Astm E155

Fatigue and FractureProceedings of the Merton C. Flemings Symposium on Solidification and Materials ProcessingShape Casting of MetalsTransactions of the American Foundry SocietyBook of A.S.T.M. Standards, with Related MaterialModern CastingHandbook of Comparative World Steel StandardsHandbook of Materials for Product DesignAluminum StructuresTHERMEC 2006Fatigue DesignNuclear NewsASTM Standardization NewsPremium-quality Aluminum CastingsASME Technical PapersCatalog of American National StandardsPaperMaterials Research and StandardsBook of ASTM Standards with Related Material, 1968Industrial X-ray InterpretationAnalysis of Metallurgical FailuresMagnesium TechnologyBook of ASTM standards; with related materialsQuality Assurance: Guide to Specifying NDT in Materiel Life Cycle ApplicationsThe Effect of Thermal Treatment on the Cryogenic Mechanical Properties of Cast 5Al-2.5Sn ELI TitaniumIndex of Specifications and StandardsPURCHASING -- HOW TO FIGURE FLEET COSTSRadiographic TestingAsphalt Materials Science and TechnologyTitanium 1986Foundry TechnologyMagnesium Alloys and Their ApplicationsDie Casting EngineerAnnual Book of ASTM Standards 2003Journal of Testing and EvaluationMaterials EvaluationThe Effect of Processing on the Mechanical and Fatigue Properties of Semi-solid Formed A357 AluminumStandards Cross-reference ListNondestructive Evaluation of Utilities and PipelinesAdvanced Materials and Manufacturing Processes for Strategic Sectors

Fatigue and Fracture

Collection of selected, peer reviewed papers from the International Conference on Advanced Materials and Manufacturing Processes for Strategic Sectors (ICAMPS 2015), May 13-15, 2015, Trivandrum, India. The 173 papers are grouped as follows: Chapter 1: Developments in Materials Processing Technologies; Chapter 2: Powder Metallurgical Processing; Chapter 3: Manufacturing and Processing Techniques; Chapter 4: Heat Treatment and other Thermal Technologies; Chapter 5: Testing and Analysis of Mechanical Properties; Chapter 6: Materials Joining; Chapter 7: Materials Characterisation; Chapter 8: Ceramics and Composites; Chapter 9: Functional Materials; Chapter 10: Corrosion and Surface Coatings; Chapter 11: Failure Analysis

Proceedings of the Merton C. Flemings Symposium on Solidification and Materials Processing

Shape Casting of Metals

The present set of volumes comprises selected papers from the 5th International Conference on the Processing and

Manufacturing of Advanced Materials □ THERMEC□2006 - held from July 4-8, 2006 in Vancouver, Canada.

Transactions of the American Foundry Society

Book of A.S.T.M. Standards, with Related Material

Modern Casting

Handbook of Comparative World Steel Standards

Handbook of Materials for Product Design

Aluminum Structures

THERMEC 2006

Fatigue Design

This text comprises a collection of papers from the Merton C. Flemings Symposium held on the MIT campus in June, 2000. The papers cover such topics as dendritic solidification dynamics, control of casting quality, interdendritic fluid flow, semi-solid processing, and engineering education.

Nuclear News

ASTM Standardization News

This reference guide or undergraduate text shows how to determine, by analyzing metallurgical failures, the validity of a product design. This revision of a successful work features new techniques in electron microscopy, testing fracture toughness, and fracture mechanics. Describes destructive and nondestructive techniques regarding their advantages, limitations, applications, and meaning. Written to be understood by all engineers concerned about component failure this edition approaches typical problem areas from a physical and mechanical viewpoint. Describes the relationship between the practical and the theoretical, so that failure analyses can best be resolved and failure recurrence prevented. Maintains English and SI units throughout.

Premium-quality Aluminum Castings

ASME Technical Papers

"This book emphasizes the physical and practical aspects of fatigue and fracture. It covers mechanical properties of materials, differences between ductile and brittle fractures, fracture mechanics, the basics of fatigue, structural joints, high temperature failures, wear, environmentally-induced failures, and steps in the failure analysis process."--publishers website.

