Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supporting Information

Directional growth of nanotube on micelles by soft-template electropolymerization with various hydrophobicity and strong water adhesion

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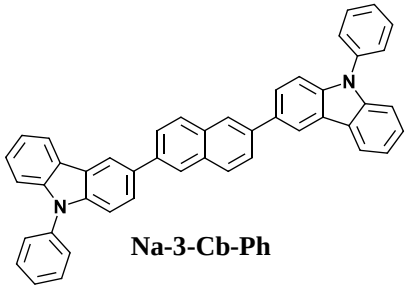
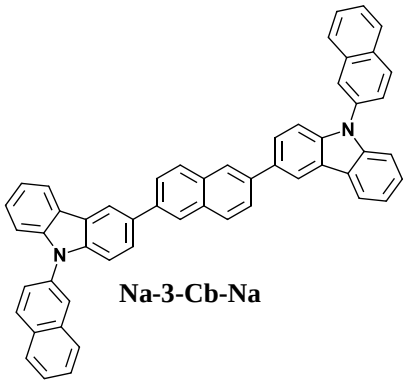
Other studied monomers



Na-3-Cb-Ph



Na-3-Cb-Na

2,6-Bis(9-phenyl-9*H*-carbazol-3-yl)naphthalene (Na-3-Cb-Ph). Yield 15%; Oil, ^{1}H NMR (400 MHz, $CDCl_3$) δ_H: 8.48 (d, *J* = 1.4 Hz, 3H), 8.26 (d, *J* = 7.7 Hz, 3H), 7.79 (dd, *J* = 8.5, 1.8 Hz, 3H), 7.65 (m, 12H), 7.50 (m, 13H), 7.33 (m, 3H); ^{13}C NMR (101 MHz, $CDCl_3$) δ_C: 141.36, 140.04, 137.79, 134.36, 130.01, 127.43, 127.08, 126.04, 125.83, 123.97, 123.57, 120.41, 119.97, 118.88, 109.94.

2,6-Bis(9-(naphthalen-2-yl)-9*H*-carbazol-3-yl)naphthalene(Na-3-Cb-Na). Yield 8%; Oil; ^{1}H NMR (400 MHz, $CDCl_3$) δ_H: 8.39 (d, *J* = 1.6 Hz, 2H), 8.22 (d, *J* = 7.7 Hz, 2H), 8.09 (d, *J* = 9.1 Hz, 4H), 7.99 (dd, *J* = 6.1 Hz, 3.4 Hz, 2H), 7.93 (dd, *J* = 6.1 Hz, 3.4 Hz, 2H), 7.74 (dd, *J* = 8.2, 1.0 Hz, 4H), 7.69 (m, 4H), 7.60 (dd, *J* = 6.2, 3.3 Hz, 4H), 7.50 (dd, *J* = 15.7, 8.2 Hz, 8H), 7.40 (m, 2H), 7.35 (dd, *J* = 16.1, 7.2 Hz, 4H). ^{13}C NMR (101 MHz, $CDCl_3$) δ_H: 141.99, 141.52, 140.54, 135.12, 134.02, 133.61, 132.44, 129.91, 129.28 – 129.08, 128.78, 127.91, 127.34, 126.89, 126.55, 126.19, 125.55, 125.26, 124.29, 123.98, 123.58, 120.41, 120.18, 118.87, 110.00.

NMR spectra

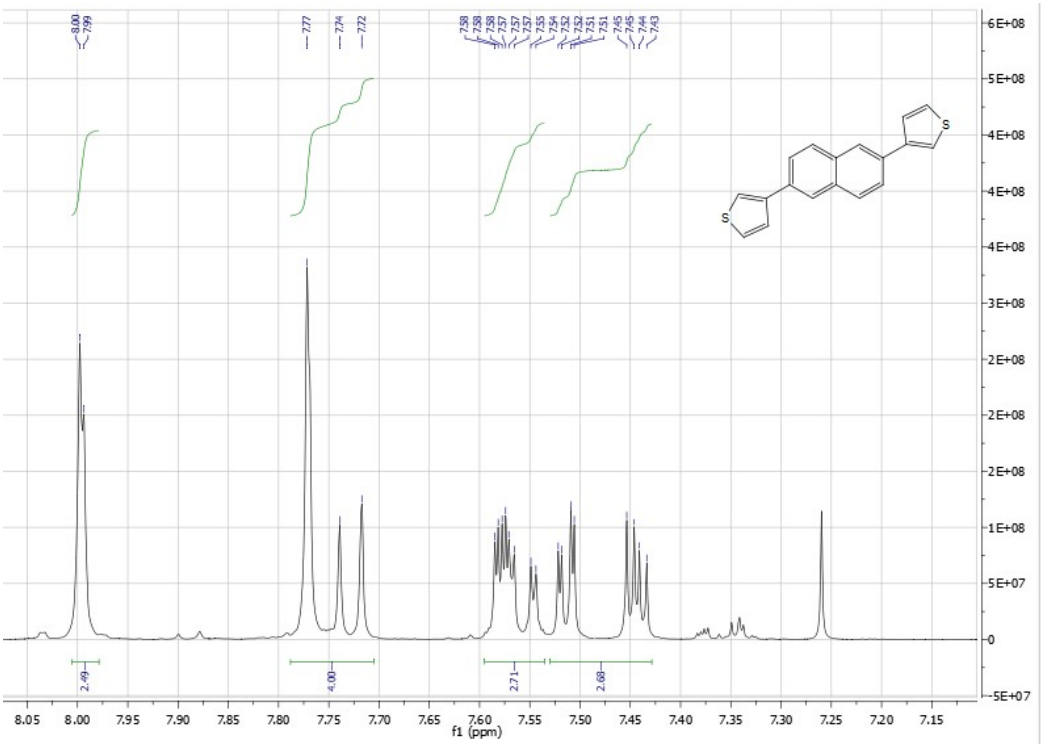


Figure S1. ^{1}H NMR of Na-3-Th.

