Special Issue

Stimuli-Responsive Functional Polymers for Drug Delivery

Message from the Guest Editor

Stimuli-responsive functional polymers are key in advancing drug delivery by enabling controlled drug release triggered by physiological or external stimuli such as pH, redox potential, temperature, enzymes, light, magnetic fields, or ultrasound. These polymers enhance targeting, reduce systemic toxicity, and improve treatment efficacy. Recent studies explore various polymer types—including linear, branched, block copolymers, and dendritic structures—with labile bonds or responsive groups. They are formulated into nanoparticles, micelles, nanogels, hydrogels, and films for versatile administration routes. Multifunctional systems combining imaging, diagnostics, and targeting with drug delivery are also emerging as next-gen theranostics. This Special Issue invites submissions on design, synthesis, characterization, and biomedical application of these polymers, focusing on structure–property–performance relationships, novel stimuli-responsive chemistries, and innovative delivery platforms aimed at clinical translation. Original research, reviews, and short communications are welcome.

Guest Editor

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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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