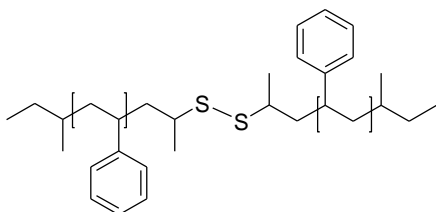


**Sample Name:** Polystyrene, with disulfide moiety in the middle of the polymer chain

**Sample #** P42556A-Sdisulfide

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup> (g/mol)	Mw/Mn
49.0	1.01
-SS- functionality	≥90%

**Synthesis:**

The polymer was synthesized by direct termination of living anionic polymerization of styrene by propylene sulfide, followed by oxidation with iodine.

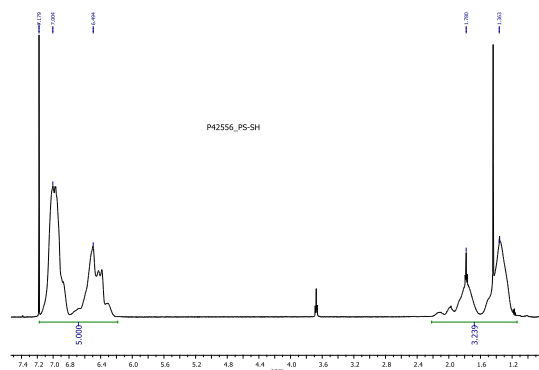
**Characterization:**

The molecular weight and polydispersity index of the thiol terminated polymer were determined by size exclusion chromatography (SEC) using a Malvern tri-detector system (RI, LS and Viscosity detectors).

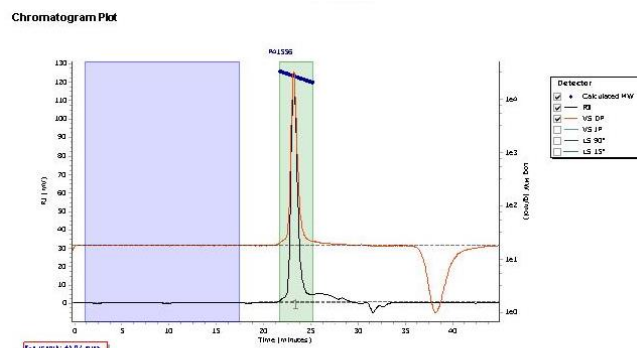
**Functionality:**

Polymer functionality was verified by oxidation of thiol into disulfide with iodine.

**<sup>1</sup>HNMR spectrum of the precursor polymer:**

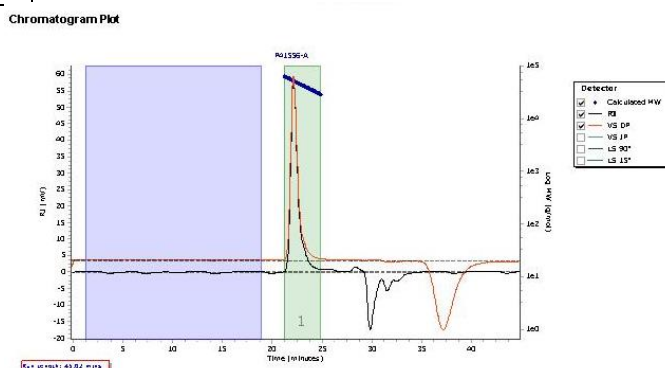


**SEC elugram of the thiol-terminated precursor:**



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mw (g/mol)	PD
Peak 1	27644	27096	27212	27322	27425	27328	1.004

**SEC elugram of the oxidized (disulfide) Sample:**



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mw (g/mol)	PD
Peak 1	51908	49162	49632	50400	50886	50353	1.014