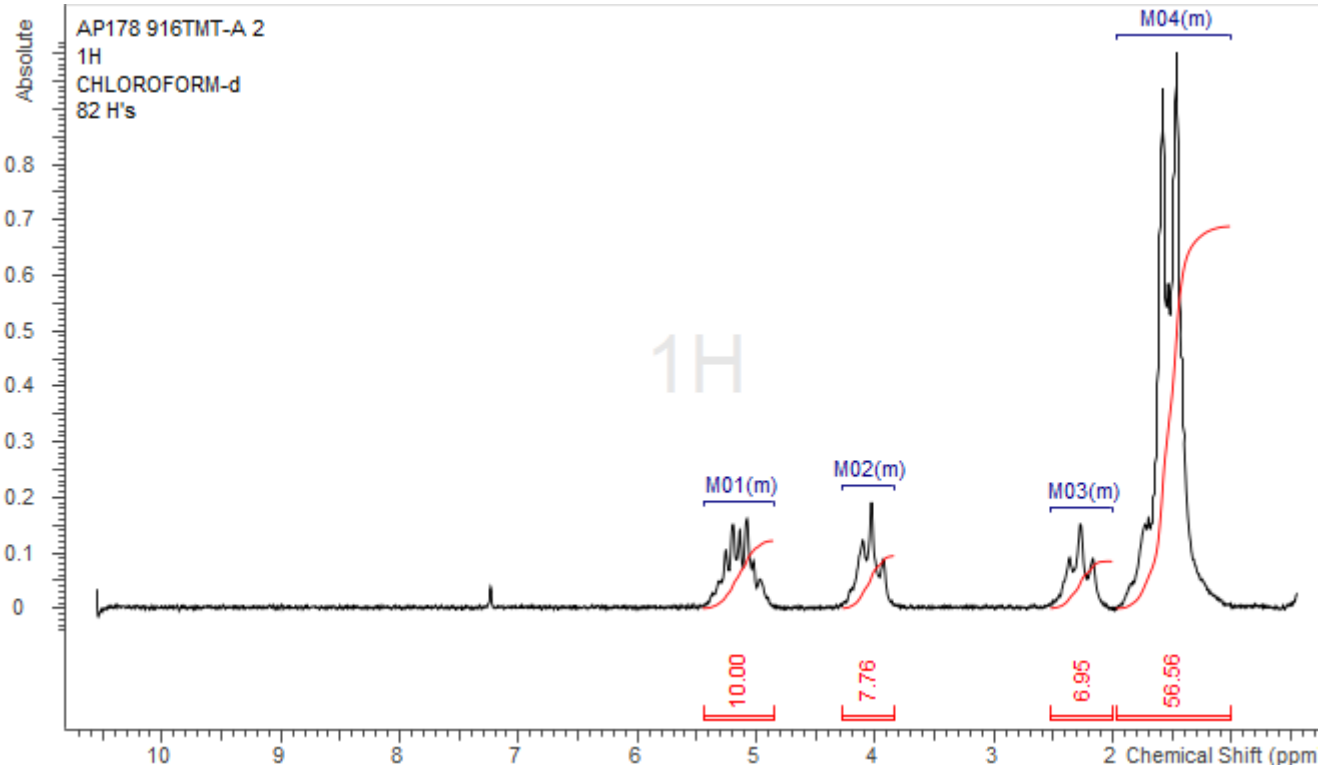
No. AP178 Certificate of Analysis

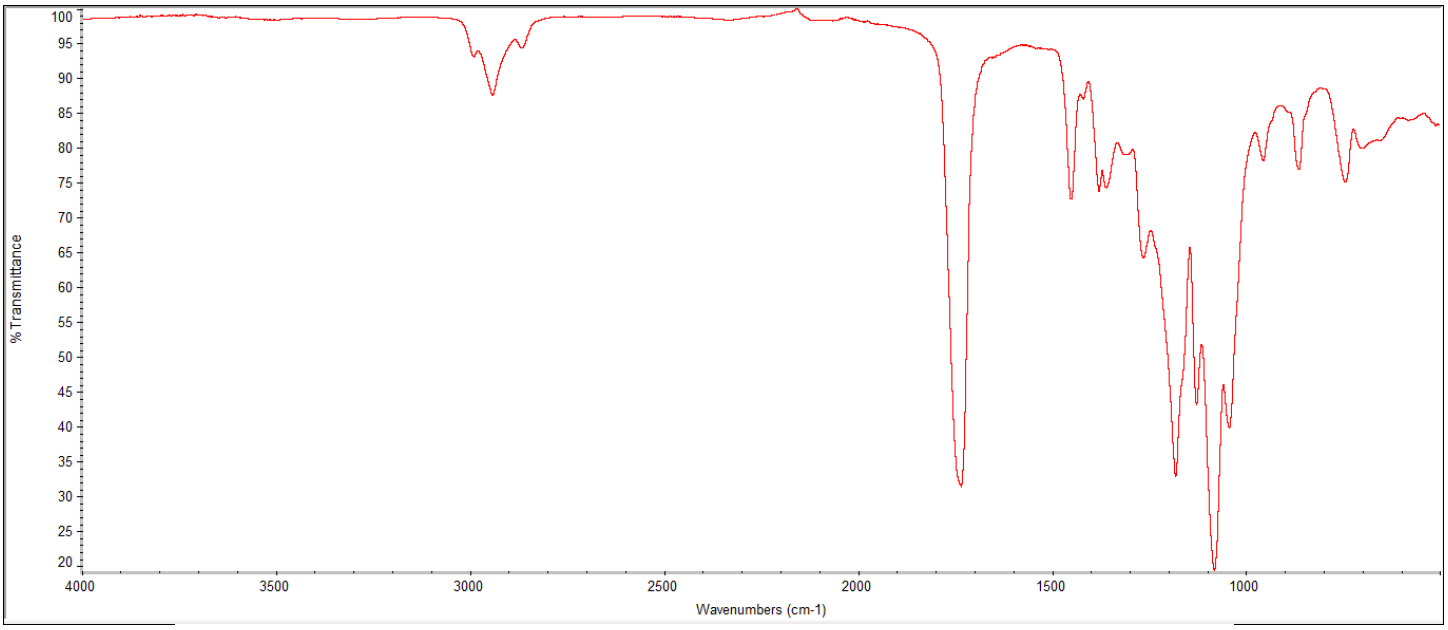
Product Name: Poly(DL-lactide-co-caprolactone) copolymer LA:CL 70:30 acid endcap (M_n 15,000-25,000 Da) (Lot#: 240916TMT-A)

