

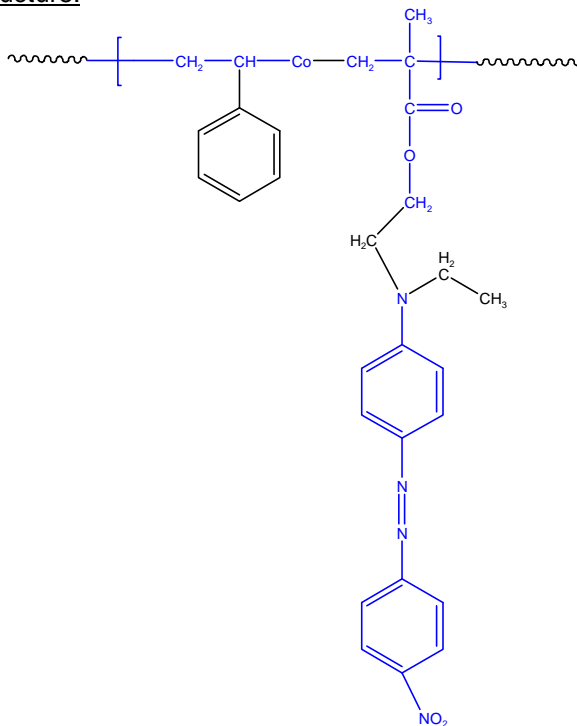
Sample Name:

**Random Copolymer Poly(Styrene-co-Disperse Red-1 Methacrylate)**

or: Random copolymer of styrene with *N*-Ethyl-*N*-(2-hydroxyethyl)-4-(4-nitrophenylazo)aniline methacrylate

Sample # **P147762A-SDR1-MAran**

Structure:



Composition: PS (mol%) : 99

Mn x 10 <sup>3</sup> PS-co-PDR1MA	PDI
256.0	1.12

**Synthesis procedure:**

The polymer is prepared by controlled radical (RAFT) process.

**Solubility:**

The polymer is soluble in acetone, insoluble in ether, hexane.

**Characterization:**

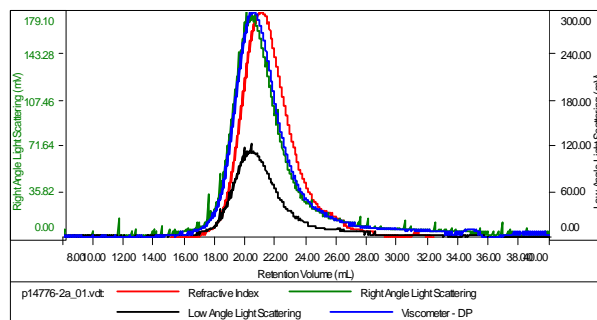
The copolymer composition was calculated from <sup>1</sup>H-NMR spectroscopy.

The molecular weight and polydispersity index were determined by size exclusion chromatography (SEC) in THF at 35°C.

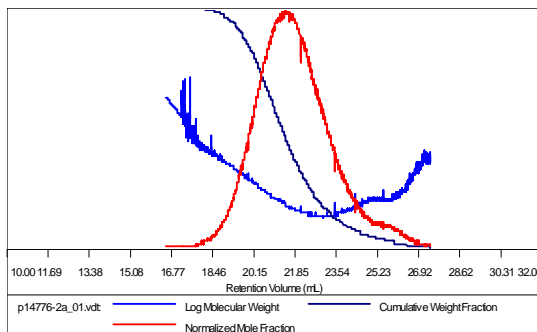
**SEC elugram:**

Sample ID: P14776-2A-SDR1MAran

Concentration (mg/mL)	5.4759
Sample dn/dc (mL/g)	0.1780
Method File	PS80K-august 12-2014-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF

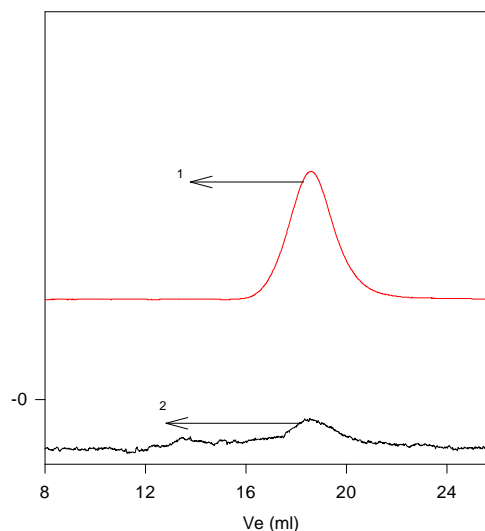


Sample	Mn	Mw	Mp	Mw/Mn	IV
p14776-2a_01.vdt	255,939	285,910	262,838	1.117	0.7034



**SEC with UV-vis detection at 522nm:**

**P147762A-SDR1MAran**



Size exclusion chromatograph of random copolymer: poly(S-co-DR 1-MA):

Showing UV detection at 522nm

1: RI signal

2: UV at 522nm