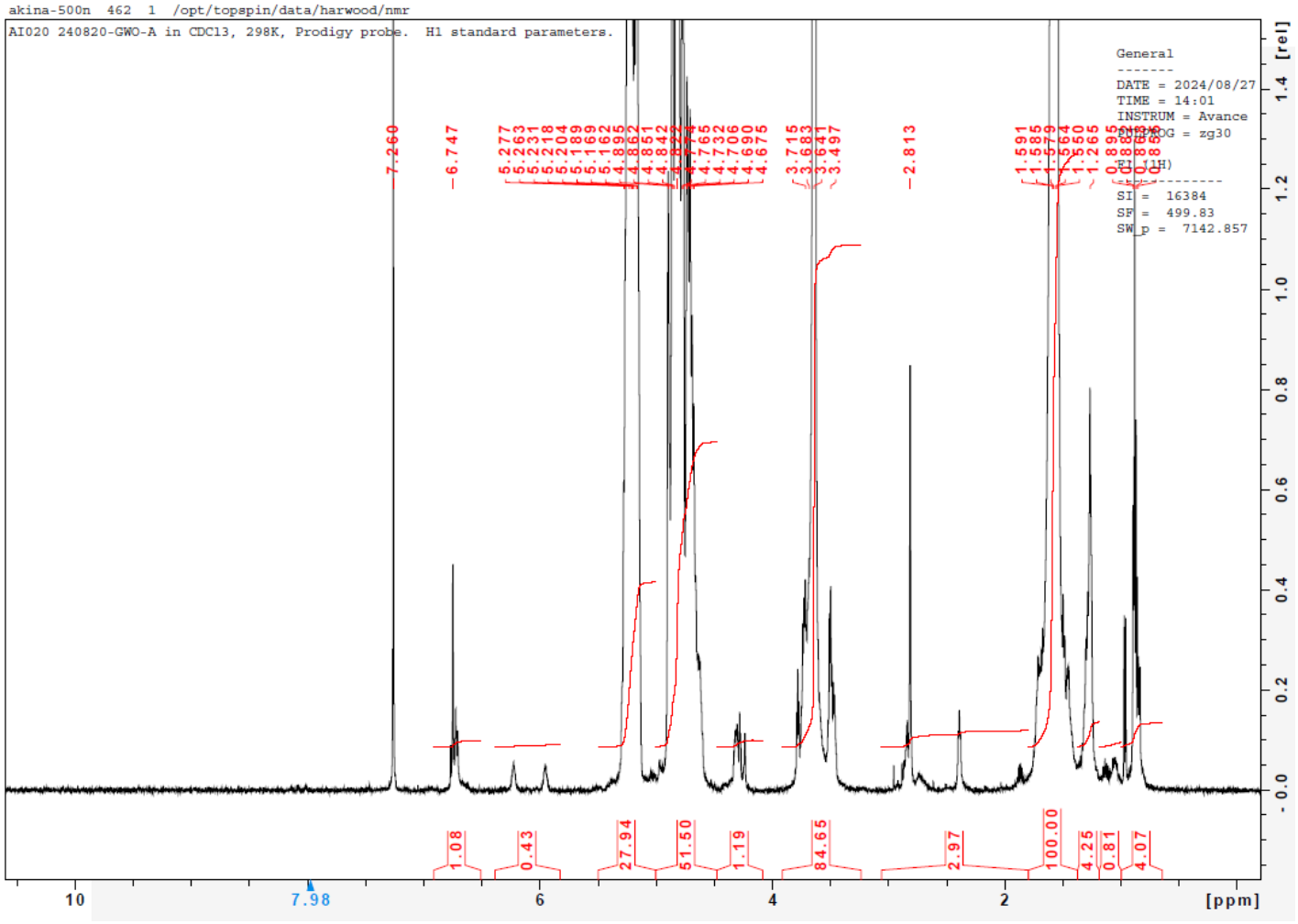
No. AI020 Certificate of Analysis

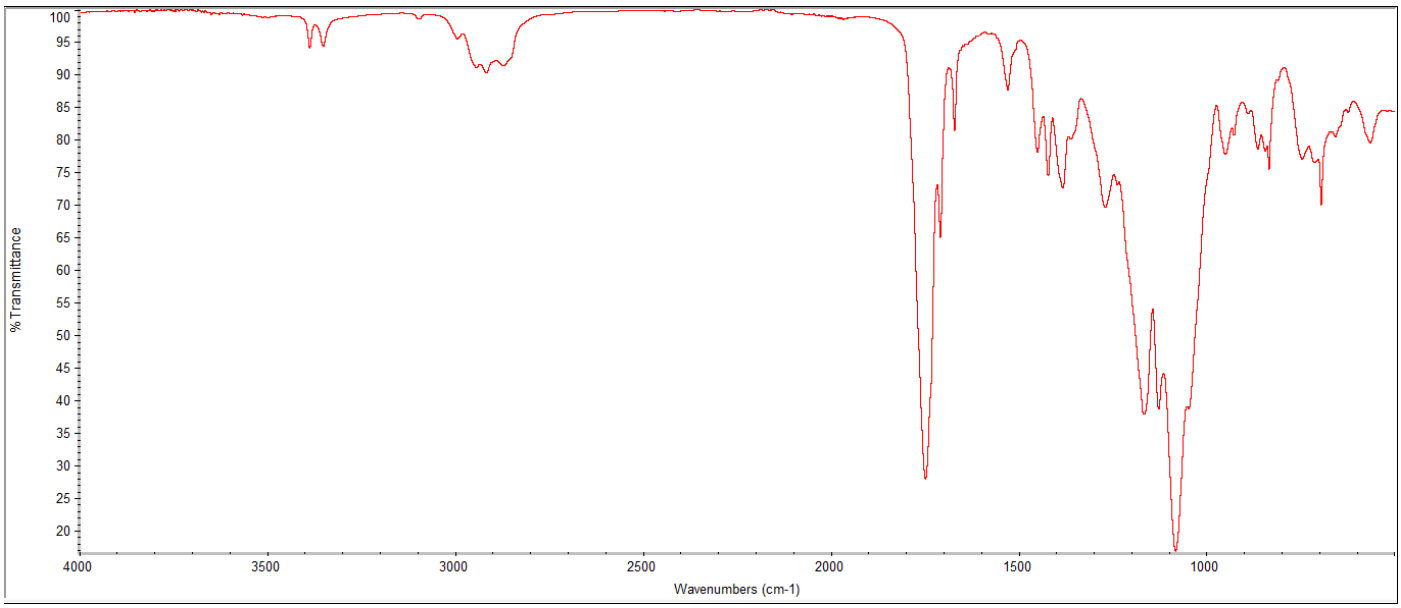
Product Name: Poly(lactic-co-glycolic)-b-Poly(ethylene glycol)-Maleimide Copolymers LA:GA 50:50 (M_w ~20,000-5,000Da) (Lot#: 240820GWO-A)

