Electronic Supporting Information

Highly Porous and Photoluminescent Pyrene-Quinoxaline-Derived Benzimidazole-Linked Polymers

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Figure S1: Powder XRD profiles for **BILP-17** and **BILP-18**.

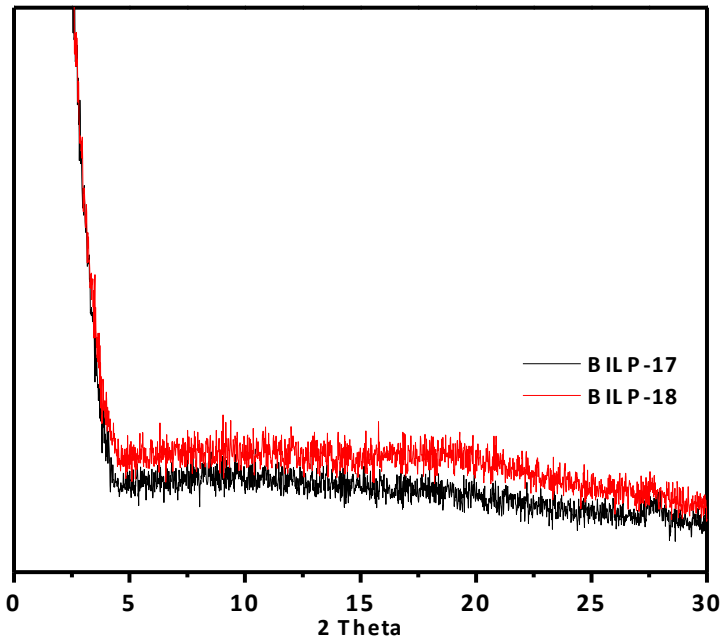


Figure S2: Thermal gravimetric profiles of **BILP-17** and **BILP-18** measured under N_2.

