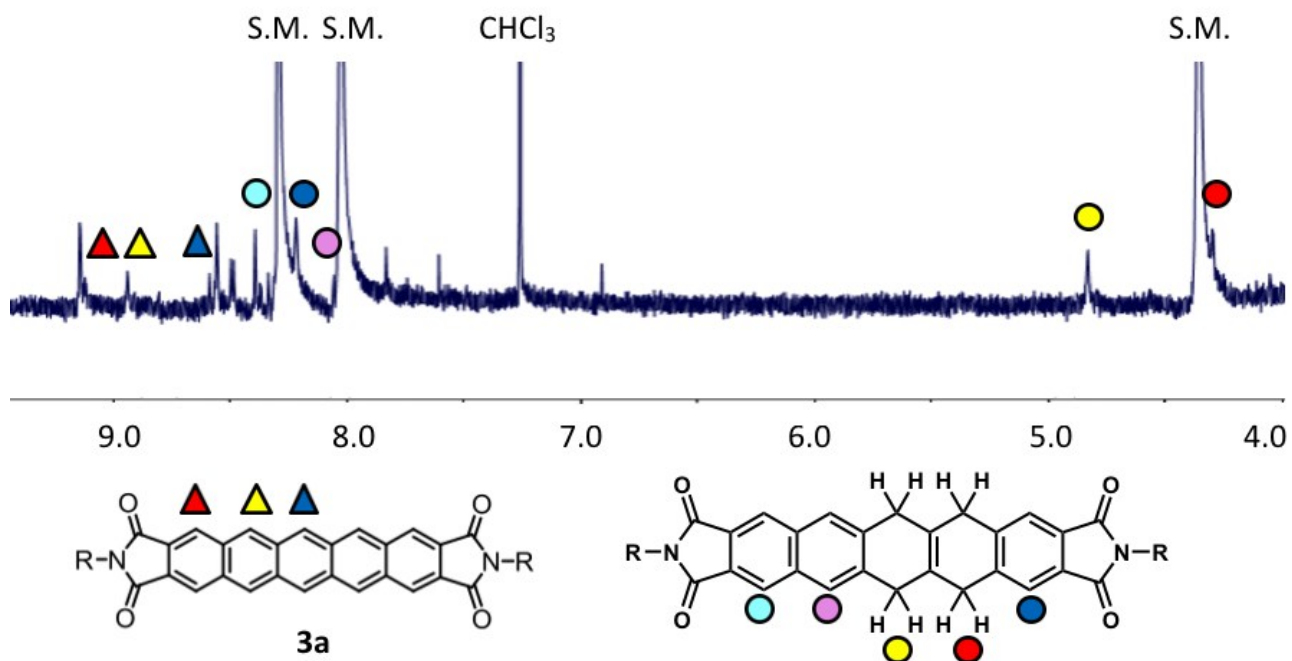


Fig. S1. ¹H NMR spectrum of **3a** after heating at 250 °C.

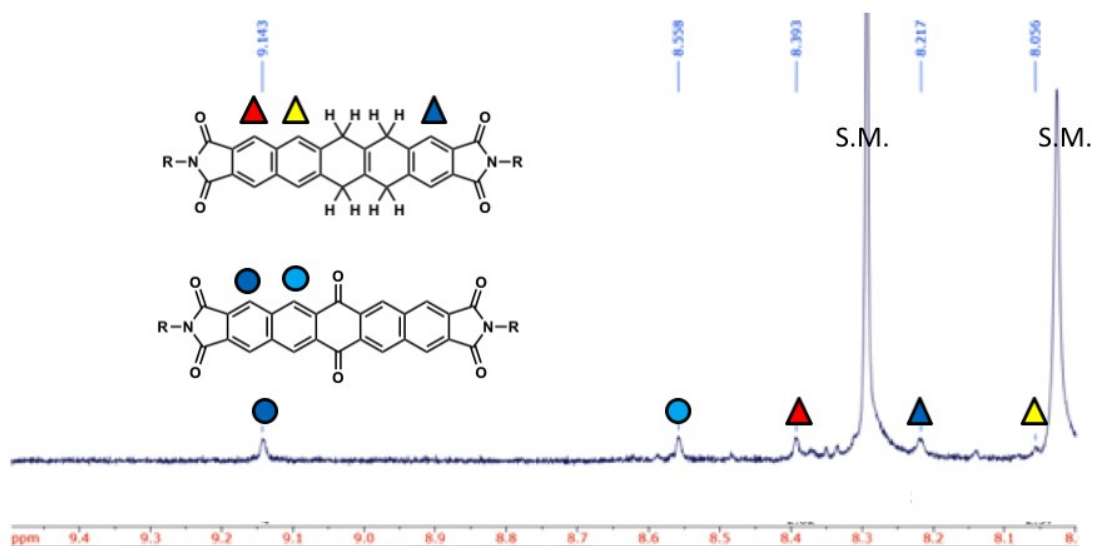


Fig. S2. ¹H NMR spectrum of **3a** after heating at 250 °C upon exposure to air.

