Supplementary Information

for

Synthesis and Helical Supramolecular Organization of Discotic Liquid Crystalline Dibenzo[*hi*,*st*]ovalene

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Supplementary Figures and Tables

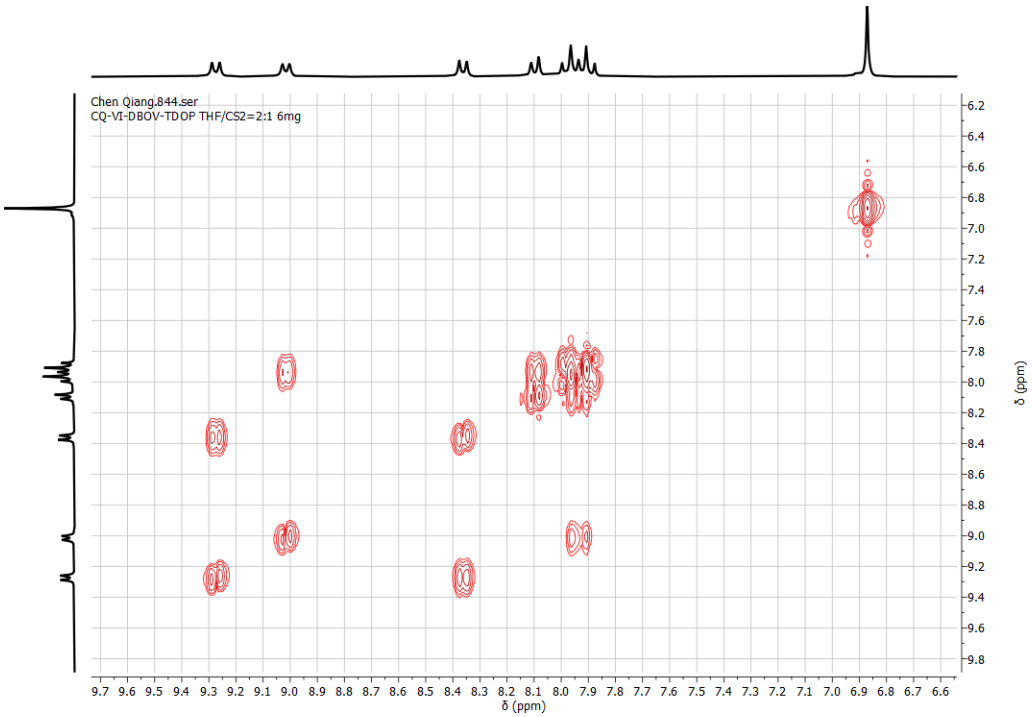

Figure S1. ^{1}H,^{1}H-COSY spectra of **DBOV-TDOP** in [D_8]THF:CS_2 = 2:1 (300 MHz, 298K).

