

BOOK REVIEW

Proceedings of the 3rd Conference on Analytical Chemistry (in two volumes)

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The two volumes of the Proceedings are a collection of the papers presented at the 3rd Conference on Analytical Chemistry, Budapest. The Proceedings are composed of three parts corresponding to the three main subjects of the Conference: 1. A chapter is devoted to the recent developments in separations preceding the actual analytical procedure. 2. The problems of organic analysis are dealt with in the second chapter. 3. Papers on thermal analysis, a field with remarkable traditions in Hungary due to the work of F. Paulik, J. Paulik and late Professor L. Erdey, constitute the third part of the book.

In most of the papers on separation methods ion-exchange technique is treated, but also displacement chromatography methods efficient in e.g. separating lanthanides are dealt with. Some applications of thin layer and paper chromatography to the separation of noble metals and of organic substances such as bisphenol A and its isomers, or of trimethoxy-benzoic acid and other compounds are treated as well. Some papers are on gas chromatography, involving the problems of the retention index system, prospects of programmed gas chromatography and other theoretical questions, along with some practical applications of the technique. Some papers are devoted to extraction separation methods, as well as to the technique of measurement used in separations, and its application in stationary and dynamic systems.

Within the subject of organic analysis some questions are treated in detail, such as fluorescence analysis of enzyme systems, application of infrared, ultraviolet and visible spectra to organic analysis, application of electroanalytical methods, with special regard to potentiometry, amperometry and polarography. Some questions are of theoretical interest, e.g. structure elucidation by analytical procedures calculation of dissociation constants etc.

In the chapter on thermal analysis some papers deal with the technical developments in the field and sources of error. In a remarkable fraction of the papers the application of derivatography to the investigation of topochemical reactions, of the behaviour of organic substances, complexes and of materials of practical importance such as molecule sieves, fungicides, minerals etc. is treated. Some papers are devoted to the increasing field of analysis based on the measurement of enthalpy changes.

This part of the Proceedings gives information of the modern trends and developments in thermal analysis.

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