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Gel Polymer Electrolytes for Energy Conversion and Storage Systems

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Message from the Guest Editors

Electrolytes have played very important roles in electrochemical energy storage. In recent years, polymer electrolytes have also shown promising applications in rechargeable batteries, supercapacitors, dye-sensitized solar cells, etc., and they show no indication of overheating, electrolyte leakage, or flammability. In addition, they have the advantages of shape flexibility and manufacturing processability. Gel polymer electrolytes (GPE) have received a lot of attention in recent years for their advantages of both solid and liquid electrolytes. This superior combination is embodied in high ionic conductivity and good interfacial properties from the liquid phase, as well as good mechanical properties from the solid component. Consequently, GPEs have become one of the most desirable alternatives among various electrolytes for the fabrication of advanced energy conversion and storage devices with enhanced safety and flexibility.

This Special Issue intends to cover the latest progress in the field of gel polymer electrolytes for electrochemical devices. Both research and review works that are related to this topic are welcome. We look forward to your valuable contributions.

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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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