1. Record Nr. UNIORUON00195332

Autore	BERNBAUM, Ernest
Titolo	Guide through the romantic movement / Ernest Bernabaum
Pubbl/distr/stampa	New York, : The Ronald Press Company, c1949
Edizione	[second edition revised and enlarged]
Descrizione fisica	ix, 351 p. ; 24 cm.
Disciplina	820.09
Soggetti	LETTERATURA INGLESE - Sec. 18.-19
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9910983065603321

Autore	Gupta Himanshu
Titolo	Emerging Contaminants in Water and Wastewater : Sources and Substances / / edited by Himanshu Gupta, Sughosh Madhav, Soniya Dhiman, Ritu Mishra
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	9783031825798 3031825799
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (459 pages)
Collana	Environmental Science and Engineering, , 1863-5539
Altri autori (Persone)	MadhavSughosh DhimanSoniya MishraRitu
Disciplina	551.48
Soggetti	Water Hydrology Pollution Environmental protection Civil engineering Refuse and refuse disposal Soil and Water Protection Waste Management/Waste Technology

Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Pesticides and herbicides in water system -- Pharmaceutical and personal care products in wastewater -- Pathogical contaminants in wastewater form hospital waste -- Radioactive contaminants in wastewater from hospital waste -- Endocrine disturbing hormones and antibiotics in wastewater -- Water disinfection by-products in the drinking water system -- Surfactants and flame retardants in water resources -- Dye and dye-containing hazardous waste in water resource -- Plastics and microplastics in the water system -- Manufactured Nanomaterial in the water system -- Detection and measurement techniques of emerging contaminants -- Health hazards of different emerging contaminants -- Biological treatment methods for emerging contaminants -- Physical treatment measures of the emerging contaminants -- Chemical treatment methods for emerging contaminants -- Advance and integrated treatment methods.
Sommario/riassunto	This present book serves as a comprehensive compilation of various emerging contaminants in the ecosystem, their contamination risk as well as the applicable remediation techniques. Exploding urbanization and industrialization often combined with improved standards of living have resulted in deleterious effects on the quality of the environment. Due to rapid growth of industrialization in the past few decades, large amounts of undesirable wastes are being discharged into the environment threatening the survival of living beings on the earth. In the recent years, the problems regarding pollution have become more global, and awareness about the environmental problems is increasing continuously. Environmental awakening has led many scientists to focus on the assessment of environmental impact of various emerging contaminants. The first victims of the environmental pollution are the terrestrial plants and aquatic bodies in the vicinity of urban areas that experience heavy pollution due to industrial effluents, toxic chemicals, hospital waste, radioactive waste, industrial fumes, vehicular traffic, etc. The increasing industrialization and use of hazardous chemicals are responsible for the lack of access to clean water in many parts of the world. In view of the widespread occurrence, persistence, and harmful effects of environmental pollutants on human population, the present book is proposed. Emerging contaminants due to ubiquitous distribution, persistence, and toxic effects have necessitated the development of efficient methods for remediation of contamination. Reports appearing from time to time reveal that the number and concentration of contaminants in the environment are continuously increasing. Thus, development as well as dissemination of new and eco-friendly methods for the removal of these pollutants has become a challenging task.

3.

Record Nr.	UNINA9911019396103321
Autore	Luyben William L
Titolo	Reactive distillation design and control / / William L. Luyben, Cheng-Ching Yu
Pubbl/distr/stampa	Hoboken, NJ, : John Wiley, c2008
ISBN	9786612112652 9781282112650 1282112651 9780470377741 0470377747 9780470377796 0470377798
Descrizione fisica	1 online resource (598 p.)
Altri autori (Persone)	YuCheng-Ching <1956->
Disciplina	660 660.28425 660/.28425
Soggetti	Distillation apparatus - Design and construction Chemical process control Distillation Reactivity (Chemistry)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	REACTIVE DISTILLATION DESIGN AND CONTROL; CONTENTS; PREFACE; 1 INTRODUCTION; 1.1 History; 1.2 Basics of Reactive Distillation; 1.3 Neat Operation Versus Excess Reactant; 1.4 Limitations; 1.4.1 Temperature Mismatch; 1.4.2 Unfavorable Volatilities; 1.4.3 Slow Reaction Rates; 1.4.4 Other Restrictions; 1.5 Scope; 1.6 Computational Methods; 1.6.1 Matlab Programs for Steady-State Design; 1.6.2 Aspen Simulations; 1.7 Reference Materials; PART I STEADY-STATE DESIGN OF IDEAL QUATERNARY SYSTEM; 2 PARAMETER EFFECTS; 2.1 Effect of Holdup on Reactive Trays; 2.2 Effect of Number of Reactive Trays 2.3 Effect of Pressure2.4 Effect of Chemical Equilibrium Constant; 2.5 Effect of Relative Volatilities; 2.5.1 Constant Relative Volatilities; 2.5.2

