



Sol-gel Science: The Physics and Chemistry of Sol-gel Processing (Hardback)

By J Brinker

Elsevier Science Publishing Co Inc, United States, 1990.
 Hardback. Book Condition: New. 234 x 155 mm. Language: English . Brand New Book ***** Print on Demand *****.Sol-Gel Science: The Physics and Chemistry of Sol-Gel Processing presents the physical and chemical principles of the sol-gel process. The book emphasizes the science behind sol-gel processing with a chapter devoted to applications. The first chapter introduces basic terminology, provides a brief historical sketch, and identifies some excellent texts for background reading. Chapters 2 and 3 discuss the mechanisms of hydrolysis and condensation for nonsilicate and silicate systems. Chapter 4 deals with stabilization and gelation of sols. Chapter 5 reviews theories of gelation and examines the predicted and observed changes in the properties of a sol in the vicinity of the gel point. Chapter 6 describes the changes in structure and properties that occur during aging of a gel in its pore liquor (or some other liquid). The discussion of drying is divided into two parts, with the theory concentrated in Chapter 7 and the phenomenology in Chapter 8. The structure of dried gels is explored in Chapter 9. Chapter 10 shows the possibility of using the gel as a substrate for chemical reactions...



READ ONLINE
 [8.22 MB]

Reviews

This pdf may be worth acquiring. It can be written in easy words and phrases and not hard to understand. I am pleased to tell you that this is basically the finest book I have read through during my personal existence and might be the greatest pdf for at any time.

-- **Jeffry Tromp**

Thorough information! It's this sort of good read. It is actually written in straightforward words rather than confusing. I am just delighted to let you know that this is basically the best book we have read within my personal existence and can be the greatest pdf for actually.

-- **Dr. Henri Crona II**