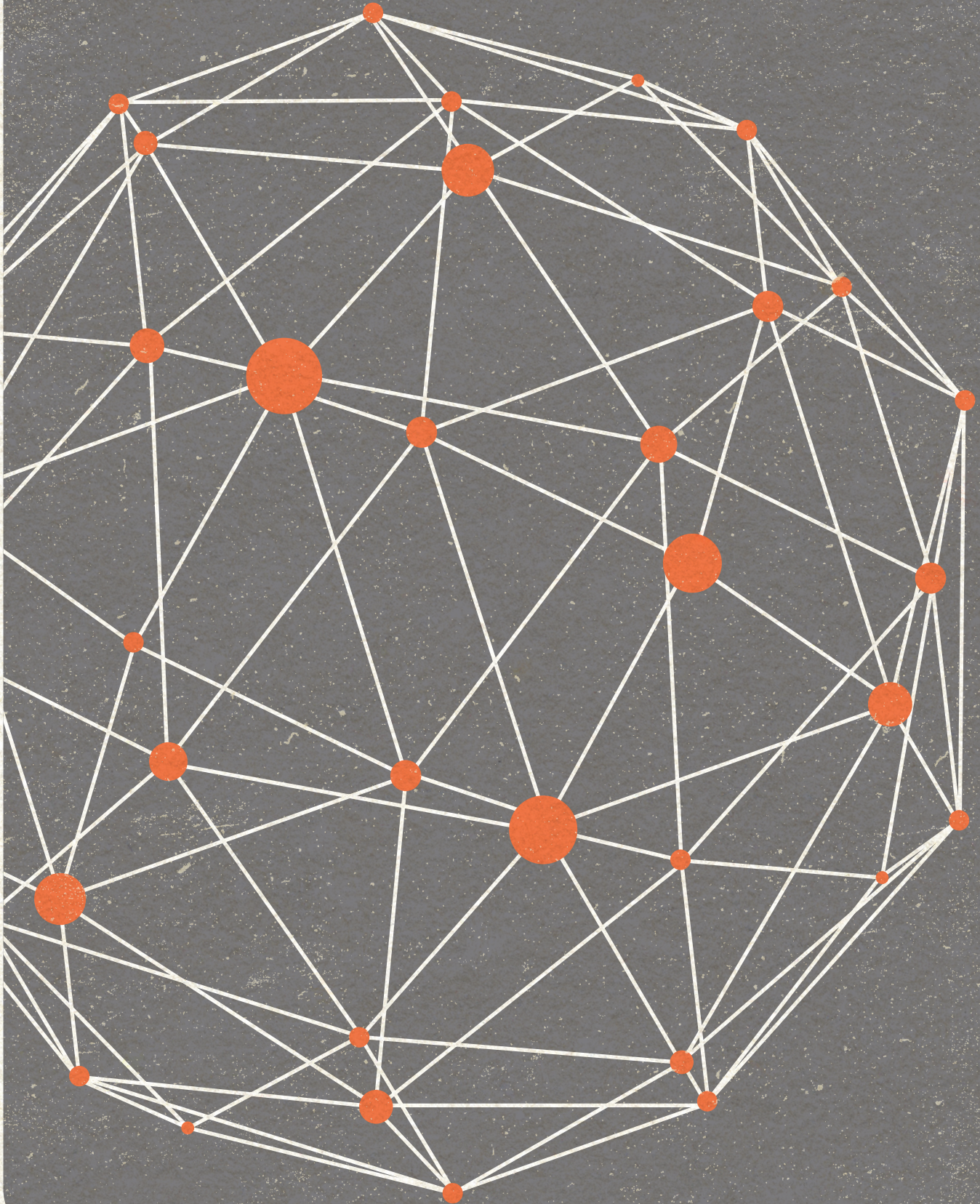




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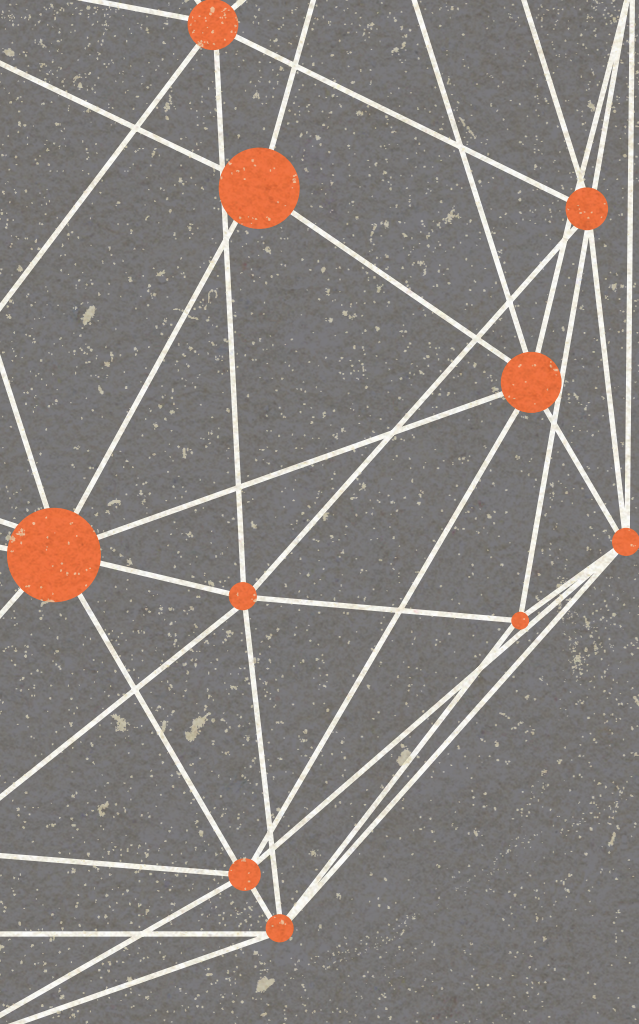
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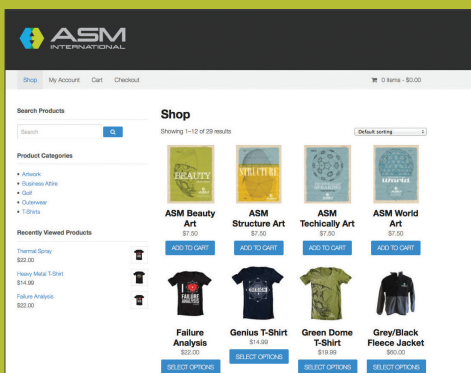
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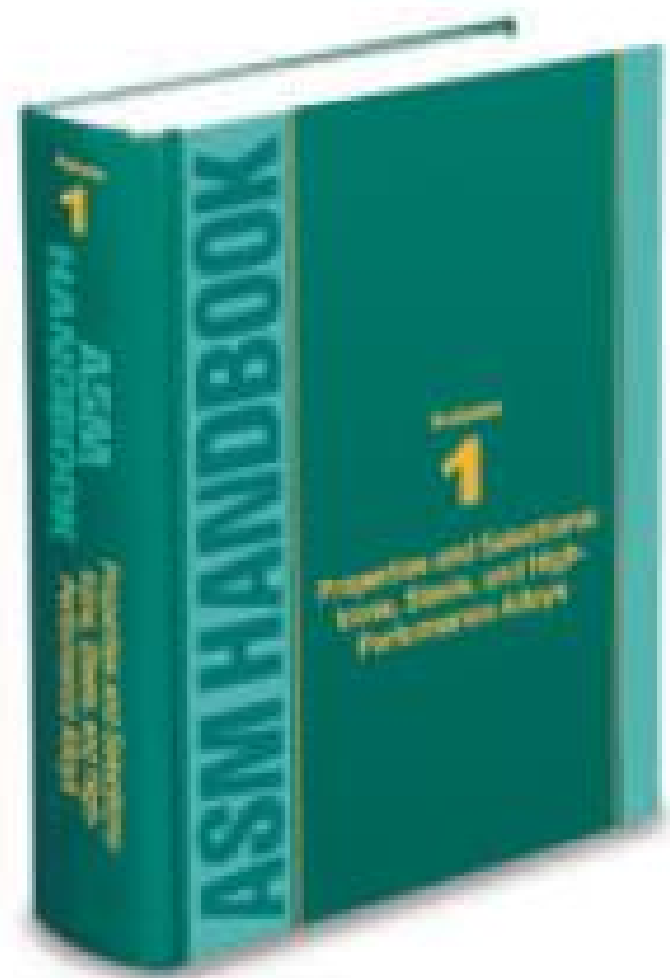
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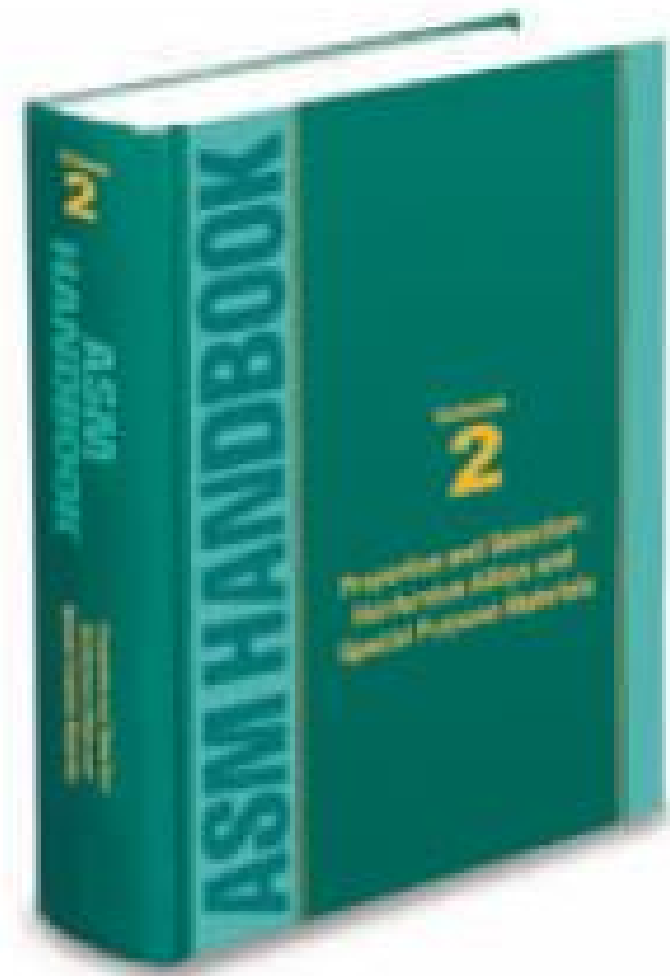
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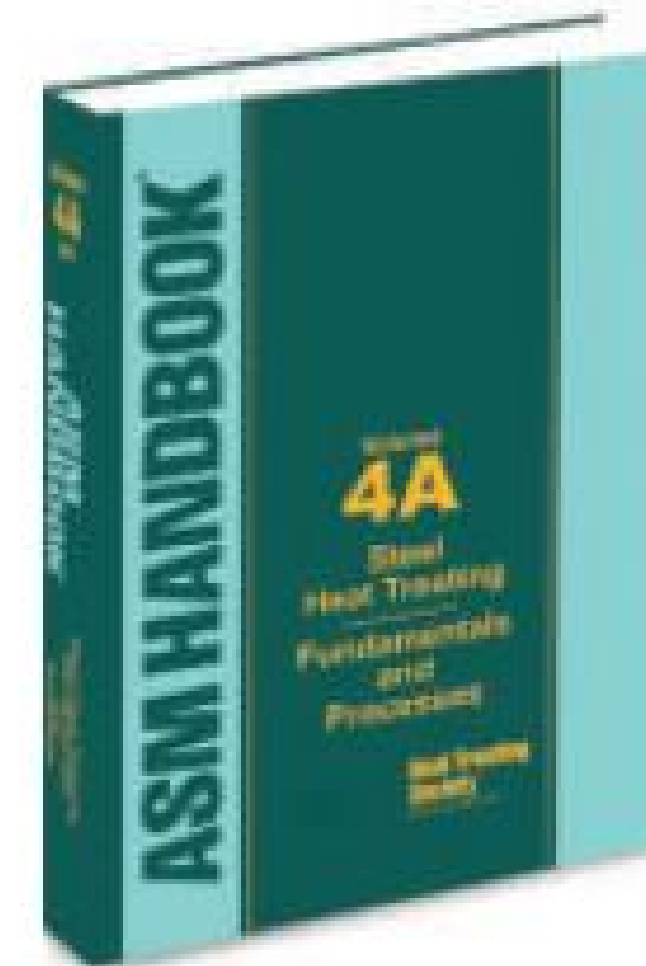
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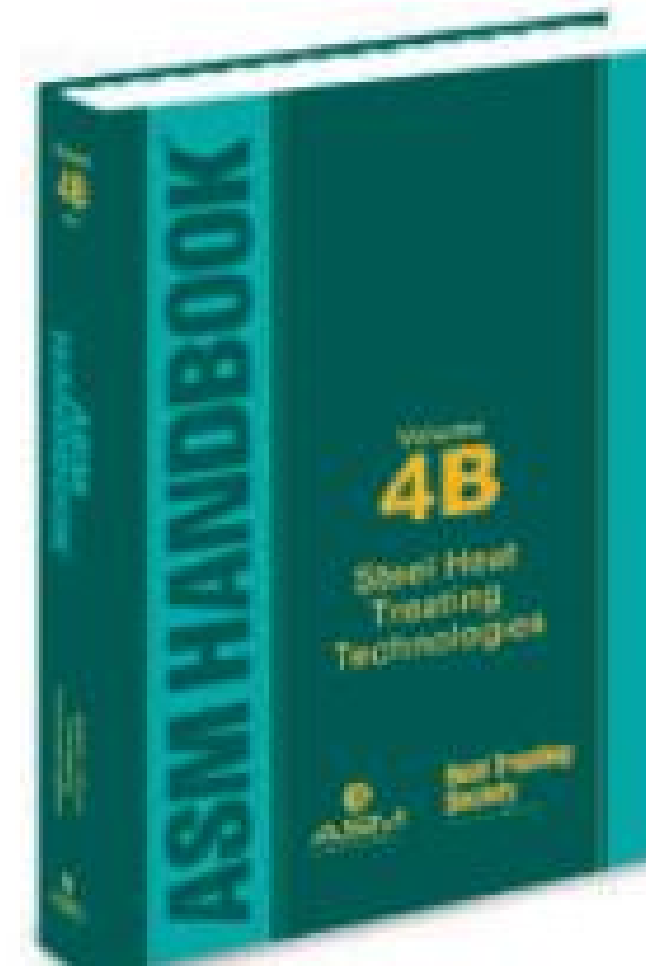
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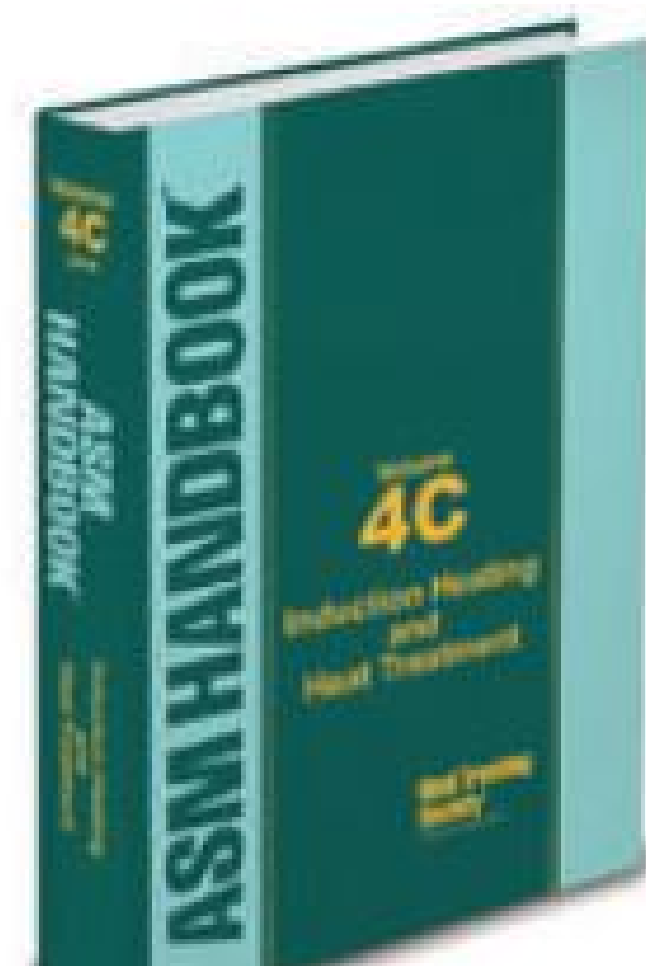
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Volume 4B expands coverage on equipment, control, troubleshooting, and problems associated with steel heat treating. New articles extensively address distortion and the prevention of cracking – including the modeling and simulation of distortion. General process and procedure factors also are introduced—including temperature uniformity of furnaces, calculation of heat treating costs, decarburization, and more.



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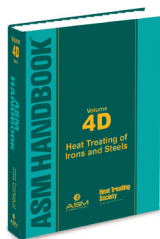
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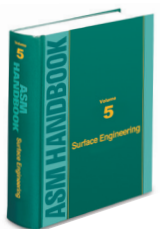
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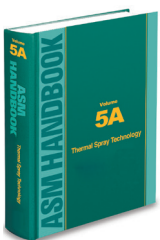
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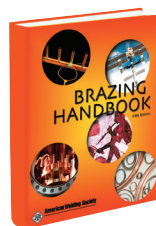
Edited by Robert C. Tucker, Jr.
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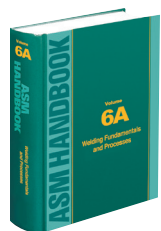
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Edited by H. Kuhn and D. Medlin
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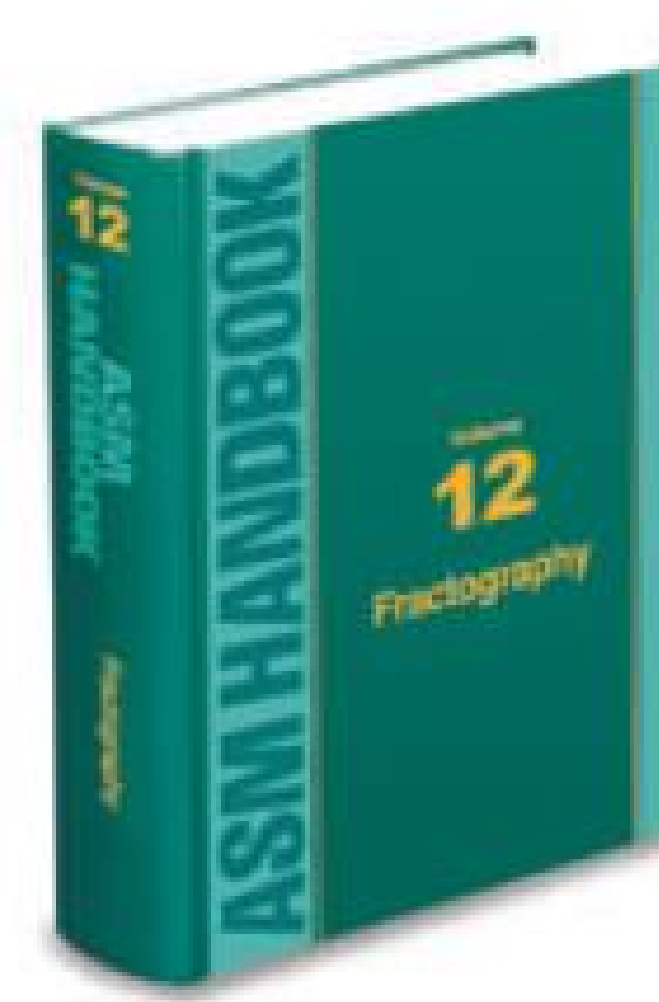
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Edited by R.J. Shipley and W.T. Becker
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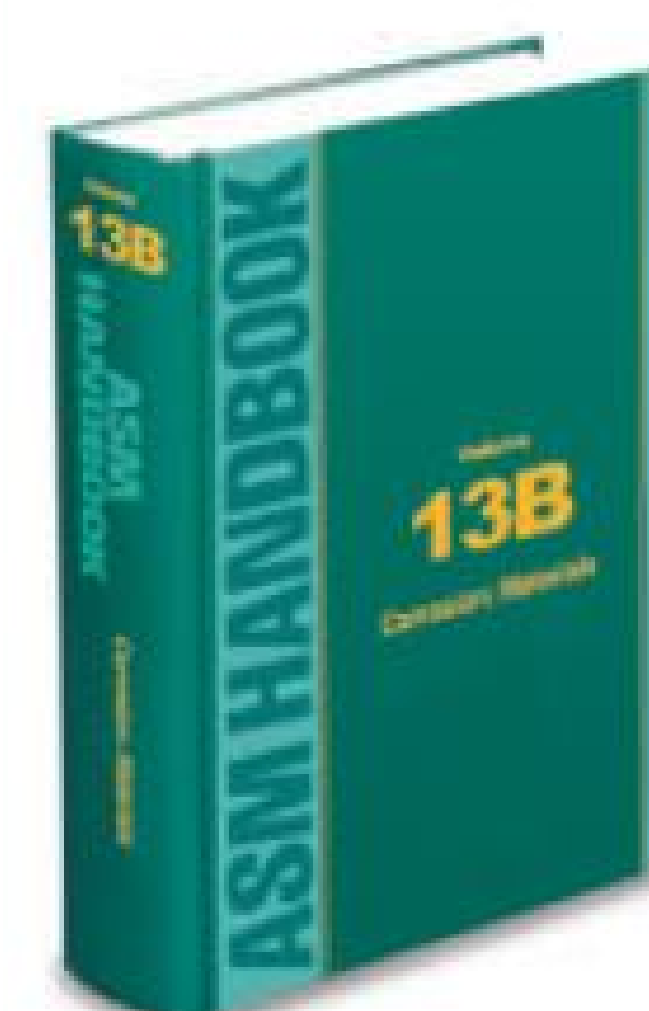


