

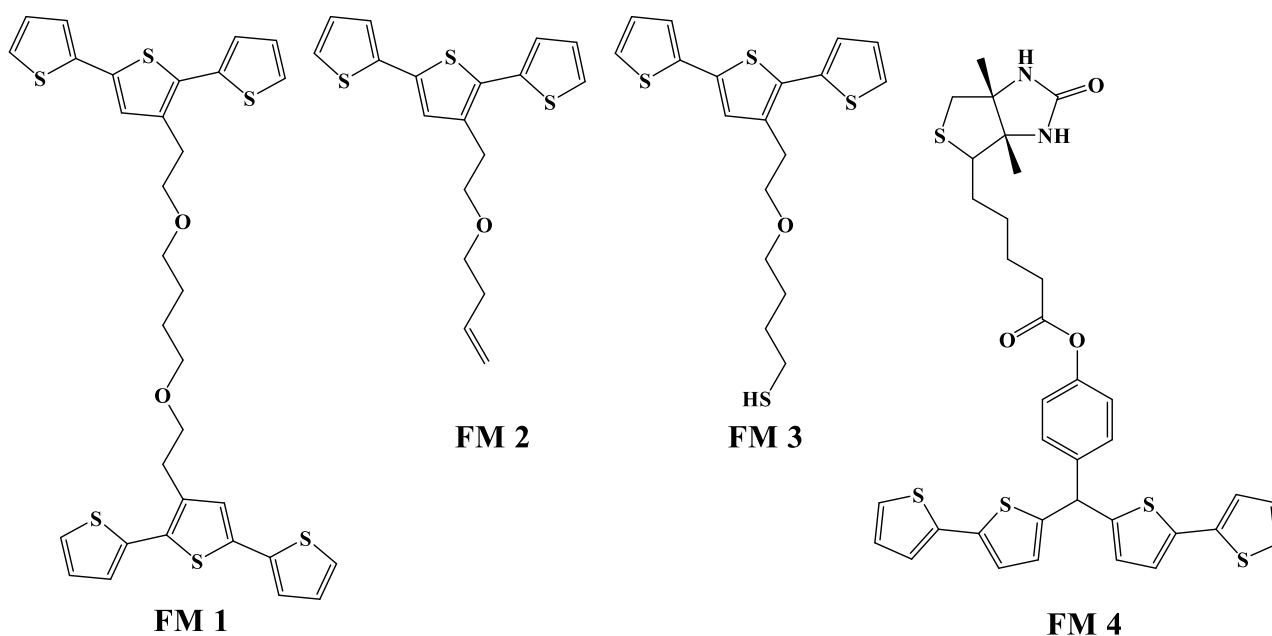
Functional Conducting Polymer: Synthesis and Its Application in Chemosensing

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Current work describes the synthesis and electrochemical studies of derivatives of bis-bithiophene and terthiophene (Scheme 1). We studied the influence of solvents and the supporting electrolytes on the resulting polymer morphology and electrochemical stability after electropolymerization. The structural formulas of the studied monomers are provided in Scheme 1. Among all studied monomers, the lowest oxidation potential was observed for **FM 1**, and the highest oxidation potential was observed for **FM 4**. Additionally, we investigated the morphology of the functionalized conducting polymer by SEM. Later, we correlate the morphology of the polymer with electrochemical stability. In the final step, we foresee the application of these functional monomers in chemosensing of antibiotics, which is in progress.



Scheme 1. Structural formulas of different derivatives of terthiophene and bisbithiophene.

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