

## Book Reviews

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HANDBOOK OF MOISTURE DETERMINATION AND CONTROL—PRINCIPALS, TECHNIQUES, APPLICATIONS, Vol 3, by A. Pande. Marcel Dekker, Inc., New York, 1975, XI + 289 pages. Price \$33.50.

This is the third volume in a four volume series which uses continuous pagination. The index appears only in the final volume. Volumes 1 and 2 were reviewed in previous issues of the Journal (26,429 (1975); 27,244 (1976)).

The four chapters contained in this volume are "Moisture in Textiles," "Moisture in Bagasse, Wood, and Paper," "Moisture in Foods and Allied Agricultural Products," and "Moisture in Soils, Sands, Concrete and Silica, and Silicates." Although, each chapter does contain specific needs unique to that particular area of expertise, there is much of a general nature that is potentially of great interest to cosmetic chemists. The study of water in wool has always had obvious similarities in the hydration properties of human hair.

Even some aspects of skin hydration find parallels in the dehydration and rehydration of polymers, paper, etc. Those working with talc and other silicates may find that some unique problems of moisture content may have already been resolved in very different contexts of other industries.

Obviously, the cosmetic chemist is probably not likely to find his specific application problem clearly laid out for him. He will, however, find similar problems and needs clearly developed. Recognizing the analogy, he may find an obvious solution to his specific need. Certainly, a perusal of these chapters should lead to a better understanding of equivalent truly cosmetic applications in moisture determinations in both finished product and in raw materials.

Although, the post 1965 literature may be minimal, it should be mentioned, as for a review of an earlier volume, that this is the apparent cut-off date for virtually all references.—  
JOHN H. WOOD—School of Pharmacy,  
Virginia Commonwealth University.

**TOXICOLOGY ANNUAL 1974**, Edited by Charles L. Winek. Marcel Dekker, Inc., New York, 1975, 344 pages (illustrated). Price: \$29.50.

*Toxicology Annual 1974* is a compilation of papers on selected topics of current interests and represents several disciplines covering a wide range of topics in the field of toxicology.

Included in the volume are articles on veterinary toxicology, narcotic drug dependence, the current status of saccharin, and postmortem drug level changes.

An excellent chapter by E. Buehler in this book, which is of interest to cosmetic chemists, is on test methods to predict potential ocular hazards of household substances.

The index appears adequate, and the wide range of topics covered will make the book of interest to toxicologists in many fields. The articles are written by outstanding scientists and researchers, and the book should be a useful, though not vital, addition to the libraries of pharmacologists, toxicologists, physicians, pharmacists, and veterinarians.—**CHARLES O. WARD, Ph.D.**—Huntingdon Research Center.

**THE THEORY AND PRACTICE OF INDUSTRIAL PHARMACY**, 2nd Ed., by Leon Lachman, Herbert A. Lieberman, and Joseph L. Kanig. Lea and Febiger, Philadelphia, PA., 787 pages. Price \$38.50.

The comprehensive coverage of the area of industrial pharmacy by

44 tenured nationally and internationally recognized experts including industrial scientists, pharmaceutical educators, and research and development managers makes this book exceptionally valuable for individuals seeking a thorough orientation in contemporary industrial practice. The editors, in this second edition of their book, include 4 new chapters discussing preformulation, production, packaging, and drug regulatory affairs, which supplement 22 extensively revised and rearranged chapters to reflect the numerous advances in the technology and regulatory activities affecting modern industrial pharmacy practices. All 26 chapters are extremely well illustrated with numerous charts, tables, diagrams, photographs, etc., and painstakingly referenced.

The chapters titled "Theories of Dispersion Techniques;" "Pharmaceutical Suspensions;" "Emulsions;" "Semisolids;" "Pharmaceutical Aerosols;" and "Sterile Products" should be of particular interest to cosmetic chemists who are involved in basic formulation work. Since these chapters stress the development of theoretical concepts and principles, rather than simply review the subject matter, they become extremely useful to the formulation chemists who desire to endeavor outside their own area of specific expertise. Lacking, however, from these chapters is a thorough discussion of the rheological properties governing polyphasic systems, and the cosmetic chemist should not turn to this book in search of a quantitative indepth interpreta-

tion or analysis of a material's texture or consistency qualities. The last four chapters of the book titled "Production Management;" "Packaging Materials Science;" "Quality Control: Process and Dosage Form;" and "Drug Regulatory Affairs," are well written without excessive detail and should prove to be useful and informative to those cosmetic chemists involved in the managerial and marketing aspects of cosmetic products.

There is some overlap of material in the book, but in view of the large number of notable contributors and the scope of the text, the editors should be commended for keeping it to a minimum. In summary, the book most certainly will well serve those involved in industrial practices and would be an excellent addition to their personal libraries.—ANTHONY J. CUTIE—Brooklyn College of Pharmacy.

LIPID CHROMATOGRAPHIC ANALYSIS, Vol. 1, 2nd Ed., Edited by Guido V. Marinetti. Marcel Dekker, Inc., New York, 1976, IX + 337 pages. Price \$29.50.

The expanded second edition of this informative work consists of three volumes, which collectively represent an attempt to compile the major chromatographic methods in the lipid field.

Volume 1, reviewed here, contains six chapters by competent specialists. There is one chapter on column

chromatography of neutral glycerides and fatty acids, which includes a brief discussion of the value of high-pressure liquid chromatography in lipid analysis.

Another chapter deals with gas chromatography of neutral acylglycerols. These include ordinary fats and oils (triglycerides) as well as any glycerol esters in which one or more hydroxyl groups have been combined with fatty acids and any remaining hydroxyl groups may be combined through an ether linkage to an aliphatic alcohol, aldehyde, or saccharide.

Other chapters cover thin-layer chromatography of phospholipids and glycolipids, the use of silica-gel-loaded-paper chromatography, the chromatographic analysis of alkyl ether lipids and their derivatives, and the analysis of phosphatides and glycolipids by chromatography of their partial hydrolysis or alcoholysis products.

Even though a major emphasis in this book is on elucidating the biochemical nature of complex fatty mixtures of natural origin, there is much material of interest to the cosmetic chemist. Most of the chapters have excellent detailed instructions and comments on experimental procedures, which are helpful to the practicing analytical chemist. There are ample literature references, and also a few typographical errors. An unfortunate deficiency is the absence of an index.—ALFRED WEISSLER—Consultant.