Data if you select the whole bimodal distribution:

|  |
| --- |
| **ASTRA 5.3.4 Detailed Report for PDMAEMA-polypyrrolidone** |

**Experiment name:** C:\Documents and Settings\Administrator\My Documents\Emily\Other's research\ PDMAEMA-polypyrrolidone

**Sample:**

**Description:**   
**Concentration:** 4.000e-3 g/mL  
**Injected volume:** 0.020 mL

**Processing Operator:** Administrator

**Collection Operator:** Administrator

**Collection Astra Version:** 5.3.4.19

|  |
| --- |
| **CONFIGURATION** |

**Viscometer:** n/a

**Dilution factor:** n/a  
**Band broadening correction:** n/a   (Instrumental: n/a   Mixing: n/a)

**RI Instrument:** Optilab rEX

**Cell type:** n/a  
**Wavelength:** 658.0 nm  
**Band broadening correction:** n/a   (Instrumental: n/a   Mixing: n/a)

**UV Instrument:** n/a

**Wavelength:** n/a  
**Cell length:** n/a  
**UV response factor:** n/a  
**Band broadening correction:** n/a   (Instrumental: n/a   Mixing: n/a)

**Column:** 2014-12-16

**Description:**   
**Calibration technique:** Conventional  
**Universal equation:** log(M[eta]) = 0 - 0 v  
**Universal standard error:** 0.0000  
**Universal adjusted R²:** 0.0000  
**Conventional equation:** log(molar mass) = 9.43321 - 0.275684 v  
**Conventional standard error:** 0.1156  
**Conventional adjusted R²:** 0.9887  
**Flow marker:** 0.000 mL  
**Mark-Houwink-Sakurada K:** 0.000 mL/g  
**Mark-Houwink-Sakurada a:** 0.000

**Solvent:** DMF

**Refractive index:** 1.431

**Flow rate:** 0.500 mL/min

**Fluid Connections:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Source Instrument** | **-** | **Destination Instrument** | **Delay Volume** |
| Generic pump | - | Injector | 0.000 mL |
| Injector | - | Generic column | 0.000 mL |
| Generic column | - | Optilab rEX | 0.000 mL |

**Aux Connections:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Source Instrument** | **-** | **Destination Instrument** | **Aux Channel** | **Calibration Constant** |

|  |
| --- |
| **PROCESSING** |

**Processing time:** Friday February 06, 2015 01:30 PM Central Standard Time

**Collection time:** Wednesday February 04, 2015 01:49 PM Central Standard Time

**Flow marker:** 0.000 mL

**Mark-Houwink-Sakurada K:** 1.832e-2 mL/g

**Mark-Houwink-Sakurada a:** 6.903e-1

**Concentration detector:** RI

**Mass results fitting:** none   (fit degree: n/a)

|  |  |
| --- | --- |
|  | **Peak 1** |
| **Peak limits (min)** | 21.752 - 43.346 |
| **dn/dc (mL/g)** | 0.060 |
| **UV ext. (mL/(g cm))** | 0.000 |
| **Eta Model** | Huggins |
| **Huggins Constant** | 0.0000 |
| **Kraemer Constant** | 0.0000 |
| **Injected mass (g)** | 8.0000e-5 |
| **Calc. mass (g)** | 2.6421e-4 |

|  |
| --- |
| **RESULTS** |

|  |  |
| --- | --- |
|  | **Peak 1** |
| **Polydispersity** | | |
| **Mw/Mn** | 4.173(43%) |  |
| **Mz/Mn** | 11.062(75%) |  |
| **Molar mass moments (g/mol)** | | |
| **Mn** | 6.193e+4(31%) |  |
| **Mw** | 2.584e+5(31%) |  |
| **Mz** | 6.850e+5(68%) |  |
| **M(avg)** | 5.735e+3(1%) |  |

**Distribution Analysis Results:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **Type** | **Start - End** | **Limits (%)** | **Cumulative %** | **Moments** |

Data if you select each peak in the bimodal distribution:

|  |
| --- |
| **ASTRA 5.3.4 Detailed Report for PDMAEMA-polypyrrolidone** |

**Experiment name:** C:\Documents and Settings\Administrator\My Documents\Emily\Other's research\ PDMAEMA-polypyrrolidone