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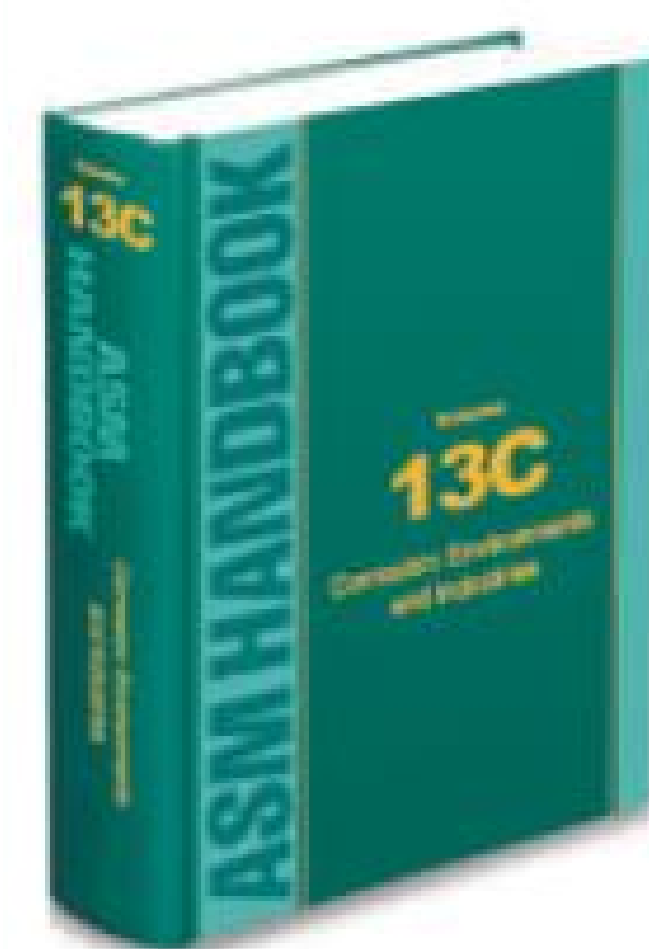


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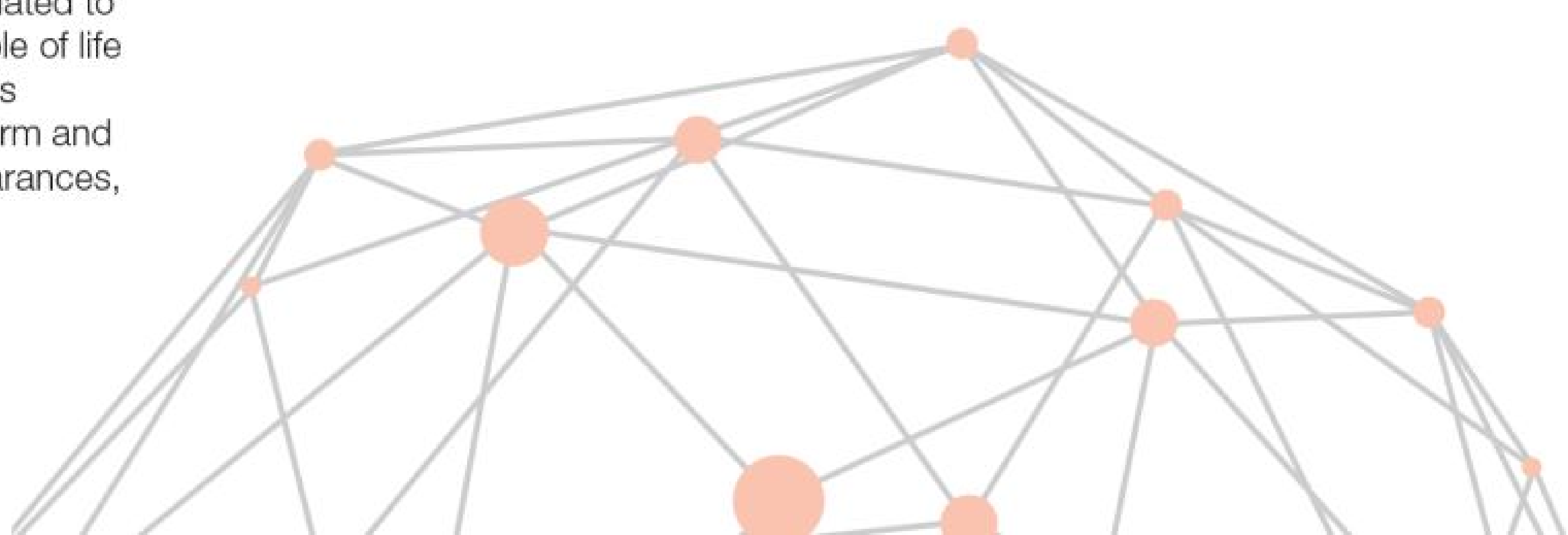


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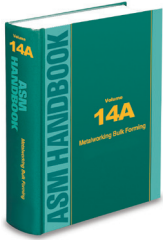
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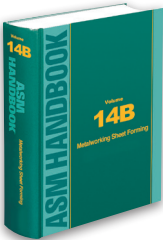
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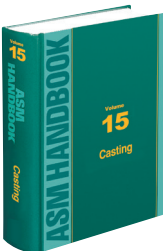
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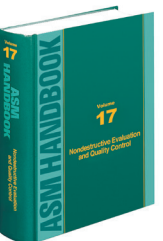
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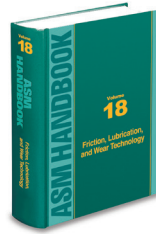
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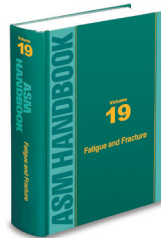
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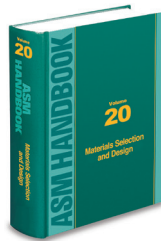
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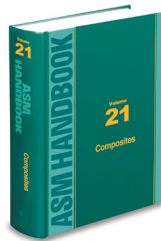
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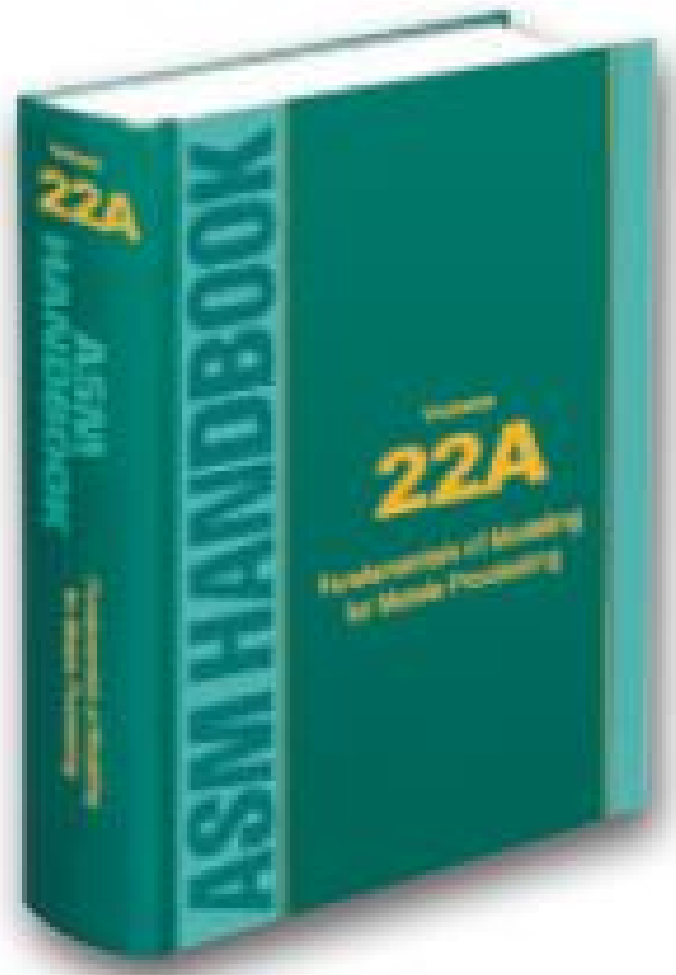
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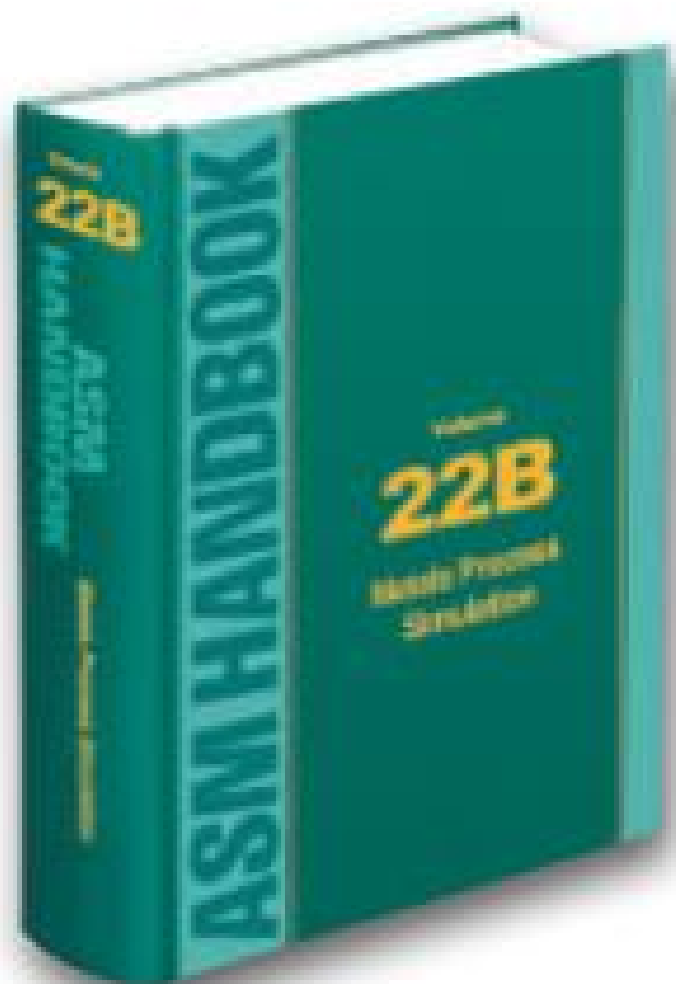


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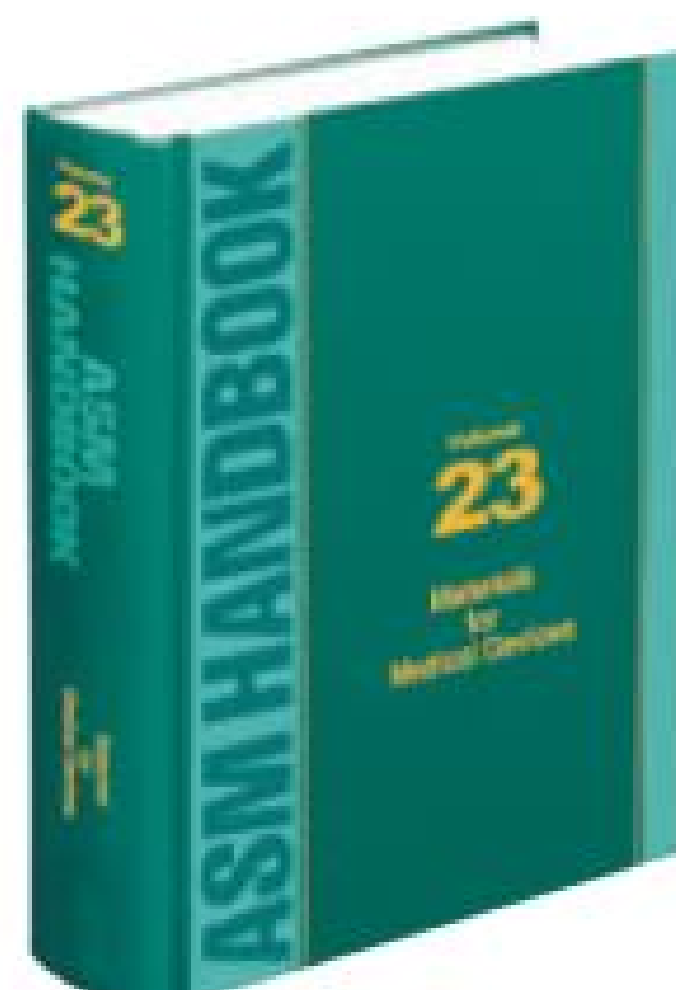


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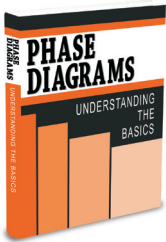
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Advances in Materials Technology for Fossil Power Plants Proceedings from the Seventh International Conference, 2013, EPRI

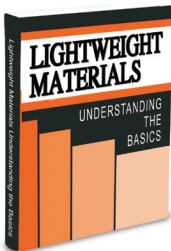
Edited by: D. Gandy and J. Shingledecker
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ISBN: 978-1-62708-060-6
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The conference brought together representatives from all of the national advanced ultrasupercritical

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Co-published by the Electric Power Research Institute (EPRI) and ASM International.



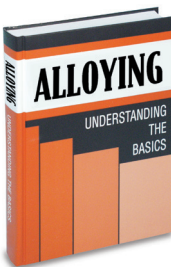
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2012 • 720 pages
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Product Code: 05355G

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A complete guide to the influence of alloy additions on mechanical properties, physical properties, corrosion and chemical behavior, and processing and manufacturing characteristics.

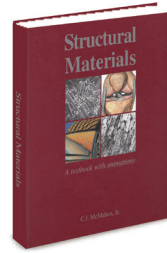


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Published by MS&T Partner Societies
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Price: \$203 / ASM Member: \$152

Proceedings from the Materials Science and Technology 2014 Conference, Pittsburgh, PA October 13-16, 2014.



Structural Materials: A Textbook with Animations

By C.J. McMahon, Jr.
2004 • 470 pages
ISBN: 978-0-96465-985-8
Product Code: 05913G

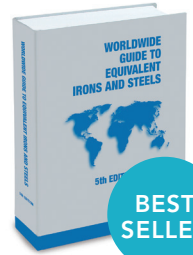
Price: \$107 / ASM Member: \$81

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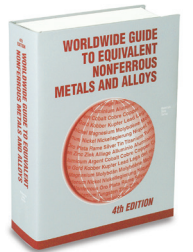
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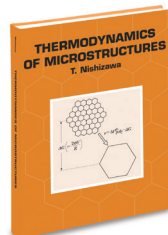


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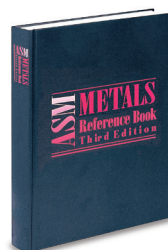


Thermodynamics of Microstructures

By Taiji Nishizawa, translated by Kiyohito Ishida
2008 • 308 pages
ISBN: 978-0-87170-716-1
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Price: \$207 / ASM Member: \$155

Fundamental relationships governing the behavior of microstructures.

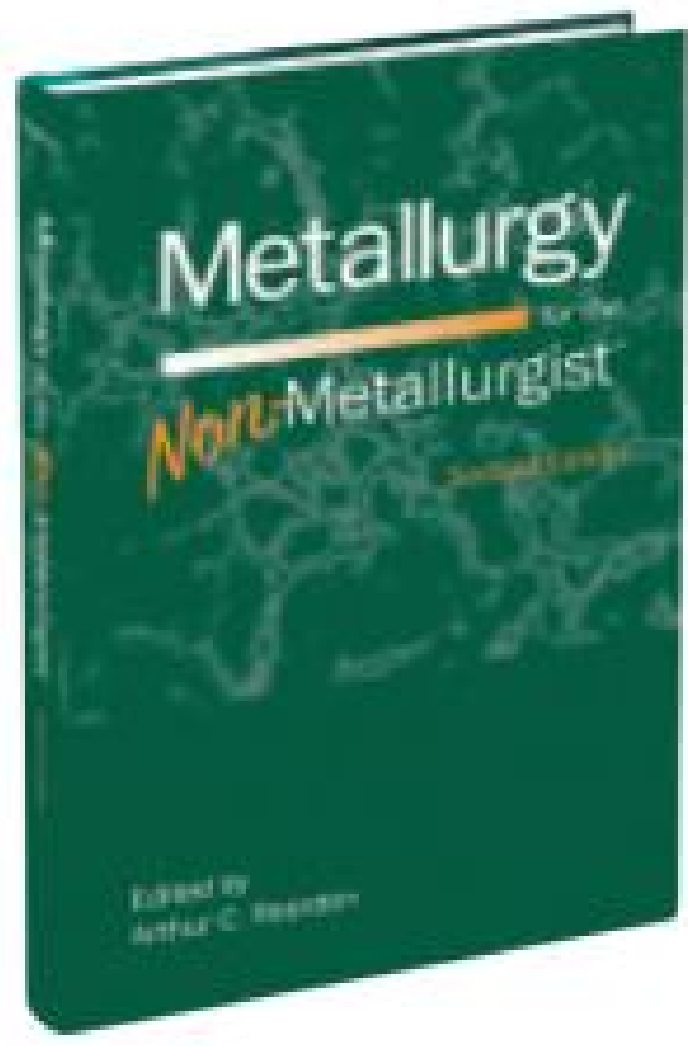


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Edited by M.L. Baucio
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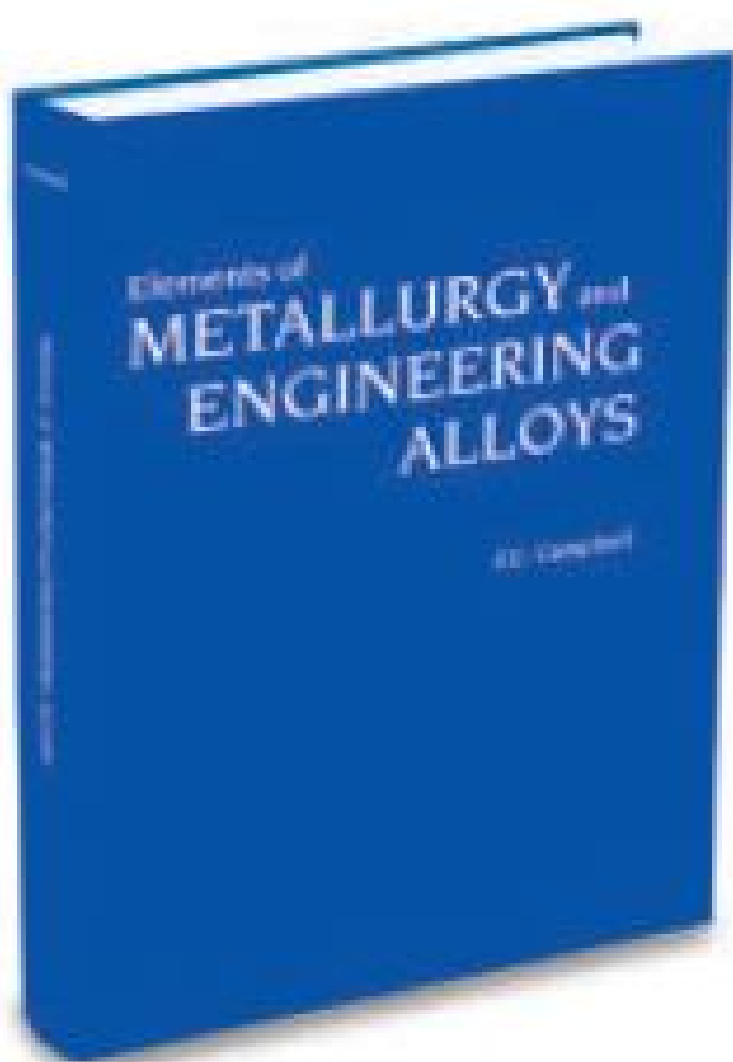
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This completely revised edition provides an all new modern view of the basic principles and current practices of metallurgy. Recommended for anyone who uses, makes, buys or tests metal products.

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By Ramnarayan Chattopadhyay

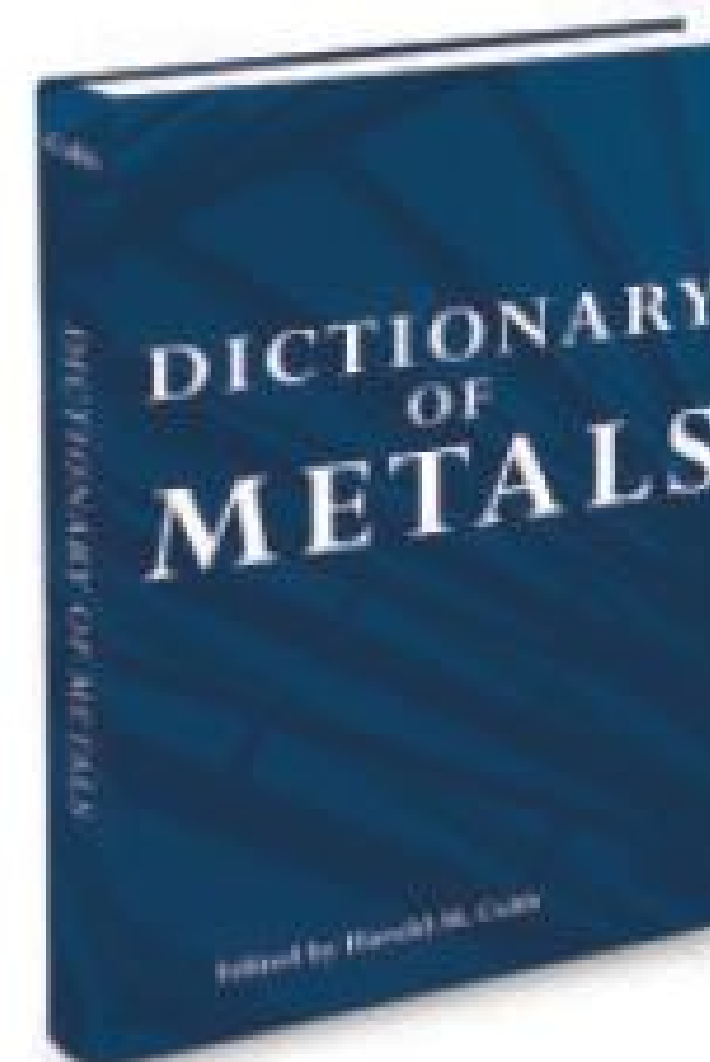
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Edited by Harold M. Cobb

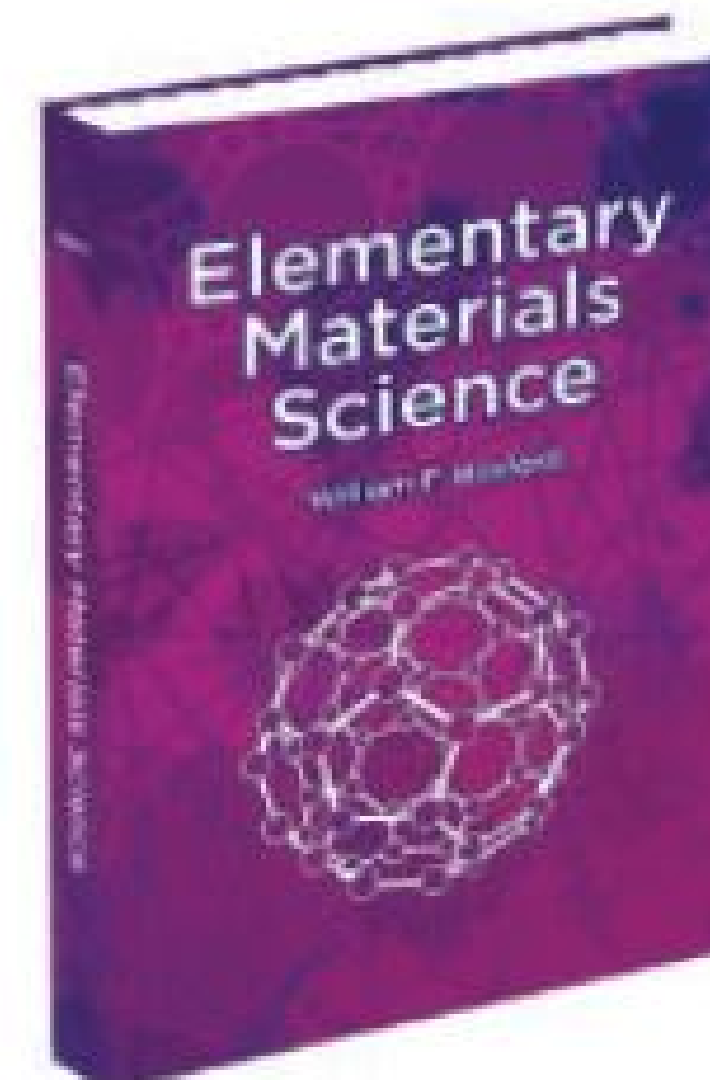
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Elementary Materials Science

By William F. Hosford

2013 • 188 pages

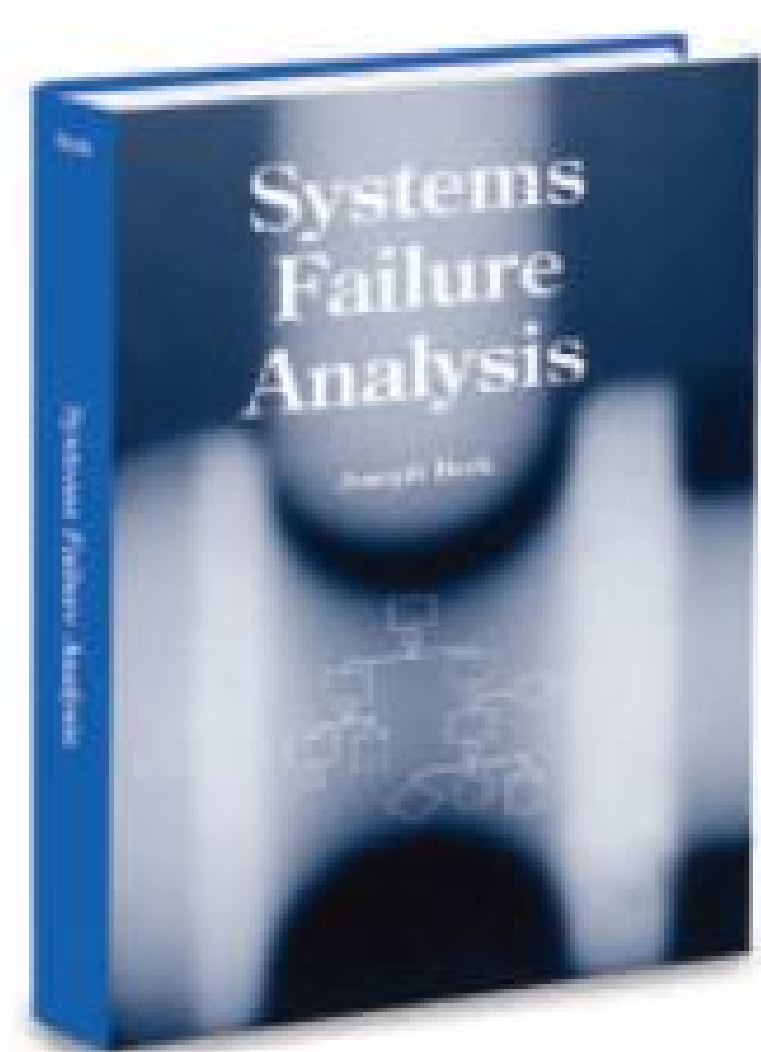
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Very few equations! Intended for students with limited science backgrounds. Useful for nontechnical professionals in the materials industry. The basics of bonding, crystal structures, and amorphous materials. Chapters devoted to phase relations, mechanical behavior, electrical behavior, magnetic behavior, and corrosion. Addresses nonferrous metals, iron and steel, ceramics, polymers, composites, and wood. More on forming and shaping, and recycling.

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By Joseph Berk

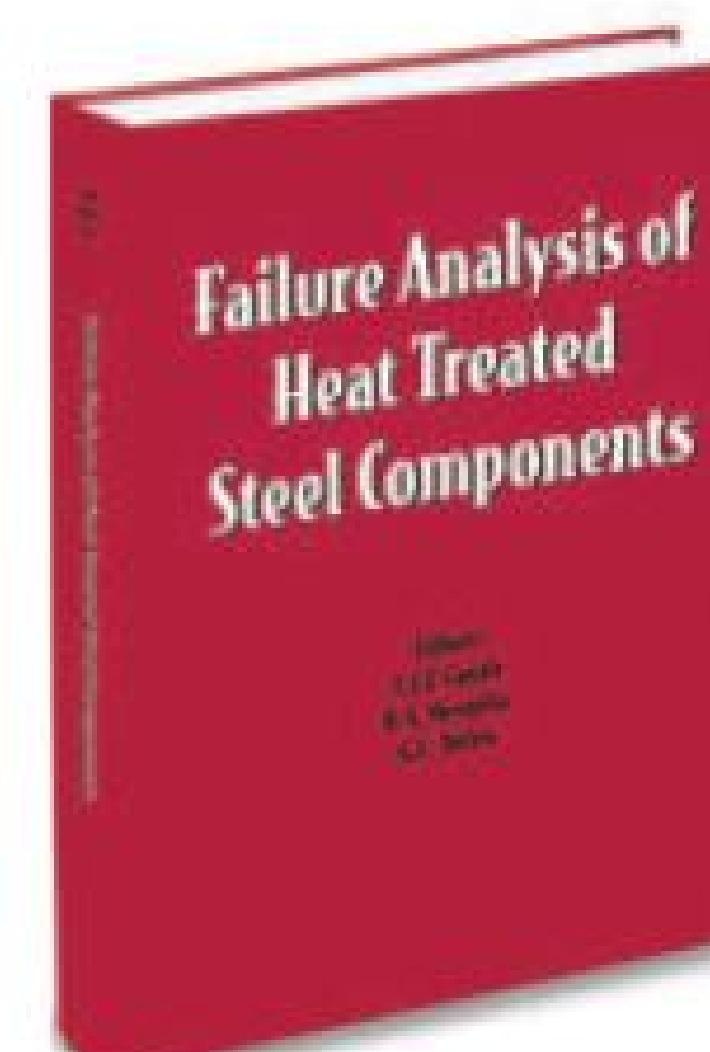
2009 • 214 pages

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Complex systems failures can have hundreds of potential causes. Learn how to analyze and prevent them. Written for development engineers, quality assurance specialists, manufacturing engineers, purchasing personnel, and field service engineers. Great for organizations that produce or procure complex systems in the aerospace, defense, automotive, biomedical, electronic, and related industries.



Failure Analysis of Heat Treated Steel Components

Edited by L.C.F. Canale, R.A. Mesquita and G.E. Totten

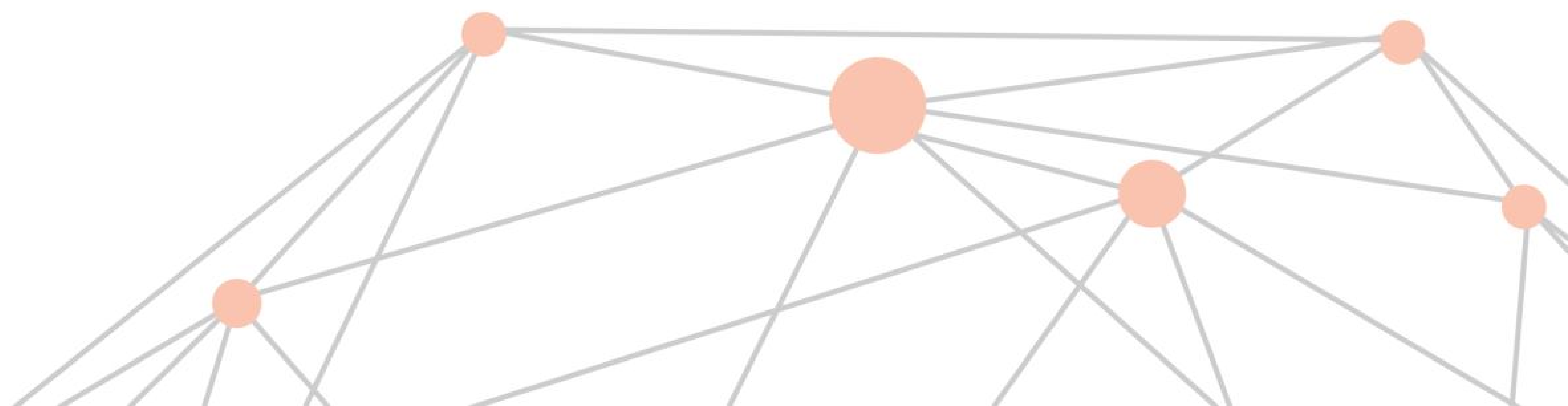
2008 • 652 pages

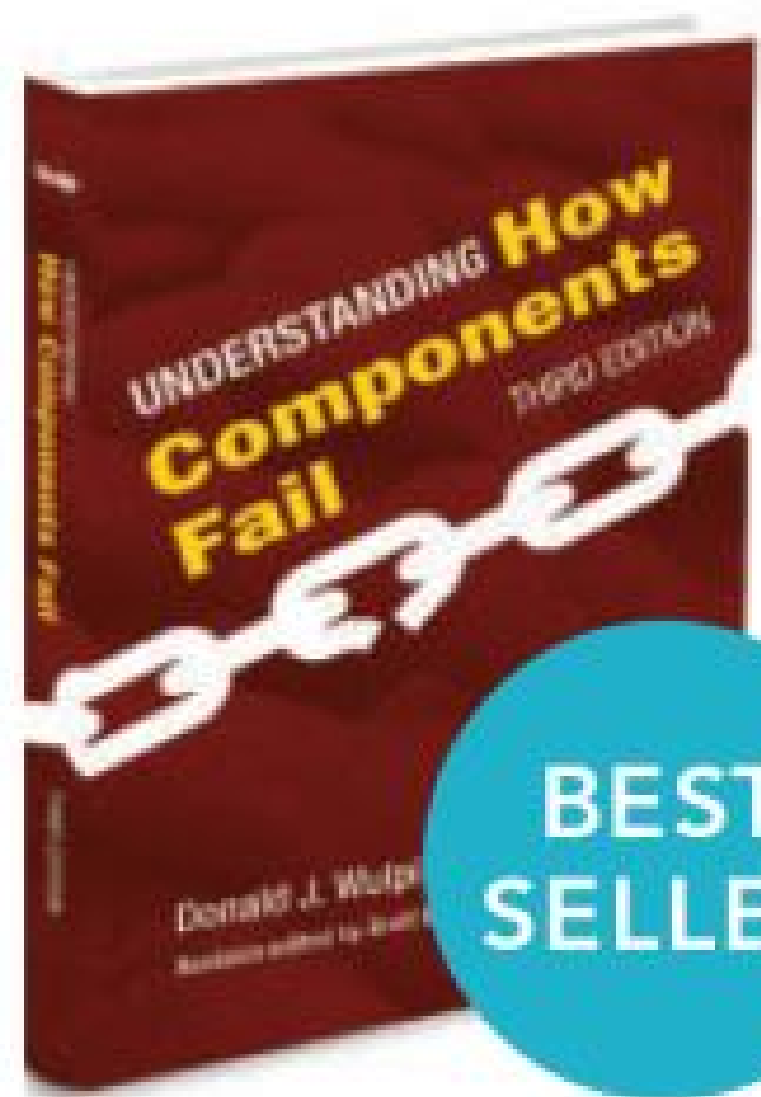
ISBN: 978-0-87170-868-7

Product Code: 05113G

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Learn how to identify causes of failures, prevent future occurrences, and improve reliability. Numerous examples helpful to designers, engineers, metallurgists, mechanical and materials engineers, quality control technicians, and heat treaters. Special focus on the demands of tool steels and aerospace materials.





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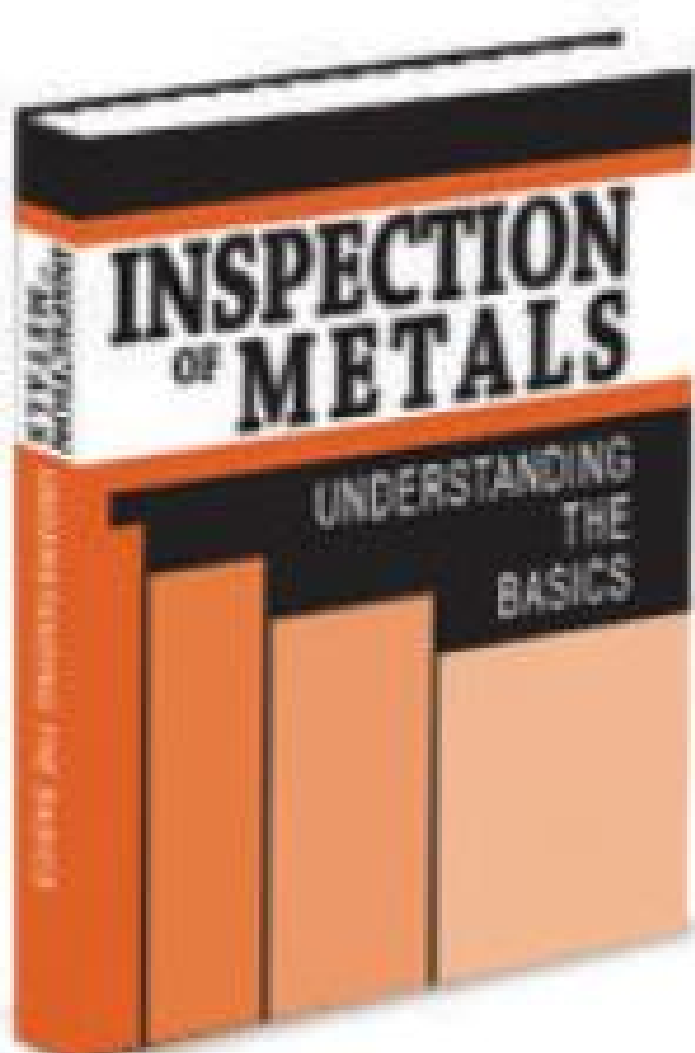
By R. Viswanathan

1989 • 440 pages
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Product Code: 06049G

Price: \$137 / ASM Member: \$105

Brings together the theoretical aspects of high-temperature damage phenomena and the practical aspects of assessing the actual damage on a component-specific basis. Lays the theoretical foundation with respect to toughness, embrittlement phenomena, creep, fatigue, and creep-fatigue interaction.

METALLOGRAPHY & MATERIALS CHARACTERIZATION



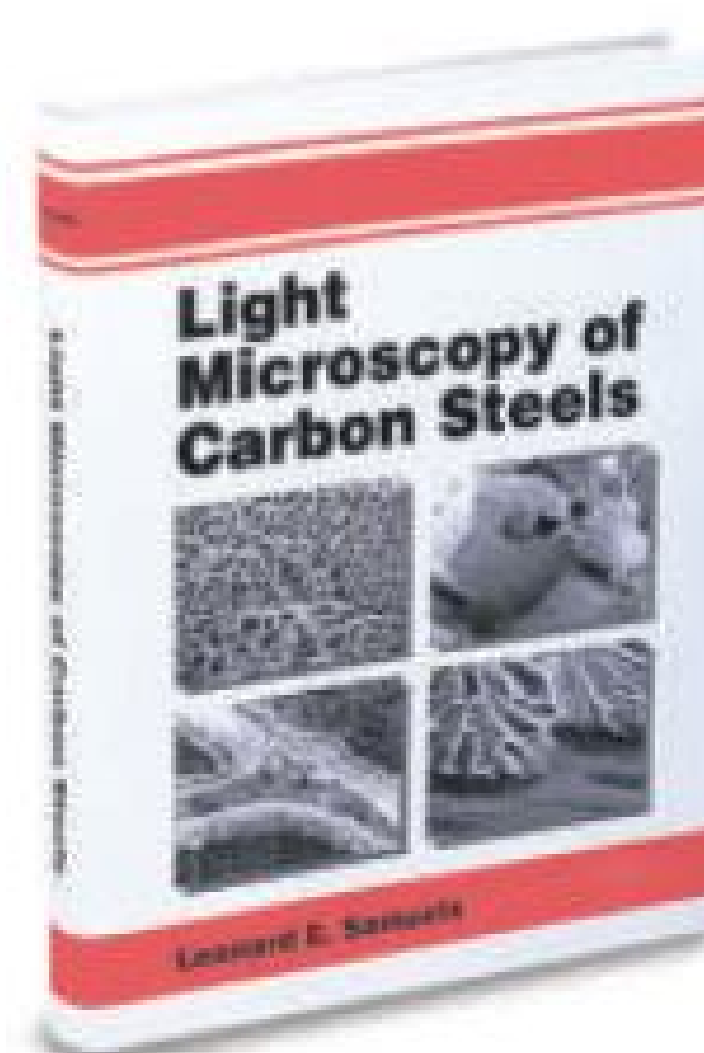
Inspection of Metals: Understanding the Basics

Edited by F.C. Campbell

2013 • 487 pages
ISBN: 978-1-62708-000-2
Product Code: 05372G

Price: \$187 / ASM Member: \$135

Emphasizes final part inspection at the manufacturing facility or on receipt at the user's facility. Provides an intermediate level overview to the different methods used to inspect metals and finished parts and a more detailed review of the specific inspection methods for important metal product forms. The advantages and limitations of each method are discussed, including when other methods may be warranted. Chapters on specific product forms (e.g., castings) compare the different inspection methods and why they are used.



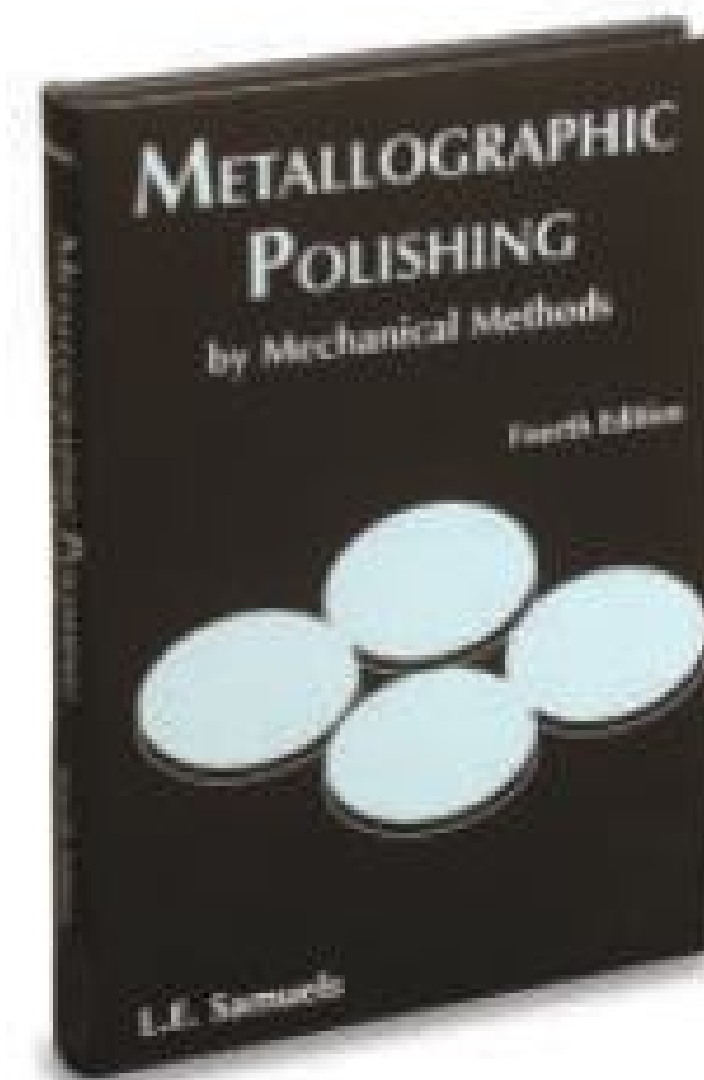
Light Microscopy of Carbon Steels

By L.E. Samuels

1999 • 502 pages
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"How to" book gives everyday working examples and discusses the relationship between the constitution, properties, and microstructure of various carbon steel products. Over 1,200 micrographs and 90 other figures.

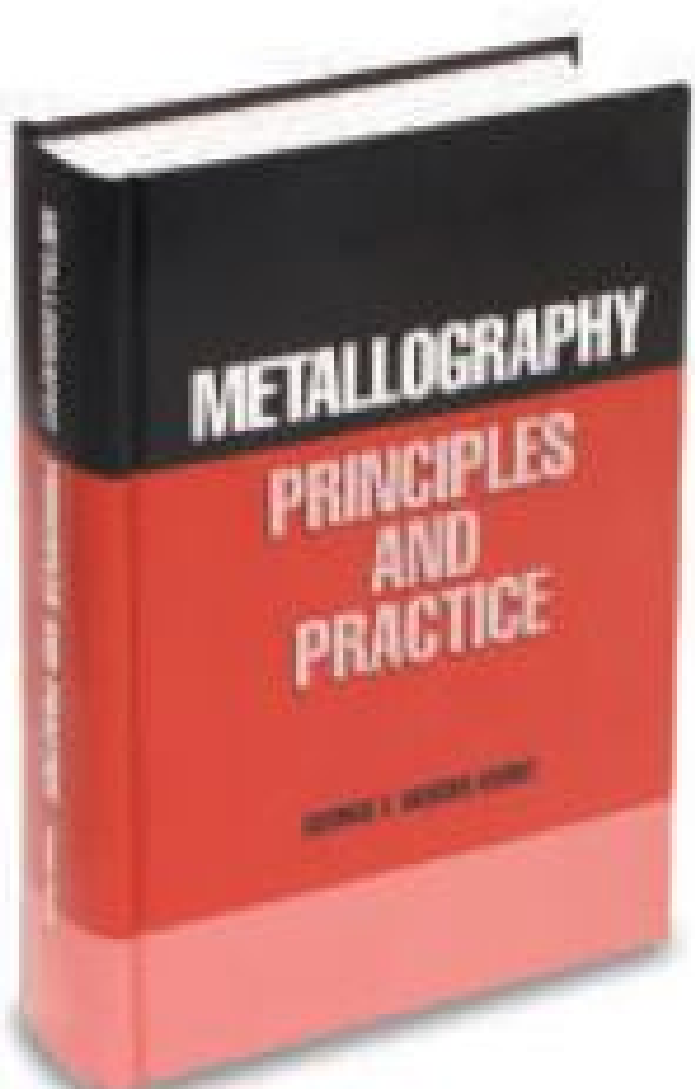


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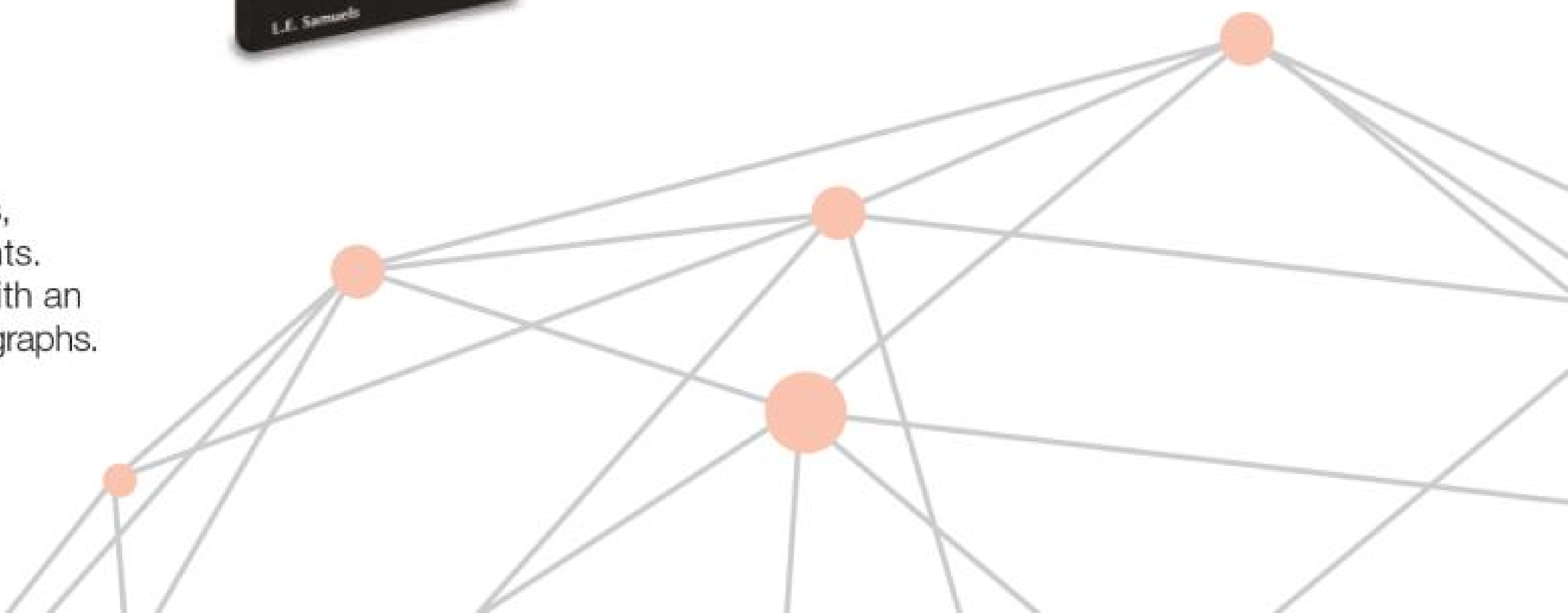
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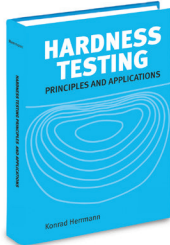
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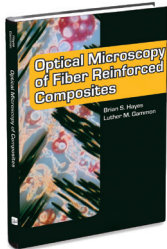


Hardness Testing: Principles and Applications

Edited by Dr. Konrad Herrmann, et al.
2011 • 262 pages
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Price: \$157 / ASM Member: \$115

Hardness testing of metals, plastics, rubber and other materials. Technical developments such as the introduction of image processing in the Brinell

and Vickers method, the adaptation of hardness testing machines to process-oriented testing conditions, and the development of highly accurate and efficient calibration methods.

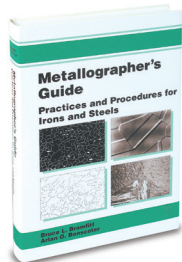


Optical Microscopy of Fiber-Reinforced Composites

By Brian S. Hayes and Luther M. Gammon
2010 • 284 pages
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Price: \$177 / ASM Member: \$135

Optical microscopy is one of the most valuable, but under-utilized, tools for analyzing fiber-

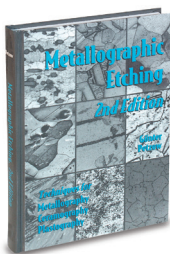
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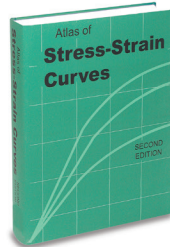
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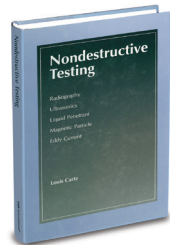
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By L. Cartz
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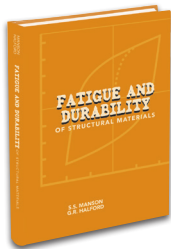
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ASM Handbook, Volume 9: Metallography and Microstructures, page 3

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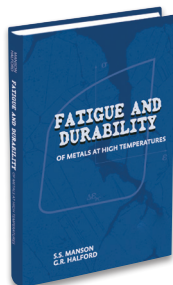
Fatigue and Durability of Structural Materials

By S.S. Manson and G.R. Halford

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Focuses on metallic materials but also addresses unique capabilities of important nonmetals.



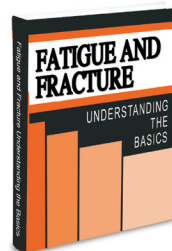
Fatigue and Durability of Metals at High Temperatures

By S.S. Manson and G.R. Halford

2009 • 268 pages
ISBN: 978-0-87170-718-5
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Price: \$257 / ASM Member: \$185

Written by preeminent experts, this work gives development engineers, students, and component designers an important reference on how to analyze time-dependent metal fatigue at high temperatures.



Fatigue and Fracture: Understanding the Basics

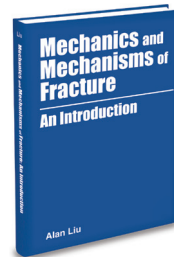
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Covers mechanical properties of materials, differences between ductile and brittle fractures, fracture mechanics, the basics of fatigue,

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By A.F. Liu

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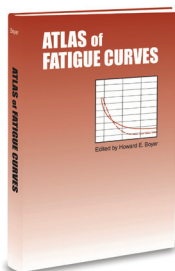
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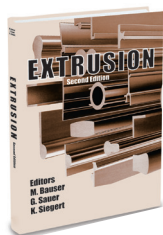
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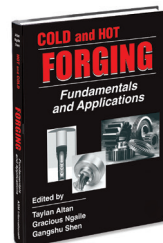
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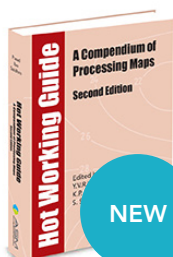
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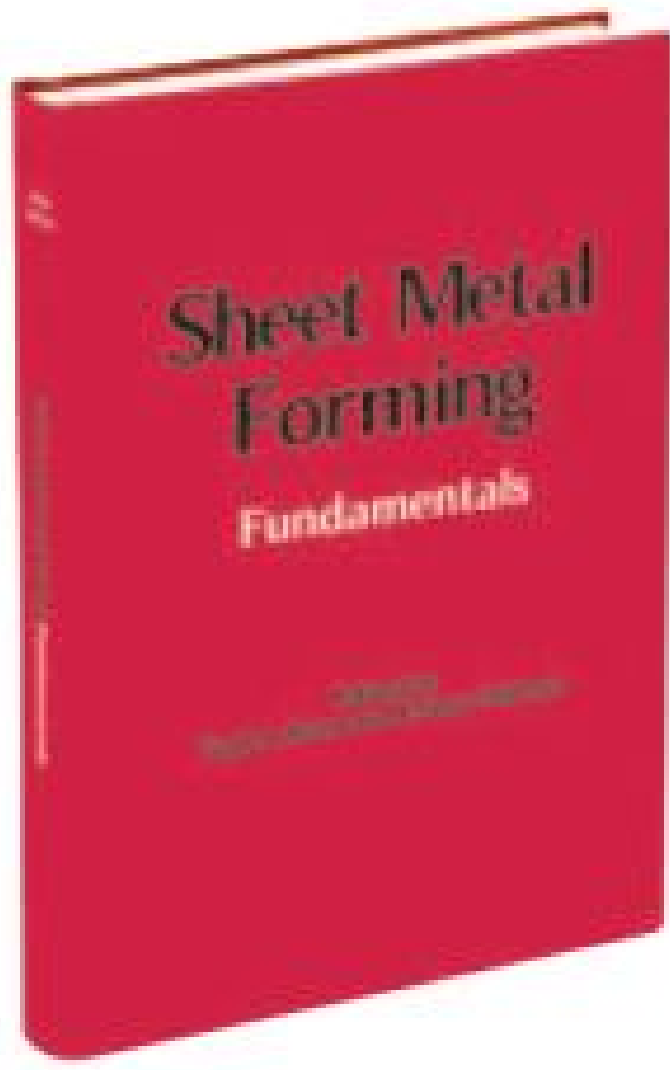
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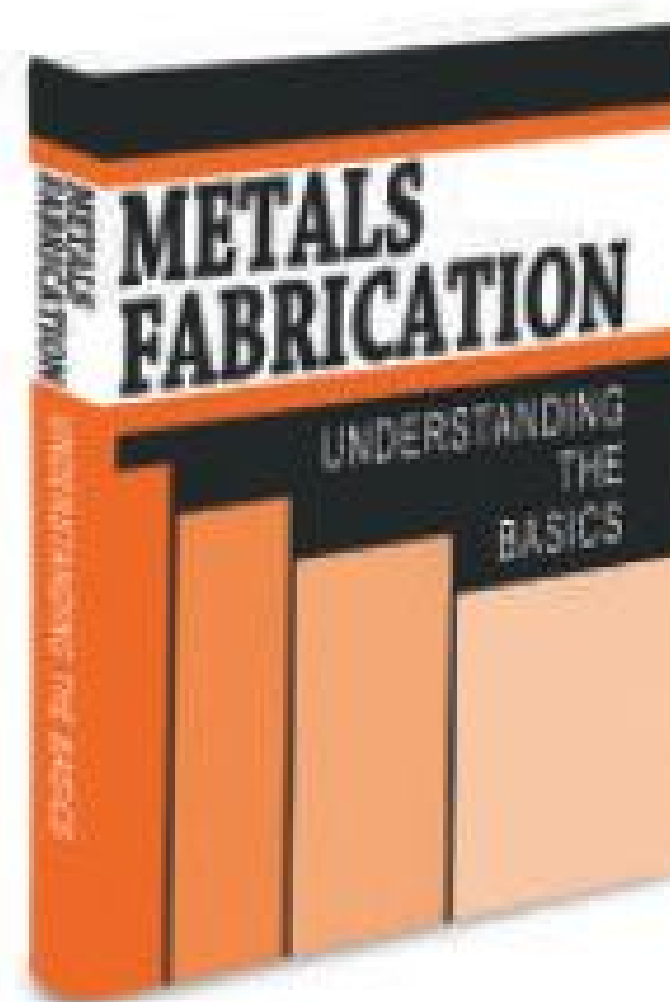


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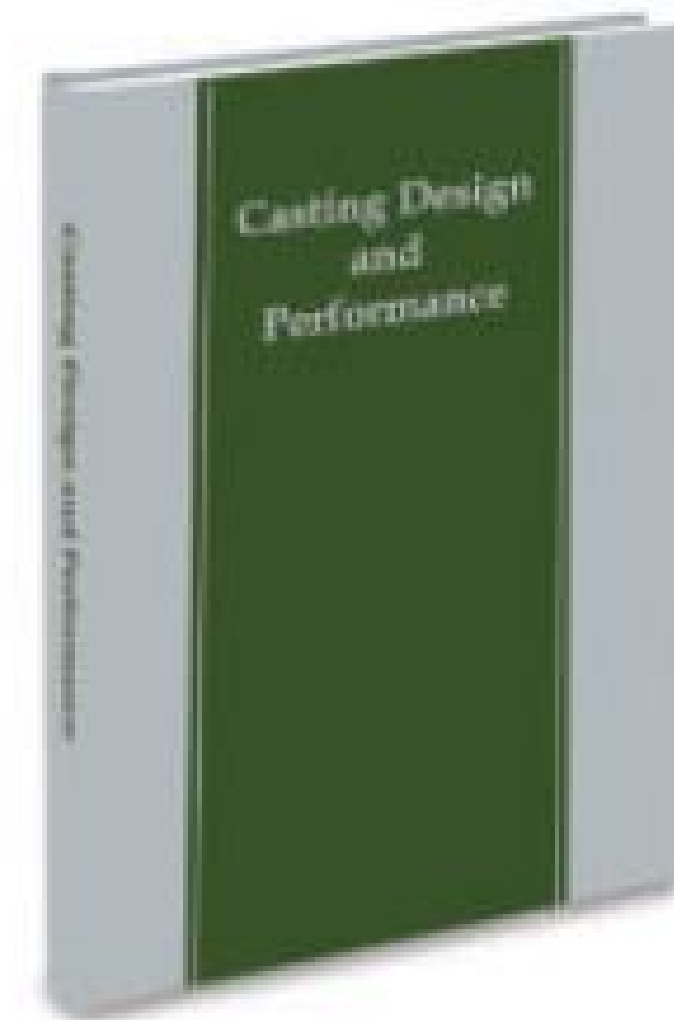
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This book can be read and understood by anyone with a technical background. It is especially useful to those who deal with metals including designers, mechanical engineers, civil engineers, structural engineers, material and process engineers, manufacturing engineers, faculty, and materials science students. This volume covers the basics of metal fabrication, delving deep into the technology of metals fabrication.

