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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- MECHANICAL VIBRATION METHODS FOR STUDYING PHYSICAL PROPERTIES OF SOLID MATERIALS -- MECHANICAL VIBRATION METHODS FOR STUDYING PHYSICAL PROPERTIES OF SOLID MATERIALS -- Contents -- Preface -- Chapter 1 INTRODUCTION -- Chapter 2 PRELIMINARY -- Abstract -- A. Elasticity -- B. Mechanical Vibration -- Chapter 3 PREVIOUS RESEARCH -- Abstract -- A. Internal Friction of Lead -- B. Internal Friction of Quartz -- C. Internal Friction of Crystals under Pressure -- D. Internal Friction of Solid Helium -- E. Melting of Helium Crystal -- F. Melting of Ice Crystal -- G. Internal Friction in Normal-Conducting Aluminum -- H. Internal Friction in Superconducting Aluminum -- I. Higher-Order Elastic Constants -- J. Sound-Sound Interaction -- K. Nonlinear Elasticity in Whiskers -- Chapter 4 RECENT RESEARCH -- Abstract -- A. Viscosity of Inorganic and Organic Glasses -- $f \sim 0$ Hz -- B. Internal Friction of Polystyrene -- $f = 0.001 \sim 10$ Hz -- C. Internal Friction of Various Metallic Glasses -- $f \sim 1$ Hz -- D. Internal Friction of Metallic Glass -- $f \sim 1$ Hz -- E. Internal Friction of Metallic Glass -- $f = 0.2 \sim 25$ Hz -- F. Acoustic Measurements in Polystyrene -- $f = 5$ MHz, 10 GHz -- References -- Index -- Blank Page.
Sommario/riassunto	The method of observing the response of a solid to an applied

mechanical vibration is useful for investigating various physical properties of materials. Topics used include characterization of defects in crystals, nonlinear elasticity of crystals, electron conduction and superconductivity, and melting phenomenon.
