

Special Issue

The Design, Realization, Characterization, and Application of Multicomponent and Multifunctional Fibers

Message from the Guest Editor

It is well known that different materials and morphologies can be arbitrarily used to form disparate functional fibrous structures. Polymer blending or mixing, and multilayer or multiphase morphologies, realized by combining different fabrication techniques, are effective strategies to merge the unique properties of each component (macromolecules and inorganic materials), to add or improve properties, and to create novel materials and structures. Thanks to strategies such as co-axial spinning or post-processing coating, it is also possible to produce fibers based on materials with completely different properties or on not spinnable materials. Multicomponent and multifunctional fibers have enhanced properties and are able to better fulfill the application requirements in biomedical, healthcare, environmental field, and so on. Contributions to this Special Issue will provide further advancements in the design, realization and characterization of multicomponent and multifunctional fibers; they will highlight the current and future research needs in order to improve and broaden multicomponent and multifunctional fibers applications and commercialization.

Guest Editor

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