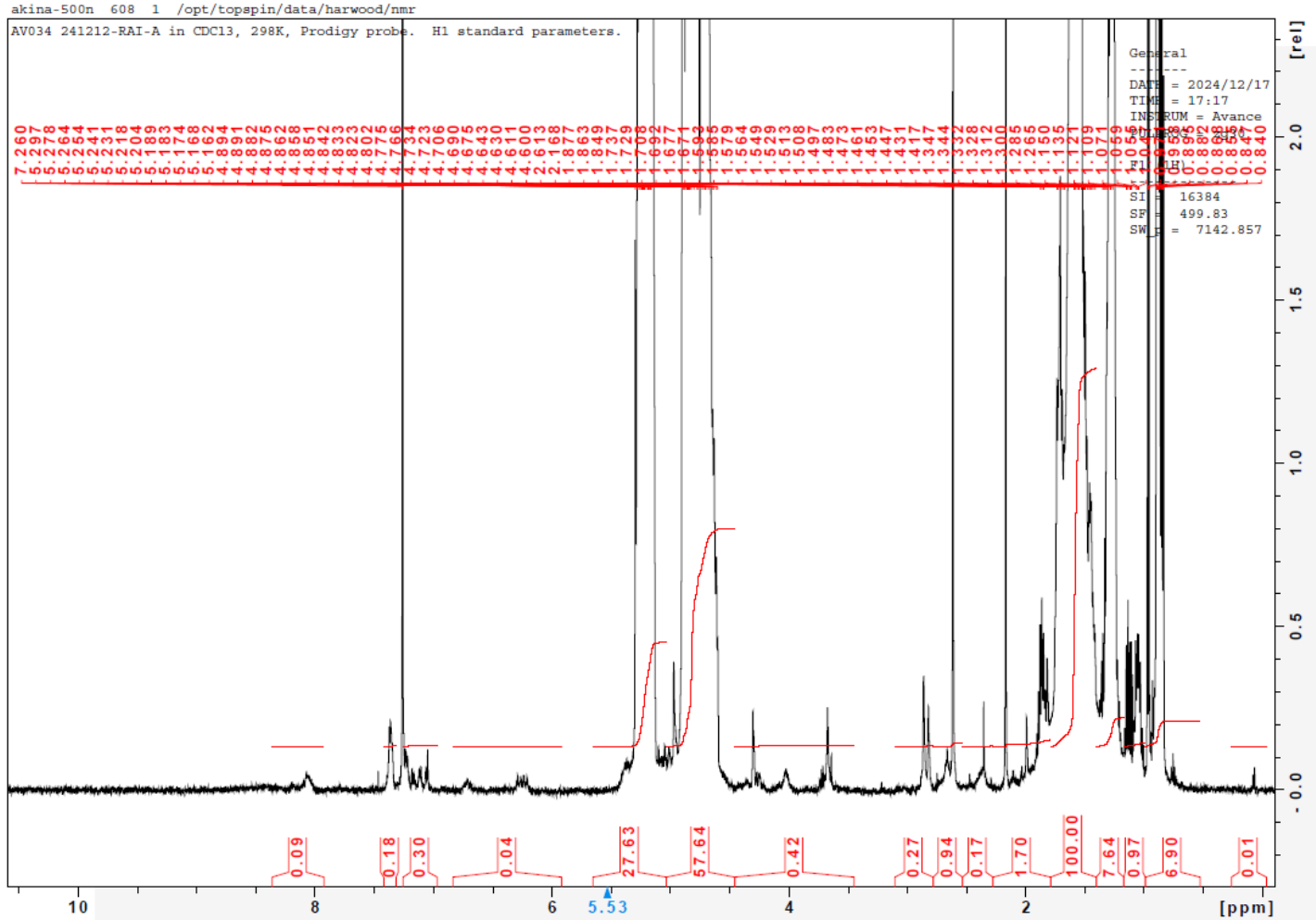


No. AV034 Certificate of Analysis

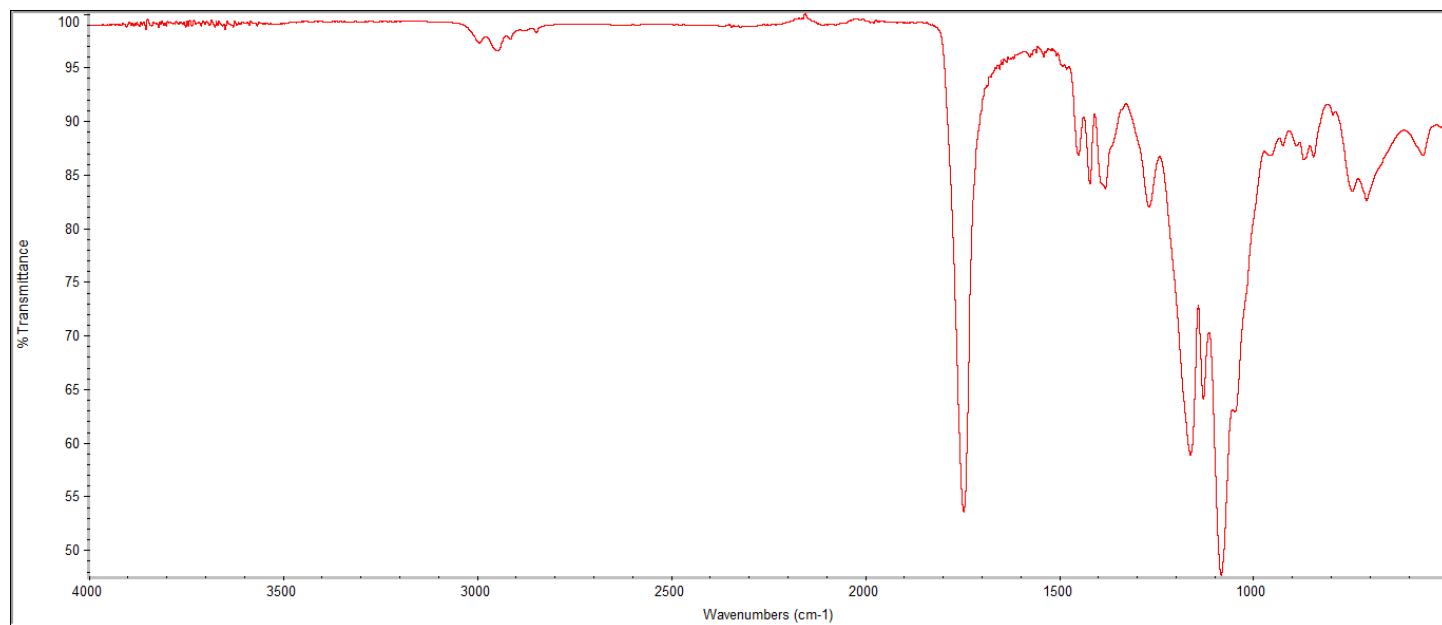
Product Name: Poly(lactide-co-glycolide)-Cyanine 5 (Mn 30,000-55,000Da)
