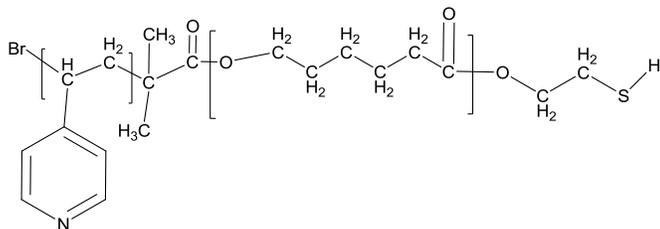


### Sample Name:

Thiol end-functionalized Poly(4-vinylpyridine-*b*- $\epsilon$ -caprolactone)

Sample #: P20022A2-1A-4VPCL-SH

### Structure:



### Composition:

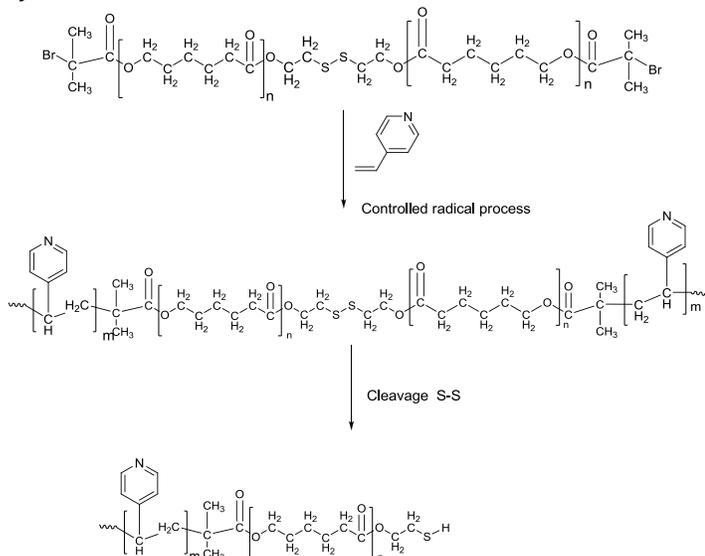
$M_n \times 10^3$ 4VP- <i>b</i> -CL-SH	PDI
0.8-3.4	1.4
SH functionality $\geq 85\%$ *	

\* - SH-functionality is judged based on disappearance of the peak at 2.91 ppm, as the terminal groups in block copolymers might not give correct integration value due to the aggregation processes in solution.

SEC-LS elugrams (DMF-LiBr) indicate complete cleavage of the disulfide linkage.

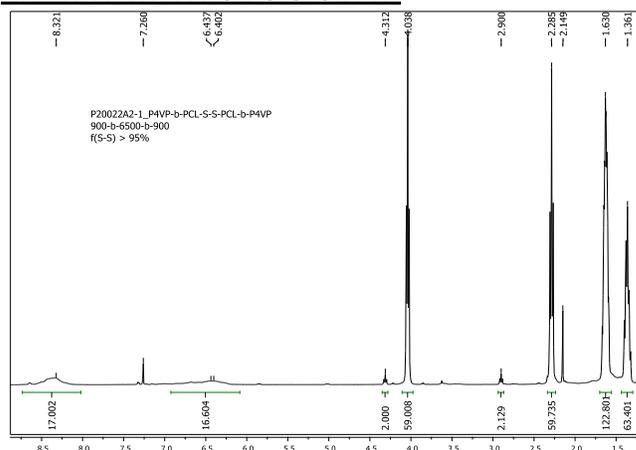
Oxidation of 4VP-CL-SH in THF by oxygen in presence of Iodine as catalyst leads to quantitative re-formation of disulfide linkage, indicating that the majority of the chains possess free SH-group.

### Synthesis Procedure:

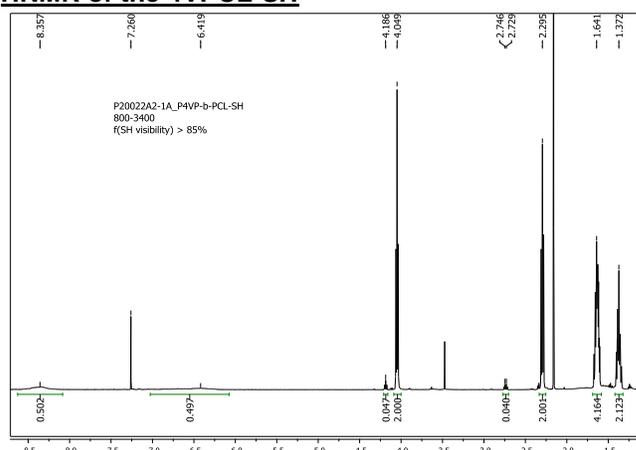


### Characterization:

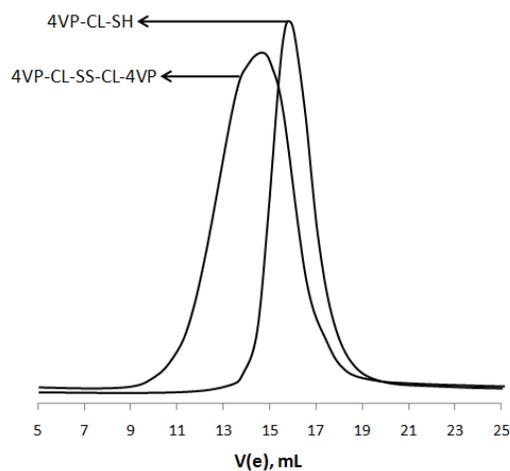
#### HNMR of the 4VPCL-S-S-CL4VP



#### HNMR of the 4VPCL-SH



#### SEC of the block copolymer:



Size-exclusion chromatography of the product (RALS curve):

Before cleavage:  $M_w / M_n = 1.6$

After cleavage:  $M_w / M_n = 1.4$