

Book Review

N. G. GAYLORD, Editor

The Effects of Radiation on Materials and Components. J. F. KIRCHER and R. E. BOWMAN, Eds. Reinhold, New York, 1964. xi + 690 pp. \$22.50.

This volume authored by various members of the staff of Battelle Memorial Institute is a most ambitious undertaking since its scope encompasses (1) organic materials, (2) ceramics and metals, and (3) semiconductors and electronic components. It is intended primarily for design engineers whose first concern is the specification of components for use in radiation fields. The broad scope has necessitated an almost superficial treatment of radiation effects in the areas covered. The reader will find a completely non-critical cataloguing of the literature on the subject of radiation damage, a literature which is often quantitatively and occasionally qualitatively internally inconsistent. The most surprising shortcoming is that most chapters have a few references later than 1960 in spite of the authors' ready access to the Radiation Effects Information Center at Battelle.

However, a design engineer, particularly one with little previous experience in radiation effects, will find this book valuable. The data is correlated by types of components (i.e., lubricants, gaskets etc.) and is often summarized in easily readable tabular form. The volume itself is good quality, the type is easily readable, and the editing has been excellent.

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