

sible overlapping of the phenacetin and *p*-chloroacetanilid spots, and extends the upper limit of detection and estimation of the latter. A typical chromatogram is shown in Fig. 1.

3. By allowing the solvent front to ascend at least 15 cm. from the starting line, resolution of the spots is increased.

Summarizing our results, it was found that the proposed modified procedure provides an improved technique for identifying and estimating *p*-chloroacetanilid, acetanilid, and *p*-phenetid in phenacetin with the aid of TLC.

- (1) Turi, P., and Polesuk, J., *J. Pharm. Sci.*, **56**, 1011 (1967).

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### Keyphrases

Phenacetin—impurities determination  
TLC—analysis, identity  
UV light—spot fluorescence

## Books

### REVIEWS

*Atomic Absorption Spectroscopy and Analysis by Atomic Absorption Flame Photometry.* By JUAN RAMEREZ MUNOZ. American Elsevier Publishing Co. Inc., 52 Vanderbilt Avenue, New York, NY 10017, 1968. xii + 493 pp. 16 × 23.8 cm. Price \$28.50.

This book is highly recommended for those interested in becoming familiar with this rapidly advancing technique and it will be of interest to the advanced student of atomic absorption. The book is divided into five sections. Part I covers the fundamentals and adequately covers the principals for a beginner. Part II on instrumentation is well written but slightly out of date which is to be expected in such a rapidly moving field. Part III covers the elements applicable to atomic absorption and the sensitivity for these elements whereas Parts IV and V cover methods and application. The book has an excellent bibliography and a very useful appendix.

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*A Textbook of Pharmaceutical Analysis.* By KENNETH A. CONNORS. John Wiley & Sons, Inc., 605 Third Ave., New York, NY 10016, 1967. xvii + 614 pp. 15.5 × 23.5 cm. Price \$12.50.

This textbook for use in a course in pharmaceutical analysis has a somewhat new approach to the subject—it is not a commentary on the official compendia nor a catalog of assay methods for specific

drugs. It is a presentation of basic concepts with experimentation only to provide the basis for these concepts, so that the reader will understand drug analyses in principle and many in detail. In the preface the author points out that his wish is to enable students to approach with understanding not only the official compendia, but also reference works in analytical chemistry and specialized monographs. He has presented the field of pharmaceutical analysis in five parts—fundamental titrimetric analysis, physical methods of analysis, separation techniques, elemental analysis, and functional group analysis. There are many experiments included and more than 200 problems. Important new subjects included are phase solubility analysis, enzymes as analytical reagents, and decisions an analyst must make when selecting an assay method and interpreting his data.

Staff review

*Introduction to Chromatography.* By JAMES M. BOBBITT, ARTHUR E. SCHWARTING, and ROY J. GRITTER. Reinhold Book Corporation, 430 Park Avenue, New York, NY 10022, 1968. xii + 160 pp. 15.5 × 23 cm. Price \$3.95. Paperbound.

This is one of the books in the Reinhold Science Studies series, and although small it contains a good deal of information. As its title indicates, the book is meant only to introduce one to the subject and give a practical introduction to the more common techniques in this area. The authors have limited the book to discussions of only three chromatographic techniques: thin-layer, column, and gas. Not included is paper chromatography and although it is so well known the authors note that it is more likely that thin-layer will someday supplant

paper chromatography to a great extent because of the advantages of thin-layer over paper. The book is easy to read with concise definitions given for the terms used in chromatography. Included also are a short chapter on the literature of chromatography which lists the major journals, books, and review articles and a list of the majority of suppliers and manufacturers of chromatographic equipment and supplies for the US.

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Staff review

*The Pharmaceutical Industry—A Personal Study.* By WYNDHAM DAVIES. Pergamon Press Inc., 122 East 55th Street, New York, NY 10022, 1967. viii + 240 pp. 14.5 × 22.5 cm. Price \$10.00.

The author has prepared a commentary that is essentially a state-of-the-art report on the medical, economic, and political facets of the pharmaceutical industry throughout the world. Frequently, comparisons are made between pharmacy as it was in the early days and as it is today to emphasize the progress which has been made through pharmaceutical research.

Government controls which affect drugs, pharmaceuticals in international politics, advertising, patents, and the problems of drug prices are discussed with understanding and concern. As indicated under the title, this book resulted from a personal study by the author of the pharmaceutical industry. It is an interesting, critical discussion of the pharmaceutical industry, the things that affect it, and the effect that it has had on nations and people.

