

CALL FOR PAPERS

Fast-growing global economies rely heavily on the consumption of fossil fuels. However, the continually increasing demand for energy cannot be met by the depleted fossil fuel reserves. Various renewable energy technologies have been developed in order to realize a sustainable future, and material innovation is key to achieving this goal. Among many material candidates, polymer materials have been demonstrated to have a prodigious potential to be used in various energy-related fields. Their compositions, methods of synthesis, and structures have crucial impacts on the performance. Research and development efforts that can realize the full potential of polymer materials are therefore urgently needed in order to secure a clean and sustainable energy future.

For this special issue, we welcome both original research and review articles that examine the recent progresses made in polymer-based materials for energy applications. Experimental and numerical studies that focus on the design, synthesis, characterization, and application of these polymer-based materials are highly encouraged.

Potential topics include but are not limited to the following:

- ▶ Novel approaches for rational design, synthesis, and characterization of advanced polymer-based materials with desirable architectures and properties for energy storage applications
- ▶ Scalable and reproducible synthesis of functional polymers for energy storage and conversion
- ▶ Polymer-based batteries: lithium-metal batteries, lithium-ion batteries, lithium-sulfur batteries, and lithium-oxygen batteries
- ▶ Polymer-based materials for electrodes and supercapacitor devices
- ▶ Polymer solar cells with high power conversion efficiencies and long lifetimes
- ▶ Polymer-derived porous carbon materials with tailored properties for electrocatalysis and fuel cells

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/apt/pbmea/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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