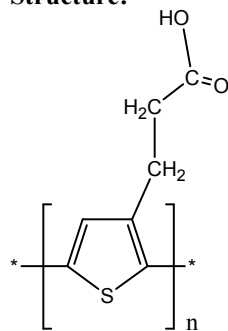


Sample Name:

HT-2,5 Poly(thiophene-3-propionic acid)

Sample #: P14617-Th-3PrA

Structure:



Composition:

Mw x 10 <sup>3</sup>	PDI	HT
10.5	1.8	HT (head to tail)

**Purification of polymer:**

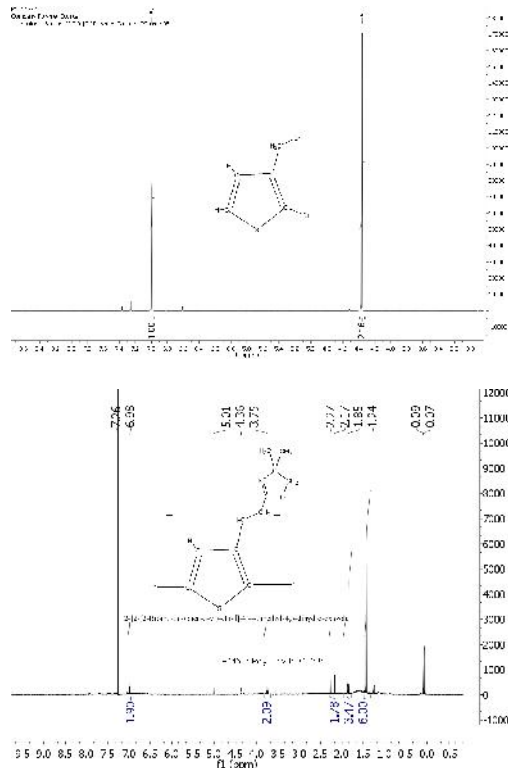
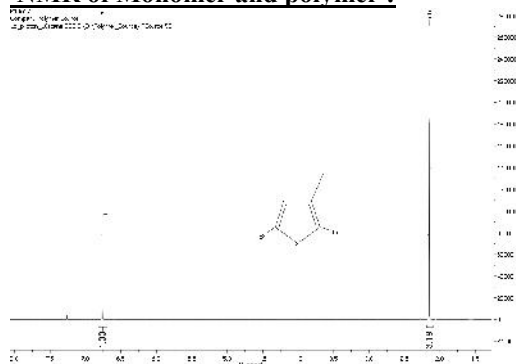
The crude polymer was extensively purified from toluene then in CHCl<sub>3</sub> cool it down to remove soluble fraction in CHCl<sub>3</sub>. Finally polymer dissolved in DMF and precipitate in water, obtained powder dried under vacuum for 2 days at 40 oC. .

**Characterization:** The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF The NMR spectrum was recorded in deuterated chloroform for the monomer and the final polymer in acid form was recorded in DMF.

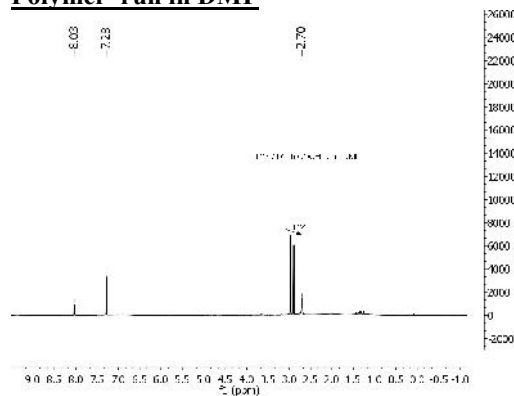
**Solubility:**

Polymer is soluble in DMF. It has partial solubility in CHCl<sub>3</sub> and in THF. In DMF solubilize completely.

**NMR of Monomer and polymer :**



**Polymer run in DMF**



**SEC profile of polymers: in the form of Poly 3,5 thiophene 3-ethy 4,5 dihydro 4,4 dimethyloxazole: before hydrolysis:**

Sample ID: P14617A