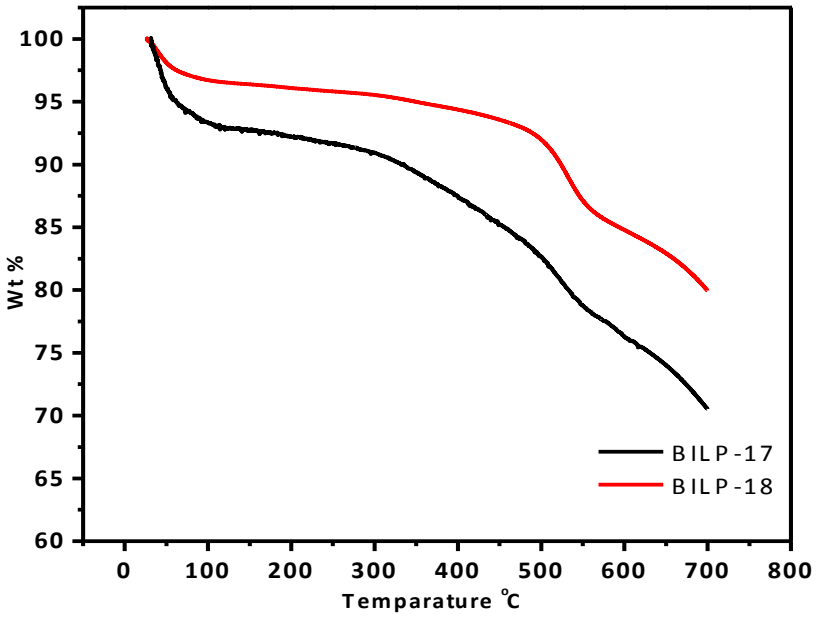
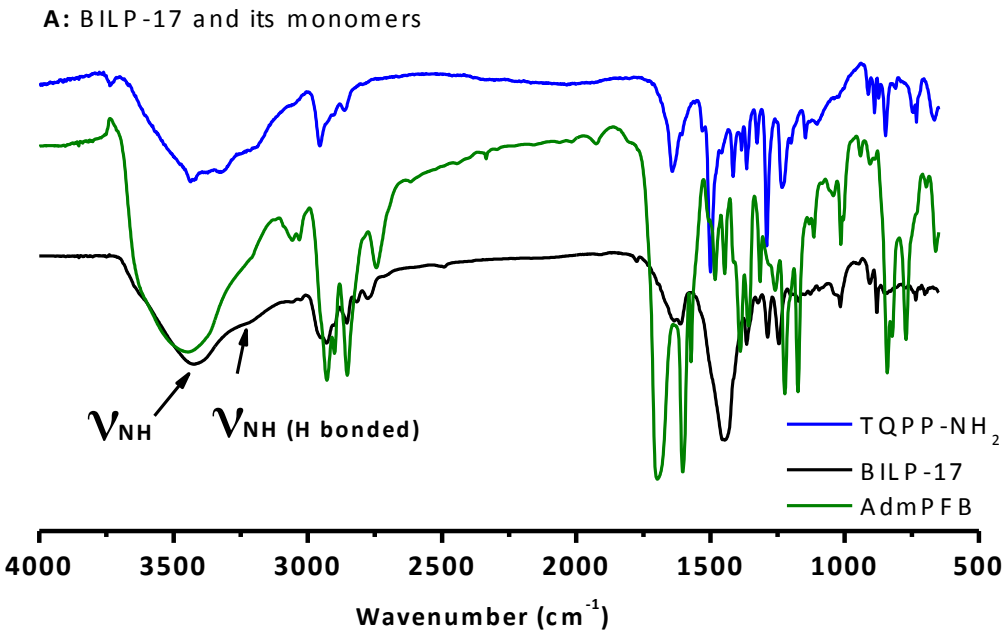