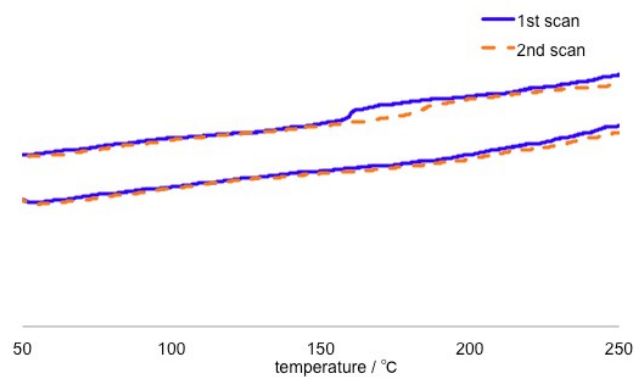


Fig. S3. The differential scanning calorimetry (DSC) measurement of **3a** (scan rate = 10 °C/min).

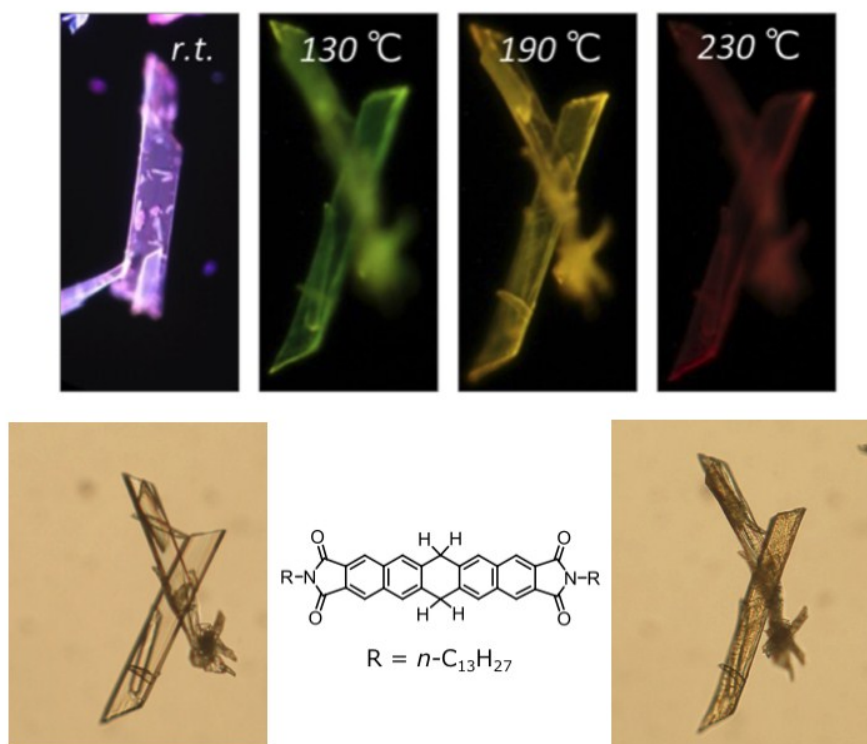


Fig. S4. Apparent fluorescence color change of a **3b** with the increasing temperature and polarized optical microscopy images of **3b**.

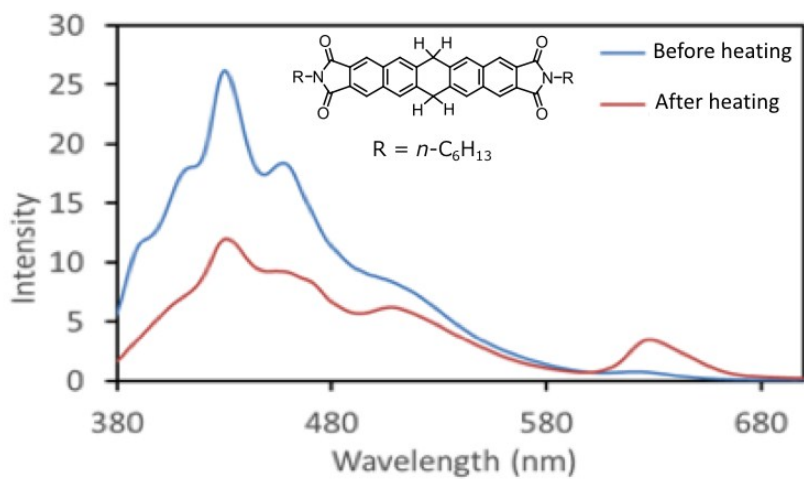


Fig. S5. Fluorescence spectra of a thin film of **3a** with increasing temperature.

