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SYMPOSIUM ON COMPUTERS IN FLAVOR CHEMISTRY

Introduction

In recent years major advances have been made in the multiplicity of ways in which computers can benefit flavor chemists. The objective of this symposium was to present outstanding applications of computers to help solve some of the complex problems facing flavor chemists.

To center our attention toward an equal base Dr. Charles E. Klopfenstein, University of Oregon, presented a State-of-the-Art review on laboratory automation with particular emphasis on the "minicomputer revolution" and its role in the design of new experiments that would be very difficult or impossible to execute without computer aids.

The explosions of information and data have introduced problems at all levels of research. A computer-aided approach to cope with the voluminous information was presented by Dr. William G. Galleto, McCormick & Co. Approaches to handling complex odorant responses, correlation of odor quality with analytical data, establishment of prediction equations for evaluating flavor quality from objective and subjective information, and correlation of volatile constituent composition with quality of tea aroma were described by Drs. Howard R. Moskowitz, U. S. Army Natick Laboratories; David A. Kendall, Arthur D. Little, Inc.; John J. Powers, University of Georgia; and R. E. Biggers, Coca-Cola Co., respectively.

The role of the computer in handling enormous amounts of data generated by each of two gas chromatography-mass spectrometry systems of analysis for complex volatile samples was discussed by Drs. Charles Merritt, U. S. Army Natick Laboratories, and M. Novotny, Indiana University, respectively. Each presented unique approaches to coping with the problems presented by the analysis system.

The final speaker, Dr. Herbert J. Dutton, Northern Regional Research Laboratory of the Agricultural Research Service, presented an overview of the work done by his group with odor constituents from heated cooking oils. This paper has been published elsewhere and does not appear here. The report illustrated the possible roles of the mini-computer and the general automation computer in solving problems in flavor chemistry.

We wish to thank publicly all of the participants who graciously accepted the invitation to share their knowledge and the results of their work with us.

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