



**CERTIFICATE NO : NCESMAH /2021/C1021771**

**A STUDY ON METHODS OF PREPARATION OF CONDUCTING  
POLYMERS FOR CHEMICAL OXIDATIVE**

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**ABSTRACT**

It is an organic polymer that acts like a semiconductor when it comes to electricity. Electrical, optical, magnetic, mechanical, and thermal qualities are all present in this material, making it one of a kind. Chemical and electrochemical processes may be used to synthesize conducting polymers. Electrons are extracted from the conducting polymer's backbone in both techniques. As a consequence, cationic salts of conjugated polymers are formed. Reagents like sodium naphthalene or electrochemical reduction may be used to achieve chemical reduction. Conjugated polymer anionic salts are used to introduce electrons to the polymer's backbone. Chemical syntheses are used to create the vast majority of conducting polymers. When polymerization requires reactive radical ions, electrochemistry is the method of choice because it yields reactive radical ion intermediates that may be oxidized in the presence of a potential. Polymers may be created in bulk at the beginning of the process, making this approach the most often used. Step-growth polymerization and addition polymerization are two different chemical synthesis processes (chain-growth polymerization process). In contrast to the electrochemical technique, which is limited in its ability to scale up, the chemical method of synthesizing conducting polymers offers a wide variety of alternative paths.