



**gels**



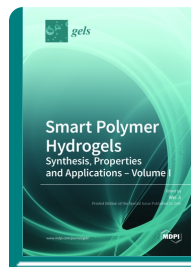
*Special Issue Reprint*

## **Smart Polymer Hydrogels: Synthesis, Properties and Applications – Volume I**

[www.mdpi.com/books/reprint/6971](http://www.mdpi.com/books/reprint/6971)

Edited by  
Wei Ji

ISBN 978-3-0365-6977-2 (Hardback)  
ISBN 978-3-0365-6976-5 (PDF)



This Special Issue aims to provide a comprehensive collection of works on recent advances and developments in smart polymer hydrogels applied to the biomedical and nanotechnological fields. The research topic covers all hydrogels, including polymer hydrogels, supramolecular gels, hybrid hydrogels, metallohydrogels, etc.

Stimulus-responsive polymer hydrogels have attracted considerable interest as promising smart materials due to their tremendous potential in biomedical and nanotechnological applications. They can respond to different chemical and physical external stimuli, including pH, temperature, light, enzyme activity, redox agents, the electric or magnetic field, and chemicals. Compared to single stimulus-responsive polymer hydrogels, multiple-responsive hydrogels exhibit higher flexibility and tunability to realize multifunctionality in a synergistic manner. The structural and phase transition of polymer hydrogels triggered by external stimuli offers enormous potential for drug delivery, tumor therapy, tissue engineering, and biodevices.



Order Your Print Copy  
You can order print copies at  
[www.mdpi.com/books/reprint/6971](http://www.mdpi.com/books/reprint/6971)

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



## Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



## Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



## High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



## High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



## Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.