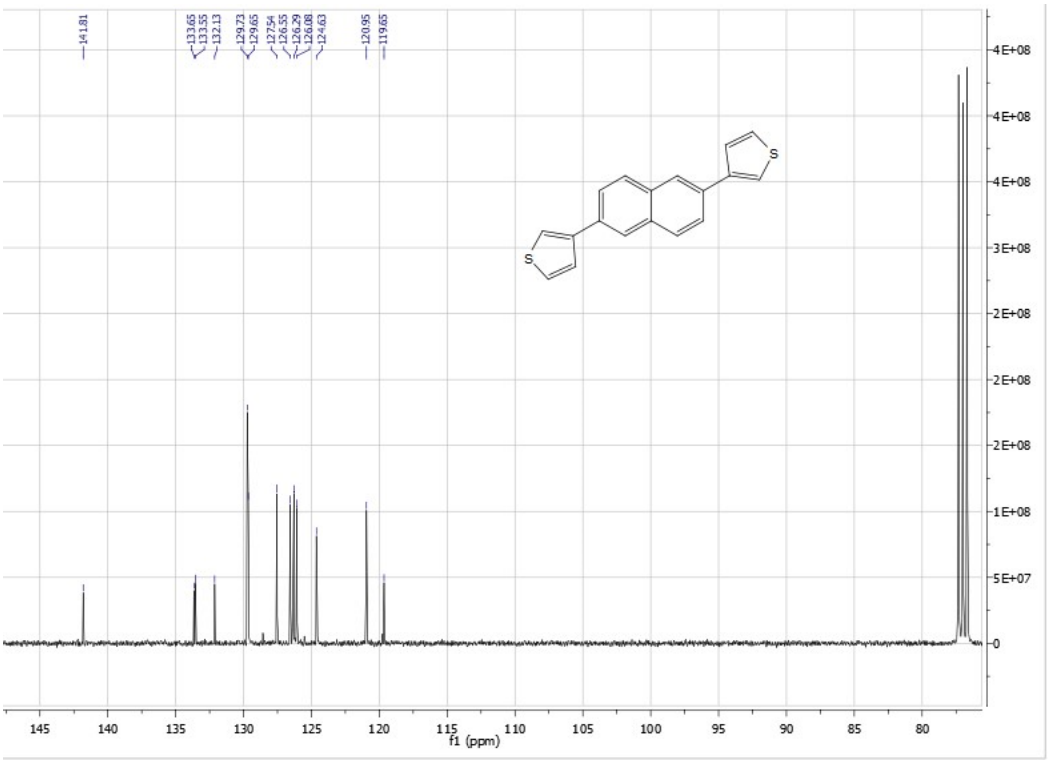


Figure S2. ^{13}C NMR of Na-3-Th.

