



ACQUITY Advanced Polymer Chromatography (APC)

APPLICATIONS NOTEBOOK

Waters

THE SCIENCE OF WHAT'S POSSIBLE.®

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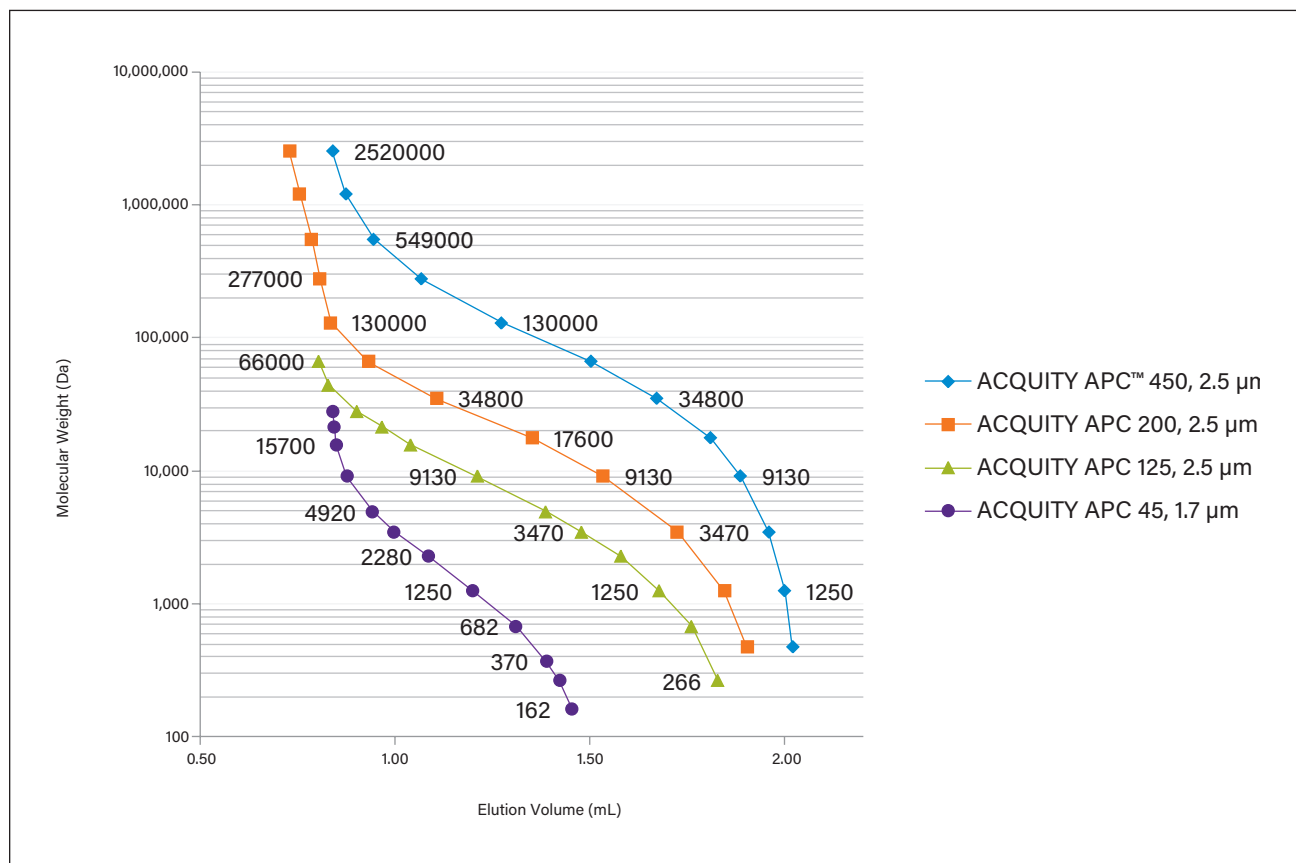
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Poly(styrene) in THF Calibration Curves using ACQUITY APC Columns

LC CONDITIONS

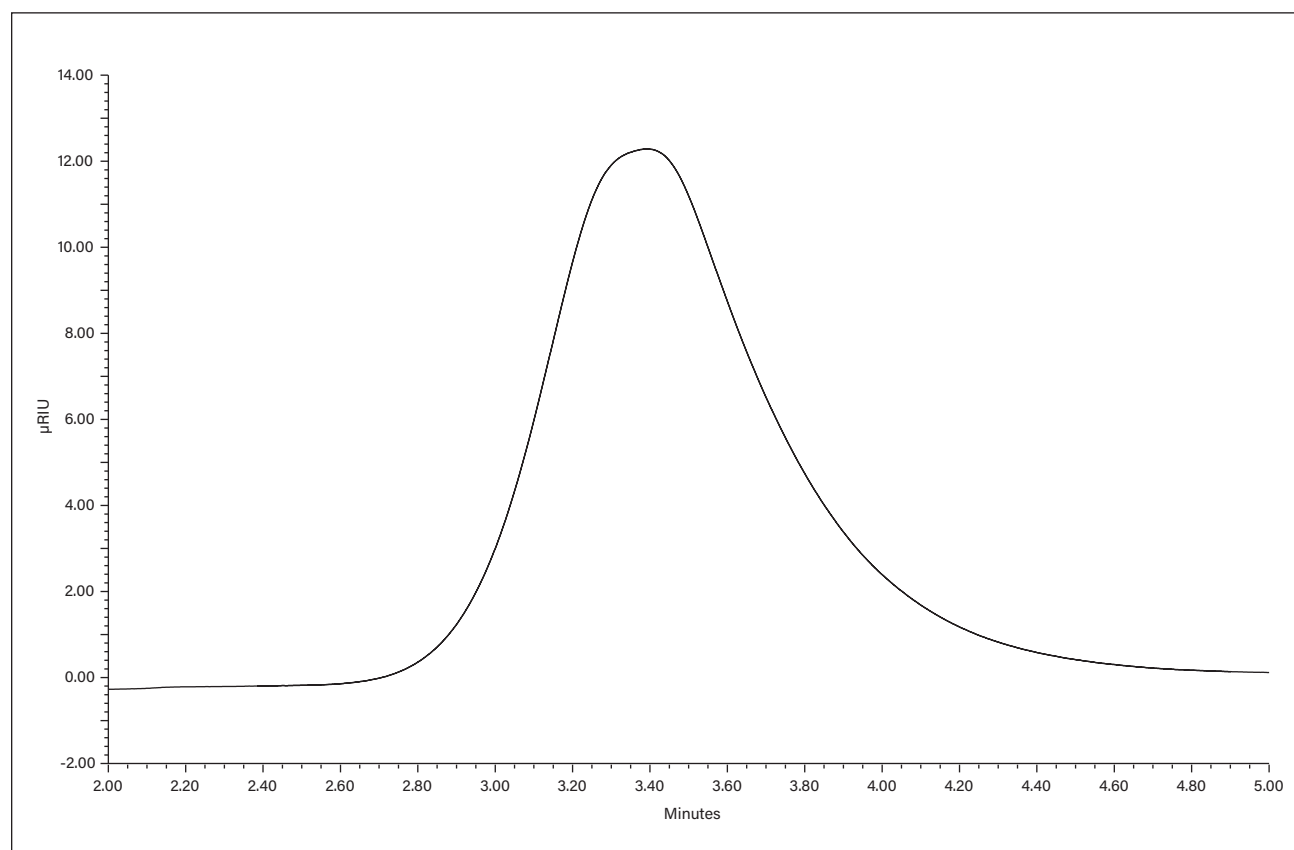
System: ACQUITY® Advanced Polymer Chromatography® (APC™)
 Eluent: THF
 Detection: UV at 254 nm
 Temperature: 30 °C
 Flow rate: 0.6 mL/min
 Samples: Poly(styrene)



Analysis of Poly(vinylacetate) in THF using ACQUITY APC Columns

LC CONDITIONS

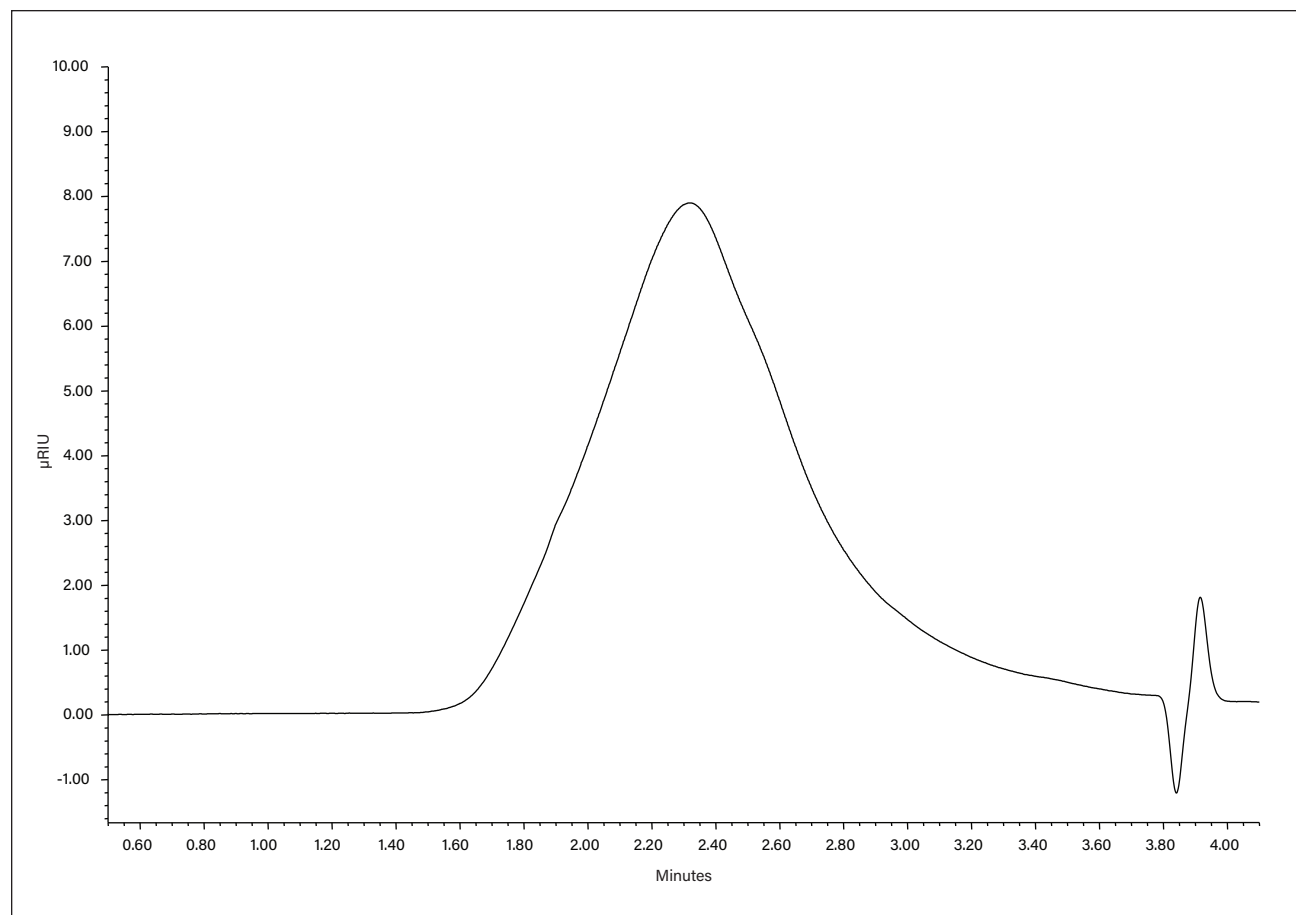
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 3 (450Å, 125Å and 45Å in series), part numbers 186007010, 186007000 and 186006995, respectively
Flow rate:	1 mL/min
Temperature:	40 °C
Injection volume:	30 µL
Sample load:	0.2% (w/v)
Sample:	Poly(vinylacetate)



