

SupplementaryMaterials: Construction of an Immobilized Thermophilic Esterase on Epoxy Support for Poly(ϵ -caprolactone) Synthesis

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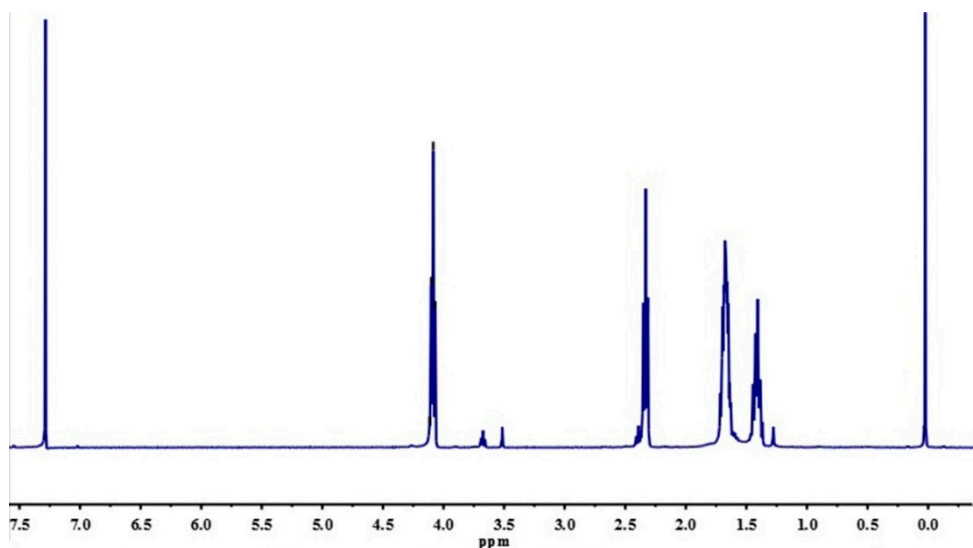


Figure S1. ^1H NMR spectrum of PCL synthesized by the immobilized enzyme EC-EP-AFEST. Reactions were conducted at 80 °C for 72 h, using 5 mL ϵ -caprolactone, 15 mL toluene and 2.0 g EC-EP-AFEST. ^1H -NMR of PCL: 1.39 (m, $-\text{COCH}_2\text{CH}_2\text{CH}_2-$), 1.66 (m, $-\text{COCH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{O}-$), 2.31 (t, $-\text{COCH}_2-$), 4.06 (t, $-\text{CH}_2\text{O}-$) and 3.66 (t, $-\text{CH}_2\text{OH}$ end group).