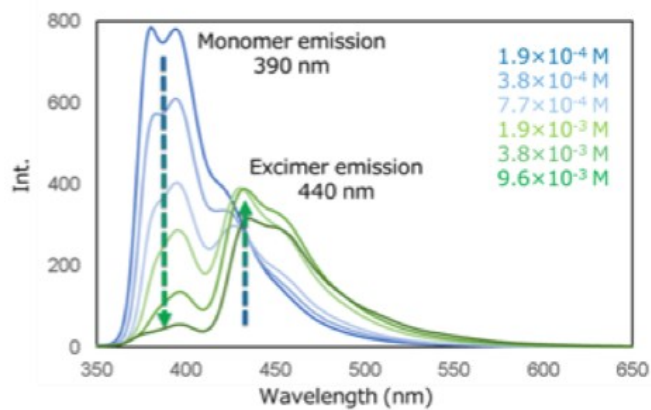


Fig. S6. Fluorescence spectra of **3a** in CHCl_3 solution as function of concentration ($\lambda_{\text{ex}} = 275$ nm).

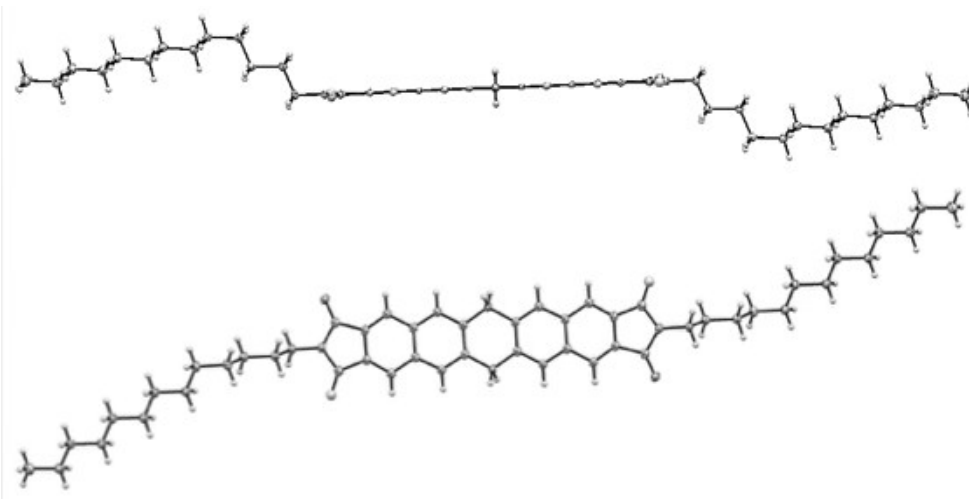


Fig. S7. ORTEP drawings of **3b** (thermal ellipsoids at 50% probability).

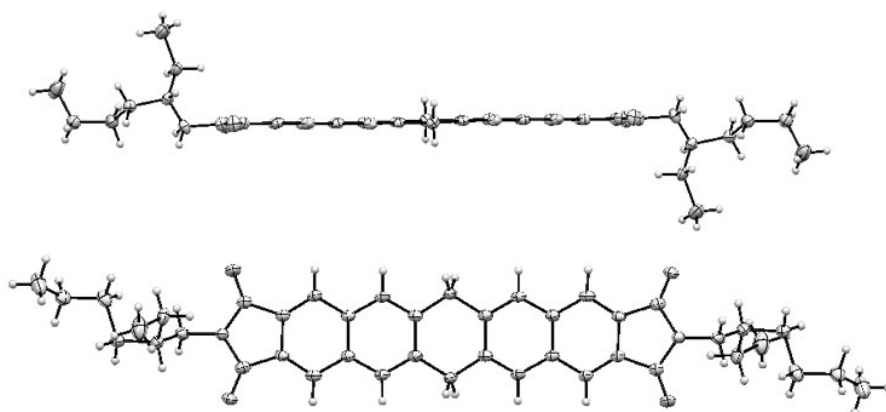


Fig. S8. ORTEP drawings of **3c** (thermal ellipsoids at 50% probability).

