

## Book Reviews

**Colloid–Polymer Interactions: From Fundamentals to Practice**

R.S. Farinato, P.S. Dubin (Eds.); Wiley, New York, 2000, 417 pages, ISBN 0-471-24316-7, £74.50

Colloid–polymer systems encountered in technology are highly complex in nature. Work in this area is generally approached from one of three main directions: theory, fundamental experimentation or technological application. Information transfer among these three domains is often very limited. Active participants are often largely unaware of each other's efforts. Engineers implement technology in large-scale applications using complex, partially characterised materials (e.g. wastewater, wood pulp suspensions, paints), synthetic chemists modify and manipulate the polymer structures, research scientists apply sophisticated methods to model such systems, and theoreticians attempt modelling from basic principles. The disparate approaches, aims and technical jargon of these groups often preclude effective inter-communication. There is clearly a need to bridge gaps between the various approaches by harmonising terminology and jargon at the technological extreme, while relating rigorous theoretical conclusions to physical pictures and qualitative assessments at the other.

*Colloid–Polymer Interactions*: presents a unified approach to span the gaps between theory, experiment and application. Each chapter presents an overview of the basics and the current state of one particular topic, then covers recent developments, and indicates likely directions for future progress. The first part of the book covers applied technologies that are strongly based on colloid–polymer interactions, notably wastewater treatment, papermaking and nano-engineering of colloidal particle layers. In the second part, the fundamentals of colloid–polymer interactions are considered in detail. The final part of the book concentrates on modern experimental techniques for investigating polymer adsorption, and related recent findings.

This book assembles and presents material that successfully bridges and links theory, simulation, model systems and ultimate applied technology: it is well structured and presented. It is highly recommended, for engineers, applications specialists and basic researchers involved in the field of colloid–polymer interactions.

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**Pills, Potions and Poisons, How Drugs Work**

Trevor Stone, Gail Darlington; Oxford University Press, Oxford, 2000, 476 pages, ISBN 0-19-850403-9, £18.99

The book is a tour-de-force of modern medicine written in an approachable way for the non-scientist or those beginning to pursue a drug-related subject. The book is an enjoyable read with many amusing and informative historical and anecdotal additions. Such examples as: chapter 23—love potions and aphrodisiacs, chocolate was forbidden to young women in the seventeenth century because they would be tempted by “sins of the flesh”; chapter 9—schizophrenia, a very personal view is given of distorted perspective where a woman's feet appeared to be far away and her knees appeared to be huge.

Readers will rightfully ask “What is the relevance of medicines to carbohydrate polymers and Carbohydrate Polymers?” The delivery of medicines to the intended sites in the body is a subject in itself—usually termed ‘drug delivery’, and carbohydrate polymers are being used and developed as carriers of drugs, i.e. as drug delivery agents. Several papers have appeared in Carbohydrate Polymers dealing with the use of chitin in such an area, and as the field develops it is to be expected that carbohydrate polymers, because of their physical, hydrophilic and interactive but non-toxic properties, will find increasing use in directed drug deliveries.

The chapter structure features descriptions of the physiological and biochemical basis of related diseases, for example chapter 2—breathing: allergies, asthma, coughs and colds. The standard treatments for such conditions are described, including specific drugs or drug groups. The drugs' biochemical mode of action and the most commonly associated side effects are outlined. Historical information as to the development of certain drugs is contained within the appropriate chapter, i.e. chapter 3—diabetes: a brief history of insulin.

Pills, potions and poisons examines topical drug related issues. The recreational use of drugs is described for socially accepted drugs such as alcohol and nicotine and for a variety