Special Issue

Fundamental Aspects and Applications of Photoactive and Electro-Optic Polymers

Message from the Guest Editors

Photoactive polymers and electro-optic are categorized as polymeric materials that actively interact with and respond to light. In photorefractive polymers, which is one of the electro-optic polymers, light–matter interaction, in particular, induces light–light interaction. So far, photorefractive crystals have shown two-beam coupling in intensity but not in phase because of the phase shift = 90° (π/2). On the other hand, in photorefractive polymers, in addition to intensity coupling, phase coupling is expected because of the phase shift ≠ 90° (π/2). These unique properties provide us with interesting phenomena. Orientational enhancement is a huge merit for photorefractive polymers. Photocurrent dynamics is a fundamental phenomenon in photorefractive polymers. Additionally, spatiotemporal photorefractive dynamics is another interesting area.

This Special Issue of *Polymers* aims to collate original articles that address a broad range of topics related to light–matter interaction, new photorefractive, photoactive polymers, as well as their applications. We welcome submissions of novel and original papers, review articles as well as mini reviews.

Guest Editors

Prof. Dr. Naoto Tsutsumi

Dr. Takafumi Sassa

Dr. Kenji Kinashi

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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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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
Lehrstuhl für Polymermaterialien und Polymertechnologie, University of Potsdam, 14476 Potsdam-Golm, Germany

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