H-NMR



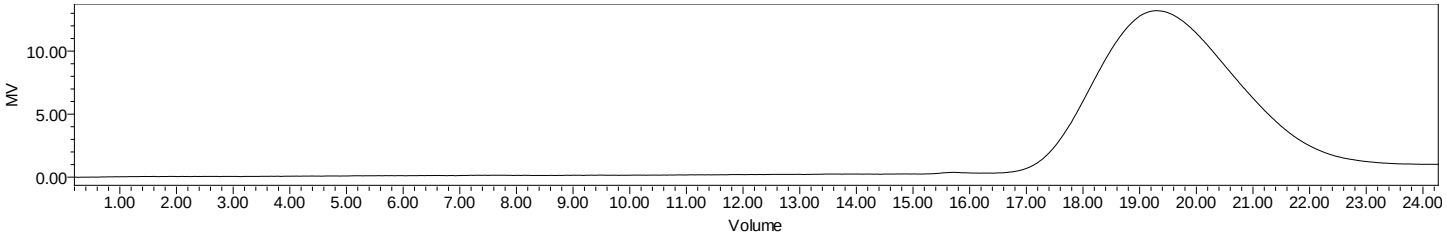
H-NMR Spectrum of copolymers in CDCl3 (Bruker ≥300 MHz, PINMRF) NMR of PLGA copolymer: EG*/LA-GA =113*/149-137 (Mn EG*/LA:GA 4978*/10742-7980 Da) LA:GA 57%:43% *- from MFG data