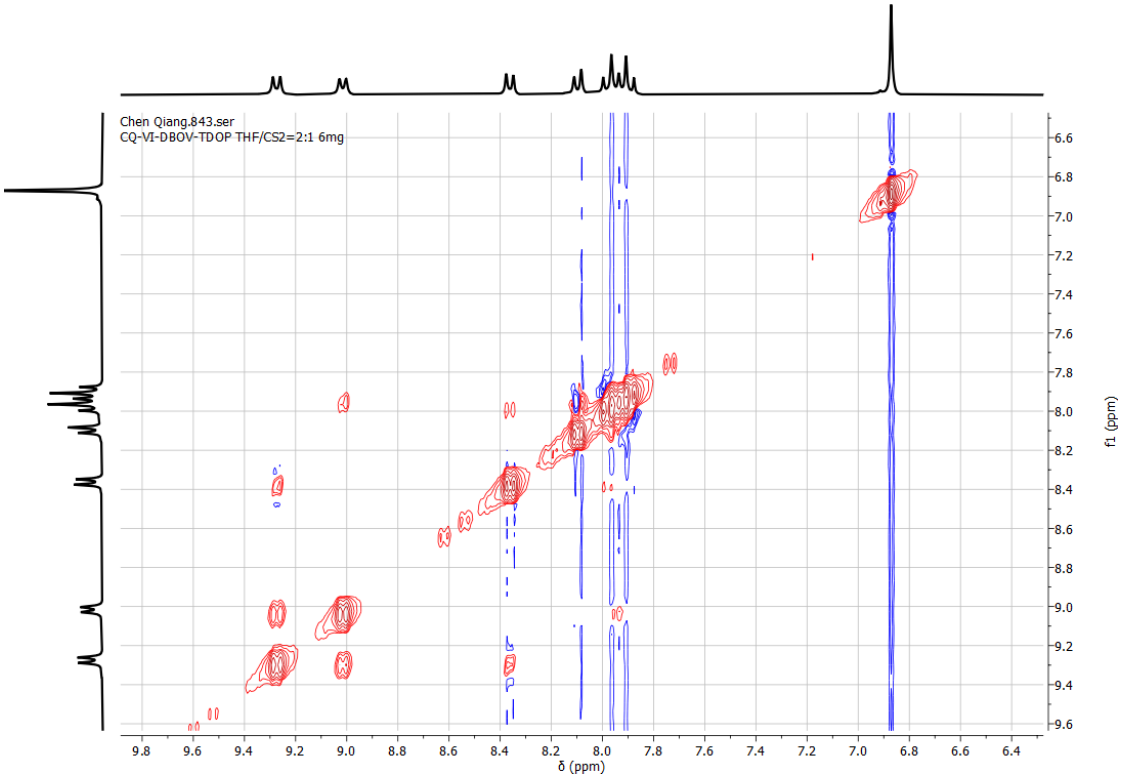

Figure S2. ^{1}H,^{1}H-NOESY spectrum of **DBOV-TDOP** in [D_8]THF:CS_2 = 2:1 (300 MHz, 298K).

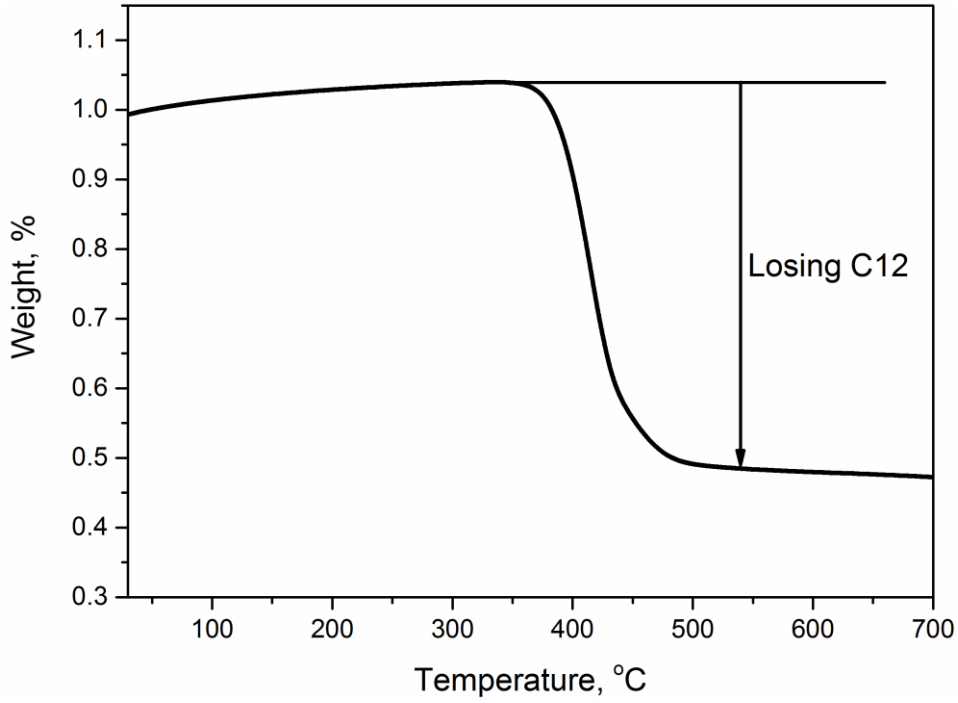

Figure S3. Thermogravimetric analysis (TGA) spectrum of **DBOV-TDOP**.