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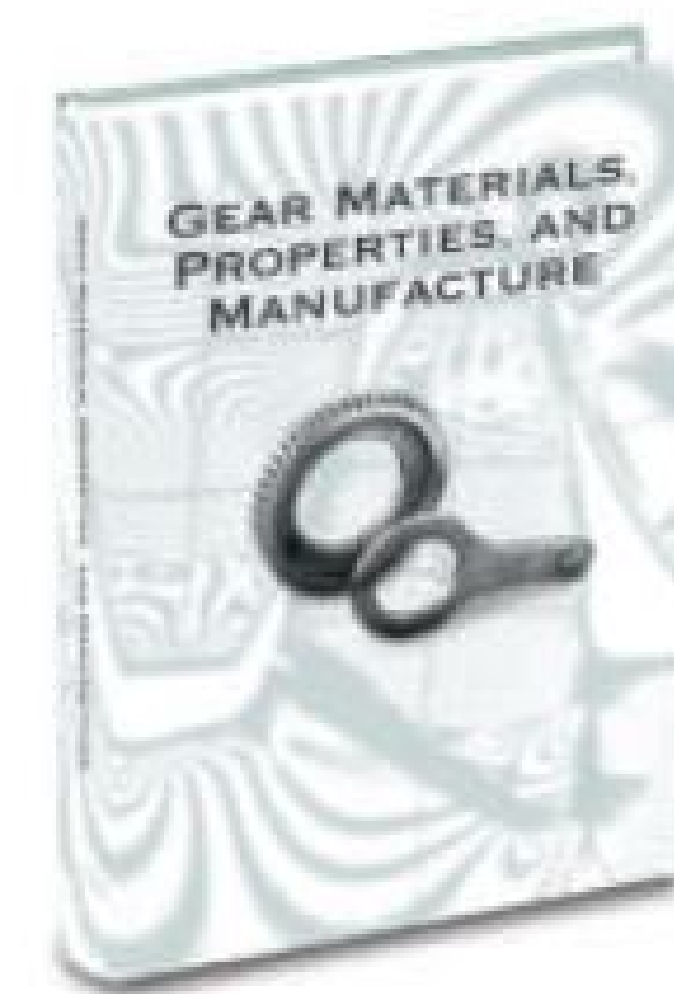


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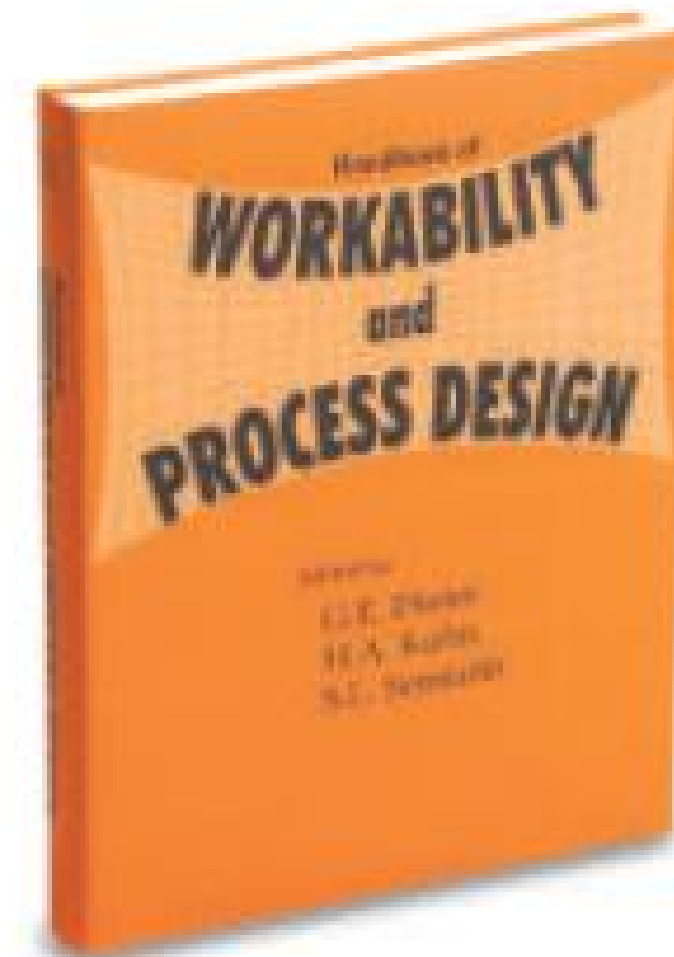


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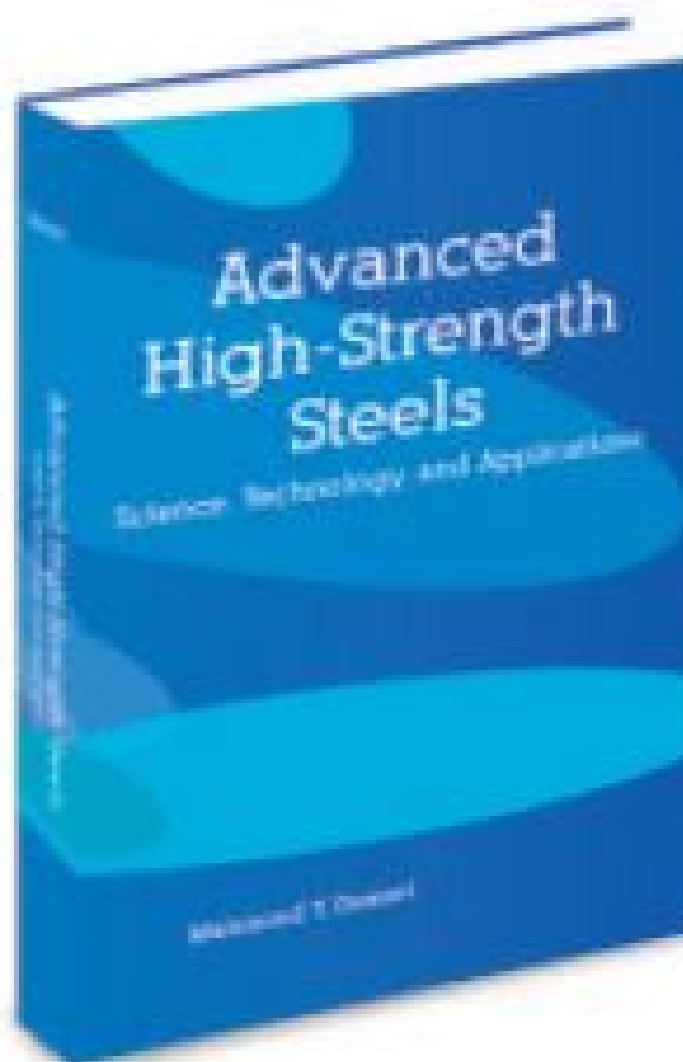


Handbook of Workability and Process Design

Edited by G.E. Dieter, H.A. Kuhn, and S.L. Semiatin
2003 • 414 pages
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Price: \$247 / ASM Member: \$185

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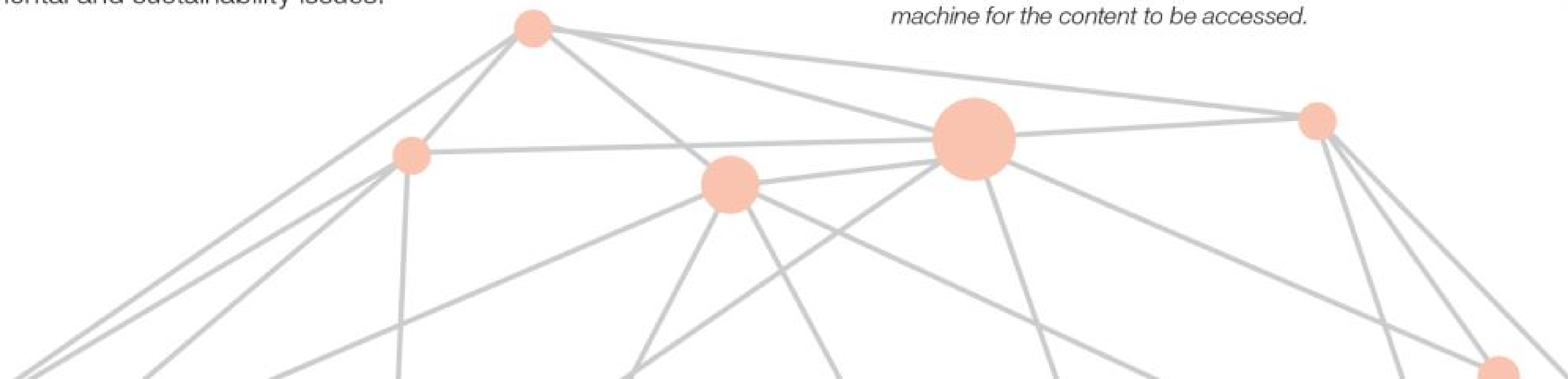
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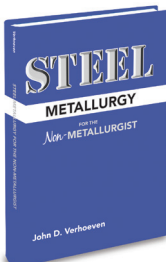


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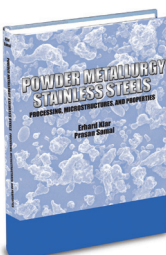


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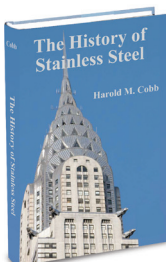
A practical primer on steel metallurgy for those who select, heat, forge, or machine steel.



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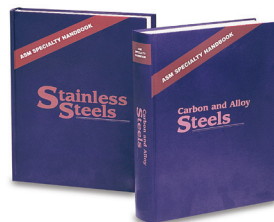
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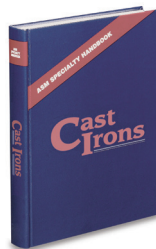
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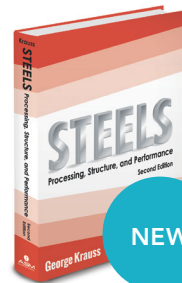


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Basic information on metallurgy, solidification characteristics, and properties, as well as extensive reviews on the low-alloy gray, ductile, compacted graphite, and malleable irons.

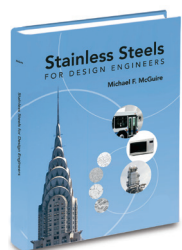


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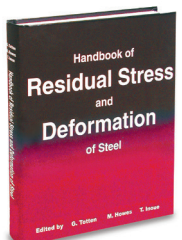


Stainless Steels for Design Engineers

By Michael F. McGuire
2008 • 312 pages
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Price: \$187 / ASM Member: \$135

Addresses selection for corrosion resistance, processing, and major applications.



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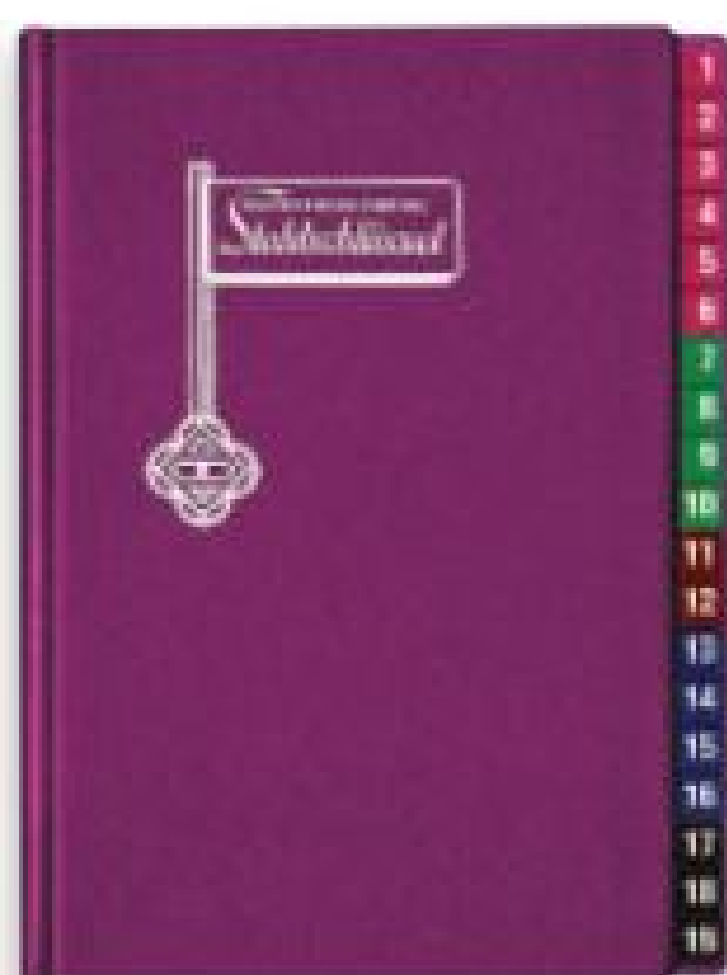
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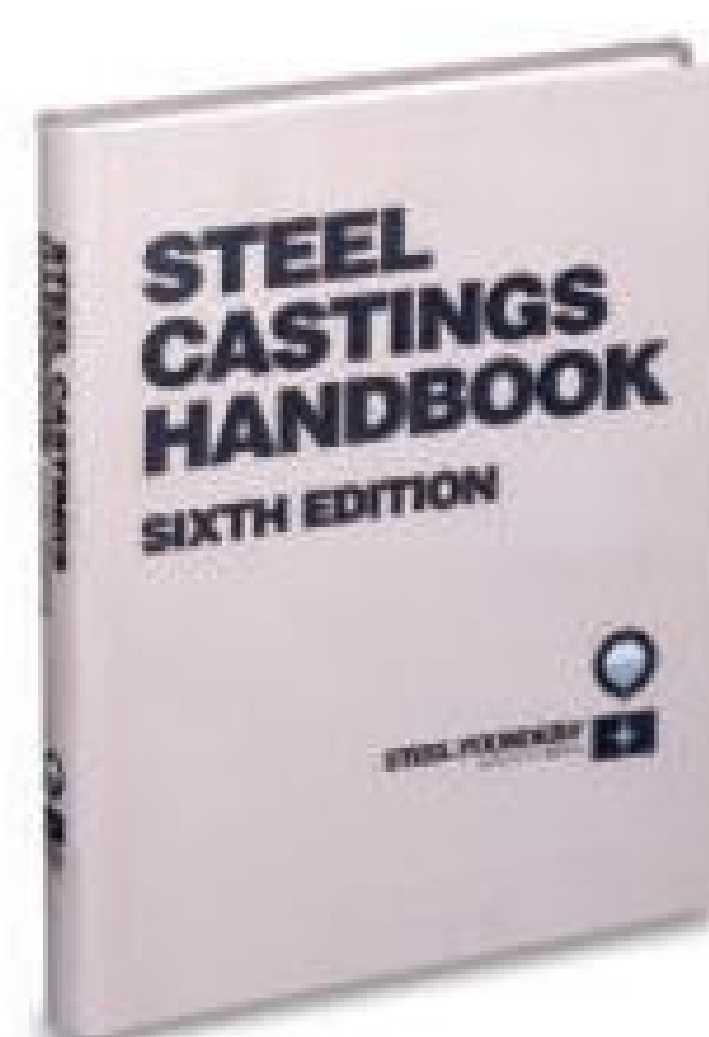
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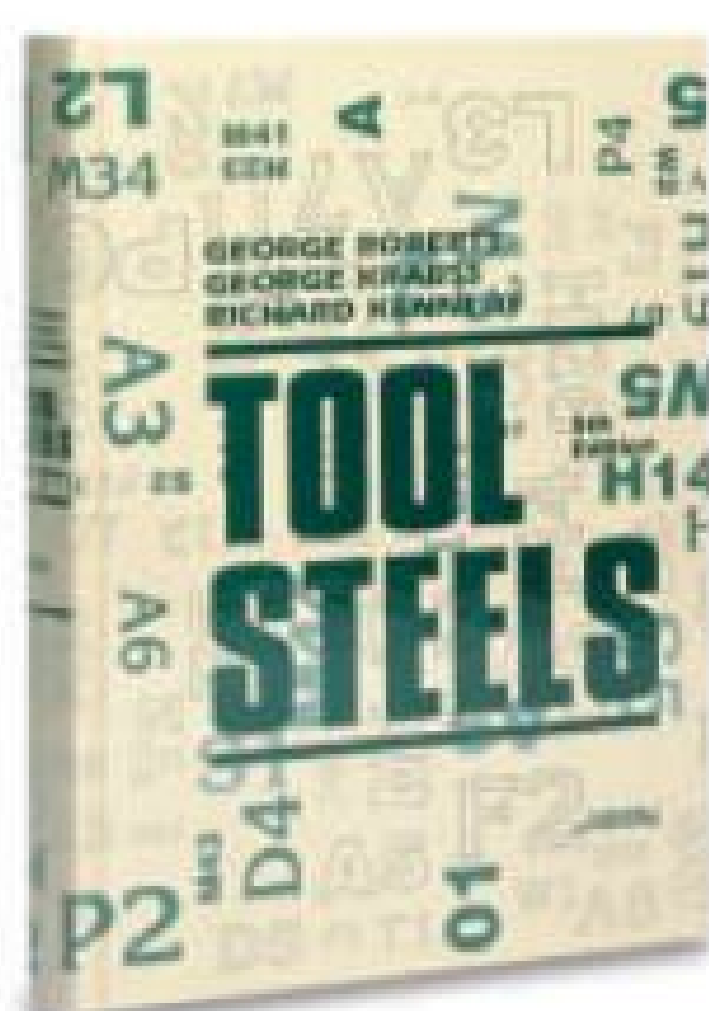


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Co-published by Steel Founders' Society of America and ASM International
1995 • 472 pages
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Purchasing, designing and manufacture of castings (including casting and molding, heat treatment, and quality assurance), materials selection for mechanical and chemical properties, and materials selection for processing properties.



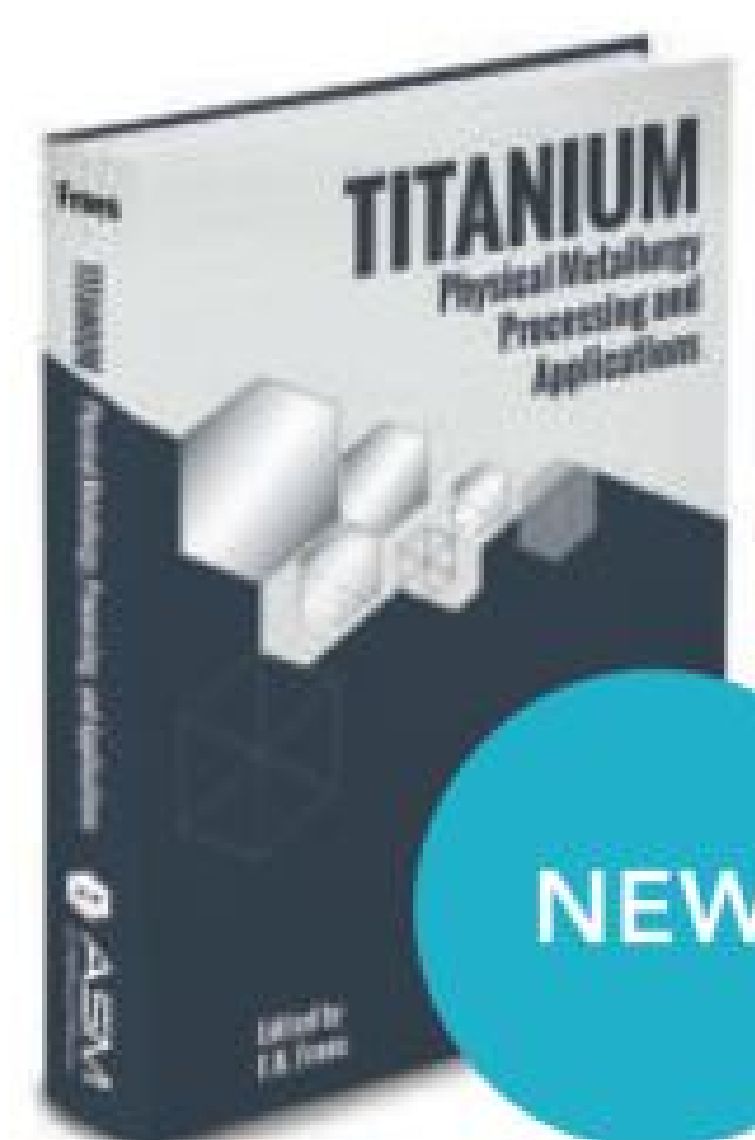
Tool Steels, 5th Edition

By G. Roberts, G. Krauss, and R. Kennedy
1998 • 364 pages
ISBN: 978-0-87170-599-0
Product Code: 06590G

Price: \$207 / ASM Member: \$155

Contains a significant amount of information from the past two decades presented in an easy-to-use outline format, making this a "must have" reference for engineers involved in tool-steel production, as well as in the selection and use of tool steels in metalworking and other materials manufacturing industries.

