

Supporting Information

Synthesis and Electroluminescence Properties of Highly Efficient Dual Core Chromophores with Side Groups for Blue Emission

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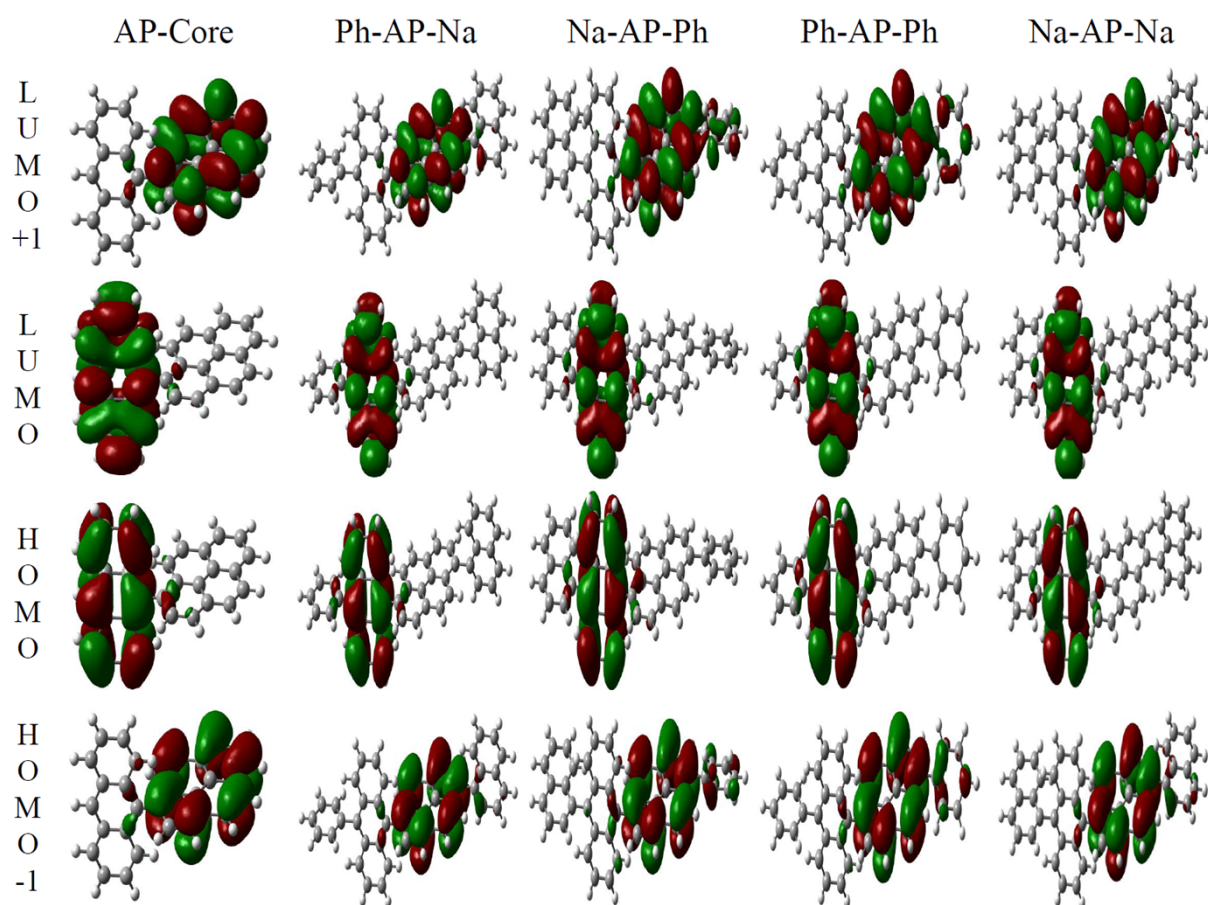


Fig. S1 Electron density distributions of HOMO-1, HOMO, LUMO and LUMO+1 states in AP-Core, Ph-AP-Na, Na-AP-Ph, Ph-AP-Ph and Na-AP-Na (calculated by the B3LYP/6-311G(d) level of DFT in Gaussian 09).

