

The points of criticism raised are relatively minor, and such shortcomings will not detract seriously from the value of this comprehensive work on the basic aspects of medical mycology. This manual is recommended to the serious student. It is regrettable that its usefulness will be limited only to those with a good reading knowledge of Italian.

LIBERO AJELLO

U.S. Public Health Service,
Communicable Disease Center,
Atlanta, Georgia

Low Temperature Physics and Chemistry. Proceedings of the Fifth International Conference on Low Temperature Physics and Chemistry. Joseph R. Dillinger, Ed. University of Wisconsin Press, Madison, 1958. xxv + 676 pp. \$6.

In late August 1957 the University of Wisconsin was host to 440 scientists at the Fifth International Conference on Low Temperature Physics and Chemistry. With the exception of those in Soviet Russia, most of the active cryogenic laboratories in this country and abroad were represented, and the lively sessions covered a sizable fraction of the problems of current interest in this field. This volume, which includes a three- to four-page version of each of the 198 contributed papers and slightly longer reports of the 27 invited papers, provides not only an unusually complete summary of the conference proceedings but a highly valuable progress report on a popular field of research.

About a third of this book is devoted to the behavior of liquid He^4 , liquid He^3 , and liquid $\text{He}^3\text{-He}^4$ mixtures, sometimes called quantum liquids. Superconductivity, including applications of superconducting switches and persistent currents to computing machines, is thoroughly discussed. The following topics are also covered: temperature scale and temperature measurement, transport properties in solids at low temperatures, specific heats, mechanical properties of solids and solidified gases at low temperatures, magnetic properties, nuclear and paramagnetic resonance, and nuclear orientation experiments. The broad range of topics reflects the growing interest in the behavior of matter near the absolute zero of temperature.

Since much of the material in this book is not yet available elsewhere, this is an essential reference volume for active research workers in the field and should be of interest to a somewhat wider audience.

HENRY A. FAIRBANK

Physics Department,
Yale University

Cerenkov Radiation and its Applications.

J. V. Jelley, Pergamon, New York, 1958. x + 304 pp. Illus. \$10.

By a happy coincidence Jelley's monograph became available almost simultaneously with the announcement of the award of the 1958 Nobel Prize for physics to P. A. Cerenkov, I. M. Frank, and I. E. Tamm for their pioneering work on the "Cerenkov effect." Jelley has written a timely, authoritative, and very complete account of the discovery, properties, and applications of this interesting phenomenon.

In the introduction the work of these three Russian physicists is given perspective within the framework of earlier experiments (the observation of Cerenkov radiation dates back almost to the discovery of radioactivity), and the credit reflected by the Nobel award is undisputed. It is interesting to note, however, that the contribution made by S. I. Vavilov, Cerenkov's professor at the Lebedev Institute, which is inconspicuous both in Jelley's review and in the literature, has been emphasized lately by the adoption in the U.S.S.R. of the more inclusive name "Vavilov-Cerenkov effect."

After a summary of the theory of "ordinary" Cerenkov radiation, a long and fascinating chapter describes many of the more exotic circumstances in which the radiation may be emitted. In some of these cases the phenomenon is potentially useful; in others it is quite unobservable. A large part of the volume is of course concerned with the practical detection of charged particles and the determination of their velocities. There is a comprehensive review of the types of counter that have already been used and of their advantages, and some hints are given of future possibilities.

One property of the Cerenkov counter that is surely destined to be exploited further is its inherent speed, and one would perhaps like to have seen more discussion of the speed of the photomultiplier which sets the practical limit in this direction. A more trivial omission is a sketch of the DuMont box dynode structure, which would have completed the set of illustrations of various basic designs. Again, one might quarrel with the statement that only the measurement of Cerenkov angle with the focusing type counter is useful for the direct determination of velocity. If the angular divergence of the particle beam becomes sufficiently large, there comes a point where better velocity resolution is achieved by measuring intensity, and to this end I have used nonfocusing counters successfully in cosmic-ray experiments.

Such shortcomings detract little, however, from the value of this book, which manages to combine very satisfactorily an introduction to the subject for the uninitiated with reference material for

the expert. Included are many useful tables and graphs and a comprehensive list of references that is especially to be praised for its coverage of the extensive Russian literature. The care with which the volume has been edited is shown by the fact that I found only one typographical error. It occurs on page 157 and is sufficiently obvious to be harmless.

E. P. HINCKS

Atomic Energy of Canada Limited,
Chalk River, Ontario

International Bibliography of Social and Cultural Anthropology. vol. 1. Prepared by the International Committee for Social Sciences Documentation. Georges Balandier and J. F. M. Middleton, Eds. United Nations Educational, Scientific, and Cultural Organization, Paris, 1958 (order from UNESCO Publications, 801 Third Ave., New York 22). 259 pp. \$5.50.

Publication of the *International Bibliography of Social and Cultural Anthropology* is a part of the general program of the International Committee for Social Sciences Documentation—a committee formed in 1950 with UNESCO support. The purpose of the committee is to promote the development of all bibliographical and documentary work of interest to the social sciences. The committee is made up of representatives of the various disciplines, nominated by the international scientific associations—the International Social Science Council, the International Sociological Association, the International Economic Association, the International Political Science Association, the International Association of Legal Science, the International Union of Scientific Psychology, the International Federation for Documentation, and the International Federation of Library Associations.

The committee considers that its main task is to supply each social science discipline with the basic bibliographical work essential to it. In certain fields it seemed essential to create annual international bibliographies; the *International Bibliography of Social and Cultural Anthropology* is one such bibliography.

It is the aim of the committee to record all publications concerned with the discipline, whatever the country of origin of the publication or the language in which it is written. They seek to list all scientific publications—books, articles in periodicals, reports distributed in duplicated form—but they exclude unpublished works (for instance, theses which have been merely typed), articles appearing in the daily press, and so forth. Special attention is paid to official publications of governments.