

***Proceedings of the Sixth Seminar on Inulin*, A. Fuchs, S. Schittenhelm, L. Frese (Eds.), Carbohydrate Research Foundation, The Hague, 1997, pp. vii + 162, Price NLG 69-00, ISBN 90-803195-3-8**

Research into many diverse aspects of oligo- and poly-fructan science has grown rapidly over the last decade, will particular interest in inulin materials. Inulins are naturally occurring non-reducing oligo-/poly-fructan mixtures with broad molecular weight distributions that are extracted from plant material (chicory root and Jerusalem artichoke being the major sources).

This volume charts the proceedings of the sixth seminar on inulin held in Braunschweig, Germany, in association with the Carbohydrate Research Foundation and the European Fructan Association. Which was the first seminar of its kind held outside The Netherlands. It is the view of the European Fructan Association that it is worthwhile and essential to promote fundamental and applied and technological research, in the interest of agronomy and agro-industry, with the immediate or ultimate goal to search for food, medical and non-food applications of fructans and fructan-containing crops.

These proceedings are essentially divided into six sections, and contain more than 30 contributions from researchers all over Europe. The first section namely agronomy and breeding contains a selection of articles on crop management industrial development growth yield, quality, productivity and chemical composition of chicory and Jerusalem artichoke, the main sources of inulin. The second section deals with processing and details the food-industrial processing of Hungarian Jerusalem artichokes and the extraction of inulin from some medical herbs. The third section covers analysis, chemistry and non-food

applications, and includes information on the application of enzymatic and chromatographic techniques for the molecular weight characterisation of inulin, and several articles detailing derivatives of inulin and their potential applications. Presentations on the preparation of non-hydrogenated and hydrogenated homo-oligomeric fructo-oligosaccharides are also included in this section.

The next section of these proceedings contains ten articles covering plant physiology, biochemistry, microbiology, molecular biology and genetics. Individual topics discussed in this section include the evolution of inulin in industrial chicory, changes in fructan contents of spring wheat, in vitro synthesis of chicory root fructans and fructosyltransferase genes from chicory roots.

The penultimate section discusses several food and medical applications, specifically the production and functional properties of Jerusalem artichoke powder and the potential uses of Jerusalem artichoke tuber concentrates as food additives and prophylactics. The final section encompasses a small number of miscellaneous articles that do not comfortably fit into any of the previous sections.

In conclusion 'Proceedings of the Sixth Seminar of Inulin' contains a substantial collection of articles that in total provides a wealth of useful information for all individuals with research interests in the field of fructan science. Such volumes are extremely beneficial as they broaden the awareness of researchers unable to attend such seminars in person, to the diversity of the field in which they have specific interest.

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***Basic Gas Chromatography*, H.M. McNair, J.M. Miller (Eds.), John Wiley & Sons, Inc., New York, 1997, pp. Xi + 200, Price £24.95, ISBN 0-471-17261-8**

Chromatography is a technique for separating and quantifying the constituents of a mixture. It is a popular method in many areas of science and engineering. Most chemical laboratories employ one or more chromatographs for routine analysis. Chromatographic separations rely on fundamental differences in the affinity of the components of a mixture for the phase of a chromatographic system. There are two phases in a chromatographic system: the stationary phase and the mobile phase. A particular chromatographic technique is specified by naming the mobile phase, followed by the stationary phase. Gas chromatography (GC) is a system that uses a gaseous mobile phase in contact with either a solid stationary phase

called as gas-solid chromatography (GSC) or a film of liquid stationary phase called as gas-liquid chromatography (GLC).

This book *Basic Gas Chromatography* gives an uncomplicated overview of gas chromatography in the opening chapters. The details of gas chromatography instruments such as columns and detectors are presented in the following chapters. Gas chromatography can be used both qualitative and quantitative analyses. Therefore, one chapter of this book is devoted to that topic. In addition, programmed temperature gas chromatography (PTGC) which is very effective method for optimising an analysis and used for screening new samples, special topics such as GC/MS, chiral analysis, special sampling and derivatisation methods are discussed in this book. A particularly useful section is the final one dealing with troubleshooting GC systems. Appendixes and index of applications provided in this

book also give useful guidelines for inexperienced analysts working in GC.

This book is both educative and informative sources for a wide range of reader from an undergraduate analytical chemistry course to an experienced analyst.

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