FTIR



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

GPC-ES

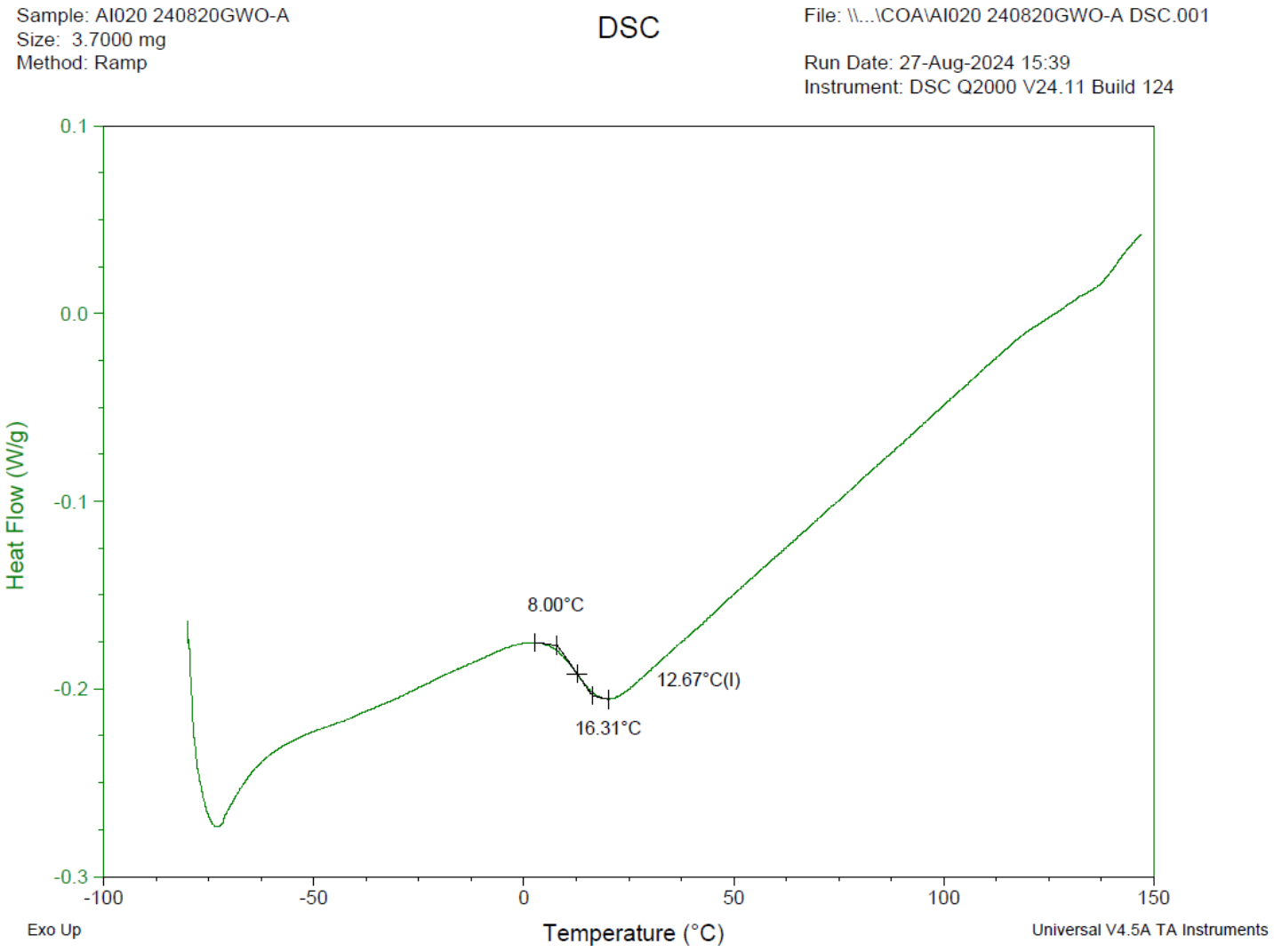


Polymer	M_n (from GPC)	M_w (from GPC)	PDI
PLGA	23,367	41,595	1.78
PEG-Precursor*	4996*		

*- from MFG data

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

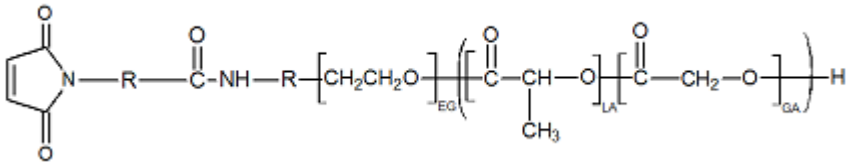


DSC Testing: 1-5 mg sample tested in crimped aluminum pan on a TA Instruments Model Q2000 with procedure equilibraion 100 °C, isothermal 5 minutes, equilibrate -80 °C, data on, ramp 10 °C/min to 150 °C. Tg = 12.67 °C

IV

Inherent Viscosity: 0.282 dL/g (calculated from kinematic viscosity at 2% w/v acetone on Rheosense microVISC, n=3) at 25ºC.

Structure of PLGA-PEG-Mal copolymers



Approved By:
Amie Tyler
Quality Manager