

NEW BOOKS

Chemical Methods in Industrial Hygiene

F. H. GOLDMAN and M. B. JACOBS, x + 274 pages. Interscience Publishers Inc., New York, N. Y. 1953. \$3.75. Reviewed by H. B. SCHRENK, Mellon Institute, Pittsburgh, Pa.

Persons required to do analytical work recognize that even well established analytical methods must be modified in order to be adapted to special types of analysis. This is particularly true of chemical methods that are used in industrial hygiene as the samples are usually airborne in trace amounts. This manual makes available many of the chemical procedures which have been adapted to industrial hygiene and found to be satisfactory and practical. Field instruments and methods involving special laboratory apparatus as x-ray diffraction, polarography, spectroscopy and petrography are not included.

A brief description of sampling and sampling devices serves to emphasize the importance of this phase of the analysis, if meaningful results are to be ob-

tained. No analysis is better than the sample, and the dynamic nature of the atmosphere requires that particular attention be paid to sampling.

Detailed procedures are presented for the determination of: (1) acid gases as hydrochloric acid, sulfur dioxide, sulfur trioxide, nitrogen trioxide, hydrocyanic acid, and fluorine; (2) metals as arsenic, antimony, beryllium, cadmium, cobalt, copper, lead, manganese, mercury, selenium, tellurium and zinc; (3) organic solvents as benzene, aniline, esters, ketones, alcohols, halogenated compounds, carbon disulfide and nitroparaffins; and (4) miscellaneous substances as carbon monoxide, ozone, aldehydes, and phosphine. The analytical procedures include a description of the collection of the sample, preparation of reagents, details of the chemical technique, and sample calculations. Usually only one method is given, although in some instances two or more procedures are described. The methods are presented in sufficient detail so that there should be no difficulty in following instructions.

A list of threshold concentrations of

toxic compounds and a table giving collection medium, sampling apparatus, sampling rate, and analytical method for numerous compounds are given in an appendix.

This manual should serve a valuable and useful purpose not only as a ready reference to the specialists in the field but should be particularly helpful to the analytical chemist in related fields such as agriculture, where many economic poisons and other toxic materials are encountered.

Survey of Food and Nutrition Research

Prepared by FOOD AND NUTRITION BOARD, NATIONAL RESEARCH COUNCIL, x + 369 pages. U. S. Government Printing Office, Washington 25, D. C., 1954. \$1.75.

This survey was made by the Food and Nutrition Board under contract with the USDA Agricultural Research Service. The survey includes the 4,800

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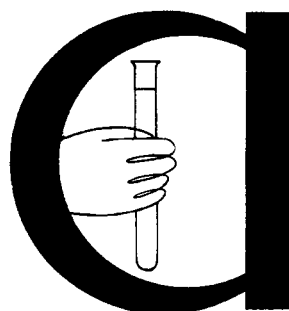
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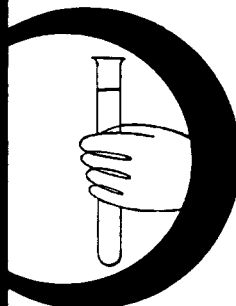
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NEW BOOKS

research projects under way in 1952-53 in academic, government and industrial laboratories. It has been directed to compile all food and nutrition research related to physiology, technology, and marketing. In addition there is a central register of workers and organizations engaged in this type of work.

The purpose of the survey is to present current research projects under way so that research directors and leaders can avoid duplication of effort, and also to give a guide to experienced food research personnel.

This is the third survey of this type which the Council has undertaken, earlier surveys were published in 1948 and 1950.

A new feature of the 1952-53 report is a section on new and unsolved problems. The listing includes 250 research topics ranging from influence of diet on dental health to interrelationships of nutrients.

Proceedings—9th Distillers Feed Conference

DISTILLERS FEED RESEARCH COUNCIL, INC. 1232 Inquirer Building, Cincinnati 2, Ohio. 1954. 77 Pages

The proceedings of the recent conference sponsored by the Distillers Feed Research Council, contains a survey of

nutritional research on the feeds manufactured by the distilling industry.

The proceedings contain some recent information on the unidentified factors present in distillers dried solubles, and the importance of these factors in poultry nutrition. There is also a review of a 4-year research program at Cornell University on the use of distillers feed in dairy rations.

Reports on the use of distillers feeds for beef cattle, dairy calves and swine are also included.

FILMS

Pollination of Alfalfa

The Pollination of Alfalfa is a color film describing the activities of bees in the fertilization of plants and emphasizing their importance to the crop grower. Various types of bees and their habits are illustrated in color with a particularly interesting depiction of the famous dance done by the scout bee to indicate to fellow workers the direction and distance of a find of pollen. Discussion is given to examples of organized cooperation between bee keepers and farmers to place hives in fields during important periods. Emphasis is placed on care and timing of the application of insecticides to avoid harm to the farmer's valuable friend, the bee. The film is available from Hercules Powder Company, Wilmington, Delaware.

Gourmet's Handbook Written by Chemist

At a luncheon with Raymond Ewell, National Science Foundation chemist and economist, AG AND FOOD and C&EN staff members, interviewed Mr. Ewell about his new gourmet's book, "Dining Out in America's Cities" (Little, Brown & Co., Boston, \$2.00). The book, a list of restaurants serving the best food in 102 cities in the U. S. and Canada, was compiled with the aid of scouts, many of whom are chemists or connected with the chemical industry. Shown below are: Robert F. Gould (left), Margaret Summers, Mr. Ewell, Rosemary Norair, and Richard L. Kenyon, at the La Salle Du Bois, one of the Washington restaurants on the list

