

Preface

One-dimensional (1D) nanostructures (wires, rods, tubes, fibers, and belts) are of current interest for their applications in mesoscopic physics and nanoscale devices. In contrast to other nanostructures, 1D nanostructures can provide unique advantages for the investigation of the dependence of electrical, thermal, and mechanical performances on dimensionality. To apply the 1D nanostructures into existed macroscopic devices, there is a great need to develop a novel synthesis route for 1D nanostructures with nanoscaled diameter and macroscopic length. Since the 1990s, a novel and simple technique entitled electrospinning, revived by Reneker, has attracted numerous attention for the generation of 1D nanostructures with continuous length, tuneable diameter, aligned direction, diverse and controllable compositions. Till date, the electrospinning field has been evaluated as the Fast Moving Front in materials science by Thomson, ISI. We therefore publish a mini book to introduce electrospinning. We nevertheless extend our apologies to those scientists whose research findings could not be cited or discussed in our mini book. The present book shall be of interest to those scientists engaged in 1D nanostructures and their applications.

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One-Dimensional nanostructures

Electrospinning Technique and Unique Nanofibers

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