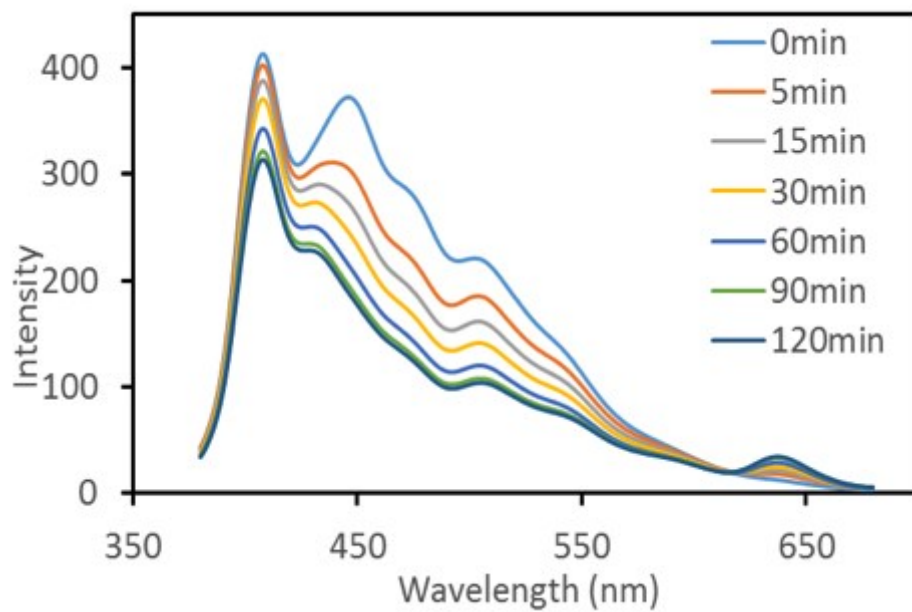


Fig. S9. Fluorescence spectra of solid of **3b** upon photoirradiation ($\lambda_{\text{ex}} > 300$ nm).

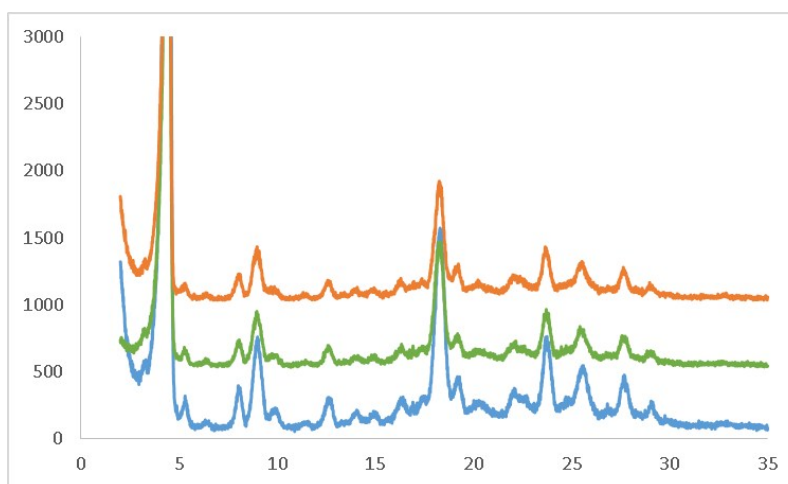


Fig. S10. XRD pattern of **3a** after annealing at 230 °C (orange line), at 230 °C (green line), and before annealing (blue line).