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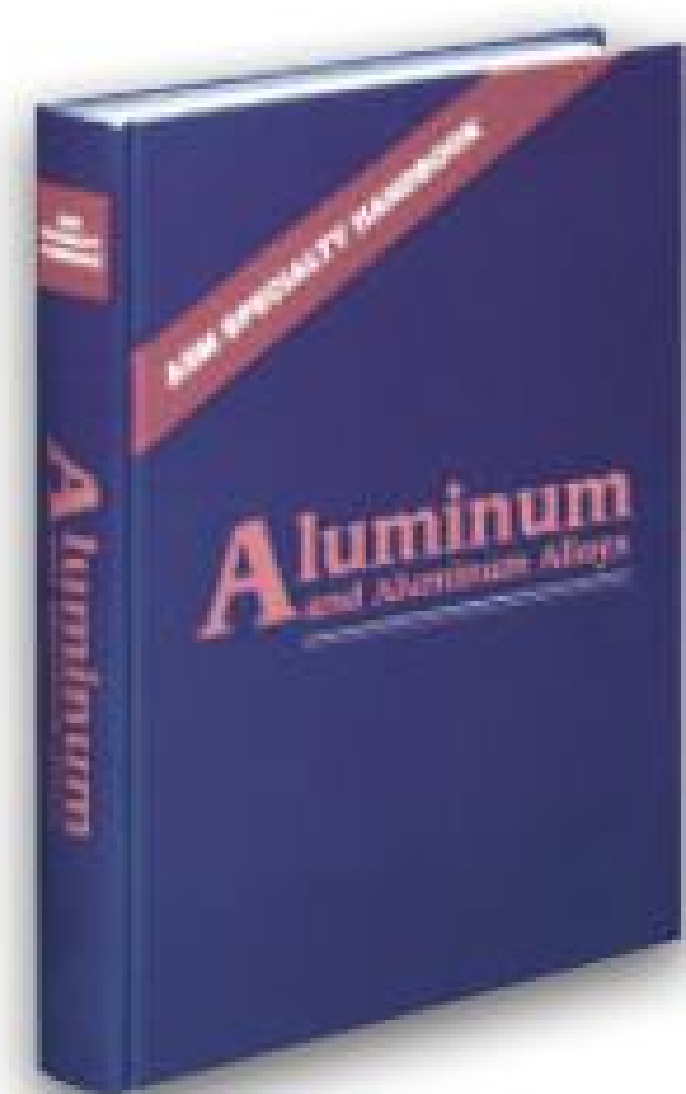
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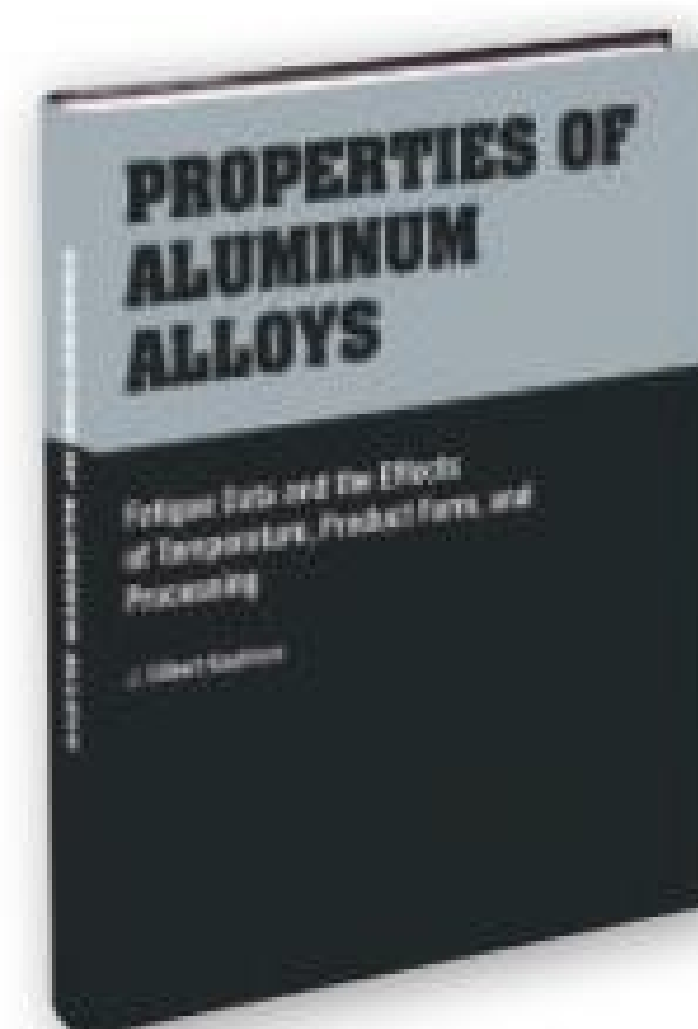
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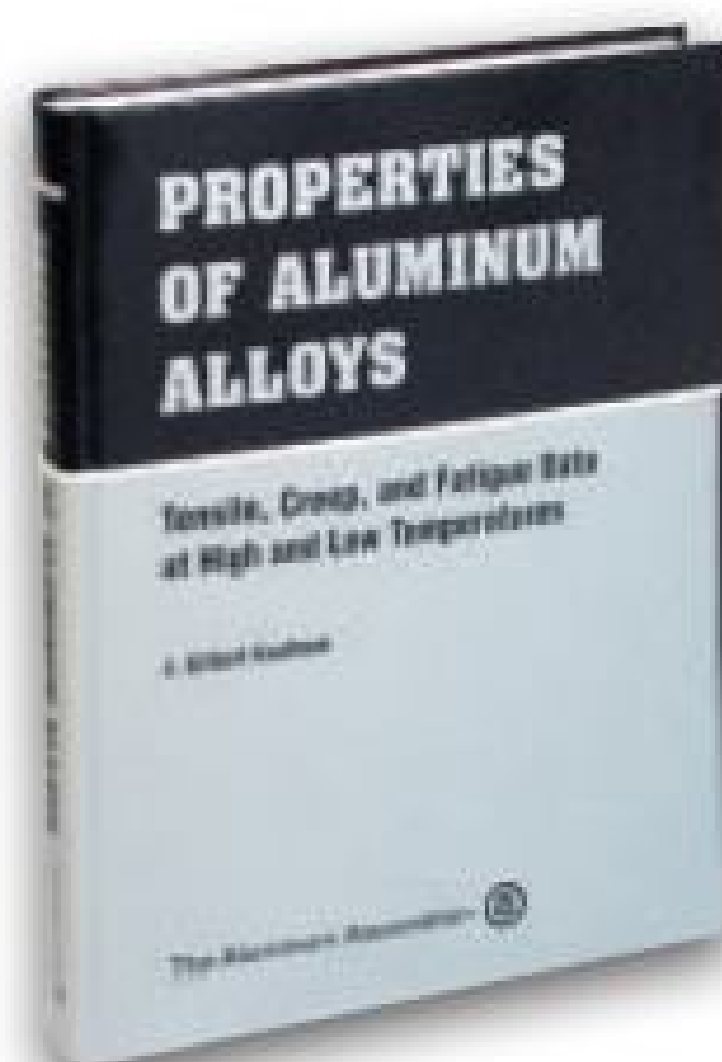


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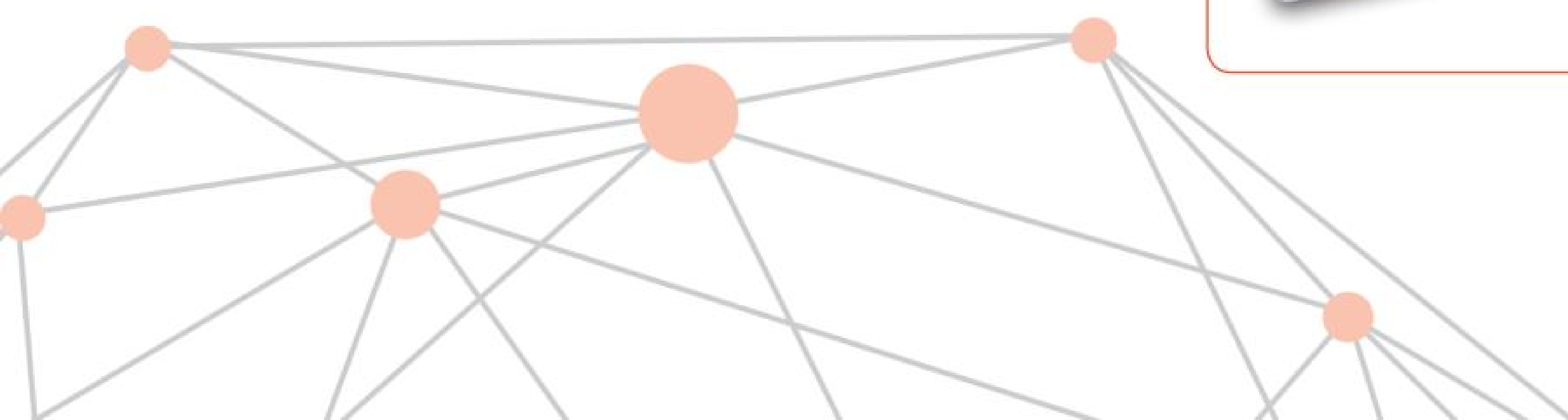


Properties of Aluminum Alloys: Tensile, Creep, and Fatigue Data at High and Low Temperatures

Edited by J.G. Kaufman
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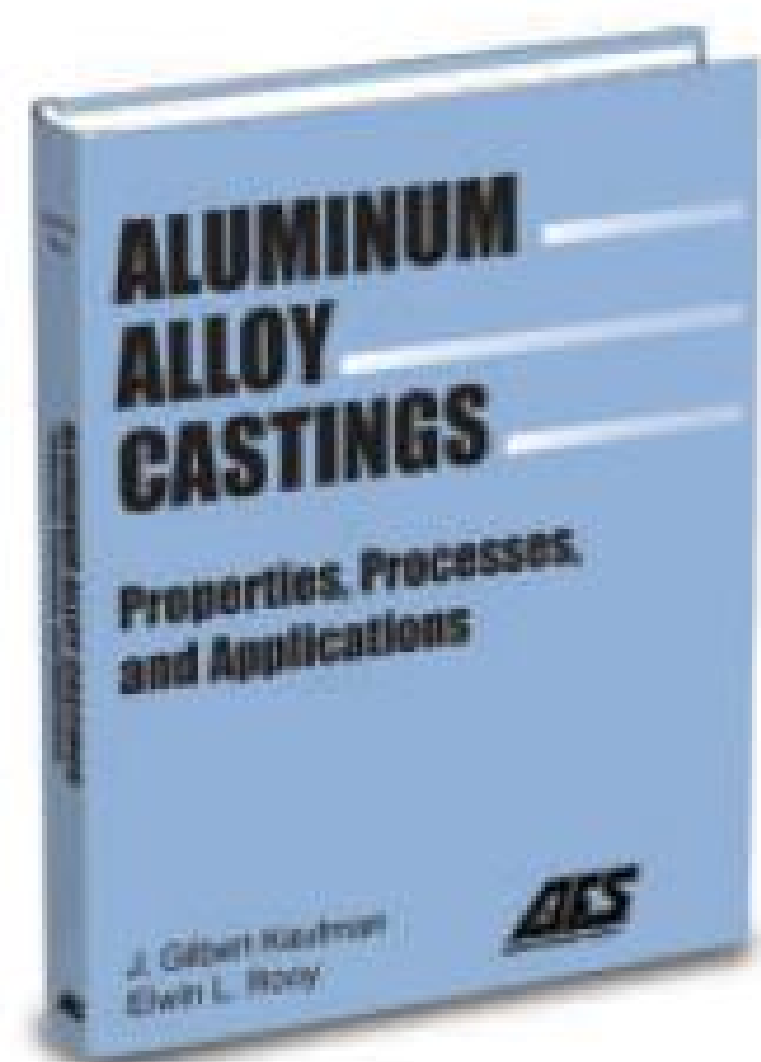
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**Aluminum Alloy Castings: Properties, Processes, and Applications**

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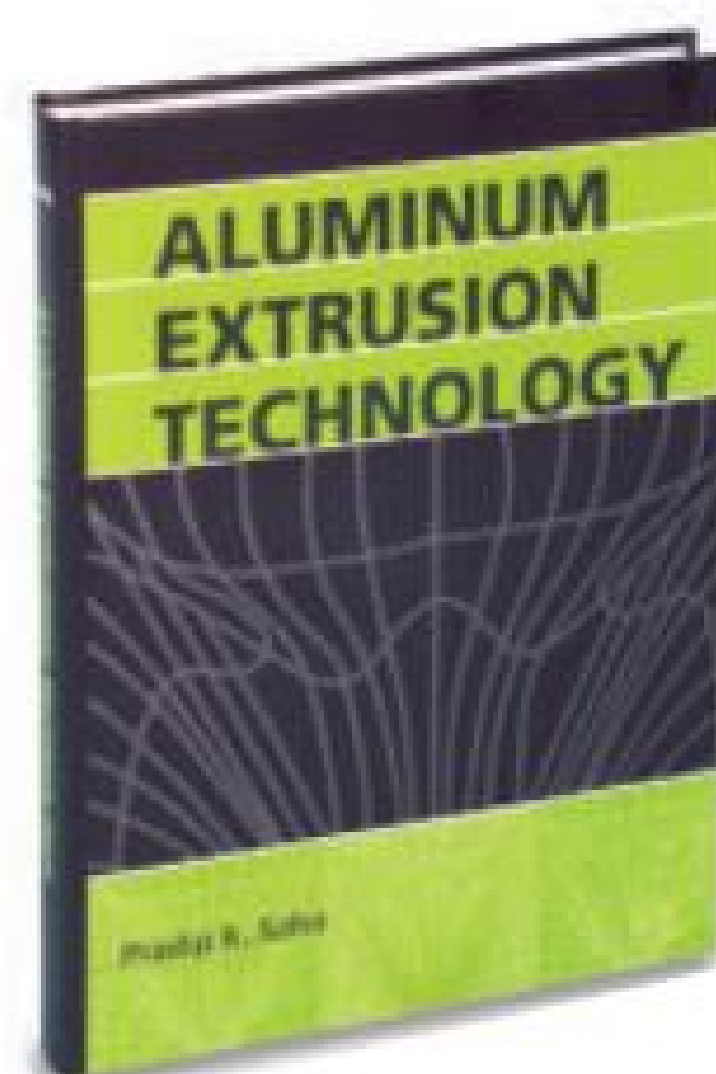
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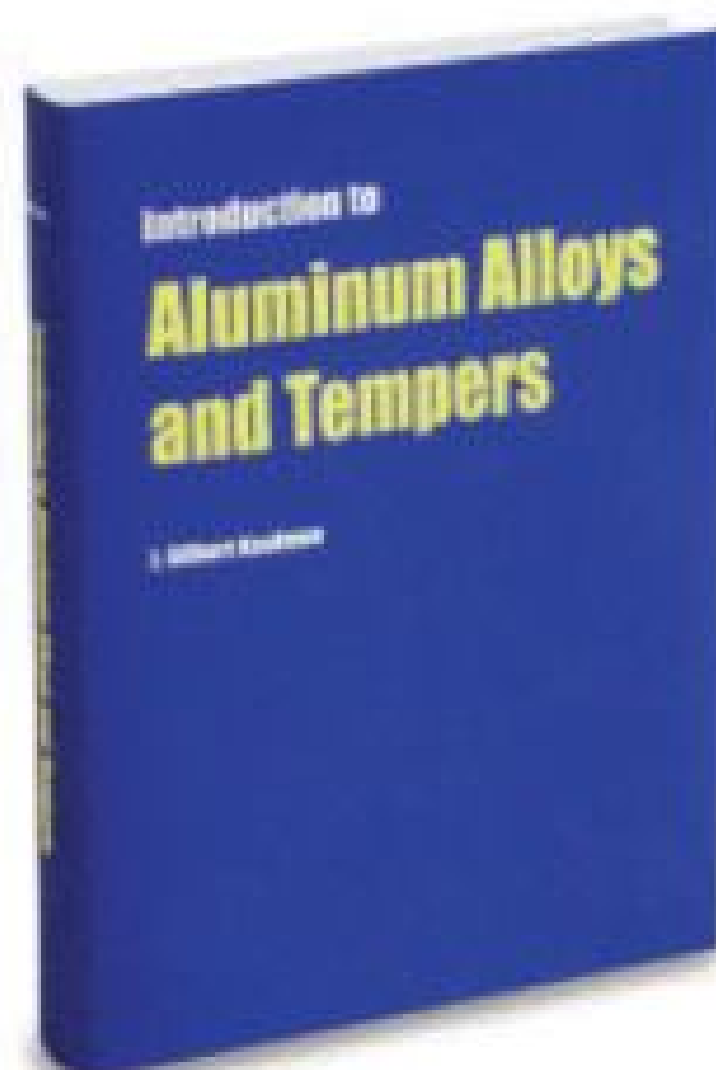
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By P.K. Saha
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Product Code: 06826G

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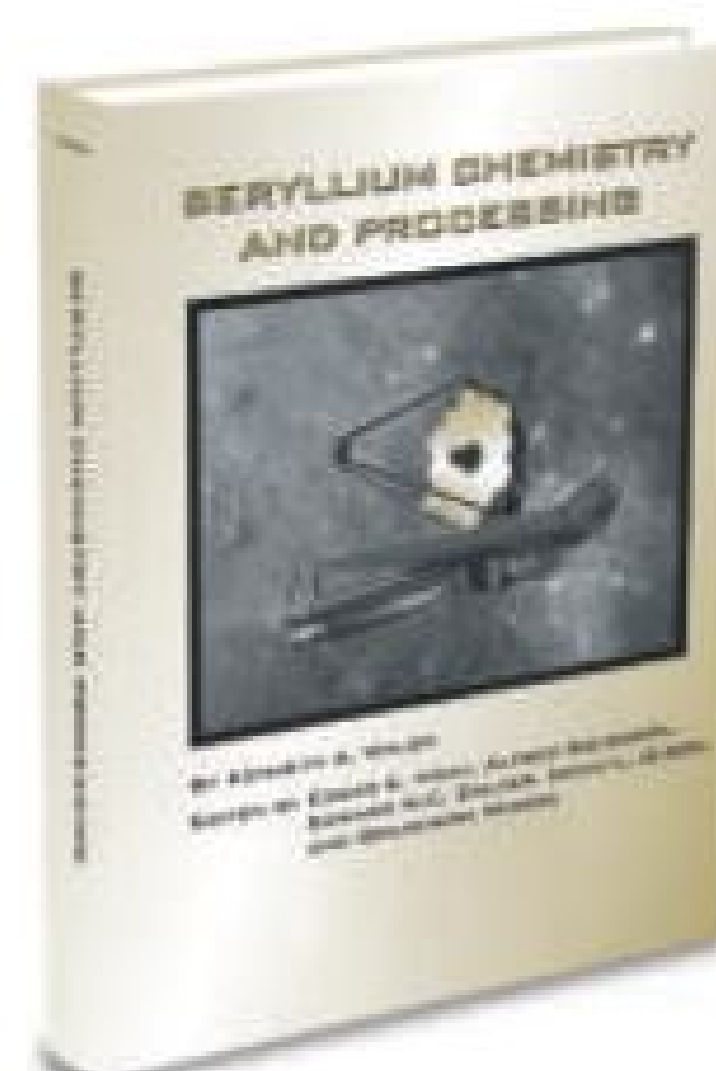
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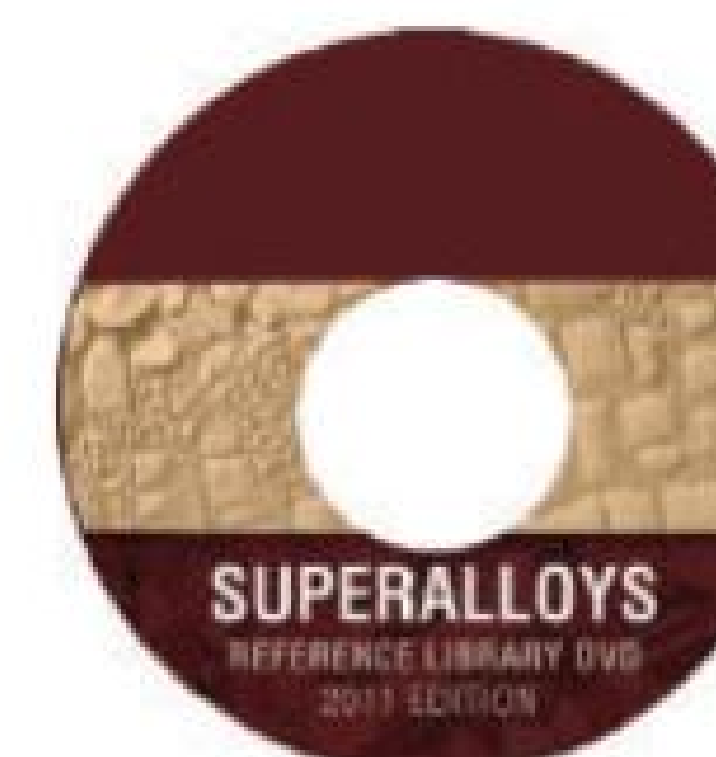
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By K.A. Walsh • Edited by E.E. Vidal, A. Goldberg, E. Dalder, D.L. Olson, and B. Mishra
2009 • 680 pages

