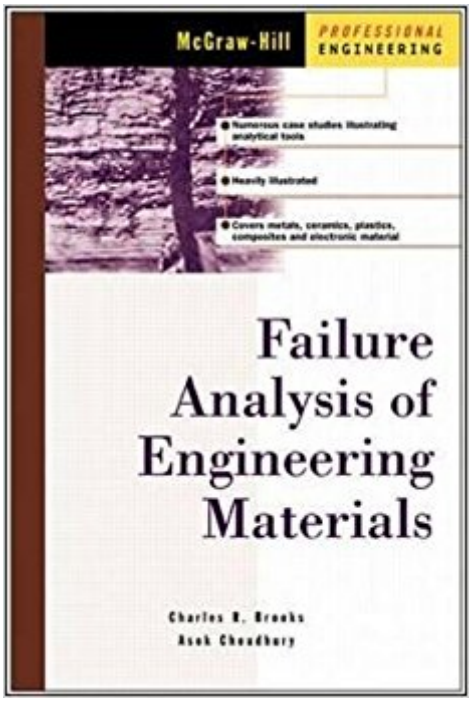
Failure Analysis Of Engineering Materials



Synopsis

Solve, correct, and avoid critical material failure problems Expertly analyze failures in common materials with Failure Analysis of Engineering Materials. This investigatory/analytical tool by Charles R. Brooks and Ashok Choudhury is a time-saving, one-stop reference for engineers. A soundly written introduction to principals and practices, itÃ¢â ¬â„¢s invaluable for failure inquiries involving metals, ceramics, plastics, composites, and electronic materials. You get: * Practical, hands-on help with selecting and justifying analytic methods * Numerous case studies that illustrate the use of analytical tools to determine the condition of the material * Comparative fractographs to help you pinpoint fracture type.

Book Information

Series: McGraw-Hill Professional Engineering

Hardcover: 700 pages

Publisher: McGraw-Hill Education; 1 edition (December 26, 2001)

Language: English

ISBN-10: 0071357580

ISBN-13: 978-0071357586

Product Dimensions: 6.2 x 1.5 x 9.3 inches

Shipping Weight: 2.5 pounds (View shipping rates and policies)

Average Customer Review: 4.3 out of 5 stars 4 customer reviews

Best Sellers Rank: #1,043,726 in Books (See Top 100 in Books) #32 inÃ Â Books > Engineering & Transportation > Engineering > Materials & Material Science > Fracture Mechanics #266 inÃ Â Books > Engineering & Transportation > Engineering > Materials & Material Science > Polymers & Textiles #643 inÃ Â Books > Textbooks > Engineering > Chemical Engineering

Customer Reviews

Ã¢â ¬Å“Very valuable for solving, correcting, and avoiding critical material failure problems Ã¢â ¬Â¦ well organized and presented.Ã¢â ¬Â• -- Charles A. Harper, president of Technology Seminars, Inc., and author and editor of numerous technical books, including the Electronic Packaging and Interconnection HandbookEXPERTLY ANALYZE FAILURES IN COMMON MATERIALSPerfect for engineers, Failure Analysis of Engineering Materials is the best tool for expert investigation and analysis of component failures.* The premier one-stop reference for material failure information* Designed-to-be-used introduction to principals and practices* Ideal for failure inquiries involving metals, ceramics, plastics, composites, and electronic materials* Practical, hands-on help with

selecting and justifying analytic methods500 ILLUSTRATIONS--* Pinpoint fracture type with comparative fractographs* Use as expert examples in reports

CHARLES R. BROOKS is Professor of Metallurgical Engineering and Alumni Distinguished Service Professor Emeritus at the University of Tennessee. He has received several teaching awards, including the M.E. Brooks Distinguished Faculty Award of the College of Engineering and the Albert Easton White Teaching Award from ASM International. He is also a Fellow of ASM International. ASHOK CHOUDHURY is Commercialization Manager for the Office of Technology Transfer at Oak Ridge National Laboratory, Oak Ridge, Tennessee. He is the recipient of several teaching awards and technology transfer awards, and a co-recipient of an R&D 100 Award.

I have been a forensic engineer for a good many years and I’m now on the Board of the American College of Forensic Engineering and Technology. That said, I have also prided myself in my knowledge of the mechanics of materials, failure analysis, properties, etc., but this incredible reference book has indeed brought me to my knees; it is, as the title of this review indicates, humbling to the very people that think they know more than the average bear, me included. This is a true in-depth treatise of the field of engineering materials science, replete with many photos, graphs, and illustrations. Dollar for dollar, gram for gram, this is the best reference of its type on the market. If you are a forensic engineer, even if your particular expertise is not in material analysis and/or failure issues, you would do well to have this reference on your bookshelf; I guarantee it.

This book is exactly what I was looking for: application based failure analysis supplemented with theory and case studies. The book is very well written AND concise. The book contains the perfect amount of theory for practicing engineers, and countless related examples. This is not a course textbook laden with derivations and complex math. The authors wrote a perfect book for professional engineers involved with material failure analysis. Not to mention many pictures of failure surfaces with clear explanation of what the picture is showing. This is a book I will keep close for frequent referencing.

The book is in great condition and exactly what it said it is.

my brother need so cool product, I love this product. I have a home based bakery and I was missing a good bread product. I like the design and quality of it! fine. nice, feel good. good product with high

quality.

Engineering Materials 3: Materials Failure Analysis: Case Studies and Design Implications (International Series on Materials Science and Technology) (v. 3) Failure Analysis of Engineering Materials Handbook of Materials Failure Analysis with Case Studies from the Oil and Gas Industry Failure of Materials in Mechanical Design: Analysis, Prediction, Prevention, 2nd Edition Failure Analysis of Brittle Materials: Advances in Ceramics Freezing Colloids: Observations, Principles, Control, and Use: Applications in Materials Science, Life Science, Earth Science, Food Science, and Engineering (Engineering Materials and Processes) Biomimetic Materials And Design: Biointerfacial Strategies, Tissue Engineering And Targeted Drug Delivery (Manufacturing Engineering & Materials Processing) IEC 60812 Ed. 2.0 b:2006, Second Edition: Analysis techniques for system reliability - Procedure for failure mode and effects analysis (FMEA) Damage and Failure of Composite Materials Guide to Deterioration and Failure of Building Materials Materials: Engineering, Science, Processing and Design (Materials 3e North American Edition w/Online Testing) Engineering Materials 2, Fourth Edition: An Introduction to Microstructures and Processing (International Series on Materials Science and Technology) Engineering Materials 2: An Introduction to Microstructures, Processing and Design (International Series on Materials Science and Technology) (v. 2) Materials North American Edition w/Online Testing: Materials - North American Edition, Second Edition: engineering, science, processing and design Materials: Engineering, Science, Processing and Design (Materials 3e with Online Testing) Mechanics Of Composite Materials (Materials Science & Engineering Series) Processing Techniques and Tribological Behavior of Composite Materials (Advances in Chemical and Materials Engineering) The Structure of Materials (Mit Series in Materials Science and Engineering) Composite Materials: Materials, Manufacturing, Analysis, Design and Repair Engineering the Financial Crisis: Systemic Risk and the Failure of Regulation