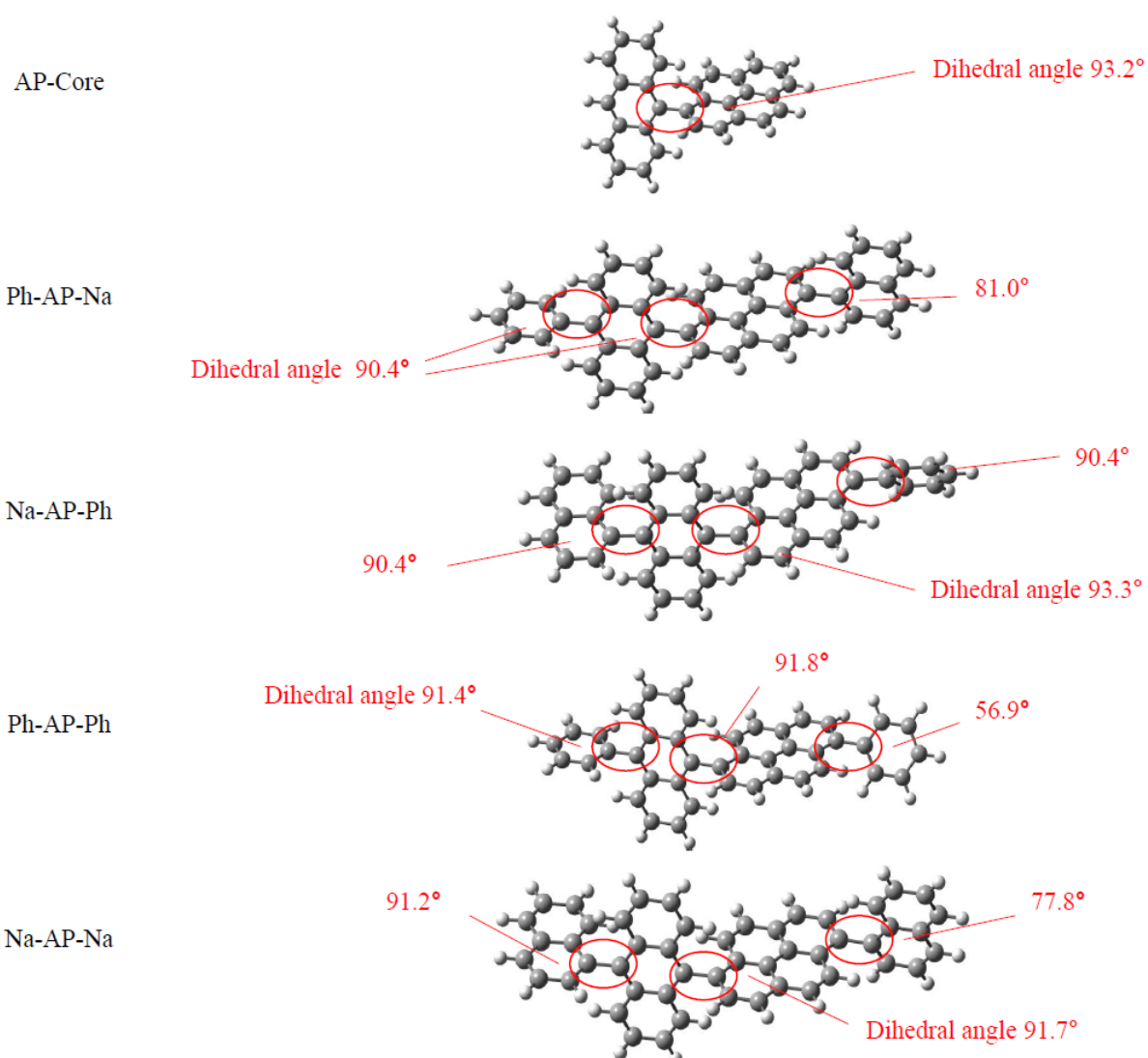


Fig. S2 The lowest excitation energies for the AP-Core, Ph-AP-Na, Na-AP-Ph, Ph-AP-Ph and Na-AP-Na. The structures were optimized by DFT B3LYP/6-311G(d) calculations.

