



## **A BRIEF DESCRIPTION OF THE ELECTROSPINNING PROCESS UTILIZED TO CREATE DRUG-LOADED NANOFIBERS FOR PHARMACEUTICAL USES**

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### **ABSTRACT:**

The electrospinning process can be employed to produce continuous fibers in the nanometer range from drug-polymer solution. Nanofibers so produced are gaining more attention as promising therapeutic carriers due to biocompatibility, bioavailability, biodegradability, and high loading capacity. Wide array of drugs and polymers had been used in preparing drug loaded nanofibers with high surface area, extreme porous structure, small pore size, surface morphologies that make them suitable for biomedical and bioengineering applications which can provide solution to current drug delivery issues of poorly water soluble drugs. The main theme of this paper is to throw light on the electrospinning technology for creating nanofibers embedded with drugs, types of electrospinning, the impact of various electrospinning process parameters, researcher's contributions, use of materials like polymers, pharmaceuticals and solvents, characterization tools, assessment of prepared nanofibers and drug delivery functions of electrospun nanofibers.

**Keywords:** Polymers, Drugs, Electrospinning, Drug Loaded Nanofibers, Drug delivery system.