 (Lot#: 241212RAI-A) (LA:GA 50:50)

H-NMR



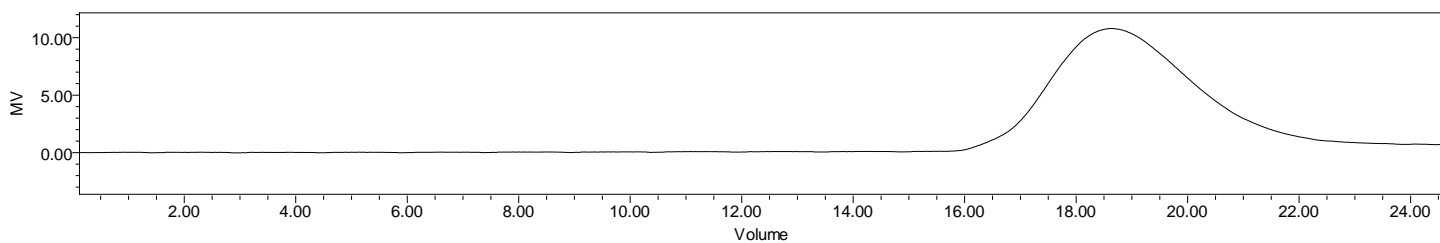
H-NMR Spectrum of copolymers in CDCl₃ (Bruker ≥300 MHz, PINMRF) NMR of PLGA-CY5 copolymer: LA-GA =49%-51% (LA:GA 54%:46%)

