temperatures. The chapters dealing with time dependent techniques can be no more than an introduction to the subject since, in these methods, stability and convergence are critically dependent on the detailed treatment of the equations and of the boundaries. This is a complex topic and the author has done well to present a short description of the technique with suitable references for further study.

There are relatively few typographical errors, the more obvious being that manometer is frequently given as monometer and in Figure 5.8, the area ratio should be unity for $M = 1$.

This book provides a very good introduction to gas dynamics, compressible fluid flow and modern methods for calculating these flows, while also providing a useful historical perspective. The first ten chapters are suitable for undergraduate teaching, while the remaining chapters on numerical methods would be more appropriate for post-graduate courses. It is a very useful and well-written book which can be recommended to students and teachers. Perhaps other authors should follow Professor Anderson's example and include historical and biographical notes.

H. Marsh

Published, price £24.95, by McGraw-Hill Book Company (UK) Ltd, Shoppenhangers Road, Maidenhead, Berkshire, UK, SL6 2QL

Heat Transfer in Nuclear Reactor Safety

Eds. S. G. Bankoff and N. H. Afgan

In the late summer of 1980 the International Centre for Heat and Mass Transfer in Dubrovnik organised a Conference and Summer School to cover all aspects of nuclear reactor safety. This book is based on 11 invited papers and 48 contributed papers delivered at the Conference. The Summer School papers formed the basis of a complementary volume, Nuclear Reactor Safety Heat Transfer by Owen C. Jones, which was reviewed earlier. It would have been quite appropriate to refer to these as Vols I and II under the same title.

The papers deal with contemporary topics both from the experimental and theoretical viewpoint. Code validation is also covered and the standard of the papers is high.

Authors are drawn from thirteen countries including USSR, Peoples Republic of China and Japan. Global contributions are to be commended but we suspect that in many cases it will be difficult to obtain copies of reports from the comprehensive lists of references given at the end of all the papers. In two instances only the abstract, not the complete paper, is published.

The papers predominantly relate to light water reactor (lwr) problems. Only one paper on fluid structural interactions is of particular interest to gas cooled reactor designers and the liquid metal fast breeder reactor field is covered by seven papers, four on 'accident dynamics' and three on 'post accident heat removal and fuel structure interactions'.

Though one could assume that this balance indicates the problems that still remain to be solved in the various systems, it would probably be more realistic to explain it on the grounds of world interest. Nevertheless in the concluding remarks in several invited lectures the authors attempt to indicate the scale of the problems still to be solved and suggest they can only be tackled on an international basis. A Framatome paper (3.10) gives a very detailed introduction to the principal areas of their thermal hydraulics research.

Apart from a few figures which are too small or illegible the volume is well produced. We have no hesitation is recommending its purchase to workers in the nuclear reactor thermal hydraulics field particularly if their problems relate to lwr's.

B. N. Furber and Y. L. Sinai
National Nuclear Corporation Limited

Published, price $95.00, by Hemisphere Publishing Corporation, Berkeley Building, 19 West 44 Street, New York, NY 10036, USA

Books received

Drying '82, *ed. A. S. Mujumdar*, $120, pp 254, Hemisphere Publishing Corporation

Radiation Heat Transfer Notes, *D. K. Edwards*, $19.95, pp 370, Hemisphere Publishing Corporation

Industrial Energy Manager's Sourcebook, *ed. R. L. Koral*, £30.60, pp 399, Van Nostrand Reinhold

Flow Visualization II, *ed. W. Merzkirch*, $90.00, pp 803, Hemisphere Publishing Corporation

Fouling of Heat Transfer Equipment, *E. F. Somerscales and J. G. Knudsen*, $75.00, pp 743, Hemisphere Publishing Corporation

Finite Elements in Fluids, *ed. R. H. Gallagher, D. H. Norrie, J. T. Oden and O. C. Zienkiewicz*, £30.00, pp 646, John Wiley & Sons Ltd

Industrial Heat Exchangers, *G. Walker*, $41.50, pp 408, Hemisphere Publishing Corporation

Heat Transfer in Nuclear Reactor Safety, *S. George Bankoff and N. H. Afgan*, $95.00, pp 964, Hemisphere Publishing Corporation

Thermal Energy Storage, *ed. G. Beghi*, Dfl 140, pp 505, D. Reidel Publishing Company

Heat Transfer 1982, *ed. U. Grigull, E. Hahne, K. Stephan and J. Straub*, $395.00, pp 3260, Hemisphere Publishing Corporation

Proceedings of 7th International Heat Transfer Conference held in Munich in September 1982. Six volumes contain 25 review keynote papers plus 450 papers.

Heat Exchanger Design Handbook, 5 volume looseleaf set, pp 2080, $600, Hemisphere Publishing Corporation

Intended to provide single source of data, correlations, practice, procedures and techniques for equipment designers. Looseleaf journal adopted to allow up-dating. The volumes cover: Heat exchange theory; fluid mechanics and heat transfer; thermal and hydraulic design of heat exchangers; Mechanical design of heat exchangers; Physical properties.