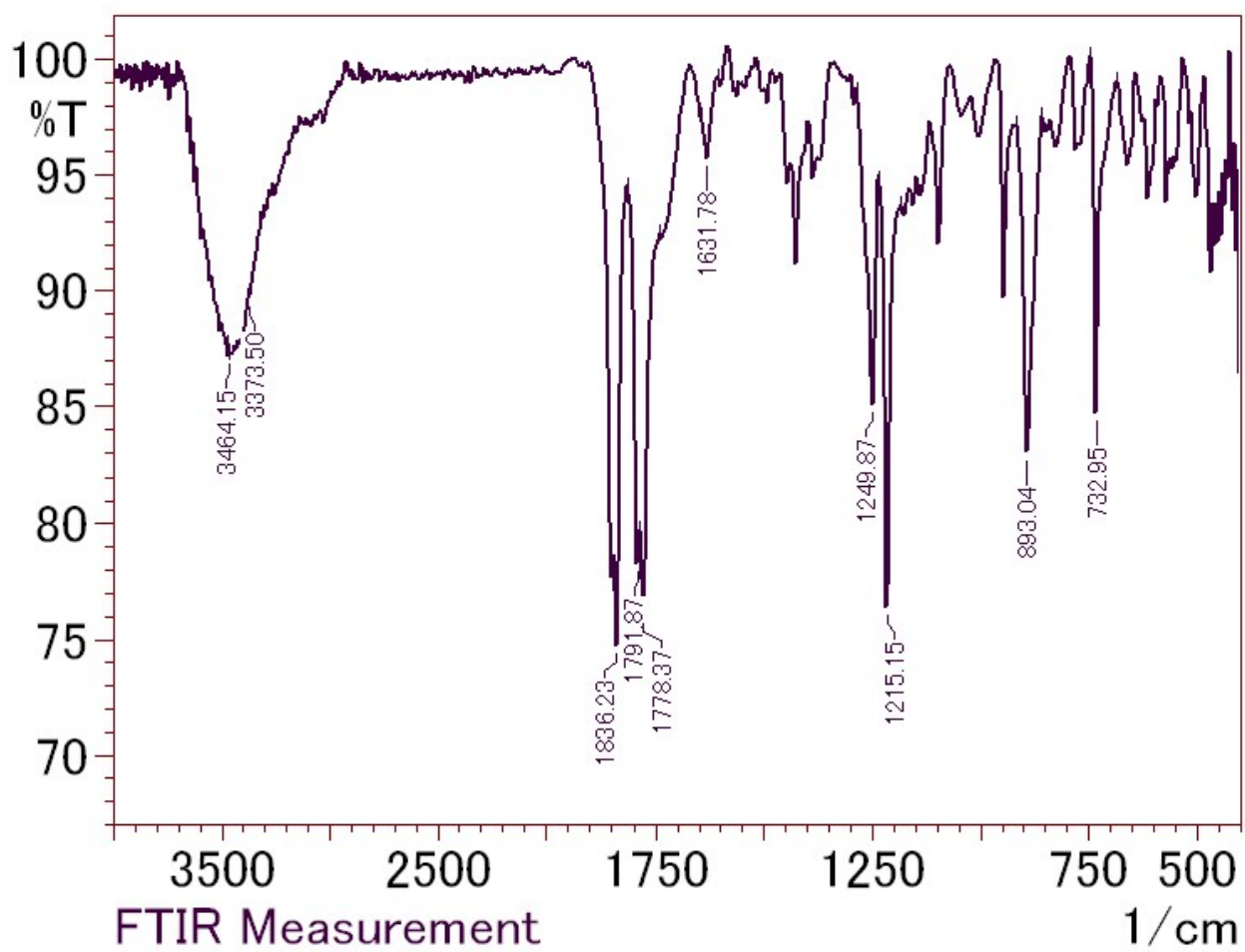


Fig. S11. FT-IR spectrum of 2.

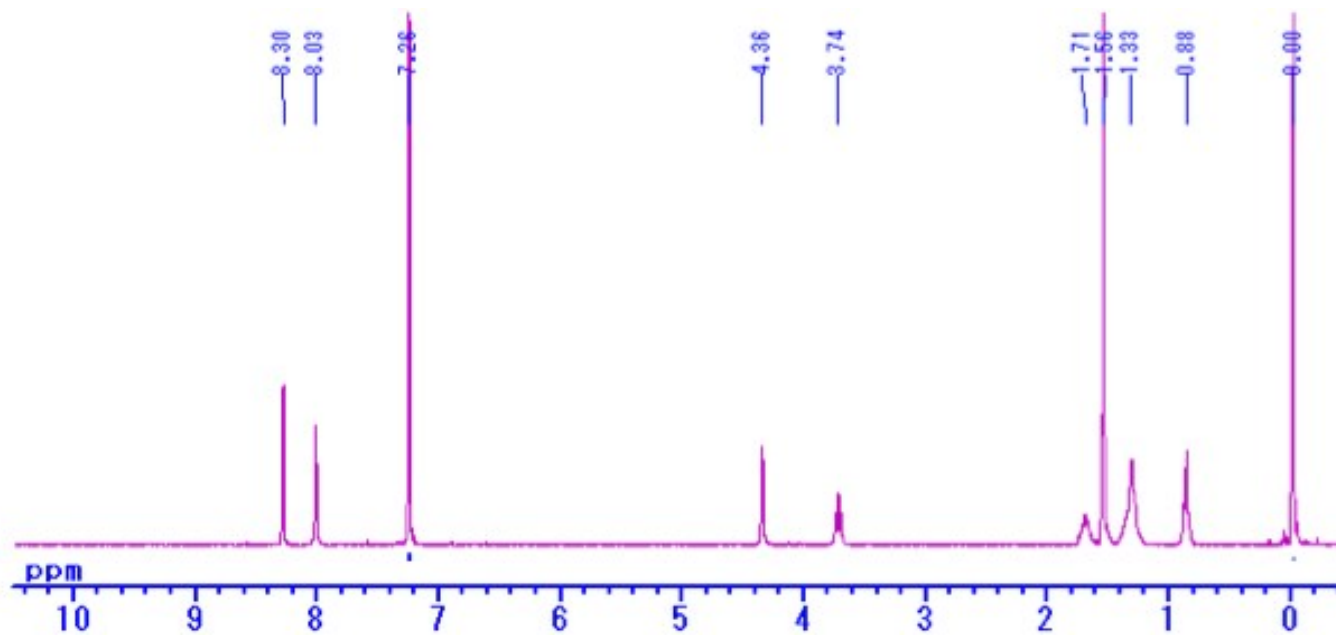


Fig. S12. ^1H NMR spectrum of **3a** in CDCl_3 .

