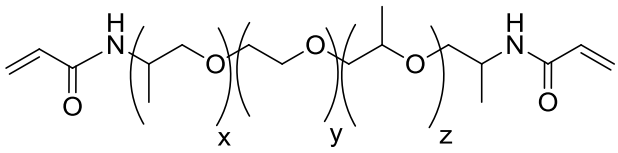
IFF INTERNAL MEMORANDUM

TO:	DEPT.	LOCATION	DATE
Lisa Veliath	Synthesis	R&D	August 10, 2015
FROM:	**DEPT.**	**LOCATION**	**REF.**
Jing Li	RAS	R&D	TOX

SUBJECT: Summary of IFF Analytical Results for Jeffamine Reactive Polymer

Please find attached the analytical results for the Jeffamine Reactive Polymer, Lot RDLV29886 sample you submitted.

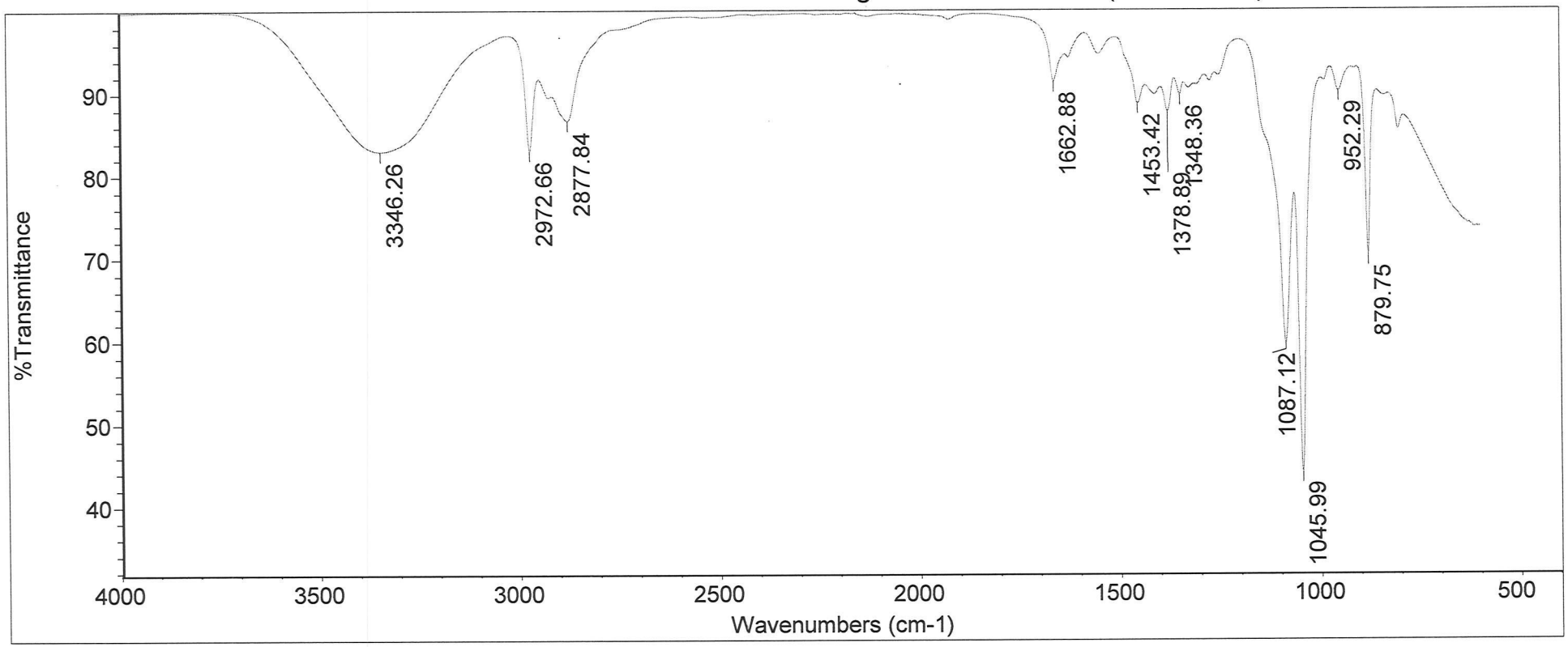


y ~ 12.5, x+z ~ 6.0

MW= ~1000 g/mol

Jing Li
RAS/NMR Laboratory

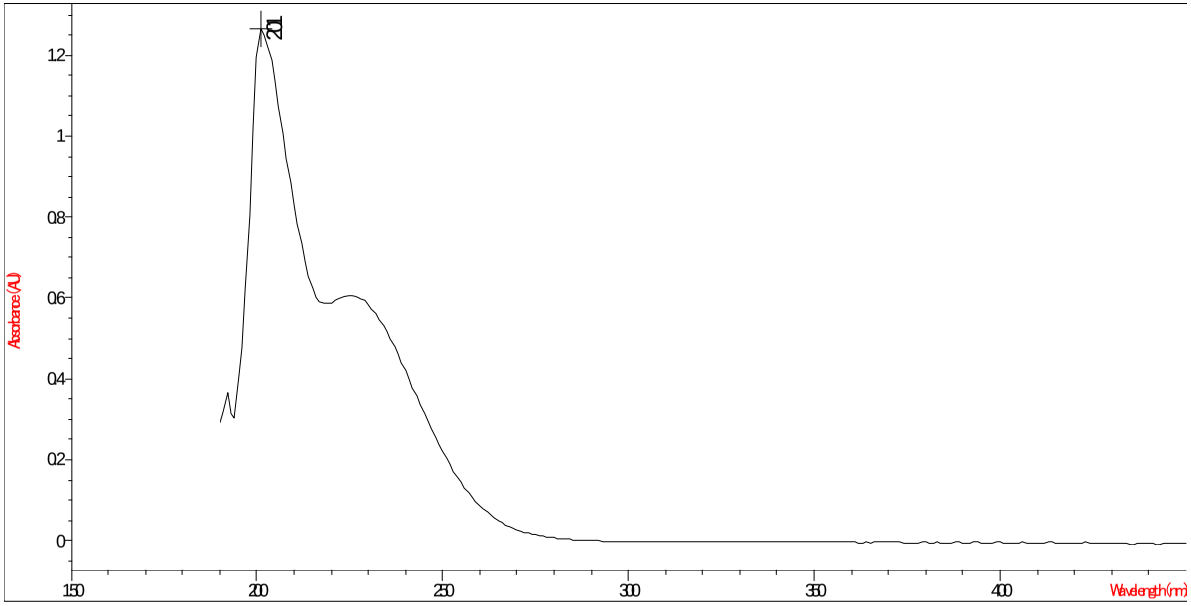
0048879 Tue Aug 04 14:29:13 2015 (GMT-04:00)



Tue Aug 04 14:29:07 2015 (GMT-04:00)
FIND PEAKS:
Spectrum: 0048879
Region: 4000.00 400.00
Absolute threshold: 99.985
Sensitivity: 50
Peak list:

Position:	879.75	Intensity:	70.194
Position:	952.29	Intensity:	90.222
Position:	1045.99	Intensity:	43.921
Position:	1087.12	Intensity:	59.597
Position:	1348.36	Intensity:	89.766
Position:	1378.89	Intensity:	87.763
Position:	1453.42	Intensity:	88.720
Position:	1662.88	Intensity:	91.449
Position:	2877.84	Intensity:	86.728
Position:	2972.66	Intensity:	83.059
Position:	3346.26	Intensity:	83.000