Analysis of Poly(vinyl sulfone) in THF using ACQUITY APC Columns

LC CONDITIONS

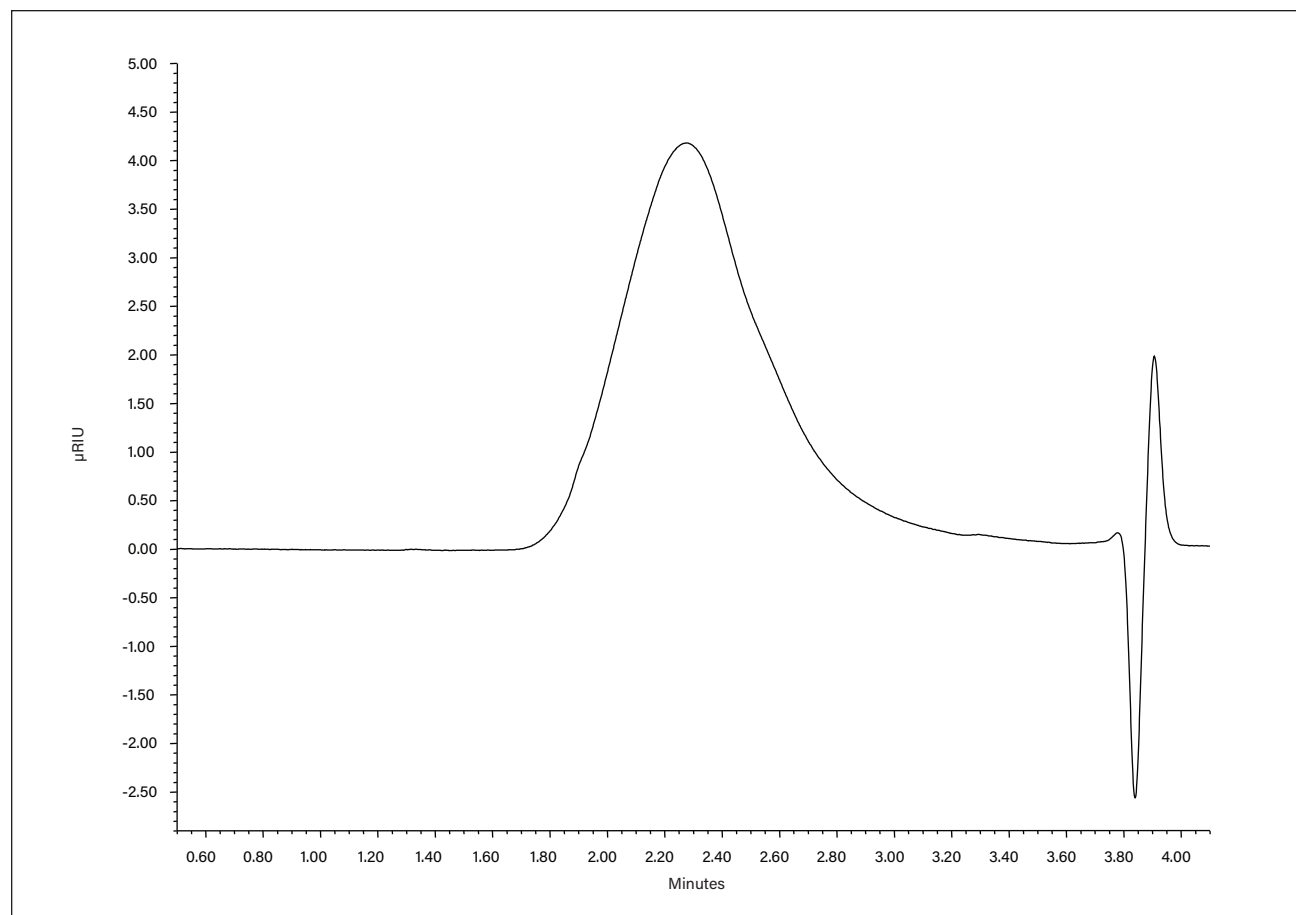
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (450Å and 125Å in series), part numbers 186007010 and 186007000, respectively
Temperature:	40 °C
Injection volume:	20 µL
Flow rate:	1 mL/min
Sample load:	0.2% (w/v)
Sample:	Poly(sulfone)



Analysis of Poly(methyl methacrylate co ethyl acrylate) in THF using ACQUITY APC Columns

LC CONDITIONS

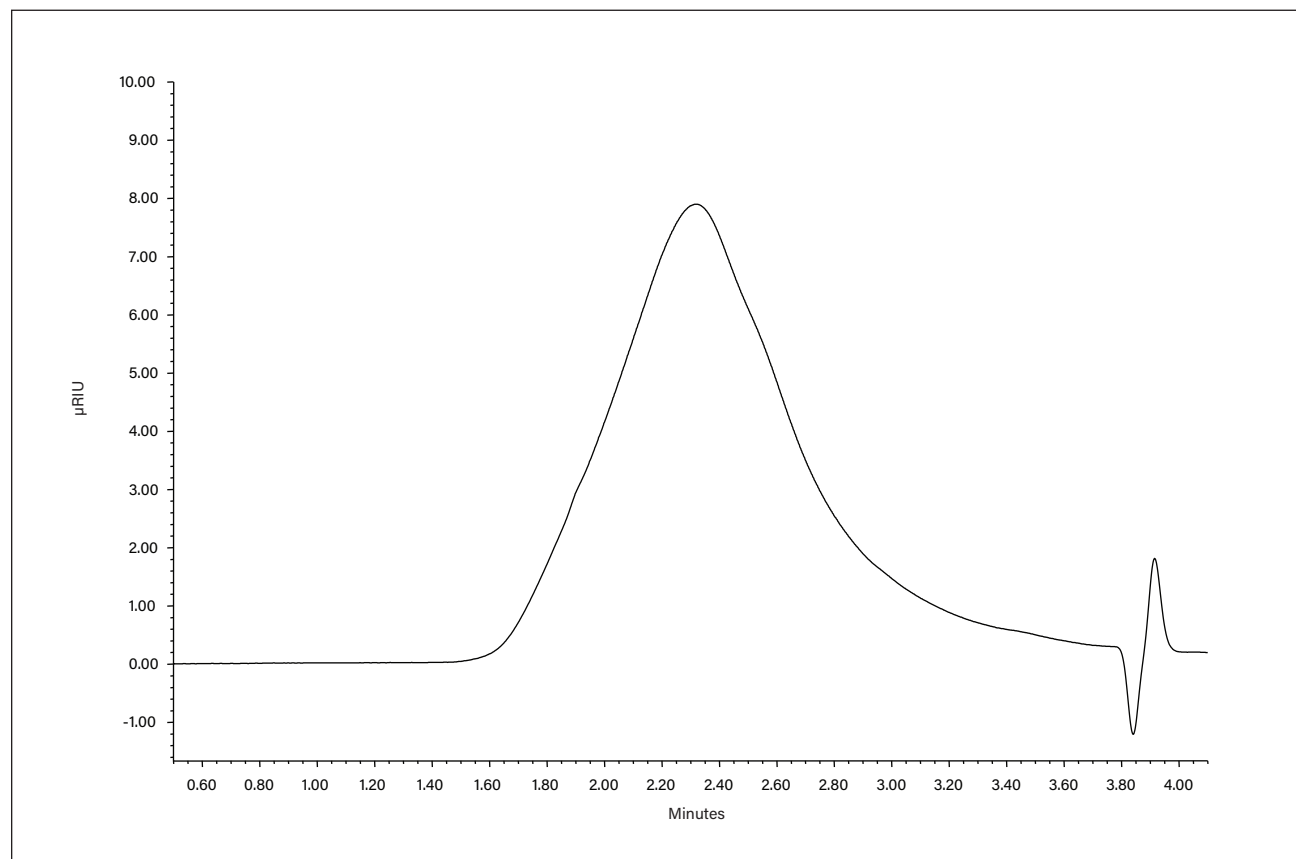
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (450Å and 125Å in series), part numbers 186007010 and 186007000, respectively
Temperature:	40 °C
Flow rate:	1 mL/min
Injection volume:	20 µL
Sample load:	0.2% (w/v)
Sample:	Poly(methyl methacrylate co ethyl acrylate)



Analysis of Poly(vinylidene chloride co acrylonitrile co methyl methacrylate) in THF using ACQUITY APC Columns

