Advances in Citric Acid Technology

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Foreword

Filamentous fungi and their practical use are one of the most important areas in comprehensive biotechnology. Production of various antibiotics, amino and organic acids, enzymes or various food products are leaving an ineffaceable trace in the twentieth century.

Although there have been many processes using filamentous fungi in practice for a century, production of citric acid was the first large-scale industrial process in history. Production of citric acid presents a real milestone in the fermentation technology.

At present the citric acid is a relatively known process, but its most relevant details are still actual problems and industrial top secrets of the world's major producers.

World production of citric acid is still in exponential growth phase, as well as the demands on higher product yields or cheaper technology processes of this important bulk product. Numerous inventions in strain selection, process technology and downstream processing are the indications that are steering a comprehensive citric acid production in this direction.

Present selection of contributions related to citric acid biosynthesis represents an insight into basic research and practical application in this field. It is concerned with advances in overall process development, comprehensive microbial physiology, modelling, bioreactor performance and scale-up problems, recovery, and other industrial aspects.

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