

Additions and Corrections

Photophysical Investigations of Chiral Recognition in Crown Ethers [*J. Am. Chem. Soc.*, **102**, 1760 (1980)]. By PIETRO TUNDO and JANOS H. FENDLER,* Department of Chemistry, Texas A&M University, College Station, Texas 77843.

Figures 2 and 3 with correct captions follow.

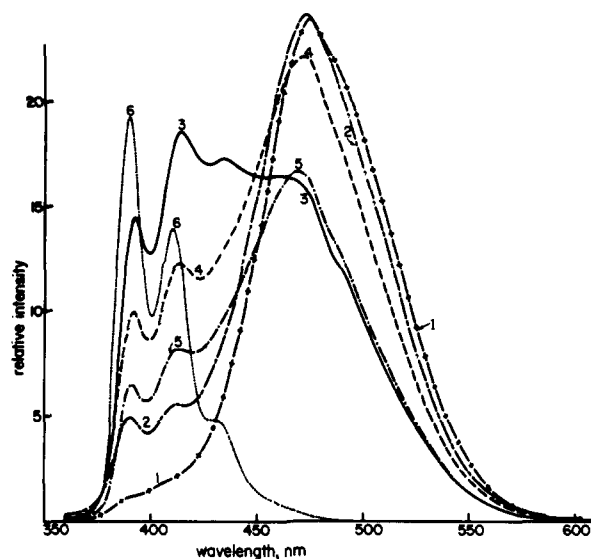


Figure 2. Emission spectra of 2.0×10^{-6} M L-crown-pyr in ethylene glycol (1, -X-X-), DMF (2, ---), THF (3, —), THF saturated by KCl (stirred overnight) (4, ---), THF containing 1.25×10^{-3} M $TbCl_3$ (5, ----). Emission spectra of 8.0×10^{-6} M PyNHAc in THF (6, ...) are also included for comparison. All spectra were taken at an excitation wavelength of 344 nm and at 25 °C.

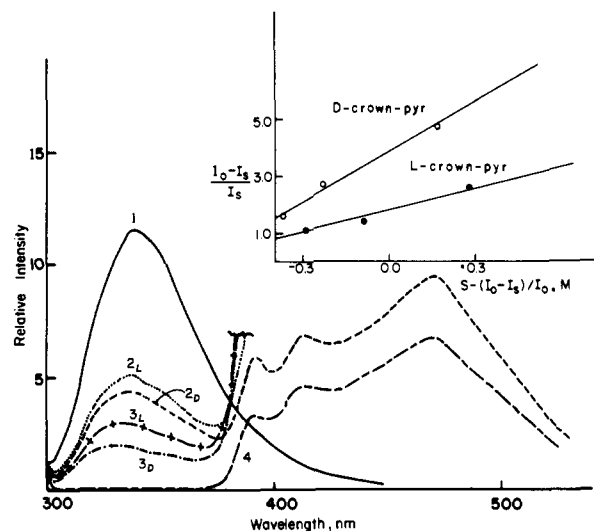


Figure 3. Emission spectra of 5.0×10^{-5} Gly-L-Trp in THF in the presence of 0 (1), 1.25×10^{-5} M D-crown-pyr (2_D), 1.25×10^{-5} M L-crown-pyr (2_L), 5.0×10^{-5} M D-crown-pyr (3_D), 5.0×10^{-5} M L-crown-pyr (3_L). For comparison, the emission spectrum of 1.25×10^5 M L-crown-pyr is also given in THF (4). Insert shows plots of quenching data according to equation given in note 21. All spectra were obtained at excitation wavelength of 290 nm.

Book Reviews

Developments in PVC Production and Processing. Edited by A. WHELAN and J. L. CRAFT. Applied Science Publishers, Barking, Essex. 1977. x + 231 pp. \$26.00.

Poly(vinyl chloride) is claimed to be the most versatile known thermoplastic material, and, indeed, it seems to pervade all levels of technological societies. Over eight million tons of it was used in 1976. These facts certainly justify a book such as this, in which recent developments are reviewed by a group of industrial chemists from the United Kingdom. There are ten contributed chapters, covering manufacture, compounding, additives, toxicity, and various aspects of use. There are substantial bibliographies, in which the patent literature is emphasized, and a good subject index.

Preparation of Catalysts. II. Edited by B. DELMON, P. GRANGE, P. JACOBS, and G. PONCELET. Elsevier Scientific Publishing Co., Amsterdam and New York. 1979. xiii + 762 pp. \$96.50.

This volume is the Proceedings of the Second International Symposium on the scientific bases for the preparation of heterogeneous catalysts, held in Belgium in 1978. It contains the texts of 48 papers, plus concluding remarks and an author index. Catalysts of a wide variety of types and purposes are discussed in papers that for the most part are accounts of original research with some experimental detail. The papers are reproduced directly from the authors' typescripts, and therefore display marked variation in typeface and density. Although the contributors represent a wide range of nations, all papers are in English. The last seven papers constitute a "Minisymposium on Catalyst Normalization".

