

Fig. S1. FTIR spectra of the prepared CO-BPU samples in the C=O stretching vibration region.

Fig. S2. FTIR spectra of the prepared ISO-BPU samples in the C=O stretching vibration region.

Fig. S3. FTIR spectra of the prepared APTES-BPU samples in the C=O stretching vibration region.

Fig. S4. Degradation process of the synthesized BPU sample in a 1:1 (v/v) mixture of H₃PO₄ (≥85 wt%) and ethanol.

Fig. S5. Degradation process of the synthesized BPU sample in a 1:1 (v/v) mixture of NaOH (2.5 mol/L) and ethanol.

Fig. S6. Degradation process of the synthesized BPU sample in a 1:1 (v/v) mixture of NaOH (1.5 mol/L) and ethanol.

Fig. S7. Simulation of the degradation process for APTES-BPU: (a) degradation kinetic profile in an acidic environment; (b) degradation kinetic profile in an alkaline environment.

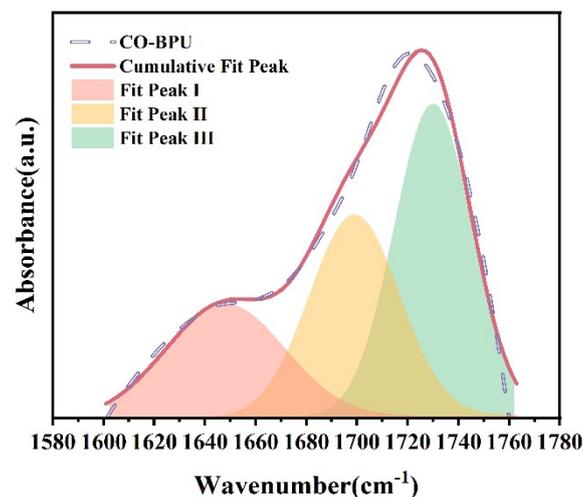


Fig. S1. FTIR spectra of the prepared CO-BPU samples in the C=O stretching vibration region.