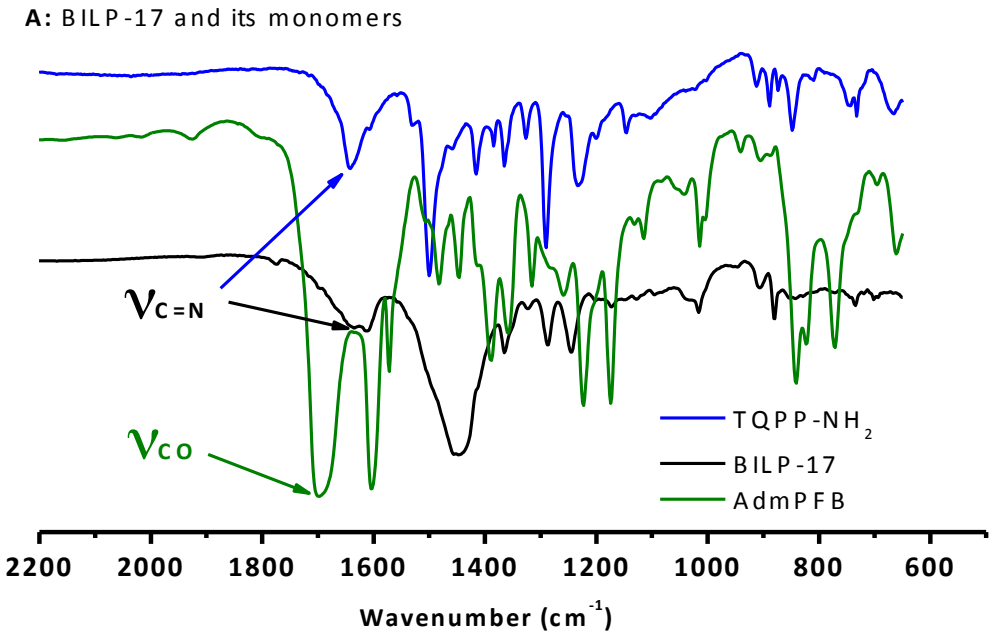
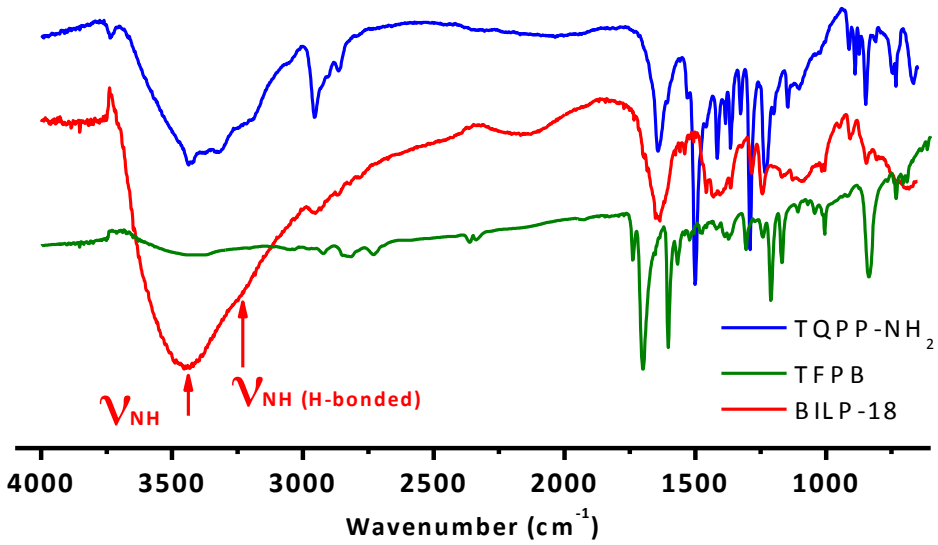


