stances a given statement applies. Furthermore, as I have pointed out elsewhere, the concept of a "pre-contact situation" or the "ethnographic present" is a tricky one to handle in dealing with Central Asia. This difficulty makes itself felt particularly in the section on social structure: the accounts by 19th-century Russian scholars to which Krader refers for data on the social organization of the nomadic tribes cannot, in the nature of things, reflect the precontact situation. On the other hand, if the intention was to bring the account of the social structure up to date, there is a great deal of current Soviet literature that could and should have been cited but was not. However, this is an arguable point, and hardly damages the overall value of the work.

The system of annotation, by the way, is unnecessarily clumsy, requiring as it does, two separate references—one to the footnotes at the end of each chapter and another to the bibliography at the back of the book.

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Dipole Moments

Tables of Experimental Dipole Moments. A. L. McClellan. Freeman, San Francisco, Calif., 1963. x + 713 pp. $14.

This is a compilation of all of the experimentally determined dipole moments reported through 1961. The data are recorded in three tables: Compounds Without Carbon, Compounds Containing Carbon, and Compounds of Unspecified Formula. The third table includes data on oils and on natural and synthetic polymers. The compounds in the first two tables are listed by formula following the arrangement used in *Chemical Abstracts*.

In addition to dipole moment values, the percentage of electronic polarization used for atomic polarization in the calculation of the dipole moment is listed for compounds whose dipole moments were calculated from dielectric constant measurements. For other determinations the method of determination is listed. For about 50 compounds for which sufficient data were available the author has calculated a recommended value of the dipole moment. The methods used for evaluating the data in these cases are given in an appendix.

A bibliography with 2178 entries, an author index, and a tabulation of organometallic compounds under the respective metals add to the usefulness of this book. Scientists who use dipole moments in their work will find this a valuable compilation.

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Theoretical Physics

Lectures in Theoretical Physics. vol. 5. Lectures delivered at the Summer Institute, University of Colorado, Boulder, 1962. Wesley E. Brittin, Ed. Interscience (Wiley), New York, 1963. viii + 585 pp. Illus. $12.

This volume represents the fifth installment of the Boulder lectures delivered at the Summer Institute for Theoretical Physics at the University of Colorado. The contents comprise the 1962 proceedings. There are nine lectures delivered by eight lecturers. The topics cover a wide and diverse spectrum: general quantum theory (Furry and Bloembergen), solid state and related topics (Barut, Phillips, Blount), general relativity (Wheeler, two lectures), group theory (Biedenharn), and particle physics (Barut).

The brief preface states that it is the hope of the editors that "the lectures will prove to be of value to students who wish an *introduction* to current research as well as to experts in one field who wish to familiarize themselves with other fields" (my italics). It is the first part of this statement that causes me some concern. Although it may be true that the lectures presented in previous volumes did fulfill this hope, it is doubtful that a similar claim can be made here. To be sure, some of the lectures in the present volume are admirable and are exempted from the criticisms hereby made.

Specifically, I find it difficult to escape the impression that a potential lecturer, invited to contribute to such institutes on a topic of his choice, is too often tempted, and succumbs to the temptation, to speak on the subject closest to his current interests—his own research. In many cases he has attained a degree of specialization from which it is difficult to descend. Too often he is carried away by his own enthusiasm and is unaware that he has failed to make the translation that is necessary to enable a student with little or no prior knowledge to profit from the lectures as much as he might. The net result is something in the nature of a review article for experts.

Approximately half of the lectures in the present volume suffer from the malady described. The others are to be highly commended. If 50 percent efficiency is acceptable, this book is recommended for all those with at least the training of an advanced graduate student.

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High Pressure Research

High Pressure Physics and Chemistry. vols. 1 and 2. R. S. Bradley, Ed. Academic Press, New York, 1963. vol. 1, xii + 444 pp., $15.50; vol. 2, xii + 361 pp., $12.50. Illus.

Since the publication in 1949 of Bridgman's classic, *The Physics of High Pressures*, at least six books published in English have recorded the dramatic progress that is being made in research at very high pressures. This two-volume treatise is the most comprehensive yet written, and extensive bibliographies at the end of each chapter cite most of the important studies up to early 1963. Although 20 authors have contributed essays based on their special knowledge, there is admirable unity of style and comparative freedom from the repetitions and omissions that so often mar collective works. In a field that depends so heavily on the strengths of materials and their maximum use in the design of apparatus, one might expect to find emphasis on experimental techniques to the exclusion of theory, but this is not the case. A fine balance has been achieved between theory and experiment.

Chapter 1 gives an historical overview of the progress that has been made during the 20th century and singles out those centers that have made principal contributions to various phases of high-pressure research. The principles that underlie the main experimental routes to the generation of high pressures and the present state of