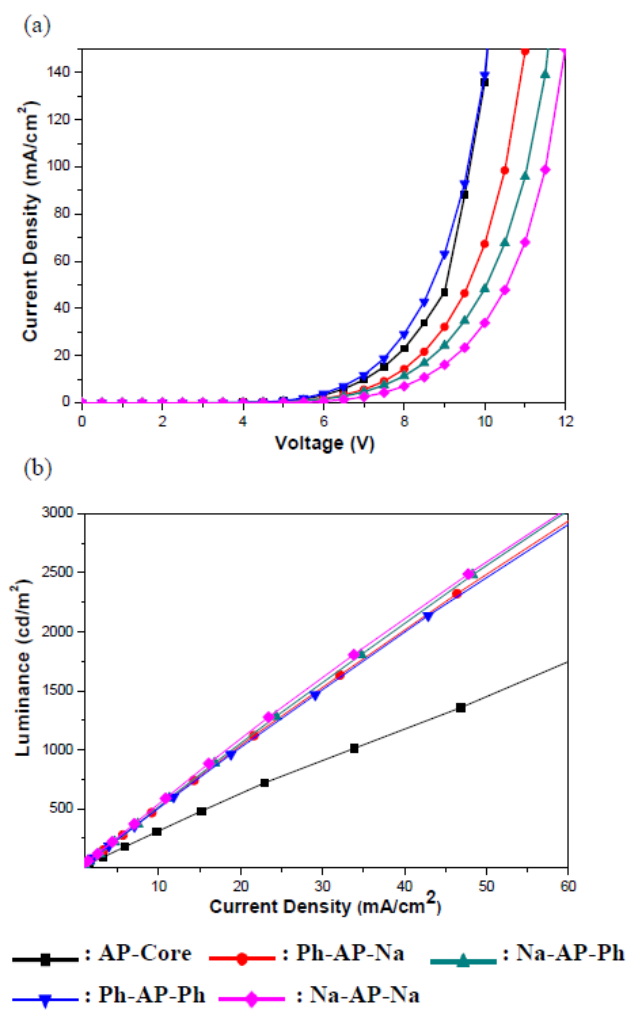


Fig. S3 EL characteristics of devices using the synthetic materials as EMLs: (a) current density versus voltage, (b) luminance versus current density.

