

INTERNAL FRICTION,
DAMPING, AND
CYCLIC PLASTICITY



STP 378

INTERNAL FRICTION, DAMPING, AND CYCLIC PLASTICITY

A Symposium Presented at the
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FOREWORD

The papers included in this publication were given in a Symposium on Internal Friction, Damping, and Cyclic Plasticity Phenomena in Materials presented on June 22, 1964 during the Sixty-seventh Annual Meeting of the Society, held at Chicago, Ill. The symposium was sponsored by the Division of Materials Sciences, with B. J. Lazan, University of Minnesota, serving as chairman of the symposium committee. Two sessions were devoted to the presentation of the papers, the first one being presided over by B. J. Lazan, the second by L. L. Wyman, National Bureau of Standards.

This symposium represented one of an extended series developed by the society's Division of Materials Sciences to show the interaction between materials science and materials engineering. These papers present the progress that internal friction and damping measurements have accorded to many fields of solid-state research over the past 20 years. More important, they show the great practical significance of this technique toward the development of high-shear modulus materials and composites such as those needed to perform crucial roles in spacecraft and advanced structural systems.

NOTE—The Society is not responsible, as a body, for the statements
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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.

