## BIOPROCESS ENGINEERING

BASIC CONCEPTS

THIRD EDITION

MICHAEL L. SHULER • FIKRET KARGI • MATTHEW P. DELISA



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**DIAZ FERNANDEZ, JOSE MARIO** 

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their derivatives for the bioremediation of potentially toxic and novel compounds It highlights the existing technologies along with industrial practices and real life case studies Features Includes recent research and development in the areas of omics and microbial bioremediation Covers the broad environmental pollution control approaches such as metagenomics metabolomics fluxomics bioremediation and biodegradation of industrial wastes Reviews metagenomics and waste management and recycling for environmental cleanup Describes the metagenomic methodologies and best practices from sample collection to data analysis for taxonomies Explores various microbial degradation pathways and detoxification mechanisms for organic and inorganic contaminants of wastewater with their gene expression. This book is aimed at graduate students and researchers in environmental engineering soil remediation hazardous waste management environmental modeling and wastewater treatment Bioprocess Engineering: Basic Concepts Michael L. Shuler, 2018 **Bioprocess Engineering** Michael L. Shuler, 1992 Bioprocess Engineering Michael L. Shuler, Fikret Kargı, 1992 **Bioprocess** Engineering Michael L Shuler, Fikret Kargi, 2001-11-01 Bioprocess Engineering Michael Shuler L.. Fikret Kargi. Matthew **Bioprocess Engineering Principles**, DeLisa.

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