Sample Name:S-0051158 UV, Neutral pH Data. August 5, 2015

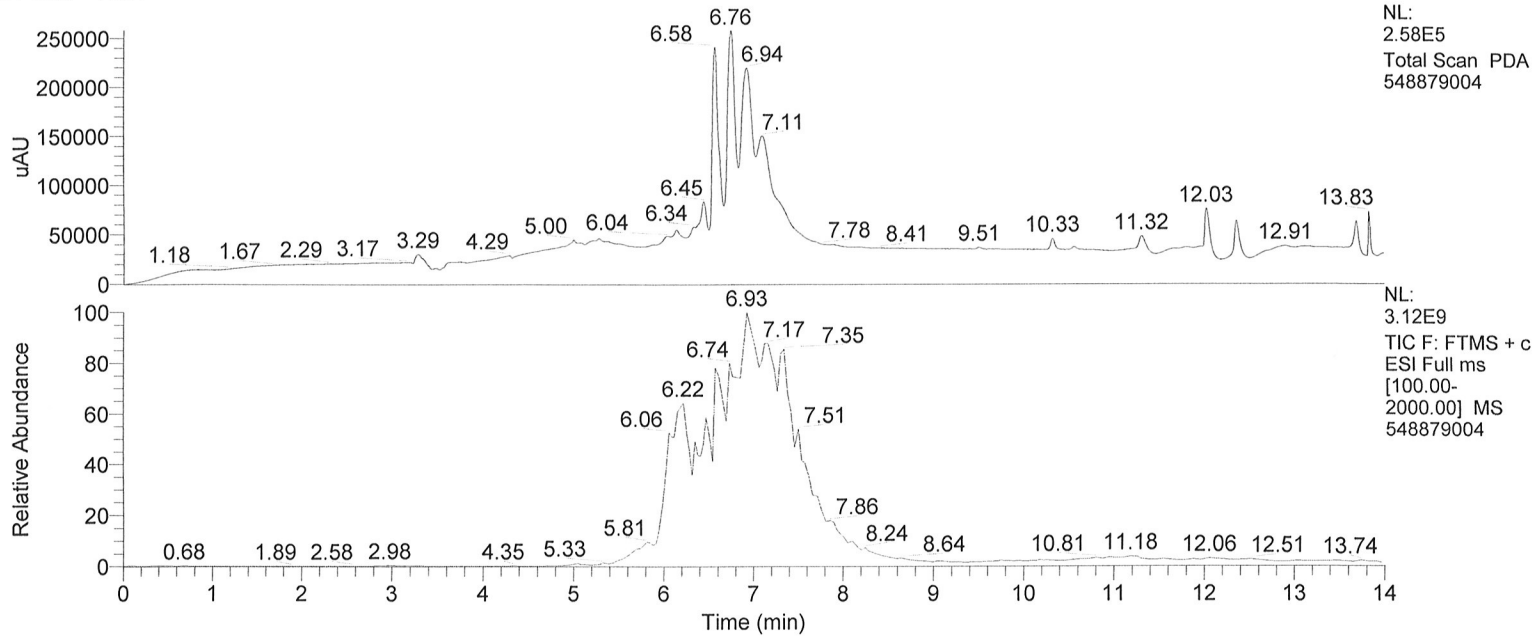


Instrument:	Agilent Cary 8454 UN-VIS
Cell Pathlength:	1 cm
Cell:	Quartz
Wavelength Range:	190-450 nm
Absorbance Range:	-0.6 to +0.7
Integration Time:	1 s

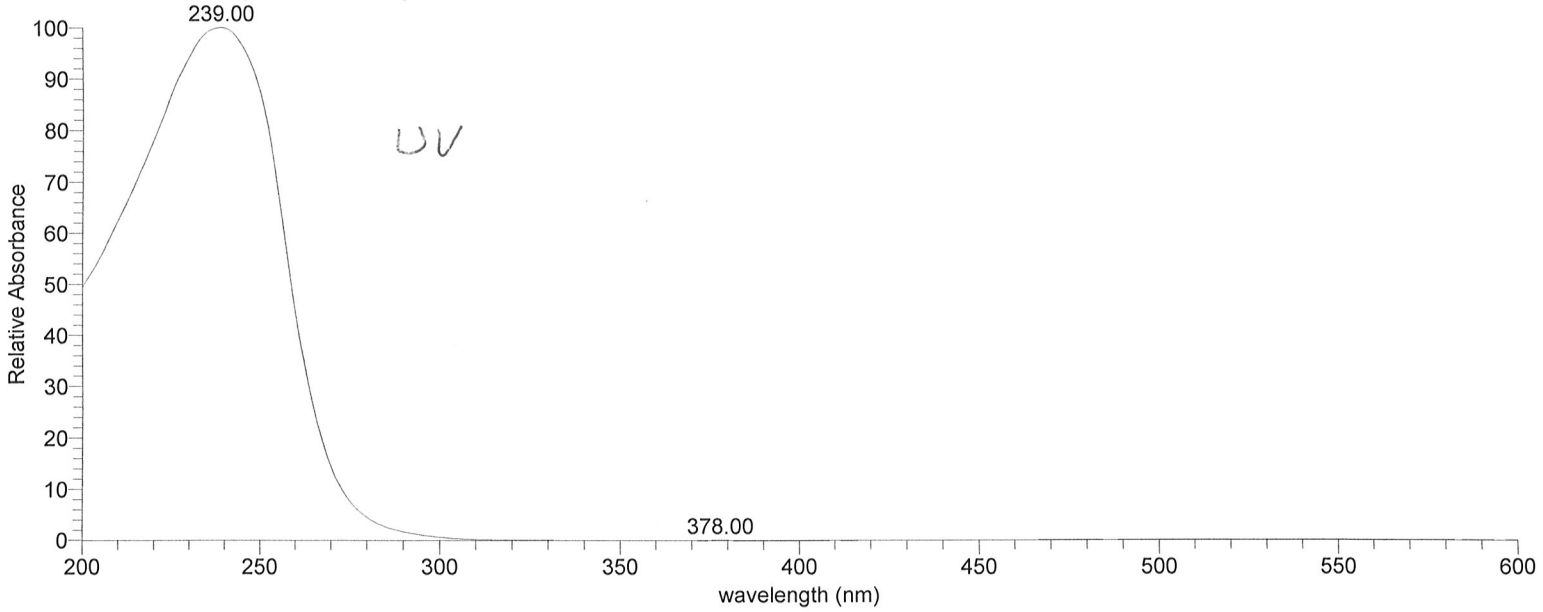
Reference Solvent (**A**):	Ethanol
Sample Conc.:	2.41x 10^{-4} M in solvent **A**
Sample pH:	7
Wavelength Max.:	201 nm
Absorbance (λ_{max}):	1.2645
ε_{max}:	5246.9 $Lmol^{-1}cm^{-1}$