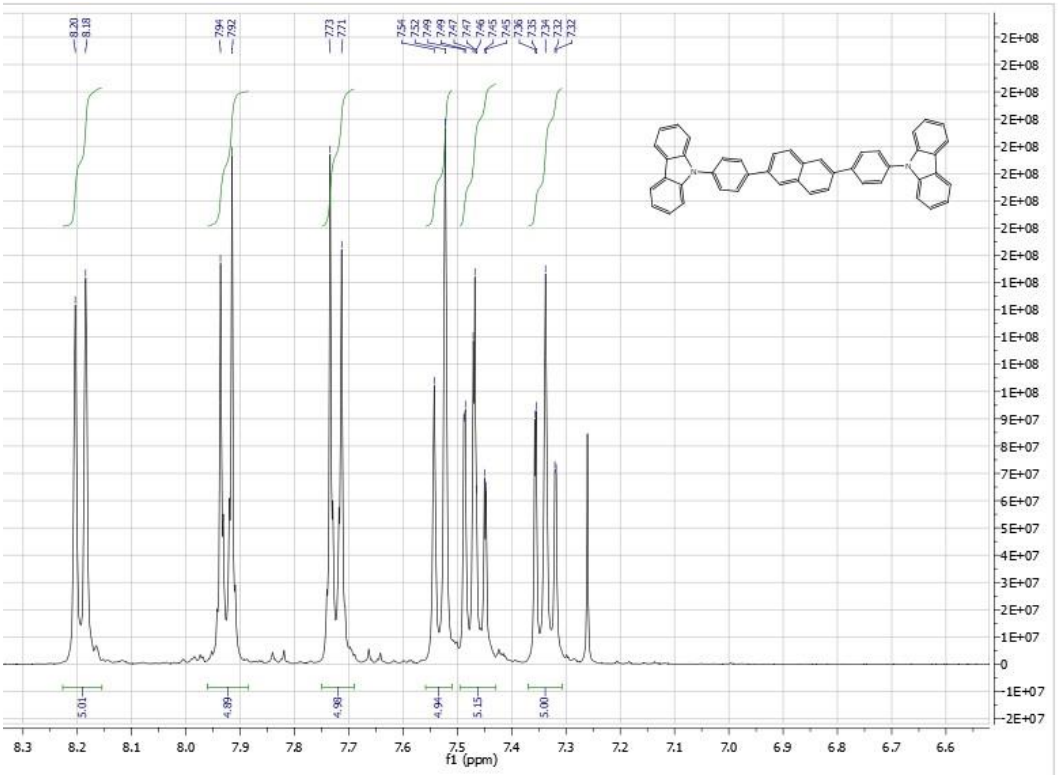


Figure S3. ^{1}H NMR of Na-p-Cb.

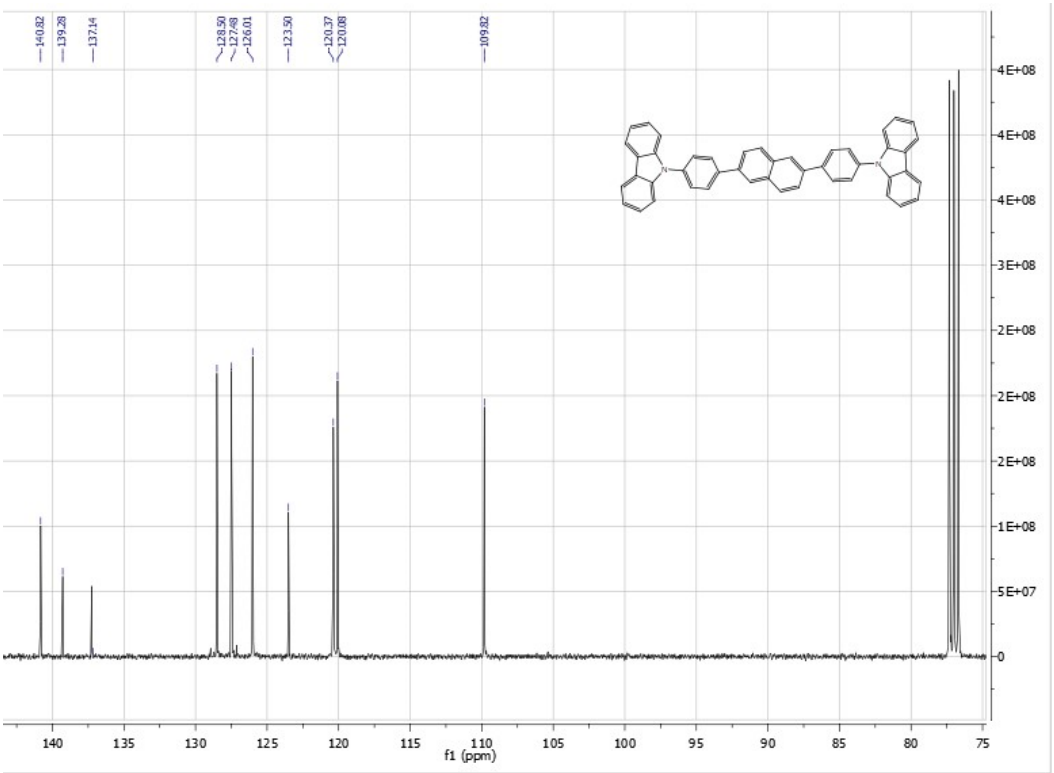


Figure S4. ^{13}C NMR of Na-p-Cb.

