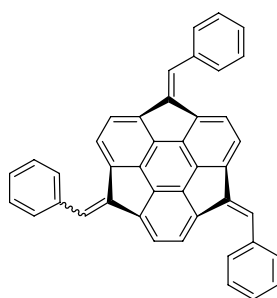


Supplementary Information

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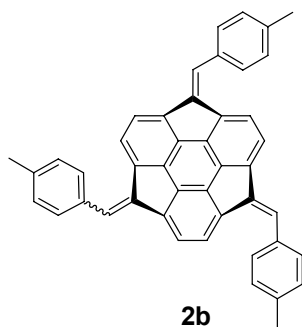
General Methods: ^1H NMR and ^{13}C NMR spectra were recorded on INOVA 600 spectrometer (600 MHz) from Varian. Chemical shifts were reported in parts per million relative to residual non-deuterated solvent as an internal standard (CD_2Cl_2). UV spectra were recorded on Spectrophotometer U-3500 from Hitachi. Fluorescence spectra were recorded on Spectrofluorophotometer RF-5300 PC from Shimadzu. IR spectra were recorded on FT/IR-480 *Plus* from Jasco. Mass spectra were run on a JEOL JMS-700 mass spectrometer. GPC was performed with Japan Analytical Industry LC-908 using chloroform as a solvent.

2a: IR (KBr) 3094, 3054, 3033, 2982, 1642, 1596, 1493, 1446 cm^{-1} ; ^1H NMR (CD_2Cl_2) δ 7.94 (d, $J = 8.4$ Hz, 1.5H), 7.92 (d, $J = 6.6$ Hz, 1.5H), 7.87 (d, $J = 7.8$ Hz, 1.5H), 7.85 (d, $J = 7.2$ Hz, 1.5H), 7.53-7.46 (m, 4H), 7.46-7.44 (m, 4H), 7.44-7.41 (m, 4H), 7.41-7.34 (m, 3H), 7.22-7.18 (m, 3H); ^{13}C NMR (CD_2Cl_2) 148.0, 147.7, 147.4, 146.2, 145.9, 145.7, 145.4, 143.5, 143.2, 141.7, 141.5, 140.5, 140.4, 136.5, 136.4, 136.3, 129.9, 129.8, 129.6, 129.0, 128.9x2, 128.8, 128.7, 128.7x2, 128.5, 128.2, 126.6, 123.7, 123.6, 123.4, 121.2, 121.1, 121.0, 120.9 ppm; HRMS Found: m/z 528.1890. Calculated for $\text{C}_{42}\text{H}_{24}$: 528.1878.

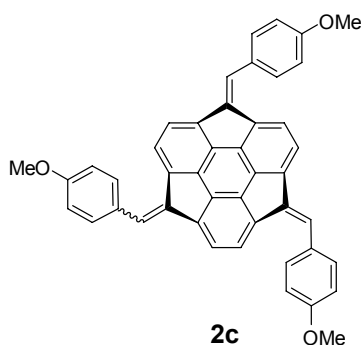


2b: IR (KBr) 3061, 3021, 2919, 2853, 1643, 1604, 1509, 1444 cm^{-1} ; ^1H NMR (CD_2Cl_2) δ 7.84 (d, $J = 7.8$ Hz, 1.5H), 7.82 (d, $J = 7.8$ Hz, 1.5H), 7.78 (d, $J = 7.8$ Hz, 1.5H), 7.76 (d, $J = 7.8$ Hz, 1.5H), 7.50 (dd, $J = 7.8, 4.2$ Hz, 1.5H), 7.43 (d, $J = 6.6$ Hz, 1.5H), 7.41-7.37 (m,

3H), 7.31 t, $J = 7.8$ Hz, 3H), 7.28-7.23 (m, 4.5H), 7.19 (dd, $J = 8.4, 8.1$ Hz, 1.5H), 2.45 (s, 2.25H), 2.44 (s, 2.25H), 2.41 (s, 2.25H), 2.40 (s, 2.25H); ^{13}C NMR (CD_2Cl_2) 147.4, 147.1, 146.9, 146.9, 146.6x2, 145.6, 145.2, 144.9x2, 144.6x2, 142.8, 142.6, 141.0, 140.7, 139.1, 139.0, 138.8, 138.7, 132.9, 132.8, 132.8, 129.2x2, 129.0, 128.9, 128.3, 128.1, 128.0, 127.8, 123.0, 122.8, 122.7, 120.3, 120.2x2, 120.1, 29.3, 20.8x2 ppm; HRMS Found: m/z 570.2336. Calculated for $\text{C}_{45}\text{H}_{30}$: 570.2348.

