This is one of three books in a collection covering all aspects of distillation. Distillation is the oldest technology available for the separation and purification of liquid mixtures and is a ‘key unit operation within the petroleum refining, chemical, petrochemical, pharmaceutical, food, and alcohol industries.

Distillation: Equipment and Processes covers related contents written by prominent authors from academia and industry. The first chapter gives a concise description on types of distillation column internals and discusses the relative advantages and disadvantages of equipment used for vapor-liquid contacting and separation in distillation practice. More details on the characteristic features of the main types of vapor-liquid contactors can be found in individual chapters devoted to distillation trays, random packings and structured packings. Equipment-related aspects are strongly represented in a chapter on dividing wall columns. Separation of azeotropic mixtures is addressed in distinct chapters on extractive distillation and azeotropic distillation. Other chapter topics include reactive distillation, and characteristic features of vacuum and high pressure distillation. The last chapter on laboratory distillation and scale up outlines the methodology of scale up in distillation.

Related Titles


This book focuses on providing up-to-date coverage of the fundamental principles of distillation with particular emphasis on binary systems. The first part of the book describes the basic thermodynamic and transport concepts, and the second part discusses the design and operation of distillation columns. It is intended for students of the subject, as well as for practicing engineers.


The book is divided into four parts and covers all phases of the distillation process. It is intended for industrial practitioners, researchers, and students. The book covers the latest developments in the field of distillation.