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Application of Aerogel into Textile Fabrics for Thermal Insulation

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Message from the Guest Editor

The Special Issue focuses on the innovative application of aerogel materials into textile fabrics for enhanced thermal insulation. Aerogels are highly porous, lightweight, and low-density materials known for their exceptional thermal properties, making them ideal candidates for improving the thermal performance of textile-based products. This issue aims to explore the latest research and developments in the integration of aerogels into textiles, investigating their potential to revolutionize thermal insulation in various industries, such as in clothing, home textiles, outdoor gear, and industrial applications. Topics of interest include fabrication techniques, thermal properties, heat transfer mechanisms, aerogel content and structure, durability, cost-effective production methods, applications in extreme environments, sustainability, and challenges in the field.



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Special Issue



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Message from the Editorial Board

Gels (ISSN 2310-2861) is recently established international, open access journal on physical and chemical gel-based materials. The journal aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. General topics include but not limited to synthesis, characterization and applications of new organogels, hydrogels and ionic gels made either from low molecular weight compounds or polymers, composite and hybrid materials where a metal is by some means incorporated into the gel network, and computational studies of these materials in order to provide a better understanding of gelation mechanism. We cordially invite you to consider publishing with us and contribute with your own grain of sand to the advance in this fascinating field.

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