Catalog of American National Standards

This is the fourth volume in a new edition of a handbook for college seniors and above that combines essential information on traditional penetrating radiation non-destructive testing techniques as well as incoming digital technologies. The 22 chapters include much new material, particularly in the area of digital imaging, data processing, digital image reconstruction, backscatter imaging and computed tomography. Topics include radiation and particle physics, electronic and isotope radiation sources, radioscopy, digital radiographic imaging, applications, image data analysis, radiation measurement and safety, attenuation coefficients, radiographic testing of metal castings and welds, neutron radiography, and radiographic filming, interpretation, and film development. Contains an extensive glossary and many b&w illustrations and charts. Annotation copyrighted by Book News, Inc., Portland, OR

Paper

Materials Research and Standards

Book of ASTM Standards with Related Material, 1968

Industrial X-ray Interpretation

In this book the authors present the current state of both research and technological application of magnesium. In particular, casting and wrought alloys are presented in Chapter 5, followed by a large chapter dedicated to fabrication methods. Corrosion and Protection are treated in Chapter 7. Chapter 8 discusses Engineering Requirements, Strategies and Examples for automobiles in Europe, USA, Asia and Pacific and also for Aerospace and Consumer Articles. Chapter 10 is dedicated to recycling. The experience of authors from seven countries has been combined to produce this book. The book addresses materials researchers as well as design engineers. TOC:Introduction.- History.- Production Technologies.- Physical Metallurgy.- Melting, Alloying and Refining.- Alloys of Practical Importance.- Fabrication Methods.- Corrosion and Surface Protection.- Engineering Requirements, Strategies and Examples.- Recycling.- Data Sheet.

Analysis of Metallurgical Failures

Magnesium Technology

Book of ASTM standards; with related materials

Quality Assurance: Guide to Specifying NDT in Materiel Life Cycle Applications

Shape Casting of Metals, the proceedings from the symposium held to honor John Campbell for his contributions to the metal casting field, focuses on such topics as: Casting process design and characterization for improved structural quality and reliability, Process-structure-property-performance interrelationships in cast metals, Feeding and gating system design, Shape casting process modeling and improvement, and Molten metal quality and its effect on casting reliability. From the

2005 TMS Annual Meeting held in San Francisco, California, February 13 - 17, 2005.

The Effect of Thermal Treatment on the Cryogenic Mechanical Properties of Cast 5Al-2.5Sn ELI Titanium

Index of Specifications and Standards

PURCHASING -- HOW TO FIGURE FLEET COSTS

Premium-quality castings are those which are guaranteed to show a specified high level of mechanical properties. The properties currently being achieved represent significant improvements over those which can be achieved in conventional aluminum-alloy castings and approach the properties currently obtainable in wrought aluminum alloys. These property advances are largely the result of improved casting technique and design. These castings are gradually finding acceptance and usage in aerospace applications, thanks to integrated efforts between the casting producers and their customers. (Author).

Radiographic Testing

Asphalt Materials Science and Technology

Titanium 1986

Foundry Technology

Magnesium Alloys and Their Applications

Die Casting Engineer

Annual Book of ASTM Standards 2003

Stay ahead of the learning curve in the fast-evolving field of materials technology Need to come up with new product concepts? Do you select the materials and designs that make innovative ideas work,? Edited by Charles Harper, an internationally respected expert in materials technology, Handbook of Materials for Product Design is an indispensable asset to anyone involved in product creation. This unique reference can help you: *Generate ideas for new products * Specify expertly for robust, manufacturable, economical, customer-pleasing products * Compare options easily with plentiful data tables, charts, graphs, and illustrations * Cut costs and improve new product performance * Create unique materials with expert guidance* Find needed data on design, testing, specifications, standards, recyclability, and biodegradability