LC CONDITIONS

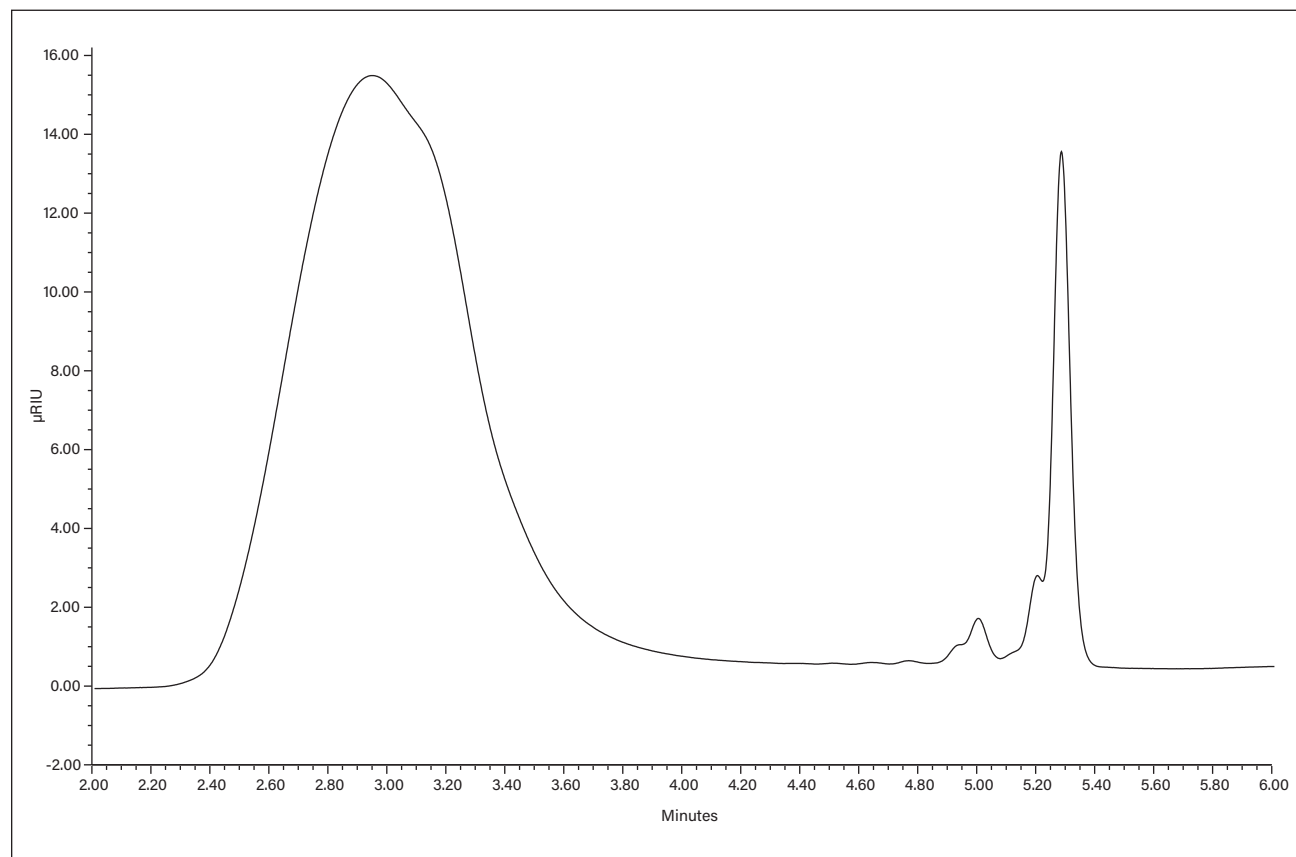
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (450Å and 125Å in series), part numbers 186007010 and 186007000, respectively
Temperature:	40 °C
Injection volume:	20 µL
Flow rate:	1 mL/min
Sample load:	0.2% (w/v)
Sample:	Poly(vinylidene chloride co acrylonitrile co methyl methacrylate)



Analysis of Polyurethane in THF using ACQUITY APC Columns

LC CONDITIONS

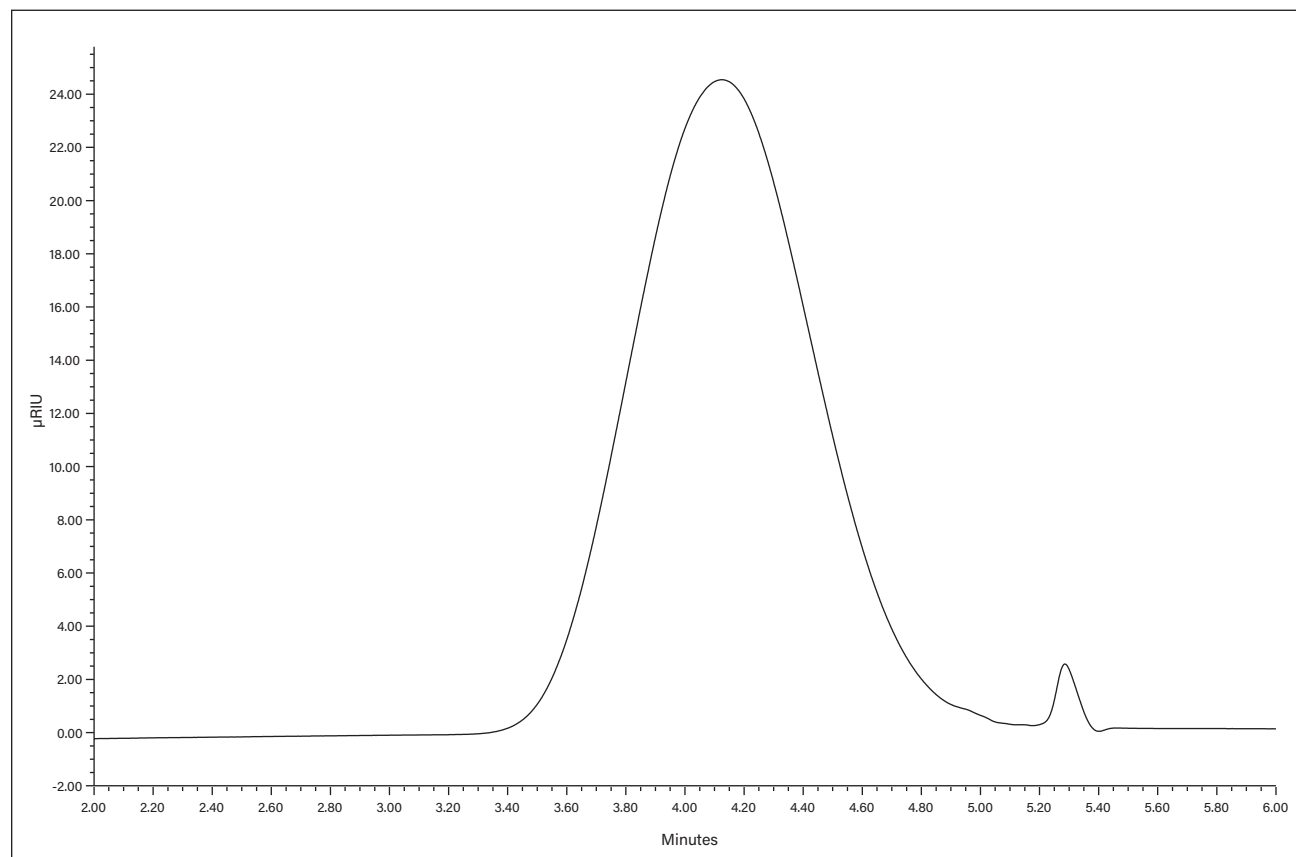
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 3 (450Å, 125Å and 45Å in series), part numbers 186007010, 186007000 and 186006995, respectively
Flow rate:	1 mL/min
Temperature:	40 °C
Injection volume:	30 µL
Sample load:	0.4% (w/v)
Sample:	Polyurethane



Analysis of Poly(methylmethacrylate co hydroxyethylmethacrylate) in THF using ACQUITY APC Columns

LC CONDITIONS

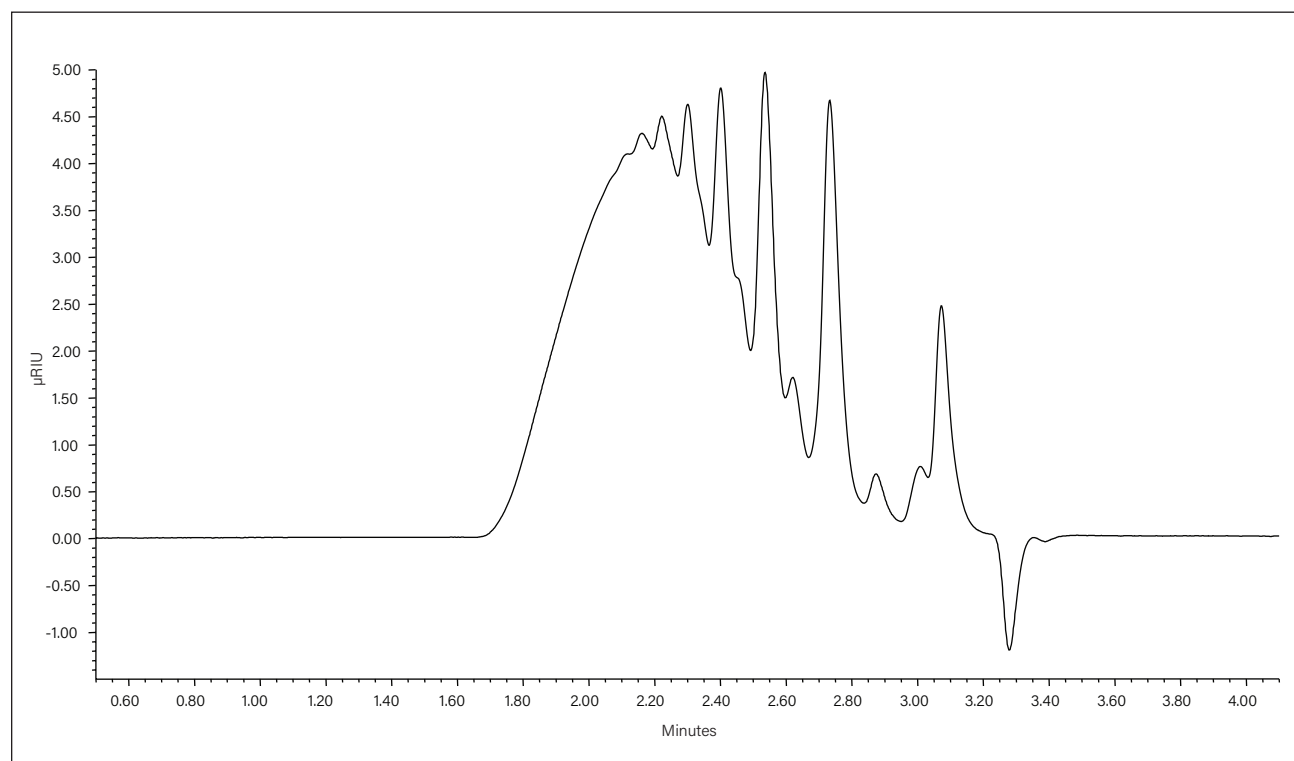
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 3 (450Å, 125Å and 45Å in series), part numbers 186007010, 186007000 and 186006995, respectively
Flow rate:	1 mL/min
Temperature:	40 °C
Injection volume:	30 µL
Sample load:	0.4% (w/v)
Sample:	Poly(methylmethacrylate co hydroxyethylmethacrylate)