C:\Users\...\080115-548879poly\548879004 8/3/2015 11:08:52 AM 48879

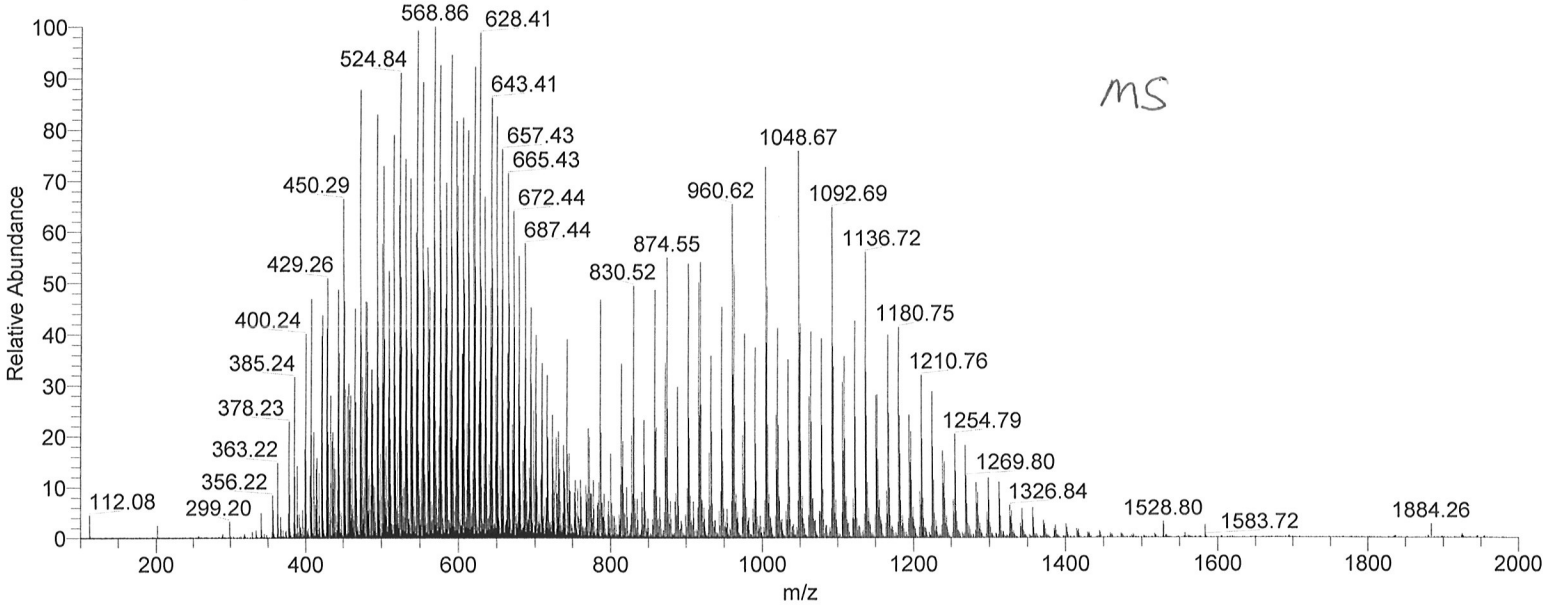
RT: 0.00 - 14.01



548879004 #8117 RT: 6.76 AV: 1 NL: 2.00E6 microAU
F: FTMS + c ESI Full ms [100.00-1000.00]