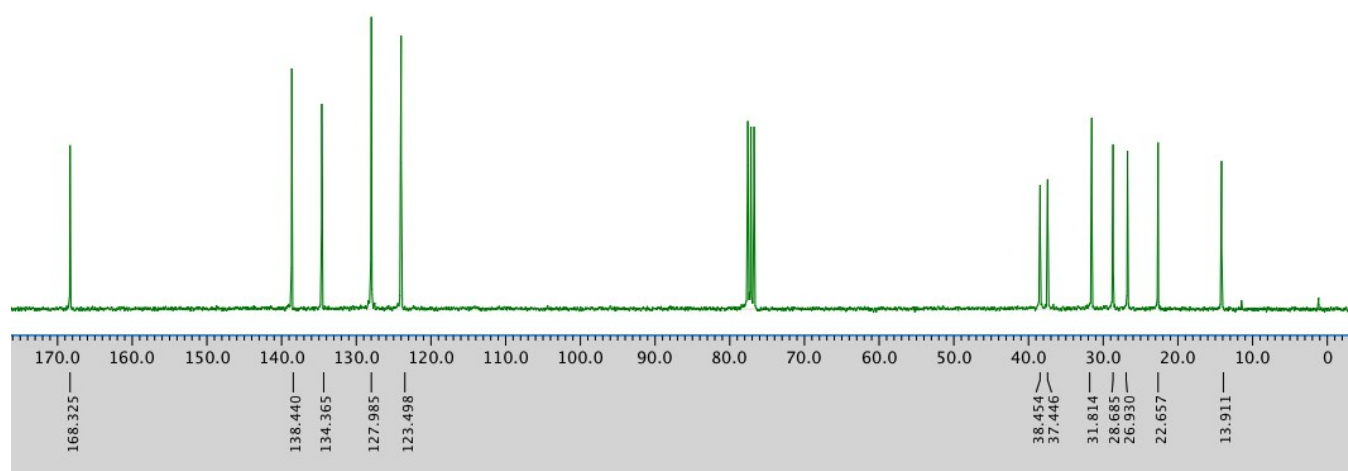


Fig. S13. ^{13}C NMR spectrum of **3a** in CDCl_3 .

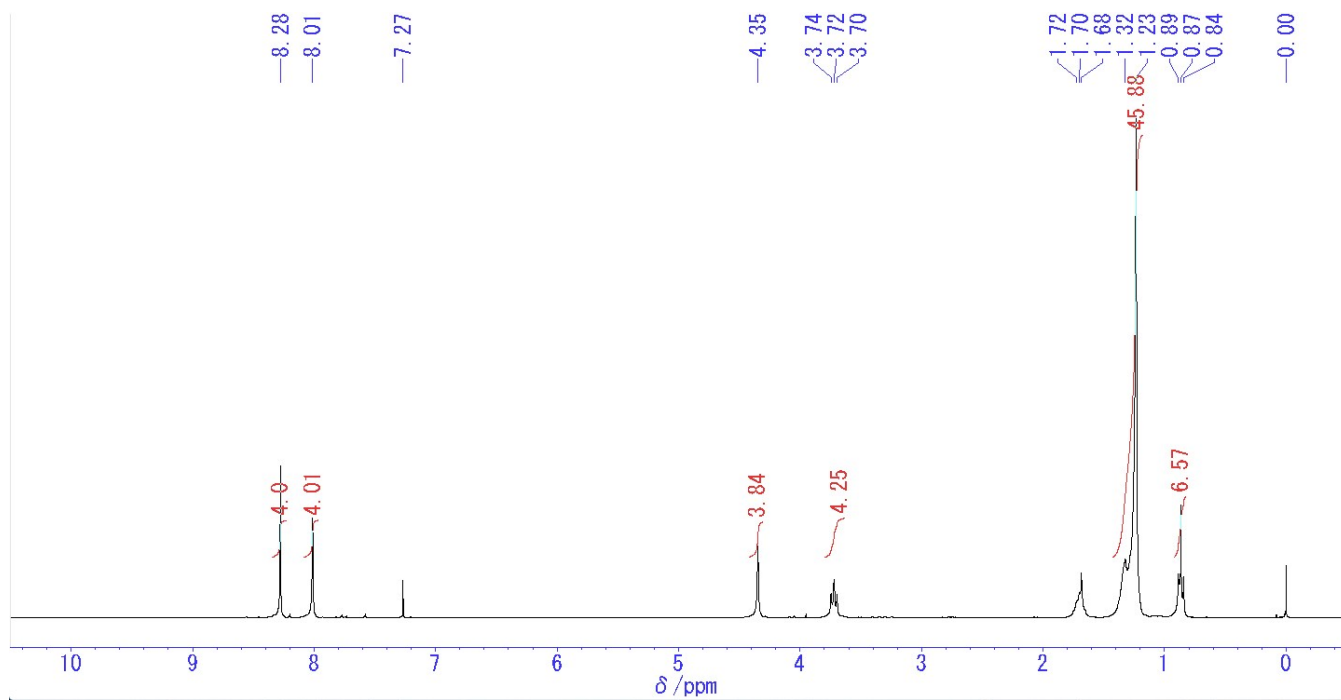


Fig. S14. ^1H NMR spectrum of **3b** in CDCl_3 .

