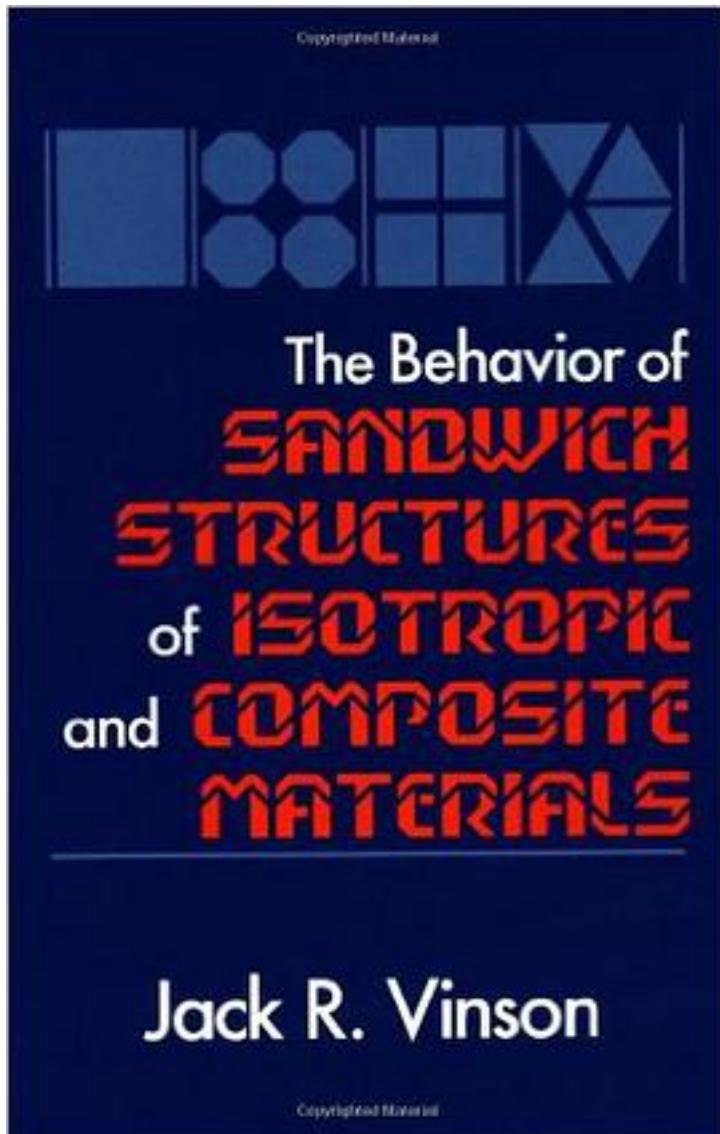


The Behavior of Sandwich Structures of Isotropic and Composite Materials



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Features

Provides the means to analyze, design, and optimize various sandwich structures

Presents the properties of honeycomb- and solid-core materials

Explores the fields of soil and crop science, agricultural engineering, wastewater and sludge treatment, and soil microbiology

Covers anisotropic elasticity, laminate theory, flat sandwich panels, and more

Contains more than 800 formulas, tables, and figures that reinforce concepts

Summary

The Behavior of Sandwich Structures of Isotropic and Composite Materials presents the mathematics, descriptions, and analytical techniques in the growing field of sandwich structures. From a background in sandwich structures to thermoelastic problems of sandwich structures and sandwich shell theory, the book provides the knowledge needed to analyze, design, and optimize various sandwich structures.

As one would expect from a book on sandwich structures, this volume discusses special failure modes such as face wrinkling and core shear instability. Coverage includes not only honeycomb cores, but also foam, web, and truss cores. An important topic in composite structure design, optimization is explored in two chapters on sandwich plates and sandwich shells. The author presents the optimization techniques in closed form and the methods are applicable to material selection and geometric design. The book also contains a set of problems and references at the end of each chapter. This text is ideal for engineers-in-training, as well as practical engineers who desire a comprehensive understanding of sandwich structures technology.