H-NMR



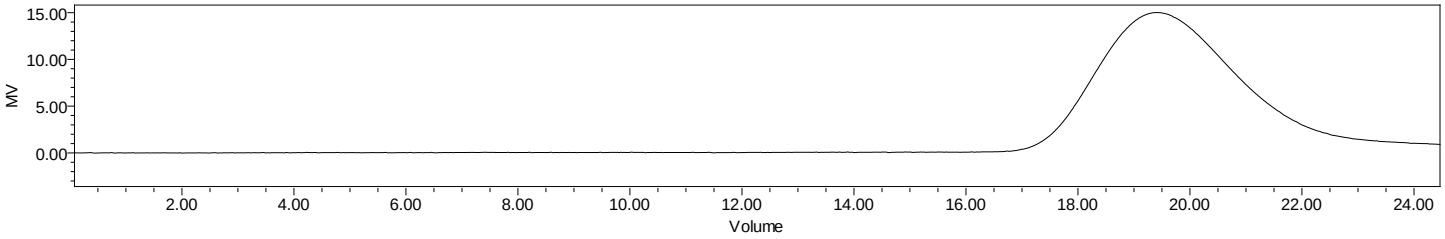
H-NMR Spectrum of copolymers in CDCl3 (Bruker ≥300 MHz, PINMRF) NMR of PDLLA-PCL copolymer: LA-CL =72%:28% molar ratio (LA:CL 62%:38% w:w)