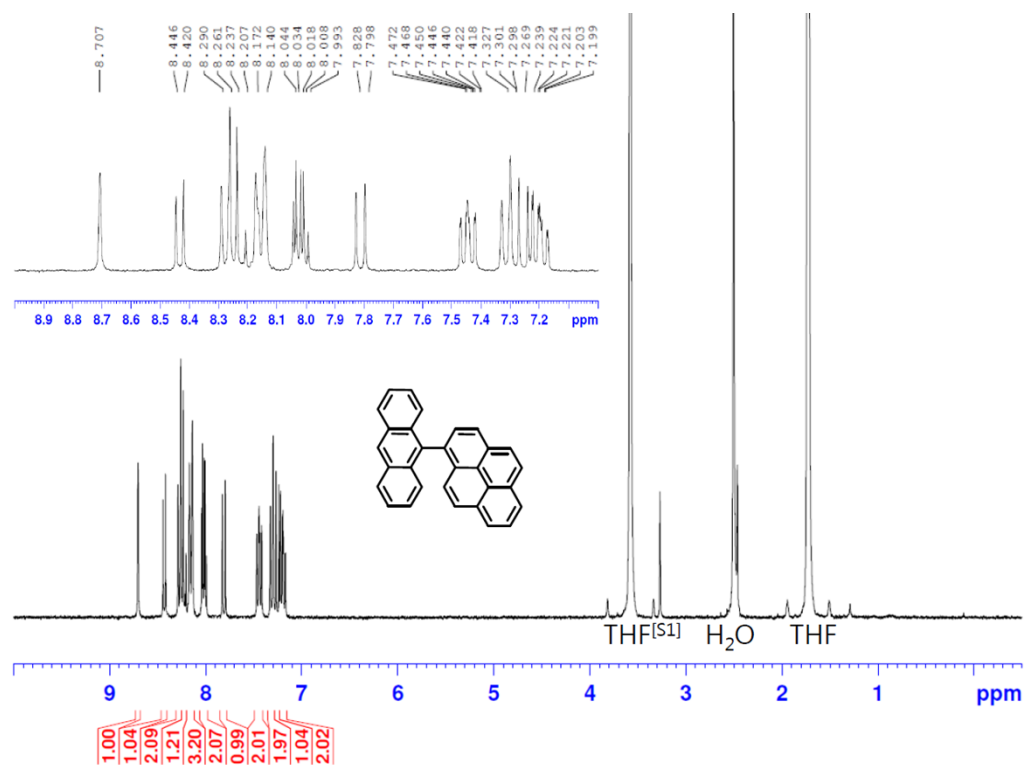


Fig. S4 ¹H NMR Spectrum of AP-Core

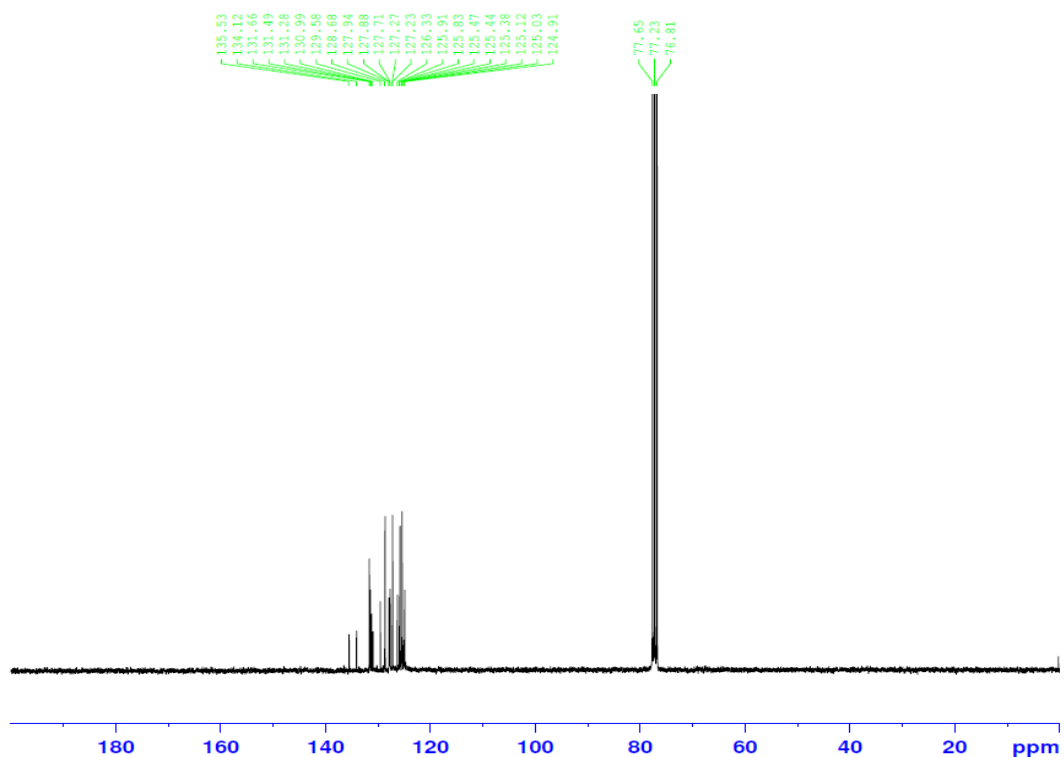


Fig. S5 ¹³C NMR Spectrum of AP-Core