Analysis of an Epoxy Resin in THF using ACQUITY APC Columns

LC CONDITIONS

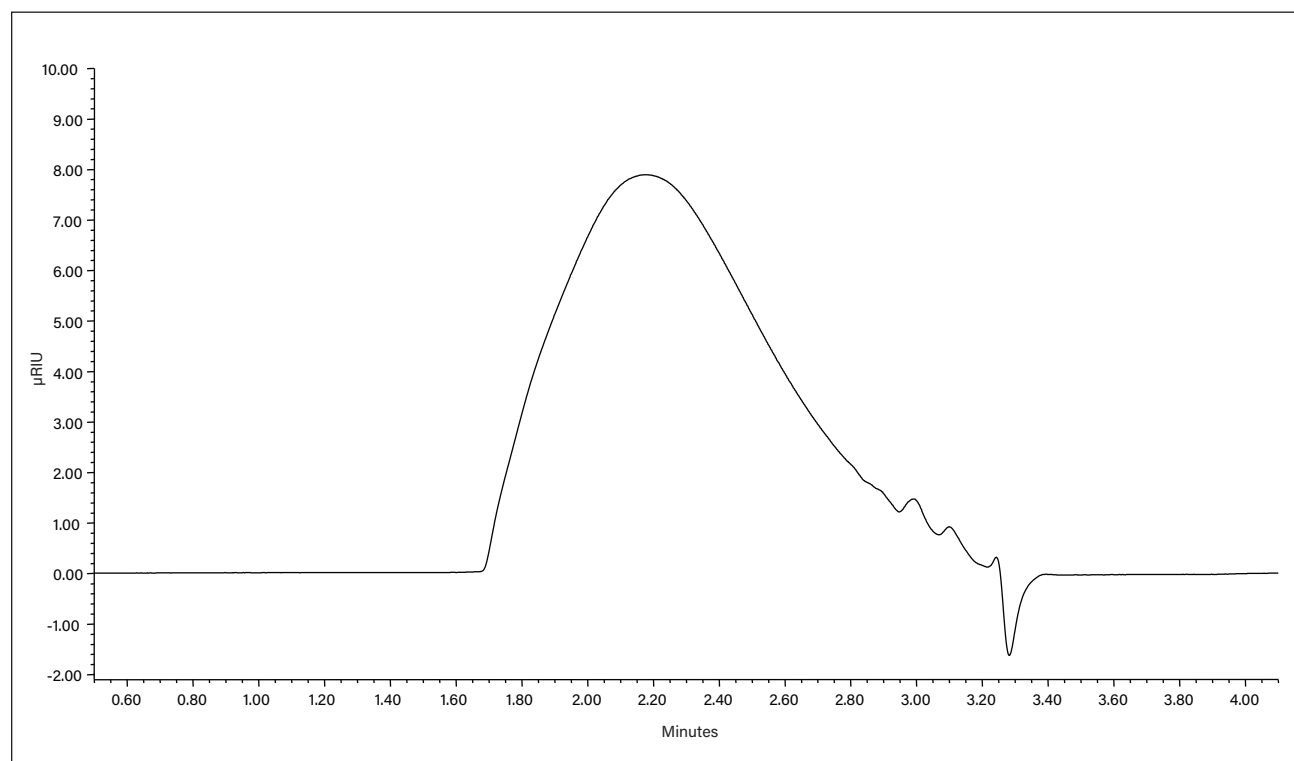
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (125Å and 45Å in series), part numbers 186007000 and 186006995, respectively
Temperature:	40 °C
Injection volume:	20 µL
Sample load:	0.5% (w/v)
Sample:	Epoxy resin



Analysis of Poly(vinylpyrrolidone co methyl methacrylate) in THF using ACQUITY APC Columns

LC CONDITIONS

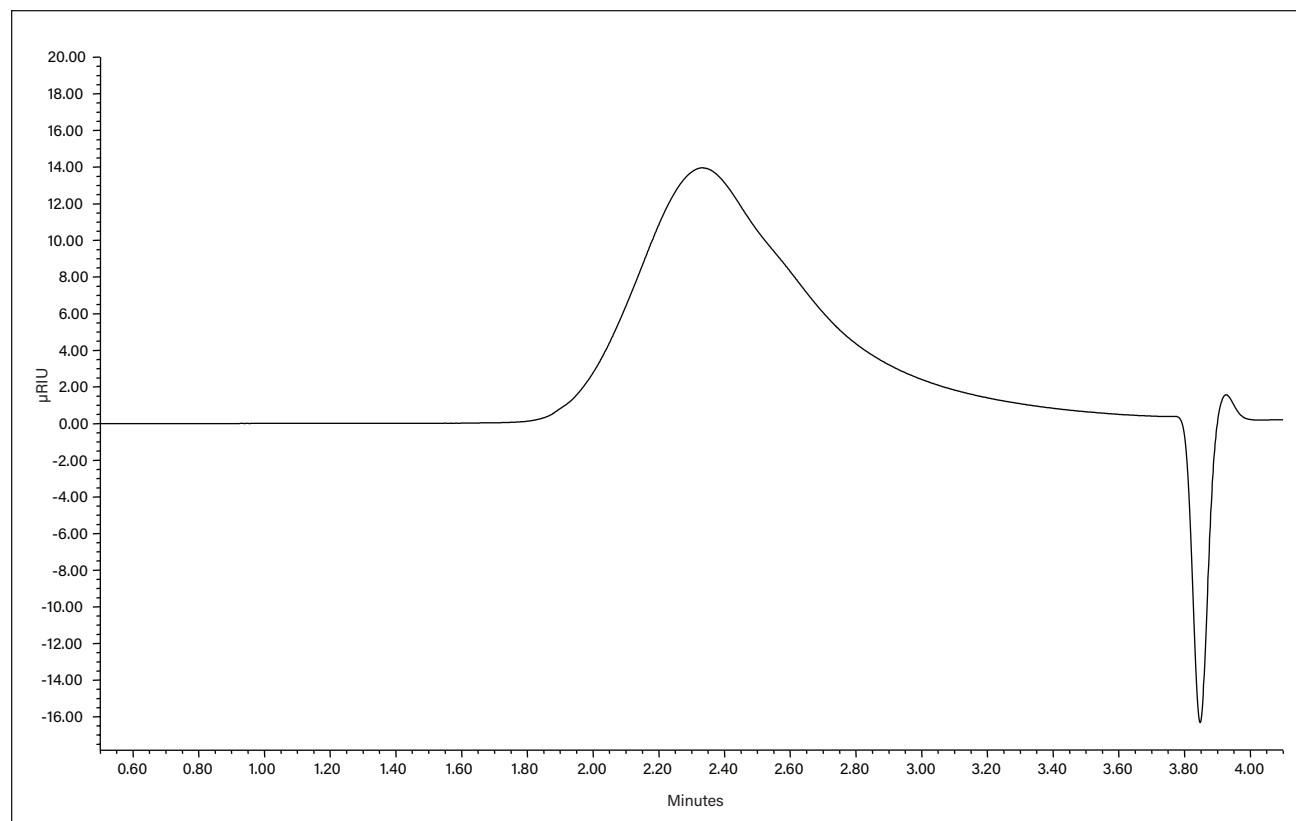
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (125Å and 45Å in series), part numbers 186007000 and 186006995, respectively
Temperature:	40 °C
Injection volume:	20 µL
Sample load:	0.5% (w/v)
Sample:	Poly(vinylpyrrolidone co methyl methacrylate)



Analysis of Poly(methyl methacrylate) in THF using ACQUITY APC Columns

LC CONDITIONS

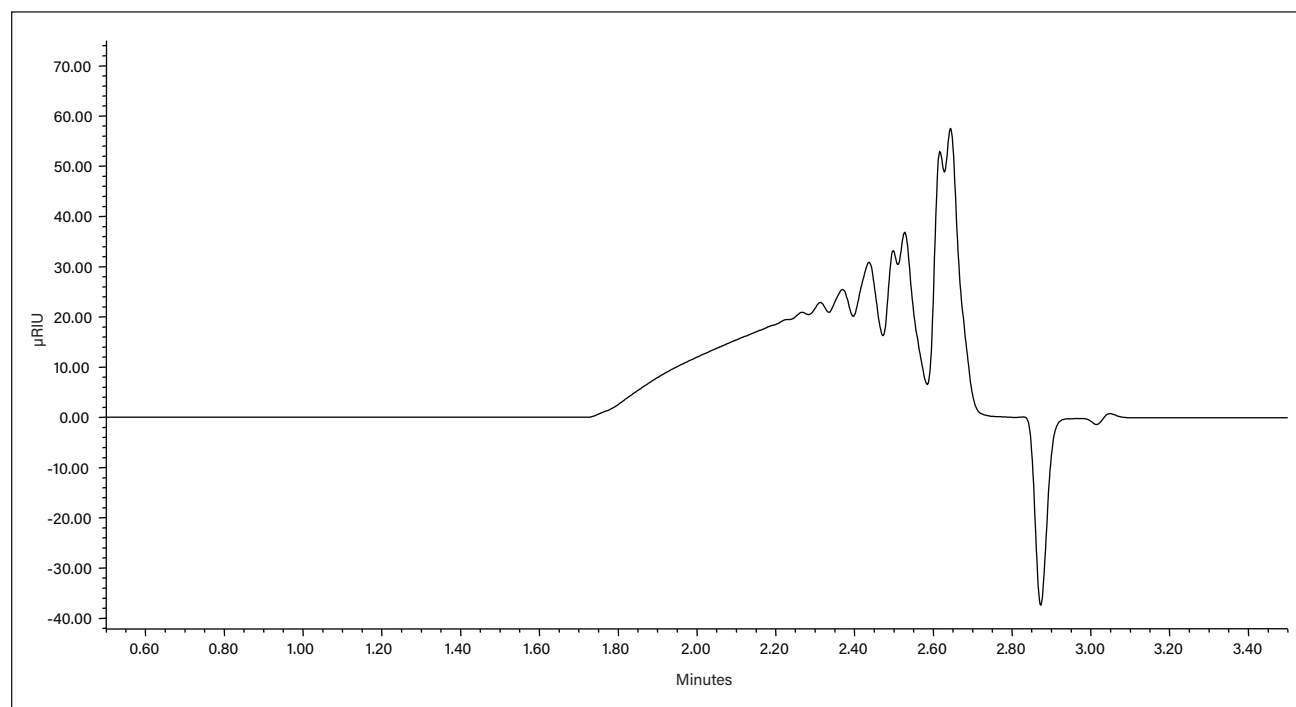
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (450Å and 125Å in series), part numbers 186007010 and 186007000, respectively
Temperature:	40 °C
Injection volume:	20 µL
Sample load:	0.2% (w/v)
Sample:	Poly(methyl methacrylate)