FTIR



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

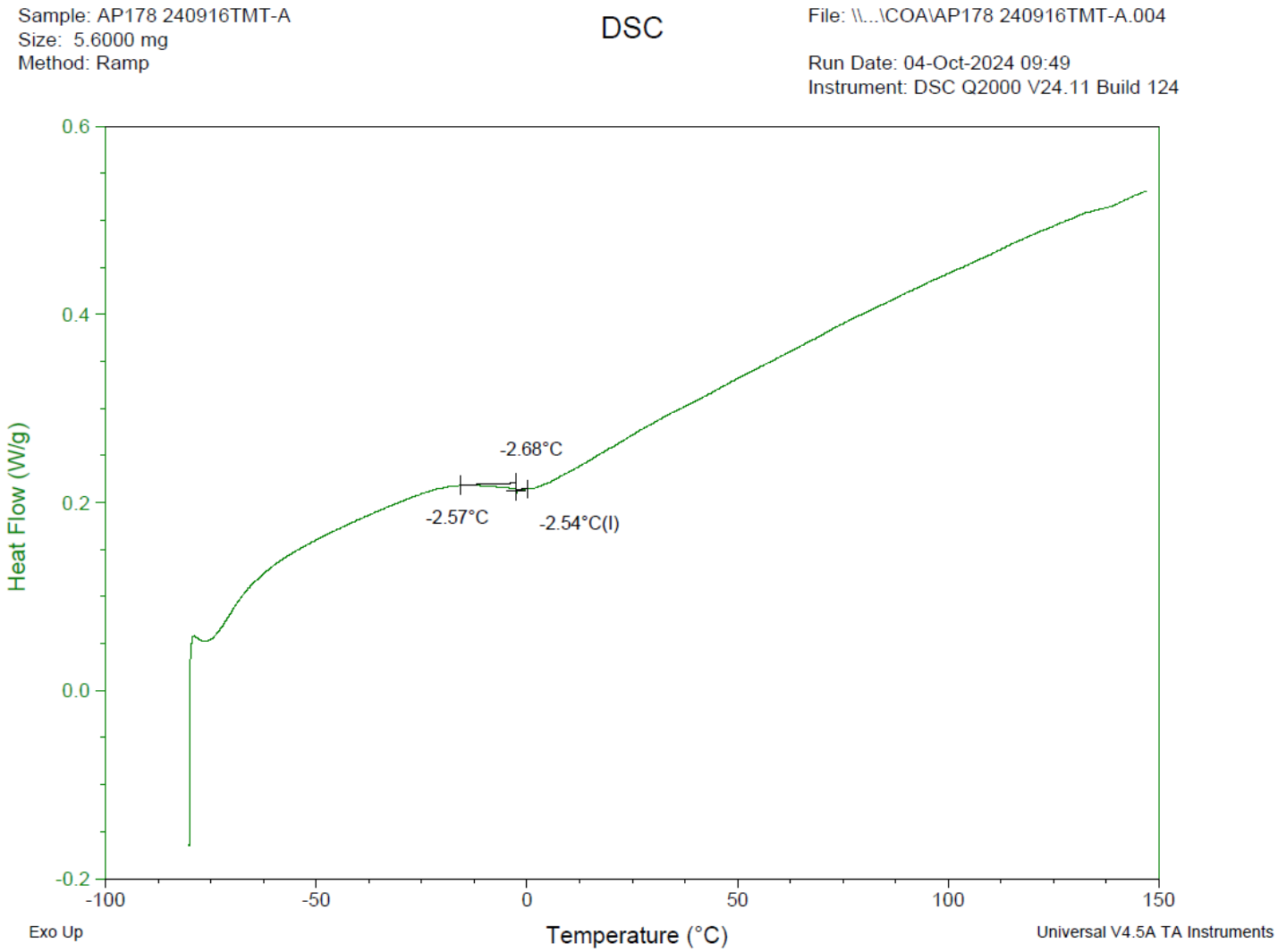
GPC-ES



Polymer	M_n (from GPC)	M_w (from GPC)	PDI
P(DL)LCL	20,811	38,484	1.85

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

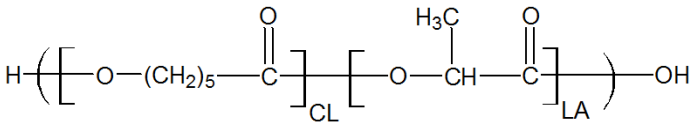


DSC Testing: 1-5 mg sample tested in crimped aluminum pan on a TA Instruments Model Q2000 with procedure equilibraion 100 °C, isothermal 5 minutes, equilibrate -80 °C, data on, ramp 10 °C/min to 150 °C. Tg = -2.54 °C

IV

Inherent Viscosity: 0.275 dL/g (calculated from kinematic viscosity at 2% w/v Acetone on Rheosense microVISC, n=3) at 25ºC.

Structure of P(DL)LCL copolymers



Approved By:
Amie Tyler
Quality Manager