

AICTE Recommended Textbook as per Model Curriculum - 2018

Process Heat Transfer and Chemical Equipment Design



D.C. Sikdar

 KHANNA
PUBLISHING

Process Heat Transfer and Chemical Equipment Design

Author :	D.C. Sikdar
ISBN 13 :	978-93-86173-61-4
ISBN 10 :	93-86173-61-1
E-ISBN 13 :	978-93-86173-61-4
Edition :	First
Pages :	364
Type of book :	Paperback
Weight (g) :	500.00
Year :	2019
Language :	English
Publisher :	Khanna Publishing House
M.R.P :	Rs 350.00
Categories :	Chemical Engineering
Condition Type :	New
Country Origin :	India

Product Description

This book is students friendly. It also demonstrates how to solve the industry related problems that crop up in Chemical Engineering Practice. The chapters are organized in a simple way that enables the students to acquire an in depth understanding of the subject. The emphasis is given to the Basic concept of heat transfer, conduction, Insulations, Convection, Extended surface- Fins, Dimensionless group and Dimensional analysis, Heat transfer analogy, Heat transfer with phase change, Heat transfer equipment, Design of heat transfer equipment and Radiation, all coming under the realm of Process Heat Transfer. Apart from the numerous illustrations, the book contains review questions, exercises and aptitude test in Chemical Engineering which bridge the gap between theoretical learning and practical implementation. All numerical problems are solved in a systematic manner to reinforce the understanding of the concepts. This book is primarily intended as a text book for the under graduate students of Chemical Engineering. It will also be useful for other allied branches such as, Aeronautical Engineering, Mechanical Engineering, Petrochemical, Polymer Science and Engineering, Bio-technology as well as Diploma in Chemical Engineering. Key Features: * Theoretical concept is explained with examples. * Numerical problems are solved in systematic manner to reinforce the understanding of the concepts. * Included a large number of diagrams illustrating industrial physical problems. * Only essential theory is discussed under each topic. * Stepwise procedure is given for solving problems under the topic of Chemical Equipment Design.

Table of Contents

Chapter 1: Basic Concept at Heat Transfer. **Chapter 2:** Conduction. **Chapter 3:** Insulations. **Chapter 4:** Convection. **Chapter 5:** Extended Surface- Fins. **Chapter 6:** Dimensionless Group and Dimensional Analysis. **Chapter 7:** Heat Transfer Analogy. **Chapter 8:** Heat Transfer with Phase Change. **Chapter 9:** Heat Transfer Equipment. **Chapter 10:** Design of Heat Transfer Equipment. **Chapter 11:** Radiation. **Answer to Exercise Problems Aptitude Test in Heat Transfer Index**

Author

D. C. Sikdar (Ph.D.) is an associate professor, Department of Chemical Engineering, Dayananda Sagar College of Engineering, Bangalore, with more than two and half decades of teaching experience. Prof. Sikdar has published many papers in national and international journals of repute. he has received Best Research Thesis Award from Karnataka State Bio-fuel Development Board for guiding M. Tech Thesis on "Development of Bio-Hydrogen Dependent Fuel Cell using Micro Algae" in 2012. Prof. Sikdar is also a member of Indian Society of Technical Education (ISTE) and Indian Institute of Chemical Engineers (IICE).



Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: + +91-99109 09320