integrate any group (0-399) in one step

This new all-electronic Model 522 Spectrum Resolver/Integrator may be used directly with TMC "400 Series" pulse analyzers to perform resolving and integration functions without the necessity of intermediate tape recording equipment.

As a Resolver the Model 522 takes information directly from any selected quarter or half of the analyzer memory and either adds it to or subtracts it from the data stored in an adjacent quarter or half of the memory. It is possible to remove individual components of a spectrum and leave only the desired elements by adding or subtracting 100%, 10%, 1% or 0.1% increments of reference spectra. The operator has precise control of the resolving process, and has an accurate visual record of the exact percentage removed.

As an Integrator, the Model 522 integrates memory-stored information within any band of channels from 0 to 399 in one operation. Two modes of integration are available:

- NORMAL mode sums the counts in the preselected band and stores the total in the last channel.
- SUBTOTAL mode adds each channel count to the previous one to provide a running subtotal.

With every operation, results are displayed on the analyzer scope and may be printed, recorded or punched out by the readout method of your choice.

Case design of the Model 522 Resolver/Integrator is identical to that of the compatible "400 Series" fully-portable, 400-channel Pulse Height Analyzers.

**SPECIFICATIONS**

- Resolving Rate: 0.5 sec. for one add or subtract operation per 100 channels
- % Resolved: 100%, 10%, 1% or 0.1%
- Integration Rate: 0.5% sec. per quarter memory
- Channel band: Continuous 1 — 400 channels
- Integrating Modes: Normal, Subtotal
- Blanking: Only channels to be integrated are visible on Analyzers CRT display
- Size: 8½" w. x 10¼" h. x 21" d., 28 lbs. (approx.)

TMC is the original designer/producer of transistorized multi-channel analyzers. Today, TMC instrumentation is delivered to every nation in the free world for use in the most advanced laboratories known to man. For full specifications, information, consultation, please write or phone your nearest Sales Office or factory direct... North Haven CE 9-2501.
carbonyl compounds, esterification and hydrolysis, carboxylation and decarboxylation, saturated rearrangements, aromatic substitution, and polymerizations.

Waley gives a clear though elementary exposition of most of the highlights of organic reaction mechanisms. After each organic topic, he briefly describes the pertinent enzymic mechanisms. In general these latter discussions are rudimentary as a result of the inherent lack of information on enzymic mechanisms but also because the author greatly emphasizes the necessary background of organic mechanisms. The general topics are quite suitable for a discussion of organic reaction mechanism, but some are not very pertinent to enzymic mechanisms; for example, Waley's 34-page discussion of the mechanisms of aromatic substitution, one of the fascinating areas of organic chemistry, contains only 1½ pages pertinent to enzymic reactions. On the other hand, oxidation-reduction mechanisms, a most pertinent subject, are given only rudimentary treatment in the chapter on carbonyl reactions.

Mechanisms of Organic and Enzyme Reactions is a presentation of basic groundwork rather than a probe at the research frontier of all the area it treats. That the author refers to only ten papers published later than 1959 in this book published in 1962 attests the truth of this statement. The author presents clearly the highlights of organic reaction mechanisms and the beginnings of enzymic mechanisms in an elementary form. His book should interest those who are novices in both areas.

MYRON L. BENDER
Department of Chemistry,
Northwestern University

Text and Reference Source


The aim of this book, whose author is reader in geography at Manchester University, is to provide a synoptic view of the development of academic geography during the past century. In British geography Freeman discerns six successive trends, which begin with the encyclopedic compilations of 19th-century travelers and which end with the current tendency towards systematic specialization, based on detailed local study. These trends are outlined in chapter 1 and then discussed chronologically in three subsequent chapters, special emphasis being placed on the work of individual geographers whose biographies appear in a short appendix. In chapters 5 through 10 Freeman changes from a chronological treatment to a discussion of the value of the regional approach in geography and of the major systematic fields. Along with his treatment of physical, economic, social, and political geography, he devotes a special chapter to the development of cartographic techniques and their application in national atlases. A final chapter provides a summary of the themes outlined in chapter 1 and an indication of the probable trend of future research; here the author's views are expressed in this phrase: "many ideas and new techniques are not new, but merely taken up again after an interval of years and more effectively developed."

According to the publishers, this book is intended to be an introductory text and a reference book. It fulfills both aims, not least because books on the history of modern geography are few in number. As a text, it provides a coherent and well-written survey of a broad field, by an experienced geographer, although its value might have been enhanced by a clearer statement of the purpose of modern geography as it is revealed in recent methodological writings. As a reference book, it provides a straightforward account of the growth of geography in Britain and its relationship with contemporary thought in Europe and America. Here Freeman makes a notable contribution; he may not be a provocative writer, but he has a broad command of the literature, and his book deserves to be widely read.

RONALD H. BUCHANAN
Queen's University,
Belfast, Northern Ireland

Note

Food for Thought

The professional and the nonprofessional alike will find in Nutrition in a Nutshell, written by Roger J. Williams (Doubeday, Garden City, N.Y., 1962. 171 pp. 95¢), a convincing account of why nutrition is important not only for the body as a whole but for its multitude of parts—the cells and tissues that make up the body. Williams discusses qualitative and quantitative nutritional needs, the results of faulty nutrition, nutritional supplements, nutrition education, the personal responsibility for being well nourished, keeping up-to-date on nutrition, and avoiding food faddism.

His advice for being well nourished is most general but carefully explained: (i) Don't be a hypochondriac or a worry-wart; (ii) diversify your diet; (iii) use and cultivate your body wisdom; (iv) avoid too much refined food; and (v) use nutritional supplements when, on the basis of informed opinion, it seems desirable.

RUTH M. LEVERTON
Agricultural Research Service,
U.S. Department of Agriculture

New Books

General


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ASSOCIATION AFFAIRS

Technical Writers and Publishers

The Society of Technical Writers and Publishers was one of the eight societies to be elected an affiliate of the AAAS at the Philadelphia meeting in December 1962. The society is composed of professional men and women dedicated to furthering the art of communicating technical information and developing the competence of its members.

To achieve these goals, the society sponsors technical-communication research at universities through a program of grants; publishes a professional journal; cooperates with other professional societies and government agencies in the establishment of writing and publishing standards; assists educational institutions in the development of technical communication curricula; and conducts an annual convention to keep members up-to-date on current developments in the profession.

Each of its 50 chapters in the United States and Canada conducts monthly meetings and many chapters engage in activities that relate the profession to the community.

The society's nearly 3000 members span a wide range of occupational specialties within the technical communication field. They write, edit, illustrate, and produce reports, catalogs, handbooks, manuals, specifications, proposals, parts documentation, journal articles, technical, popular, and trade magazine articles, news releases and presentations. Other activities include managing publications groups and businesses, teaching, and undertaking research in all aspects of technical communications. The spectrum of subject matter fields spanned by the membership is also broad; it includes biological, earth, medical, physical, and social sciences; all branches of engineering; and the various communication arts.

The society's officers are: president, H. C. McDaniel, Westinghouse Electric Corporation; first vice president, Robert O. Shockey, Mercury Publications; second vice president, Stello Jordan, Sperry Gyroscope Co.; secretary, Henrietta Tichy, Hunter College; and treasurer, Charles W. Thelen, General Dynamics. The society's representative on the AAAS Council is Dwight E. Gray, National Science Foundation.

VERNON M. ROOT
Society of Technical Writers and Publishers, Columbus 14, Ohio