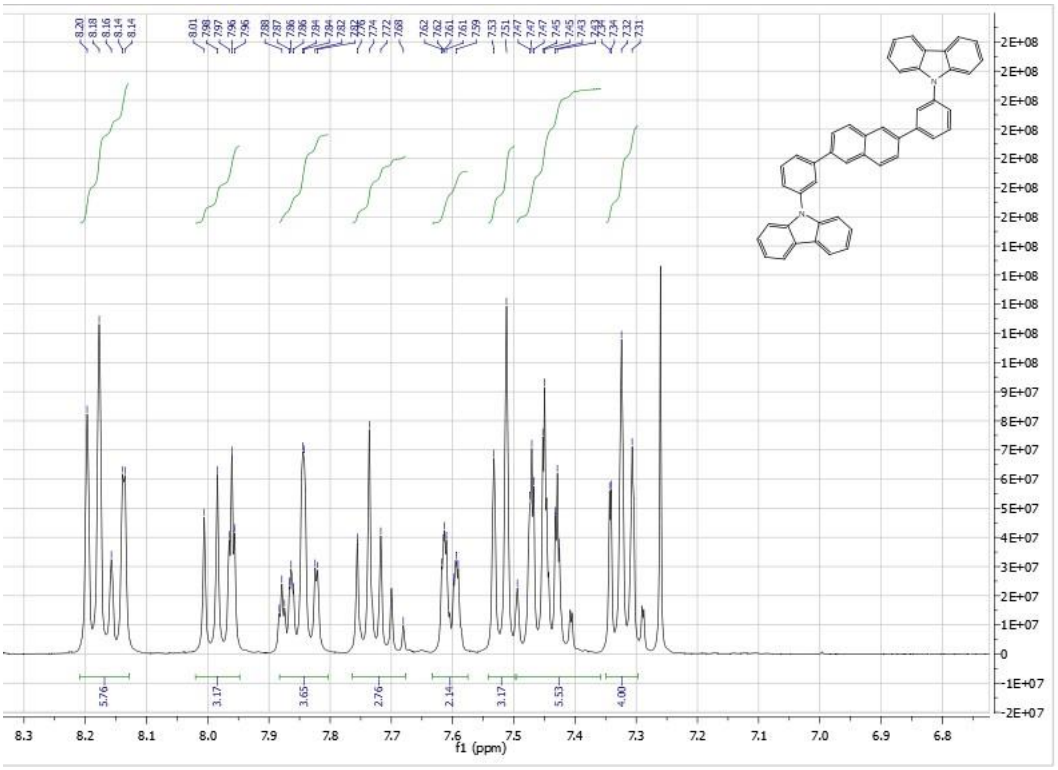


Figure S5. ^{1}H NMR of Na-m-Cb.

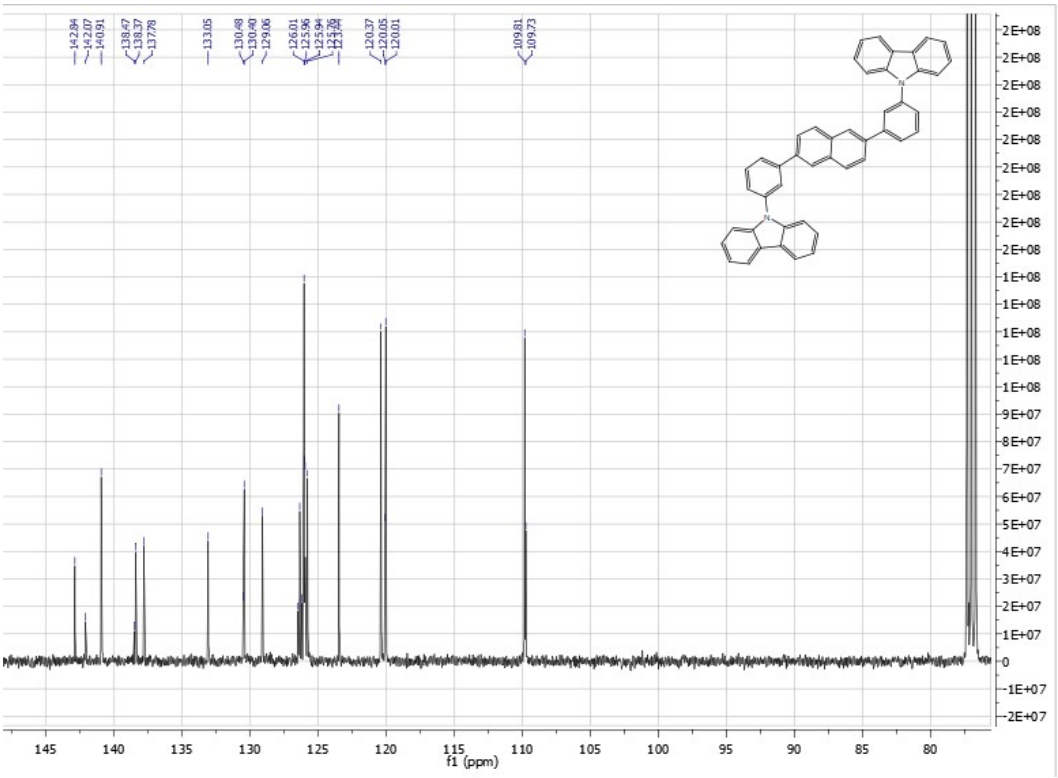


Figure S6. ^{13}C NMR of Na-m-Cb.

