Special Issue

Cryogels: From Inception to Improving Life and Health

Message from the Guest Editors

This Special Issue intends to showcase the role that cryogels, as soft thermoresponsive materials, may play in cryobiology. Cryoprotectants are cornerstone free agents used in a freezing medium, capable of preventing lethal ice growth in cells, tissues, organs, and whole organisms. However, they are not without limitations. Allied to a porous matrix, the added mechanical integrity to biologics prone to cold stressors could address the longstanding challenges of ice crystallization and solute effects simultaneously, breaking current barriers in the field. Reframing cryopreservation and cryogels as a problem-solution relationship would largely benefit from the following:

- The refinement of cryogel synthesis:
- An improved characterization methodology:
- New points of entry into strongly established cryopreservation protocols;
- Innovative cryogel-based cryopreservation applications;
- A mechanistic understanding of their interactions with ice formation:
- Other applications to the field.

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About the Journal

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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