

Protein Chromatography: Process Development and Scale-Up

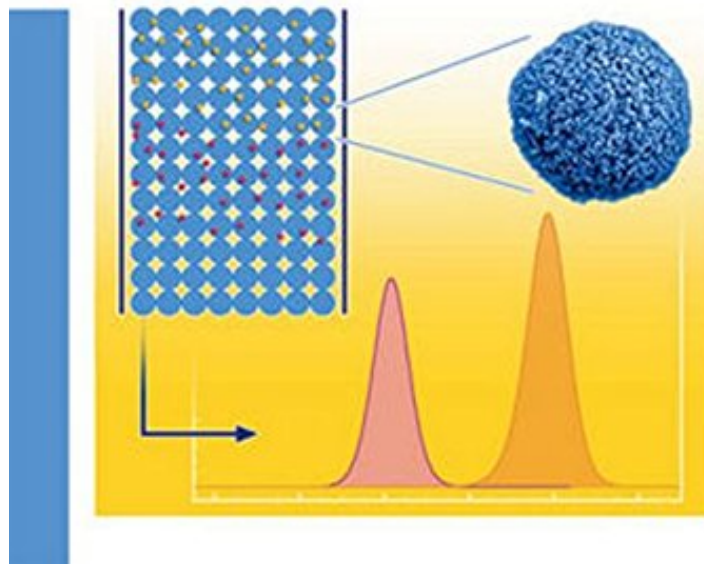
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Protein Chromatography

Process Development and Scale-Up



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#1708115 in Books 2010-06-08 Original language: English PDF # 1 9.70 x .88 x 6.951, 1.80 #File Name: 3527318194364 pages | File size: 77.Mb

Giorgio Carta, Alois Jungbauer : Protein Chromatography: Process Development and Scale-Up before purchasing it in order to gauge whether or not it would be worth my time, and all praised Protein Chromatography: Process Development and Scale-Up:

1 of 1 people found the following review helpful. Excellent book to get a good introduction into the fundamentals of chromatography. By billimaus I bought this book for our team and I do believe it's a really good reference/resource for anybody who works in downstream and would like to have a quick, on-hand tool where some of the concepts which drive protein purification at small and large scale are well reviewed and summarized. Good for scientists which are not that familiar with some of the underlying equations and good for engineers to have a good overview of the different approaches to delve into calculating/modeling some of the behaviors we'd all like to understand better when designing

an economical, robust and streamlined protein purification process. My only pet peeve, some of the references listed are not correct, so tracking down the original references that go with some of the pictures and quotations is not going to be possible. Overall, that's the only caveat I've found so far.

With its focus on process development and large-scale bioseparation tasks, this is tailor-made reading for the professional bioengineer in both the biotech and pharmaceutical industries. Following a tried-and-tested concept, this guide has been developed over several years in training courses for biotech and chemical engineers in Europe and the U.S. The first part deals with the theory, introducing chromatography and its dynamics, as well as discussing mass transfer and dispersion effects. The second part then goes on to cover equipment and protocols, determining the retention factor and HETP from isocratic and elution experiments, as well as the mass transfer and intraparticle diffusivity from batch and shallow-bed adsorption experiments.

From the Back CoverA practice-oriented all-in-one guide that provides the necessary knowledge for effective process development in chromatographic bioseparation, both for preparative-scale and for large-scale industrial applications. With its focus on process development and bioseparation tasks, this is tailor-made reading for the professional bioengineer in both the biotech and pharmaceutical industries. Following a tried and-tested concept, this guide has been developed over several years in training courses for biotech and chemical engineers in Europe and the U.S. Coverage begins with an overview of biomolecular properties and their relationship to downstream processing, followed by a detailed treatment of bioprocess chromatography, its dynamics, the mass transfer and dispersion effects that control its performance, the critical design and scale-up relationships, as well as the relevant stationary phases and equipment.

About the AuthorGiorgio Carta received his PhD in Chemical Engineering from the University of Delaware in 1984. Since then he has been a professor in the Department of Chemical Engineering at the University of Virginia, Charlottesville (USA), where his research focuses on transport phenomena and bioseparations. He regularly organizes professional courses on various aspects of bioseparations, including a course on protein chromatography development and scale-up together with Alois Jungbauer. Alois Jungbauer is the head of protein technology and downstream processing at the Department of Biotechnology of the University of Natural Resources and Applied Life Sciences in Vienna (Austria). For more than 20 years, Professor Jungbauer has worked in biochemical engineering, with a focus on biosparation, where he has published widely and holds 15 patents. For over 10 years, he has organized a biennial professional course in protein chromatography focused on mass transfer, dispersion, and scale-up.