# Book Reviews

***Introduction to chemical thermodynamics.*** (2nd ed.) Luke E. Steiner. New York-London: McGraw-Hill, 1948. Pp. xiv + 510. $6.00.

This book has been prepared to introduce the subject of chemical thermodynamics, including the fundamental theory and application of the various useful thermodynamic functions to chemical systems. For this second edition a number of sections have been rewritten and new material has been added, including, particularly, expansion of the material on real gases and of the statistical calculation of thermodynamic functions. The author has made a strong effort to bring the text up to date from the standpoint of references to source data in the literature and to existing compilations on chemical thermodynamic properties. Those parts of the first edition, found through teaching experience to lack clarity or logic, have been rewritten. Latest values of the fundamental constants are used.

This book is recommended to those desiring an introduction to thermodynamics.

FREDERICK D. ROSSINI
*National Bureau of Standards*

***The recruitment, selection, and training of social scientists.*** (Bull. 58.) Elbridge Sibley. New York: Social Science Research Council, 1948. Pp. xv + 163.

To help orient the fellowship policies of the Social Science Research Council, in the face of the shortage of social scientists coincident with the expanding need for their services, Dr. Sibley undertook an analysis of the factors currently affecting the flow of personnel into the field. In his study, as is indicated in the title, problems of recruitment, selection, and training were given careful attention. The fourth component, employment outlook, was deliberately omitted on the assumption that with improvement in the other three aspects, competence, public recognition, and confidence will increase, and opportunities for professional employment will almost automatically improve.

The data utilized permit not only comparisons among the several social science disciplines but also cross-comparison with the natural sciences. Though this report interprets the data with respect to the conditions in the *social* sciences, those specializing in the natural sciences will find much to interest them.

The study of potential and actual recruits to the social sciences is comforting to the extent that it makes clear that not all the ablest members of the academic generation are being drawn away from the social sciences and that, man for man, the best social science graduate students are as bright as the best graduate students in the natural sciences. A warning note is sounded, however, by the larger proportion of those with apparently mediocre and inferior endowment in the social science group, as compared with the natural sciences. The pressure of the mediocre and inferior students apparently has had an undesirable effect on the quality of the training for the better-endowed undergraduate students majoring in the social sciences. The graduate departments in social science are, therefore, forced to begin their training at a level far lower than is done in other graduate science departments. In considering remedies, caution is indicated in the light of the large proportion of social science students who have no interest in careers as scientific researchers—the latter being the group with which Sibley has been most concerned in this study.

We cannot here review the full complement of the findings of this study or the variety of implications discussed. Anyone interested in the continued development of the social sciences should find this report worth reading. For those concerned with the training of future social scientists, it is a must.

EUGENE L. HARTLEY
*The City College of New York*

***A symposium on the use of isotopes in biology and medicine.*** Madison: Univ. of Wisconsin Press, 1948. Pp. ix + 445. $5.00.

The twenty papers included in this book were presented as a symposium at the University of Wisconsin in September 1947. Nineteen scientists contributed, all of whom are most competent in their specialties. The University of Wisconsin committee, which arranged the symposium, is to be congratulated on the quality of the contributors and on the choice and arrangement of topics.

Hans T. Clarke opens the symposium with a brief account of the history of isotopes in biochemistry. This is followed by a group of 3 papers dealing with ways of obtaining isotopes: the means of separating stable isotopes (Harold C. Urey); the methods of preparing the numerous radioactive ones (Glenn T. Seaborg); and the availability of both stable and radioactive isotopes, particularly those distributed by the Atomic Energy Commission (Paul C. Aebersold). Next follows a group of 3 papers on the assay of isotopes. Alfred O. Nier deals with the detection of stable isotopes, with special reference to the mass spectrometer; Charles D. Coryell reviews the principles of measurement of radioactivity; and Martin D. Kamen describes the application of these principles to the assay of radioisotopes in biological material, with special emphasis on tritium ($H^3$), short-lived carbon ($C^{11}$) and long-lived carbon ($C^{14}$). These authors are followed by Donald B. Melville, who presents important examples of the synthetic procedures used in incorporating tracer atoms into organic molecules.

After the foregoing groups of articles dealing with techniques, there follow 6 reviews of results obtained with tracers: in protein metabolism (David B. Sprinson); in intermediary carbohydrate metabolism (Harland G. Wood); in intermediary metabolism of lipids (Konrad