Additional STM Images

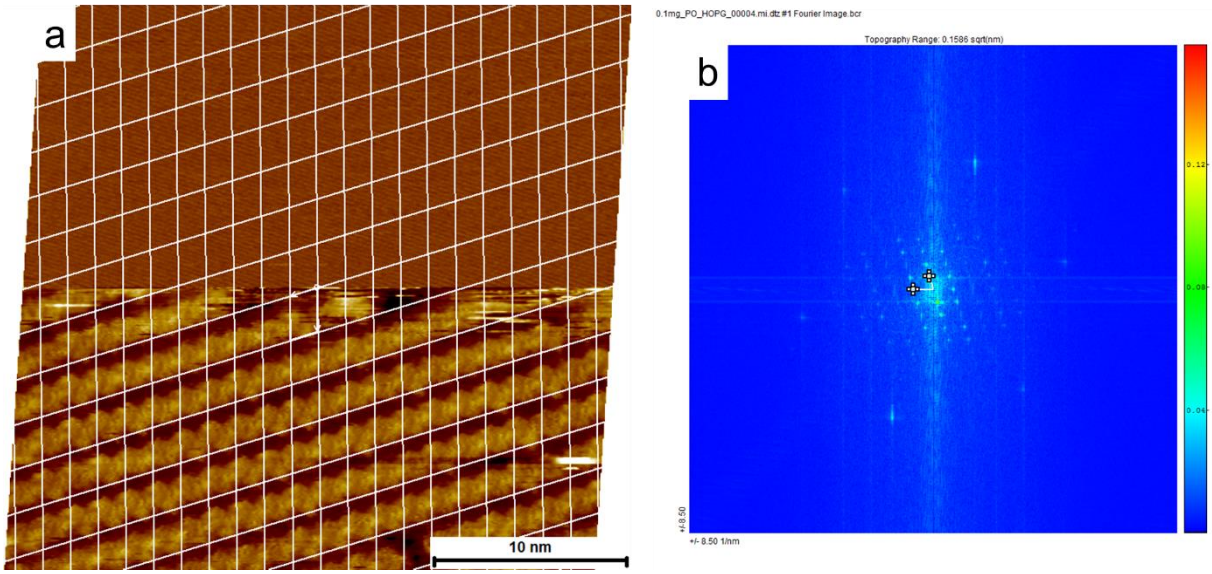

Figure S4. Example for the drift correction and unit cell determination. In the top half of a the HOPG surface lattice is imaged (V_{bias} = –0.001 V, I_{set} = 1.0 nA) and in the bottom part the molecular layer (V_{bias} = –1.1 V, I_{set} = 70 pA). The HOPG is used to correct for drift and the Fast-Fourier Transform (b) to determine the unit cell in the corrected image.

