Supporting information

Synthesis of 1-((4-bromobutoxy)methyl)pyrene (Compound 4)

1-pyrenemethanol (0.47 g, 2.00 mmol) and NaH (52%, 2.77 g, 60.00 mmol) were dissolved in 30 mL of dry THF under an argon atmosphere and stirred in an ice bath for 1 h. Then, 1, 4-dibromobutane (2.16 g, 10 mmol) was added to the solution and it was stirred for 48 h while the temperature was gradually returned to room temperature. The solvent was removed by evaporation, water was carefully added to the reaction mixture to quench the unreacted NaH, and the resulting solution was extracted 3 times with CH_2Cl_2. Then, the organic layer was sequentially washed with 5% aqueous HCl (50 mL), 10% aqueous Na_2CO_3 (50 mL), and water. Finally, the resultant was dried over anhydrous $MgSO_4$. The residual after removing the solvent was purified through chromatography to give the final product, compound 4 (white solids, yield: 45%).

Synthesis of 1-(4-((pyren-1-yl)methoxy)butyl)adenine (A-pyrene).

Adenine (0.1 g, 0.75 mmol) and K_2CO_3 (0.35 g, 2.50 mmol) were dissolved in 30 mL of dry DMF under an argon atmosphere. The mixture was stirred for 0.5 h and compound 4 (0.19 g, 0.50 mmol) was added to the solution, and the resultant was stirred at 70 °C for 48 h. Then, the resultant was purified through chromatography to give A-pyrene (white solid, yield: 23%).

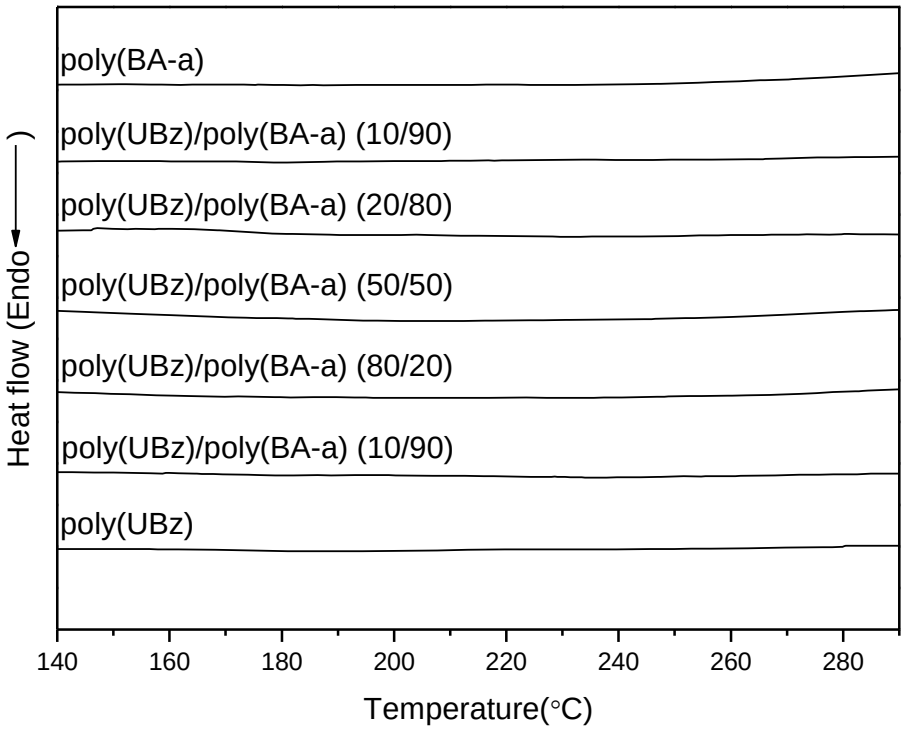

Figure S1. The DSC thermograms of UBz, BA-a, and UBz/BA-a blends obtained after heating at 210 °C for 2h.

After heating at 210 °C for 2h, there were no exothermic peak temperatures in these DSC thermograms as shown in Figure S1, indicating that the cure reaction was complete.