Figure S3: FT-IR spectra of **BILP-17** and **BILP-18** and their corresponding building units: TQPP-NH_2, 1,3,5,7-tetrakis(4-formylphenyl) adamantine (AdmPFB), and 1,2,4,5-tetrakis(4-formylphenyl) benzene (TFPB).





B: BILP-18 and its monomers



B: BILP-18 and its monomers

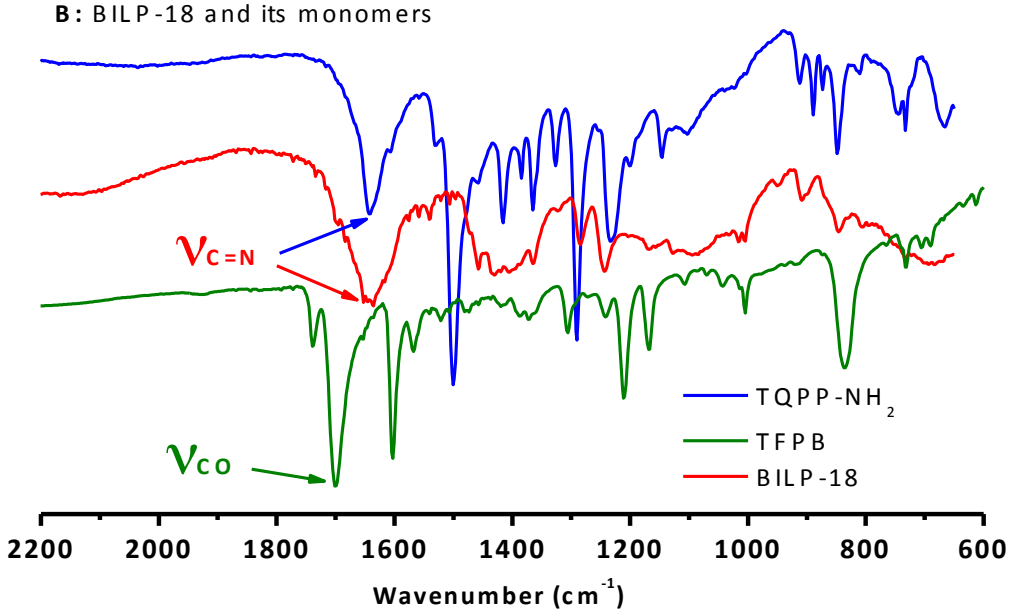
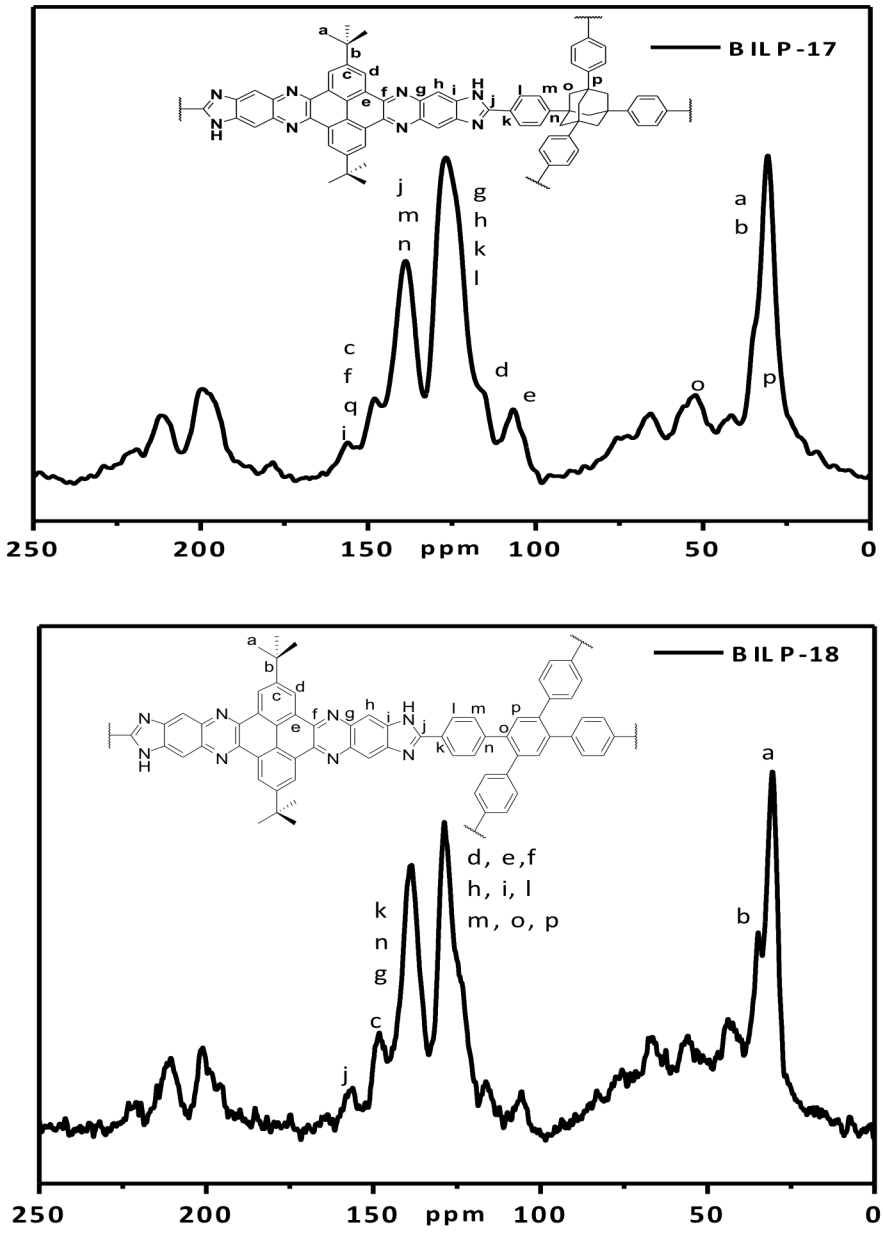


Figure S4: Solid-state ^{13}C CP-MAS NMR spectra of **BILP-17** and **BILP-18**.



Activation of BILPs for gas adsorption measurements:

A sample was loaded into a 9 mm large bulb cell (from Quantachrome) of known weight and then hooked up to MasterPrep. The sample was degassed at 120 °C for 20 hours. The degassed sample was weighed precisely and then transferred back to the analyzer. The temperature for adsorption measurements was controlled by using refrigerated bath of liquid argon (87 K). Adsorption measurements were performed on an Autosorb-IQ2 (Quantachrome) volumetric analyzer using Ar of UHP grade.

