

Improved electrosopinning set up for mass producing thicker ceramic nanofiber mat for high power targets

Tuesday, 5 June 2018 17:50 (10 minutes)

A compact nanofiber production unit with capability to produce variety of ceramic nanofibers using very low power output low voltage DC input inexpensive DC-DC voltage converter with dual polarity high voltage DC supply has been developed. The device is much smaller light weight and simpler than conventional electrospinning unit. The device is much safer to use as it limits the output power to only few watts and can be operated out of a 9V battery as well as 12V DC adapter. System is a versatile unit employing syringe needled spinneret for prototype nanofiber and a customized 3d printed delivery system with spiked helical spinneret for mass production. It also produces thicker nanofiber mat using corona ionizer.

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Session Classification: Poster Session and Reception