Int. J. Heat Mass Transfer. Vol. 12, p. 1339. Pergamon Press 1969. Printed in Great Britain

BOOK REVIEW

T. J. LOVE, **Radiative Heat Transfer,** C. E. Merril, Columbus, Ohio (1968). £5 10*s.* 0*d.*

THIS is the fourth book on thermal radiation which has been published in the last two years. The book covers a wide range of subject matter in approx. 280 pages of text. It, therefore, tends to be brief on some important aspects such as combined radiation, conduction, and convection. On the other hand electromagnetic wave theory is explored in some detail although it is rather irrelevant to the remainder of the book.

The book deals with the following subjects: the nature and the physical laws of thermal radiation and radioactive properties of surfaces. Evacuated enclosure theory including determination of configuration factors and general discussion of solution of the integral equations. Two chapters are devoted to enclosures containing, absorbing, emitting and scattering media including detail discussions on various plain slab problems. The treatment of the energy transfer in absorbing, emitting and scattering media is excellently written and is by far the best part of the book. A brief chapter deals with combined radiation, conduction and convection and the last chapter discusses to some extent measurement techniques of thermal radiation properties.

The Appendices contain: tables of radiative properties of building materials, paint, cloths and miscellaneous materials, charts of spectral properties of metals, configuration factor catalogue which contain both formulae and charts, review of matrix algebra, table and weight factors for various quadrature formulae, and a brief discussion of the Monte Carlo method. By examination of the list of reference very little is cited in the vast number of work done in the field of thermal radiation in the last five years.

The book is well written with well-balanced exercises provided. It is a good reference book for the library although somewhat expensive for the individual.

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