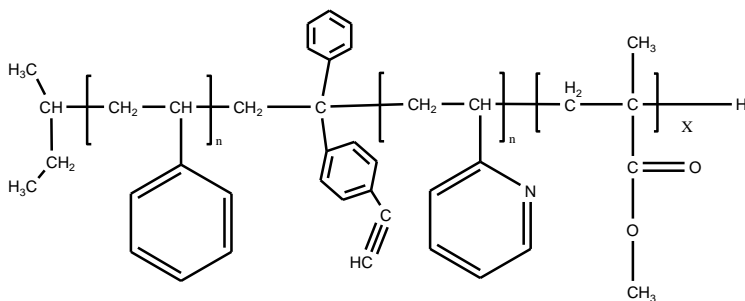


Sample Name:

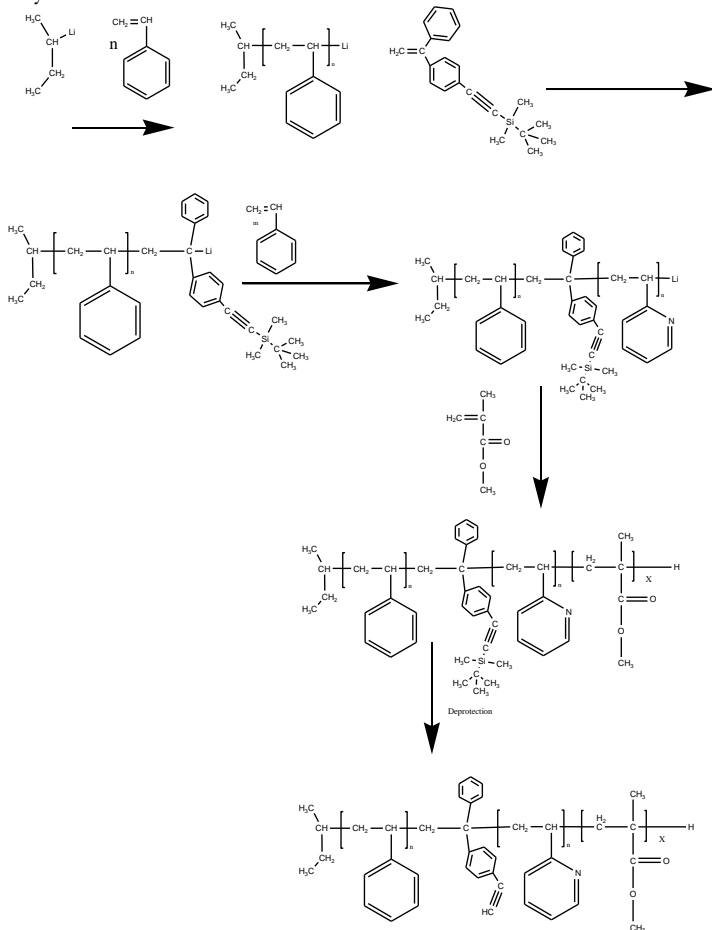
Poly(styrene-*b*-2-vinyl pyridine-methylmethacrylate) bearing ethynyl (acetylenic triple bond) phenyl-phenyl ethylene at the junction of S-2VP block

Sample #: P18355-S(acetylene) 2VPMMA**Structure:****Composition:**

| | |
|---|-------------------------------------|
| Mn x 10 ³ S- <i>b</i> -2VP- <i>b</i> -MMA | PDI |
| 34.0- <i>b</i> -22.0- <i>b</i> -170.0 | 1.12 |
| T _g for PS block: 106°C T _g for 2VP block: Not found | T _g for MMA block: 118°C |

Synthesis Procedure:

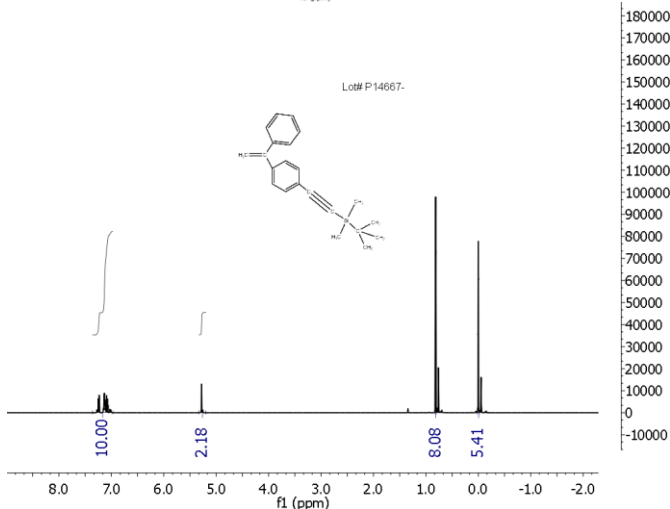
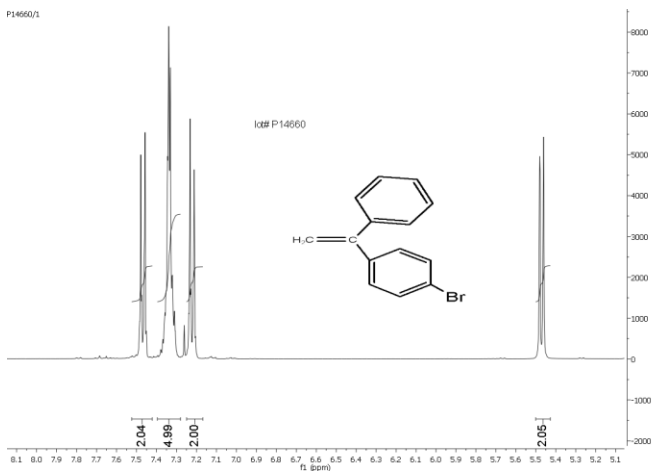
By anionic Process

**Characterization:**

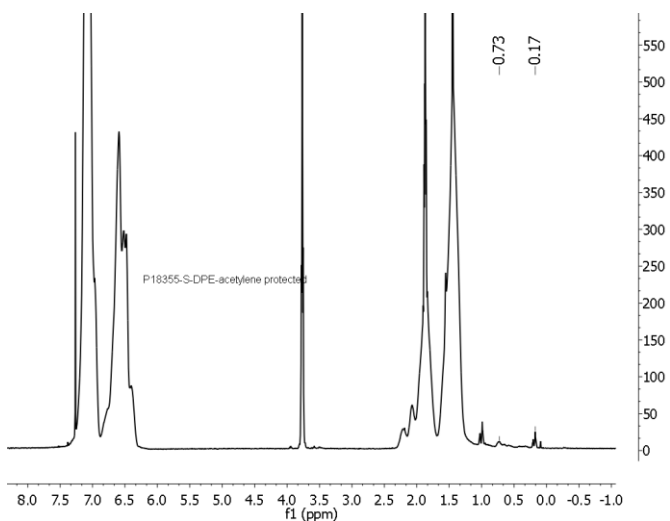
By SEC and HNMR spectroscopy.

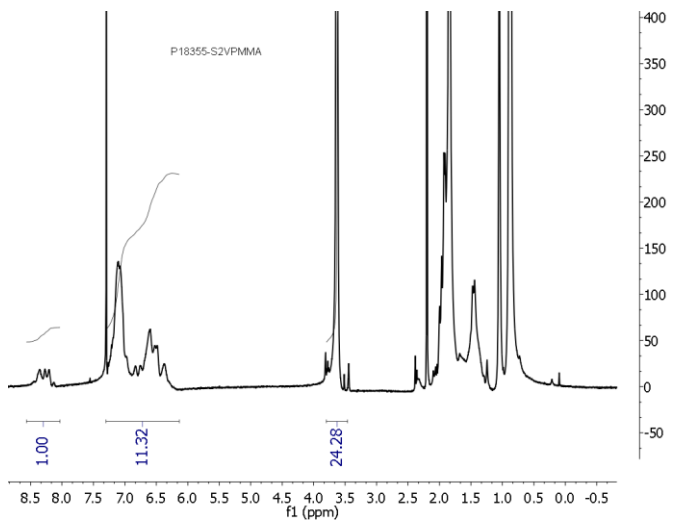
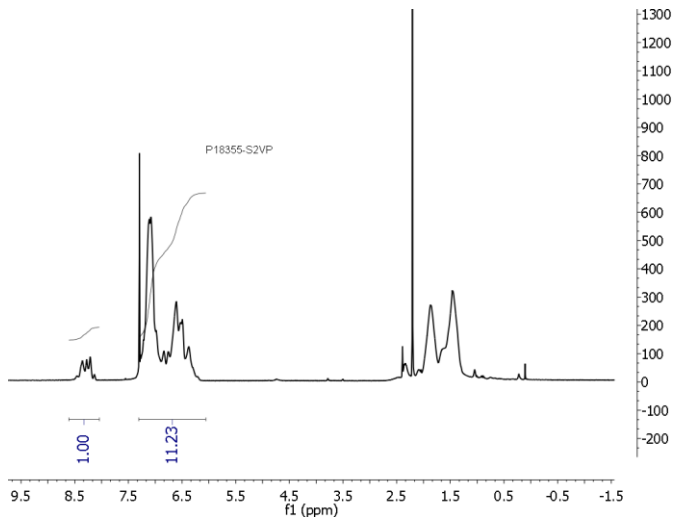
DPE-4Br:

The product was characterized by NMR and FTIR.