* Unsigned book reviews are by the Book Review Editor.

Printing Inks. Developments Since 1975. By J. I. DRUFFY. Noyes Data Corp., Park Ridge, N.J. 1979. xii + 335 pp. \$42.00.

This book is part of a publishing program to collate the information in United States patents according to subject. They contain detailed descriptive information, including experimental details extracted from the patents, and how much is paraphrased, but the result is readable and informative. Although there is no index, the table of contents is very detailed and is adequate for ordinary access purposes.

In this volume, the patents are arranged in seven groups, such as "Textile Printing", "Pigments and Dyestuffs", etc. The patent literature is covered into, and perhaps through, 1978.

Plating of Plastics. Recent Developments. By F. A. DOMINO. Noyes Data Corp., Park Ridge, N.J. 1979. xi + 384 pp. \$39.00.

See the foregoing review of "Printing Inks". This volume surveys U.S. patents "issued since August, 1973". The subject is the industrially important process of applying metal coatings to plastics and involves not only electrochemistry, but photolytic and reductive methods. There is much information on preparation of surfaces as well.

Microcapsules and Other Capsules. Advances Since 1975. By M. H. GUTCHO. Noyes Data Corp., Park Ridge, N.J. 1979. xi + 340 pp. \$40.00.

See the foregoing review of "Printing Inks". This volume surveys U.S. patents "issued since February, 1976". The subject is important not only in the field of pharmaceuticals, but in pressure-sensitive copying systems, laundry products, agricultural chemicals, etc., etc. There is much information bearing on applied polymer chemistry and surface chemistry.

Corrosion Inhibitors. Recent Developments. By J. S. ROBINSON. Noyes Data Corp., Park Ridge, N.J. 1979. xiii + 306 pp. \$42.00.

See the foregoing review on "Printing Inks". This volume covers U.S. patents "issued since July 1976". The subject embraces coating methods, sequestering agents, drilling fluids, building and structural materials, lubricants, etc.

Solar Cells for Photovoltaic Generation of Electricity. By M. SITTIG. Noyes Data Corp., Park Ridge, N.J. 1979. x + 350 pp. \$48.00.

See the foregoing review on "Printing Inks". This volume surveys U.S. patents "issued since January 1970", dealing with materials, devices, and applications. It includes a ten-page section on "Economics of Solar Cells", as well as the descriptive material on patents.

Bleomycin: Chemical, Biochemical, and Biological Aspects. Edited by S. M. HECHT. Springer-Verlag, New York. 1979. xi + 351 pp. \$40.90.

A joint U.S.-Japan Symposium on the title subject was held in Honolulu in 1978, and gave rise to this volume of proceedings. The bleomycins are glycopeptide derivatives; bleomycin itself is a 4-aminopyrimidine compound of whose structure is not yet unambiguously established. The importance of the bleomycins lies in their antitumor activity. The papers consist of three reviews and 26 reports of original research. There is a small subject index.

Pesticide Residues. Edited by H. FREHSE and H. GEISSBÜHLER. Pergamon Press, New York & Oxford. 1979. 100 pp. \$27.50.

This volume contains the papers presented at two symposia held at the IVth International Congress of Pesticide Chemistry (IUPAC) in 1979. One symposium was concerned with "The Reliability of Residue Data", and the other with "The Interpretation of Residues and Residue Data as Related to Toxicology and Legislation of Pesticides".

Organometallic Chemistry—8. Edited by Y. ISHII and N. HAGIHARA. Pergamon Press, New York and Oxford. 1979. 130 pp. \$25.00.

This volume contains the plenary lectures given at the Eighth International Conference on Organometallic Chemistry held in Japan in 1977. All of these articles have previously been published in *Pure and Applied Chemistry*, Vol. 50, Nos. 1 and 8 (1978).

Carbohydrate Chemistry—9. Edited by A. B. FOSTER. Pergamon Press, New York & Oxford. 1979. 110 pp. \$28.00.

This volume contains the plenary lectures given at the Ninth International Symposium on Carbohydrate Chemistry, held in London in 1978. These articles have previously been published in *Pure and Applied Chemistry*, Vol. 50 (1978).

Chemistry of Natural Products—11. Edited by R. VLAHOV. Pergamon Press, New York and Oxford. 1979. 176 pp. \$30.00.

This volume contains the plenary lectures given at the Eleventh International Symposium on Chemistry of Natural Products (Bulgaria, 1978). All of these articles have been published in *Pure and Applied Chemistry*, Vol. 51, No. 4 (1979).

Photochemistry—7. Edited by A. REISER. Pergamon Press, New York and Oxford. 1979. 180 pp. \$27.50.

This volume contains the plenary lectures given at the Seventh Symposium on Photochemistry, held at Leuven, Belgium, 1978. The articles are reprinted from *Pure and Applied Chemistry*, Vol. 51 (1979).

