Additions and Corrections

Total Synthesis of Taxol. 2. Construction of A and C Ring Intermediates and Initial Attempts To Construct the ABC Ring System [J. Am. Chem. Soc. 1995, 117, 634-644]. K. C. NICOLAOU,* J.-J. LIU, Z. YANG, H. UENO, E. J. SORENSEN, C. F. CLAIBORNE, R. K. GUY, C.-K. HWANG, M. NAKADA, AND P. G. NANTERMET

Page 638, Scheme 8: The following substitution should be made for compounds 58 and 59



JA9550182

Book Reviews *

Recognition of Health Hazards in Industry: A Review of Materials and Processes. 2nd Edition. By William A. Burgess (Harvard School of Public Health). Wiley & Sons: New York. 1995. xiii + 538 pp. \$69.95. ISBN 0-471-57716-2.

The book's goal is to provide an understanding of industrial operations, including familiarity with in-plant terminology, identity and sources of potential workplace air contaminants, their health hazards, and physical stresses. Focus is on identifying major workplace health issues, with an overview of common control approaches. Despite major gains in workplace health protection, epidemiology and other health status studies are cited to illustrate that health effects continue to occur in the industries described. The number of health hazard studies not yet done are pointed out.

The book was written for various audiences, including the plant engineer who must consider worker health in facility design and managers who must assure that processes do not present workers with health hazards. The book is also relevant to identifying process sources of emissions and wastes potentially amenable to pollution prevention and waste minimization measures, and as input to process hazards analysis, e.g., HAZOP.

References are up to date, and related environmental issues and regulations are also pointed out, e.g., substitutes for ozone-depleting chemicals, SARA 313, and hazardous air pollutants. It is well written and will be a valuable resource for my teaching and other efforts in industrial health, safety, and pollution prevention.

A wide variety of processes and materials are covered in sufficient detail to ensure a better understanding of a process and its impact on workers. The processes, which involve use of chemicals and chemical synthesis, include Metals Production through Metal Finishing, Chemical Manufacturing Processes, Electronics, and Minerals. In most instances flow diagrams identify contaminant release points, nature of the contaminant, and quantity released. Raw materials and other process chemicals, intermediate chemical byproducts, and final products are

*Unsigned book reviews are by the Book Review Editor.

identified, and the applicability of various control methods is described. The *Industrial Hygiene Checklist for Design & Construction Review* in the appendix should be of value to both industrial hygienists and environmental engineers to minimize industrial hygiene and pollution prevention/waste minimization needs after startup.

While the book is informative and well meets its goals, some additions and changes could make it more broadly useful beyond industrial hygiene, e.g., pollution prevention, although this was not the authors' intent. Emission points could have been clearly shown on all of the flow diagrams. While specific processes and their health hazards are adequately detailed, a generic approach to recognizing and controlling similar hazards from sources common to many industries would also be valuable. Such a summary would be applicable to processes and products not described in the book. For example, dus generation during powder loading operations occurs in many different processes, and the same control measures are or could be used. At least in some processes, recent technology is not mentioned, e.g., supercritical carbon dioxide paint spraying and ultraviolet curable coatings.

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JA9551345

Superabsorbent Polymers: Science and Technology. Edited by Fredric L. Buchholz (Dow Chemical Company) and Nicholas A. Peppas (Purdue University). American Chemical Society: Washington, DC. 1994. ix + 148 pp. \$49.95. ISBN 0-8412-3039-0.

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