Special Issue

Synthetic-Biological Hybrid Polymers and Co-Assembled Nanostructures

Message from the Guest Editors

Polymeric materials have been instrumental in the development of current technology and applications in everyday life. For many years, synthetic polymers have been the focus of scientific and technological developments. Block copolymers and polyelectrolytes are being intensively studied due to their ability to self- or co-assemble into nanoscale objects of different morphologies, sensitive to external stimuli. At present, there is a strong need for polymeric materials from more sustainable sources: in this context, polysaccharides, as an important and abundant class of biomacromolecules, can be the answer. Natural biopolymers can be chemically modified thanks to the presence of numerous free functional groups displayed along their backbones. Their self- and co-assembly processes, following principles from the physical chemistry of synthetic polymers, provide self-organized nanoassemblies that could find applications as nanocarriers (for drugs and dyes, therapeutic biomacromolecules/proteins, peptides, nucleic acids, inorganic nanoparticles), nanocontainers (for water organic/inorganic pollutants), surface functionalization nanomaterials, and so on.

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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

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