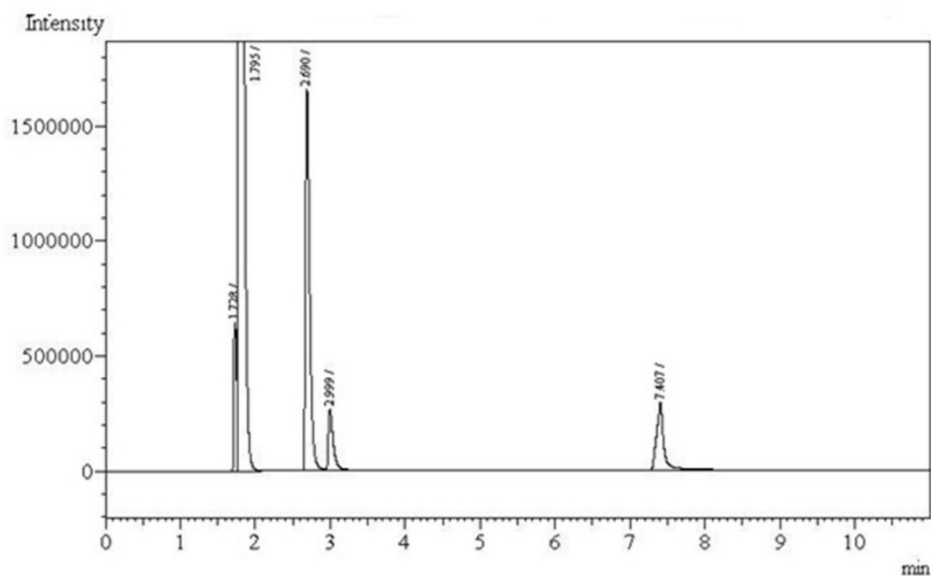
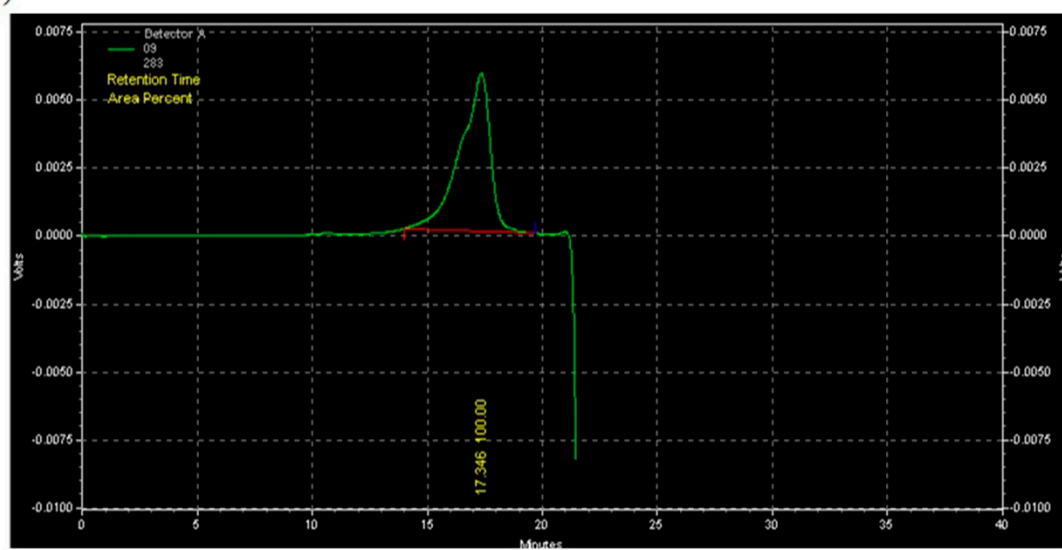


Figure S2. Typical GC chromatograph for determining the monomer conversion. The peaks at 1.795, 2.690, 2.999 and 7.47 min represented dichloromethane, toluene, butyl acetate (internal standard) and ϵ -caprolactone, respectively.

(A)



(B)

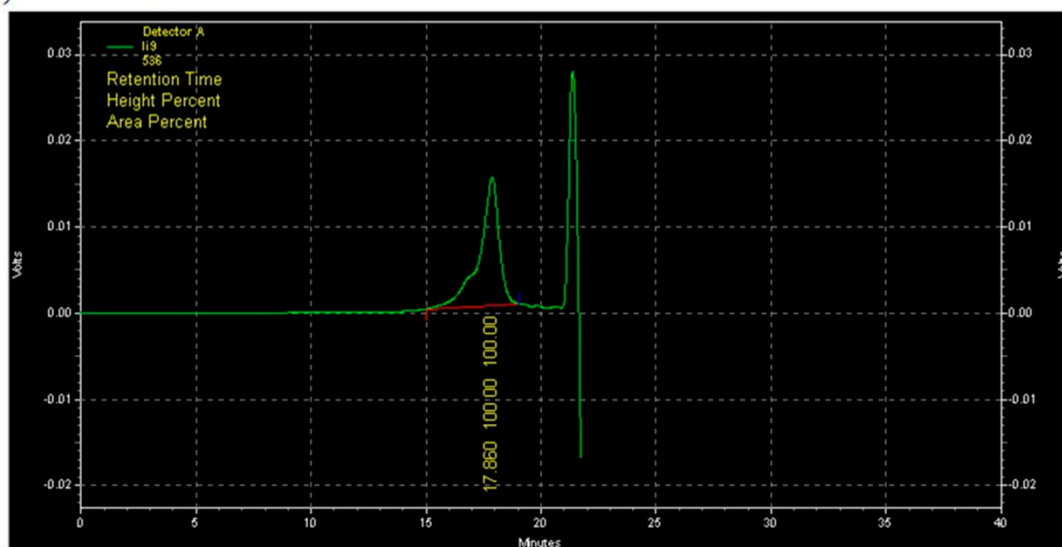


Figure S3. Typical GPC chromatograms of polystyrene standard with $M_n = 2000$ g/mol (A) and PCL synthesized by the immobilized enzyme EC-EP-AFEST (B).