Journal of Testing and Evaluation

Asphalt is a complex but popular civil engineering material. Design engineers must understand these complexities in order to optimize its use. Whether or not it is used to pave a busy highway, waterproof a rooftop or smooth out an airport runway, Asphalt Materials Science and Technology acquaints engineers with the issues and technologies surrounding the proper selection and uses of asphalts. With this book in hand, researchers and engineering will find a valuable guide to the production, use and environmental aspect of asphalt. Covers the Nomenclature and Terminology for Asphalt including: Performance Graded (PG) Binders, Asphalt Cement (AC), Asphalt-Rubber (A-R) Binder, Asphalt Emulsion and Cutback Asphalt Includes Material Selection Considerations, Testing, and applications Biodegradation of Asphalt and environmental aspects of asphalt use

Materials Evaluation

The Effect of Processing on the Mechanical and Fatigue Properties of Semi-solid Formed A357 Aluminum

Despite its unique and enormous advantages, most engineers fail to consider using aluminum, even in structural situations where its strength, light weight, and corrosion resistance should make it the metal of choice. Aluminum Structures: A Guide

to Their Specifications and Design offers engineers, designers, and architects a comprehensive guide to designing aluminum structures and, consequently, a rare opportunity to expand their design capabilities quickly. This book's broad coverage includes the properties of aluminum, its structural performance in beams, columns and members, aluminum fabrication, welding and mechanical connections, and its inspection and testing. Special attention is paid to those features of aluminum that differentiate it from other structural materials, most particularly steel. Because the aim of this book is to apply aluminum design methods to real-world problems, it emphasizes total structures as examples and illustrates the use of ASD vs. LRFD methods. Thoroughly up-to-date, this book describes advanced design techniques that have been used in successful aluminum structures, including a step-by-step design process for each of several structural systems. To help professionals design with aluminum easily and confidently, this book is keyed to the latest edition of the Aluminum Association's Specifications for Aluminum Structures. Numerous design aids—tables, charts, and graphs—eliminate the need for lengthy, repetitive calculations. Engineers, designers, architects, and fabricators will find this book not only a comprehensive guide to the practice of designing aluminum structures, but a source of inspiration for designing in a whole new medium. A state-of-the-art guide to the exciting new realm of aluminum structures Aluminum Structures: A Guide to Their Specifications and Design This comprehensive guide has a dual purpose: to explain the practice of designing aluminum structures, and to invite design, engineering, and architecture professionals to expand their capabilities through the use of aluminum as a structural material. Aluminum Structures: A Guide to Their Specifications and Design demonstrates, through detailed examples of total structures, how this strong, lightweight, corrosion-resistant material opens up whole new design possibilities. Topics covered include the properties of aluminum, its structural performance, aluminum fabrication, welding and mechanical connections, and inspection and testing. Support materials, in the form of tables, charts, and graphs, make using the text easy and efficient.

Standards Cross-reference List

Nondestructive Evaluation of Utilities and Pipelines

Advanced Materials and Manufacturing Processes for Strategic Sectors

TEXTBOOK. PRACTICAL ORIENTATION. CONTENTS INCLUDE INTRODUCTION - HISTORY, INTERPRETATION-SCIENCE, THE RADIOGRAPH, THE X-RAY MACHINE, RADIOISOTOPES, X-RAY TUBES, X-RAY SYSTEMS, X-RAY POSITIONING, X-RAY ABSORPTION, SECONDARY RADIATION, INTENSIFYING SCREENS, FILM PROCESSING, PERFECT RADIOGRAPHS, X-RAY ILLUMINATION, CASTING INTERPRETATION, HONEYCOMB INTERPRETATION, BRAZING AND SOLDERING, WELD

INTERPRETATION, ELECTRONIC ITEMS, SPECIALTY ITEMS, FILMLESS INTERPRETATION, MOTION RADIOGRAPHY, 3-D RADIOGRAPHY, XERORADIOGRAPHY, IMAGE QUALITY INDICATORS, RADIATION AND HIGH VOLTAGE SAFETY, X-RAY FILM TYPES AND SIZES, INTERPRETATION-A PROFESSION, THE X-RAY REPORT. INDEX. NO BIBLIOGRAPHY. ONE REFERENCE.