In early 2009, we were approached by Springer Verlag, the company that had absorbed Kluwer Academic/Plenum Publishers. The second edition of our textbook “Bioreaction Engineering Principles” was now sold out, and we were asked to prepare a third edition.

With very little hesitation we accepted the offer.

Since 2003 the book has been used as course-book, in European universities and also in North and South America, in the Far East, and in Australia. We wished not only to revise the text, but also to write a book that would appeal to students at the best universities, at least until 2020. In short courses given at major Biotech companies we have also found that some of the material in the previous editions could be used right away to give the companies a better understanding of their processes and to propose better design of their reactors. This acceptance of the book by the industrial community prompted us to include even more examples relevant for design of processes and equipment in the industry. The changes that have been made since the second edition are outlined in the first, introductory chapter of the present edition.

Our initial enthusiasm to embark on a complete revision of the text was mollified by the duties imposed on two of us (J.N. and G.L.) in handling large research groups and with the concomitant administration. One of us (J.V.) had much more time available in his function as senior professor, and he became the main responsible person for the work during the almost 2 years since the start of the project. But we are all happy with the result of our common efforts – “Tous pour un, un pour tous.”

Some chapters have been read and commented by our colleagues. Special thanks are owed to Prof. John Woodley for commenting on Chaps. 2 and 3, and to Prof. Alvin Nienow for long discussions concerning the right way to present Chap. 11. The former Ph.D. students, Drs. Mikkel Nordkvist and Thomas Grotkjær have kindly given comments to many of the chapters.
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