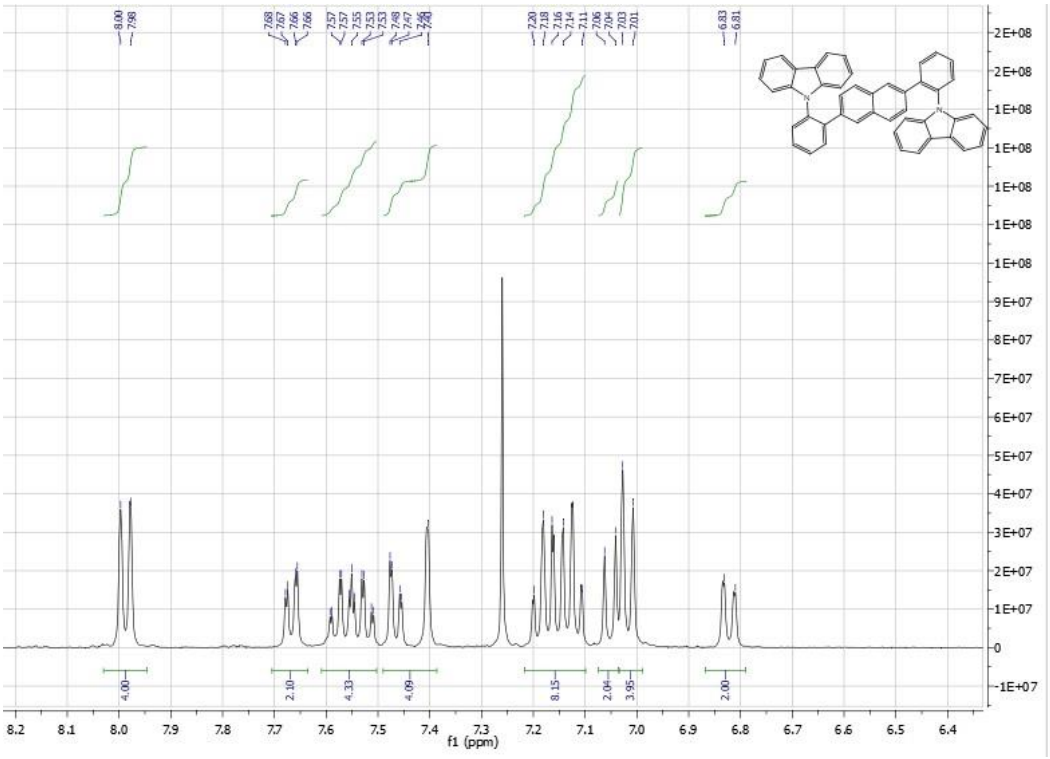


Figure S7. ^{1}H NMR of Na-o-Cb.

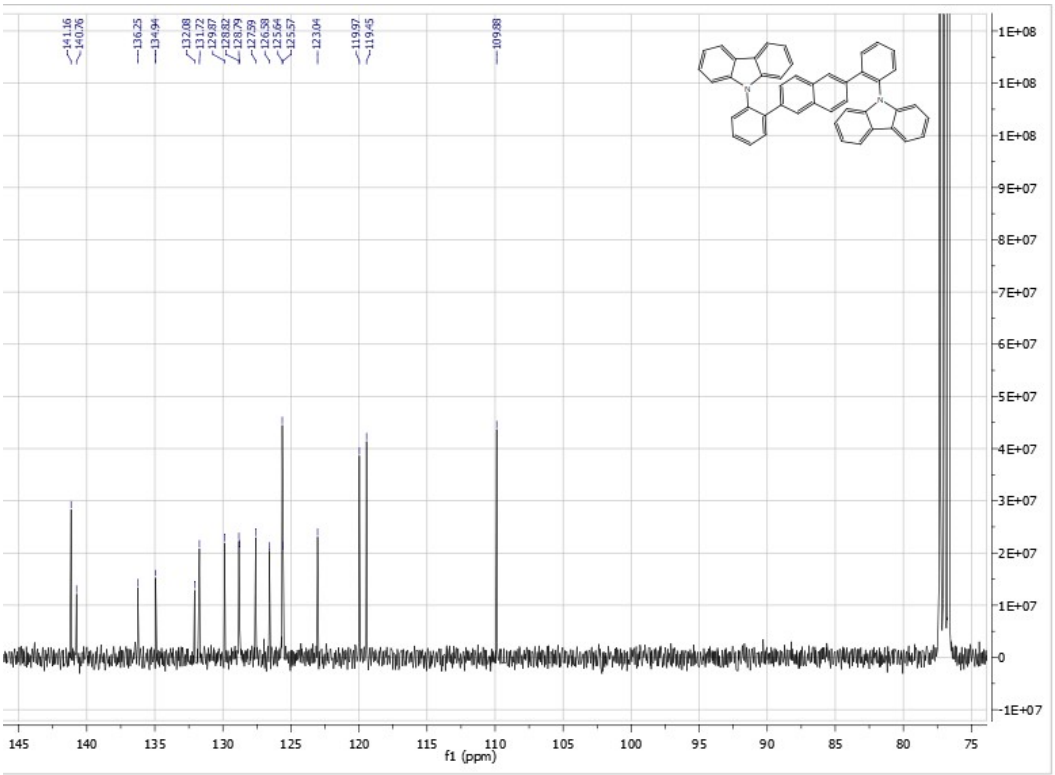


Figure S8. ^{13}C NMR of Na-o-Cb.

