Grimes, as "the burgeoning area of organic superconducting materials." These remarkable substances become superconducting at temperatures ranging from below 1 K to as high as 45 K. The major focus of the book is on the series of charge transfer salts, largely related to bis(ethylenedithio)tetrathiofulvalene, colloquially known as ET, within which the highest superconducting transition temperature is below 13 K. The fullerenes, which have much higher transition temperatures, are included in the title but are a late addition to the book, confined to a brief appendix.

In contrast to the implication of the series editor's comment, the total number of known organic superconductors is in fact rather small, there currently being fewer than 40, of which more than half contain ET as the donor and most of the remainder have donors that are closely related to ET. For the reader interested in this special class of compounds, the synthesis, structure, and properties of all these materials are given in exhaustive detail. The synthetic and experimental methods for the preparation of the compounds and crystals are well described, and stereo views of and crystallographic data for most of the compounds are included. More than 120 of the 400 pages are devoted to references; many of the physical properties of prototypical compounds are tabulated; and previously published experimental measurements of the electron spin resonance, vibrational, and optical spectra of these compounds are presented. In all, the book is a valuable compendium of the organic superconductors known at the time of publication.

The authors state clearly that the book focuses on the chemical aspects of the organic superconductors, and this is abundantly evident in the text. Indeed, they trace the origin of organic metals to 1911 to the work of McCoy and Moore, who studied amalgams of substituted ammonium ions. This early work focused on the chemical similarities between such organic moieties and the elemental alkali metals; and though such physical properties as crystallinity, metallic luster, and electrical conductivity were discussed, no conductivity measurements were reported. In a strange twist, the authors then go on to credit the discovery of the first organic superconductor in 1981 as the realization of "the most speculative suggestions of McCoy and Moore." I believe this is historically incorrect. I could find no such speculation in the McCoy and Moore paper and, indeed, this paper even predates Onnes's discovery of superconductivity.

Granted the omission of the physics of the materials, the perspective of the book is narrower still. In the preface, for example, it is stated that "only superconductive organic materials that can be synthesized in the laboratory are discussed." Surely this is an overstatement. I believe the authors really mean that only those materials that *have been* synthesized and found to be superconducting are discussed. For these, they do provide a comprehensive overview. But they do not go beyond these compounds. They draw little insight from what has been learned. No lead is given as to what other classes of organic compounds might become superconducting, or what other areas of organic chemistry might be of potential interest to the field. As a result the book fails to capture the excitement that has characterized the field for several decades.

I believe it was Akamatu, one of the pioneers of organic *semi*conductors, who stressed that the term "organic" as applied to conductive compounds means more than simply that the compounds are composed of carbon. It reflects the ability of such molecules to be organized into a unified, organic whole. This is all the more important for organic superconductors where the macromolecular structure plays so important a role. We see little of this here, except in the last chapter. In this chapter an effort is made to give a theoretical treatment of the superconductivity from a chemical perspective and relate it to structure. This is refreshing, but it is a far cry from a theoretical treatment of the entire phenomenon that might be assumed from the book's title. Such a treatment would involve some of the most advanced concepts of condensed-matter physics, and this is not to be found in this book.

In summary, *Organic Superconductors* is a useful compendium of chemical and physical properties of the currently known organic superconductors written by a group of experts intimately involved in their study. It is of limited scope and narrow in its view but gives one a snapshot of the present status of this field.

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