Figure S5: Experimental Ar adsorption isotherms (filled circles) for **BILP-17** and **BILP-18** measured at 87 K. The calculated NLDFT isotherm is overlaid as open circles.

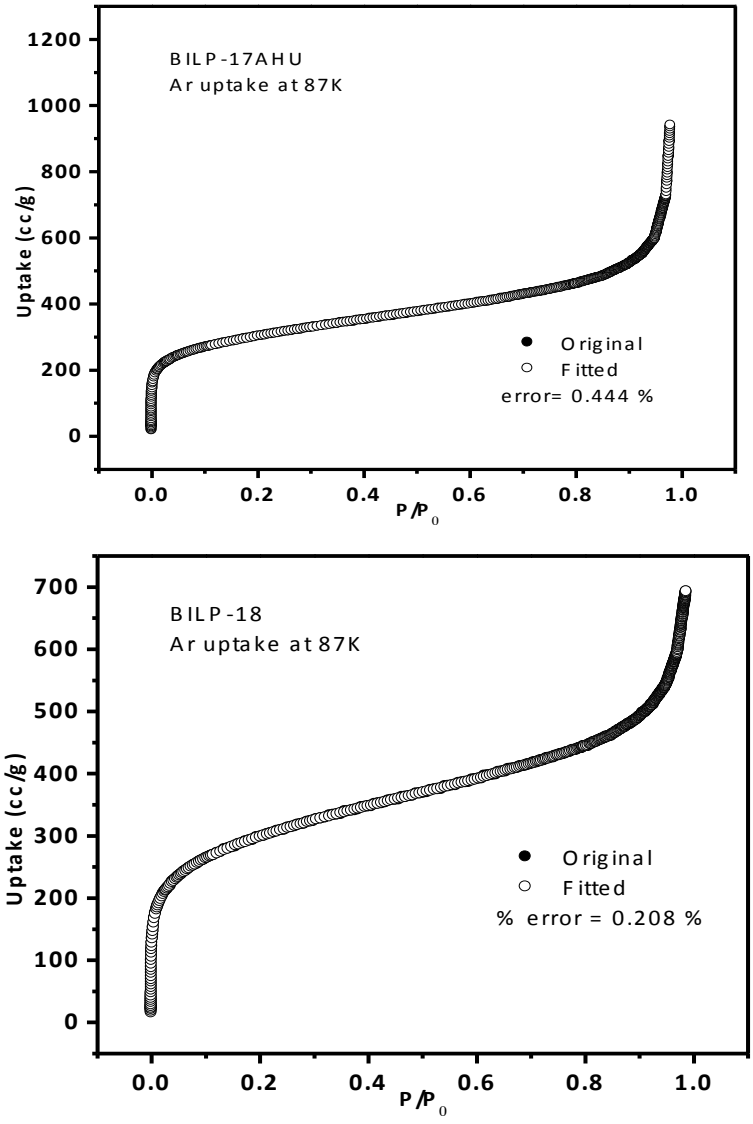
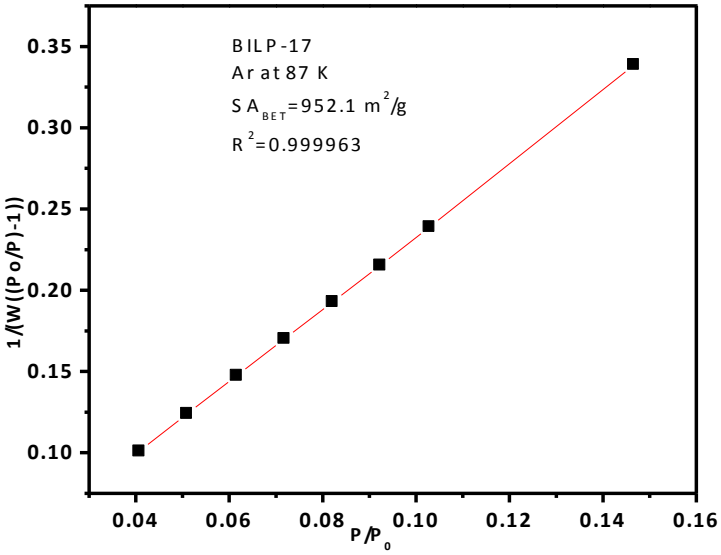