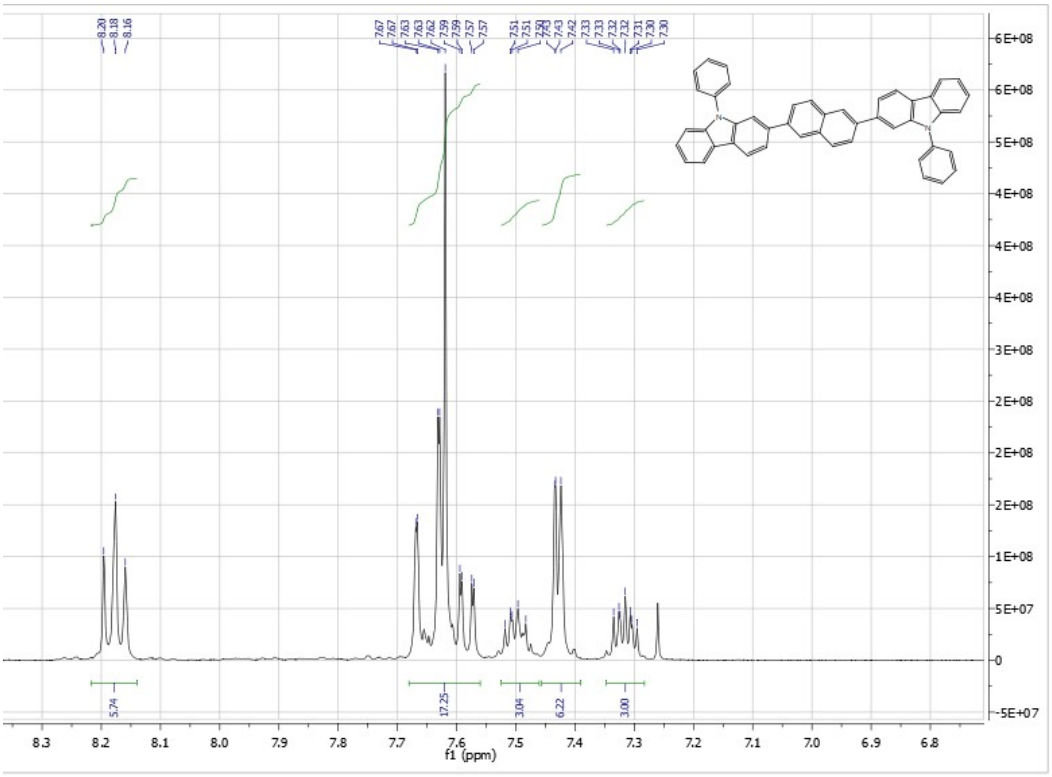


Figure S9. ^{1}H NMR of Na-2-Cb-Ph.

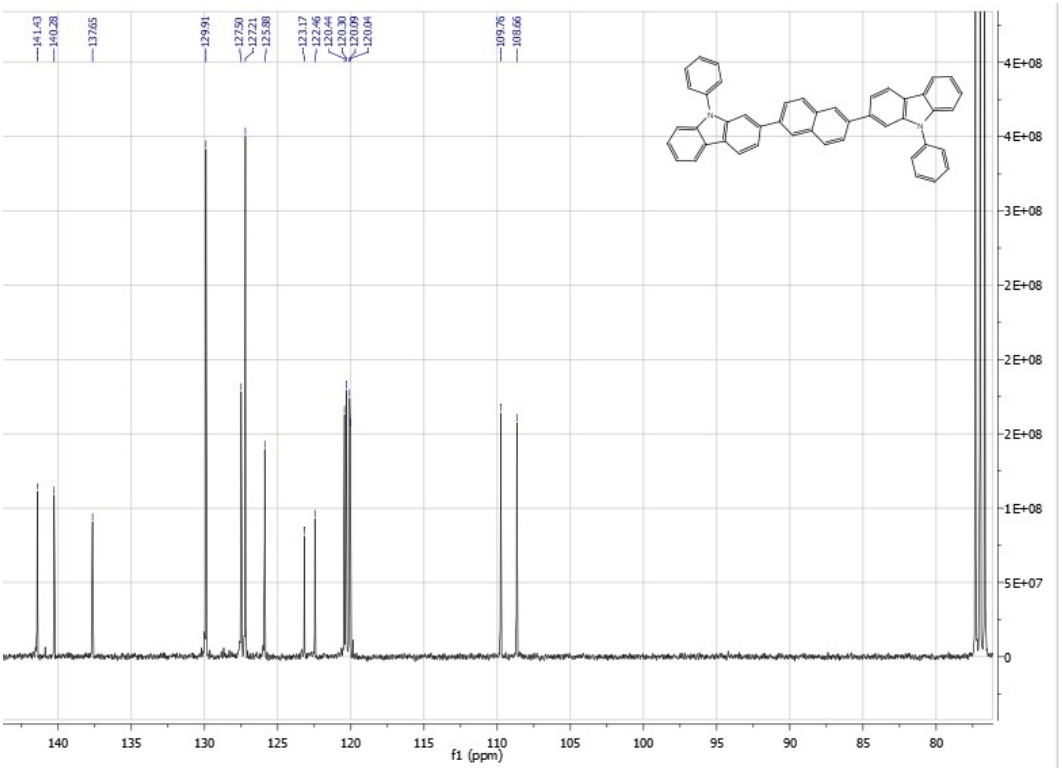


Figure S10. ^{13}C NMR of Na-2-Cb-Ph.