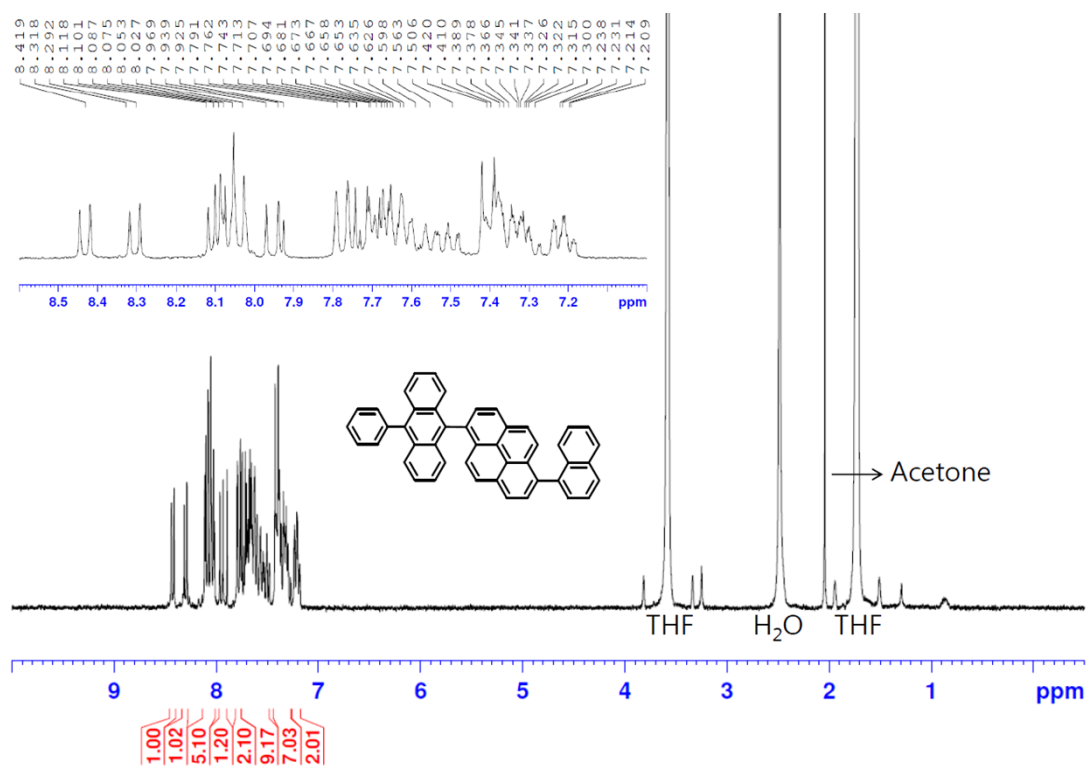


Fig. S6 ¹H NMR Spectrum of Ph-AP-Na

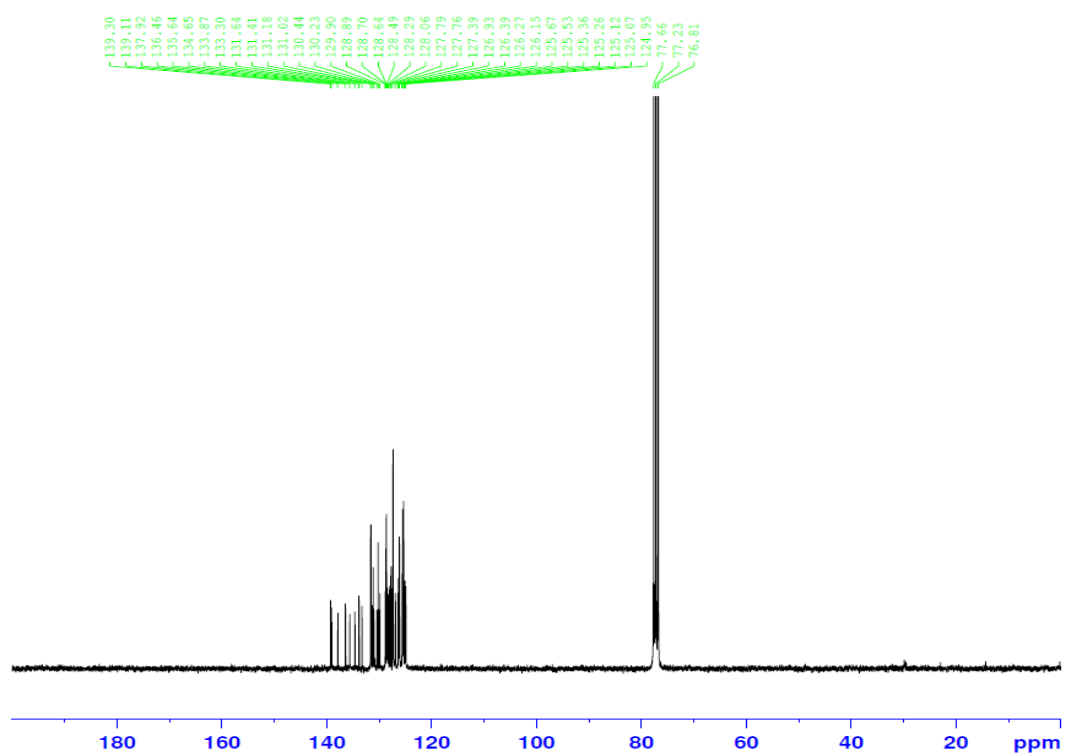


Fig. S7 ¹³C NMR Spectrum of Ph-AP-Na

