ASTRA 6 Report Experiment7

C:\DOCUME~1\AYRESR~1\LOCALS~1\Temp\TFN739.PNG

**File Name:**Experiment7   
**Collection Operator:**AYRESGPC\Ayres Research Group (AYRESGPC\Ayres Research Group (Ayres Research Group))   
**Processing Operator:**AYRESGPC\Ayres Research Group (Ayres Research Group)

**Sample:**sample

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**Configuration**

**Concentration Source:**RI   
**Flow Rate:**1.000 mL/min

**Light Scattering Instrument:**miniDAWN TREOS

**Cell Type:**Fused Silica   
**Wavelength:**656.0 nm   
**Calibration Constant:**6.1050×10-5 1/(V cm)

**RI Instrument:**Optilab rEX

**Viscometer:**ViscoStar

**Dilution Factor:**0.4976

**Solvent:**thf

**Refractive Index:**1.402

**Processing**

**Collection Time:**Friday January 31, 2014 03:06:45 PM Eastern Daylight Time   
**Processing time:**Friday January 31, 2014 03:41:46.437 PM Eastern Daylight Time

**Peak settings:**

|  |
| --- |
| **Peak Name** | Peak 1 | Peak 2 | Peak 3 |
| **Light Scattering Model** | Zimm | Zimm | Zimm |
| **Fit Degree** | 1 | 1 | 1 |
| **dn/dc (mL/g)** | 0.1850 | 0.1850 | 0.1850 |
| **A2 (mol mL/g²)** | 0.000 | 0.000 | 0.000 |
| **Injected Mass (µg)** | 100.000 | 255.000 | 475.000 |
| **Viscometry Model** | Huggins | Huggins | Huggins |
| **Huggins Equation Parameter** | 0 | 0 | 0 |
| **Kraemers Equation Parameter** | 0 | 0 | 0 |

**Results Fitting Procedure:**

| **Data** | **Fit Model** | **Degree** | **R2** | **Extrapolation** |
| --- | --- | --- | --- | --- |

**Results**

| **Peak Results** | | | |
| --- | --- | --- | --- |
|  | **Peak 1** | **Peak 2** | **Peak 3** |
| **Masses** | | | |
| **Calculated Mass (µg)** | 59.69 | 151.02 | 237.80 |
| **Molar mass moments (g/mol)** | | | |
| **Mn** | 6.157×105 (±0.206%) | 1.933×105 (±0.638%) | 2.812×104 (±3.533%) |
| **Mp** | 6.461×105 (±0.151%) | 2.082×105 (±0.511%) | 2.966×104 (±2.797%) |
| **Mv** | 6.718×105 (±0.071%) | 1.951×105 (±0.082%) | 2.840×104 (±0.502%) |
| **Mw** | 6.865×105 (±0.228%) | 1.953×105 (±0.562%) | 2.845×104 (±3.192%) |
| **Mz** | 8.417×105 (±0.649%) | 1.970×105 (±1.209%) | 2.874×104 (±6.863%) |
| **Polydispersity** | | | |
| **Mw/Mn** | 1.115 (±0.308%) | 1.010 (±0.850%) | 1.012 (±4.761%) |
| **Mz/Mn** | 1.367 (±0.681%) | 1.019 (±1.367%) | 1.022 (±7.719%) |
| **rms radius moments (nm)** | | | |
| **Rn** | 30.4 (±0.7%) | 2.5 (±301.7%) | n/a |
| **Rw** | 33.2 (±0.6%) | 1.8 (±542.5%) | n/a |
| **Rz** | 38.9 (±0.5%) | 1.0 (±1793.5%) | n/a |
| **Intrinsic viscosity moments (mL/g)** | | | |
| **ηn** | 168.677 (±2.158%) | 72.048 (±1.515%) | 18.603 (±3.076%) |
| **ηw** | 180.89 (±2.84%) | 71.96 (±1.36%) | 18.49 (±2.97%) |
| **ηz** | 208.373 (±4.435%) | 71.870 (±1.241%) | 18.386 (±2.869%) |
| **Hydrodynamic radius moments (nm)** | | | |
| **Rh(n)** | 25.3 (±0.7%) | 13.0 (±0.5%) | 4.3 (±1.6%) |
| **Rh(w)** | 26.7 (±0.9%) | 13.0 (±0.5%) | 4.4 (±1.5%) |
| **Rh(z)** | 29.6 (±1.3%) | 13.1 (±0.5%) | 4.4 (±1.5%) |

**Mark-Houwink-Sakurada a:**0.719 (±0.145%)   
**Mark-Houwink-Sakurada K:**1.132×10-2 (±1.297%) mL/g