

DESIGNING AND IMPLEMENTATION OF ELECTROSPINNING SYSTEM TO PRODUCE THE POLYMERIC NANO-FIBERS

BALKEES M. D. AL-DABBAGH & HANNA J. K. AL-SHIMARI

Technology University, Applied Science, Materials Branch

ABSTRACT

Designing and Implementation of electrospinning system to produce the polymeric nano fibers at different range diameter is done and is explained in this paper. This system consists of three main parts : 1- Syringe pump from German company with pump ratio between (0.1 – 1000 ml/hr) for polymer solution or melt which are contained at syringe with metallic needle , 2- High voltage power supply (AC-type)to generate 15 KV from Thailand company , 3- Aluminum collector with (45*45)cm²dimensions cover with glass foil by (0.2 cm)thickness. These parts are collected by local steel stand with some notches to change the distance between the collector and needle.

KEYWORDS: Designing and Implementation, Electrospinning System, Polymeric Nano Fibers