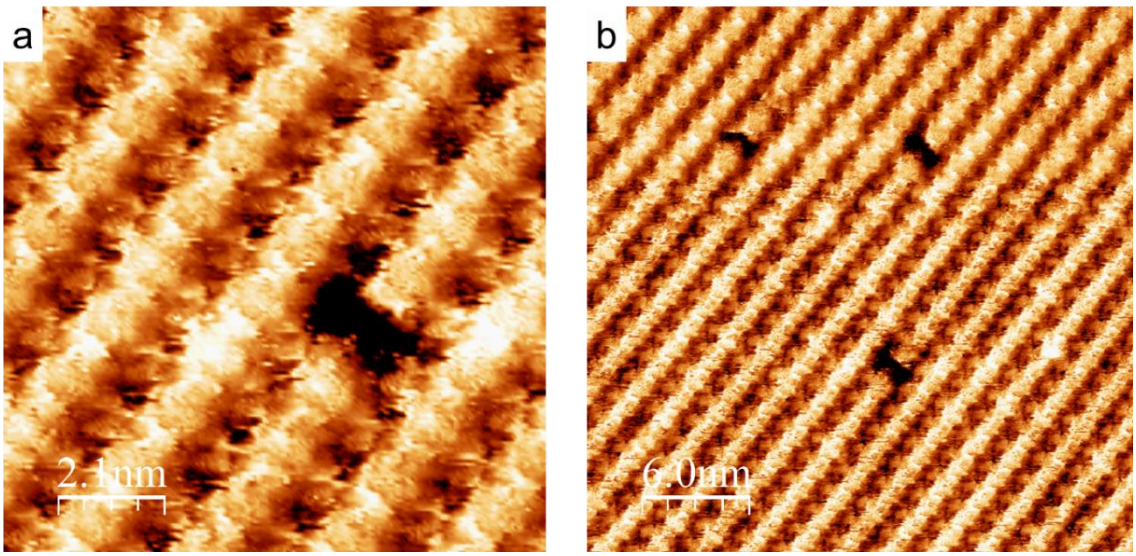

Figure S5. Additional STM images illustrating the molecular assembly in the second layer structure through single-molecules defects. Imaging parameters: a) V_{bias} = –1.1 V, I_{set} = 80 pA, b) V_{bias} = –1.1 V, I_{set} = 80 pA.

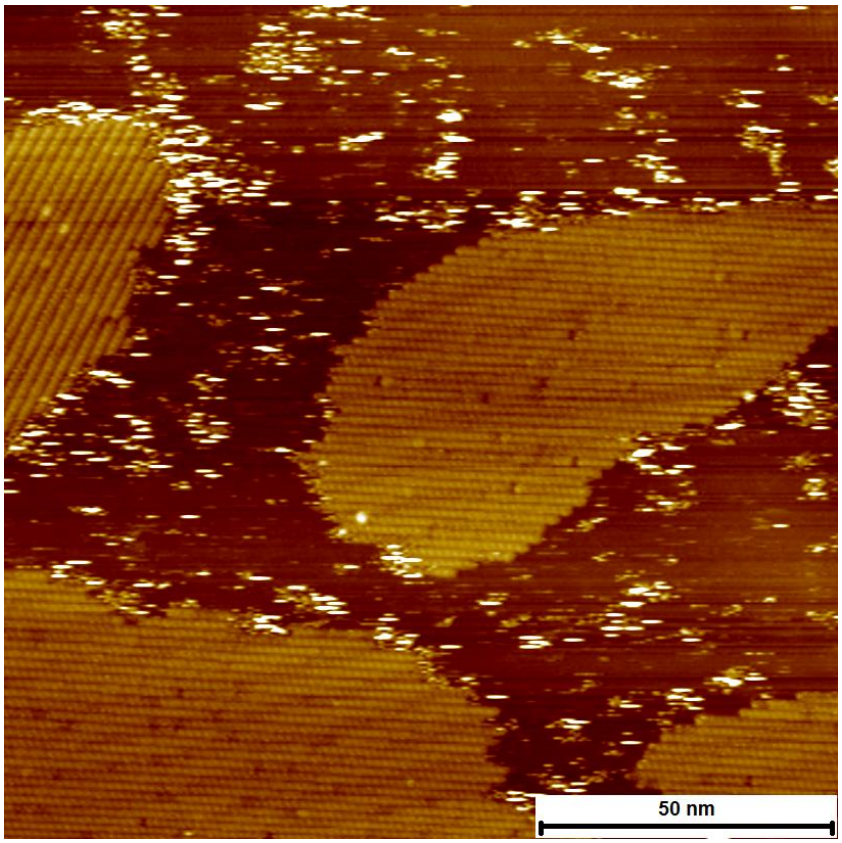

Figure S6. Additional STM image showing the increase in non-covered areas at lower concentrations (c = 6×10^{-6} mol/L). Imaging parameters: V_{bias} = –1.1 V, I_{set} = 80 pA.