Analysis of poly(phenylglycidyl ether) co formaldehyde in THF using ACQUITY APC Columns

LC CONDITIONS

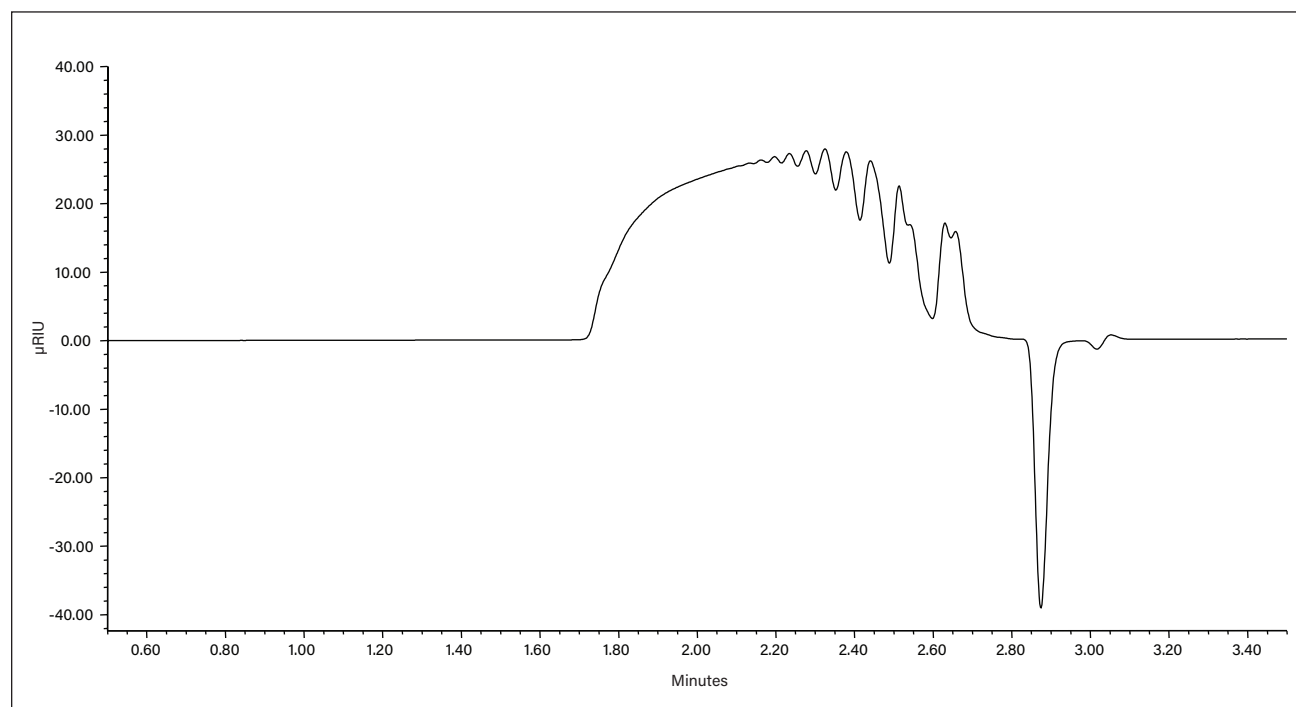
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (45Å and 45Å in series), part number 186006995
Temperature:	40 °C
Injection volume:	20 µL
Sample load:	0.2% (w/v)
Sample:	Poly(phenylglycidyl ether) co formaldehyde



Analysis of Poly(o-cresyl glycidyl ether) co formaldehyde in THF using ACQUITY APC Columns

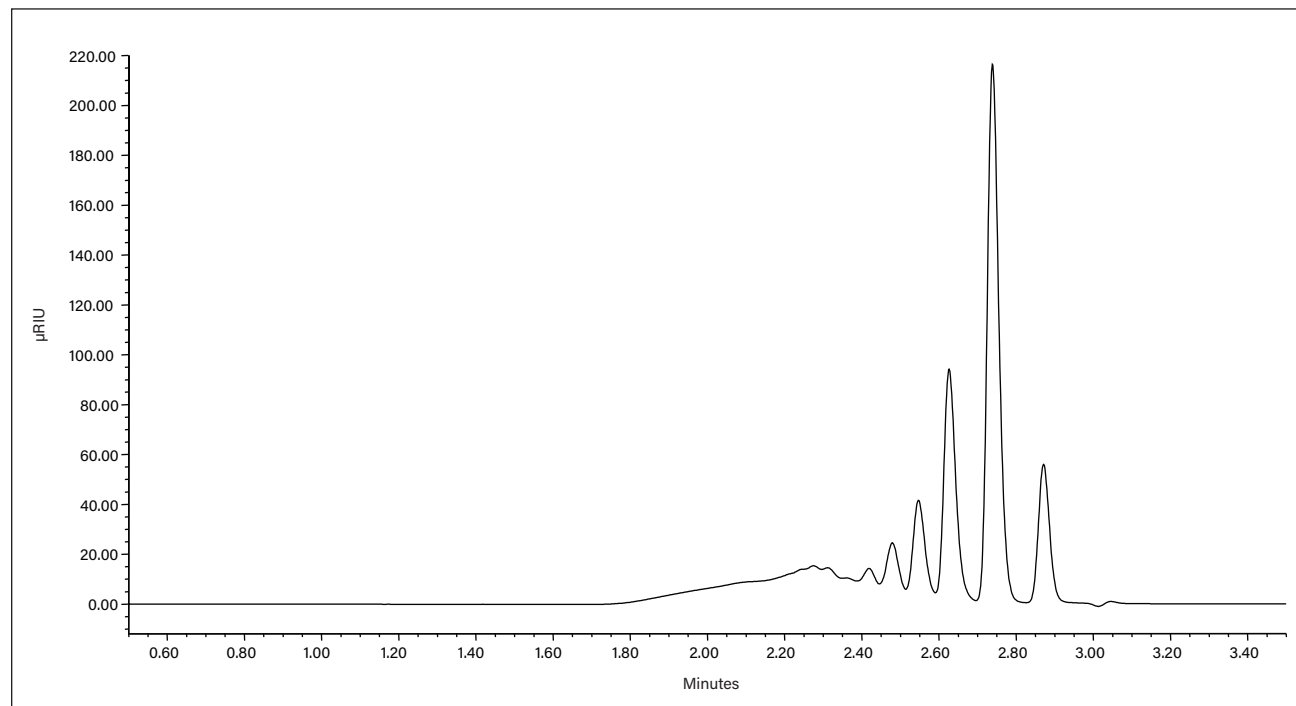
LC CONDITIONS

System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (45Å and 45Å in series), part number 186006995
Temperature:	40 °C
Injection volume:	20 µL
Sample load:	0.2% (w/v)
Sample:	Poly(o-cresyl glycidyl ether) co formaldehyde



Analysis of Poly(phenyl isocyanate) co formaldehyde in THF using ACQUITY APC Columns**LC CONDITIONS**

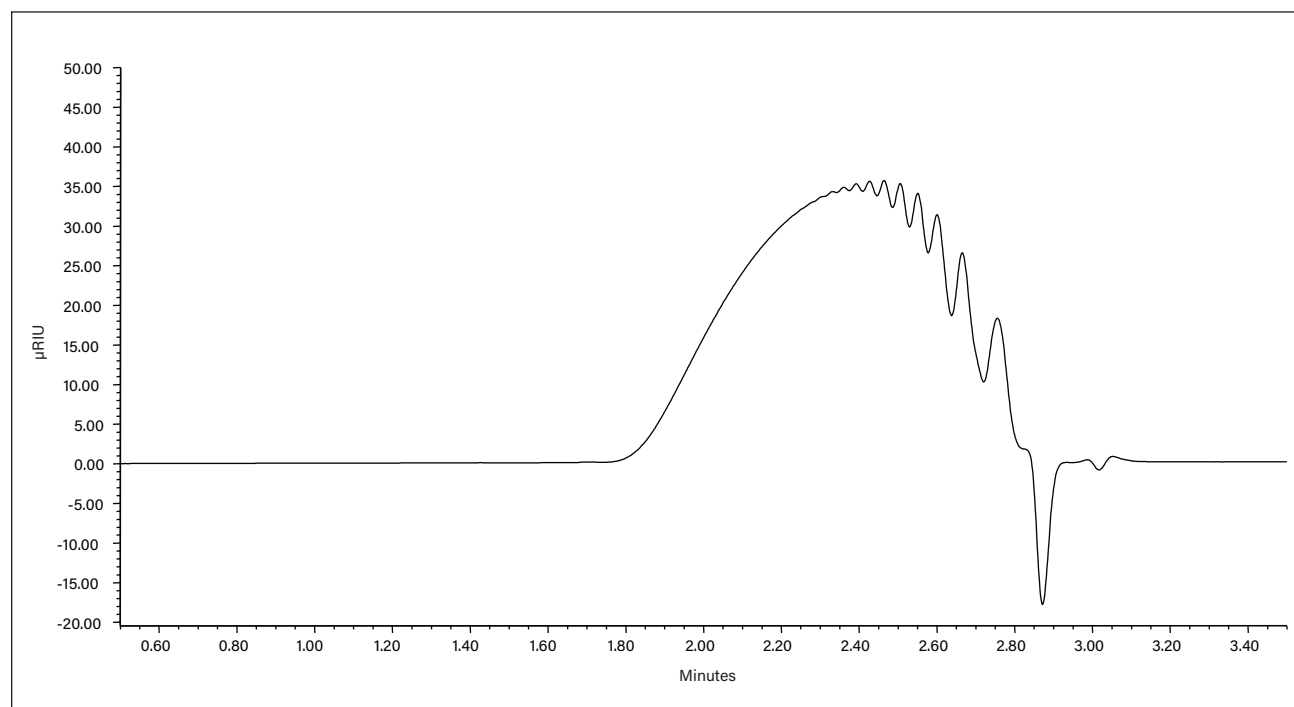
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (45Å and 45Å in series), part number 186006995
Temperature:	40 °C
Injection volume:	20 µL
Sample load:	0.2% (w/v)
Sample:	Poly(phenyl isocyanate) co formaldehyde



