

Second Pacific Area Meeting Papers

Symposium on

RADIATION EFFECTS ON MATERIALS - Volume 1

[Sponsored Jointly by the American Society for
Testing Materials and the Atomic Industrial Forum]



Published by the
AMERICAN SOCIETY FOR TESTING MATERIALS
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SYMPOSIUM ON RADIATION EFFECTS ON MATERIALS—Volume 1

Sponsored Jointly by the American Society for
Testing Materials and the Atomic Industrial Forum

Presented at the
SECOND PACIFIC AREA NATIONAL MEETING
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AMERICAN SOCIETY FOR TESTING MATERIALS



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FOREWORD

This Symposium on Radiation Effects on Materials will be Volume 1 of a series of symposium publications on this subject, sponsored jointly by ASTM and the Atomic Industrial Forum.

The papers in this symposium were presented during two sessions September 20, 1956, at the Second Pacific Area National Meeting of the Society, Los Angeles, Calif. The symposium was developed under the joint auspices of the Subcommittee on Radiation Effects of the Atomic Industrial Forum and ASTM Committee E-10 on Radioisotopes and Radiation Effects.

In addition to the papers presented at the Symposium on Radiation Effects on Materials, three papers presented at the Symposium on Radioactive Isotopes, held September 21, 1956, have been included in this publication because their subject matter seemed more pertinent to a discussion of radiation effects on materials than to radioisotopes. These papers are: "Problems of Radiation Dosimetry," by C. H. Collins and V. P. Calkins; "The Problem of Establishing Specifications for Irradiated Organic Materials," by Oscar Sisman; and "Will ASTM Standards be Influenced by Radiation Effects in Metals?" by J. C. Wilson and R. G. Berggren.

Mr. D. O. Leeser, Atomic Power Development Associates, Inc., Detroit, Mich., acted as Symposium Chairman and, together with R. W. Truisdale, Truisdale Laboratories, Inc., Los Angeles, Calif., and C. C. Woolsey, Atomics International Division, North American Aviation, Inc., Canoga Park, Calif., presided over the morning session. At the afternoon session Frank Linn, Aircraft Nuclear Propulsion Division, General Electric Co., Evendale, Ohio, G. D. Calkins, Battelle Memorial Institute, Columbus, Ohio, and J. B. Austin, U. S. Steel Corp., Pittsburgh, Pa., presided.

NOTE.—The Society is not responsible, as a body, for the statements
and opinions advanced in this publication.

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THIS PUBLICATION is one of many issued by the American Society for Testing Materials in connection with its work of promoting knowledge of the properties of materials and developing standard specifications and tests for materials. Much of the data result from the voluntary contributions of many of the country's leading technical authorities from industry, scientific agencies, and government.

Over the years the Society has published many technical symposiums, reports, and special books. These may consist of a series of technical papers, reports by the ASTM technical committees, or compilations of data developed in special Society groups with many organizations cooperating. A list of ASTM publications and information on the work of the Society will be furnished on request.