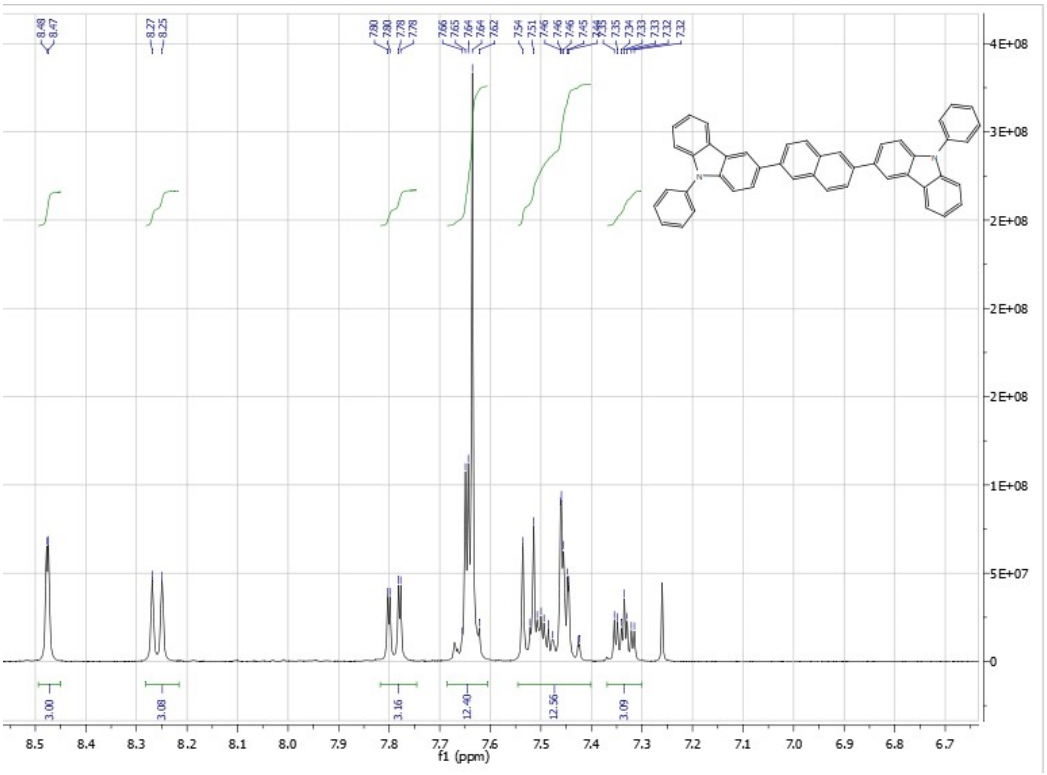


Figure S11. ^{1}H NMR of Na-3-Cb-Ph.

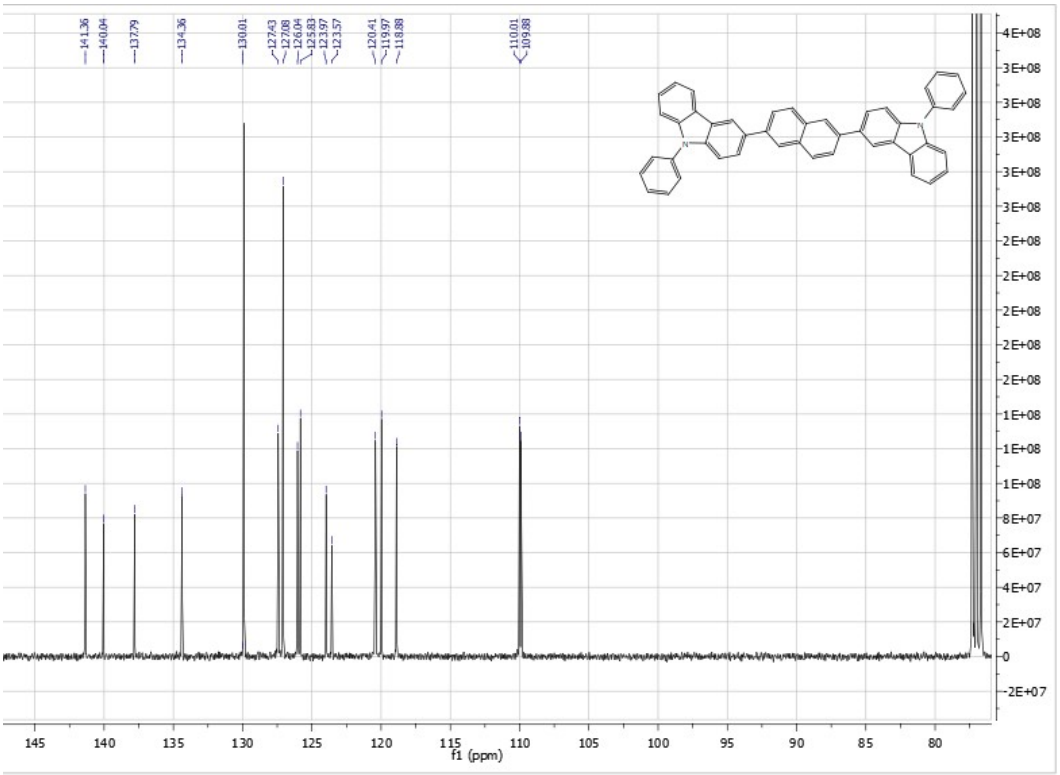


Figure S12. ^{13}C NMR of Na-3-Cb-Ph.

