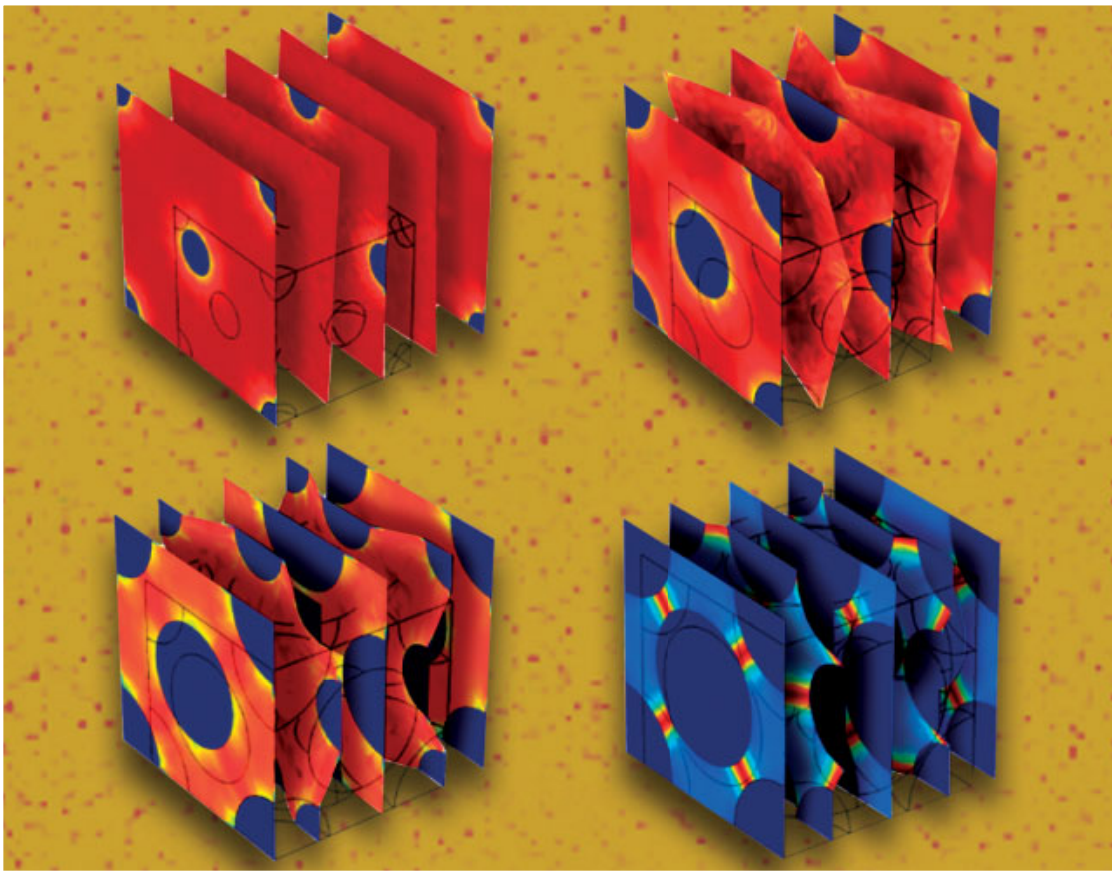
Macromolecular Symposia 358

Ferenc Horkay, Mitsuhiro Shibayama (Eds.)

Networks and Biopolymer Assemblies



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Networks and Biopolymer Assemblies

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Polymer Networks & Gels (PN&G) 2014
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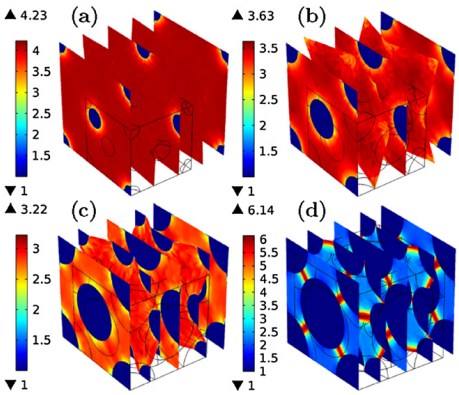

Networks and Biopolymer Assemblies

Tokyo, Japan

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This volume contains the text of selected presentations from the Polymer Networks & Gels (PN&G) 2014 Conference (22nd Polymer Networks Group Meeting) held in Tokyo, Japan, from November 10–14, 2014. The conference was a joint meeting of the Polymer Networks Group (PNG) and the 10th Gel Symposium sponsored by the Institute for Solid State Physics, The University of Tokyo. The PNG is an independent international organization for the promotion of international contacts and the stimulation of research in the field of polymer networks. The purpose of the conference was to encourage physicists, chemists, engineers, materials scientists and biologists to talk to each other, to share information, and to assess the latest developments in this rapidly expanding field.

The first PNG conference was held in 1980 and was initially conceived as a forum to bring together researchers in polymer gels and networks to review current scientific trends and define new directions in research. The tradition has continued with biennial meetings. The diversity of participants of the PN&G 2014 conference allowed for cross-fertilization between physics and chemistry, theory and experiments, and basic and applied research.

The invited speakers presented original research results in addition to focusing on unanswered but critically important questions. The topics ranged from new theoretical and experimental concepts to groundbreaking research in the laboratory, such as development of novel and efficient biopolymer materials for targeted medical applications and clinical trials. Eight plenary, 18 keynote, 5 invited lectures, and 56 oral contributions were presented in 21 sessions. All the talks were very impressive for the high level of professionalism, which was also notable in the 150 posters during the two poster sessions. A special thanks goes to all speakers and poster presenters as well as to the session chairs, who drove all the sessions on the right track, keeping them in time, and stimulated excellent discussions.

The conference was well attended (281 registered attendees from 23 countries). The participation of young scientists was very impressive thanks to the special efforts of the Organizing Committee, who considered this objective a high priority. The PNG Award Committee announced the recipients of the first PNG Young Investigator Awards. The award recognizes the outstanding achievements of young scientists who have demonstrated scholarly independence and hold junior faculty positions. The winners presented their scientific results during a special half-day session at the conference.

The credit for the success of the PN&G 2014 Conference goes to many colleagues. The local organizing committee has played a fundamental role in the conference preparation. We thank the International Advisory Committee and the Scientific Program Committee, whose members gave invaluable inputs and were always working side by side with the organizers.

We acknowledge the authors of the papers for their excellent contributions to this volume. We are grateful to those colleagues who reviewed the manuscripts. We would like to thank the staff at the Macromolecular Symposia, Wiley-VCH, for making this volume possible. Our special thanks go to Ms. Sibylle Meyer and Ms. Anke Osterland (Macromolecular Symposia) for their excellent work.

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