

This provides a good understanding and knowledge of plant development and biotechnology. The text is supported by illustrations and tables and would be found useful to persons studying plants and researching into the future of biotechnology concerning plants.

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I. Molnar-Perl, editor. Quantitation of Amino acids and Amines by Chromatography: Methods and Protocols, Elsevier B.V, Amsterdam, The Netherlands, 2005 (xii + 655 pp., £170.00, ISBN 0-444-52050-3)

Analytical techniques play a very important role in all the scientific and technological processes. Science has witnessed a rapid expansion of all types of analytical methods, and different instruments have come into picture with the advancement of technology. This rapidly growing area has led to the development of techniques, which are highly sensitive, accurate and less time consuming. Different chromatographic techniques have become popular analytical techniques for the qualitative and quantitative determination of a wide range of substances. The wide choice and sophisticated columns, detectors, derivatization procedures, the development of modern instrumentation and data handling systems have reduced time and costs, and give versatility, sensitivity and reproducibility. *Quantitation of Amino acids and Amines by Chromatography: Methods and Protocols*, volume 70th of Journal of Chromatography Library series, provides a wide range of chromatographic techniques for the identification and quantification of amino acids and amines in various matrices.

Amino acids are important biological compounds building peptides and proteins, and exist in foods, feeds, body fluids and tissues. The chirality of amino acids plays an important role in many fields of biosciences including synthetic peptide chemistry and peptide drug design. Therefore, the separation and detection of chiral amino acid has become an interesting and important research topic. Amines are organic compounds, which are of significant concern with respect to series of chemical and biochemical processes. For this reason their determination in a wide range of matrices including biological fluids and tissues, natural products, foods and related products or environmental samples is of particular importance. A considerable number of chromatographic based methods have been developed to make accurate determinations of amino

acids and amines. Part 1 and Part 2 of the book is focussed on the quantitative determination of amino acid, and amines, respectively by different chromatographic techniques. Different chromatographic techniques such as gas chromatography, high performance liquid chromatography and capillary electrophoresis/capillary electrochromatography have been described. Subsections deal with the analysis of compounds in natural form, followed by various derivatization protocols.

An overview of quantitation of amino acids and amines simultaneously, is presented in chapter 3. The recent developments in polyamine analysis by chromatography are summarized in the last chapter. A substantial part of this chapter is devoted to the most important biogenic polyamines, and some attention is given to synthetic polyamine polymers.

This volume provides an overview of theory and protocols along with chromatograms of various chromatography techniques. In conclusion, this volume can be useful guide to the students, academia, researchers, practitioners and consultants working in environmental testing laboratories, food and pharmaceutical industry.

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R. Breslow, editor. Artificial Enzymes, Wiley/VCH Verlag GmbH & Co. KGaA, Weinheim, Germany, 2005 (xii + 181 pp., £55.00, ISBN 3-527-31165-3)

Enzymes, also called biocatalysts have wide range of potential applications in various industrial processes. These macromolecules have fascinated scientists and technologists for many decades. Although chemical synthesis and recombinant technologies have made many enzymes available for medical and biotechnological applications, the design of artificial protein catalysts for tasks unimagined in biology remains a challenging work. The properties of artificial enzymes help us understand the special properties of nature's enzymes. The great challenge in achieving, with artificial enzymes, the huge rate accelerations that the best natural enzymes can achieve make us think more deeply about the natural enzymes. With the advancement in modern science, diverse strategies for creating new enzymes have been explored.

The book on *Artificial Enzymes* describes the various approaches to the synthesis and study of artificial enzymes. The book opens with a chapter on artificial enzymes, which covers