PROTEIN PURIFICATION PROCESS ENGINEERING

edited by
Roger G. Harrison
This authoritative reference offers outstanding coverage of the development of protein purification processes for large-scale commercial operation and addresses process development, scale-up, applications, and mathematical descriptions.

Covering many crucial technologies currently used at the commercial scale, Protein Purification Process Engineering discusses in detail analytical considerations in the development of protein purification processes ... examines the latest advances in crossflow membrane filtration, emphasizing the use of microfiltration for separating cells and cell debris ... supplies in-depth analyses of the precipitation of proteins, highlighting protein solubility and the unit operations employed ... provides practical information on the mechanical design and operation of chromatography columns ... furnishes an extensive study of up-to-the-minute developments in affinity chromatography ... presents a comprehensive treatment of freeze drying with an emphasis on process monitoring and equipment ... and more.

Containing helpful figures and tables and over 1300 literature citations, Protein Purification Process Engineering is an invaluable resource for process, process development, bioprocess, biochemical, chemical, development, biochemical development, and plant engineers; applied, industrial, analytical, and bioanalytical chemists and biochemists; applied biologists; biotechnologists; industrial microbiologists; and all upper-level undergraduate, graduate, and continuing-education courses in biochemical engineering, bioseparations, and biochemical separations.

about the editor ...

ROGER G. HARRISON is an Associate Professor in the School of Chemical Engineering and Materials Science at the University of Oklahoma, Norman. He has more than ten years of industrial experience in the development of purification processes for biochemicals and is the author or coauthor of numerous professional papers that reflect his research interests in the separation and purification of biochemicals and the production of proteins and peptides using recombinant DNA technology, among other subjects. Dr. Harrison received the B.S. degree (1967) in chemical engineering from the University of Oklahoma, Norman, and the M.S. (1968) and Ph.D. (1975) degrees in chemical engineering from the University of Wisconsin-Madison.