Conducting Nanofibers Network for Stretchable Conductors

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Flexible, wearable, and stretchable electronics have been widely researched due to its promising applications in many areas. In particular, transparent conductors are essential components for numerous flexible and stretchable optoelectronic devices. Transparent and flexible conductors based on different kind of materials, such as carbon nanotubes, graphene, conductive polymers, and conducting nanofiber, have been extensively emerged. In these materials, conducting nanofiber has provided excellent conductivity and its structure presents relatively good robustness under mechanical stress.
In this study, we fabricated conducting nanofibers network and investigated its electrical performance. Conducting nanofibers network can be prepared by electrospinning and deposition methods. Depending on types of collector, various form of conducting nanofiber networks could be achieved. The conducting nanofibers network demonstrates high transparency and good conductivity.