to the still mysterious chlorine-hydrogen and chlorine-carbon monoxide reactions, and one to the important phenomenon of photosensitisation. The last chapter includes a discussion on the temperature coefficient of photochemical reactions and phenomena resulting from the intrusion of catalysts in photochemical reactions. It is interesting to note (p. 556) that the authors do not favour the concept of an excited chlorine atom as being the link in the atom chain mechanism so long sought for in the hydrogen-chlorine combination, although recent work from Semenoff's laboratory lends additional support to this view. The treatment, however, in this portion of the book is very fair to the diverse views which have been expressed, and the criticism which is presented from time to time by the authors is both pertinent and stimulating. The authors are to be congratulated on writing what may well be considered the standard text-book in this growing subject.

ERIC K. RIDEAL.

Our Bookshelf.

The Glorious Oyster: his History in Rome and in Britain, his Anatomy and Reproduction, how to cook him, and what various Writers and Poets have written in his Praise; collected together as an Acknowledgment of the Supreme Pleasure he has given to all Persons of Taste since Roman Times. By Hector Bolitho. With certain Chapters edited by Maurice Burton. Pp. x + 203. (London and New York: Alfred A. Knopf, 1929.) 6*s*.

THIS small book is "written merely as a record of those stories of the oyster of which the author has read, brought together as a tribute to *his* (the oyster's) importance", and in fulfilment of a long-standing vow to write such a book. The author's confessions provide a key to the product. In historical quotations on the oyster in Rome and Britain (many culled from Philpots, "Oysters and All About Them"), in references to curious habits and an anthology, the author finds a congenial topic, and has collected within a small compass a number of stories and references likely to be of interest to those readers who browse, to some who read lightly, certainly to those who have an affection for the oyster, or who want to find one of the less well-known stories. The subject, however, is not treated exhaustively or seriously. In an interesting quotation dated 1859 (occupying thirteen pages, and from "All the Year Round", edited by Charles Dickens) it is recorded that 800 oysters were taken in one dredge haul off Whitstable, where an equivalent catch of all sizes nowadays would probably be a good one if twenty were taken.

The author is, unfortunately, not successful in his treatment of reproduction, enemies, and cultivation, in spite of the fact that contributions to these subjects were made by Mr. Burton. It is apparently a very difficult matter for a (presumed) layman to write on a scientific subject even when provided with the subject matter. For example, he writes: "As time proceeds, each of the embryos constituting the black spat develops a crown of protoplasmic hairs or cilia . . . and becomes known technically as a 'trochosphere' larva". The author is amusingly unaware that he is describing the development of the oyster backwards. The fall of spat is stated to occur usually in May! A single oyster is quoted as producing from 300,000 to 60,000,000 eggs in a sentence sandwiched between two others referring to the European oyster. It is stated that 'hockling' is a prevalent and familiar disease; that the mantle is a tough fleshy plate of tissue; that oysters cannot live in water which contains less than three per cent of salt; while a native oyster is still believed to be "one which is or has been bred on or near the Thames Estuary". After quoting Goldsmith on oysters, the author states: "This quotation illustrates the ignorance concerning oysters existing as recently as when Goldsmith was alive". J. H. O.

Thermodynamik: die Lehre von den Kreisprozessen der physikalischen und chemischen Veränderungen und Gleichgewichten; eine Hinführung zu den thermodynamischen Problemen unserer Kraft- und Stoffwirtschaft. Von Prof. Dr. W. Schottky. In Gemeinschaft mit Dr. H. Ulich und Dr. C. Wagner. Pp. xxv + 619. (Berlin: Julius Springer, 1929.) 56 gold marks.

THIS is an interesting and important book, of which at least parts will be of use to all teachers of thermodynamics. The fundamental principles of the subject are dealt with at considerable length, and difficulties are not glossed over but fully discussed.

An important aim of the book is to retain the advantages of the analytical method of Clausius–Gibbs–Planck while avoiding the possible obscurity of the characteristic functions, and to retain the close touch with experimentally measured quantities of the cycle method of Helmholtz–van 't Hoff–Nernst while avoiding its clumsiness. New coefficients, called heat and work coefficients, are introduced which have a close and obvious connexion with the measured quantities of heat and work. At the same time, these coefficients are shown to depend only on the state of the system and their relation to the older characteristic functions is worked out. Although at a first reading the new notation is rather confusing, it is an advantage where possible to have experimentally measured quantities in the equations. In this connexion reference must be made to the large amount of information concerning the relations between experimental quantities that, with the new notation, is compressed into the two small tables on pp. 77 and 78. Whether the new method will appeal to students more than the old can only be found by trial.

Another important point is the development of the ideas of Gibbs on the components of a system in a natural and helpful way by the introduction of the conception of resistant groups. The appli-