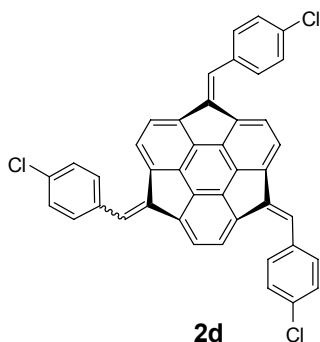


2c: IR (KBr) 3061, 3016, 2928, 1601, 1509, 1442, 1252, 1172 cm^{-1} ; ^1H NMR (CD_2Cl_2) δ 7.92-7.87 (m, 3H), 7.87-7.78 (m, 3H), 7.52 (dd, $J = 7.8, 3.0$ Hz, 1.5H), 7.39 (dt, $J = 12.0, 4.4$ Hz, 4.5H), 7.32-7.28 (m, 1.5H), 7.20 (t, $J = 7.8$ Hz, 1.5H), 7.06-7.00 (m, 3H), 7.00-6.94 (m, 3H), 3.90 (s, 2.25H), 3.89 (s, 2.25H), 3.87 (s, 2.25H), 3.86 (s, 2.25H); ^{13}C (CD_2Cl_2) 160.7, 148.2, 147.9, 147.6, 147.3, 146.3, 145.6, 145.2, 143.3, 141.6, 141.3, 139.0, 138.9, 131.6, 129.3, 129.0, 128.9, 128.7, 128.5, 128.4, 128.2, 123.6, 123.5, 123.3, 121.0, 120.9, 120.8, 120.7, 114.5, 114.4, 55.8 ppm; HRMS Found: m/z 618.2186. Calculated for $\text{C}_{45}\text{H}_{30}\text{O}_3$: 618.2195.

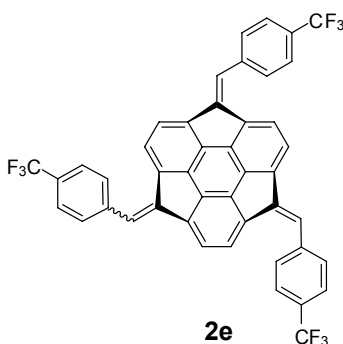


2d: IR (KBr) 3049, 3025, 2913, 1585, 1552, 1489, 1400, 1375, 1343 cm^{-1} ; ^1H NMR (CD_2Cl_2) δ 8.00 (d, $J = 8.4$ Hz, 1.5 H), 7.95-7.85 (m, 3H), 7.85-7.78 (m, 3H), 7.55-7.51 (m, 1H), 7.51-7.45 (m, 2H), 7.45-7.40 (m, 2H), 7.40-7.31 (m, 4.5 H), 7.31-7.28 (m, 1H),

7.28-7.24 (m, 1H), 7.24-7.19 (m, 1H), 7.19-7.15 (m, 1H); ^{13}C NMR (CD_2Cl_2) 156.0, 153.9, 148.2, 133.9, 132.9, 132.8, 132.7, 132.5, 131.8, 131.6, 131.3, 130.6, 130.0, 129.6, 129.5, 129.2, 129.0, 128.8, 128.7, 125.2, 123.7, 121.6, 120.6 ppm; HRMS Found: m/z 630.0718. Calculated for $\text{C}_{41}\text{H}_{21}\text{Cl}_3$: 630.0709.

