

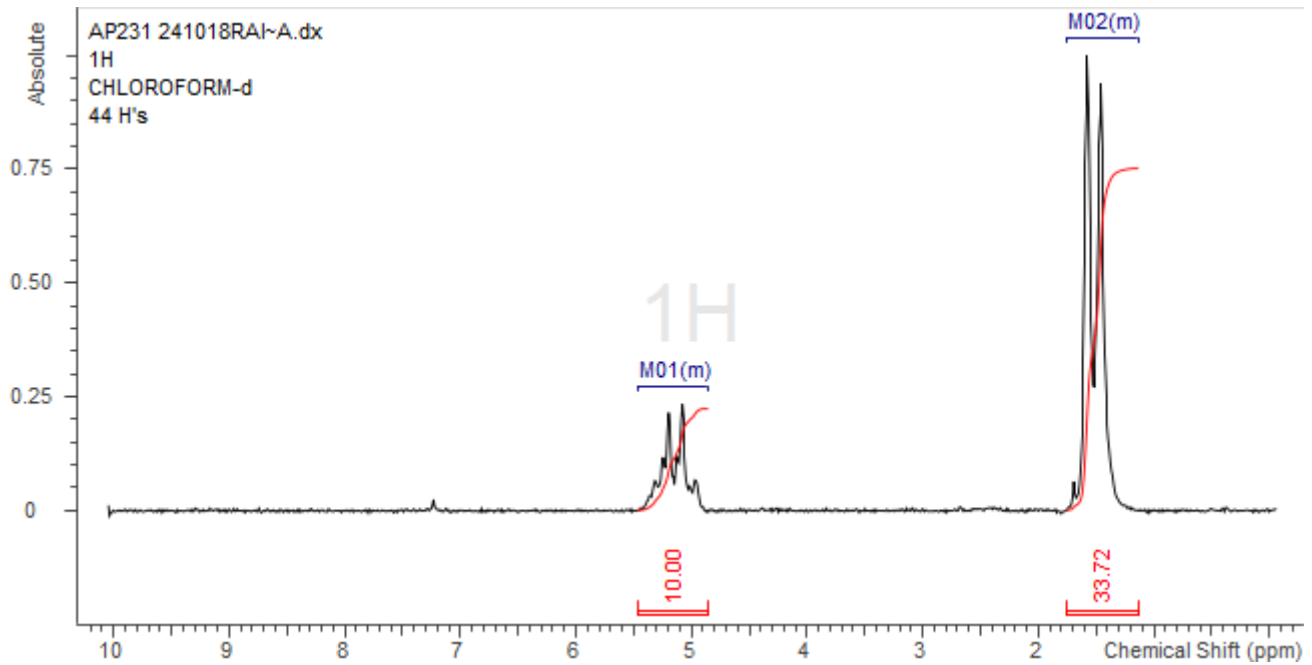
No. AP231

Certificate of Analysis



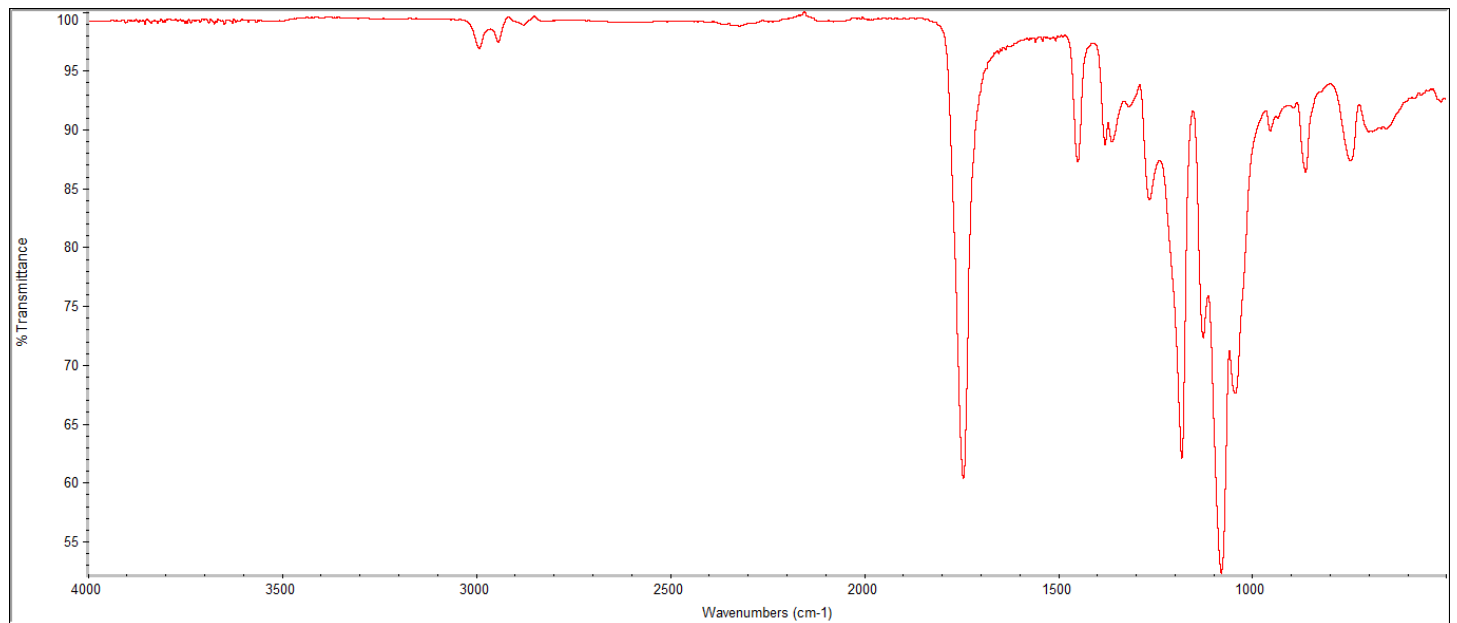
Product Name: Poly(DL-lactide) acid endcap (M_n : 5,000-10,000 Da) (Lot#: 241018RAI-A)

H-NMR



