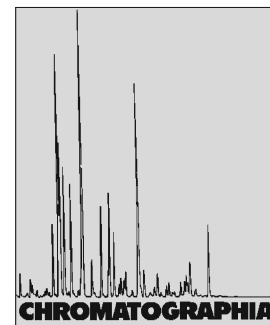


## Book Review



2009, 70, 1523

### Chirality at the Nanoscale

by David B. Amabilino (ed):  
Wiley-VCH, Weinheim, 2009,  
ISBN:978-3-527-32013-4, pp xii + 418,  
Price: EUR 149.00, USD 210.00

Chirality is a phenomenon that has an impact on our life especially at a molecular level and is vital to many chemical processes. Although analysis of chiral molecules is now well-established, it is becoming essential nowadays to be able to carry out analyses below the microscale to the nanoscale. This book addresses this issue quite well in 12 chapters written by 25 experts.

Chapter 1 gives a general overview of symmetry, homochiral, absolute enantioselection and electronic and vibrational optical activities. Chapter 2

discusses the issue of chirality at the supramolecular level. Chapter 3 deals with the preparation and characterization of nanoparticles based on chiroptical properties. Chapter 4 is about chirality in gels and nanofibers while the next chapter discusses chiral polymers. Chapters 6 and 7 review the chiral surface interface on both well-defined metal surfaces and at the liquid–solid interface. These chapters explain the role of the scanning tunneling microscope as a means to determine the absolute configuration. Chapters 8 and 9 discuss the structure and function of chiral architectures of amphiphilic molecules at the air–water interface and nanoscale stereochemistry of liquid crystals, respectively. The importance of liquid crystals in chiral recognition is thoroughly explained. Chapter 10 presents the aspects of chirality in crystal growth in detail.

Chiral switches and motors at the nanoscale are discussed in the penultimate chapter with a section on nanoscale machines and their design based on spectrophotometric and supramolecular characteristics. The final chapter discusses the various classes of chiral nanoporous materials and their application in chiral separation.

The book is well designed with several well-illustrated color figures. Each chapter ends with a list of references that are updated to 2007. This book is considered to be the first text to be published in the field of chirality in nanoscience. It is highly recommended to analytical chemists, materials scientists and physical chemists among others and its cost is very well justified.

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