

## Editorial

# Nanofiber Manufacture, Properties, and Applications

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Nanofibers have shown many unique characteristics and enormous application potential in widely diverse areas. While considerable research has been conducted on exploring the properties and applications of nanofibers over the decade, the technology development for large-scale production of nanofibers has been hampered, which slows down the wide applications of nanofibers in practice.

This special issue focuses on the recent progress in emerging nanofiber production techniques, such as needleless electrospinning, and novel properties and applications of nanofibers. It also covers unusual methods to process natural materials into nanofibrous materials.

The special issue consists of four review articles and eighteen research papers. One review paper presents an overview of the recent developments in needleless electrospinning and the influences of needleless spinnerets on electrospinning process, nanofiber quality and productivity. The review also points out the challenges remaining for further research in this area. Other three reviews separately summarize the preparation, characterization and applications of ZnO nanowires and the applications of carbon nanofibers for neural electrical/chemical interfaces and for cement reinforcement.

The research articles report new results of needleless electrospinning techniques, and novel methods to make bicomponent nanofibers, porous nanofibers, nanofiber hydrogel and chitin nanofibrils. As Guest Editors for this special issue, we are pleased to see the progress in the applications of nanofibers, especially for sound absorption and for protective clothing, as well as the antibacterial properties of titanate nanofibers.

We hope this special issue will promote further development of large-scale economically feasible nanofiber-making technologies, and also contribute to the wide use of nanofibers. We also hope that the articles collected in this special issue are well-received by the reader.

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