Analysis of Poly(styrene), Low Molecular Weight in THF using ACQUITY APC Columns

LC CONDITIONS

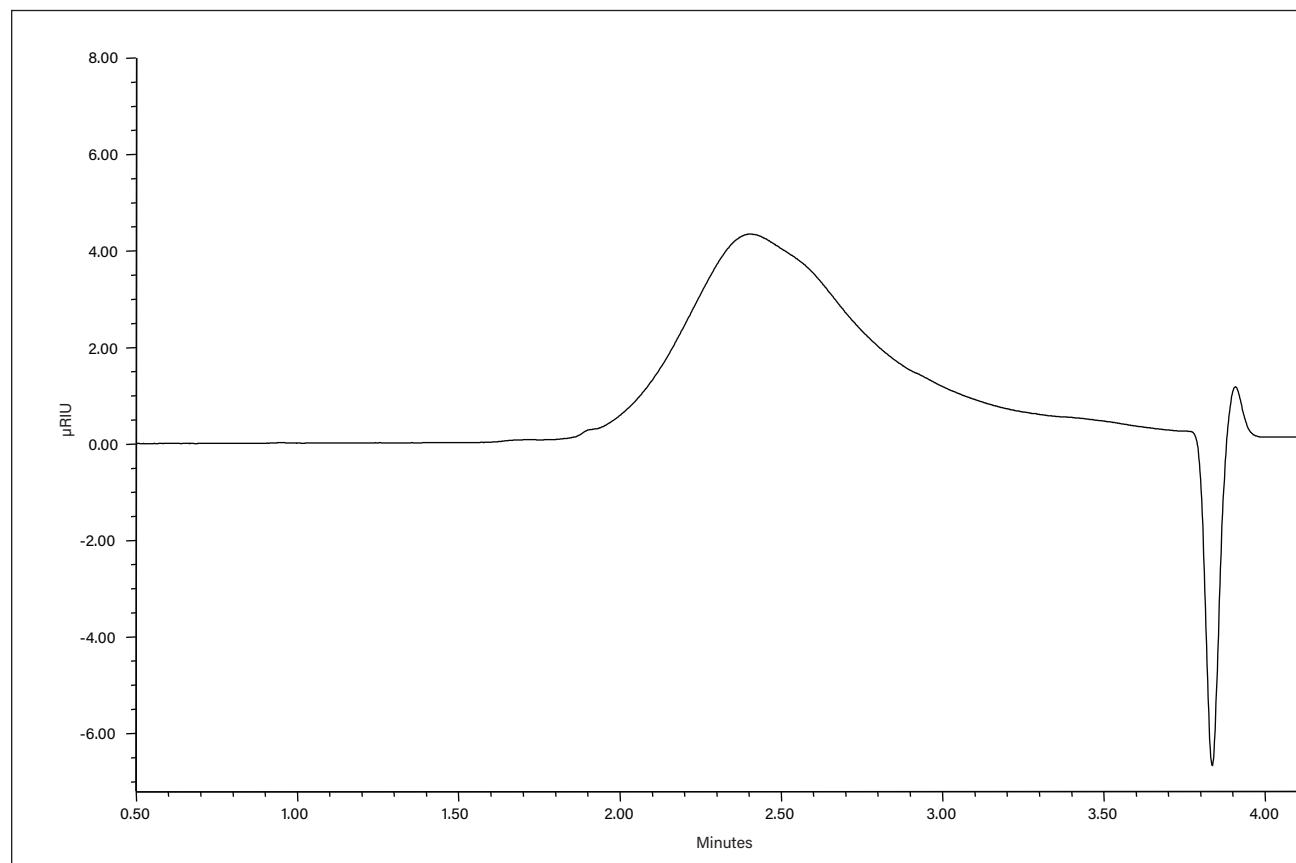
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (45Å and 45Å in series), part number 186006995
Temperature:	40 °C
Injection volume:	20 µL
Sample load:	0.2% (w/v)
Sample:	Poly(styrene), low molecular weight



Analysis of Poly(isobutyl methacrylate) in THF using ACQUITY APC Columns

LC CONDITIONS

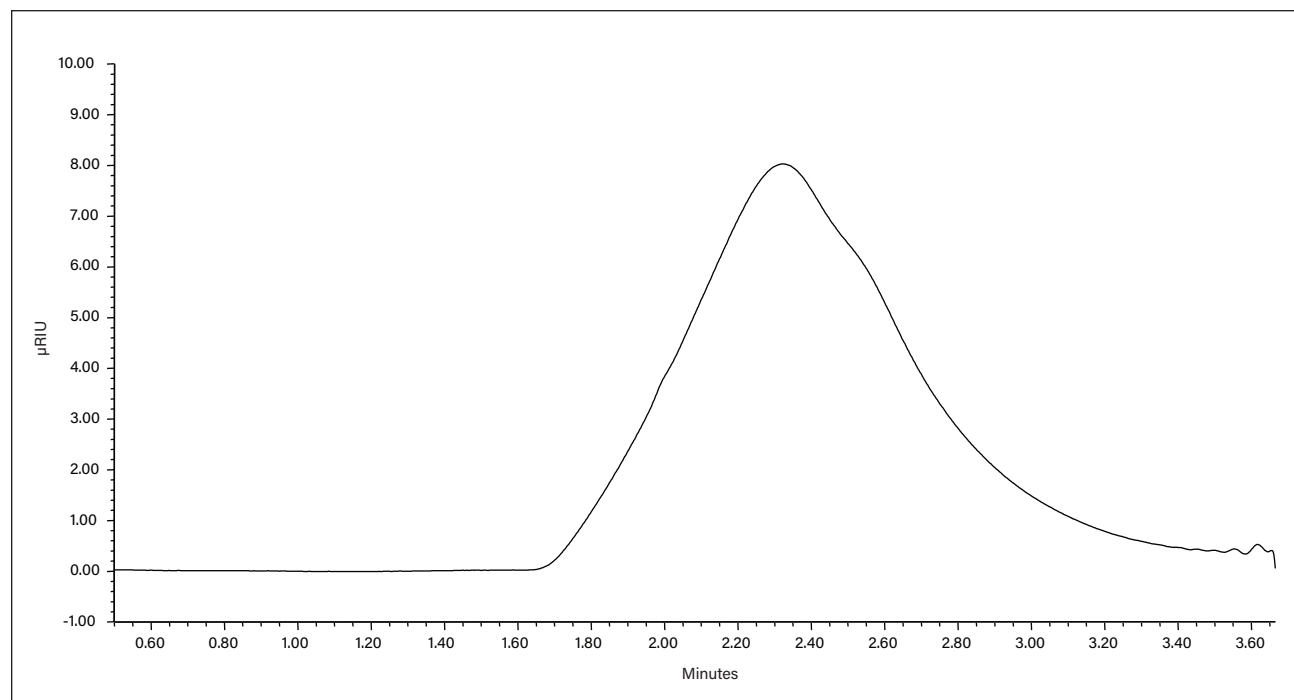
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (450Å and 125Å in series), part numbers 186007010 and 186007000, respectively
Temperature:	40 °C
Injection volume:	20 µL
Sample load:	0.2% (w/v)
Sample:	Poly(isobutyl methacrylate)



Analysis of Poly(bisphenol A co epichlorohydrin) in DMF using ACQUITY APC Columns

LC CONDITIONS

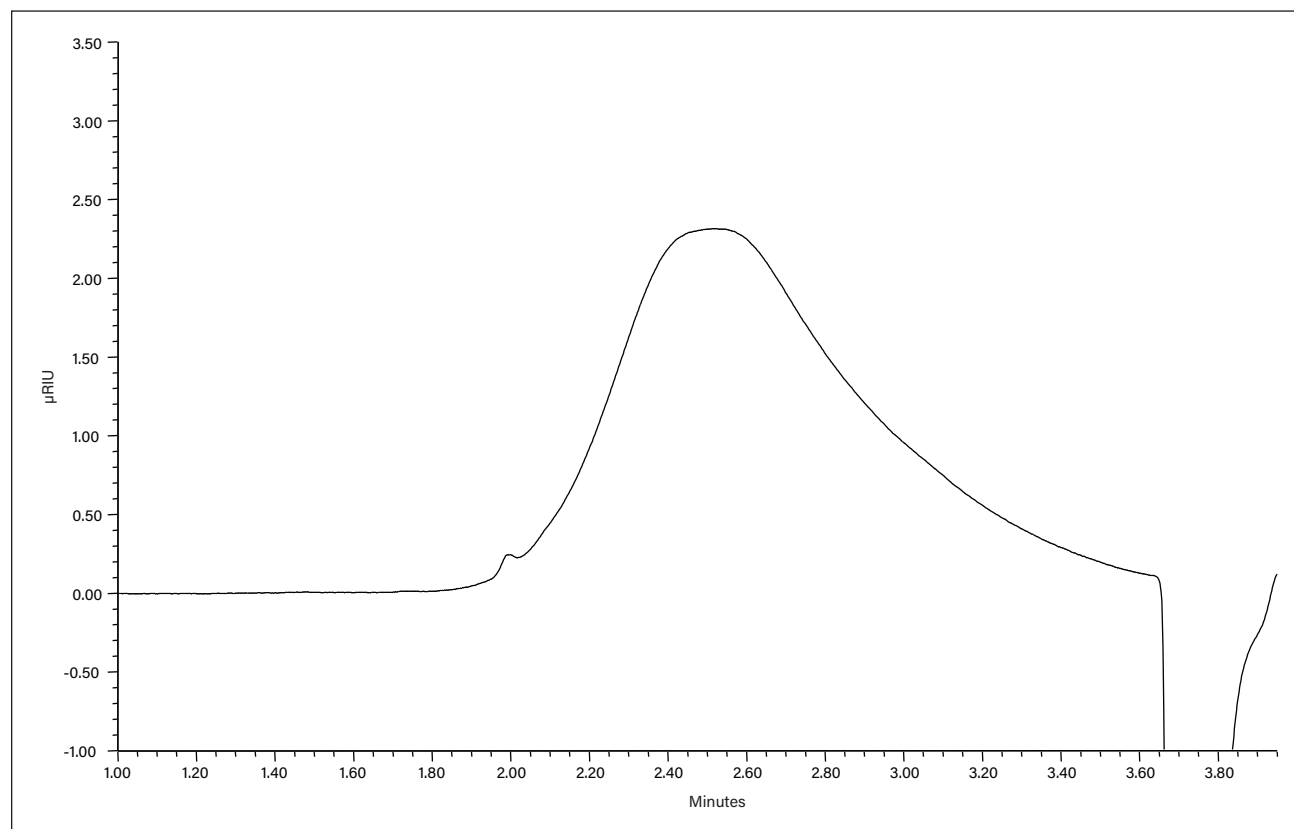
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	DMF with 10 mM LiCl
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (450Å and 125Å in series), part numbers 186007010 and 186007000, respectively
Temperature:	40 °C
Injection volume:	20 µL
Sample load:	0.2% (w/v)
Sample:	Poly(bisphenol A co epichlorohydrin)