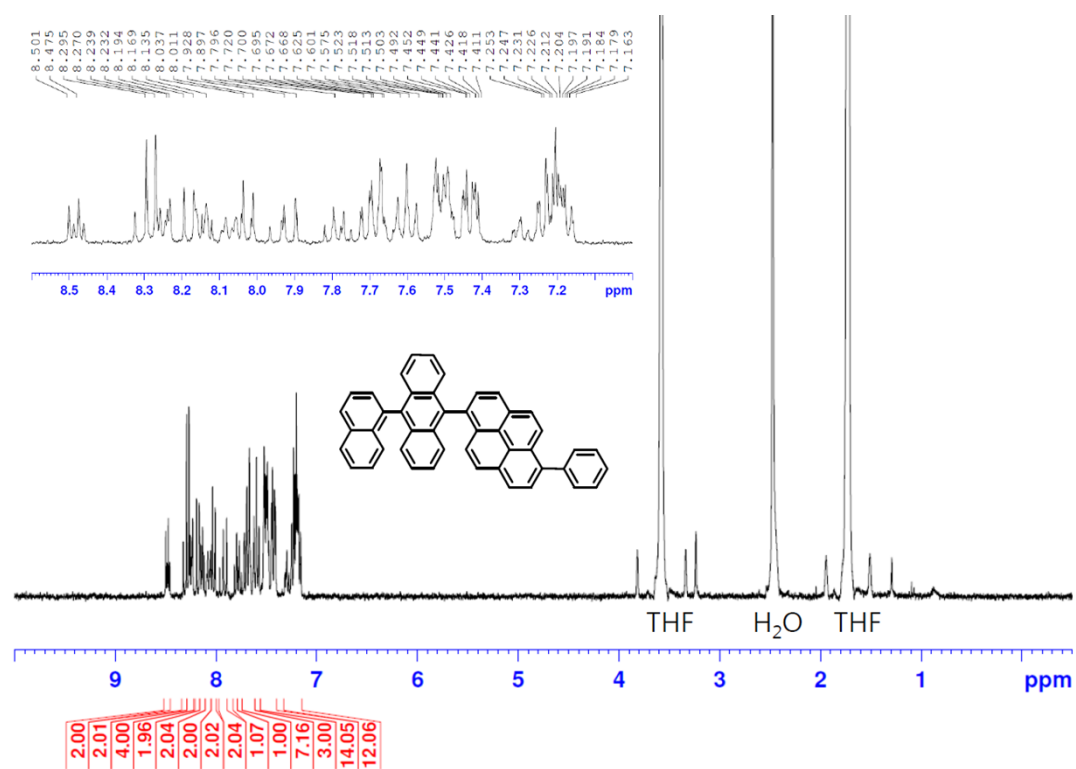


Fig. S8 ¹H NMR Spectrum of Na-AP-Ph

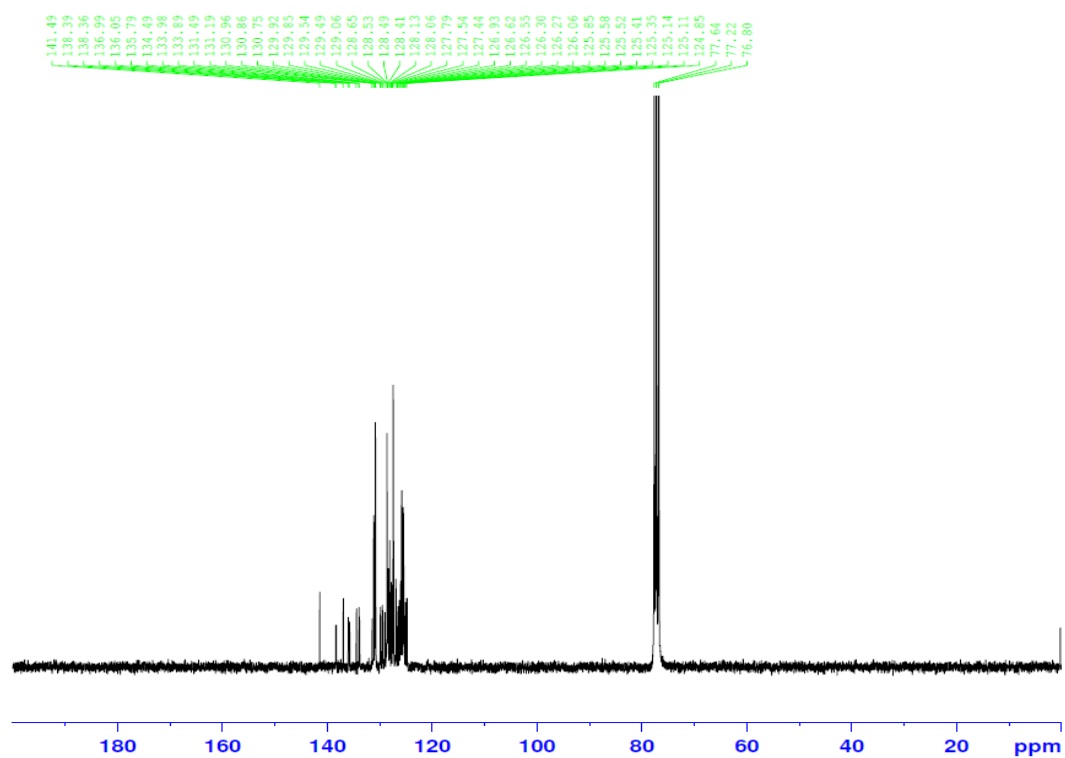


Fig. S9 ¹³C NMR Spectrum of Na-AP-Ph

