



## BOOK REVIEW

**Principles of Enhanced Heat Transfer**, by R. L. Webb. Wiley-Interscience, New York (1994).

This book assembles a large number of engineering examples of heat transfer. Although the overall organization of the book seems similar to textbooks in this field, as it contains initial chapters dealing with basics, followed by some discussions of heat exchanger equipment, of extended surfaces, of boiling and condensation, it is not a textbook. The book is more a review of many situations in which heat transfer has been enhanced by many different methods.

Indeed, as stated in the introduction, the book is expected to encourage potential users to exploit some benefits which may follow the employment of the enhancement methods suggested in the book.

The enhancement methods discussed are of several natures, e.g. by surface geometry, by defouling, by interference with surface wetting, by mixing inserts. All those reported are technically valid, beneficial, and many of them seem to be the harvest of the author's rich experience. As such they may indeed serve as a stimulating source of ideas to the novice engineer. However, because there are hardly any new principles introduced, and because the practical solutions suggested are rather specialized, the book cannot be used as the main text in an engineering program. It may however, be used as recommended reading, as a source for classroom seminars or as one of several texts in a professional enrichment course. One major difficulty associated with the ideas presented in the book is that the special enhancement methods described require special manufacturing, special treatment, etc., which, in most cases, involve a companion set of manufacturing and economical considerations which cannot be ignored. These additional considerations may be handled efficiently by the experienced engineer, but may escape the attention of the novice engineer who is to be enlightened by the book.

Thus the book may be a useful addition to the bookshelf of the heat transfer engineer, next to some manufacturing and industrial manufacturing texts.

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