Temperature-Dependent Relative Volatilities; 2.6 Effect of Number of Stripping and Rectifying Trays; 2.7 Effect of Reactant Feed Location; 2.7.1 Reactant A Feed Location (N(FA)); 2.7.2 Reactant B Feed Location (N(FB)); 2.8 Conclusion; 3 ECONOMIC COMPARISON OF REACTIVE DISTILLATION WITH A CONVENTIONAL PROCESS; 3.1 Conventional Multiunit Process; 3.1.1 Assumptions and Specifications; 3.1.2 Steady-State Design Procedure
3.1.3 Sizing and Economic Equations3.2 Reactive Distillation Design; 3.2.1 Assumptions and Specifications; 3.2.2 Steady-State Design Procedure; 3.3 Results for Different Chemical Equilibrium Constants; 3.3.1 Conventional Process; 3.3.2 Reactive Distillation Process; 3.3.3 Comparisons; 3.4 Results for Temperature-Dependent Relative Volatilities; 3.4.1 Relative Volatilities; 3.4.2 Optimum Steady-State Designs; 3.4.3 Real Chemical Systems; 3.5 Conclusion; 4 NEAT OPERATION VERSUS USING EXCESS REACTANT; 4.1 Introduction; 4.2 Neat Reactive Column; 4.3 Two-Column System with Excess B
4.3.1 20% Excess B Case4.3.2 10% Excess B Case; 4.4 Two-Column System with 20% Excess of A; 4.5 Economic Comparison; 4.6 Conclusion; PART II STEADY-STATE DESIGN OF OTHER IDEAL SYSTEMS; 5 TERNARY REACTIVE DISTILLATION SYSTEMS; 5.1 Ternary System Without Inerts; 5.1.1 Column Configuration; 5.1.2 Chemistry and Phase Equilibrium Parameters; 5.1.3 Design Parameters and Procedure; 5.1.4 Effect of Pressure; 5.1.5 Holdup on Reactive Trays; 5.1.6 Number of Reactive Trays; 5.1.7 Number of Stripping Trays; 5.2 Ternary System With Inerts; 5.2.1 Column Configuration
5.2.2 Chemistry and Phase Equilibrium Parameters5.2.3 Design Parameters and Procedure; 5.2.4 Effect of Pressure; 5.2.5 Control Tray Composition; 5.2.6 Reactive Tray Holdup; 5.2.7 Effect of Reflux; 5.2.8 Chemical Equilibrium Constant; 5.2.9 Feed Composition; 5.2.10 Number of Reactive Trays; 5.2.11 Number of Rectifying and Stripping Trays; 5.3 Conclusion; 6 TERNARY DECOMPOSITION REACTION; 6.1 Ternary Decomposition Reaction: Intermediate-Boiling Reactant; 6.1.1 Column Configuration; 6.1.2 Chemistry and Phase Equilibrium Parameters; 6.1.3 Design Parameters and Procedure
6.1.4 Holdup on Reactive Trays

Sommario/riassunto

After an overview of the fundamentals, limitations, and scope of reactive distillation, this book uses rigorous models for steady-state design and dynamic analysis of different types of reactive distillation columns and quantitatively compares the economics of reactive distillation columns with conventional multi-unit processes. It goes beyond traditional steady-state design that primarily considers the capital investment and energy costs when analyzing the control structure and the dynamic robustness of disturbances, and discusses how to maximize the economic and environmental benefits of rea