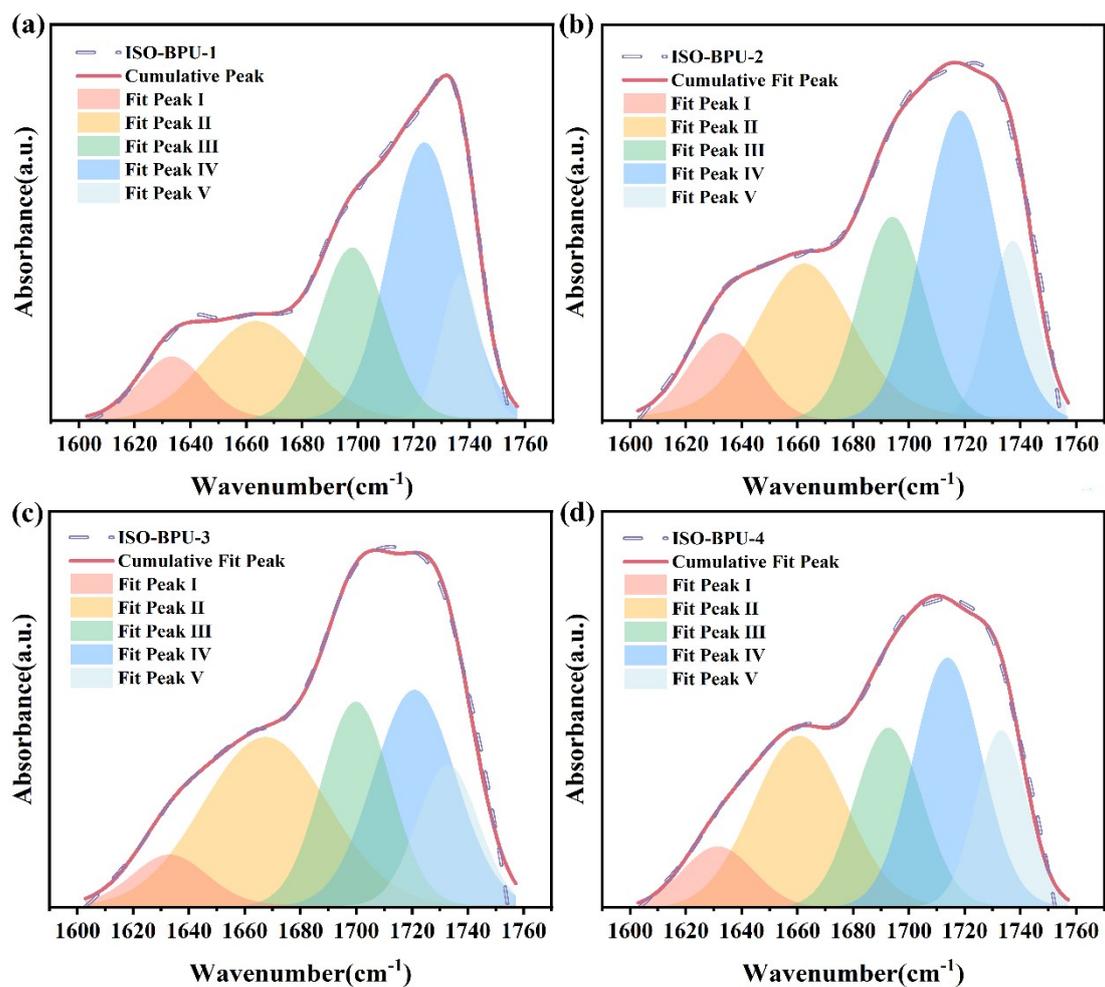


Fig. S2. FTIR spectra of the prepared ISO-BPU samples in the C=O stretching vibration region.

