

asionally the Hall coefficients of many liquids are cited, but no systematic interpretation of the measurements is given in terms of the electronic structure of the liquid. Indeed, even the interpretations of the gross physical properties, such as viscosity, are very crude and old fashioned. Perhaps this is the best that can be done considering the current state of understanding of the properties of liquid semiconductors and that the

authors devoted much attention to complicated compound semiconductors. The book is undoubtedly a useful compilation of physical-chemical data, but it remains for me a disappointment because of its lack of attention to the electronic structure of liquids.

* * *

Stuart A. Rice is with the James Franck Institute.

"There's vinegar and pepper in't"

PROBLEMS IN SOLID STATE PHYSICS. H. J. Goldsmid, ed. 466 pp. Academic, New York, 1968. \$14.50

by WALTER G. MAYER

Because the market is not exactly flooded with useful solid-state physics textbooks, instructors do not usually have volumes of worked-out problems to supplement their lectures. The present collection of about 300 problems is therefore most welcome.

The topics covered are essentially those treated in introductory courses with their complexity ranging from very simple to difficult. To arrive at some of the solutions the student needs little intuition but much mathematical patience, yet for many other exercises the requirements are just the opposite. This differing degree of difficulty is clearly indicated and reflects the authors' individual interpretations in the 16 sections.

The number of problems per section varies from five (crystal growth) to more than 50 in the two chapters on magnetism. Although a number of the problems might be considered standard fare and also found in available textbooks, it is reassuring to see that they, too, are worked out in great detail in the answer section. Yet the majority of exercises are sufficiently thought provoking and illustrative that one might well include their solutions in lecture notes. The entire material is presented clearly, is well organized and profusely illustrated, complete with subject index and many appropriate references. The notation throughout is rather standard and, in cases of possible doubt, well defined.

The editor sets the stage for the reader with a quotation from *Twelfth*

Night: "Here's the challenge, read it: I warrant there's vinegar and pepper in't." It is not an empty promise.

* * *

The reviewer is associate professor at Georgetown University and has been teaching solid-state physics since C. Kittel's first edition.

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Lectures in Theoretical Physics: Atomic Collision Processes. Vol. XI^C. (The 11th Boulder Summer Institute for Theoretical Physics Aug. 5-Aug. 23.) Sydney Geltman, Kalyana T. Mahanthappa, and Wesley E. Brittin, eds. 337 pp. Gordon and Breach, New York, 1969. Cloth \$22.50, paper \$14.50

Lectures in Theoretical Physics: Quantum Fluids and Nuclear Matter. Vol. XI^B. (The 11th Boulder Summer Institute for Theoretical Physics July 8-July 19.) Kalyana T. Mahanthappa and Wesley E. Brittin, eds. 428 pp. Gordon and Breach, New York, 1969. Cloth \$26.00, paper \$14.50

Technology and Social Progress. (The 6th AAS Goddard Memorial Symposium March 12-March 13, 1968 Washington, D. C.)

Fuel Cell Systems-II. (5th Biennial Fuel Cell Symposium sponsored by Division of Fuel Chemistry, 154th Meeting of the American Chemical Society Chicago, Illinois, Sept. 12-Sept. 14, 1967.) Robert F. Gould, ed. 446 pp. American Chemical Society Washington, D. C., 1969. \$17.50

Lectures in Theoretical Physics: Elementary Particle Physics, Part I and II Vol. XI^A. (The 11th Boulder Summer Institute for Theoretical Physics, June 17-July 5.) Kalyana T. Mahanthappa, Wesley E. Brittin and Asim O. Barut, eds. 629 pp. Gordon and Breach, New York,

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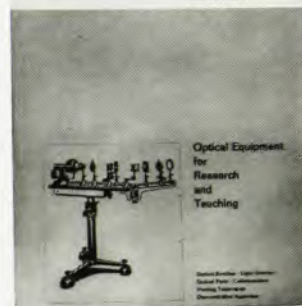
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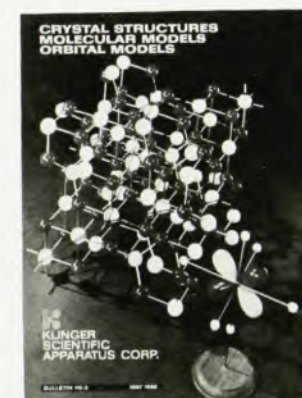
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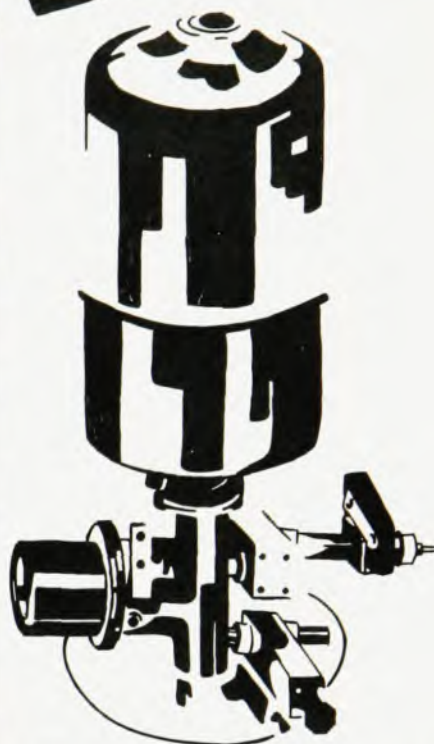
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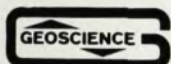
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