More than 1000 references, tables, and equations are supplied for an excellent introduction to the study of soft material physics and utilization in this volume. In conclusion, this book provides an interdisciplinary approach to the control and understanding of soft materials and is a unique and outstanding reference for the industrial scientist or materials engineer.

John F. Kennedy*
Miao Jin
Chembiotech Laboratories,
Institute of Research & Development,
University of Birmingham Research Park,
Birmingham B15 2Q3, UK

Available online 8 November 2005

* Corresponding author
doi:10.1016/j.carbpol.2005.08.018

M.E. Tuttle, editor. Structural Analysis of Polymeric Composite Materials (2004, Marcel Dekker, Inc., New York, USA) (xv + 638 pp., £109.00, ISBN 0-8247-4717-8)

Modern polymeric composite material systems are a multidisciplinary subject, involving topics drawn from polymer chemistry, fiber science, surface chemistry and adhesion, materials testing, structural analysis, and manufacturing techniques to name a few. A composite system is a material system consisting of two (or more) materials, which are distinct at a physical scale greater than about 1 μm and which are bonded together at the atomic and/or molecular levels. In the present book, an overview of modern composite materials has been provided with special reference to their structural analysis.

Structural Analysis of Polymeric Composite Materials opens with an introductory chapter on the modern composite materials. The fundamentals of force, stress and strain tensors, and various material properties required to predict the performance of composite structures are discussed in the subsequent chapters. Chapter 4 is focussed on the three-dimensional, anisotropic form of Hook's law. The unidirectional composite laminates subject to plane stress and thermomechanical behaviour of multiangle composite laminates is described in the chapter 5 and 6.

The analytical tools and/or methodologies available to accurately predict the yielding and fracture of multistage composite laminates under general thermomechanical loading conditions are described in the chapter 7. Chapter 8 is devoted to statically determinate and indeterminate composite beams. The equations that govern the behaviour of symmetric and rectangular composite plates are developed in chapter 9. The penultimate chapter presents some solutions for a special class of symmetric laminates called 'specially orthotropic' laminates. The methods of obtaining approximate numerical solutions for symmetric laminates are given in the last chapter.

The most of chapters of the book include numerical example problems that further illustrate the concepts presented. In conclusion, this book can be excellent resource for all the persons working in the area of polymeric composite materials.

John F. Kennedy*
Parmjit S. Panesar
Chembiotech Laboratories,
Institute of Research & Development,
University of Birmingham Research Park,
Birmingham B15 2Q4, UK

Available online 7 November 2005

* Corresponding author
doi:10.1016/j.carbpol.2005.08.014

Seppo Salminen, Atte von Wright and Arthur Ouwehand, editors. Lactic Acid Bacteria: Microbiological and Functional Aspects, Third Edition, Revised and Expanded, Marcel Dekker, Inc., New York, USA, 2004 (xiii + 633pp., ISBN 0-8247-5332-1 (£130.00))

Lactic acid-producing bacteria have been used for centuries in all parts of the world for preservation and nutritional value enhancement of foods (e.g. milk, vegetables, meat). Making up a very diverse group of microorganisms, the bacteria produce lactic acid via a complex and adaptive fermentation mechanism. Because of their essential role for the food industry in general and the dairy industry in particular, their metabolism and the related technological aspects have been extensively investigated. Recently, studies have focused on determining the beneficial health effects of lactic acid bacteria, for the design of functional foods and pharmaceuticals.

Based on accurate and critical studies, *Lactic Acid Bacteria: Microbiological and Functional Aspects* reviews the impressive research developments of the past five years. Due to the rapid technical and scientific progress in the area, new chapters on vegetable fermentation, probiotics for fish, modeling of bacteria-host interactions and methods of analysis of the gut flora have been added. Many chapters have also been rewritten by a total of 37 international collaborators. The book discusses taxonomic and physiological aspects of lactic acid bacteria, their genetics, and the safety issues related to their industrial use. Special emphasis is put on their potential health benefits for humans and animals, while three chapters discuss the probiotics of Bifido- and Propionibacteria. The book also stresses the essential role of the advances in molecular biology and genetics for providing tools to understand the functioning of lactic acid bacteria.