fall and have covered the historical development of the subject through its many stages from Aristotle to quantum theory. They have avoided mathematical operations. To some extent, one must be sympathetic with this approach—so many readers would be lost if even the simplest of mathematics were introduced, but physics is essentially a quantitative subject, and the almost complete omission of not only mathematics but also numbers seems to be overdoing it. For instance, part of the difficulty encountered by a layman in trying to "understand" relativistic and quantum phenomena lies in the high value of c and the small value of h, so that our everyday experiences are so far removed from those phenomena for whose description we have been forced to introduce these concepts.

There are places where the unwary or poorly prepared reader may have trouble and the going will be heavy. This is *not*, as the dust jacket claims, a book that "any interested layman and bright student can *readily* absorb" (my emphasis). But perseverance is worth while—the topics discussed are fundamental and enough interest may be generated to induce the reader to attempt more advanced treatments. This is not to say that there are not places in the book where others would not have had very different ways of dealing with the topics chosen, but it is so very hard to bring modern science to a digestible level, and the approaches are so personal and subjective, that serious attempts must be commended.

Progress in Solid State Chemistry, Volume 1. H. Reiss, ed. 536 pp. (Pergamon, Oxford) Macmillan, New York, 1964. $17.50.
Reviewed by Stuart A. Rice, University of Chicago.

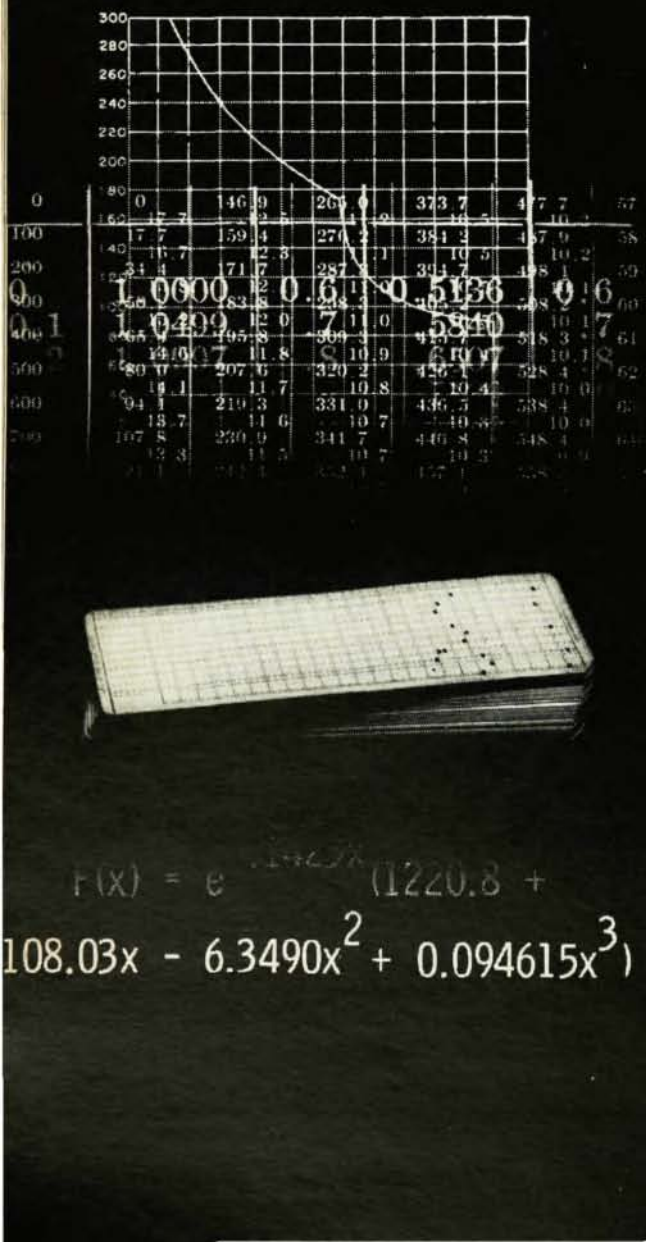
There are a variety of ways in which a review volume can be assessed. We might ask the following questions:

(1) Is the volume necessary?

(2) Assuming that it is necessary, is the selection of articles appropriate?

(3) Assuming that (1) and (2) have been properly carried through, is the collection timely?

(4) Are there characteristics of the individual articles which are worth special mention?



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I believe that there is no need for this series of volumes entitled *Progress in Solid State Chemistry*. Indeed, examination of the Table of Contents reveals no subject which does not already fall into the domain of the Seitz-Turnbull solid-state physics series or the older review series in inorganic chemistry. I do not believe that a publisher is justified in bringing forth a new series of review volumes when there is no direct need for that series.

If we avoid the problem of whether or not this volume is needed, we may answer the second question cited above in the affirmative, i.e., the editor has done a good job in providing a broad survey of many topics in solid-state science. Unfortunately, it is obvious that the editor has been done in by the publisher. Although the Preface is dated February 6, 1963, the volume has just appeared [in June 1964. ED.]. But even worse than that, examination of the individual articles reveals uniformly that the articles were submitted to the publisher some time in 1961 or at the latest early in 1962. As a result, several articles are so far out of date as to be hardly worth the paper on which they are printed. I refer in particular to the article on organic semiconductors which, through no fault of the author or the editor, no longer contributes anything to the field.

On other occasions I have made comments about the rate of publication of review volumes. In the particular case under review there seems to have been an inexcusably long delay which, coupled with the lack of need for the series to begin with, reflects very poorly on the publisher.

In view of the preceding remarks it seems pointless to comment about the individual articles. I can only say that I am sorry that the editor and the individual authors have seen so much effort go for naught.

Microwave Solid-state Masers. By A. E. Siegman. 583 pp. McGraw-Hill, New York, 1964. $18.50.
Reviewed by H. J. Hagger, Albiswerk Zurich, Switzerland.

Most books on masers aim to cover the problem generally and do not concern themselves with only one type of device. Professor Siegman's book,