Book Reviews

Air Pollution: Proceedings of the United States Technical Conference on Air Pollution. Sponsored by the Interdepartmental Committee on Air Pollution, Louis C. McCabe, chairman. New York–London: McGraw-Hill, 1952. 847 pp. $12.50.

With increasing industrialization, contamination of the air has become a serious problem, affecting all segments of the population. In the hope that an exchange of ideas on the subject would contribute toward the initiation of corrective measures, the Bureau of Mines conceived the idea of holding a Technical Conference on Air Pollution. Representatives of other government agencies, such as the Atomic Energy Commission, the Public Health Service, Weather Bureau, Department of Agriculture, and Research and Development divisions of the military forces, and also of industry, universities, and research organizations, contributed to this conference, held in Washington, D. C., in 1950.

Since the problems cover nearly all branches of science and engineering, separate panel discussions were held on the nature of the pollutants, their effects on agriculture and health, and, finally, on methods for air pollution abatement. The latter were discussed in symposia on equipment, recording, meteorology, and legislation. As a technical arrangement for the meeting such a division was justified. It is clear, however, that there is considerable overlapping of the different fields. Dr. McCabe and his staff deserve great credit for assembling the presented material in book form so that specialists in one field will be acquainted with the over-all air pollution problems. As a further aid to the participants, as well as to the reader, each panel presented a summary of its conclusions or observations. These are reproduced in the 38 pages covering the general sessions. The inclusion of the discussions following the presentation of the individual papers is a valuable addition for clarification of special points, and contributes greatly toward assimilating the following 816 pages of factual material.

The collected papers are of interest to many people. The legislative section, especially, contains material valuable to the victims of air pollution. One of the participants stated that industry has grown up under a rule of law which has required the public to tolerate some air contamination as a necessary incident of living in an industrial community. As support for this statement reference is made to a ruling of the Supreme Court of New Jersey that "People residing in industrial communities must bear, in part, the annoyance or detriment that is occasioned by industry of the community." From other papers in this section it is clear that the degree of contamination that must be tolerated is not decided by the industry alone, but that the public has a major voice in the decision. If citizens are kept informed about air pollution they will come to the realization that in many instances considerable progress has been made in air pollution abatement. Where such progress has not yet been made, this handbook can show the way.

Although a resolution was adopted at the conclusion of the meetings recommending to the federal government prompt publication of the proceedings for public benefit, two years have elapsed before the material presented has become available. As a result, two years of active research and engineering in the field of air pollution have not been recorded in the book. This deficiency is especially noticeable in the section on analysis and instrumentation. As a supplement, the papers on air pollution presented at the XIIth International Congress of Pure and Applied Chemistry might be consulted.

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Electronic Analog Computers (D-C Analog Computers). Granino A. Korn and Theresa M. Korn. New York–London: McGraw-Hill, 1952. 378 pp. Illus. $7.00.

During the past few years high-speed computing machines have assumed an increasingly important role in industrial, university, and government laboratories. This is primarily because of the tremendous development that has seen faster and more efficient machines put into use each year. Computers are generally divided into two classes—digital and analog—roughly according to whether the operations are performed with discrete or continuous quantities. This timely book describes in excellent fashion the present status of electronic, or d-c analog, computers.

The following chapter titles indicate the organization and content of the book: "Introduction to D-C Analog Computers," "Practical Setup Procedure," "The Application of D-C Analog Computers to Representative Practical Problems," "Theory and Design of Linear Computing Elements: Operational Amplifier and Networks," "D-C Amplifiers for Computer Applications," "Multiplication and Function Generation," "Auxiliary Circuits and Computer Operation," and "The Design of Complete D-C Analog-Computer Installations." It is indicated in the preface that "it was originally intended to include a chapter dealing with questions of computer utilization, personnel, and administration and to show how a computer laboratory may be fitted smoothly into an industrial or scientific organization. . . ." This omission is greatly to be regretted, since the questions raised are of prime importance for the efficient use of any high-speed computing device.

The subject matter is divided about evenly into topics of interest to all those interested in computations with high-speed machines and into topics of interest to design, maintenance, and operating engineers of d-c analog computers. Some previous acquaintance