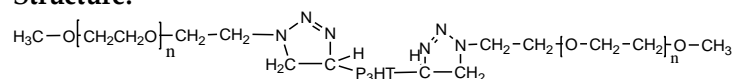


**Sample Name:**

**Poly(Ethylene oxide-b-3-hexyl thiophene-b-Ethylene Oxide)**

**Sample #:** P13262-EO3HTEO

**Structure:****Composition:**

Mn x 10 <sup>3</sup> (EO-3HT-b-EO)	PDI	Regioregularity of P3HT
5.0-b-3.1-b-5.0	1.2	~90% (H-T)

**Synthesis Procedure:****Purification of polymer:**

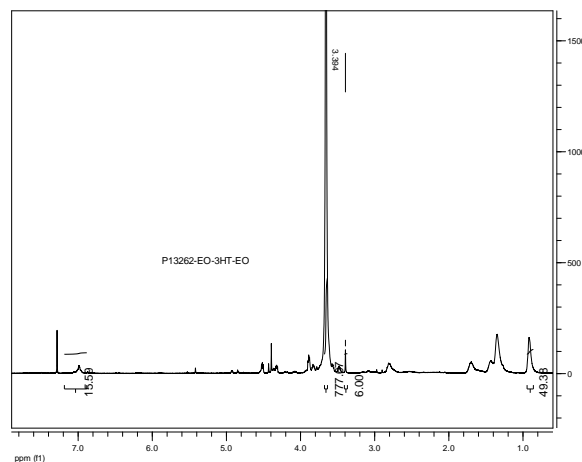
The crude polymer was recovered from reprecipitation into hexane. The inorganic salts were removed by dissolving in acetone and filtering the solution. The pure polymer was then dissolved in hot cyclohexane and filter. Product precipitated in cold hexane or ether.

**Characterization:**

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF or Chloroform. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co. The molecular weight is calculated based on polystyrene standards. The NMR spectrum was recorded in deuterated chloroform to determine the functionality and the composition of copolymer.

**Solubility:**

Poly(EO-b-3-hexyl thiophene-b-EO) is soluble in THF, CHCl<sub>3</sub> acetone and also in water.

**H NMR of Block copolymer:****SEC profile of polymers:**  
**P13262-EO3HTEO**