Figure S6: BET plots for **BILP-17** and **BILP-18** calculated from Ar adsorption isotherms at 87 K. The model was applied from P/P_o = 0.05-0.16. The correlation factor is indicated. (W = Weight of gas absorbed at a relative pressure P/P_o).



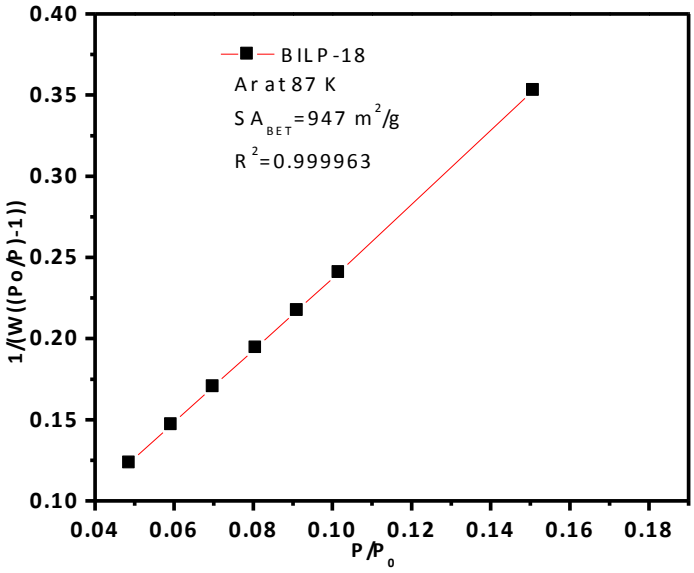


Figure S7: Solid-state diffuse reflectance spectra (converted to absorption) of (a) **BILP-17**, (b) **BILP-18**, and (c) TQPP-NH_2.

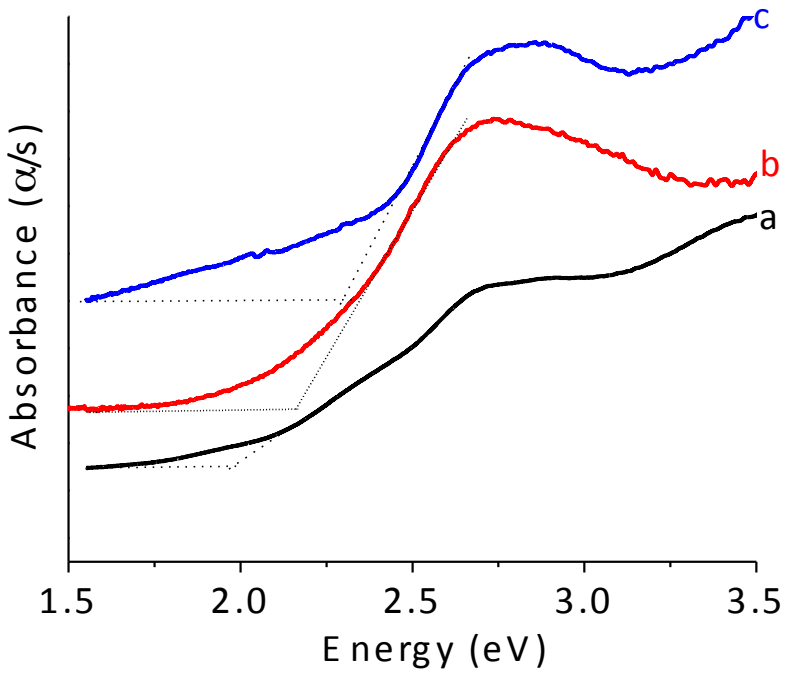


Figure S8: ^{1}H NMR of TQPP-NH_2 in DMSO-d_6.