ISBN: 978-0-87170-721-5
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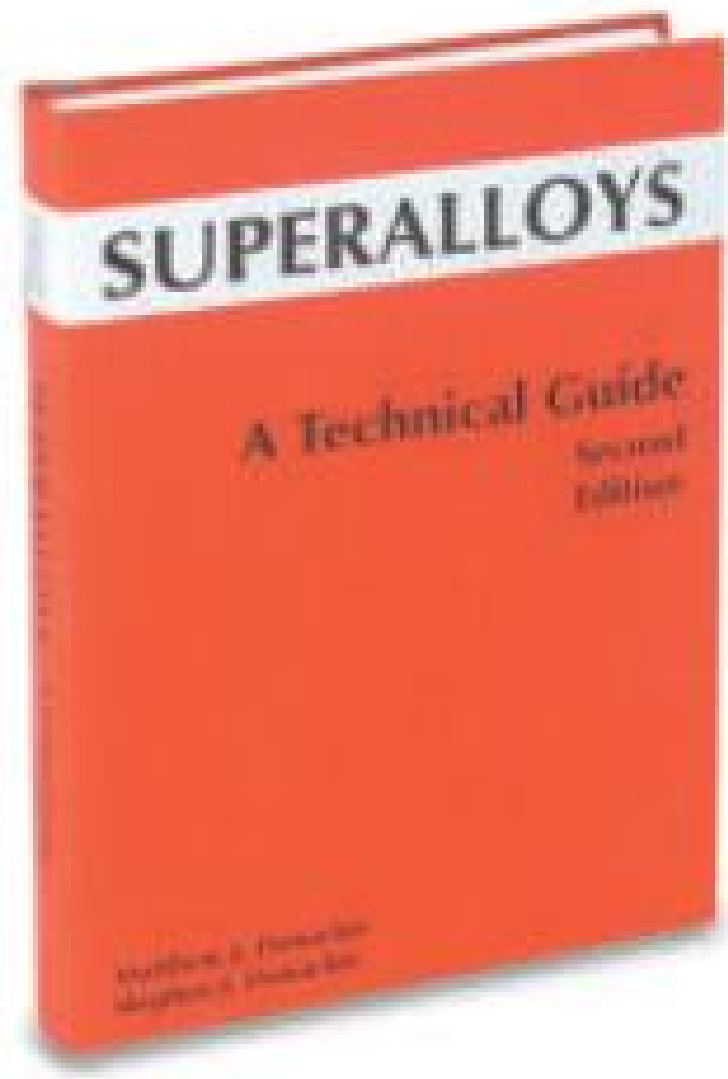
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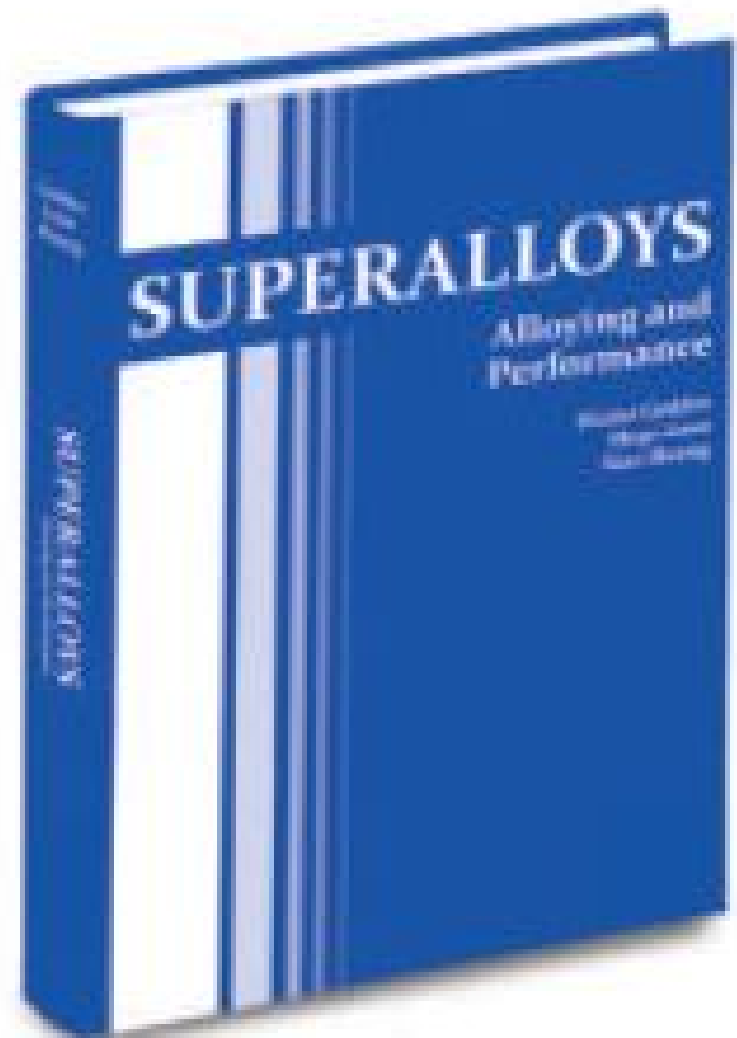
Superalloys: A Technical Guide, 2nd Edition

By M.J. Donachie and S.J. Donachie

2002 • 439 pages
ISBN: 978-0-87170-749-9
Product Code: 06128G

Price: \$207 / ASM Member: \$155

Covers virtually all technical aspects related to the selection, processing, use, and analysis of superalloys.



Superalloys: Alloying and Performance

Blaine Geddes, Hugo Leon, and Xiao Huang

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ISBN: 978-1-61503-040-8
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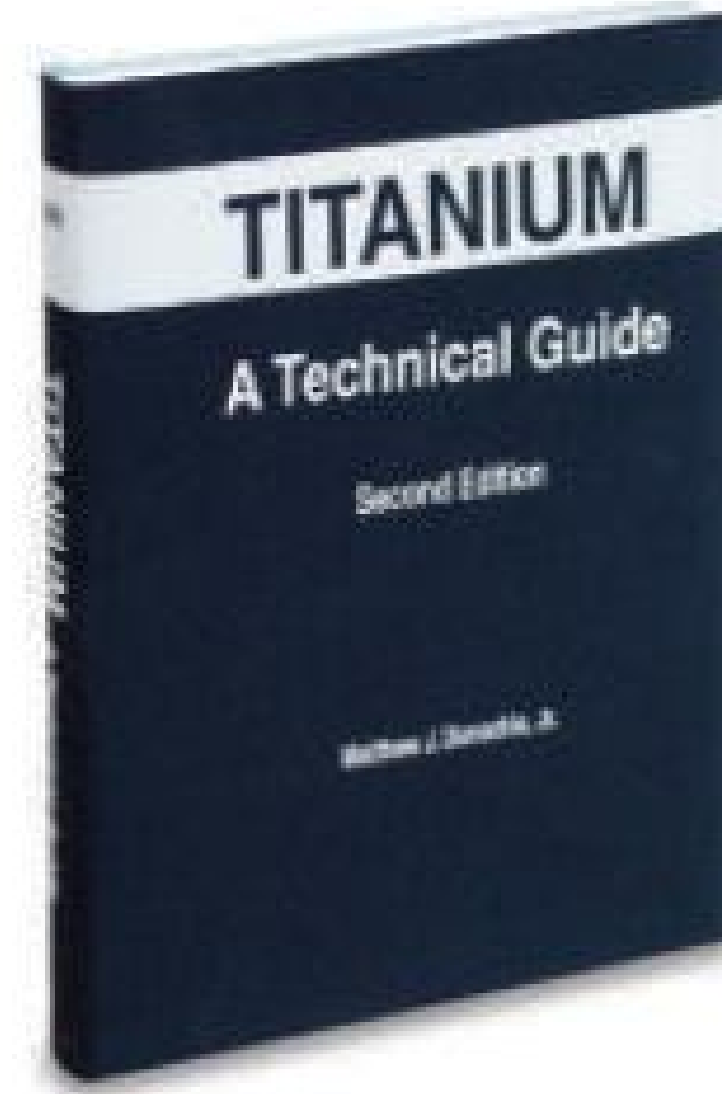
Price: \$107 / ASM Member: \$75

An introduction for understanding the compositional complexity of superalloys and the wide range of alloys developed for specific applications. The basics of alloying, strengthening mechanisms, and structure of superalloys are explained in optimizing particular mechanical properties, oxidation/corrosion resistance, and manufacturing characteristics such as castability, forgeability, and weldability.



Aluminum Quick Reference App

Find reference data on more than 200 common wrought aluminum alloy designation-tempers. Content includes typical mechanical and physical properties and chemical composition limits.



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By M.J. Donachie, Jr.

2000 • 381 pages
ISBN: 978-0-87170-686-7
Product Code: 06112G

Price: \$207 / ASM Member: \$155

Significant features of the metallurgy and application of titanium and its alloys.



Materials Properties Handbook: Titanium Alloys

Edited by R. Boyer, E.W. Collings, and G. Welsch

1994 • 1169 pages
ISBN: 978-0-87170-481-8
Product Code: 06005G

Price: \$357 / ASM Member: \$265

The most comprehensive titanium data package ever assembled. Information on applications, physical properties, corrosion, mechanical properties, fatigue, fracture properties, and elevated temperature properties.



Titanium Reference Library DVD, 2010 Edition

2010 • Almost 10,000 pages of content in PDF format

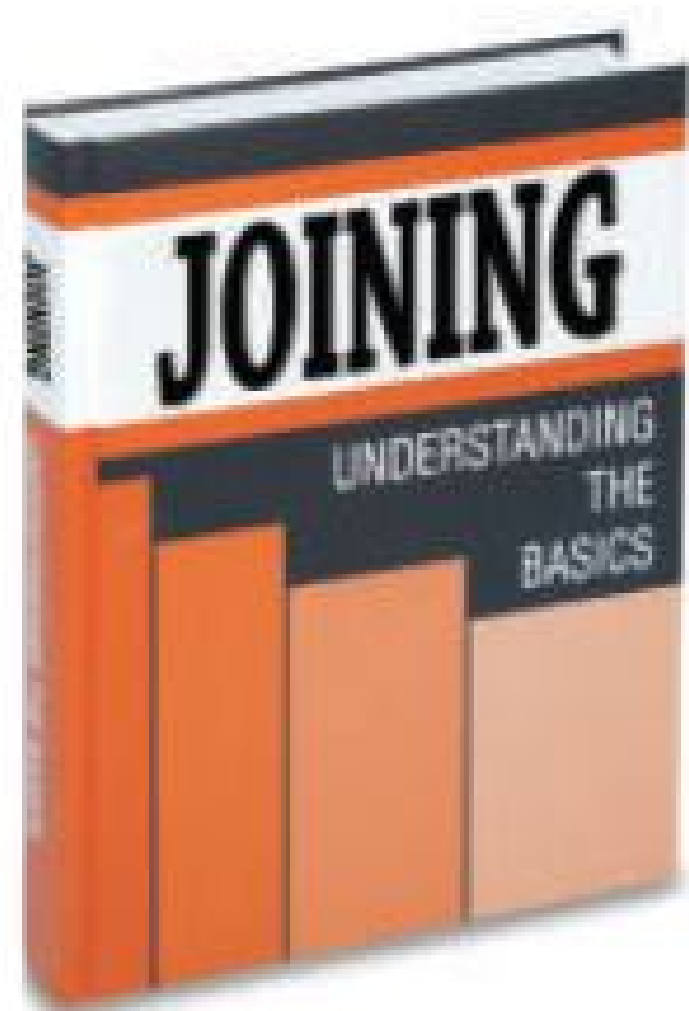
ISBN: 978-1-61503-721-6
Product Code: 05318V

Price: \$703 / ASM Member: \$601

A complete guide to the selection, designations, processing, properties, and performance of all commercial grades of pure titanium and titanium alloys. Extensive coverage for alloy Ti-6Al-4V, the industry workhorse.

The DVD can be used with any Windows platform laptop or desktop computer with a DVD drive. Articles can be printed, and text, tables, and images can be copied and pasted. Note: The files on the disc cannot be copied, so the DVD must be present in the local machine for the content to be accessed.

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Price: \$287 / ASM Member: \$215

Principles of Brazing

By David M. Jacobson and Giles Humpston

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ISBN: 978-0-87170-812-0
Product Code: 05123G

Price: \$167 / ASM Member: \$125

Compares joining methods, explains the fundamental parameters of brazes, and surveys the metallurgy of braze alloy systems.

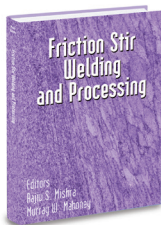
Principles of Soldering

By Giles Humpston and David M. Jacobson

2004 • 271 pages
ISBN: 978-0-87170-792-5
Product Code: 06244G

Price: \$167 / ASM Member: \$125

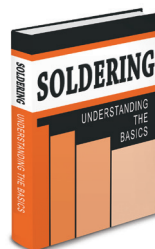
The fundamental characteristics of solders, fluxes, and joining environments and the impact these have in the selection and successful use of soldering.



Friction Stir Welding and Processing

Edited by R.S. Mishra and M.W. Mahoney
2007 • 368 pages
ISBN: 978-0-87170-840-3
Product Code: 05112G

Price: \$157 / ASM Member: \$115



Soldering: Understanding the Basics

By M.M. Schwartz
2014 • 184 pages
ISBN: 978-1-62708-058-3
Product Code: 05338G

Price: \$187 / ASM Member: \$135

Covers various soldering methods and techniques as well as the latest on solder alloys, solder films, surface preparation, fluxes and cleaning methods, heating methods, inspection techniques, and quality control and reliability.

Weld Integrity and Performance

1997 • 417 pages
ISBN: 978-0-87170-600-3
Product Code: 06593G

Price: \$207 / ASM Member: \$155

For welding engineers, welders, metallurgists, and materials science engineers involved with the application, fabrication, and assessment of welded structures. Selected articles are compiled from various ASM International publications that deal with structural welds involving important ferrous and nonferrous engineering metals and alloys.

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By M.M. Schwartz
2003 • 421 pages
ISBN: 978-0-87170-784-0
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This popular book answers practical questions that arise in the application and use of brazing technology. A current and comprehensive resource on brazing fundamentals.

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Price: \$307 / ASM Member: \$231

Each data sheet gives the chemical composition of the alloy, a listing of similar U.S. and foreign alloys, its characteristics, and the

recommended heat treating procedure. A wide variety of additional heat treating data is included, such as representative micrographs, isothermal transformation diagrams, cooling transformation diagrams, tempering curves, and data on dimensional change.

Heat Treater's Guide: Practices and Procedures for Nonferrous Alloys

1996 • 669 pages
ISBN: 978-0-87170-565-5
Product Code: 06325G

Price: \$307 / ASM Member: \$231

Quick access to recommended heat treating information for hundreds of nonferrous alloys, plus composition, trade names, common name, specifications (both U.S. and foreign), available product forms, and typical applications. Information is presented by alloy group in the datasheet format established in the companion edition on irons and steels.

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These two volumes comprise the most comprehensive collection of time-temperature diagrams. Each volume features commonly used curves as well as out-of-print and difficult-to-find data.

Irons & Steels

Edited by G. Vander Voort
1991 • 804 pages • 1,839 diagrams
ISBN: 978-0-87170-415-3
Product Code: 06150G

Price: \$307 / ASM Member: \$231

Nonferrous Alloys

Edited by G. Vander Voort
1991 • 474 pages • 500 diagrams
ISBN: 978-0-87170-428-3
Product Code: 06190G

Price: \$307 / ASM Member: \$231



Atmosphere Heat Treatment: Principles, Applications, Equipment, Volume 1

By Daniel H. Herring • Publisher: BNP Media
2014 • 700 pages
ISBN: 978-0-692-28393-6
Product Code: 75149G

Price: \$162.99 / ASM Member \$145.49

This comprehensive resource emphasizes fundamental principles, materials, metallurgy, applications, and equipment. The focus is on the needs of heat treating and engineering practitioners working in the field. It provides practical advice, a diverse set of application examples, and a wide range of technical and engineering information necessary to make informed decisions about how to heat treat and what equipment and features are necessary to do the job.

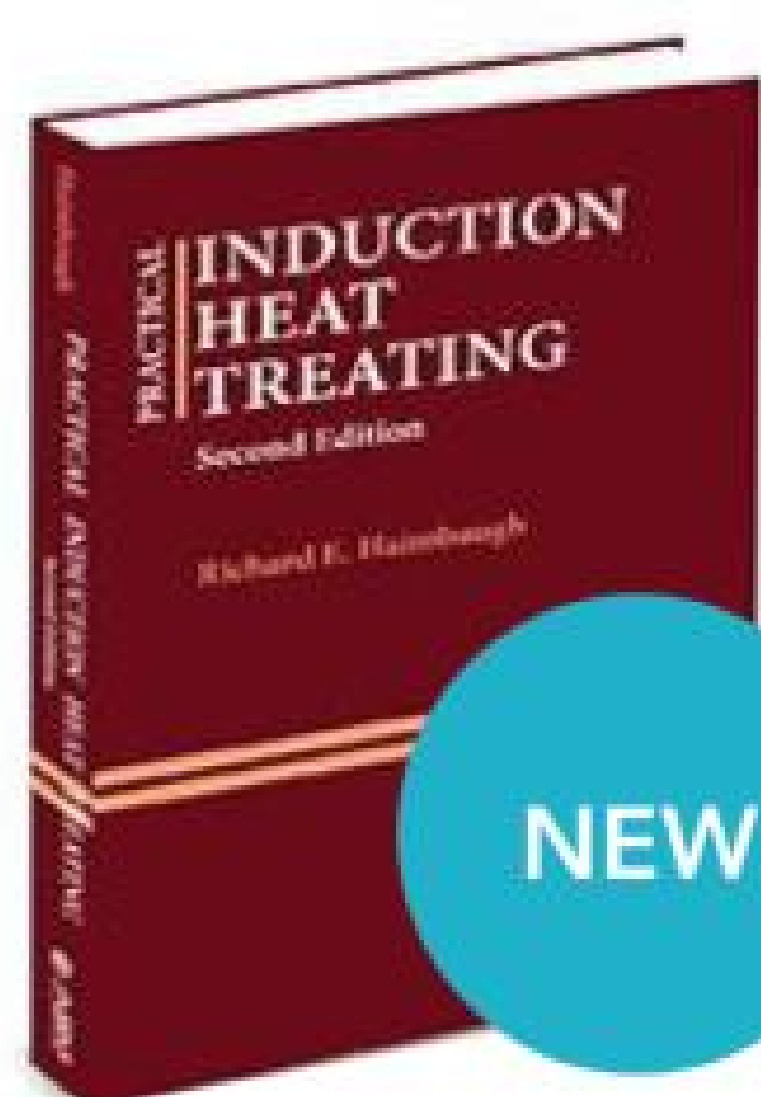


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Heat Treater's Guide Companion

Quick reference data on more than 430 steel, aluminum, and magnesium alloys. Use by itself or as a companion to the Heat Treater's Guide print and online database products. Published by ASM and the Heat Treating Society.



Practical Induction Heat Treating, Second Edition

By R.E. Haimbaugh

2015 • 365 pages

ISBN: 978-1-62708-089-7

Product Code: 05505G

Price: \$207 / ASM Member: \$155

This book is a quick reference source for induction heaters and ties-in the metallurgy, theory, and practice of induction heat treating

from a hands-on explanation of what floor people need to know. New material has been added including updated information on quenching methods, applications, inspection for quality control, and updated material on power supplies.

Heat Treatment of Gears: A Practical Guide for Engineers

By A.K. Rakhit

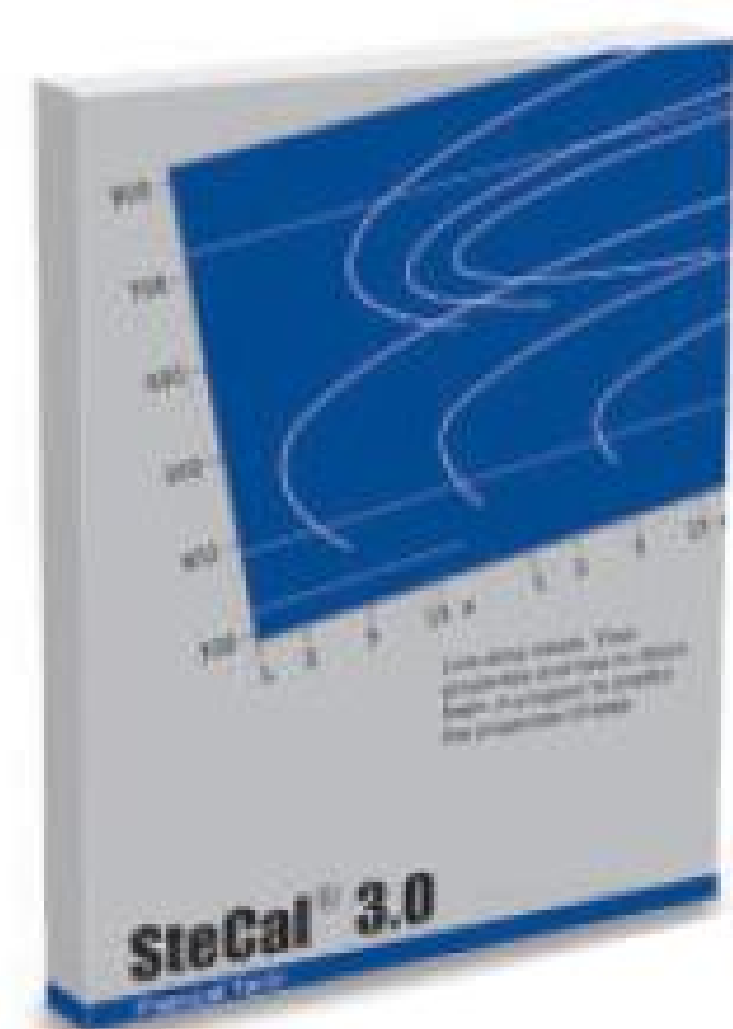
2000 • 209 pages

ISBN: 978-0-87170-694-2

Product Code: 06732G

Price: \$167 / ASM Member: \$125

Heat treat distortion of gears is discussed in detail for the major heat treat processes. A case history of each successful gear heat treat process is included.



