



Book reviews

Proceedings of the Sixth International In Situ and On-Site Bioremediation Symposium

Andrea Leeson and Victor Magar (Eds.), Battelle Press, Columbus, OH, 2001, Vol. 1, Bioremediation of MTBE, Alcohols, and Ethers, US\$ 65.00, 264 pp.; Vol. 2, Natural Attenuation of Environmental Contaminants, US\$ 65.00, 320 pp.; Vol. 3, Bioremediation of Energetics, Phenolics, and Polycyclic Aromatic Hydrocarbons, US\$ 80.00, 324 pp.; Vol. 4, Innovative Methods in Support of Bioremediation, US\$ 65.00, 205 pp.; Vol. 5, Phytoremediation, Wetlands, and Sediments, US\$ 60.00, 392 pp.; Vol. 6, Ex Situ Biological Treatment Technologies, US\$ 65.00, 432 pp.; Vol. 7, Anaerobic Degradation of Chlorinated Solvents, US\$ 75.00, 394 pp.; Vol. 8, Bioaugmentation, Biobarriers, and Biogeochemistry, US\$ 65.00, 264 pp.; Vol. 9, Bioremediation of Inorganic Compounds, US\$ 75.00, 384 pp.; Vol. 10, In Situ Aeration and Aerobic Remediation, US\$ 75.00, 360 pp.

Comprehensive, both topically and globally, is the only way to describe the proceedings of this conference held 4–6 June 2001 in San Diego, CA that focused “on the use of biological processes to remediate soil, groundwater and sediment contamination and to treat industrial waste.” The proceedings’ 10 volumes listed above contain over 350 8–10-page papers chosen from the 600 papers presented in 50 sessions. One cannot help being impressed by the variety of topics as described by the titles of the 10 volumes as well as the sources of these papers both geographically (worldwide) and institutionally (universities, consulting firms, governments and industries). I seriously considered reviewing each volume separately but decided not to as the title of each individual volume well-represents its contents. Moreover, such a review would have been repetitive.

Authors are identified by organization and location. I would have liked titles and mailing addresses (perhaps even e-mail addresses) also. That information would have simplified contact with the authors.

Battelle Press and the editors are to be commended for the timeliness of publication of the proceedings so soon after the conference. I note also that the older proceedings from the first conference onwards (the first conference was in 1998) still are available. In my opinion, the complete series should be available in every university and research laboratory library.

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G.F. Bennett

Air Pollution Control Technology Handbook

Karl B. Schnelle, Jr. and Charles A. Brown (Eds.), CRC Press, Boca Raton, FL, 2002, 408 pp., US\$ 139.95

Being a chemical engineer, it is a pleasure to review a book written by chemical engineers who cite the literature I am familiar with, especially the early papers dealing with the theory underlining pollution control processes, i.e. Whitman's original discussion of the two-film theory of absorption in Chem. Metal. in 1923. This book appears to have emanated from the professional development course entitled "Design of Air Pollution Control Systems" which the authors teach for the American Institute of Chemical Engineers.

"This book is written [the preface states] to serve as a reference handbook for the practicing engineer or scientist who needs to prepare the basic process engineering and cost estimation required for the design of an air pollution control system." It does that very well.

The authors have comprehensively but not exhaustively covered the essentials of air pollution control. Each control technology is discussed beginning with theory and ending with control application. Basic design equations are supplied, and in several cases worked examples are given.

The coverage (in 24 separate chapters) is comprehensive in scope, though not exhaustive in content. That comment should be explained. Schnelle and Brown start by providing a basic primer on air pollution control with separate chapters discussing: (1) history of the development of clean air regulations, (2) the controlling law (Clean Air Act), (3) new source permitting, (4) atmospheric diffusion modeling, (5) source testing, (6) ambient air quality and continuous emission monitoring, (7) cost estimating, (8) process design and strategy of process design, and (9) engineering economics. The foregoing material occupies the first 108 pages of the text. The remainder of the book is devoted to a discussion of air pollution control systems: absorption, adsorption, thermal oxidation, condensation, biofiltration, membrane separation technology, NO_x control, SO_x control, and particulate control (cyclones, wet scrubbers, bag houses, and electrostatic precipitators). The latter section on particulate control is preceded by a short chapter of the fundamental processes underlying particulate control and one on hood and duct design.

To say the least, the coverage of air pollution control equipment design is comprehensive. No important air pollution control technology is omitted and each topic is covered well, albeit succinctly. This book is an excellent source book (as advertised) for air pollution control technology and is highly recommended.

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G.F. Bennett

Air Pollution Control: A Design Approach, 3rd Edition

C. David Cooper and F.C. Alley (Eds.), Waveland Press, Prospect Heights, IL, 2002, 738 pp., US\$ 74.95, ISBN 1-57766-218-0

It is always a pleasure to pick up a book by an author with whom you are familiar. Such was the case, when I began to review Cooper and Alley's third edition of their textbook *Air Pollution Control*. I am now retired, but while I was teaching an air pollution course in a Department of Chemical Engineering, I utilized the first edition of this excellent book. I adopted the text because the content in its sequence followed the format of my lectures. It