

ASTM Materials Science Series—5

Symposium on

DYNAMIC BEHAVIOR OF
MATERIALS



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AMERICAN SOCIETY FOR TESTING AND MATERIALS
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SYMPOSIUM ON DYNAMIC BEHAVIOR OF MATERIALS

ASTM Materials Science Series—5

Presented at
Albuquerque, N. Mex., September 27–28, 1962
Sponsored by
UNIVERSITY OF NEW MEXICO
AND
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AMERICAN SOCIETY FOR TESTING AND MATERIALS



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FOREWORD

This Symposium on Dynamic Behavior of Materials was presented under the joint sponsorship of the University of New Mexico and the ASTM Rocky Mountain District on September 27 and 28, 1962. The sessions, of which there were four, were held at the University of New Mexico, Albuquerque, N. Mex.

The subject is truly interdisciplinary in that it embraces organic and inorganic solids, metals and polymers, crystalline and noncrystalline materials; and is of interest to engineers, physicists, and chemists alike. There are both practical and theoretical aspects, in that information on dynamic behavior can be directly useful to the engineer and also can indicate new details of the mechanisms of strength and deformation for the researcher.

This volume presents examples of recent advances in the measurement and interpretation of dynamic behavior. The methods are varied and the results are specific rather than general. They point out the need for understanding of the methods in order to interpret the results and for continuing effort in the development of comprehensive theory.

Mr. Howard E. Montgomery, Sandia Corp., Past-Chairman of the Rocky Mountain District Council, organized the meeting and served as General Chairman. Mr. James E. Smith, at Sandia Corp. at the time of the symposium and now at United Aircraft Corp. Research Laboratory, was Program Chairman and Editor.

While the symposium was developed independently, it is directly along the lines of those which the ASTM Division of Materials Sciences is interested in promoting. In accordance with the Division's request, it is being published as one of the DMS series.

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

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Materials Science Series publications are sponsored by the Society's Division of Materials Sciences. In this series the interdisciplinary nature of materials is emphasized as a subject for study and understanding. The publications comprise papers presented at Division-sponsored symposia at National Meetings of the Society.

THIS PUBLICATION is one of many issued by the American Society for Testing and 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.

