

view of this breadth, *Fluorine in Medicinal Chemistry and Chemical Biology* would be an excellent addition to readers' personal libraries, and should definitely find a home in libraries of lending institutions.

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Silica-Based Materials for Advanced Chemical Applications

This really well written book gives a complete overview of sol-gel silica-based materials that are used in industrial applications. Overview is probably not the most appropriate term, since particular attention is paid to providing an understanding of the principles that are behind the applications. This style of presentation makes the book even more attractive. These materials have interested different research communities, including chemistry, physics, material science, and biology. The multidisciplinary aspect is illustrated well by the described areas of applications.

In a first chapter, sol-gel silica-based materials are presented in a succinct but very complete manner. This chapter is concerned mainly with basic synthesis and (multi)functionalization concepts, the main physicochemical characteristics related to their potential applications, as well as ways to modify them at the molecular and macroscopic level. It gives not only a foretaste of the

following chapters, but also generates the desire to continue reading.

These multifunctional materials have evolved in terms of applications in controlled release, purification and synthesis, coatings, catalysis, sensing, and hybrid silica-polymer nanocomposites. These fields of application are well presented in the different chapters, which are rich in information. Twenty five years after the first report of the preparation of a hybrid material by embedding an organic dye in a silica sol-gel glass (D. Avnir, 1984) and 20 years after the introduction of organically modified sol-gel silica matrices (H. Schmidt, 1988), they have now reached the level of industrial application. Although this is only the beginning, the record is impressive and their potential suggests numerous other applications. Moreover, the book emphasizes the role of chemists, physicists, and biologists in the fast evolution of these materials and their industrial development.

The last chapter gives a nice conclusion to the book. Further advantages of these hybrid sol-gel silica-based materials are discussed, outlining future research trends, applications, and markets for these multifunctional materials.

As this book gives both commercial and scientific viewpoints, it should be of great interest for researchers from different scientific communities in academia and industry. Moreover, taking into account the content and the style of writing, this book could also be very useful reading for undergraduate students.

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