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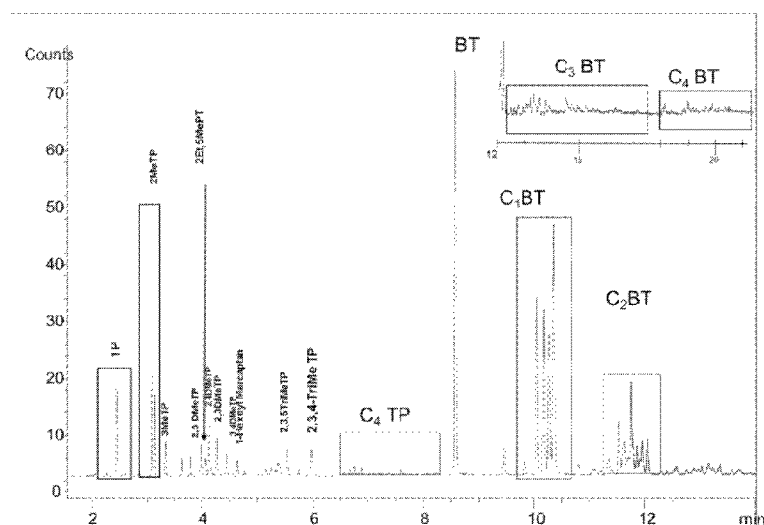


FIG. 1

(57) Abstract: The present invention relates to apparatuses and processes for manufacturing polymers of thiophene, benzothiophene, and their alkylated derivatives. A process for manufacturing polymers that includes isolating a sulfur-containing heterocyclic hydrocarbon from cracked naphtha and reacting the sulfur-containing heterocyclic hydrocarbon with a super acid to produce a polymer.