Analysis of Poly(vinylacetate) in DMF using ACQUITY APC Columns

LC CONDITIONS

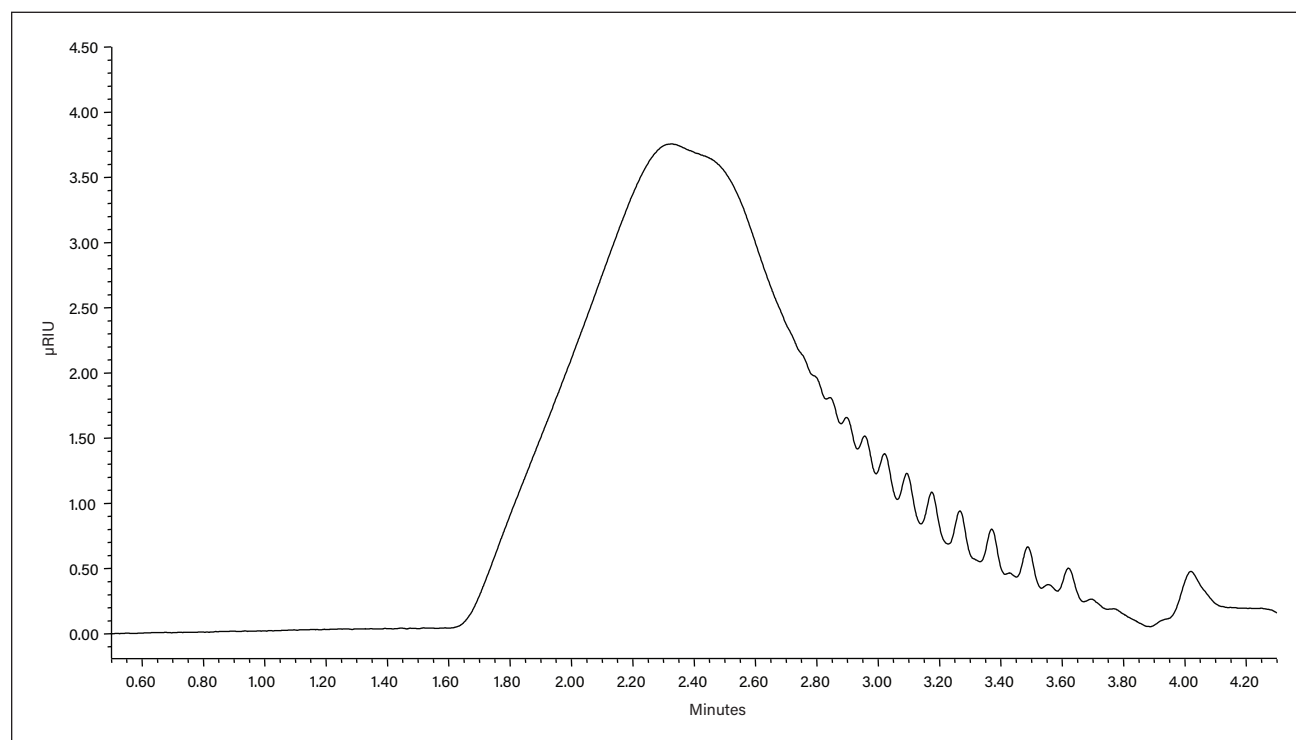
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	DMF with 10 mM LiCl
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (450Å and 125Å in series), part numbers 186007010 and 186007000, respectively
Temperature:	40 °C
Injection volume:	20 µL
Sample load:	0.2% (w/v)
Sample:	Poly(vinylacetate)



Analysis of Poly(9,9 di-n-octylfluorenyl 2,7-diyl) in Toluene using ACQUITY APC Columns

LC CONDITIONS

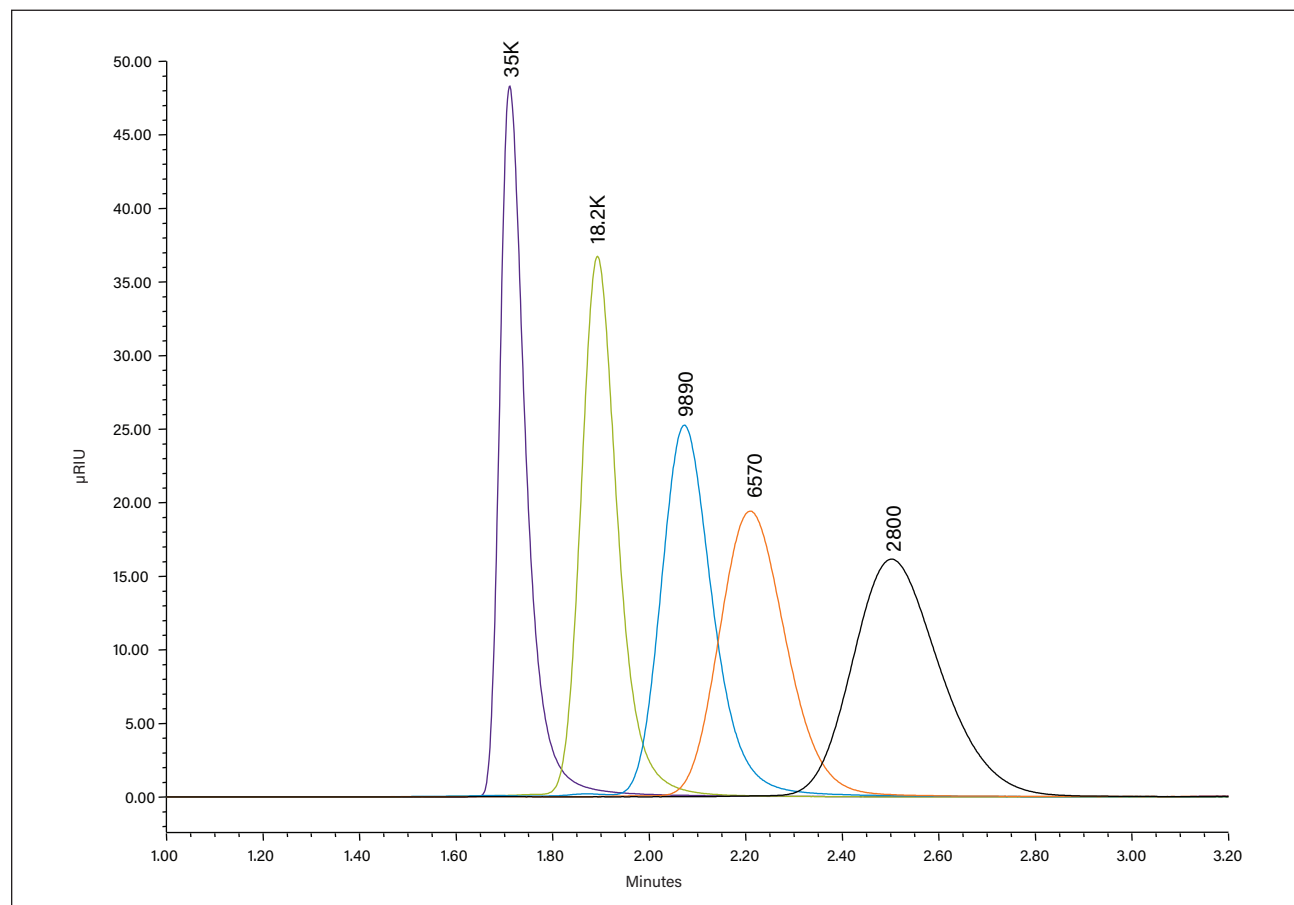
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	Toluene
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (450Å and 125Å in series), part numbers 186007010 and 186007000, respectively
Temperature:	40 °C
Injection volume:	20 µL
Sample load:	0.5% (w/v)
Sample:	Poly(9,9 di-n-octylfluorenyl 2,7-diyl)



