Record Nr. UNINA9910452207103321 **Titolo** Piezoelectric materials [[electronic resource]]: structure, properties, and applications / / Wesley G. Nelson, editor Pubbl/distr/stampa New York,: Nova Science Publishers, c2010 **ISBN** 1-61122-632-5 Descrizione fisica 1 online resource (273 p.) Collana Materials science and technologies Altri autori (Persone) NelsonWesley G Disciplina 620.1/1297 Soggetti Piezoelectric devices - Materials Piezoelectric materials Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. ""PIEZOELECTRIC MATERIALS: STRUCTURE, PROPERTIES AND Nota di contenuto APPLICATIONS ""; ""PIEZOELECTRIC MATERIALS: STRUCTURE, PROPERTIES AND APPLICATIONS ""; ""CONTENTS ""; ""PREFACE""; ""PIEZOELECTRIC CERAMICS MATERIALS: PROCESSING, PROPERTIES, CHARACTERIZATION, AND APPLICATIONS ""; ""ABSTRACT ""; ""1. INTRODUCTION ""; ""2. HISTORY AND PROCESSING OF PIEZOELECTRIC CERAMIC MATERIALS "": ""2.1. History of Piezoelectricity "": ""2.2. Processing of Piezoelectric Ceramic Materials ""; ""3. PROPERTIES OF PIEZOELECTRIC CERAMIC MATERIALS ""; ""3.1. Piezoelectric Parameters ""3.2. Compositions and Properties """"3.3. Piezoelectric Constitutive Relationships ""; ""4. CHARACTERIZATION METHODS FOR PIEZOELECTRIC CERAMIC MATERIALS ""; ""4.1. Characterization of Piezoelectric Properties ""; ""4.1.1. Resonant method and equivalent circuit ""; ""4.1.2. Direct methods for measuring piezoelectric parameters ""; ""4.2. Characterization of Ferroelectric Domain Structure ""; ""5. APPLICATIONS OF PIEZOELECTRIC CERAMIC MATERIALS ""; ""5.1. Piezoelectric Actuators ""; ""5.2. Ultrasonic Motor ""; ""5.3. Piezoelectric Ceramic-Based Sensors ""; ""5.4. Ultrasonic Transducer "" ""5.5. Active Vibration Damping"""6. FUTURE OUTLOOK OF

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