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Staff review

### NOTICES

*Solvent Properties of Surfactant Solutions.* Vol. 2 of Surfactant Science Series. Edited by KOZO SHINODA. Marcel Dekker, Inc., 95 Madison Ave., New York, NY 10016, 1967. ix + 365 pp. 15.5 × 23.5 cm. Price \$18.50.

*Directory of Government Agencies Safeguarding Consumer and Environment.* 1st Annual Edition 1968. Serina Press, 70 Kennedy St., Alexandria, VA 22305. 140 pp. 15.5 × 23 cm. Price \$4.95.

*Les Methodes Statistiques en Pharmacie et en Chimie* (Applications a la recherche, a la production et au controle). By JEAN PHILIPPE. Mason & Cie, 120 Boulevard Saint-Germain, Paris, France, 1967. x + 378 pp. 16.5 × 24 cm. Price 80F paperbound.

*Pharmazeutisches Taschenbuch.* Edited by HANS KAISER. Wissenschaftliche Verlagsgesellschaft MBH, Stuttgart, Germany, 1968. xii + 1126 pp. 13 × 17.5 cm. Price DM 75.

*Bibliography of Vitamin E.* 1965-1967. Compiled by WILMA F. KUJAWSKI. Distillation Products Industries, Rochester, NY 14603. 21.5 × 28

cm. approx. 140 pp. Single copies free to research workers in the field. Price \$3.00.

*Precis d'Anatomie et de Physiologie Humaines.* Vol. II, 3rd ed. By Y. RAOUL, M. PIETTE, and R. MICHEL. Masson & Cie, 120 Boulevard Saint-Germain, Paris, France, 1968. vi + 316 pp. 16.5 × 21.5 cm. Price 60F.

*Actualites Pharmacologiques.* Edited by RENE HAZARD. Masson & Cie, 120 Boulevard Saint-Germain, Paris, France, 1967. 224 pp. 16 × 24 cm. Price 72F.

*Einführung in die Arzneibereitung.* By FRITZ GSTIRNER. Wissenschaftliche Verlagsgesellschaft MBH, Stuttgart, Germany, 1968. xvi + 488 pp. 17.5 × 24.5 cm. Price DM 78.--.

*Prostaglandins.* Nobel Symposium 2. Edited by S. BERGSTROM and B. SAMUELSSON. Interscience Publishers, Inc., 605 Third Ave., New York, NY 10016, 1967. 299 pp. 16 × 24 cm. Price \$18.50.

*The Balkan Nephropathy.* Ciba Foundation Study Group No. 30. Edited by G. E. W. WOLSTENHOLME and J. KNIGHT. Little, Brown and Co., 34 Beacon St., Boston, MA 02106, 1967. 123 pp. 12.5 × 19 cm. Price \$3.50.

*Cell Differentiation.* Ciba Foundation Symposium. Edited by A. V. S. DE REUCK and J. KNIGHT. Little, Brown and Co., 34 Beacon St., Boston, MA 02106, 1967. 257 pp. 15.5 × 23.5 cm. Price \$12.00.

*Immunochemistry and the Biosynthesis of Antibodies.* By F. HAUROWITZ. John Wiley & Sons, Inc., 605 Third Ave., New York, NY 10016, 1968. xvii + 301 pp. 15 × 23 cm. Price \$10.95.

*Nutrition and Infection.* Ciba Foundation Study Group No. 31. Edited by G. E. W. WOLSTENHOLME and MAEVE O'CONNOR. Little, Brown and Co., 34 Beacon Street, Boston, MA 02106, 1968. 13 × 19 cm. vii + 144 pp. Price \$3.50.

*Pharmaceutical Chemistry. Part 1: Principles.* By M. L. SCHROFF. National Book Centre, P-76, Dr. Sundari Mohan Ave., Calcutta-14, India, 1968. xviii + 628 pp. 15 × 22 cm. Price Rs 18/-.

*Pyridoxal Catalysis: Enzymes and Model Systems.* Edited by E. E. SNELL, A. E. BRAUNSTEIN, E. S. SEVERIN, and Y. M. TORCHINSKY. John Wiley & Sons, Inc., 605 Third Avenue, New York, NY 10016, 1968. xii + 770 pp. 16.5 × 23.5 cm. Price \$18.95.

*The Stereochemistry of Macromolecules.* Vol. 3. Edited by A. D. KEITLEY. Marcel Dekker, Inc., 95 Madison Avenue, New York, NY 10116, 1968. 16 × 24 cm. vii + 460 pp. Price \$21.75.