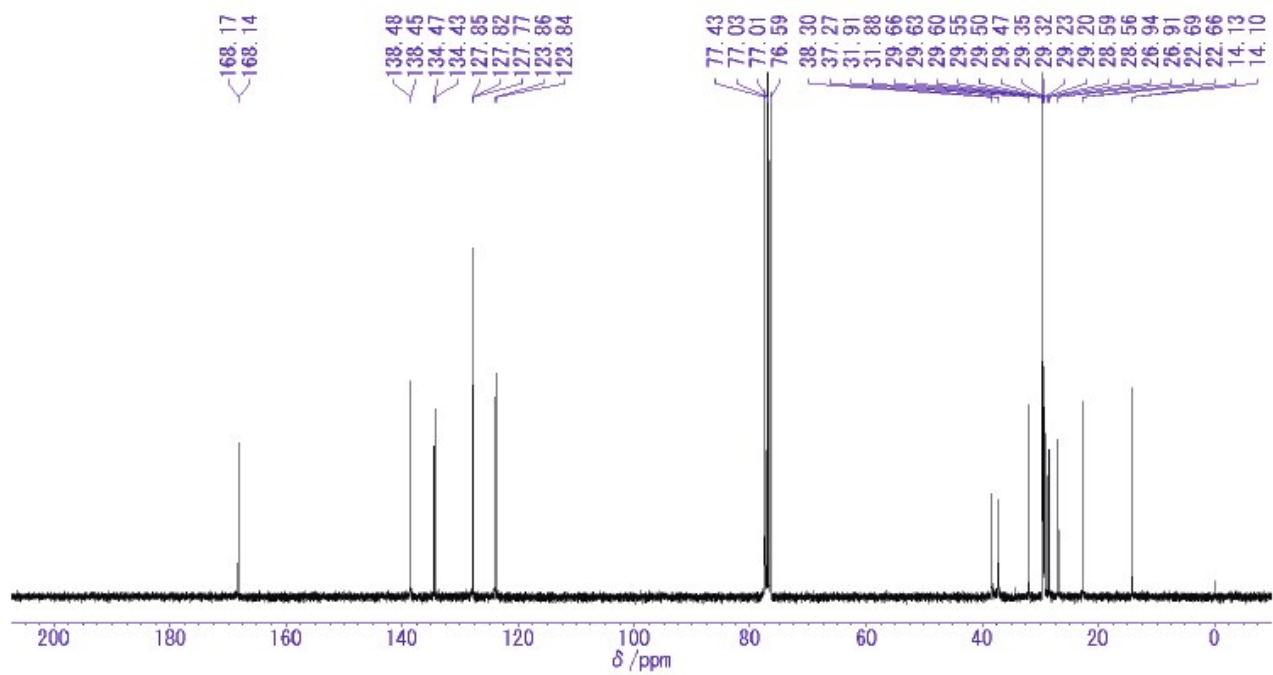


Fig. S15. ^{13}C NMR spectrum of **3b** in CDCl_3 .