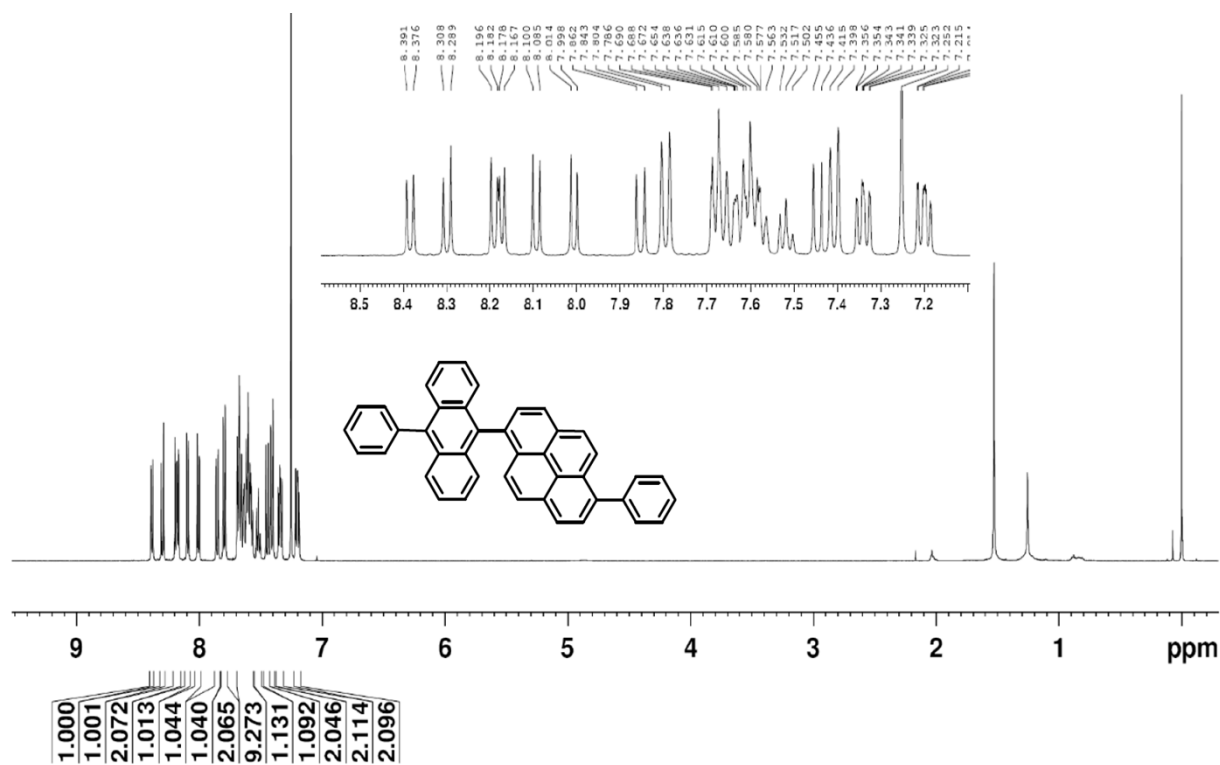


Fig. S10 ¹H NMR Spectrum of Ph-AP-Ph

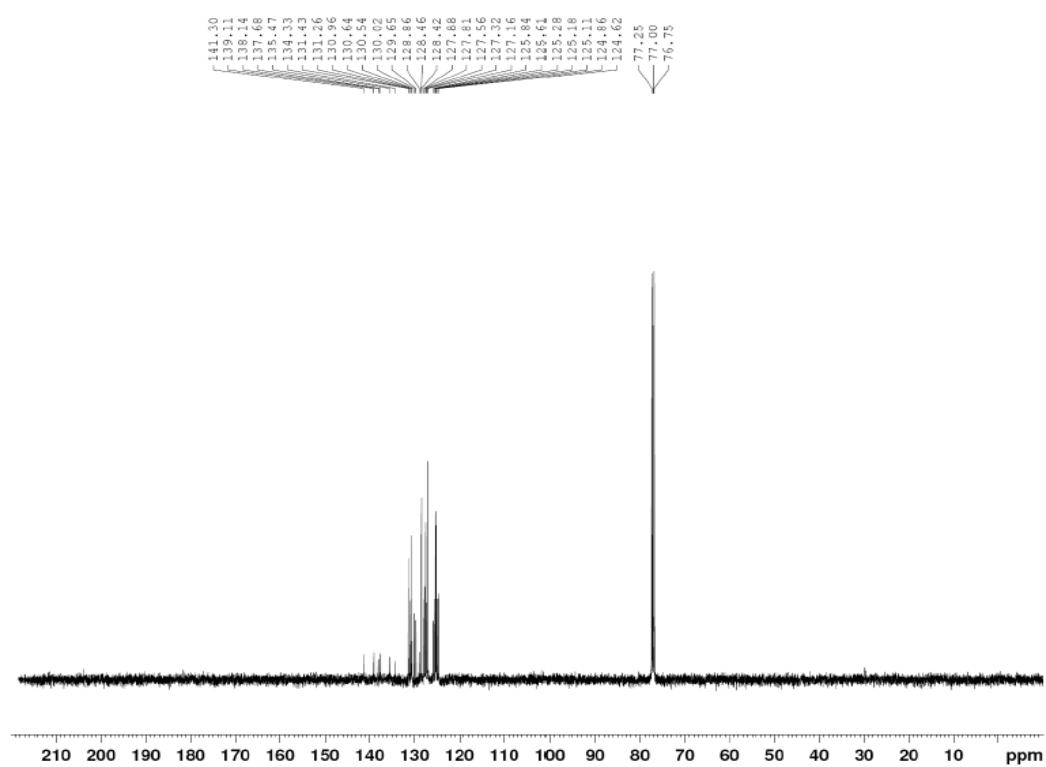


Fig. S11 ¹³C NMR Spectrum of Ph-AP-Ph

Reference

S1. G. R. Fulmer, A. J. M. Miller, N. H. Sherden, H. E. Gottlieb, A. Nudelman, B. M. Stoltz, J. E. Bercaw, K. I. Goldberg, *Organometallics*, 2010, **29**, 2176