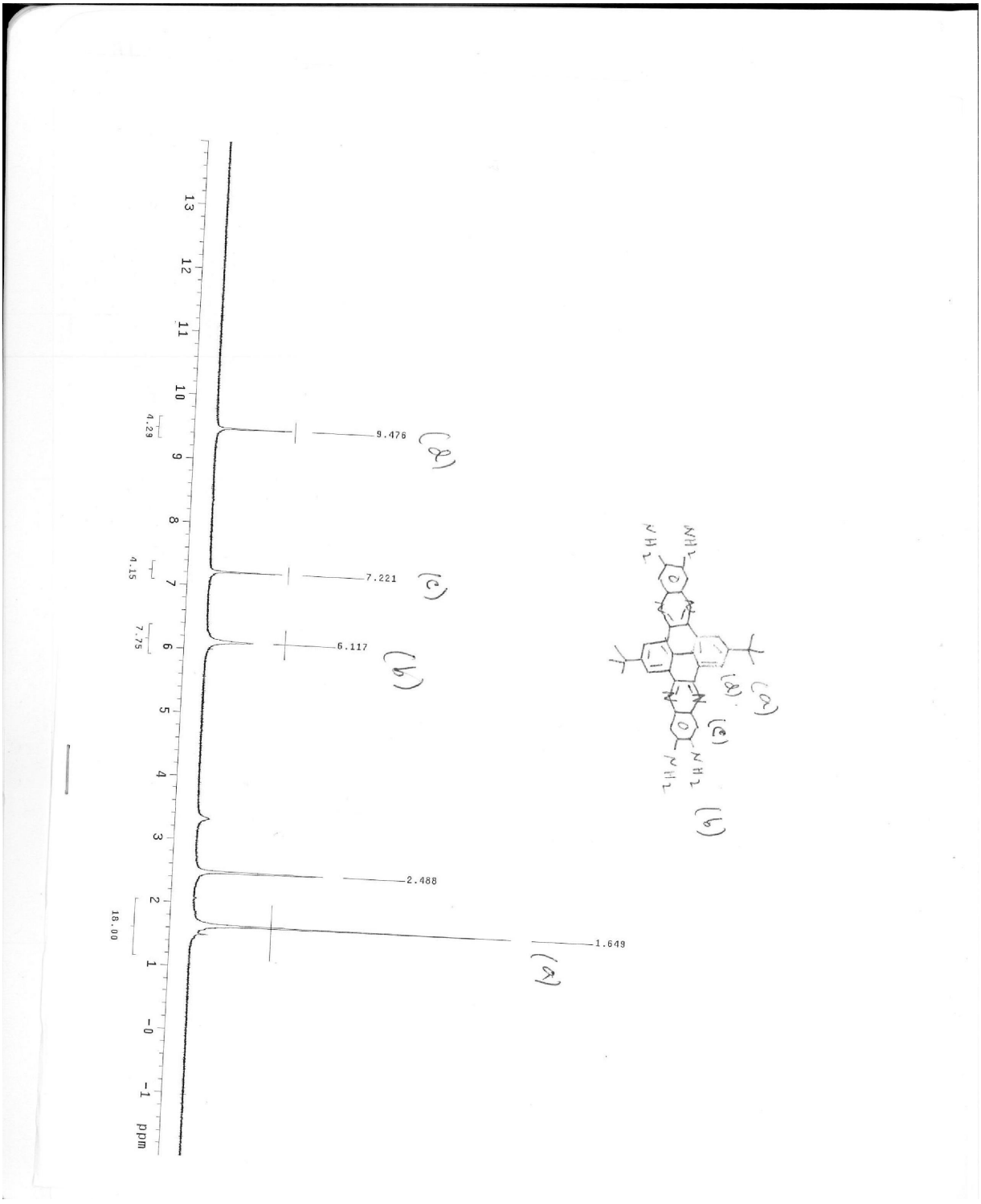


Figure S9: PL spectra of **BILP-17** and **BILP-18**.