

NANOFIBER ELECTROSTATIC SPINNING DEVICE

ABSTRACT

The present invention relates to a nanofiber electrostatic spinning device which comprises a high-voltage electrostatic generator, an electrostatic spinning generating device and a collecting device. The electrostatic spinning generating device comprises a solution tank and a rotary spinning mechanism arranged at the open-top of the solution tank. The rotary spinning mechanism is provided with a central rotating shaft and a plurality of spinning electrodes in parallel along the central rotating shaft, and the central rotating shaft is driven by a driving mechanism to rotate. The spinning electrodes are driven to rotate and polymer solution in the solution tank is brought to an electric field between the plurality of spinning electrodes and the collecting device, so as to generate nanofibers which are received by the collecting device. The collecting device comprises an insulated base, wherein linear sliding rails are arranged on both opposite sides of a bottom of the base. The collecting device, which may be either a low-speed collecting device or a high-speed collecting device, can be arranged on the linear sliding rails respectively. The nanofiber electrostatic spinning device disclosed by the present invention can keep uniform cyclic motion, so that the spinning area is increased through each sheets-like electrode, thereby improving the spinning efficiency and quality.

Figure 3