NMR and Mass Spectra

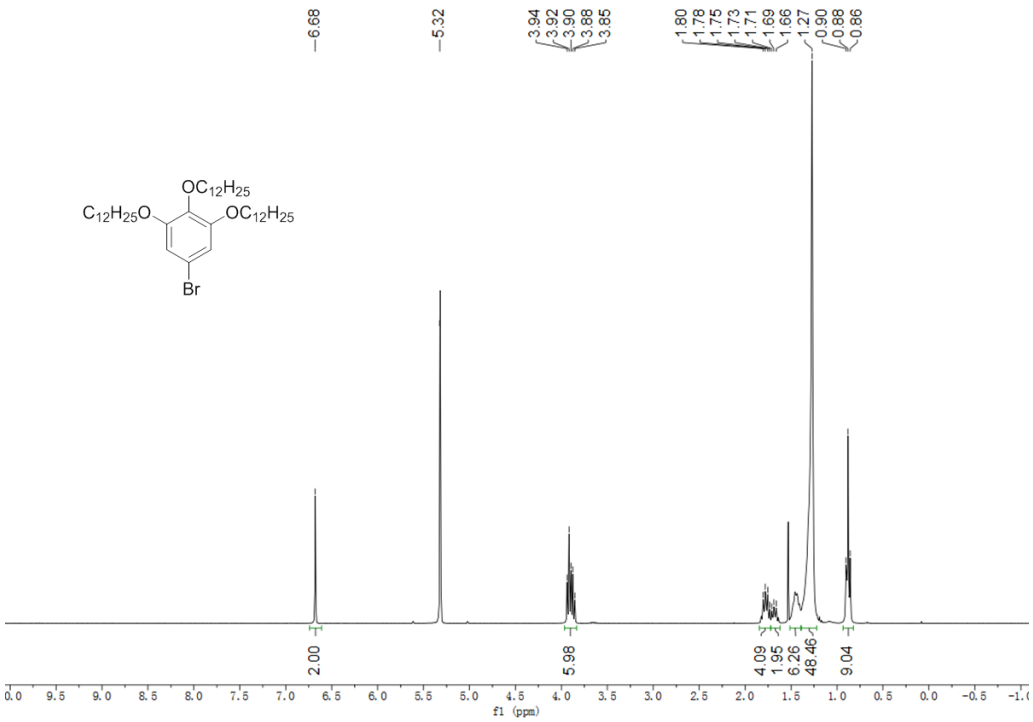

Figure S7. ^{1}H NMR spectrum of compound **S-6** in CD_2Cl_2 (300 MHz, 298 K).