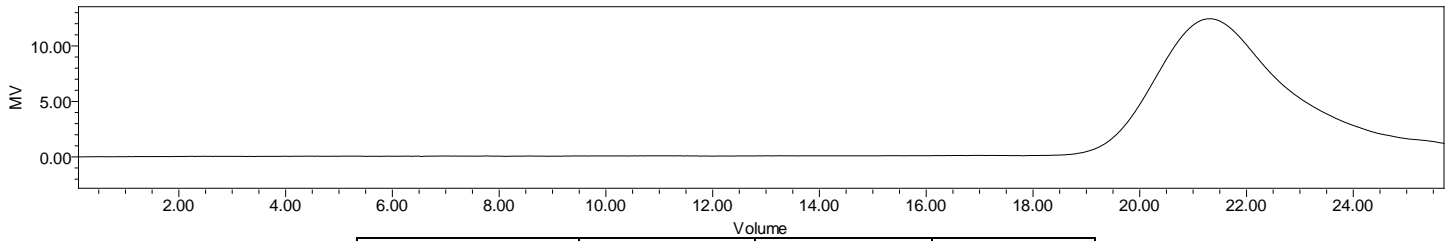
H-NMR Spectrum of copolymers in CDCl₃ (NMReady-60e, Nanalysis 60 MHz) NMR of PDLLA copolymer.

FTIR



FTIR Analysis: Collected from IS5 ID7-ATR spectrometer (Thermo Scientific) and analyzed in transmission mode.

