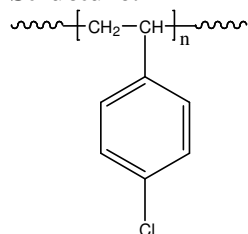


**Sample Name:** Poly(4-chloro styrene)

**Sample #:** P19639C-4CIS

**Structure:**

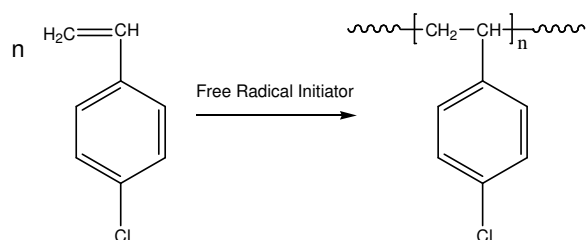


**Composition:**

| $M_n \times 10^3$ | PDI  |
|-------------------|------|
| 133.0             | 1.45 |

**Synthesis Procedure:**

Poly(4-chloro styrene) is synthesized by free radical polymerization of 4-chloro styrene and the reaction scheme is shown below.



**Characterization:**

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC).

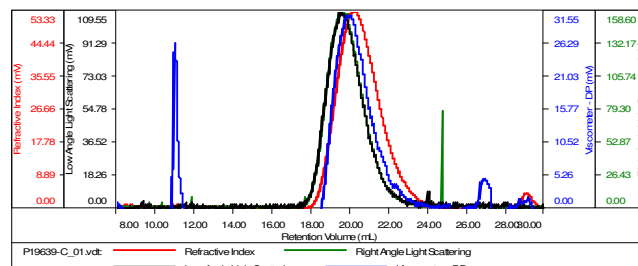
**Solubility:**

Poly(4-chloro styrene) is soluble in DMF, THF, toluene and  $CHCl_3$ . It precipitates from methanol, ethanol, water and hexanes.

**SEC elugram of Homopolymer:**

**Sample ID-P19639C-4CIS**

|                       |                            |
|-----------------------|----------------------------|
| Concentration (mg/mL) | 0.6937                     |
| Sample dn/dc (mL/g)   | 0.1850                     |
| Method File           | PS80K-June80-2015-0000.vcm |
| Column Set            | 3x PL 1113-6300            |
| Solvent               | THF                        |



| Sample          | MW Number Average (Da) | MW Weight Average (Da) | MW at Peak (Da) | Polydispersity | Intrinsic Viscosity (dL/g) |
|-----------------|------------------------|------------------------|-----------------|----------------|----------------------------|
| P19639-C_01.vcl | 133,311                | 189,806                | 185,405         | 1.424          | 2.6807                     |