Advances, Applications, and Future Perspectives of Aerogels

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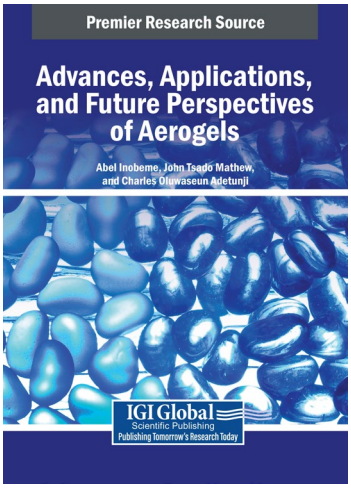

Description:

Aerogels represent a groundbreaking advancement in material science due to their exceptional physicochemical properties, making them highly valuable across various fields such as medicine, engineering, and environmental science. Their ultra-lightweight structure, high porosity, and superior thermal and acoustic insulation capabilities position them as a transformative solution for modern technological challenges. As research into aerogels continues to expand, their applications in energy storage, aerospace, filtration, and biomedical engineering hold great promise for innovation and sustainability. Understanding the latest advancements and potential of aerogels is essential for scientists, engineers, and industry professionals aiming to harness their full potential for future developments.

Advances, Applications, and Future Perspectives of Aerogels provides an in-depth overview of the chemistry of aerogels. It discusses comprehensively the synthesis, characterization and physicochemical properties of aerogels. Covering topics such as bone regeneration, nanocomposites, and climate resilience, this book is an excellent resource for technologists, medical doctors, material scientists, engineers, professionals, researchers, scholars, academicians, and more.

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Topics Covered:

- Acoustic Insulation
- Aerogels
- Biosensing
- Bone Regeneration
- Climate Resilience
- Environmental Protection
- Health Impact
- Imaging
- Nanocomposites
- Physiochemical Properties
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Subject: Physical Sciences and Engineering
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