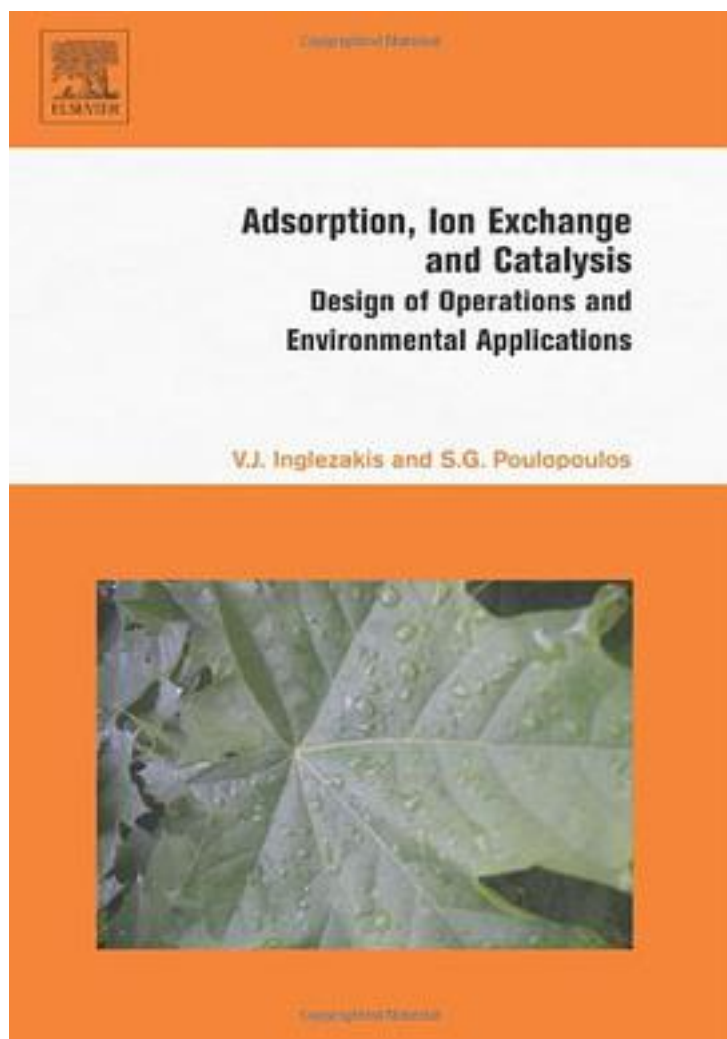


Adsorption, ION Exchange and Catalysis



[Adsorption, ION Exchange and Catalysis_ 下载链接1](#)

著者:Inglezakis, Vassilis J./ Pouloupoulos, Stavros G.

出版者:Elsevier Science Ltd

出版时间:2006-9

装帧:HRD

isbn:9780444527837

"Adsorption, Ion Exchange and Catalysis" is essentially a mixture of environmental

science and chemical reactor engineering. More specifically, three important heterogeneous processes, namely, adsorption, ion exchange and catalysis, are analysed, from fundamental kinetics to reactor design with emphasis on their environmental applications. In Chapter 1, the subject of air and water pollution is dealt with. Data about pollutants and emission sources are given and the treatment methods are shortly presented. In Chapter 2, the very basics and historical development of adsorption, ion exchange and catalysis are presented as well as their environmental applications. Chapter 3 is devoted to heterogeneous processes and reactor analysis. All types of reactors are described in depth and reactor modelling, hydraulics and mass/heat transfer phenomena are examined for each type of reactor. Chapters 4 and 5 are dedicated to adsorption & ion exchange and catalysis, respectively. The basic principles are presented including kinetics, equilibrium, mass/heat transfer phenomena as well as the analytical solutions of the reactor models presented in Chapter 3. In the sixth chapter, the subject of scale up is approached. The two Annexes at the end of the book contain physical properties of substances of environmental interest as well as unit conversion tables. Finally, nearly all the examples contained are based on real experimental data found in literature with environmental interest. Most of the examples consider all aspects of operation design - kinetics, hydraulics and mass transfer. This title provides basic knowledge of major environmental problems and connects them to chemical engineering.

作者介绍:

目录:

[Adsorption, ION Exchange and Catalysis_ 下载链接1](#)

标签

评论

[Adsorption, ION Exchange and Catalysis_ 下载链接1](#)

书评

[Adsorption, ION Exchange and Catalysis_下载链接1](#)