BOOK REVIEW

H. J. REHM: Industrielle Mikrobiologie, 2nd ed. Springer Verl. Berlin, Heidelberg, New York 1980. 718 pp., 215 figures and 89 tables

The rapid development of industrial microbiology has created an urgent need for a completely revised edition of the first volume published in 1967. The aim of the author was to give a survey of the entire field of technological and industrial microbiology, with a great number of references, offering a review and extensive study of the area in depth. The references listed in the first edition have not been reiterated in the second, therefore, the second edition may be considered as a supplement to the first. The profoundness of the work, compilation, elaboration and classification of the numerous literature data commands only admiration and highest appreciation. With innate elaborate precision, the author provides a comprehensive material easy to handle and readily accessible to those interested in the subject.

The volume is well applicable as a textbook and serves also as a fundamental reference book. The ideas governing the detailed descriptions of procedures and reactions are not so much current aspects of economic efficiency but rather concern methodology based on novelty. Predominant trends are also outlined in the discussions of the various topics.

The composition of the two volumes also differ as 11 of the 43 chapters of the new edition deal with general problems (essential microbe types; environmental effect on the microbes; biosynthesis of secondary metabolism products; isolation, maintenance and improvement of strains (genetics); the kinetics of growth; bioreactors, immobilized enzymes and cells, etc.). Some new chapters devoted to topics of increasing scientific and economic importance (SCP, biomass production, microbiology of metal and oil extraction, utilization of agricultural wastes) have also been added to the volume. Chapters dealing with other topics of industrial microbiology are in identical arrangement in the two volumes. These chapters cover the area of classical microbiological food industries (acetic acid, lactic acid, ethanol, acetobutanol, beer and leather industries), fermentation procedures of the pharmaceutical industries (organic acids; vitamins; amino acids; nucleic acids and nucleotides; enzymes, antibiotics; ergot alkaloids; plant and animal hormones; steroid transformations, etc.), waste water treatment and possible deterioration of the structure of substances.

The book contains clear-cut flow sheets, precise biochemical reaction pathways, many synoptical tables, a carefully arranged index, and an enormous number of references (2946).

This most valuable work commands the interest of biologists, microbiologists, food chemists and bioengineers.

I feel convinced that this book will serve as a valuable manual to all biotechnologists working in the field of research and education and also offers an essential contribution to the development of this scientific area.

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