

Supporting information

Ultra-High-Expansion-Ratio Nanocellular Semicrystalline Polymer Foams:

Preparation of Chain-Extender-Mediated PLA/PPC Foams via Supercritical

CO₂

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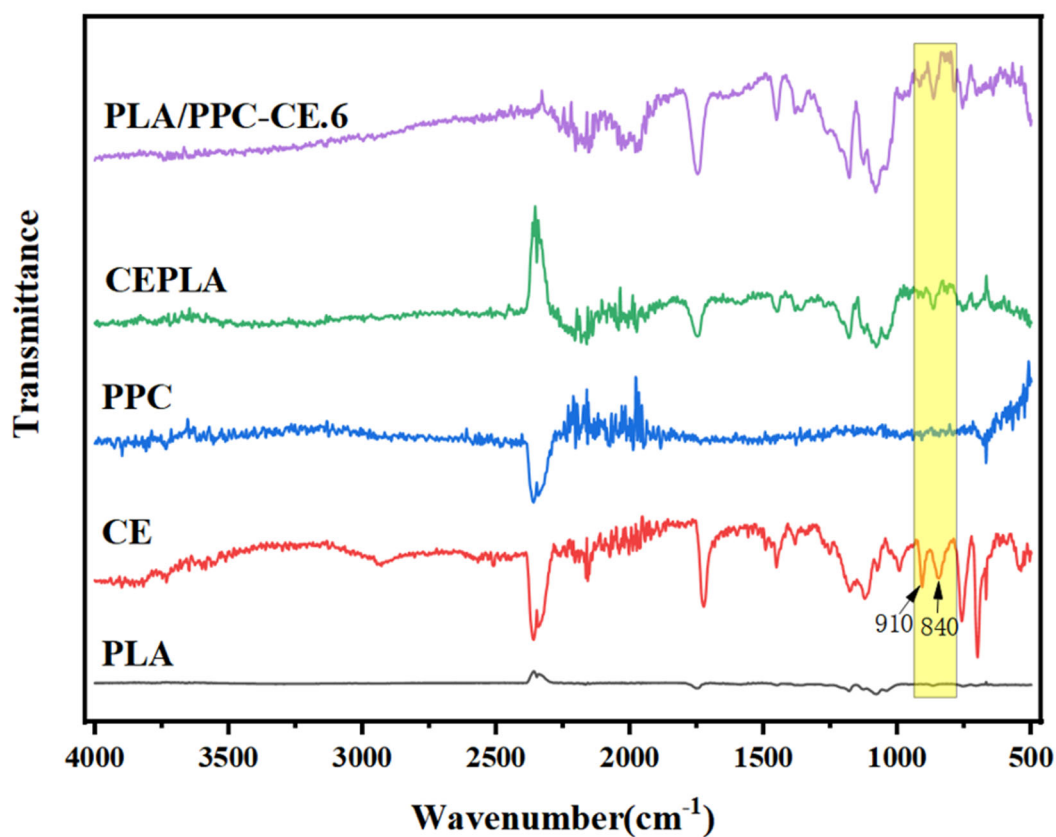


Figure S1. FTIR spectrum of PLA, PPC, KL-E4370 and blends.

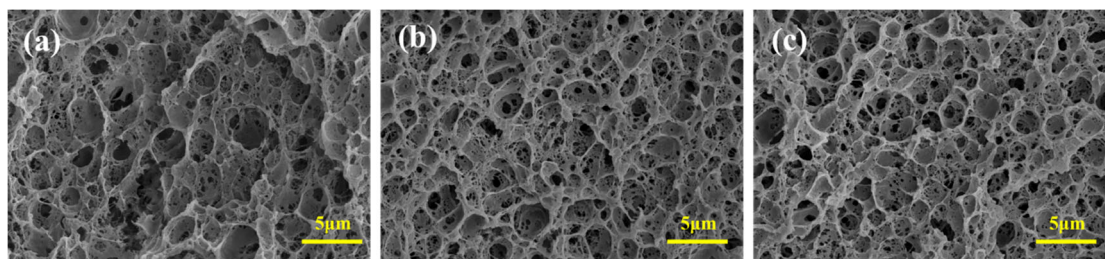


Figure S2. SEM images of different PLA/PPC15-CE foams at 30MPa: (a) PLA/PPC15-CE0.3, (b) PLA/PPC15-CE0.6, and (c) PLA/PPC15-CE0.9.

Table S1. Foaming parameters of PLA and different PLA/PPC-CE foams.

Samples	VER	Cell size(nm)	Cell density (cells/cm ³)
PLA/PPC15-CE0.3	3.5	1136	6.5×10 ¹¹
PLA/PPC15-CE0.6	4.1	754	2.8×10 ¹²
PLA/PPC15-CE0.9	3.7	730	3.1×10 ¹²

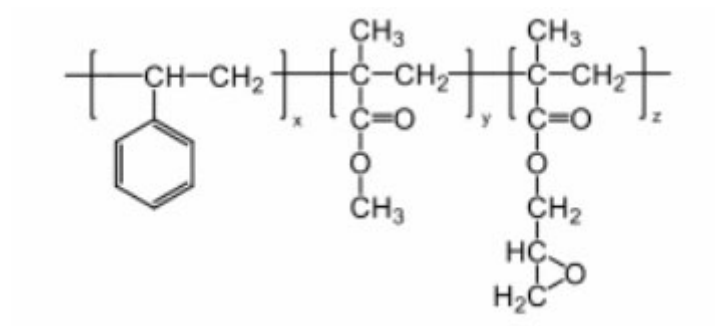


Figure S3. Chemical structure of KL-E4370.