作者介绍:

目录: SANDWICH STRUCTURES: ORIGINS, ADVANTAGES, AND USES

Description of Various Sandwich Constructions

Advantages of Sandwich Construction over Construction Monocoque Thin Walled Construction

Origins of Sandwich Construction

Uses of Sandwich Construction

Present Approach to Analysis

Problems

References

ANISTROPIC ELASTICITY AND COMPOSITE LAMINATE THEORY

Introduction

Derivation of the Anisotropic Elastic Stiffness and Compliance Matrices

The Physical Meaning of the Components of the Orthotropic Elasticity Tensor

Methods to Obtain Composite Elastic Properties from Fiber and Matrix Properties

Thermal and Hygrothermal Considerations

Time-Temperature Effects on Composite Materials

High Strain Rate Effects on Material Properties

Laminae of Composite Materials

Laminate Analysis

[A], [B], and [D] Stiffness Matrices for a Mid-Plane Symmetric Sandwich Structure

Piezoelectric Effects

Problems

References

DERIVATION OF THE GOVERNING EQUATIONS FOR SANDWICH PLATES (PANELS)

Introduction

Plate Equilibrium Equations

The Bending of Composite Material Laminated and/or Sandwich Plates: Classical

Theory

Classical Plate Theory Boundary Conditions

Analysis of Composite Materials Laminated and/or Sandwich Panels Including

Transverse Shear Deformation Effects

Boundary Conditions for a Plate Using the Refined Plate Theory

Laminated or Sandwich Plate on an Elastic Foundation

Laminated or Sandwich Plates Subjected to Dynamic Loads

Problems

References

BEAMS, COLUMNS, AND RODS OF COMPOSITE MATERIALS Development of Classical

Beam Theory

Some Simplified Sandwich-Beam Solutions

Eigenvalue Problems of Sandwich Beams: Natural Vibrations and Elastic Stability

Other Considerations

Problems

References

ENERGY METHODS FOR SANDWICH STRUCTURES

Introduction

Theorem of Minimum Potential Energy

Analysis of a Beam in Bending Using the Theorem of Minimum Potential Energy

Reissner's Variational Theorem and Its Applications

Static Deformation of Moderately Thick Beams

Flexural Vibrations of Moderately Thick Beams

Flexural Natural Frequencies of a Simply Supported Beam Including Transverse Shear Deformation and Rotatory Inertia Effects

Minimum Potential Energy for Rectangular Plates

A Rectangular Composite Material Plate Subjected to Lateral and Hygrothermal Loads

In-Plane Shear Strength Determination of Composite Materials in Laminated and Sandwich Panels

Problems

References

SOLUTIONS FOR RECTANGULAR SANDWICH PLATES

Introduction

Navier Solutions for Rectangular Sandwich Plates

Levy Solutions for Plates of Composite Materials

Perturbation Solutions for the Bending of a Composite Material Sandwich Plate, with Mid-Plane Symmetry and No Bending-Twisting Coupling

Isotropic Sandwich Panels Subjected to a Uniform Lateral Load

Minimum Weight Optimization for a Sandwich Panel Subjected to a Distributed Lateral Load

Analysis of an Isotropic Sandwich Plate on an Elastic Foundation Subjected to a Uniform Lateral Load

Static Analysis of Sandwich Plates of Composite Materials Including Transverse Shear Deformation Effects

Exact Solution

Other Considerations

Problems

References

DYNAMIC EFFECTS ON SANDWICH PANELS

Introduction

Natural Flexural Vibrations of Sandwich Plates: Classical Theory

Natural Flexural Vibrations of Sandwich Plates Including Transverse Shear Deformation Effects

Forced-Vibration Response of a Sandwich Plate Subjected to a Dynamic Lateral Load

Dynamic Response of Sandwich Plates to Localized Loads

Large Amplitude Nonlinear Oscillations of Sandwich Plates Simply Supported on All Edges

Linear and Nonlinear Oscillations of Specially Orthotropic Sandwich Panels with Various Boundary Conditions

Vibration Damping

Problems

References

THERMAL AND MOISTURE EFFECTS ON SANDWICH STRUCTURES

General Considerations

Derivation of the Governing Equations for a Thermoplastic Isotropic Plate

Boundary Conditions

General Treatment of Plate Nonhomogeneous Boundary Conditions

Thermoelastic Effects on Beams

Self-Equilibrium of Thermal Stress

Rectangular Composite Material Plate Subjected to Lateral and Hygrothermal Loads

References

ELASTIC INSTABILITY (BUCKLING) OF SANDWICH PANELS General Considerations

The Buckling of an Orthotropic Sandwich Plate Subjected to In-Plane Loads Classical Theory

Elastic Stability of a Composite Sandwich Panel Including Transverse Shear Deformation and Hygrothermal Effects

The Buckling of an Isotropic Plate on an Elastic Foundation Subjected to Biaxial In-Plane Compressive Loads

The Buckling of Honeycomb Core Sandwich Panels Subjected to In-Plane Compressive Loads

The Buckling of Solid- or Foam-Core Sandwich Panels Subjected to In-Plane Compressive Loads

Buckling of a Truss-Core Sandwich Panel Subjected to Uniaxial Compression

Elastic Stability of a Web-Core Sandwich Panel Subjected to a Uniaxial Compressive In-Plane Load

Buckling of Honeycomb-Core Sandwich Panels Subjected to In-Plane Shear Loads

Buckling of Solid-Core or Foam-Sandwich Panel Subjected to In-Plane Shear Loads

Buckling of a Truss-Core Sandwich Panel Subjected to In-Plane Shear Loads

Buckling of a Web-Core Sandwich Panel Subjected to an In-Plane Shear Load

Other Considerations

Problems

References

STRUCTURAL OPTIMIZATION TO OBTAIN MINIMUM-WEIGHT SANDWICH PANELS

Introduction

Minimum Weight Optimization of Honeycomb-Core Sandwich Panels Subjected to a Unidirectional Compressive Load
Minimum Weight Optimization of Foam-Core Sandwich Panels Subjected to a Unidirectional Compressive Load
Minimum Weight Optimization of Truss-Core Sandwich Panels Subjected to a Unidirectional Compressive Load
Minimum Weight Optimization of Web-Core Sandwich Panels Subjected to a Unidirectional Compressive Load
Minimum Weight Optimization of Honeycomb-Core Sandwich Panels Subjected to In-Plane Shear Loads
Minimum Weight Optimization of Solid- and Foam-Core Sandwich Panels Subjected to In-Plane Shear Loads
Minimum Weight Optimization of Truss-Core Sandwich Panels Subjected to In-Plane Shear Loads
Minimum Weight Optimization of Web-Core Sandwich Panels Subjected to In-Plane Shear Loads
Optimal Stacking Sequences for Composite Material Laminate Faces for Various Sandwich Panels Subjected to Various Loads
Problems
References
SANDWICH SHELLS
Introduction
Analysis of Sandwich Cylindrical Shells under Axially Symmetric Loads
A General Solution for Orthotropic-Sandwich Cylindrical Shells under Axially Symmetric Loads
Shells with Mid-Plane Asymmetry
Other Considerations
Problems
References
BUCKLING OF SANDWICH CYLINDRICAL SHELLS
Buckling of a Solid- or Foam-Core Sandwich Cylindrical Shell with Isotropic Faces Subjected to an Axially Symmetric Compressive End Load
Buckling of a Solid- or Foam-Core Sandwich Cylindrical Shell with Orthotropic Composite Faces Subjected to an Axially Symmetric Compressive Load
Buckling of a Honeycomb-Core Sandwich Cylindrical Shell with Composite Faces Subjected to an Axially Symmetric Compressive End Load
Overall Buckling of Sandwich Cylindrical Shells Subjected to an Overall Bending Moment
Buckling of a Sandwich Cylindrical Shell Due to External Pressure
Buckling of a Sandwich Cylindrical Shell Due to Torsion
Dynamic Buckling
Problems
References
MINIMUM WEIGHT OPTIMIZATION OF SANDWICH CYLINDRICAL SHELLS
General Discussion
Minimum Weight Optimization of a Solid Foam-Core Sandwich Cylindrical Shell with Isotropic Faces Subjected to an Axially Compressive Load
Minimum Weight Optimization of a Solid- or Foam-Core Sandwich Cylindrical Shell with Orthotropic Composite Material Faces Subjected to an Axially Compressive Load
Minimum Weight Optimization of a Honeycomb-Core Sandwich Cylindrical Shell with Composite Material Faces Subjected to an Axially Symmetric Compressive Load
Problems
References
APPENDIX 1: Core Materials

APPENDIX 2: Face Materials

APPENDIX 3: American Society for Testing Materials (ASTM) Standards for Sandwich Structures and Materials

INDEX

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