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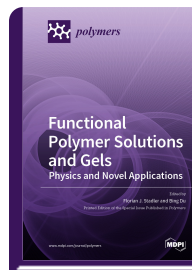
*Special Issue Reprint*

## **Functional Polymer Solutions and Gels—Physics and Novel Applications**

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“Functional Polymer Solutions and Gels—Physics and Novel Applications” contains a broad range of articles in this vast field of polymer and soft matter science. It shows insight into the field by highlighting how sticky (non-covalent) chemical bonds can assemble a seemingly water-like liquid into a gel, how ionic liquids influence the gelation behavior of poly(N-Isopropylacrylamide) as well as how the molecular composition of functional copolymers is reflected in the temperature-responsiveness. These physics were augmented by theoretical works on drag-reduction. Also, drug-release – an improved control of how fast or dependent on an external factor – and antibacterial properties were the topic of several works. Biomedical applications on how cell growth can be influenced and how vessels in biological systems, e.g., blood vessels, can be improved by functional polymers were complemented with papers on tomography by using gels. On totally different lines, also the topic of how asphalt can be improved and how functional polymers can be used for the enrichment and removal of substances. These different papers are a good representation of the whole area of functional polymers.



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