Process Control, Intensification, and Digitalisation in Continuous Biomanufacturing

Ganapathy Subramanian (Editor)

E-Book 978-3-527-82733-6 December 2021 $136.00
Hardcover 978-3-527-34769-8 December 2021 Print-on-demand $170.00
O-Book 978-3-527-82734-3 December 2021 Available on Wiley Online Library

DESCRIPTION

Process Control, Intensification, and Digitalisation in Continuous Biomanufacturing

Explore new trends in continuous biomanufacturing with contributions from leading practitioners in the field

With the increasingly widespread acceptance and investment in the technology, the last decade has demonstrated the utility of continuous processing in the pharmaceutical industry.

In Process Control, Intensification, and Digitalisation in Continuous Biomanufacturing, distinguished biotechnologist Dr. Ganapathy Subramanian delivers a comprehensive exploration of the potential of the continuous processing of biological products and discussions of future directions in advancing continuous processing to meet new challenges and demands in the manufacture of therapeutic products.

A stand-alone follow-up to the editor’s Continuous Biomanufacturing: Innovative Technologies and Methods published in 2017, this new edited volume focuses on critical aspects of process intensification, process control, and the digital transformation of biopharmaceutical processes. In addition to topics like the use of multivariant data analysis, regulatory concerns, and automation processes, the book also includes:

• Thorough introductions to capacitance sensors to control feeding strategies and the continuous production of viral vaccines

• Comprehensive explorations of strategies for the continuous upstream processing of induced microbial systems
• Practical discussions of preparative hydrophobic interaction chromatography and the design of modern protein-A-resins for continuous biomanufacturing

• In-depth examinations of bioprocess intensification approaches and the benefits of single use for process intensification

Perfect for biotechnologists, bioengineers, pharmaceutical engineers, and process engineers, *Process Control, Intensification, and Digitalisation in Continuous Biomanufacturing* is also an indispensable resource for chemical engineers seeking a one-stop reference on continuous biomanufacturing.

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## ABOUT THE AUTHOR

**Ganapathy Subramanian**, PhD, is a biotechnology consultant with more than 30 years of experience in industry and academia. His professional focus is on the application and development of processing and purification methodologies and chromatographic systems for large-scale use in environmental science.

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