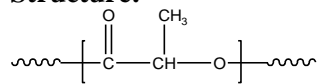


Sample Name: Polylactide

Sample #: P2283-LA (L-Form)

Structure:

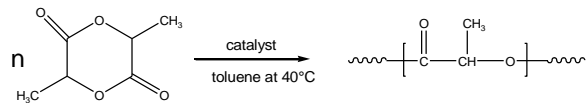


Composition:

Mn x 10 ³	PDI
24.6	1.33

Synthesis Procedure:

The polymerization of (3S)-cis 3, 6-dimethyl-1,4-dioxane-2,5-dione was initiated with an aluminum-based catalyst and the reaction was carried out in apolar solvent.



Purification:

Catalyst residues were removed by repeated extraction with an aqueous EDTA solution (0.1 mol L⁻¹) and the polymeric solution was then washed with water up to neutral pH. Toluene was removed under reduced pressure and the polymer was precipitated employing a large excess of hexane. The polymer was then redissolved in benzene and filtered followed by freeze drying.

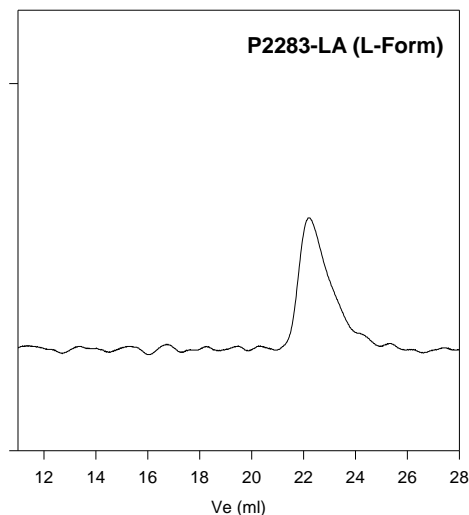
Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography.

Solubility:

Poly(ε-caprolactone) is soluble in toluene, THF, CHCl₃ and CH₂Cl₂. The polymer is insoluble in methanol, hexane and ether.

SEC of Homopolymer:



Size exclusion chromatograph of poly(L-lactide):

M_n=24600, M_w=33000, PI=1.33