

## Special Issue

# Cryogelation and Cryogels 2.0

### Message from the Guest Editor

Cryogelation, a polymerization process intended to form a crosslinked and macroporous gel network at sub-zero temperatures, has initially been used only for a handful of polymers since the 1970s. Gels produced with this process are known as freeze-thawed cryogels, or more commonly cryogels. More research is undergoing to expand the polymer library but also to better understand the underlying mechanisms of cryogelation.

Alternatively, a different class of cryogels, namely freeze-dried cryogels, are made from standard hydrogels that undergo a process of cryostructuration.

Contributions covering the following topics from fundamental and application-driven perspectives are welcome and encouraged:

- Cryogelation and freezing/thawing of both inorganic and organic precursors including biopolymers;

- Novel cryogenic processes such as flash freezing and freeze drying with non-aqueous solvents;

- Mechanisms of cryogelation and related processes;

- Cryogelation using unusual polymers;

- Applications of cryogels in material and life sciences.

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### Guest Editor

Dr. Pavel Gurikov

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### Deadline for manuscript submissions

closed (31 August 2020)



## 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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