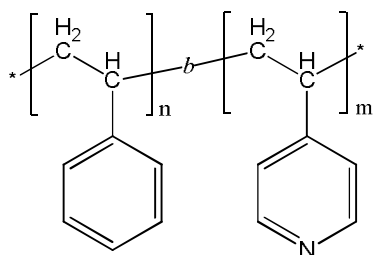


Sample Name: Poly(styrene-*b*-4-vinyl pyridine)

Sample #: P19206-S4VP

Structure:



Composition:

$M_n \times 10^3$ S-b-4VP	PDI
121.5–b–2.0	1.10
T _g for PS block:	104 °C

Synthesis Procedure:

Poly(styrene-*b*-4-vinyl pyridine) is prepared by living anionic polymerization in THF at –78 °C in the presence of LiCl an additive.

Characterization: by SEC and by ¹H-NMR.

Purification of the obtained polymer:

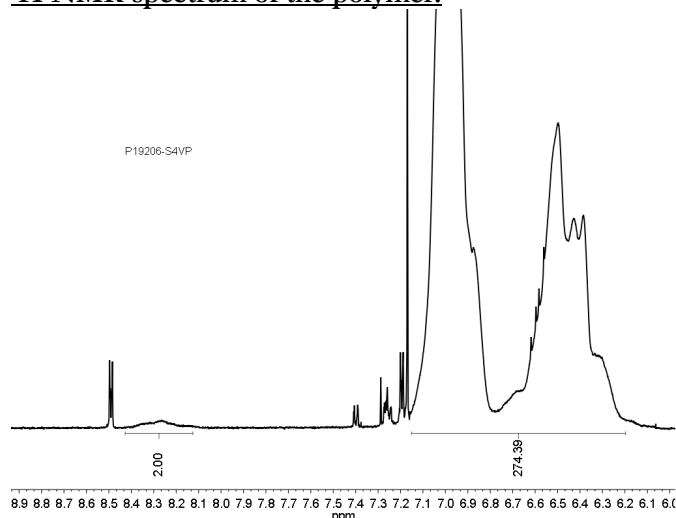
Purification of the obtained polymer was carried out rigorously as follows to ensure the removal of the catalyst side product:

1. Dissolved the polymer in CHCl₃ and wash with de-ionized distilled water to remove any soluble organic catalyst side product.
2. Polymer was extracted from water with chloroform.
3. Polymer solution in CHCl₃ was dried over anhydrous sodium sulfate.
4. Solution was filtered and then was passed through a column packed with basic Al₂O₃.
5. Solution was concentrated on rota-evaporator
6. Solution was precipitated in cold hexane and redissolved in benzene and freeze dried.
7. Dried under vacuum for 48h at 50°C.

References:

- (1). S. K. Varshney, X. F. Zhong and A. Eisenberg Macromolecules, **1993**, 26, 701-706.
- (2). Z.Gao, S. K. Varshney, S. Wong, A. Eisenberg Macromolecules, **1994**, 27, 7923-7927.

¹H NMR spectrum of the polymer:



SEC of the first block and diblock copolymer:

