1. Record Nr. UNINA990001700970403321 **Autore** Misset, Marie Therese **Titolo** Contribution a la chimie taxonomique de 57 especes de legumineuse : etude qualitative et quantitative des proteinesde leurs graines, traitement informatique des donnees : these... / Marie Therese Misset Geneve: Universite, 1977 Pubbl/distr/stampa Descrizione fisica 18 p.; 24 cm Disciplina 583.32 581.19 Locazione **FAGBC** 60 OP. 107/11 Collocazione Lingua di pubblicazione Francese

Formato Materiale a stampa

Livello bibliografico Monografia

Record Nr. UNINA9910619280303321 Autore Gao Nansha Titolo Dynamic Equivalent Modeling of Acoustic Metamaterials : Solving Problem of Noise and Vibration / / by Nansha Gao, Jie Deng Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2022 Pubbl/distr/stampa **ISBN** 981-19-4371-0 Edizione [1st ed. 2022.] Descrizione fisica 1 online resource (185 pages) Collana Physics and Astronomy Series Disciplina 700 Soggetti Acoustics Metamaterials Noise control Mathematical physics Computer simulation Architectural acoustics Noise Control Computational Physics and Simulations **Architectural Acoustics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references. Nota di bibliografia Chapter 1. Introduction -- Chapter 2. Basic theory of acoustic Nota di contenuto metamaterials and dynamic equivalent inverse problem solving theory -- Chapter 3. Theoretical model for solving inverse problem of dynamic equivalent medium of periodic beam and bar structures -- Chapter 4. Theoretical model for inverse problem solving of dynamic equivalent medium of periodic thin plate structures -- Chapter 5. Study on vibration characteristics of gradient bar based on dynamic equivalent medium inverse problem solving theoretical model -- Chapter 6. Study on low-frequency band gap mechanism of multi-layer slit tube structure based on acoustoelectric analog equivalent model. Sommario/riassunto This book derives physical models from basic principles, studies the effect of equivalent models on the dynamic characteristics of phononic

> crystals and acoustic metamaterials, and analyzes the physical mechanisms behind vibration and noise reduction. It first summarizes the research status of vibration and noise reduction, and research

progress in phononic crystals and acoustic metamaterials. Based on this, one-dimensional periodic beam, two-dimensional thin plate with circular hole, and corresponding gradient structures are introduced, and their dynamic characteristics are discussed in detail. Therefore, different equivalent methods for different models are proposed through theoretical analysis, modal analysis and transmission rate analysis. Finally, a Helmholtz-type acoustic metamaterial, i.e. a multilayer slotted tube acoustic metamaterial, is studied. Aiming at the lowfrequency band gap of this model, a theoretical model for solving the inverse problem of acousto-electric analogue equivalent is proposed, and the effect of structural parameters on the low-frequency band gap is studied using this equivalent model. This book closely revolves around how to conduct equivalent research on artificially fabricated periodic structures. The methods and conclusions presented in this book provide a new theoretical basis for the application of artificial woven periodic structures in the field of low-frequency vibration reduction and noise reduction and are also an innovation in the discipline of vibration and noise control. This book is suitable for undergraduate students, graduate students and teachers in vibration and noise majors in universities, and can also provide references for engineering and technical personnel in related fields. .