Ions and Ion Pairs and Their Role in Chemical Reactions. Edited by J. SMITH. Pergamon Press, New York and Oxford. 1979. 137 pp. \$30.00.

This volume contains the invited lectures presented at a Symposium held in Syracuse in 1978, dedicated to Professor Michael Szwarc on the occasion of his retirement. These papers are reprinted from *Pure and Applied Chemistry*, Vol. 51, Nos. 1 and 4 (1979).

XXVth International Congress of Pure and Applied Chemistry (Tokyo, 1977). Volume 3: Analytical Chemistry. Edited by T. TAKEUSHI. **Volume 4: Organic Chemistry.** Edited by T. MUKAIYAMA. **Volume 5: Macromolecular Chemistry.** Edited by A. NAKAJIMA. Pergamon Press, New York and Oxford. 1979. Vol. 3: 64 pp. \$24.00. Vol. 4: 66 pp. \$24.00. Vol. 5: 90 pp. \$24.00.

These three volumes contain lectures given at the IUPAC Congress.

All are reprinted from *Pure and Applied Chemistry*, Vol. 50 (1978).

New Synthetic Methods. Volume 6. By ERNEST ABEL. Verlag Chemie, Weinheim. 1979. 273 pp. \$40.00.

The modern practicing synthetic chemist would greatly benefit from a computer terminal in the laboratory which would deliver, at the touch of some buttons, a selection of methods to be systematically tested for a particular transformation of interest. The current reality, however, is a painstaking search through compendia, treatises, reviews, and the original literature accompanied by the constant doubt that one has missed the method of choice. The raison d'être of this continuing series, which represents collections of recent reviews originally published in *Angew. Chem., Int. Ed. Engl.*, is to aid the chemist in his search for and selection of this method. The methods reviewed in the present volume are: Intramolecular [4 + 2] and [3 + 2] Cycloadditions in Organic Synthesis (W. Oppolzer); Cyclometalation Reactions (M. I. Bruce); Recent Applications of α -Metalated Isocyanides in Organic Synthesis (U. Schöllkopf); Phosphacumulene Ylides and Phosphallene Ylides (H. J. Bestmann); Flash Thermolysis of Organic Compounds (G. Seybold); Advances in Phase Transfer Catalysis (E. V. Dehmow); and Titanium Tetrachloride in Organic Synthesis (T. Mukaiyama). With the exception of the articles by Schöllkopf and Mukaiyama, all reviews have, to various extents, been updated to include literature into 1977.

In spite of the fact that the articles have been updated (uneven treatment), they do not equally attract the synthetic practitioner: the excellent accounts by Bestmann and by Seybold deal with somewhat specialized compounds and techniques, respectively. The reviews describe a court methodology. It is exactly for this reason that many of them are already in the possession of workers in reprint or other form.

Personal purchase of this collection would be recommended and considered only if it (1) was published in the same year as the original articles; (2) was available in inexpensive (soft cover) form; (3) adopted an *Organic Reactions* format of experimental detail and information on the scope of the reaction. Otherwise, this series only adds to the increasing library space problems.

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Advances in Lipid Research. Volume 15. Edited by R. PAOLETTI (Institute of Pharmacology, Milan, Italy) and D. KRITCHEVSKY (Wistar Institute, Philadelphia, Pa.). Academic Press, New York-London. 1977. ix + 360 pp. \$36.75.

During the past years, this series has gained a reputation for excellent timely reviews. This volume is no exception and the editors have chosen to discuss only four topics in full, important subjects which are not often reviewed. The first chapter by Jain and White is devoted to long-range order in biomembranes. They propose and defend in an excellent manner the thesis that the proteins and lipids of biological membranes are partitioned into functional and structural aggregates in the membrane phase. Based on this theory they are able to predict some of the consequences of "defect" structures—an interesting chapter with a good bibliography.

The second chapter written by Bischoff and Bryson is concerned with the pharmacology and toxicology of steroids and related compounds. This exhaustive review covers the methodology, physiological response, and mechanism, as well as transport mechanisms and effects on the central nervous system. A knowledge of steroid structure is assumed and any research worker interested in steroids should read this to learn about the possible biochemical and physiological responses of the compounds he works with.

In the next chapter on fungal lipids by Wasef, we have a discussion on all aspects of lipid composition in the different classes of fungi. The intracellular distribution and routes for the biosynthesis of the lipid components are reviewed and discussed. The numerous tables listing the lipid content and fatty acid make-up are useful additions. The final chapter by Nes on the biochemistry of plant sterols will also have appeal to readers of the Journal. Here we have a comprehensive review on the structure, stereochemistry, biosynthesis, metabolism, and function of the plant sterols. The author concludes with a discussion on the implications of the evolutionary role of these compounds. The literature is certainly up to date.

The reviewer enjoyed reading this volume and recommends it to those chemists interested in the biochemical aspects of lipids. It should be on the bookshelf of all who are interested in biosynthesis.

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