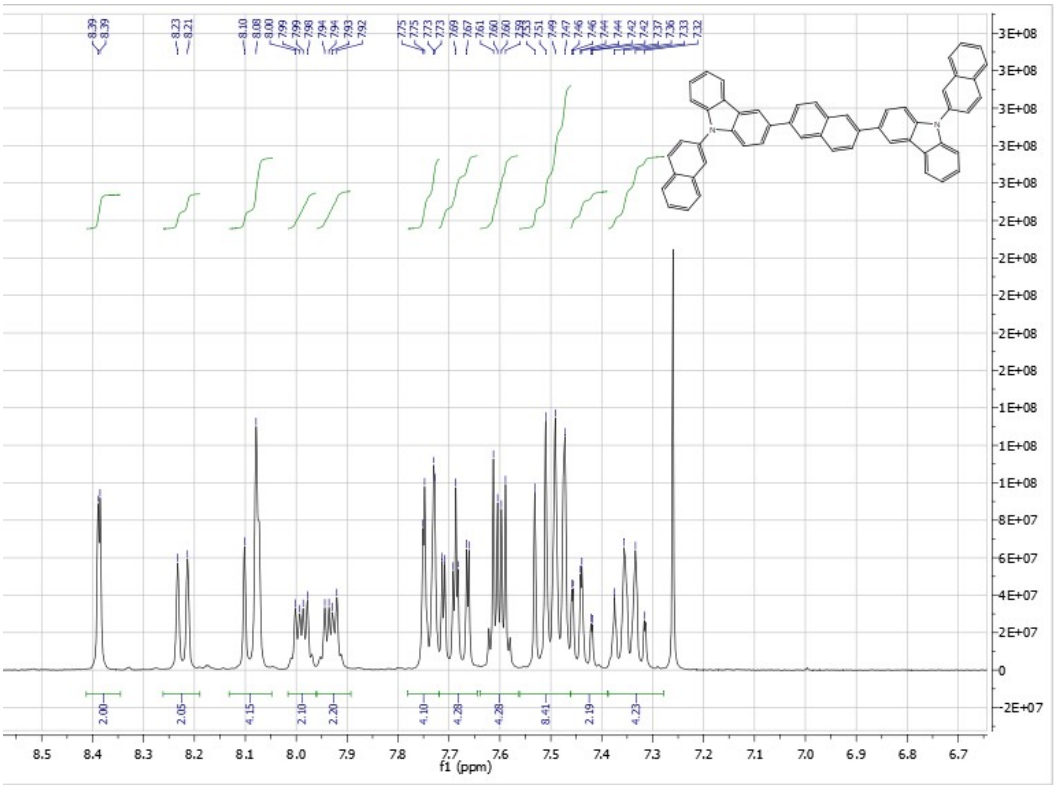


Figure S13. ^{1}H NMR of Na-3-Cb-Na.

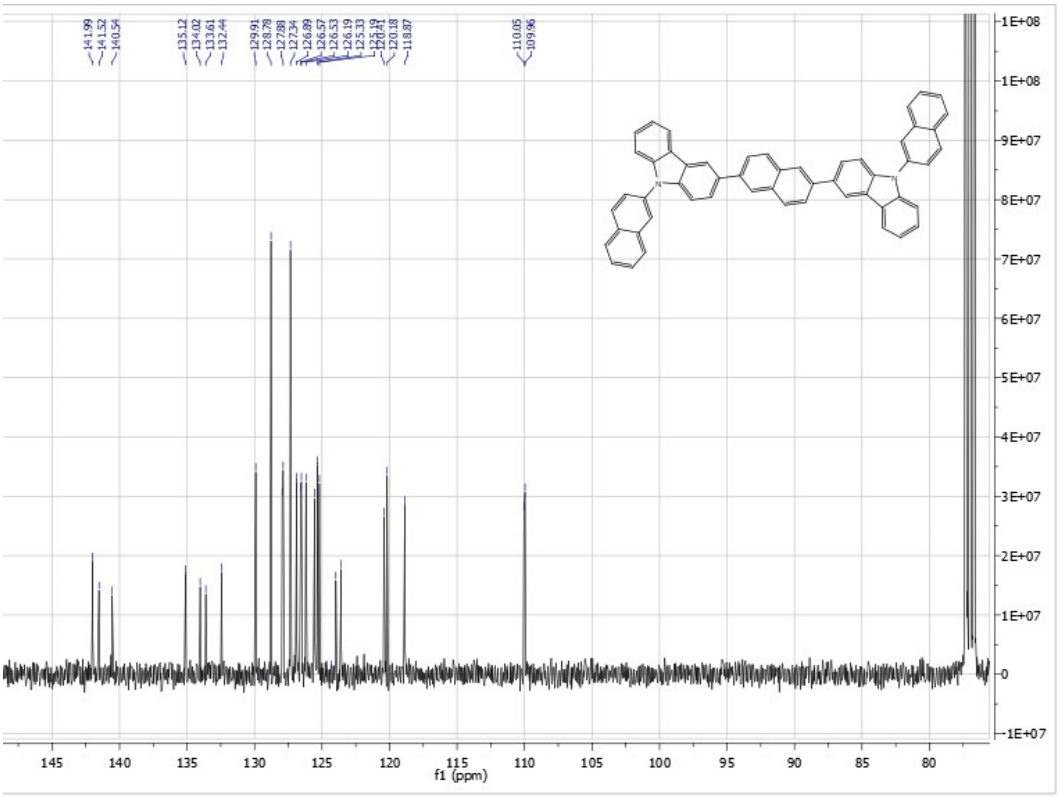


Figure S14. ^{13}C NMR of Na-3-Cb-Na.