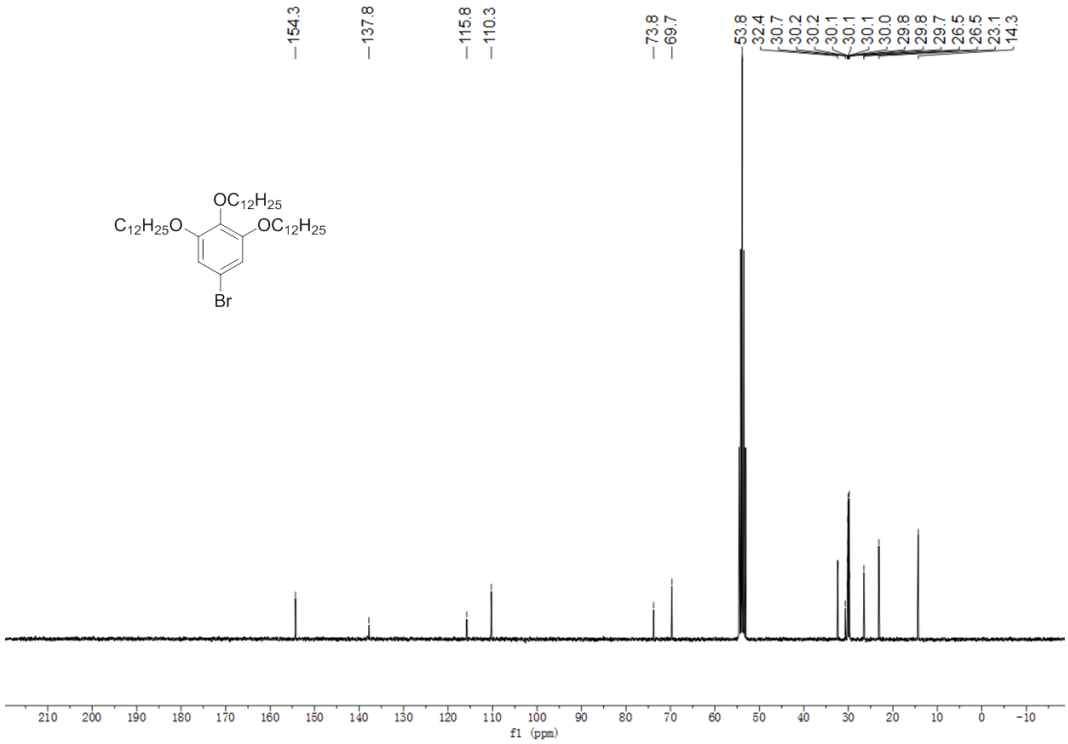

Figure S8. ^{13}C NMR spectrum of compound **S-6** in CD_2Cl_2 (75 MHz, 298 K).