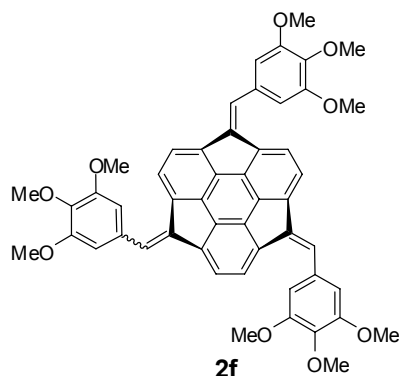


2e: IR (KBr) 3054, 3012, 2922, 1614, 1416, 1396, 1324, 1166, 1120 cm^{-1} ; ^1H NMR (CD_2Cl_2) δ 8.06 (d, $J = 9.0$ Hz, 1.5 H), 8.04 (d, $J = 8.4$ Hz, 1.5 H), 7.99 (d, $J = 8.4$ Hz, 1.5 H), 7.97 (d, $J = 8.4$ Hz, 1.5 H), 7.76 (t, $J = 8.1$ Hz, 3H), 7.70 (t, $J = 8.1$ Hz, 3H), 7.49 (d, $J = 8.4$ Hz, 1.5H), 7.46-7.42 (m, 3H), 7.38 (dd, $J = 8.1, 6.3$ Hz, 1.5H), 7.21 (dd, $J = 9.3, 8.1$ Hz, 1.5H), 7.12 (d, $J = 3.0$ Hz, 1.5H); ^{13}C NMR (CD_2Cl_2) 148.2, 148.0, 147.8, 147.7, 146.4, 146.1, 146.0, 145.5, 142.4, 142.3, 142.2, 141.9, 141.6, 140.3, 140.2, 140.1, 130.3, 130.2, 127.5, 127.3, 127.2, 126.0, 125.9, 124.7 (q, $J = 276$ Hz, CF_3), 124.1, 123.9, 123.8, 121.8, 121.7, 121.6, 121.5 ppm; HRMS Found: m/z 732.1502. Calculated for $\text{C}_{45}\text{H}_{21}\text{F}_9$: 732.1500.

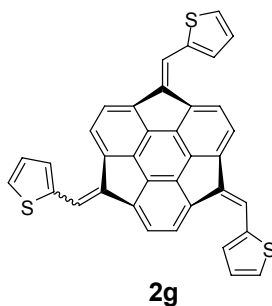


2f: Further purification by GPC to give an analytical pure sample was necessary. IR (KBr) 3102, 2963, 1640, 1593, 1445, 1413, 1385, 1353 cm^{-1} ; ^1H NMR (CD_2Cl_2) δ 7.61 (dd, $J = 7.8, 2.4$ Hz, 1H), 7.43-7.34 (m, 7H), 7.24-7.12 (m, 7H), 3.93-3.83 (m, 27H); ^{13}C NMR (CD_2Cl_2) 153.0, 152.9, 152.7, 147.5, 147.2, 147.1, 146.8, 145.6, 145.3, 144.9, 144.6,

142.7, 141.0, 140.8, 139.1, 139.0, 138.6, 131.0, 130.9, 128.4, 128.2, 128.0, 127.8, 124.4, 123.4, 123.2, 123.1, 123.0, 120.5, 120.4, 120.3, 120.1, 119.7, 106.5, 106.1, 105.0, 60.2, 55.8, 55.7, 55.3 ppm; HRMS Found: m/z 798.2843. Calculated for $C_{51}H_{42}O_9$: 798.2829.



2g: IR (KBr) 3102, 2963, 1640, 1593, 1445, 1413, 1385, 1353 cm^{-1} ; 1H NMR (CD_2Cl_2) δ 8.01 (d, $J = 7.8$ Hz, 1.5H), 7.91 (s, 1.5H), 7.72-7.70 (m, 1.5H) 7.70-7.68 (m, 1.5H) 7.54-7.52 (m, 3H) 7.52-7.48 (m, 1.5H), 7.36 (d, $J = 1.2$ Hz, 1.5H), 7.27 (d, $J = 6.0$ Hz, 1.5H), 7.26 (d, $J = 6.6$ Hz, 1.5H), 7.20 (m, 1.5H), 7.18 (m, 1.5H); ^{13}C NMR (CD_2Cl_2) 147.8, 147.6, 146.7, 146.4, 145.4, 144.6, 144.3, 142.4, 142.2, 140.3, 140.0, 138.9, 138.2, 130.3, 130.1, 130.0, 127.7, 127.6, 127.5, 123.3, 123.2, 123.0, 122.9, 120.4, 120.3, 120.1, 120.0, 119.7; HRMS Found: m/z 546.0576. Calculated for $C_{36}H_{18}S_3$: 546.0571.



2h: Further purification by GPC to give an analytical pure sample was necessary. IR (KBr) 3100, 2973, 1645, 1590, 1430, 1400, 1375, 1313 cm^{-1} ; 1H NMR (CD_2Cl_2) δ 7.72-7.68 (m, 1H), 7.58-7.52 (m, 1H), 7.52-7.44 (m, 2H), 7.44-7.36 (m, 2H), 7.36-7.32 (m, 2H), 7.32-7.30 (m, 1H), 7.30-7.22 (m, 6H), 7.22-7.12 (m, 5H), 7.12-7.00 (m, 7H), 7.00-6.88 (m, 3H); ^{13}C NMR (CD_2Cl_2) 139.0, 138.6, 137.8, 137.2, 136.0, 133.4, 128.6, 128.5, 128.4, 128.3, 128.0, 127.8, 127.3, 126.8, 125.8, 125.5, 125.3, 125.0, 124.7, 124.4, 124.2, 123.8, 123.7, 122.4 ppm; HRMS Found: m/z 1037.9819. Calculated for $C_{60}H_{30}S_9$: 1037.9834.

