

## Special Issue

# Recent Advances in Silica Aerogel Composites for Thermal Superinsulation

### Message from the Guest Editors

Silica aerogels are high-performance insulation materials with thermal conductivities reaching as low as approximately 12 mW/(m·K) in their monolithic form. In this Special Issue, we invite contributions focusing on the synthesis and characterisation of new silica aerogel composite materials, the characterisation of existing materials, e.g., quality control and durability, and the applications of both new and existing silica aerogel composites as thermal superinsulation. Of special interest are new composites with improved material properties, such as mechanical strength, thermal conductivity, and acoustic properties, but also with reduced manufacturing costs and a lower embodied CO<sub>2</sub>-equivalent for higher sustainability. The focus concerning the designated application is on its use as a thermal insulator, for example in the building sector, in industrial applications, transport, or in electric vehicles. Articles examining applications that make use not only of the insulating but also other properties, e.g., optical/translucent, are also welcome.

### Guest Editors

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### Deadline for manuscript submissions

closed (31 March 2023)



## Gels

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## About the Journal

### Message from the Editor-in-Chief

*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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### Editor-in-Chief

Prof. Dr. Esmail Jabbari

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