**Sample:**

**Description:**   
**Concentration:** 4.000e-3 g/mL  
**Injected volume:** 0.020 mL

**Processing Operator:** Administrator

**Collection Operator:** Administrator

**Collection Astra Version:** 5.3.4.19

|  |
| --- |
| **CONFIGURATION** |

**Viscometer:** n/a

**Dilution factor:** n/a  
**Band broadening correction:** n/a   (Instrumental: n/a   Mixing: n/a)

**RI Instrument:** Optilab rEX

**Cell type:** n/a  
**Wavelength:** 658.0 nm  
**Band broadening correction:** n/a   (Instrumental: n/a   Mixing: n/a)

**UV Instrument:** n/a

**Wavelength:** n/a  
**Cell length:** n/a  
**UV response factor:** n/a  
**Band broadening correction:** n/a   (Instrumental: n/a   Mixing: n/a)

**Column:** 2014-12-16

**Description:**   
**Calibration technique:** Conventional  
**Universal equation:** log(M[eta]) = 0 - 0 v  
**Universal standard error:** 0.0000  
**Universal adjusted R²:** 0.0000  
**Conventional equation:** log(molar mass) = 9.43321 - 0.275684 v  
**Conventional standard error:** 0.1156  
**Conventional adjusted R²:** 0.9887  
**Flow marker:** 0.000 mL  
**Mark-Houwink-Sakurada K:** 0.000 mL/g  
**Mark-Houwink-Sakurada a:** 0.000

**Solvent:** DMF

**Refractive index:** 1.431

**Flow rate:** 0.500 mL/min

**Fluid Connections:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Source Instrument** | **-** | **Destination Instrument** | **Delay Volume** |
| Generic pump | - | Injector | 0.000 mL |
| Injector | - | Generic column | 0.000 mL |
| Generic column | - | Optilab rEX | 0.000 mL |

**Aux Connections:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Source Instrument** | **-** | **Destination Instrument** | **Aux Channel** | **Calibration Constant** |

|  |
| --- |
| **PROCESSING** |

**Processing time:** Friday February 06, 2015 01:31 PM Central Standard Time

**Collection time:** Wednesday February 04, 2015 01:49 PM Central Standard Time

**Flow marker:** 0.000 mL

**Mark-Houwink-Sakurada K:** 1.832e-2 mL/g

**Mark-Houwink-Sakurada a:** 6.903e-1

**Concentration detector:** RI

**Mass results fitting:** none   (fit degree: n/a)

|  |  |  |
| --- | --- | --- |
|  | **Peak 1** | **Peak 2** |
| **Peak limits (min)** | 21.752 - 27.170 | 27.484 - 43.503 |
| **dn/dc (mL/g)** | 0.060 | 0.060 |
| **UV ext. (mL/(g cm))** | 0.000 | 0.000 |
| **Eta Model** | Huggins | Huggins |
| **Huggins Constant** | 0.0000 | 0.0000 |
| **Kraemer Constant** | 0.0000 | 0.0000 |
| **Injected mass (g)** | 8.0000e-5 | 8.0000e-5 |
| **Calc. mass (g)** | 4.4505e-5 | 2.1635e-4 |

|  |
| --- |
| **RESULTS** |

|  |  |  |
| --- | --- | --- |
|  | **Peak 1** | **Peak 2** |
| **Polydispersity** | | |
| **Mw/Mn** | 1.116(43%) | 2.395(43%) |
| **Mz/Mn** | 1.261(75%) | 3.889(75%) |
| **Molar mass moments (g/mol)** | | |
| **Mn** | 8.063e+5(31%) | 5.147e+4(31%) |
| **Mw** | 9.001e+5(31%) | 1.233e+5(31%) |
| **Mz** | 1.016e+6(68%) | 2.002e+5(68%) |
| **M(avg)** | 8.265e+5(1%) | 5.427e+3(1%) |

**Distribution Analysis Results:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **Type** | **Start - End** | **Limits (%)** | **Cumulative %** | **Moments** |

