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Supercapacitors: Emerging Electrode and Electrolyte Materials

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Deadline for manuscript submissions:
closed (20 November 2023)

Message from the Guest Editors

Supercapacitor emerged as an electrochemical power source used in different applications from portable electronics to hybrid vehicles. Research efforts has been put toward the development of the novel electrode and electrolyte materials. Starting from carbon based electrode materials to transition metal oxides, 2D materials and hybrid materials we have come a long way to extend the scope of improvement for charge storage. Main focus is toward improvement of charge storage capacity by tuning the structure, morphology, and surface area and conductivity. Electrolyte is an important part of supercapacitor and affects the device performance. To address the progress in the research and development of supercapacitor electrode/electrolyte materials.

This special issue covers the theoretical and experimental work dealing with novel electrode and electrolyte materials. We invite you to submit the research and review articles on, but not limited to, the following topics:

- Carbon based materials;
- Transition metal oxides;
- 2D semiconductor materials;
- Hybrid materials;
- Polymer electrolytes (gel/solid);
- Conducting polymers.

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Message from the Editor-in-Chief

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