fier (SCR) and to an analysis of its applications. The impressive team of writers who are responsible for the volume have participated in the development of the device from the conception of the basic configuration, and they are familiar with all of the complex electrical characteristics as they bear on practical application.

A key parameter in the operation of the SCR is the variation of the current gain in the device with current. Accordingly, the area of physics concerned with the variation gain is given a very thorough and comprehensive treatment, and another important topic, avalanche breakdown of junctions, has been treated well.

The key points of basic theory are used to explain operation of the device, graphically and then in more analytical detail, a procedure that makes a very lucid presentation. The reader should not neglect this kind of detail to hurry on to the applications, because many pitfalls await the circuit designer who is not fully aware of the electrical characteristics. Misfirings and destructive overloads, for example, penalize misapplication.

On the critical side, I would like to have seen more discussion of the very important "turn-off" type SCR. This device goes beyond the thyratron analogue by providing turn-off of the switch at other than the zeros of anode voltage. Also, there is much more to the subject of inverter circuit design than will be found in this book.

The authors have performed a very valuable service to the solid-state device industry by providing this excellent text.

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Botany: Perceptive and Controversial Observations

Organization and Evolution in Plants. C. W. Wardlaw. Longmans, Green, London, 1965. xiv + 499 pp. Illus. 60s.

Some of biology's elder statesmen seem to favor well-crafted small contributions, while others prefer to integrate their contributions into a grander design, to attempt definitive statements on the state of their science. With this and other books, Wardlaw clearly belongs to the latter group. One may protest that biology is too flagrantly an explosion of ideas and data to foster neatly rounded philosophical summations. Rather, one may prefer the simple guidelines and doctrines with which most biologists seem reasonably well equipped, or else a critical review of progress within particular fields. Moreover, the field with which Wardlaw is most closely associated—morphogenesis—is not easily defined and is still in its infancy. This infancy has been a long one because the problems it proposes to solve are unusually large, difficult, and basic. To subject such a field to summation at this time results in certain ironies.

These ironies are clearly evident in *Organization and Evolution in Plants*. Morphogenesis has yielded some fine studies, among which may be ranked certain of Wardlaw's papers. Beyond experimental studies such as these, morphogenesis is rich in enumeration of baffling or interesting phenomena and prediction of results to be achieved. Morphogenesis has many "accounts receivable," but relatively few "paid-up accounts." Retelling the curiosities of embryology, galling, and so on, which suggest that experimental study may serve a purpose if the retelling is germinal, inspires new and ingenious studies. If this book performs that function, the accomplishment is partly obscured by the welter of diverse information and citation. Items such as the *Oxford Dictionary*, the origin of life, Greek philosophy, and many others are paraded before us bewilderingly. Wardlaw obviously possesses a wide range of interests. Many interesting biological phenomena are cited, and the abundance of illustrative material is admirable. The viewpoints and philosophy which interconnect these into a book, however, will be of interest chiefly to those who value Wardlaw as a scientific personality. Others may wish to create their own syntheses—and may be stimulated to do so by reading this book, in which perceptive observations mingle with those which seem to be restatements of the obvious, or which would seem to be rather controversial.

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Allendoerfer Advanced Series

Measure and Integration. Sterling K. Berberian. Macmillan, New York, 1965. xx + 312 pp. Illus. $9.95.

About 15 years have elapsed since the publication of Paul R. Halmos's important textbook on measure theory. Sterling K. Berberian, the author of the book under review, acknowledges in the preface his indebtedness to Halmos. In many ways *Measure and Integration* does resemble Halmos's book, but, if I may borrow one of the author's phrases, it is certainly not an almost-everywhere copy of it. Berberian's book is an excellent book on measure and integration. It contains many good problems, and even many interesting research problems, which are distinguished by an asterisk.

One of the main novelties of the book is that Berberian breaks with an old tradition, namely, the functions under consideration are the finite real-valued functions rather than functions which may have possibly infinite values. The author is to be congratulated for having made this decision. I fully agree that infinite values for functions indeed do not contribute essentially to the understanding of integration.

Product measures and Fubini's theorem are dealt with in great clarity, and this is the place where the reader may find many interesting open problems among the exercises.

A large portion, approximately, 130 pages, is used for a careful discussion of the theory of integration on locally compact spaces, culminating in the treatment of the Haar integral on locally compact groups. For the proof of the existence of the Haar integral, the author has chosen the simpler road via the Tychonov product theorem rather than showing directly that the Haar integral is the limit of a certain Cauchy net. The main ideas developed here are then applied to the introduction and discussion of the group algebra.

The book finishes with a very useful section entitled "References and Notes," a good bibliography, and an extensive index. All in all, I can recommend this book to everyone who is interested in the modern ideas on the theory of measure and integration.

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