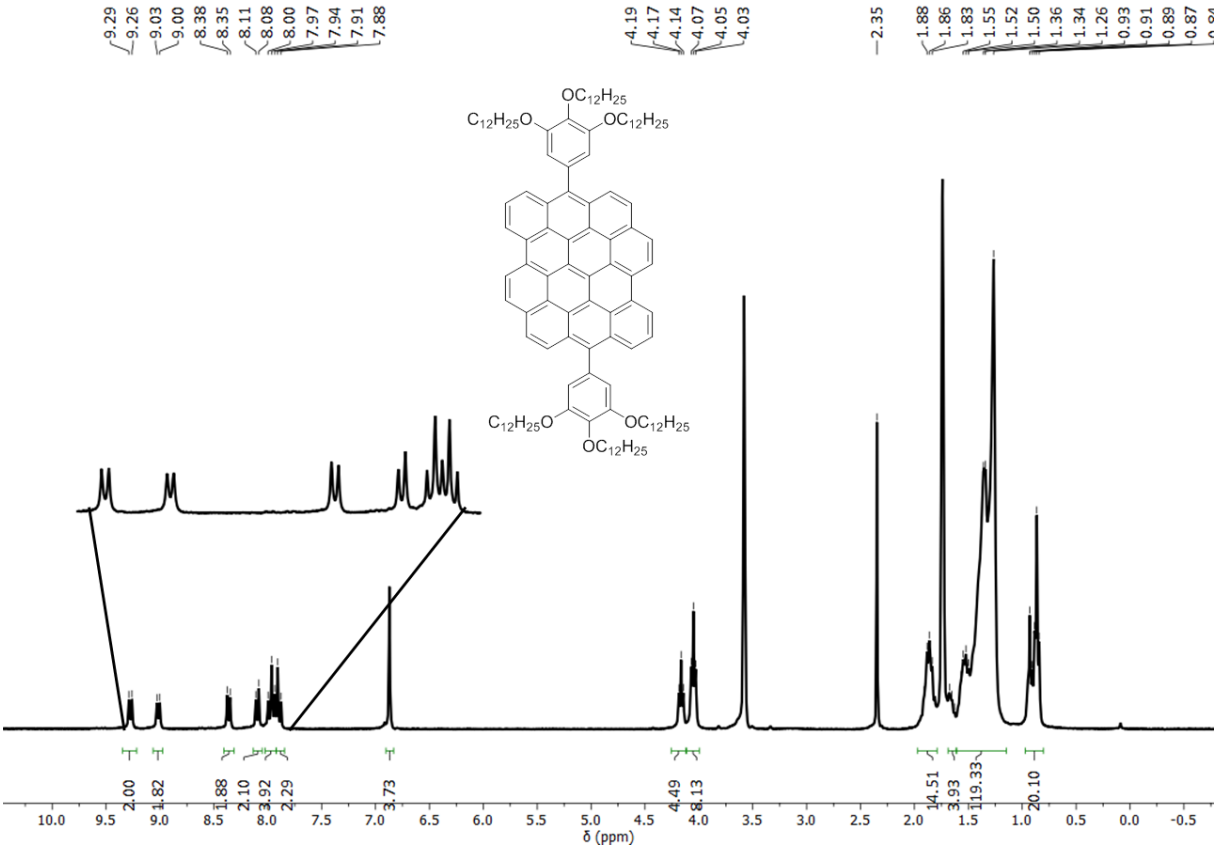

Figure S9. ^{1}H NMR spectrum of compound **DBOV-TDOP** in THF-d_8:CS_2 = 1:1 (300 MHz, 298 K).

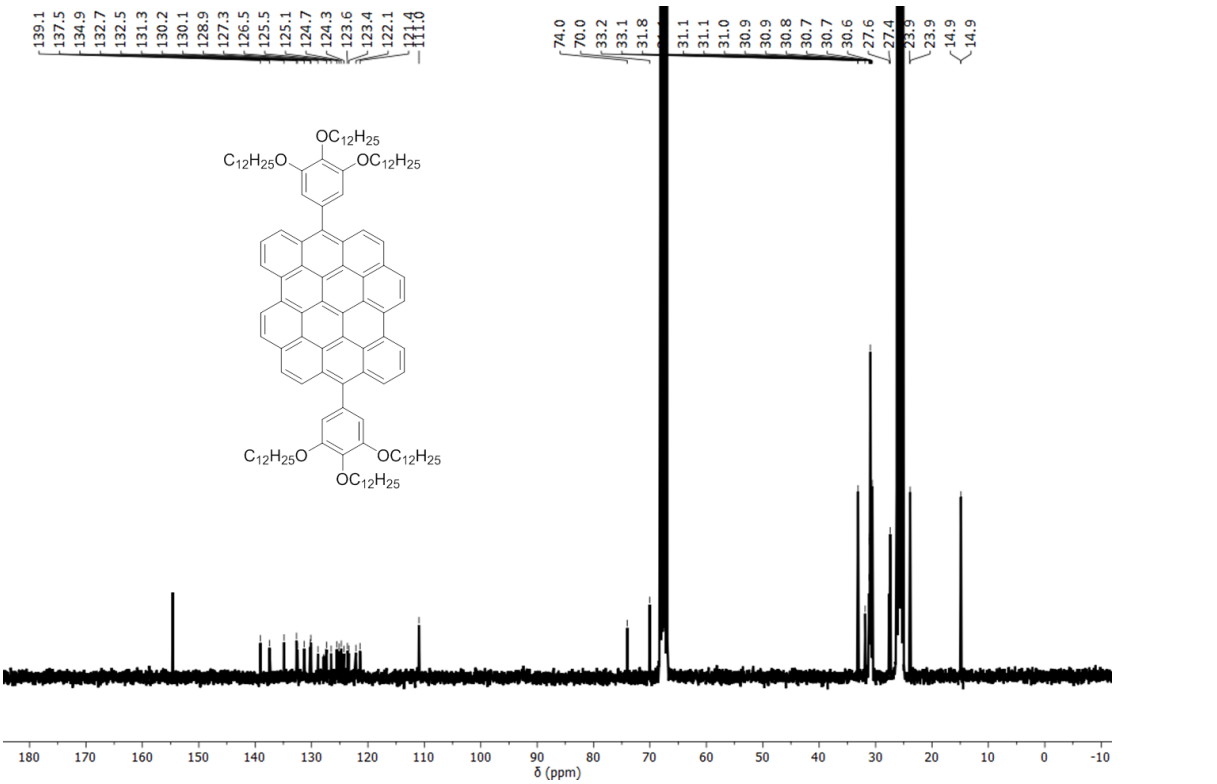

Figure S10. ^{13}C NMR spectrum of compound **DBOV-TDOP** in THF-d_8:CS_2 = 1:1 (75 MHz, 298 K).