

bioseparations science engineering pdf

Downstream processing refers to the recovery and purification of biosynthetic products, particularly pharmaceuticals, from natural sources such as animal or plant tissue or fermentation broth, including the recycling of salvageable components and the proper treatment and disposal of waste. It is an essential step in the manufacture of pharmaceuticals such as antibiotics, hormones (e.g. insulin ...

Downstream processing - Wikipedia

Professor Kamallesh K. Sirkar, Department of Chemical, Biological and Pharmaceutical Engineering at the New Jersey Institute of Technology, has been an innovative leader in membrane technologies such as membrane contactors, membrane distillation, membrane reactors, hollow fiber membrane crystallization, and pioneering approaches to gas separation, organic solvent nanofiltration and bioseparations.

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Page 11-2 CHAPTER 11 Bioprocess Design and Economics This chapter teaches students and practicing engineers the fundamentals of bioprocess design

Bioprocess Design and Economics - Intelligen, Inc., Batch

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Protein precipitation is widely used in downstream processing of biological products in order to concentrate proteins and purify them from various contaminants. For example, in the biotechnology industry protein precipitation is used to eliminate contaminants commonly contained in blood. The underlying mechanism of precipitation is to alter the solvation potential of the solvent, more ...

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