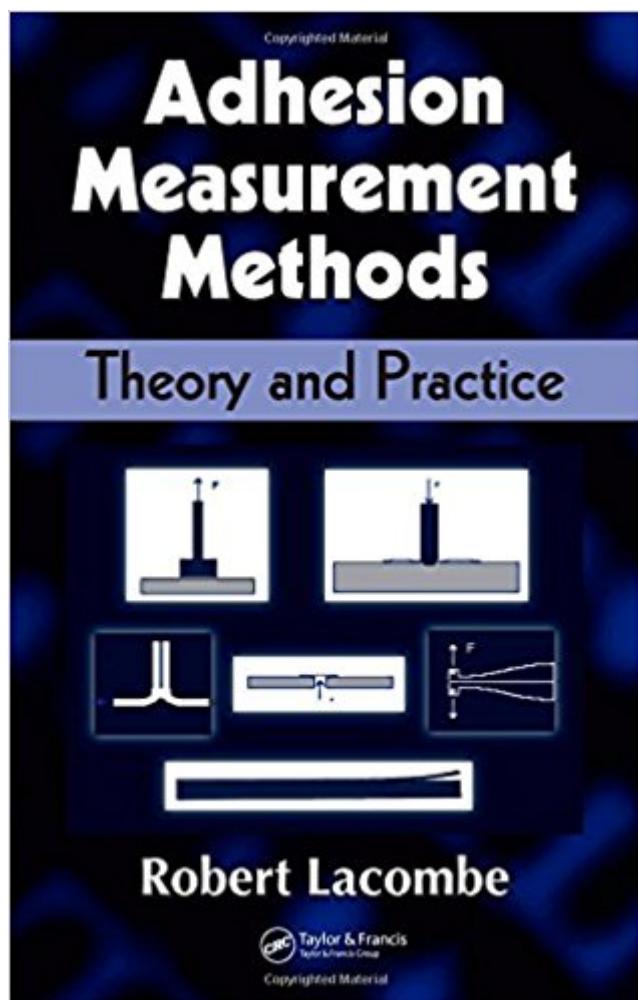


The book was found

Adhesion Measurement Methods: Theory And Practice (Mechanical Engineering (Marcel Dekker))



Synopsis

Adhesion Measurement Methods: Theory and Practice provides practical information on the most important measurement techniques, their unique advantages and disadvantages, and the selection of the proper method for a given application. It includes useful information and formulae on adhesion related matters such as driving force formulae for various modes of delamination, methods for estimating stress buildup, and material property data in support of "back of the envelope" calculations. The author presents optimal methods and tools used for measuring the adhesion of coatings and thin films as well as setting appropriate adhesion strength requirements. He provides a detailed overview of uses, implementation, and drawbacks for qualitative, semi-quantitative, and fully quantitative adhesion measurement techniques and self-loading systems. The book discusses thermal-mechanical behavior assessment, the application of the continuum theory of solids, and fracture mechanics, highlighting useful measures of adhesion strength such as stress intensity factor and strain energy release rate. It provides specific examples of how adhesion testing is carried out in practice, including the peel test, the scratch test, and the pull test, and describes the measurement of residual stress in a coating or other laminate structure. The book concludes with examples taken from the author's experience in the microelectronics industry and contains several appendices for looking up simple formulae and material property data for performing everyday calculations. Adhesion Measurement Methods is an ideal addition for courses on materials science, mechanics of materials, or engineering design of laminate structures at the advanced undergraduate or graduate level.

Book Information

Series: Mechanical Engineering (Marcel Dekker)

Hardcover: 456 pages

Publisher: CRC Press; 1 edition (November 21, 2005)

Language: English

ISBN-10: 0824753615

ISBN-13: 978-0824753610

Product Dimensions: 1.2 x 6.2 x 9.2 inches

Shipping Weight: 1.7 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #1,488,851 in Books (See Top 100 in Books) #127 in Books > Engineering & Transportation > Engineering > Materials & Material Science > Testing #212 in Books >

Customer Reviews

This is the first text to attempt to encompass the widely disparate topic of adhesion testing, and is written to serve as both a reference text and an educational tool. the diagrams and text are useful in developing an understanding of adhesion properties and the forces at work under applied stress. each chapter includes extensive references, and two of the appendices are a summary of available literature. no adhesive lab should be without this text.-Adhesives & Sealants Newsletter, Vol. 30, No. 3, March 13, 2006

[Download to continue reading...](#)

Adhesion Measurement Methods: Theory and Practice (Mechanical Engineering (Marcel Dekker)) Fundamentals of Fluid Film Lubrication (Mechanical Engineering (Marcel Dekker)) Applied Measurement Engineering: How to Design Effective Mechanical Measurement Systems Practice Problems for the Mechanical Engineering PE Exam, 13th Ed (Comprehensive Practice for the Mechanical Pe Exam) Shigley's Mechanical Engineering Design (McGraw-Hill Series in Mechanical Engineering) Modal Testing, Theory, Practice, and Application (Mechanical Engineering Research Studies: Engineering Dynamics Series) Code Check Plumbing & Mechanical 4th Edition: An Illustrated Guide to the Plumbing and Mechanical Codes (Code Check Plumbing & Mechanical: An Illustrated Guide) Introduction to Mechatronics and Measurement Systems (Mechanical Engineering) Principles And Practice of Mechanical Ventilation, Third Edition (Tobin, Principles and Practice of Mechanical Ventilation) Tests & Measurement for People Who (Think They) Hate Tests & Measurement ISO/IEC Guide 98-3:2008, Uncertainty of measurement - Part 3: Guide to the expression of uncertainty in measurement (GUM:1995) Geometric Dimensioning and Tolerancing for Mechanical Design 2/E (Mechanical Engineering) The Mechanical Design Process (Mcgraw-Hill Series in Mechanical Engineering) The Mechanical Design Process (Mechanical Engineering) Gravity Sanitary Sewer Design and Construction (ASCE Manuals and Reports on Engineering Practice No. 60) (Asce Manuals and Reports on Engineering ... Manual and Reports on Engineering Practice) Mechanical Behavior of Materials: Engineering Methods for Deformation, Fracture, and Fatigue (2nd Edition) Mechanical Behavior of Materials: Engineering Methods for Deformation, Fracture, and Fatigue Experimental Methods for Engineers (McGraw-Hill Mechanical Engineering) Elasticity: Tensor, Dyadic, and Engineering Approaches (Dover Civil and Mechanical Engineering) Water and Wastewater Engineering (Mechanical Engineering)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)