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Piezoelectric Nanofibers: Recent Development, Challenges, and Applications

Guest Editors:

Dr. Ahmed H. Hassanin

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Deadline for manuscript submissions:
closed (10 October 2023)

Message from the Guest Editors

Dear Colleagues,

Piezoelectric membranes have been investigated over the last two decades in applications of energy harvesting, efficient lighting, and wearable electronics. Polymeric nanofibers membranes have sparked an increased interest in both research and applications. However, due to their limited transducing efficiency compared to bulky ceramics and relatively lower-scale production, there are various challenges to using such nanocomposites on a wide range of applications. Therefore, the goal of this Special Issue is to attract the most prestigious research publications on recent techniques for improving the mechanical-to-electrical transducing efficiency of nanofiber membranes. These techniques include, but are not limited to, the use of higher-performance polarized polymers, promising additives to enhance polarizability, fabrication techniques to improve the piezoelectric performance, along with different applications of developed nanofibers mats in sensors, transducers, vibration detection, acoustic harvesting, wearable electronics, and more. Review articles are also welcome, but should focus on recent trends in the field's literature.

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Message from the Editor-in-Chief

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