

Special Issue

Recent Advances in the Rheology of Soft Gels

Message from the Guest Editors

It has been pivotal in understanding their structure–property relationships, guiding the design of gels for use in fields such as biomedicine, soft robotics, and consumer products.

A key advancement lies in the characterization of nonlinear and time-dependent rheological behaviors. Techniques such as quasi-linear large-amplitude oscillatory shear (QL-LAOS) enable researchers to probe the viscoelastic properties of materials following microstructural changes induced by large stresses and deformations. Another emerging area is the development of multifunctional and responsive gels. Furthermore, the integration of rheology with complementary techniques such as scattering, microscopy, and computational modeling has provided a holistic view of gel microstructure evolution under flow.

These multidisciplinary approaches not only enhance the fundamental understanding of soft gels but also accelerate the design of next-generation materials for emerging technologies.

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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.

Editor-in-Chief

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