theory, personal probability appears to be most relevant and gives rise to some searching and fundamental questions. As the author states in his introduction,

> . . . the superficially incompatible systems of ideas associated on the one hand with a personalistic view of probability and on the other with the objectivistically inspired developments of the British-American School do in fact lend each other mutual support and clarification.

As the title suggests, the book is highly theoretical and abstract. The formal discussion is presented symbolically and is frequently introduced by oversimplified problems of the world around us. A study such as this is intended for a very limited audience—specifically, those interested in the abstract theory of statistics.

The author is not prepared, nor am I, to say how far reaching this unique approach to statistics will be, but it does give rise to a number of important and unanswered questions.

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Colorimetric Methods of Analysis. Including some turbidimetric and nephelometric methods. vol. IV. Foster Dee Snell and Cornelia T. Snell. Van Nostrand, New York, and Macmillan, London, ed. 3, 1954. vii + 676 pp. Illus. $12.50.

Volume IV of this comprehensive treatise presents methods for the colorimetric chemical analysis of organic materials that were not covered in volume III. The present volume contains chapters dealing with the following classes of compounds: nitrites, nitrates and nitro compounds; aliphatic amines and amides; amino acids; proteins; aromatic primary, secondary, and tertiary amines; azo compounds, nitrogen-containing cycles, and so forth; urea and related compounds; compounds with inorganic radicals; sterols; hormones; alkaloids; enzymes; antibiotics; hemoglobin and related compounds; and natural pigments. In addition, there is a brief chapter on the determination of the color of liquids.

Each of the foregoing chapters is divided into sections that cover the analysis of either a specific compound or a closely related group of compounds. A typical section contains a paragraph or two covering the methods available for the analysis, the interfering substances and methods for eliminating the interference, and the types of sample to which the various methods are applicable. A section that deals with the preparation of samples of various types for the analysis follows. Finally, the actual procedure for the development of the color and its estimation is described.

The preface states that the aim has been completeness, and it appears that this is very nearly what the authors have achieved. With the wealth of colorimetric methods available for the analysis of these compounds, it is amazing that the Snells have been able to incorporate in the space available not only the actual directions for the analyses but also the discussions on applicability of the methods and interfering substances. This feat was accomplished through the use of a terse, economical style of writing so that one has to search through the book to find a single wasted word. This will be no hardship to the skilled analytic chemist, who knows that the bare instruction "dilute to 100 ml." may mean the use of a volumetric flask in one case or a graduated cylinder in another, depending on the precision desired. Complete references to the literature are provided, and there are extensive author and subject indexes. I noticed a few instances of misspelling in the bibliography; in some cases the author is listed both under his correct name and under a misspelled version.

This book should prove of great value, both as a reference work and as a guide to the literature, to all analytic chemists who use colorimetric methods.

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Wasserbestimmung mit Karl-Fischer-Losung. Ernst Eberius. Verlag Chemie, Weinheim/Bergstr., Germany, 1954. 138 pp. Illus. Paper, DM. 12.80.

This monograph is, in large part, a condensation and a literal translation of *Aquametry,* by John Mitchell, Jr., and Donald M. Smith (Interscience, 1948).

Miscellaneous Publications

(Inquiries concerning these publications should be addressed, not to *Science,* but to the publisher or agency sponsoring the publication.)

The Occurrence of Oily Pilchards in New South Wales Waters. Div. of Fisheries Tech. Paper No. 3. M. Blackburn and R. Downie. Commonwealth Scientific and Industrial Research Organization, Melbourne, Australia, 1955. 11 pp.

Latitudinal and Seasonal Variations of the Absorption of Solar Radiation by Ozone. Geophysical Research Papers, No. 33. Jerome Pressman. U.S. Air Force Cambridge Research Center, Cambridge, 1954 (Order from U.S. Dept. of Commerce, Office of Tech. Services, Washington 25). 34 pp.

Statistical Information on Component Parts of Chemical Compounds. Estaleta Dale and Karl F. Heumann. Chemical-Biological Coordination Center, Natl. Acad. of Sciences–Natl. Research Council, Washington 25, 1955. 11 pp.

The Orbits of Two F-Type Spectroscopic Binary Stars. Dominion Astrophysical Observatory Publ., vol. IX, No. 14. K. O. Wright and R. E. Pugh. Canada Dept. of Mines and Tech. Surveys, Dominion Observatories, Victoria, B.C., 1954. 7 pp. 25¢.

Laboratory Analysis of Soils, Grain Size and Liquid Limit. Highway Research Bd., Bull. 95. Natl. Acad. of Sciences–Natl. Research Council, Washington 25, 1955. 37 pp. 60¢.

Die Papierchromatographie der Kondensierten Phosphate. Herbert Grunze and Erich Thilo. Akademie–Verlag, Berlin, 1954. 25 pp. DM. 2.