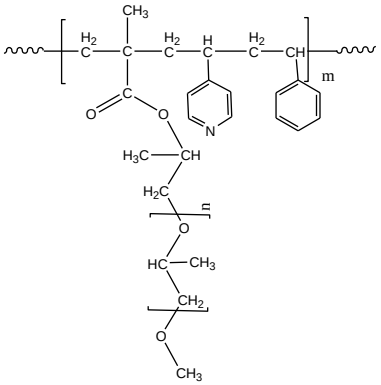
Sample Name: **Poly (propylene glycol methacrylate-co- styrene-co-4vinylpyridine) random copolymer**

Sample #: **P14291-S4VPPGMAran**

Structure:



Composition:

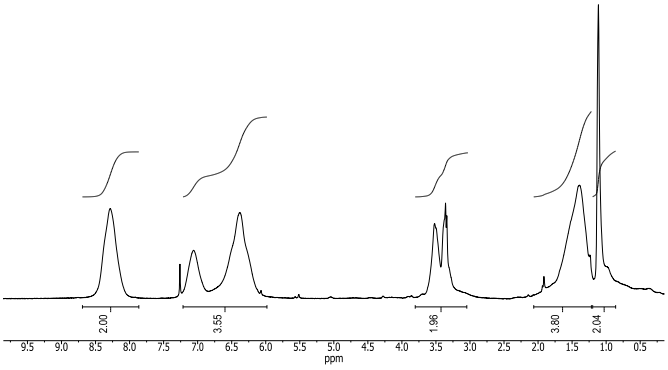
Mn × 10^3	PDI
32.5	2.1
PGMA:S:4VP mole ratio	34:16: 50
PGMA:S:4VP weight ratio	22:18: 60
Mn of Poly(propylene glycol) methacrylate	~ 750

Characterization:
Polymer analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from ^{1}H-NMR spectroscopy.

Solubility:
The polymer is soluble in chloroform, DMF, methanol and precipitates from ether and hexane.

Thermal analysis
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 20^{o}C/min.The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

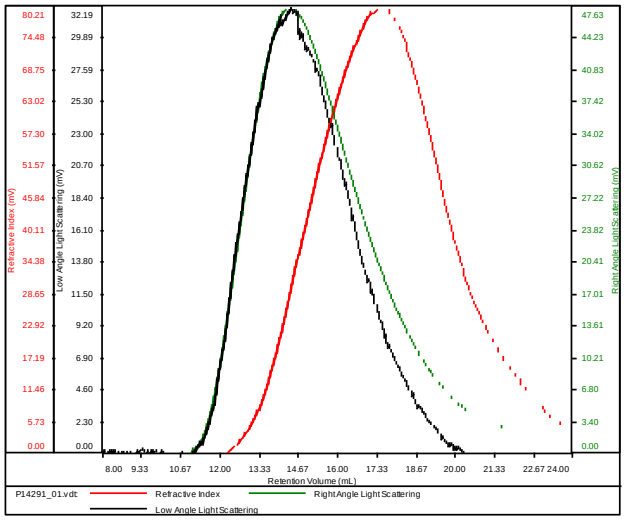
^{1}HNMR spectrum of the polymer:



SEC elugram of the copolymer:

P14291

Conc	11.0423
dn/dc	0.1530
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k_2018-02-09-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P14291_01.vdt	32,739	69,097	31,374	2.111	0.2010