

1.	Record Nr.	UNISA990005411520203316
	Autore	TRÍAS DE BES, Fernando
	Titolo	Tinta / Fernando Trías de Bes
	Pubbl/distr/stampa	Barcelona : Seix Barral, 2011
	ISBN	978-84-322-0939-0
	Descrizione fisica	157 p. ; 21 cm
	Collana	Biblioteca breve
	Disciplina	863.7
	Collocazione	VI.5.A. 400
	Lingua di pubblicazione	Spagnolo
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
2.	Record Nr.	UNINA9910983493403321
	Autore	Verma Ashok Kumar
	Titolo	Process Design for Chemical and Environmental Engineering // by Ashok Kumar Verma
	Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
	ISBN	9783031648618 3031648617
	Edizione	[1st ed. 2025.]
	Descrizione fisica	1 online resource (606 pages)
	Disciplina	660
	Soggetti	Chemical engineering Chemical processes Production engineering Chemical Process Engineering Process Chemistry Thermal Process Engineering
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia

Nota di contenuto

Introduction to Process Design -- Process Design Fundamentals -- Design of Heat Exchangers -- Mass Transfer Equipment -- Solid-Liquid and Liquid-Liquid Extraction -- Humidification, Dehumidification and Drying -- Reactor Design.

Sommario/riassunto

This book discusses the design methodology for chemical process equipment carrying out heat and mass transfer operations and various types of reactors. Process design is an important step before achieving a mechanical design of chemical process equipment. It requires comprehensive knowledge of thermodynamics, fluid flow, heat, and mass transfer operations, and chemical reaction engineering, which is covered by the various chapters in this book. It covers process design of (1) heat exchangers, condensers, and reboilers; (2) packed and stage columns for distillation and gas absorption in chapter; (3) liquid-liquid extractor and solid-liquid leaching systems; (4) cooling towers; and (5) four different types of catalytic reactors, packed bed, fluidized bed, slurry bubble column, and mechanically agitated slurry reactor. The book emphasizes using correlations and equations in place of design data available in graphical or tabular forms to make it suitable for solving problems using spreadsheets and other software. It includes new correlations if not available in the literature and references to data available on web resources. The book covers all major topics for the course Chemical Process Engineering for undergraduate students and is also helpful in carrying out process design calculations for undergraduate design projects.