Analysis of Poly(styrene) Standards in THF using ACQUITY APC Columns

LC CONDITIONS

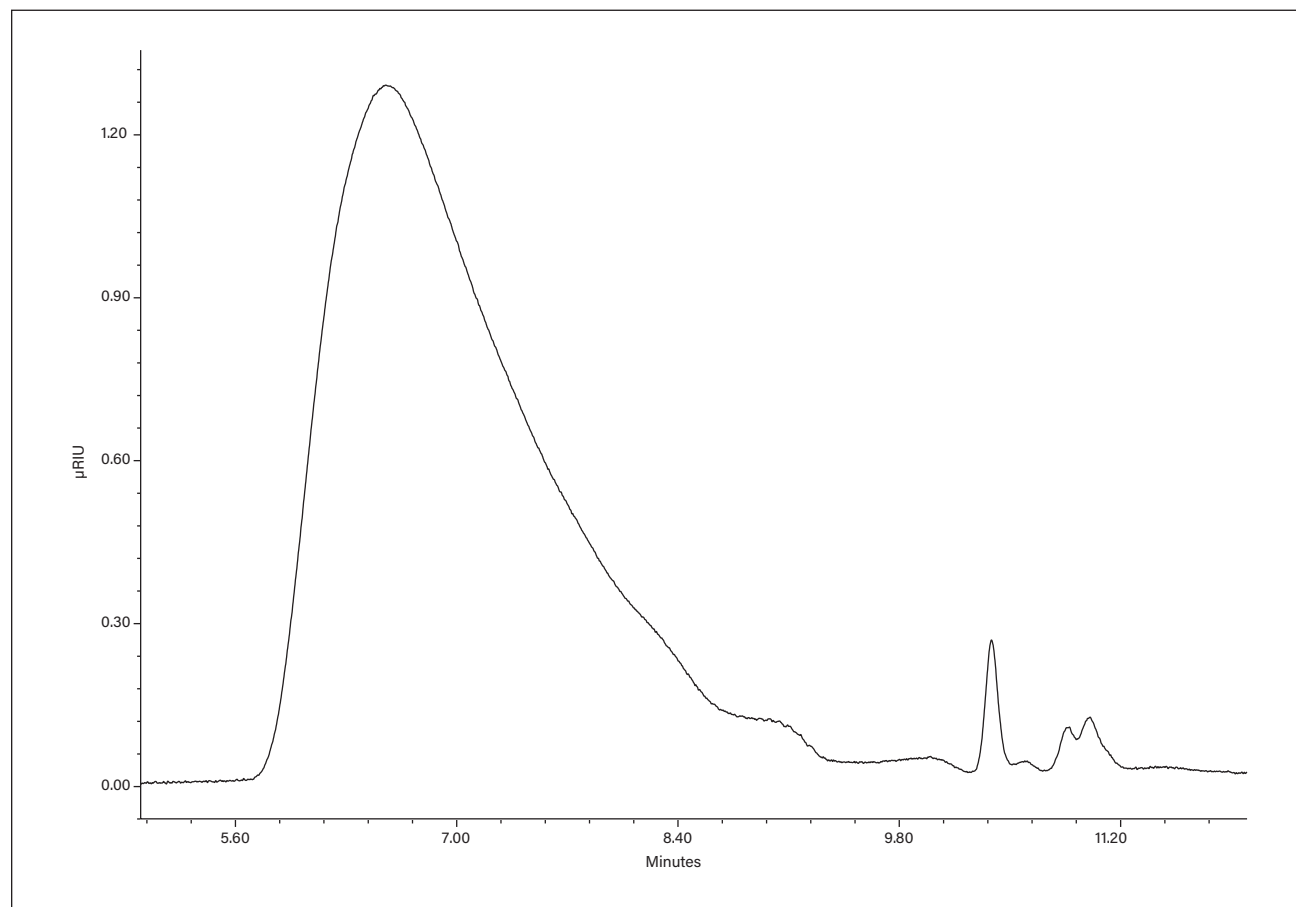
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 2 (125Å and 45Å in series), part numbers 186007000 and 186006995, respectively
Temperature:	40 °C
Injection volume:	10 µL
Sample load:	1 mg/mL
Sample:	Poly(styrene) standards



Analysis of Poly(dimethyl silicone) in THF using ACQUITY APC Columns

LC CONDITIONS

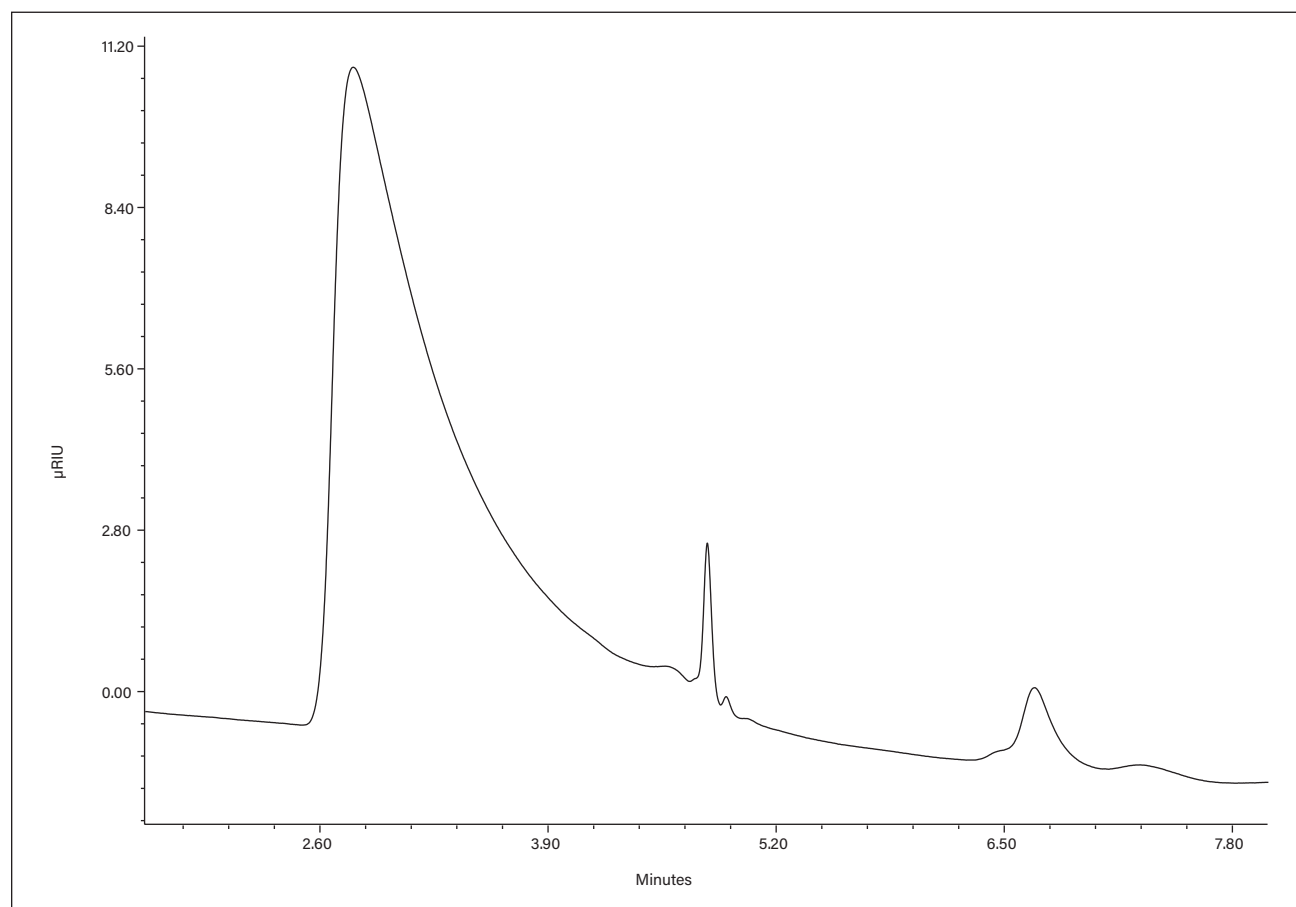
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	THF
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 4 (125Å and 3 x 45Å in series), part numbers 186007000 and 186006995, respectively
Temperature:	40 °C
Injection volume:	10 µL
Flow rate:	0.6 mL/min
Sample load:	0.2% (w/v)
Sample:	Poly(dimethyl silicone)



Analysis of Poly(dimethyl siloxane) in Toluene using ACQUITY APC Columns

LC CONDITIONS

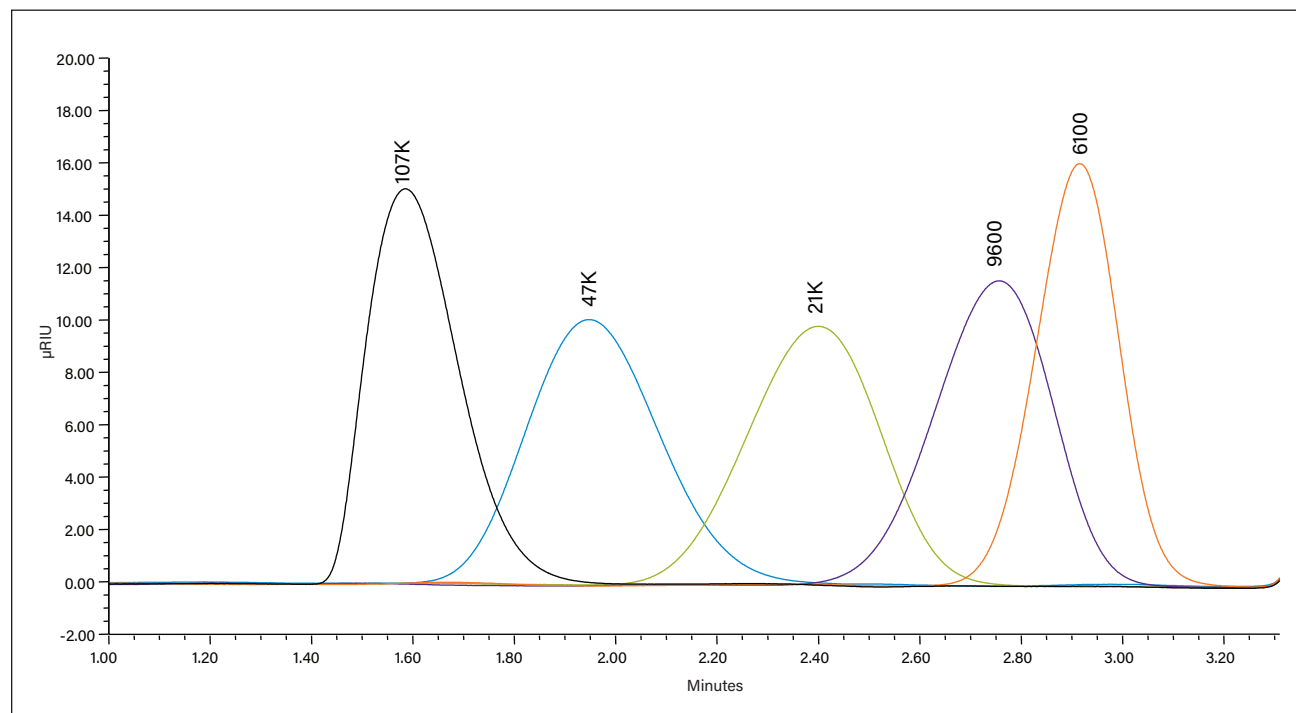
System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	Toluene
Detection:	ACQUITY RI
Column:	ACQUITY APC™ XT 4.6 x 150 mm x 3 (125Å and 2 x 45Å in series), part numbers 186007000 and 186006995, respectively
Temperature:	60 °C
Injection volume:	10 µL
Flow rate:	1 mL/min
Sample load:	0.2% (w/v)
Sample:	Poly(dimethyl siloxane)





Aqueous Analysis of Pullulans using ACQUITY APC Columns

LC CONDITIONS

System:	ACQUITY® Advanced Polymer Chromatography® (APC™)
Eluent:	100 mM sodium nitrate in 80:20 water/acetonitrile
Detection:	ACQUITY RI
Column:	ACQUITY APC™ AQ 4.6 x 150 mm, 200Å, part number 186006985
Temperature:	40 °C
Injection volume:	20 µL
Sample load:	1 mg/mL
Sample:	Pullulan standards





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