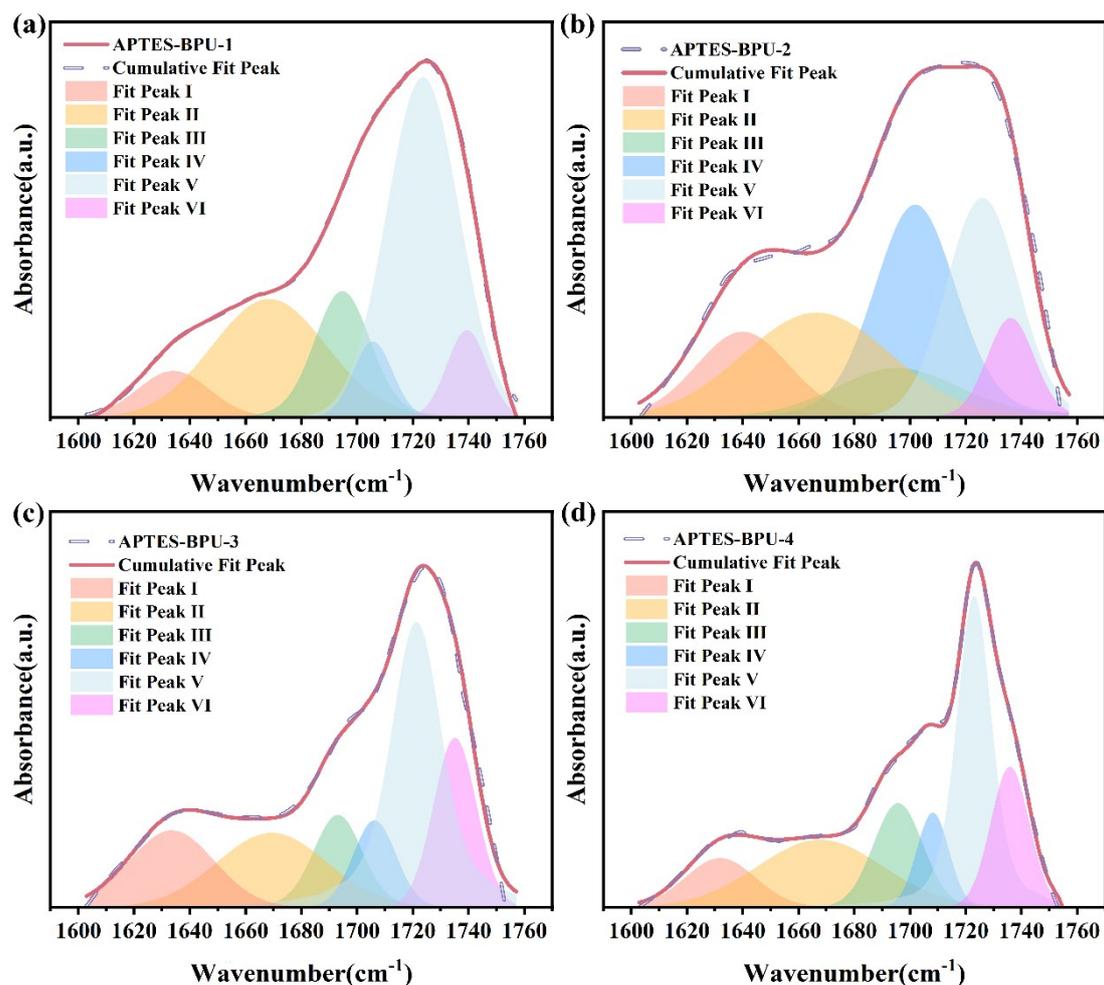


Fig. S3. FTIR spectra of the prepared APTES-BPU samples in the C=O stretching vibration region.

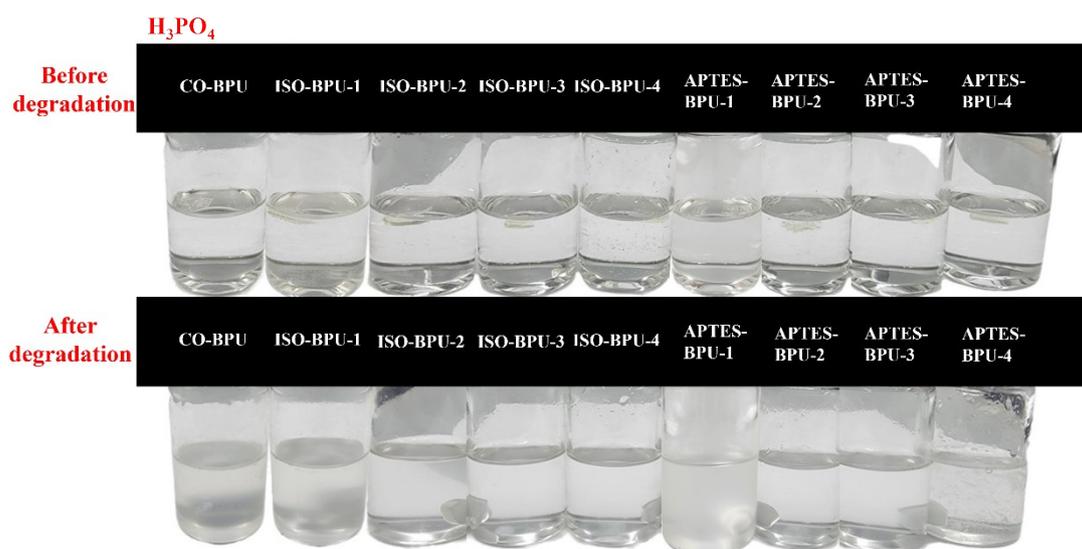


Fig. S4. Degradation process of the synthesized BPU sample in a 1:1 (v/v) mixture of H₃PO₄ (≥85 wt%) and ethanol.