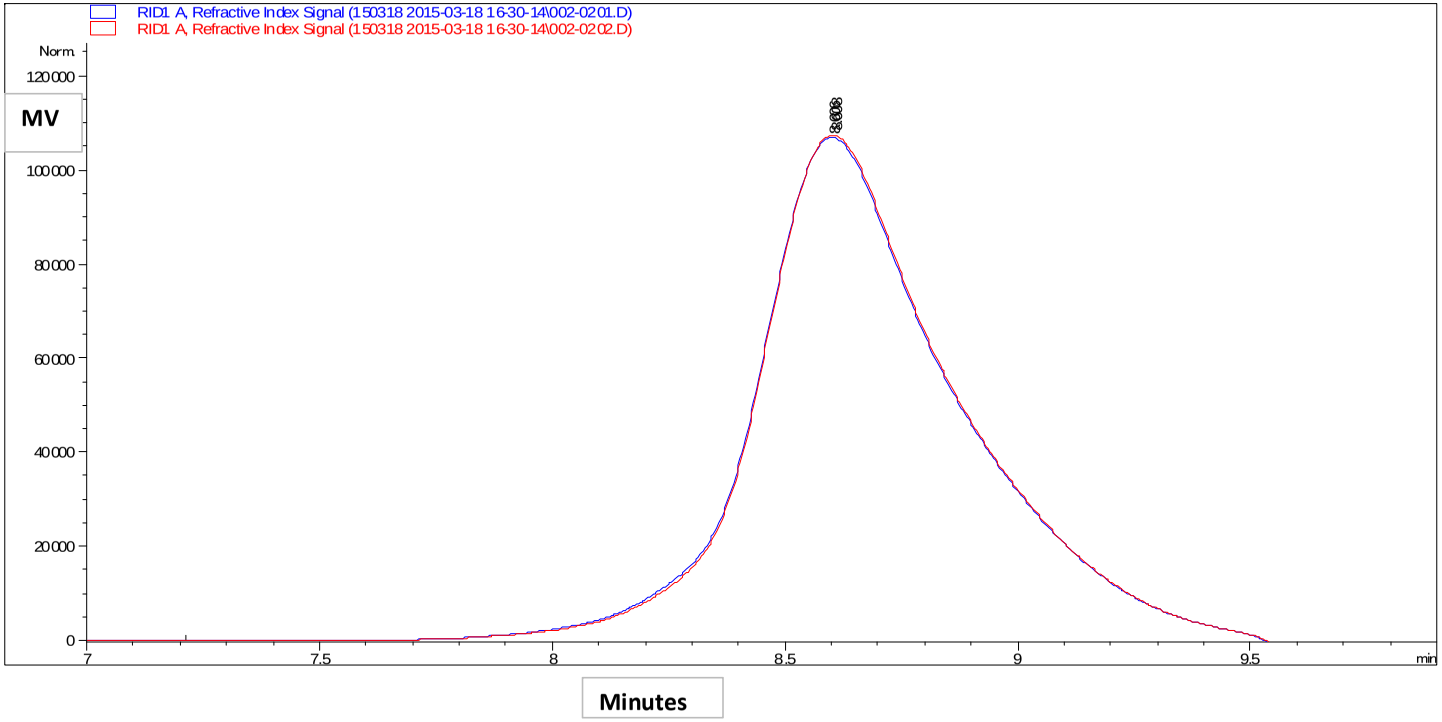
548879004 #304-390 RT: 6.38-7.58 AV: 29 NL: 9.44E6
F: FTMS + c ESI Full ms [100.00-2000.00]



Report for Molecular weight Characterisation by GPC

Sample Details	
Name	Jeffamine Diacrylamide (35% in ethanol)
Standards used:	Polystyrene calibrators
Eluent used:	THF+1% DEA
Flowrate:	1.0ml/min
Detector:	RI
Inj vol	50ul

Auto scaled Chromatogram



Mol wt Avg	RT	Area	% area	Mp	Mn	Mw	PD(Mw/Mn)	Mz	Mz+1	Mz+1/MW
Rep#1	8.606	24578066	100	1508	1155	1431	1.24	1750	2155	1.5059399
rep#2	8.608	36760702	100	1508	1009	1403	1.39	1848	2436	1.7362794
Avg					1082					