¹H-NMR Spectrum of the polymer

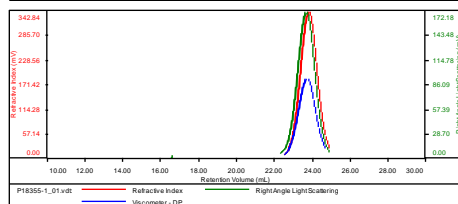




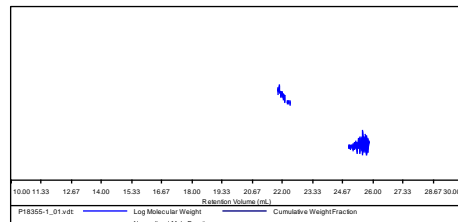
SEC for the polymer at different stages:

Sample ID: P18355-1-S

| | |
|-----------------------|---------------------------|
| Concentration (mg/mL) | 9.7339 |
| Sample dn/dc (mL/g) | 0.1850 |
| Method File | PS80K-NOV25-2013-0001.vcm |
| Column Set | 3x PL 1113-6300 |
| System | System 1 |

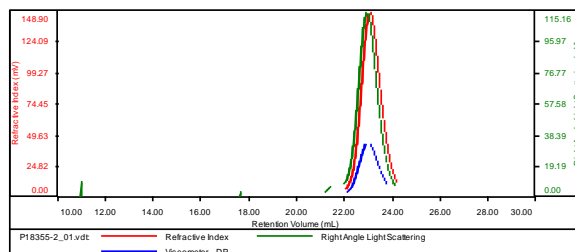


| Sample | Mn | Mw | Mp | Mw/Mn | IV |
|-----------------|--------|--------|--------|-------|--------|
| P18355-1_01.vdt | 33,818 | 35,579 | 33,898 | 1.052 | 0.2586 |

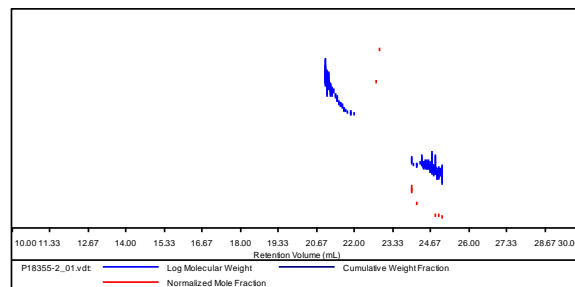


Sample ID: P18355-S2VP

| | |
|-----------------------|---------------------------|
| Concentration (mg/mL) | 4.4735 |
| Sample dn/dc (mL/g) | 0.1640 |
| Method File | PS80K-NOV25-2013-0001.vcm |
| Column Set | 3x PL 1113-6300 |
| System | System 1 |

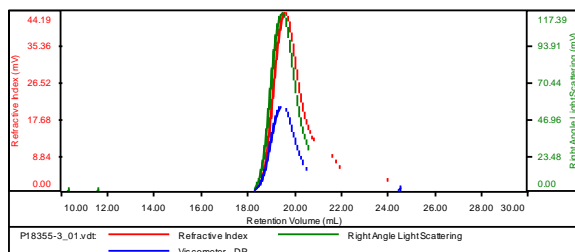


| Sample | Mn | Mw | Mp | Mw/Mn | IV |
|-----------------|--------|--------|--------|-------|--------|
| P18355-2_01.vdt | 55,744 | 60,100 | 58,469 | 1.078 | 0.2803 |



Sample ID: P18355-S2VPMMA

| | |
|-----------------------|---------------------------|
| Concentration (mg/mL) | 2.7295 |
| Sample dn/dc (mL/g) | 0.1250 |
| Method File | PS80K-NOV25-2013-0001.vcm |
| Column Set | 3x PL 1113-6300 |
| System | System 1 |



| Sample | Mn | Mw | Mp | Mw/Mn | IV |
|-----------------|---------|---------|---------|-------|--------|
| P18355-3_01.vdt | 228,214 | 253,608 | 283,143 | 1.111 | 0.9705 |

