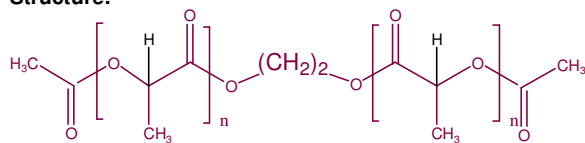


Sample Name: Diacetate ended polylactide

Sample #: P4928-LA2Ac (DL-Form)

Structure:

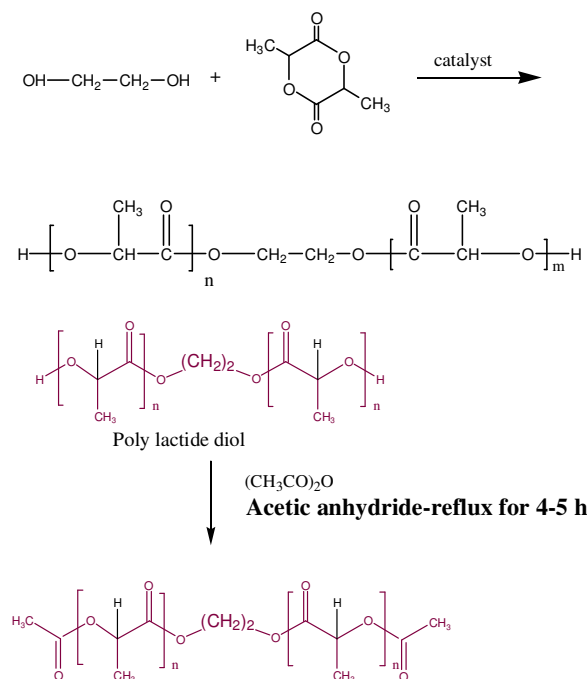


Composition:

| Mn x 10 ³ | PDI |
|----------------------|------|
| 3.0 | 1.14 |

Synthesis Procedure:

The polymerization of 3, 6-dimethyl-1,4-dioxane-2,5-dione was initiated with catalyst, and the reaction is shown as below:



Characterization:

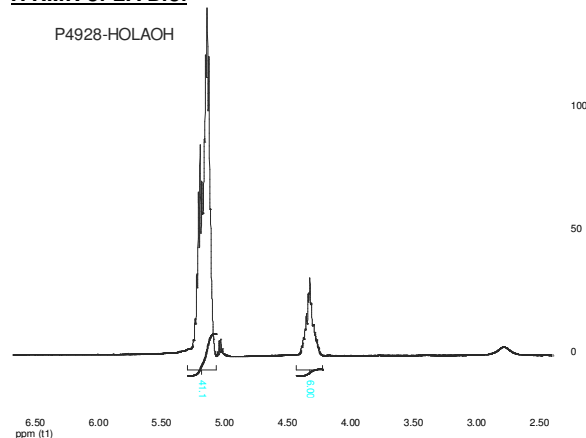
The Mn is calculated from NMR by comparing the peak area of the ethylene glycol protons and end CH in polylactide at about 4.2 ppm with the polylactide protons at about 5.1 ppm and polydispersity index (PDI) are obtained by size exclusion chromatography.

Terminal OH groups were transfer to acetate by reaction with acetic anhydride: refluxing for 6h and stripping the unrelated anhydride under vacuum.

Solubility:

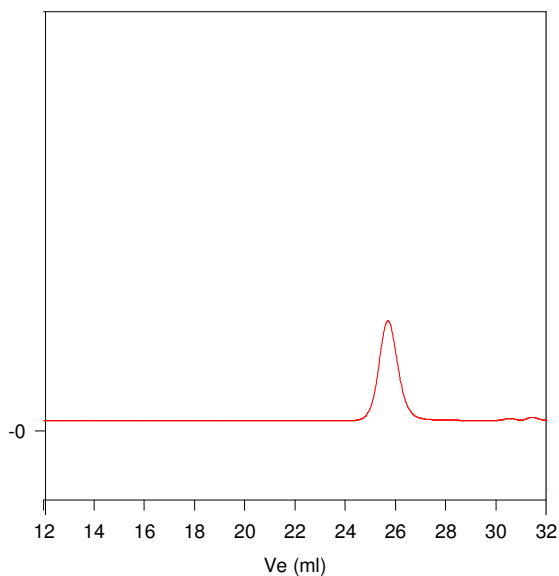
The polymer is soluble in toluene, THF, CHCl₃ and CH₂Cl₂.
The polymer is insoluble in methanol, hexane and ether.

¹H NMR of LA Diol



SEC of polymer:

**Poly lactide diol P4928-HOLAOH
before converting to diacetate**



Size exclusion chromatograph of Poly lactide diol (dLform)
Mn: 3500 Mw: 3900 Mw/Mn 1.14
from ¹H NMR Mn: 3000