Schneeberg and argues in favor of the arsenical genesis, which he applies also to the nickel refinery workers of Wales and to smokers. From my figures on Joachimsthal (inaccurately quoted by Smith), it appears that the miners had a lung-cancer mortality of 9.77 to 10.90 per 1000 person-years, as compared with 0.34, the highest value in the 1930's for a male population of the same age groups. Thus, as pointed out by Korteweg (Netherlands) and Clemmesen, environmental conditions may lead to a considerable further increase of lung-cancer mortality in the future.

Kennaway and Maisin (Belgium) mentioned that nuns (who do not smoke) are free of lung cancer, while Steiner and Stewart pointed out that infants do have lung cancer, although they do not smoke. (In my opinion, cancer in infants and children, whether in the lungs or elsewhere, whether leukemia, carcinoma, or sarcoma, is a response to cancerogens that the fetus received via placenta from the mother.)

A large part of the 4-day session was devoted to the question of whether the material collected proves smoking to be the main factor in lung-cancer endemiology, and what should be recommended for further research on causative factors, on anatomical classification, on case histories of respiratory cancer, and on the minimum amount of information in statistical reports. It is a very informative symposium.

SIGISMUND PELLER

New York, N. Y.

Chemistry of Carbon Compounds: Alicyclic Compounds, vol. II, pt. A. E. H. Rodd, Ed. Elsevier, Amsterdam–Houston, 1953. 487 pp. Illus. $12.50

This is the second volume of a series designed to present a systematic discussion of organic compounds, intermediate in size between the great encyclopedias, such as *Beilstein* and *Elsevier,* and the shorter, essentially instructional text books. This particular volume is devoted to the alicyclic compounds exclusive of terpenoids and steroids, which are to appear later as volume II, part B.

There are many ways in which the editor and contributing authors might have selected and organized the material for such an intermediate work. Actually about 20 percent (about 90 pages) of the book describes generalizations and theoretical concepts, whereas the remainder is concerned essentially with the methods of preparation and properties of individual alicyclic compounds. The main weakness of this and similar books is that there is not adequate space for either a complete discussion of the basic principles or a complete presentation of the factual data. The principal merit of this book is the excellent organization of the material.

The various ring systems are discussed in order—three-membered rings, four-membered rings, and so forth—and then for each ring system the functional derivatives, such as halogen derivatives, alcohols, and amines, are discussed in the same sequence. Frequent tables have been used to present data efficiently and to facilitate comparisons. The most valuable part for most investigators will be the extensive references, which cover the chemical literature through 1952.

Special features are the liberal use of illustrative structural formulas and a very complete index (about 4300 entries, mostly individual compounds). The physical aspects, paper, binding, and type, are all very satisfactory; also, I noticed very few errors in either the formulas or the text material.

All the volumes of this series will undoubtedly be welcomed by organic chemists and investigators in related fields, first because of the greater rapidity with which pertinent references to the original literature may now be located, and second because this kind of reorganization of scientific knowledge frequently furnishes the inspiration for many new advances by bringing into juxtaposition facts and ideas that were formerly isolated.

RODERICK A. BARNES

School of Chemistry, Rutgers University

Electroanalytic Chemistry. James J. Lingane. Interscience, New York, 1953. 448 pp. Illus. $8.50.

This book gives a more complete coverage of the various divisions of electroanalytic chemistry than any other recent book. The first seven chapters discuss in a rather classical manner the fundamental aspects of the measurement and interpretation of the emf of galvanic cells, *p*H and its measurement, and the various types of potentiometric titrations. Chapter 9 covers conventional conductometric analysis in a similar fashion, together with a short section on high-frequency methods. The author states that he made no attempt to make these chapters, which comprise the first 160 pages, all-inclusive of their several subjects. Instead, they present the fundamentals of these more classical branches of electroanalytic chemistry, so that a better understanding of the newer developments can be accomplished.

The remainder of the book consists of short chapters on automatic potentiometric titrations, internal electrolysis, and electrographic analysis, in addition to extensive chapters on the theory, methodology, and recent developments in the various types of controlled potential electrolysis, in controlled potential coulometry and coulometric titrations at constant current. These latter chapters are well documented by numerous references to the recent literature (to about May 1953), together with a critical appraisal, in many cases from the author's own experience.

An examination of only the first 160 pages might suggest that this book gives a rather superficial coverage of some of the older aspects of electroanalytic chemistry. However, on closer study, it is difficult to find specific omissions. Where the coverage is brief or applications are omitted completely, adequate references to more complete treatises on the subject are given. The latter part of the book is quite complete in its coverage and represents the first authoritative appraisal of these subjects. There are, however, sev-