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-CY5 | 37,665 | 68,619 | 1.82 |

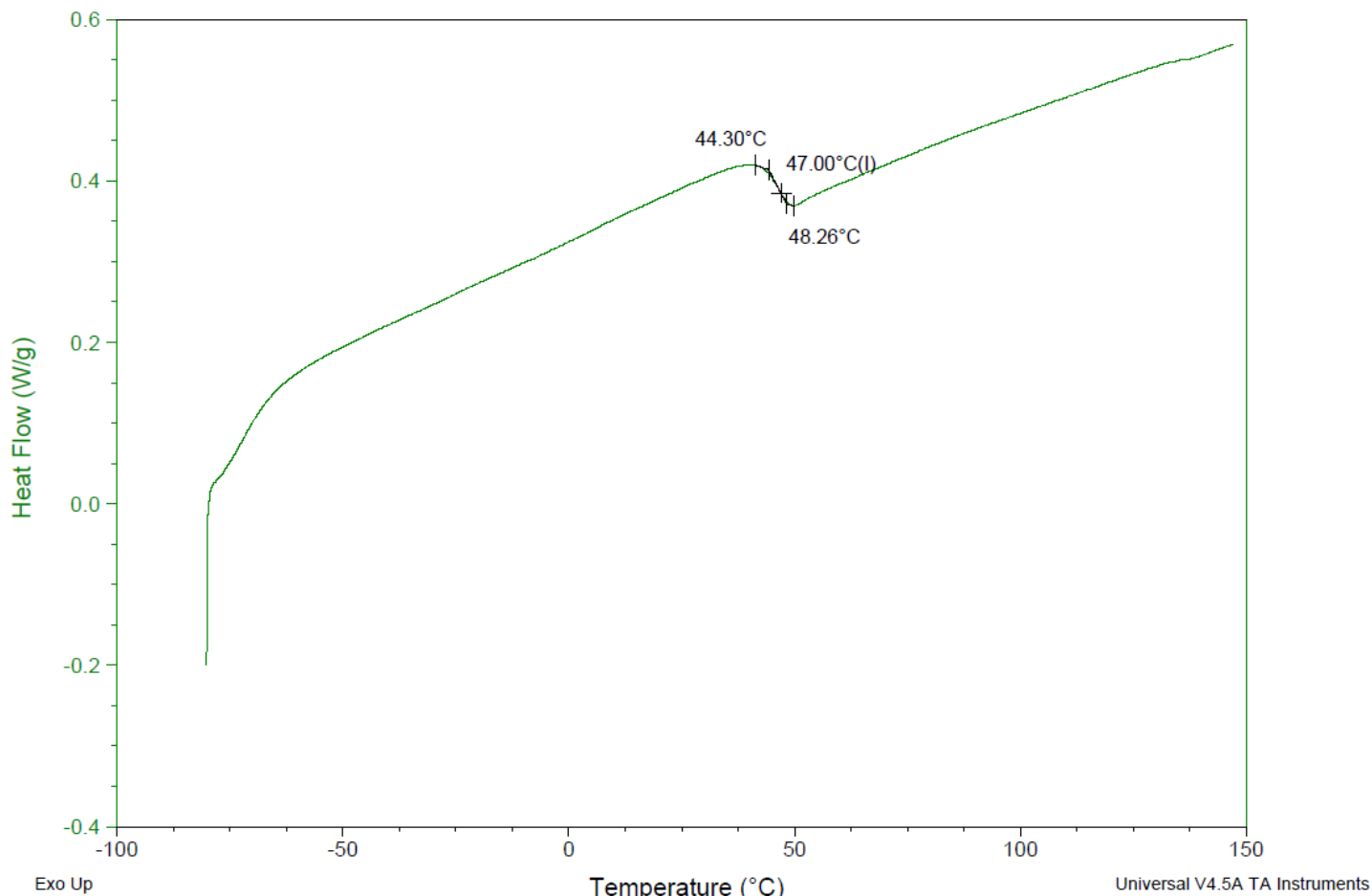
GPC-ES Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

