

Book Review

Polymers for the Medical Industry: Conference Proceedings

Rapra Technology Ltd., Shawbury, 1999, 108 pages, ISBN 1-85957-201-4, £90.00

The utilisation of a range of polymer systems in the medical industry in the new millennium spans many applications. Familiar examples including ‘vanishing’ surgical sutures for wound repair, novel drug delivery systems, synthetic grafts for replacement of blood vessels, laboratory-grown plugs as substitutes for parts of vital organs (e.g. liver, cartilage, bones), artificial tendons and ligaments. The increased use of polymers in such biomedical applications presents many challenges: biocompatibility performance, in vivo effects of polymer additives, prevention of contamination within the assembly process, and environmental concerns over some of the most widely used polymers such as PVC. There is a need to maintain awareness of current issues that range from polymer production through to supply of medical devices.

Polymers for the Medical Industry records papers presented at the conference held at Church House Conference Centre in London. Papers cover the whole spectrum across the polymer to medical device chain. Specialist polymers such as polyurethane elastomers, PVC, and methacrylates are discussed, together with reviews spanning the whole route from polymer production to medical product. Key issues and challenges facing medical polymer supplies, including environmental issues posed by disposable devices are covered. Twenty papers are included: however, three of these are only in abstract form, and one is a printout of slides presented at the conference.

This publication is well presented in A4 soft-backed format (the ISBN number has been omitted from the booklet itself). It is recommended as a broad appraisal of current development and issues for anyone interested in the field of medical polymers.

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Chemical and Physical Networks. Formation and Control of Properties

The Wiley Polymer Networks Group Review Series, Vol. 1; K. te Nijenhuis, W.J. Mijs (Eds.); Wiley, 1998, xxxiv + 540 pages, ISBN 0-471-97344-0, £65.00

The Wiley Polymer Networks Group Review Series, based on papers presented at the biennial Polymer Networks Group International Conferences is aiming to give a clearer and continuing identity to the publications arising from the conferences, as well as bringing recent research developments in polymer networks to a wider audience.

“*Volume 1. Chemical and Physical Networks. Formation and Control of Properties*” contains the proceedings of the 13th Polymer Network Group Conference, which was held in Doorn, The Netherlands. The book is a state-of-the-art collection of papers, which provide information on both chemical and physical networks, focussing on formation and control of properties. These proceedings, with 41 contributions, have been divided into seven sections spanning thermoreversible and biopolymer gels; formation of covalent networks; critical gels; heterogeneous gels; liquid crystalline networks; swelling of networks; and characterisation of networks.

Recent trends in liquid crystalline and anisotropic networks, nanostructures and new developments in network theory and modelling are well represented in the book. New methodology in characterisation of networks and network formation are included in many papers. Long-term relations with growing fields of application like optoelectronics and biomaterials are described, reflecting the industrial importance of polymeric materials. “*Volume 1. Chemical and Physical Networks. Formation and Control of Properties*”, which contains many excellent articles, will be invaluable to a broad range of scientists, making a significant contribution to the literature on polymer networks.

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