theory uses concepts from many disciplines and there has long been a need for a book setting out the basic science. This book is the first volume of a trilogy aimed to meet this need. The subjects treated are correctly indicated by the subtitle *Macroscopic Equilibrium and Transport Concepts*.

Five main chapters (in total about 200 000 words with 271 figures and many useful tables) deal with the relevant aspects of thermodynamics, phase relations and the transport of heat and mass. Each topic is introduced simply, the relevant parameters are then discussed and the general relations established. Since the general relations are usually too complex for most purposes, the approximations needed to make usable solutions possible are then discussed in detail. For the expert this examination is invaluable because the ranges over which the approximations are acceptable are often much smaller than is commonly believed.

Professor Rosenberger is a skilled author and he has taken great trouble to ensure that even with detailed arguments the reader is never bored. His enthusiasm for his subject is catching, particularly when presenting arguments based on thermodynamics, which occupy more than half the book. Because the subject is interdisciplinary, the treatments given expect only minor previous knowledge: a passing acquaintance with differential calculus is needed, but any undergraduate in a physical science should have little difficulty in following the arguments or solving the problems given (with answers) at the ends of the chapters. Thus the book can safely be recommended to anyone interested in the subject.

Any book can be criticized. The purists will complain that this one does not give credit to all the authors who have contributed to the arguments. However, in a text book it seems sensible to concentrate on references which give complete derivations and relevant data and to rely on these secondary sources to give credit to those who deserve it. Possibly a more relevant criticism is that the treatment of hydrodynamics is not complete. In part this is not the author's fault. The Navier–Stokes equations even with the Boussinesq approximation are not very tractable. An excellent account is given of linear stability theory in unstirred liquids but the treatment of the important systems with disc-like stirrers stops at the infinite disc in a semi-infinite liquid. Treatments of finite-depth liquids (even with rotation) are available and a warning should have been given that with finite discs not all the liquid is stirred. However, this may well not be fair criticism, since a semi-empirical analysis would fit better in the third volume which we are told deals with the theory of real systems.

Judged by the first volume, the set of three should be a standard work for many years to come.

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**Crystal growth bibliography. Solid state physics literature guides, Vol 10.** Compiled by *A. M. Keesee*, *T. F. Connolly* and *G. C. Battle* Jr. Pp. viii+430 (Vol. 10*A*), pp. iv+568 (Vol. 10*B*). New York: Plenum Press, 1979. Price US $ 95.00

This bibliography belongs to the *Solid State Physics Literature Guides* series and includes about 5000 references on the crystal growth of inorganic materials. The references are concerned with experimental, theoretical and review papers as well as technological reports and books published from 1972 to 1977. The bibliography is divided into two volumes, one of which contains all of the bibliographic citations and the other presents permuted title and author indices.

As far as the crystal growth of inorganic materials is concerned, this bibliography is covenient to search for a paper from its author(s) and from the subject which appears in the title of the paper, especially the name of the material or its chemical composition and the method or mechanism of crystal growth. However, it is a little incovenient to find some desired papers in the categories Czochralski, epitaxy, film, flux, melt, silicon, solution, theory and transport, because so many papers are listed according to the alphabetical order of representation of the title and there is no similarity among neighboring papers. I would say, if these parts were classified into much finer items, it would become more convenient to use this bibliography. Due to a trick of computer permutation, we find some curious classifications such as II, *X*, substrate, temperature and so on.

It is a matter for regret from the view point of crystal growth that there are no papers about crystal growth published in mineralogical, geological and meteorological journals. For example, the nucleation and growth of water vapor or the formation of clouds and snow are very interesting and are also important subjects in science and even in technology. Minerals can also teach us many mechanisms and histories of crystal growth.

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