

the recent work on kinetic theory of polyatomic molecules in the gas phase and the spectroscopic study of molecular collisions. Nevertheless, it is reasonable to hope for even more general interest in molecular forces.

The book is valuable for several reasons. The author presents, in an introductory fashion, some topics that are of interest but do not usually appear in the curriculum for physics (or for that matter chemistry) departments. This book can serve as a concise review and reference for those who are working in the field.

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The reviewer is with the Mound Laboratory, Monsanto Research Corporation, and he is working on experimental and theoretical investigations of intermolecular forces in gases.

Relativity for freshmen

SPECIAL RELATIVITY: THE MIT INTRODUCTORY PHYSICS SERIES. By A. P. French. 286 pp. W. W. Norton, New York, 1968. \$3.25 Cloth, \$1.95 paper

by PETER G. BERGMANN

This book represents one in a series of relatively short works that is to span the whole of physics and serve as principal or collateral texts in the first two years of college physics. Special relativity might be taught in the second semester of a freshman course if the first semester includes classical mechanics.

This book's long suit is the evident care in writing and editing. There are many fine illustrations, both line drawings and photographic reproductions. Rare in a book intended for this level are numerous references to the literature, ranging from quotations from Newton's and Einstein's works to journal references extending well into the present decade. Experiments bearing on the special theory of relativity are described with considerable thoroughness.

The author has deviated from tradition by placing relativistic dynamics at the beginning. In justification of this arrangement, we should note the role played in contemporary physics by extreme-relativistic particles, by high-energy photons and by collisions and transmutations between them; compared to these, the minute effects exhibited (or rather, missed) in the Michelson-Morley experiment, for in-

stance, may not appear impressive. It remains true, though, that the extreme-relativistic situations were not experimentally accessible until long after the formulation of the theory of relativity, and without that theory much of the associated technology could not have been developed. Perhaps it is well that French's approach will now be tested in class instruction, so that a pedagogical judgment may be formed on the strength of experimental evidence.

In other respects, I found the discussion of the relativity of simultaneity, and its crucial importance in the establishment of relativistic concepts of space and time, not quite as trenchant as I should have expected, considering the transparency of most of the presentation. Perhaps, if students can be persuaded to peruse more than one text, a combination of French's book and one like David Bohm's *The Special Theory of Relativity* will bring out the best in both books.

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The reviewer is professor of physics at Syracuse University. Relativity is his principal research interest, and his non-technical introduction to general relativity, The Riddle of Gravitation, has recently been published by Scribner's, New York, 1968.

Social aspects of science

WASHINGTON COLLOQUIUM ON SCIENCE AND SOCIETY. (First Series) Conf. proc. (American University, Washington, DC, 1964-65) S. Frederick Seymour, ed. 181 pp. Mono Book, Baltimore, 1967. \$6.50

WASHINGTON COLLOQUIUM ON SCIENCE AND SOCIETY. (Second Series) Conf. proc. (Georgetown University, Washington, DC, 1965-66) Morton Leeds, ed. 201 pp. Mono Book, Baltimore, 1967. \$6.50

by M. W. FRIEDLANDER

In recent years the ever-widening effects of science on man and his society have been the subject of innumerable discussions, seminars and recriminations. Little agreement has been produced on the extrapolations and their implications, but that fact must not deter us from continuing to have these discussions. The support that science draws from society depends not only on the ability of scientists to present a persuasive case for their immediate projects and for the longer range basic

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