Special Issue

High-Performance Polymer-Based Dielectrics for Energy Storage

Message from the Guest Editor

Polymer-based dielectrics have received increasing attention in electrostatic capacitor field ascribing to their unique characteristics, i.e., high electric breakdown strength, light weight, flexibility, and ease of processing. Nevertheless, their relatively low dielectric constant (generally below 10) remains a critical limitation, leading to unsatisfactory energy density despite excellent breakdown endurance and low loss. To meet the rising demand for compact and integrated electronic systems, improving the permittivity of polymer dielectrics without sacrificing other desirable properties has become a crucial research direction. This Special Issue focuses on recent advances in material design and engineering strategies, i.e., as nanocomposite fabrication, polymer blending, and interface modulation, etc., that aim to break existing performance bottlenecks and accelerate the development of high-energy-density capacitive materials for next-generation power devices.

Guest Editor

Dr. Bei Li
School of Materials Science and Engineering, Wuhan University of Technology, Wuhan, China

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Polymers
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
polymers@mdpi.com

mdpi.com/journal/polymers

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Since its foundation in 2009, *Polymers* has developed into an internationally renowned, extremely successful open access journal. The editorial team and the editorial board dedicatedly combine open-access publishing and high-quality rigorous peer reviewing. The performance of the journal has proven this strategy to be well-suited and highly successful. This is reflected in the increasing impact factor of *Polymers*, the most recent one being 4.9.

I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Alexander Böker
Fraunhofer-Institut für Angewandte Polymerforschung, Lehrstuhl für Polymermaterialien und Polymertechnologie, Universität Potsdam, Geiselbergstraße 69, 14476 Potsdam-Golm, Germany

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