

## Biological and Synthetic Polymer Networks and Gels

F. Horkay and E.J. Amis (editors)  
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Polymer science is by nature an interdisciplinary field, traditionally spanning chemistry, physics, and engineering. One of the most promising new developments in polymer science is its interaction with other disciplines such as biology and medicine.

This volume contains the text of selected presentations from the Polymer Networks 2004 Conference—a conference designed to provide an interdisciplinary forum for physical scientists, engineers, biologists, and clinicians to meet and discuss their work, exchange ideas, and assess the latest developments in the rapidly expanding field of polymer gels and networks. The most recent advances in eight categories were presented and discussed at the conference: phase transition in synthetic and biopolymer gels, associating/self-assembly systems, polyelectrolytes and intelligent gels, controlled synthesis of networks, tissue engineering and hydrogel scaffolds, nanoparticles in diagnostics and therapeutics, gene and drug delivery, and simulation and modeling of polymer networks.

The conference, organized and sponsored by the National Institutes of Health and the National Institute of Standards and Technology under the auspices of IUPAC, focused on all areas relevant to the formation, structure, properties, and applications of synthetic and natural polymer networks and gels, including

materials science, nanotechnology, surface science, rheology, tissue engineering, and modeling. In particular, the conference explored experimental tools and theoretical models to describe biological phenomena with physical concepts that allow predictive, model-driven research. This knowledge is essential for understanding, designing, and controlling material properties and performance. The collection of papers in this volume illustrates that increased understanding of the behavior of complex gel systems is critical to developments in biomedical research, biotechnology, diagnostics, dentistry, and medicine.



[www.iupac.org/publications/macro/2005/227\\_preface.html](http://www.iupac.org/publications/macro/2005/227_preface.html)

## Magnituds, Unitats i Símbols en Química Física

Versió catalana de la segona edició anglesa a cura de Josep M. Costa. Editat per l'Institut d'Estudis Catalans, Barcelona, Spain (2004), ISBN 84-7283-733-5

[Catalane translation of IUPAC "Green Book", *Quantities, Units, and Symbols in Physical Chemistry*, 2nd edition. Prepared for publication by Ian Mills, Tomislav Cvitas, Klaus Homann, Nikola Kallay, and Kozo Kuchitsu. Blackwell Science (1993)]

This Catalane translation of the 2nd edition of the IUPAC "Green Book" was prepared by Josep M. Costa i Torres from the University of Barcelona, a member of the Societat Catalana de Química.

## Chemical Education International Volume 6, Issue 1, September 2005

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