Additions and Corrections

Catalytic Directed Steroid Chlorination with Billiofold Turnovers [*J. Am. Chem. Soc.* **1986**, *108*, 2485]. RONALD BRESLOW* and MONICA P. MEHTA

Thioxanthones as High Turnover Catalytic Templates in Directed Chlorination Reactions [*J. Am. Chem. Soc.* **1986**, *108*, 6417–6418]. RONALD BRESLOW* and MONICA P. MEHTA

A Novel Bifunctional Chlorination Mechanism in Template Catalyzed Directed Functionalization with High Effective Molarities and Rates Approaching Diffusion Control [*J. Am. Chem. Soc.* **1986**, *108*, 6418–6420]. RONALD BRESLOW* and MONICA P. MEHTA

Several findings reported in these papers cannot be reconfirmed, including some that affect the principal conclusions. Accordingly, these papers are retracted.

Book Reviews*

Solubility Data Series. Volume 19: Cumulative Index for Volumes 1–18. Edited by Colin L. Young. Pergamon Press, New York. 1985. x + 300 pp. $100.00. ISBN 0-08-032495-9.

Solubility Data Series. Volume 20: Halogenated Benzenes, Toluenes, and Phenols with Water. Edited by Ari L. Horvath and Forrest W. Getzen. Pergamon Press: New York. 1985. xxiv + 266 pp. $100.00. ISBN 0-08-023926-9.

Solubility Data Series. Volume 24: Propane, Butane, and 2-Methylpropane. Edited by Walter Hayduk. Pergamon Press: New York. 1986. xxii + 447 pp. $100.00. ISBN 0-08-029202-X.

The cumulative index to the first 18 volumes of this monumental work will greatly increase the ease of use of the book. It consists of three parts: System Index (compounds by name), Registry Number Index, and Author Index. The compounds are listed in alphabetical order, but it is a pity that IUPAC names are not used instead of the circumlocutions that appear in Chemical Abstracts; i.e., instead of "aluminium nitrate", one finds "nitric acid, aluminium salt". However, there are cross references so one can eventually find the listing.

The other volumes continue the painstaking sifting of the reported data, giving critically examined best values with supporting information, such as estimated errors, purity of materials, method of measurement, etc. There is nothing else that approaches the thoroughness of this work.

Organometallic Compounds in the Environment; Principles and Reactions. Edited by P. J. Craig (Leicester Polytechnic). John Wiley & Sons: New York. 1986. xxii + 368 pp. $75.00. ISBN 0471-84727-5

The editor defines an organometallic compound as one possessing a direct metal-to-carbon bond. Thus compounds in which the metal is bonded only by oxygen, nitrogen, or sulfur ligands are not discussed.

A number of the chapters are authored by persons actively working in this area of environmental chemistry. Four chapters are authored by the editor. The approach is to discuss general considerations of the occurrence and pathways of organometallic compounds in the environment (Chapter 1), followed by individual chapters for organomercury, organotin, organolead, organoarsenic, and organosilicon compounds (Chapters 2–6). Chapter 7 discusses the group VI elements, Chapter 8 gives a good overview of methyl-transfer reactions for the above mentioned compounds as well as Pt, Au, Cr, Pd, and Tl compounds. Organometallic compounds in polymers are treated in Chapter 9, and the book concludes with a discussion of other organometallic compounds in the environment, e.g., Sb, Ge, Tl, Co, P, Mn, and Cd.

The chapters are well written and very informative. The editor claims this "volume constitutes the only recent single-volume source of information in this area." I agree with the statement. A goodly account of the toxicity of these types of compounds is well presented.

This book should be in every environmental laboratory library and many active workers in this area of toxic metals should think about purchasing the book. The book does suffer from one of the drawbacks of an edited book, that of the omission of recent references (back 1 year, minimum). This is a negative aspect of all such publications because it may take anywhere from six months to a year between the time the editor receives all the final manuscripts and the time the book is actually published. This, however, does not detract from the usefulness of this book.

Robert L. Grob, *Villanova University*

Catalysis Science and Technology. Volume 6. Edited by John R. Anderson and Michel Boudart. Springer-Verlag: New York. 1984. x + 312 pp. $49.00. ISBN 3-540-12815-8.

The volume of research literature on catalysis and surface science has increased enormously during the last decade, and it has become impossible for any one investigator to follow all the new developments. This series on catalysis science and technology attempts to correct the problem to some extent by presenting review articles that are more than just a listing of the current literature. The topics are based on important established material, and sufficient scientific and technological background information is provided to make the series a valuable source of reference.

Volume 6 has four chapters. Chapter one is by J. B. Butt and is on the often neglected but very important area of catalyst deactivation and regeneration. The chapter starts with the fundamental chemistry side, focused on the mechanisms of poisoning and coking. Major emphasis is on the engineering side of deactivation and regeneration. Related areas of transport phenomena and reactor analysis are discussed in detail. At each step the reader is given enough information to understand the topic and prepared for the following discussion. Perhaps a little bit more detail in some of the derivations would certainly have made reading much more easier. In general this chapter is systematic enough to be used as a text in a graduate course.

Chapter 2 is on Catalytic Olefin Polymerization reactions by I. Pasquon and U. Giannini. The major fault of this chapter is that it is easy enough to follow for an experienced reader, but the flow is interrupted too many times, by the enormous number of references, for the general reader to make any sense out of what is being discussed. Some of the references are controversial but not enough information is given for each reader to reach his own conclusions. If the authors had taken a stand on the controversial issues and presented their own views to the readers, this review would have been much better. Another shortcoming of this chapter is the lack of any discussion on the kinetics and modeling of

*Unsigned book reviews are by the Book Review Editor.