GPC-ES



Polymer	M _n (from GPC)	M _w (from GPC)	PDI
PDLLA	6491	10,617	1.64

GPC-ES Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

DSC

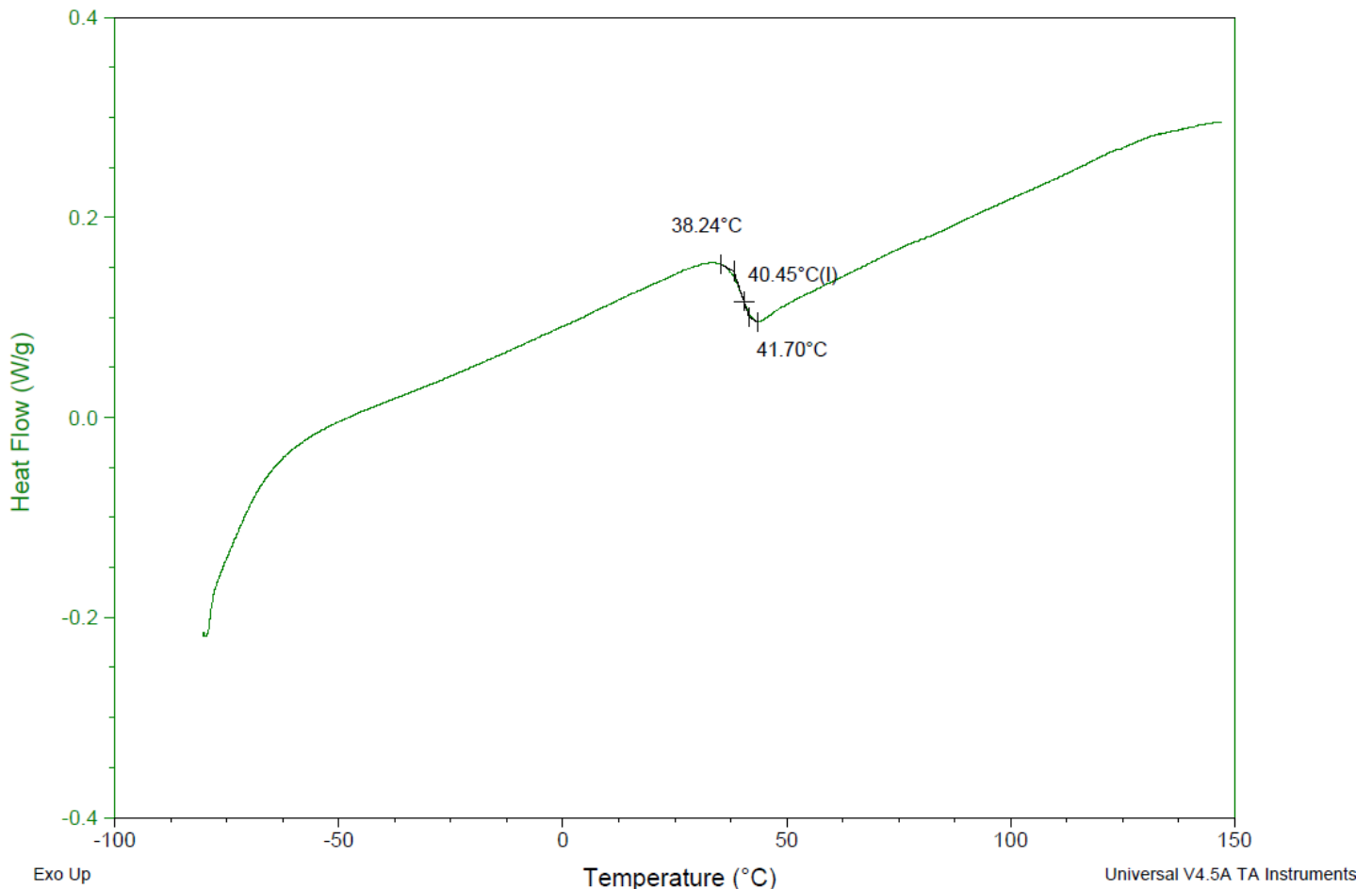
Sample: AP231 241018RAI-A DSC
 Size: 4.5000 mg
 Method: Glass Transition-simple

DSC

File: C:\...\COA\AP231 241018RAI-A DSC.001

Run Date: 30-Oct-2024 11:52

Instrument: DSC Q2000 V24.11 Build 124

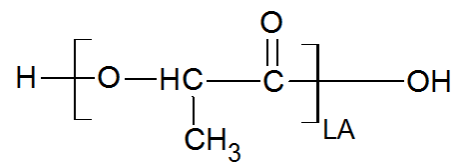


DSC Testing: 1-5 mg sample tested in crimped aluminum pan on a TA Instruments Model Q2000 with procedure equilibraion 100 °C, isothermal 5 minutes, equilibrate -80 °C, data on, ramp 10 °C/min to 150 °C. T_g = 40.45 °C

IV

Inherent Viscosity: 0.086 dL/g (calculated from kinematic viscosity at 2% w/v Acetone on Rheosense microVISC, n=3) at 25°C.

Structure of copolymers



Approved By:
Amie Tyler
Quality Manager