

Recent Papers by IBM Authors

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- Papers are listed alphabetically by name of journal.

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Preparation and Detection of Large Coherent Optical Polarizations in Resonant Media, A. V. Nurmikko (The Hebrew Univ., Jerusalem, Israel) and S. E. Schwarz (RES Zurich, Switzerland), *Applied Physics Letters* 20, No. 9, 346-348 (May 1, 1972).

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A Procedure for Calculating the Reliability of a Communication Network, E. Hansler (RES Yorktown Hts., N.Y.), *Archiv für Elektronik und Übertragungstechnik* 25, No. 12, 573-575 (December, 1971).

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• *Book abstract*

Heat Transfer in Microelectronic Equipment,

J. H. Seely and R. C. Chu (SDD Poughkeepsie), Marcel Dekker, Inc., New York, April 1972, 360 pages. \$19.75.

The advances made in electronic technology have had their greatest impact on the data processing and communications industries. A problem of vital importance to continued advancement in these and other areas is that of establishing and controlling thermal environments.

This book outlines in an orderly fashion, the numerous problems encountered in designing heat transfer equipment for microelectronic systems, and presents techniques for solving those problems. The book is a practical guide to such topics as: thermal considerations in microelectronic packaging, conduction and convection heat transfer, heat exchangers, heat transfer with change of phase, and the application of thermoelectric cooling to electronic equipment. In addition, many techniques that have been successfully applied to electronic equipment are described.

Because the book is written primarily for packaging engineers and circuit designers, the authors have discussed many designs that have been applied to electronic packages and systems. A sufficient amount of the underlying theory, however, has been included so that students and researchers in the field of microelectronics will also find it useful.