

<<Elements of Chemical>>

图书基本信息

书名：<<Elements of Chemical Reaction Engineering化学反应工程基础>>

13位ISBN编号：9780131278394

10位ISBN编号：0131278398

出版时间：2005-10

出版时间：Oversea Publishing House

作者：H.Scott Fogler

页数：1080

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<Elements of Chemical>>

内容概要

This is a special international edition of an established title widely used by colleges and universities throughout the world. Pearson Education International published this special edition for the benefit of students outside the United States and Canada.

<<Elements of Chemical>>

书籍目录

PREFACE 1 MOLE BALANCES 1.1 The Rate of Reaction, $-r_A$ 1.2 The General Mole Balance Equation 1.3 Batch Reactors 1.4 Continuous-Flow Reactors 1.4.1 Continuous-Stirred Tank Reactor 1.4.2 Tubular Reactor 1.4.3 Packed-Bed Reactor 1.5 Industrial Reactors Summary CD-ROM Material Questions and Problems Supplementary Reading 2 CONVERSION AND REACTOR SIZING 2.1 Definition of Conversion 2.2 Batch Reactor Design Equations 2.3 Design Equations for Flow Reactors 2.3.1 CSTR (also known as a Backmix Reactor or Vat 2.3.2 Tubular Flow Reactor (PFR) 2.3.3 Packed-Bed Reactor 2.4 Applications of the Design Equations for Continuous-Flow Reactors 2.5 Reactors in Series 2.5.1 CSTRs in Series 2.5.2 PFRs in Series 2.5.3 Combinations of CSTRs and PFRs in Series 2.5.4 Comparing the CSTR and PFR Reactor Volumes and Reactor Sequencing 2.6 Some Further Definitions 2.6.1 Space Time 2.6.2 Space Velocity Summary CD-ROM Materials Questions and Problems Supplementary Reading 3 RATE LAWS AND STOICHIOMETRY PART I Rate Laws 3.1 Basic Definitions 3.1.1 Relative Rates of Reaction 3.2 The Reaction Order and the Rate Law 3.2.1 Power Law Models and Elementary Rate Laws 3.2.2 Nonelementary Rate Laws 86 3.2.3 Reversible Reactions 88 3.3 The Reaction Rate Constant 91 3.4 Present Status of Our Approach to Reactor Sizing and Design PART 2 Stoichiometry 3.5 Batch Systems 3.5.1 Equations for Batch Concentrations 3.5.2 Constant-Volume Batch Reaction Systems 3.6 Flow Systems 3.6.1 Equations for Concentrations in Flow Systems 3.6.2 Liquid-Phase Concentrations 108 3.6.3 Change in the Total Number of Moles with Reaction in the Gas Phase Summary CD-ROM Material Questions and Problems Supplementary Reading 4 ISOTHERMAL REACTOR DESIGN 5 COLLECTION AND ANALYSIS OF RATE DATA 6 MULTIPLE REACTIONS 7 REACTION MECHANISMS PATHWAYS BIOREACTIONS AND BIOREACTORS 8 STEADY-STATE NONISOTHERMAL REACTOR DESIGN 9 UNSTEADY-STATE NONISOTHERMAL REACTOR DESIGN 10 CATALYSIS AND CATALYTIC REACTORS 11 EXTERNAL DIFFUSION EFFECTS ON HETEROGENEOUS REACTIONS 12 DIFFUSION AND REACTION 13 DISTRIBUTIONS OF RESIDENCE TIMES FOR CHEMICAL REACTORS 14 MODELS FOR NONIDEAL REACTORS INDEX ABOUT THE CD-ROM

<<Elements of Chemical>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>