

1. Record Nr.	UNISALENT0991001188809707536
Autore	Turner, Peter R.
Titolo	Numerical analysis, Lancaster, 1984 : proc. of the SERC Summer School, held in Lancaster, England, Jul. 15-Aug. 3, 1984 / ed. P. R. Turner
Pubbl/distr/stampa	Berlin ; New York : Springer-Verlag, c1985
ISBN	3540152342
Descrizione fisica	xiv, 179 p. : ill. ; 25 cm.
Collana	Lecture notes in mathematics, 0075-8434 ; 1129
Classificazione	AMS 35J25 AMS 41A63 AMS 41A65 AMS 65N15 AMS 65N30 QA3
Disciplina	510
Soggetti	Numerical analysis - Congresses
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes bibliographies

2. Record Nr.	UNISA996206390203316
Autore	Mosier Nathan S. <1974->
Titolo	Modern biotechnology [[electronic resource]] : connecting innovations in microbiology and biochemistry to engineering fundamentals // Nathan S. Mosier, Michael R. Ladisch
Pubbl/distr/stampa	Wiley, : Hoboken, NJ, c2009
ISBN	1-118-21020-4 1-282-30360-0 9786612303609 1-61344-162-2 0-470-47341-X 0-470-47340-1
Descrizione fisica	1 online resource (461 p.)
Classificazione	BIO 250f CHE 800f CIT 900f WF 9700 WF 9720
Altri autori (Persone)	LadischMichael R. <1950->
Disciplina	660.6
Soggetti	Biotechnology Chemical engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	MODERN BIOTECHNOLOGY; CONTENTS; Preface; Acknowledgments; List of Illustrations; 1 Biotechnology; Introduction; The Directed Manipulation of Genes Distinguishes the New Biotechnology from Prior Biotechnology; Growth of the New Biotechnology Industry Depends on Venture Capital; Submerged Fermentations Are the Industry's Bioprocessing Cornerstone; Oil Prices Affect Parts of the Fermentation Industry; Growth of the Antibiotic/Pharmaceutical Industry; The Existence of Antibiotics Was Recognized in 1877; Penicillin Was the First Antibiotic Suitable for Human Systemic Use Genesis of the Antibiotic Industry Other Antibiotics Were Quickly Discovered after the Introduction of Penicillin; Discovery and Scaleup

Are Synergistic in the Development of Pharmaceutical Products; Success of the Pharmaceutical Industry in Research, Development, and Engineering Contributed to Rapid Growth but Also Resulted in Challenges; Growth of the Amino Acid/Acidulant Fermentation Industry; Production of Monosodium Glutamate (MSG) via Fermentation; The Impact of Glutamic Acid Bacteria on Monosodium Glutamate Cost Was Dramatic

Auxotrophic and Regulatory Mutants Enabled Production of Other Amino Acids Prices and Volumes Are Inversely Related; Biochemical Engineers Have a Key Function in All Aspects of the Development Process for Microbial Fermentation; References; Homework Problems; 2 New Biotechnology; Introduction; Growth of the Biopharmaceutical Industry; The Biopharmaceutical Industry Is in the Early Part of Its Life Cycle; Discovery of Type II Restriction Endonucleases Opened a New Era in Biotechnology; The Polymerase Chain Reaction (PCR) Is an Enzyme-Mediated, In Vitro Amplification of DNA

Impacts of the New Biotechnology on Biopharmaceuticals, Genomics, Plant Biotechnology, and Bioproducts Biotechnology Developments Have Accelerated Biological Research; Drug Discovery Has Benefited from Biotechnology Research Tools; The Fusing of Mouse Spleen Cells with T Cells Facilitated Production of Antibodies; Regulatory Issues Add to the Time Required to Bring a New Product to Market; New Biotechnology Methods Enable Rapid Identification of Genes and Their Protein Products; Genomics Is the Scientific Discipline of Mapping, Sequencing, and Analyzing Genomes

Products from the New Plant Biotechnology Are Changing the Structure of Large Companies that Sell Agricultural Chemicals Bioproducts from Genetically Engineered Microorganisms Will Become Economically Important to the Fermentation Industry; References; Homework Problems; 3 Bioproducts and Biofuels; Introduction; Biocatalysis and the Growth of Industrial Enzymes; Glucose Isomerase Catalyzed the Birth of a New Process for Sugar Production from Corn; Identification of a Thermally Stable Glucose Isomerase and an Inexpensive Inducer Was Needed for an Industrial Process

The Demand for High-Fructose Corn Syrup (HFCS) Resulted in Large-Scale Use of Immobilized Enzymes and Liquid Chromatography

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#### Sommario/riassunto

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Biotechnology introduces students in science, engineering, or technology to the basics of genetic engineering, recombinant organisms, wild-type fermentations, metabolic engineering and microorganisms for the production of small molecule bioproducts. The text includes a brief historical perspective and economic rationale on the impact of regulation on biotechnology production, as well as chapters on biotechnology in relation to metabolic pathways and microbial fermentations, enzymes and enzyme kinetics, metabolism, biological energetics, metabolic pathways, nucleic acids, genetic enginee

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