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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	UNDERSTANDING DISTILLATION USING COLUMN PROFILE MAPS; CONTENTS; PREFACE; NOMENCLATURE AND ABBREVIATIONS; ABOUT THE AUTHORS; 1 INTRODUCTION; 1.1 Context and Significance; 1.2 Important Distillation Concepts; 1.2.1 A Typical Column; 1.2.2 Complex Columns; 1.2.3 Vapor-Liquid Equilibrium; 1.3 Summary; References; 2 FUNDAMENTALS OF RESIDUE CURVE MAPS; 2.1 Introduction; 2.2 Batch Boiling; 2.3 The Mass Balance Triangle (MBT); 2.4 The Residue Curve Equation; 2.4.1 Derivation; 2.4.2 Approximation to Equilibrium; 2.5 Residue Curve Maps; 2.5.1 Constant Relative Volatility Systems; 2.5.2 Nonideal Systems 2.5.3 Numerical Integration2.6 Properties of Residue Curve Maps; 2.6.1 Separation Vector Field; 2.6.2 Stationary Points; 2.6.3 Isotherms; 2.6.4 Other Properties of RCMs; 2.7 Applicability of RCMs to Continuous Processes; 2.7.1 Total Reflux Columns; 2.7.2 Infinite Reflux Columns; 2.7.3 Bow-Tie Regions; 2.7.4 Column Sequencing at Infinite Reflux; 2.8

Sommario/riassunto

Researchers share their pioneering graphical method for designing almost any distillation structure Developed by the authors in collaboration with other researchers at the Centre of Material and Process Synthesis, column profile maps (CPMs) enable chemical engineers to design almost any distillation structure using novel graphical techniques. The CPM method offers tremendous advantages over other design methods because it is generalized and not constrained to a particular piece of equipment. Understanding Distillation Using Column Profile Maps enables readers to un