Record Nr. UNINA9910780882003321 Autore Yang Jiashi <1956-> **Titolo** Antiplane motions of piezoceramics and acoustic wave devices [[electronic resource] /] / Jiashi Yang New Jersey; ; London, : World Scientific, c2010 Pubbl/distr/stampa **ISBN** 1-282-76187-0 9786612761874 981-4291-45-5 Descrizione fisica 1 online resource (340 p.) Disciplina 620.1404297 Soggetti Piezoelectric ceramics Acoustic surface waves Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Preface: Contents: Chapter 4: Surface and Interface Waves: Chapter 7: Free Vibrations in Cartesian Coordinates: Chapter 1: Basic Equations: Chapter 2: Static Problems; Chapter 3: Simple Dynamic Problems; Chapter 5: Waves in Plates; Chapter 6: Waves in a Layer on a Substrate; Chapter 8: Free Vibrations in Polar Coordinates; Chapter 9: Forced Vibrations in Cartesian Coordinates: Chapter 10: Forced Vibrations in Polar Coordinates; References; Appendix 1: Notation; Appendix 2: Material Constants; Index This book focuses on dynamic antiplane problems of piezoelectric Sommario/riassunto ceramics. It presents relatively simple theoretical solutions to many such problems and attempts to use these solutions to demonstrate the operation and design of several acoustic wave devices. Some of the solutions are able to show the underlying physics clearly without the need for numerical computation. The problems treated include the propagation of plate waves, surface waves, interface waves, love waves,

gap waves, and vibrations of finite bodies of various shapes with

applications in resonators, mass sensors, fluid sensors,