Special Issue

Applications of Polymers in Energy and Environmental Sciences

Message from the Guest Editors

The functions of polymers can be designed for various applications in energy conversions/manipulations and environmental sensing/protections, which rely on the advanced developments of solar cells, light-emitting diodes, photodetectors, high-speed communications, gas sensors, gas purifiers, photocatalysis, and supercapacitors. The manipulations of molecular structures, nanostructures, mesostructures and microstructures can dominate the surface, chemical, electrical, electronic, optical, and excitonic properties of the functional polymers. In addition, it is predicted that the effects from the nanocomposite structures, heterostructures, and nanoplasmonic structures provide additional pathways to realize the desired polymer based functional devices. Therefore, this Special Issue will cover research and review papers on polymer-based functional devices as follows:

- Solar cells;
- Light-emitting diodes;
- Photodetectors;
- Gas sensors;
- Gas purifiers;
- Photocatalysis devices;
- Supercapacitors;

Nanocomposite structures, heterostructures or nanoplasmonic structure enhanced polymer-based functional devices for energy conversions/manipulations and environmental sensing/protections.

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Message from the Editor-in-Chief

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 4.7.

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
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