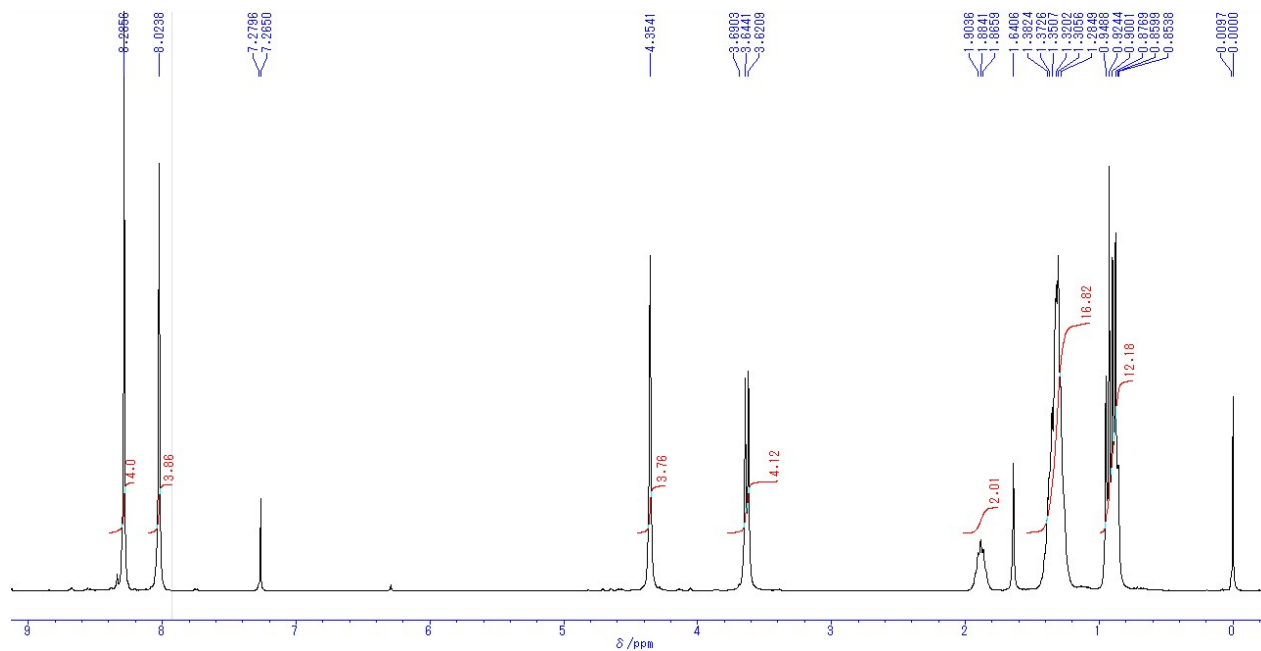


Fig. S16. ^1H NMR spectrum of **3c** in CDCl_3 .

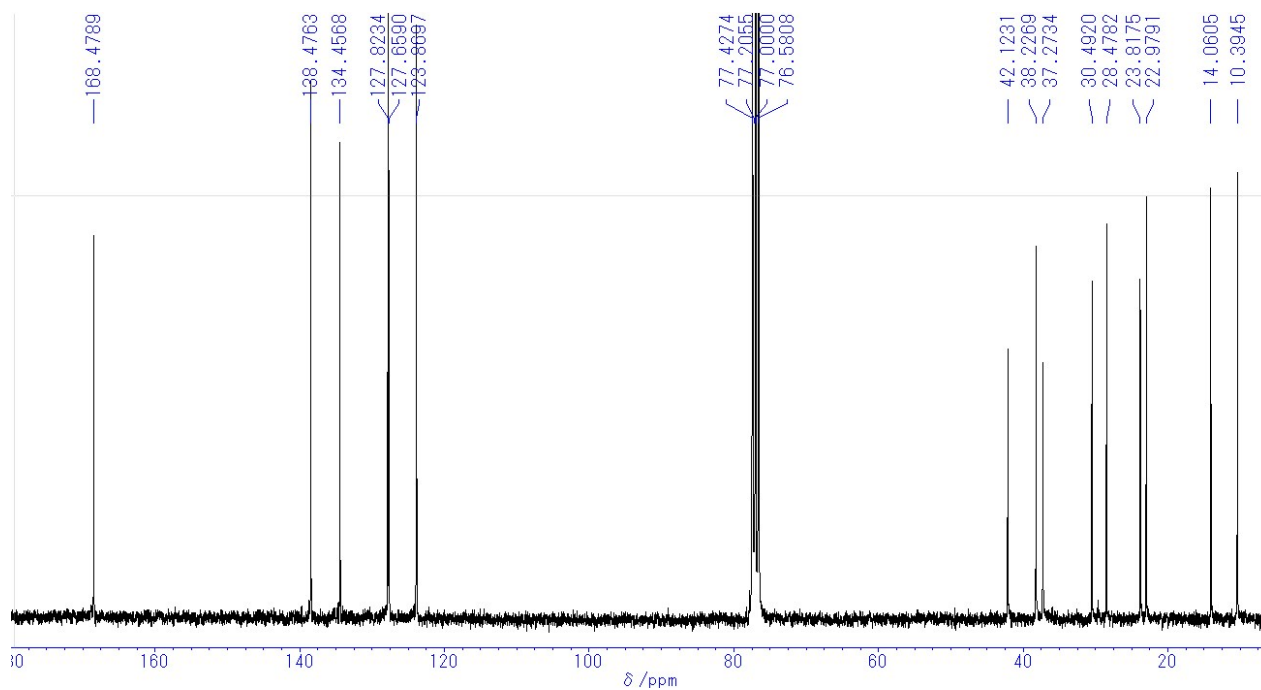


Fig. S17. ^{13}C NMR spectrum of **3c** in CDCl_3 .