

*Chromatography*, edited by E. HEFTMANN, Reinhold Publishing Corporation, New York, 1961, xxv + 753 pages, price \$ 17.50.

Dr. HEFTMANN together with 33 outstanding research workers in the field of chromatography has compiled a book which deals equally with adsorption, ion exchange and partition chromatography, gas chromatography and zone electrophoresis. Each chapter is written by a different author, some chapters having been translated by Dr. HEFTMANN.

Part I of the volume deals with the fundamentals of chromatography; there is a historical introduction by L. ZECHMEISTER, a general chapter on differential migration methods by H. H. STRAIN, one on theory by J. C. GIDDINGS, two chapters on adsorption (by C. H. GILES and L. HAGDAHL, resp.), two on partition (by J. C. GIDDINGS AND R. A. KELLER and by K. MACEK, resp.). The techniques of gas chromatography are described by A. I. M. KEULEMANS AND H. M. MCNAIR, the theory of electrophoresis by H. J. McDONALD and the technique by H. MICHL, the principles of ion exchange by H. F. WALTON and the technique by R. KUNIN. A special chapter is devoted to molecular sieve processes (by P. FLODIN AND J. PORATH) and gives a good survey of the possibilities of sephadex chromatography.

Part II contains a series of chapters on the applications of chromatography: amino acids and peptides, proteins, lipids, terpenes etc., steroids, carbohydrates, alkaloids, nucleic acids and related substances, chlorophylls and various porphyrins, water-soluble vitamins and antibiotics, phenols, inorganic ions, non-hydrocarbon gases, hydrocarbons.

There is some lack of uniformity, which even the best editor cannot avoid when each chapter is written by another author; thus some chapters give extensive bibliographies while others only quote a few papers. It also happens that the general part contains much more information on inorganic separations in its various chapters than the chapter specifically devoted to them. There is also an author and a subject index, the latter curiously containing also some authors' names.

The book will be invaluable for anyone teaching or learning chromatographic methods, as it presents a survey of most of the possibilities of this technique. It can also be recommended as a handbook in certain fields. The text is richly illustrated, well printed and some chapters list good selections of  $R_F$  values and electrophoretic mobilities.

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