DSC

Sample: AV034 241212RAI-A
Size: 3.7000 mg
Method: Glass Transition-simple

DSC

File: C:\...\COA\AV034 241212RAI-A.001
Run Date: 17-Dec-2024 15:28
Instrument: DSC Q2000 V24.11 Build 124

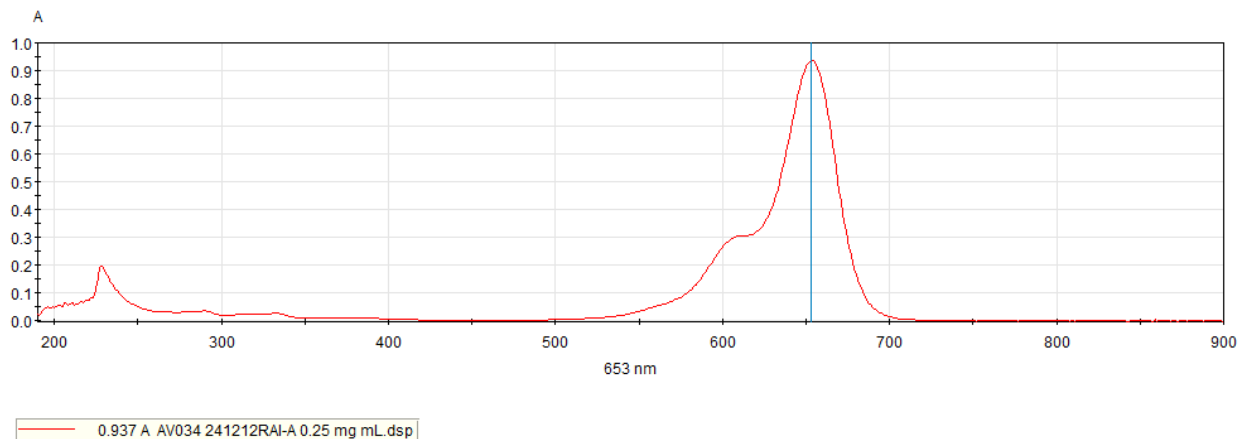


DSC Testing: 1-5 mg sample tested in crimped aluminum pan on a TA Instruments Model Q2000 with procedure equilibraion 100 °C, isothermal 5 minutes, equilibrate -80 °C, data on, ramp 10 °C/min to 150 °C. Tg = 47.00 °C

IV

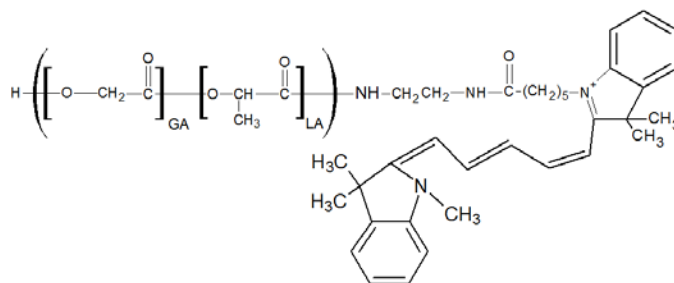
Inherent Viscosity: 0.313 ± 0.001 dL/g (calculated from kinematic viscosity at 2% w/v Acetone on Rheosense microVISC, n=3) at 25°C.

UV-Vis Analysis PLGA-CY5



Analysis method: Scan from 190-900nm in 1nm increments of 0.25 mg/ml PLGA-CY5 solution in DCM against DCM blank. Testing of absorbance at 653 nm as compared to a series of CY5 standards has indicated a dye content of 131.51 µg/mL.

Structure of copolymers



Approved By:
Amie Tyler
Quality Manager