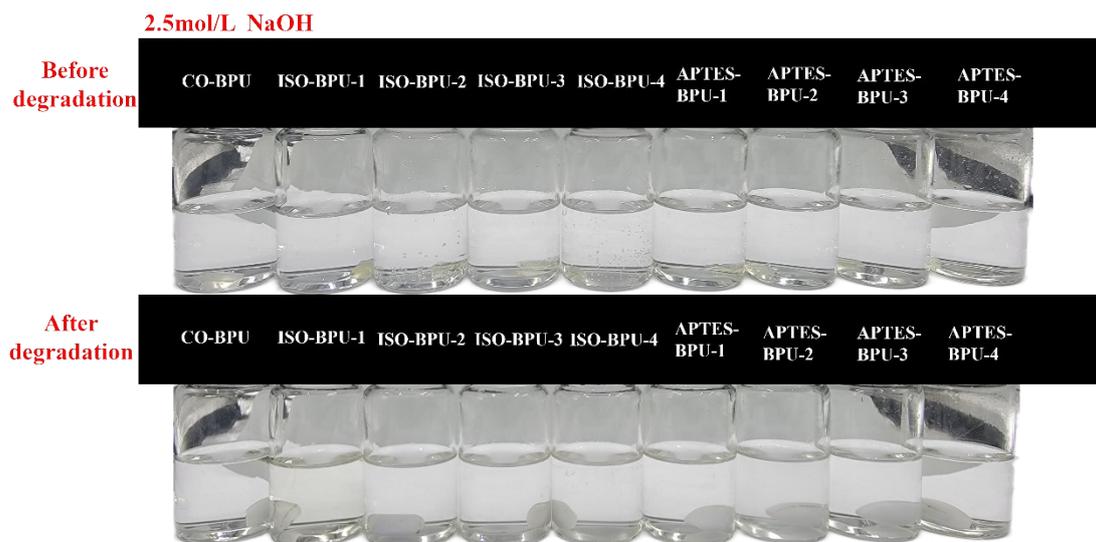


Fig. S5. Degradation process of the synthesized BPU sample in a 1:1 (v/v) mixture of NaOH (2.5 mol/L) and ethanol.

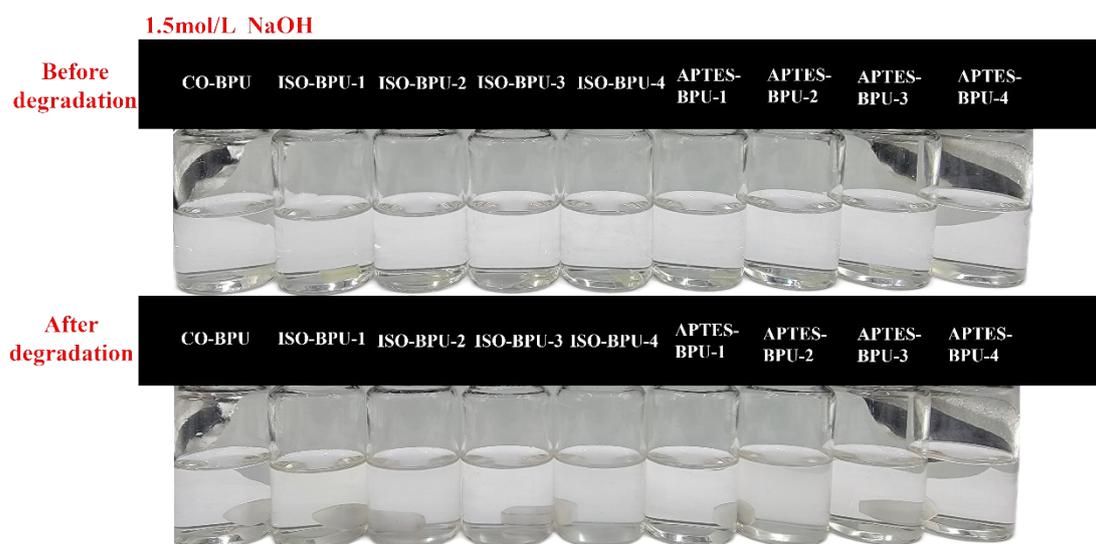


Fig. S6. Degradation process of the synthesized BPU sample in a 1:1 (v/v) mixture of NaOH (1.5 mol/L) and ethanol.

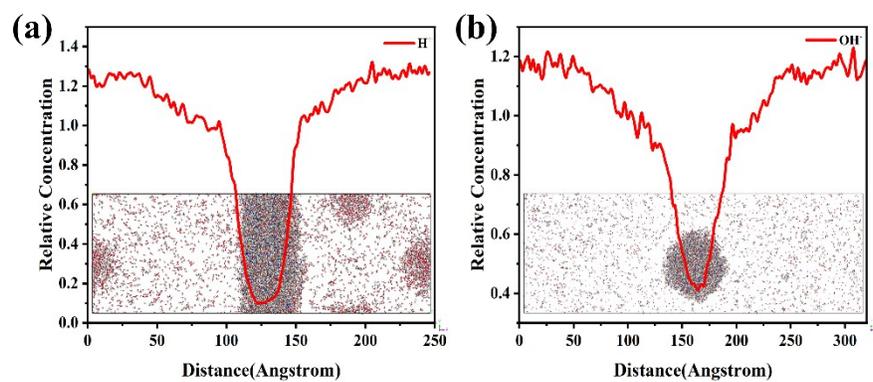


Fig. S7. Simulation of the degradation process for APTES-BPU: (a) degradation kinetic profile in an acidic environment; (b) degradation kinetic profile in an alkaline environment.