SteCal® 3.0 (CD + Booklet)

By P. Tarin and J. Pérez

2004 • Microsoft Windows format

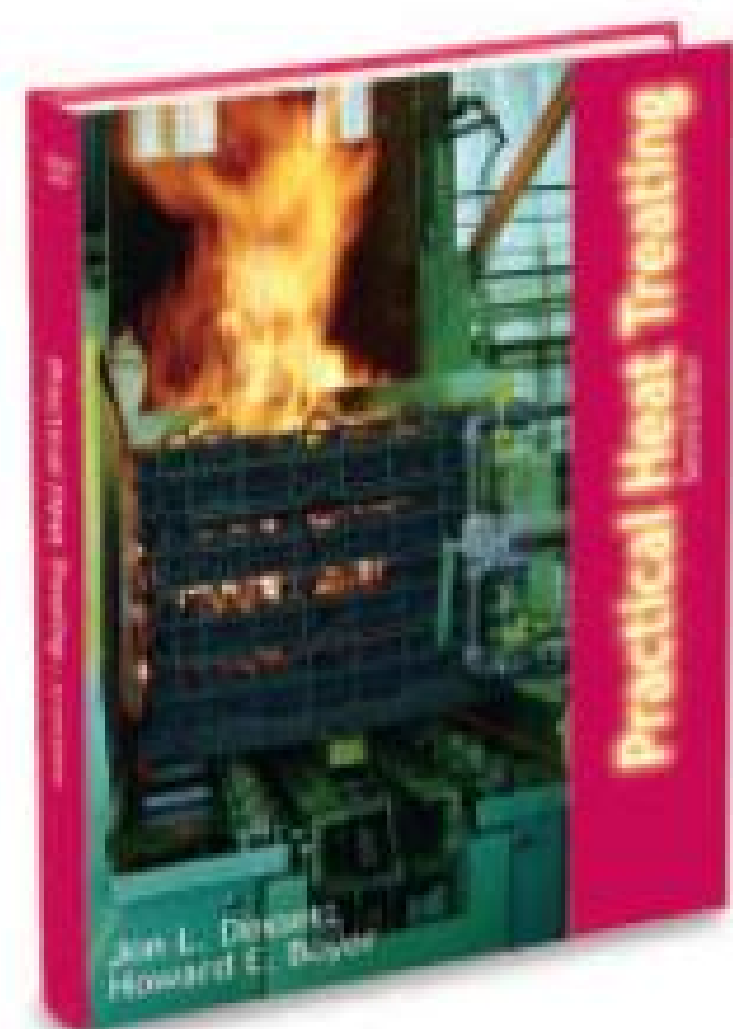
ISBN: 978-0-87170-796-3

Product Code: 07482A

Price: \$447 / ASM Member: \$335

Use for predicting the properties obtained from heat treating low-alloy steels. An excellent tool for heat treaters to use in estimating and refining heat treating parameters for unfamiliar steels, or

comparing the properties of two steels of different composition to arrive at the most appropriate composition for a particular application.



Practical Heat Treating, 2nd Edition

By J.L. Dossett and H.E. Boyer

2006 • 296 pages

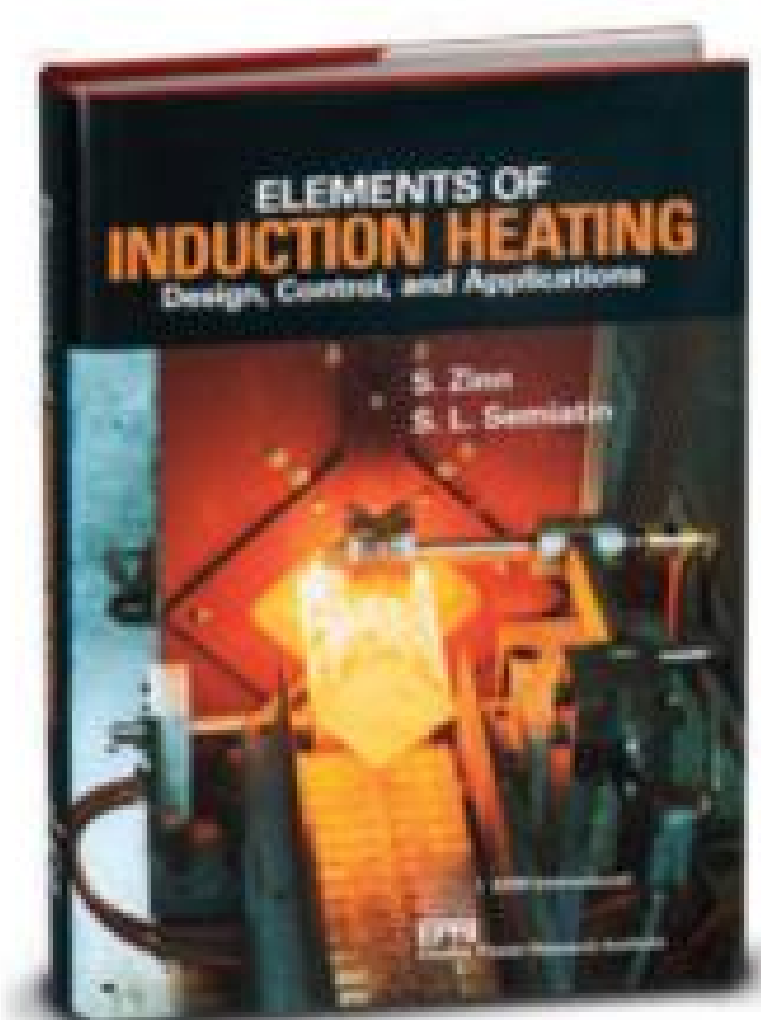
ISBN: 978-0-87170-829-8

Product Code: 05144G

Price: \$147 / ASM Member: \$105

An excellent introduction and guide for design and manufacturing engineers, technicians, students, and others who need to understand why heat treatment

is specified and how different processes are used to obtain desired properties. Clear, concise, and non-theoretical language.



Elements of Induction Heating: Design, Control, & Applications

By S. Zinn, S.L. Semiatin

1988 • 335 pages

ISBN: 978-0-87170-308-8

Product Code: 06522G

Price: \$107 / ASM Member: \$75

Surface Hardening of Steels: Understanding the Basics

Edited by J.R. Davis

2002 • 364 pages

ISBN: 978-0-87170-764-2

Product Code: 06952G

Price: \$147 / ASM Member: \$105

A practical selection guide to help engineers and technicians choose the most efficient surface hardening techniques that offer consistent and repeatable results. Emphasis is placed on processing temperature, case/coating thickness, bond strength, and hardness level obtained.

Heat Treating Reference Library DVD, 2012 Edition

2012 • ASM International

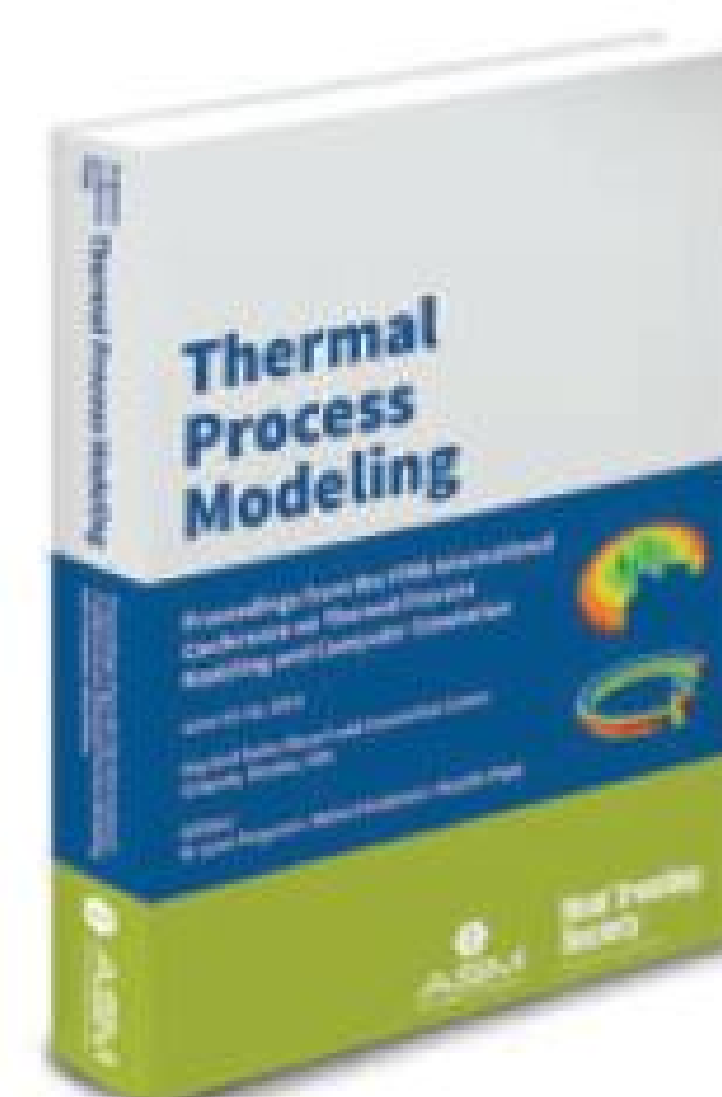
ISBN: 978-1-61503-840-4

Product Code: 05347V

Price: \$703 / ASM Member: \$601

A complete guide to the heat treating of steels and nonferrous alloys. More than 3000 articles, data sheets, and diagrams from the ASM Handbook and other authoritative sources—more than 15,000 pages of content.

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Thermal Process Modeling: Proceedings of the 5th International Conference on Thermal Process Modeling and Computer Simulation

Edited by B.L. Ferguson, R. Goldstein, and R. Papp

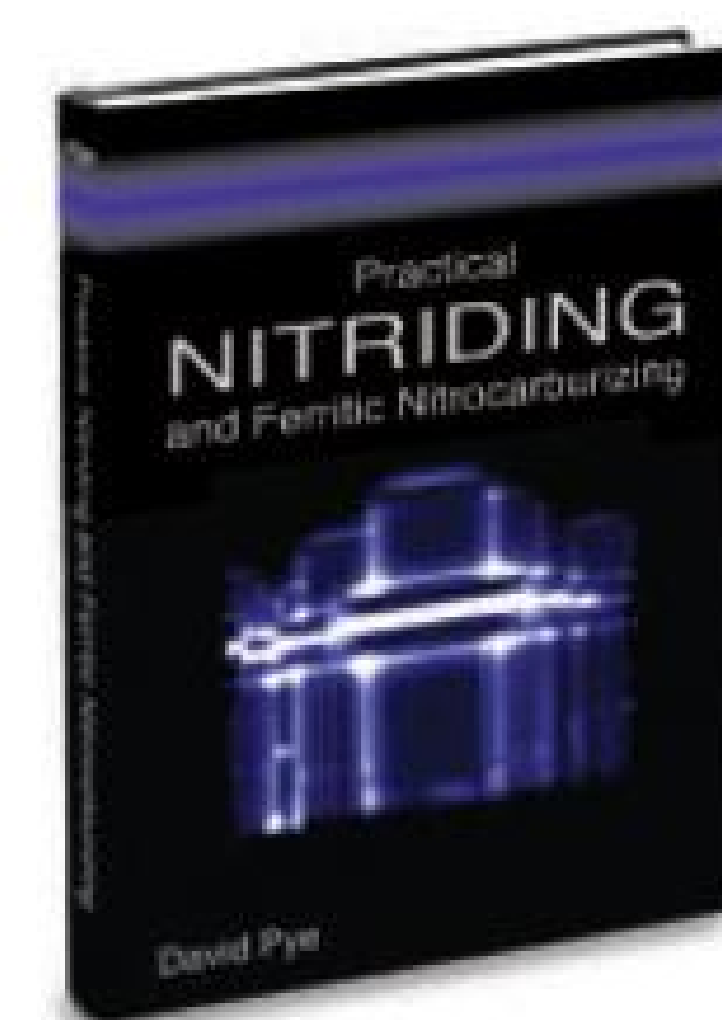
2014 • 329 pages

ISBN: 978-1-62708-068-2

Product Code: 05447G

Price: \$168 / ASM Member: \$139

This collection of papers represents the heart of the 5th International Conference on Thermal Process Modeling and Computer Simulation. Thermal processes are key manufacturing steps in producing durable and useful products, with solidification, welding, heat treating, and surface engineering being primary steps.



Practical Nitriding and Ferritic Nitrocarburizing

By David Pye

2003 • 256 pages

ISBN: 978-0-87170-791-8

Product Code: 06950G

Price: \$207 / ASM Member: \$155

Nitriding and ferritic nitrocarburizing offer unique advantages over other surface hardening heat treatments. This book will help you to understand these processes, select the appropriate process and process parameters, control the process, evaluate results, and troubleshoot.

ASM Heat Treating Society Welcomes You.

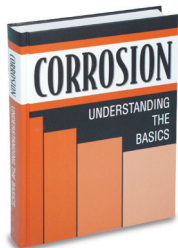
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Corrosion: Understanding the Basics

Edited by J.R. Davis
2000 • 563 pages
ISBN: 978-0-87170-641-6
Product Code: 06691G

Price: \$197 / ASM Member: \$145

A "how to" approach to understanding and solving the problems of corrosion of structural materials. Written for those with limited technical background. Provides more experienced engineers with a useful overview of the principles of corrosion and can be used as a general guide for developing a corrosion-control program.



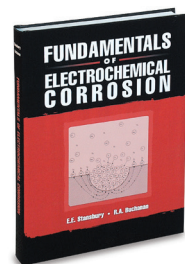
Handbook of Corrosion Data, 2nd Edition

Edited by B. Craig and D. Anderson
1995 • 998 pages
ISBN: 978-0-87170-518-1
Product Code: 06407G

Price: \$307 / ASM Member: \$231

Includes "Corrosion of Metals and Alloys" and "Corrosion Media." The first part contains summaries on the general corrosion characteristics of major metals and alloys in

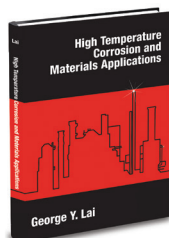
various corrosion environments. The second part is organized alphabetically by chemical compound and the data for each corrosive agent/compound are in tabular form.



Fundamentals of Electrochemical Corrosion

By E.E. Stansbury and R.A. Buchanan
2000 • 487 pages
ISBN: 978-0-87170-676-8
Product Code: 06594G

Price: \$157 / ASM Member: \$115

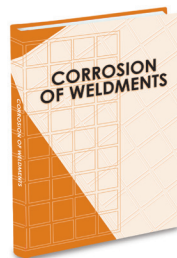


High-Temperature Corrosion and Materials Applications

By George Y. Lai
2007 • 480 pages
ISBN: 978-0-87170-853-3
Product Code: 05208G

Price: \$237 / ASM Member: \$175

Covers oxidation, nitridation, carburization and metal dusting, corrosion by halogen and halides, sulfidation, erosion and erosion-corrosion, hot corrosion in gas turbines, boilers and furnaces, stress-assisted corrosion and cracking, molten salt corrosion, liquid metal corrosion and embrittlement, and hydrogen attack.

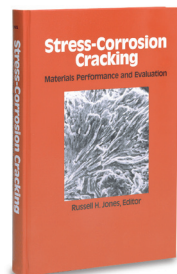


Corrosion of Weldments

Edited by J.R. Davis
2006 • 236 pages
ISBN: 978-0-87170-841-0
Product Code: 05182G

Price: \$207 / ASM Member: \$155

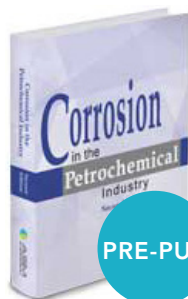
Details the many forms of weld corrosion and the methods used to minimize weld corrosion.



Stress-Corrosion Cracking: Materials Performance and Evaluation

Edited by R.H. Jones
1992 • 448 pages
ISBN: 978-0-87170-441-2
Product Code: 06355G

Price: \$207 / ASM Member: \$155



Corrosion in the Petrochemical Industry, Second Edition

Edited by Victoria Burt
2015 • Approx. 500 pages
ISBN: 978-1-62708-094-1
Product Code: 05503G

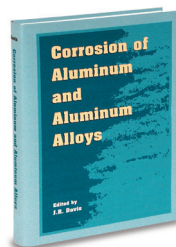
A comprehensive guide to understanding and preventing corrosion in the petrochemical industry. Written for engineers, production managers and technicians, this book explains how to select the best material for a corrosion-sensitive petrochemical application, and how to choose among various prevention methods.

Included in the second edition are new articles on corrosion inhibitors and high-temperature environments.

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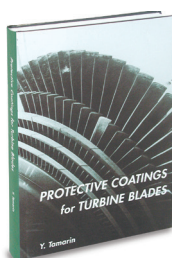


Corrosion of Aluminum and Aluminum Alloys

Edited by J.R. Davis
1999 • 313 pages
ISBN: 978-0-87170-629-4
Product Code: 06787G

Price: \$167 / ASM Member: \$125

COATINGS & SURFACE ENGINEERING



Protective Coatings for Turbine Blades

By Y. Tamarin
2002 • 244 pages
ISBN: 978-0-87170-759-8
Product Code: 06738G

Price: \$53 / ASM Member: \$42

Addresses the problem of surface protection for aircraft engine turbine blades. Based on the author's 30+ years of work on the development and application of coatings to protect against oxidation and hot corrosion. Describes and details a methodology for optimizing turbine blade surface protection.

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Volume 5B: Protective Organic Coatings

Edited by Kenneth B. Tator

2015 • Approx. 590 pages
ISBN: 978-1-62708-081-1
Product Code: 05437G

Price: \$297 / ASM Member: \$225

This completely new volume addresses a need for comprehensive information on organic coatings, including coating materials, surface preparation, application processes, industrial uses, and coating evaluation and analysis methods. This volume is essential for industrial coating users, specifiers, and contractors. The content in this volume has been written and reviewed by leading industry experts, making this latest ASM Handbook the definitive resource on this important topic. Plus, Volume 5B is the first volume in the ASM Handbook series to be printed in full color.



Surface Engineering for Corrosion and Wear Resistance

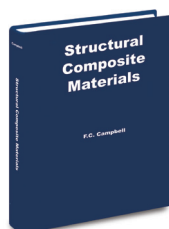
Edited by J.R. Davis

2001 • 279 pages
Co-published by IOM Communications and ASM International
ISBN: 978-0-87170-700-0
Product Code: 06835G

Price: \$107 / ASM Member: \$75

Provides practical information to help engineers select the best possible surface treatment for a specific corrosion or wear application. Covers process comparisons, and dozens of useful tables and figures compare surface treatment thickness and hardness ranges; abrasion and corrosion resistance; processing time, temperature, and pressure; costs; distortion tendencies; and other critical process factors and coating characteristics.

PLASTICS, COMPOSITES & CERAMICS



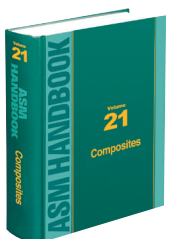
Structural Composite Materials

By F.C. Campbell

2010 • 630 pages
ISBN: 978-1-61503-037-8
Product Code: 05287G

Price: \$167 / ASM Member: \$125

All aspects of continuous and discontinuous fiber-reinforced polymer, metal, and ceramic composites are described in terms of fabrication, properties, design, analysis, and in-service performance.



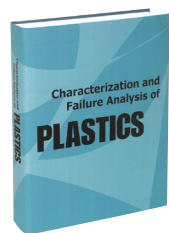
Volume 21: Composites

Edited by D.B. Miracle and S.L. Donaldson

2001 • 1201 pages
ISBN: 978-0-87170-703-1
Product Code: 06781G

Price: \$297 / ASM Member: \$225

See page 4 for more information.



Characterization and Failure Analysis of Plastics

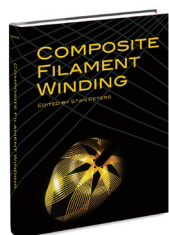
2003 • 482 pages

ISBN: 978-0-87170-789-5
Product Code: 06978G

Price: \$247 / ASM Member: \$185

Covers the performance of plastics and how it is characterized during design, property testing, and failure analysis. Selected by *Choice* magazine for its excellence in scholarship and presentation, the

significance of its contribution to the field, and value as an important treatment of the subject.



Composite Filament Winding

Edited by S.T. Peters

2011 • 174 pages
ISBN: 978-1-61503-722-3
Product Code: 05286G

Price: \$167 / ASM Member: \$125

Topics include capabilities and limitations of filament winding, practical issues such as fiber and resin handling, winding theory, software and numerical control, history of the process, and more.



Optical Microscopy of Fiber-Reinforced Composites

By Brian S. Hayes and Luther M. Gammon

2010 • 284 pages
ISBN: 978-1-61503-044-6
Product Code: 05303G

Price: \$177 / ASM Member: \$135

Optical microscopy is one of the most valuable but under-utilized tools for analyzing fiber-reinforced polymer matrix composites. Covers sample preparation, microscopic techniques, and applications. The power to study the microstructure of heterogeneous, anisotropic materials is illustrated with over 180 full color images.

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1988 • 883 pages
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1990 • 893 pages
ISBN: 978-0-87170-281-4
Product Code: 06012G
Price: \$207 / ASM Member: \$155

Volume 4: Ceramics and Glasses

1991 • 1217 pages
ISBN: 978-0-87170-282-1
Product Code: 06912G
Price: \$207 / ASM Member: \$155



NEW

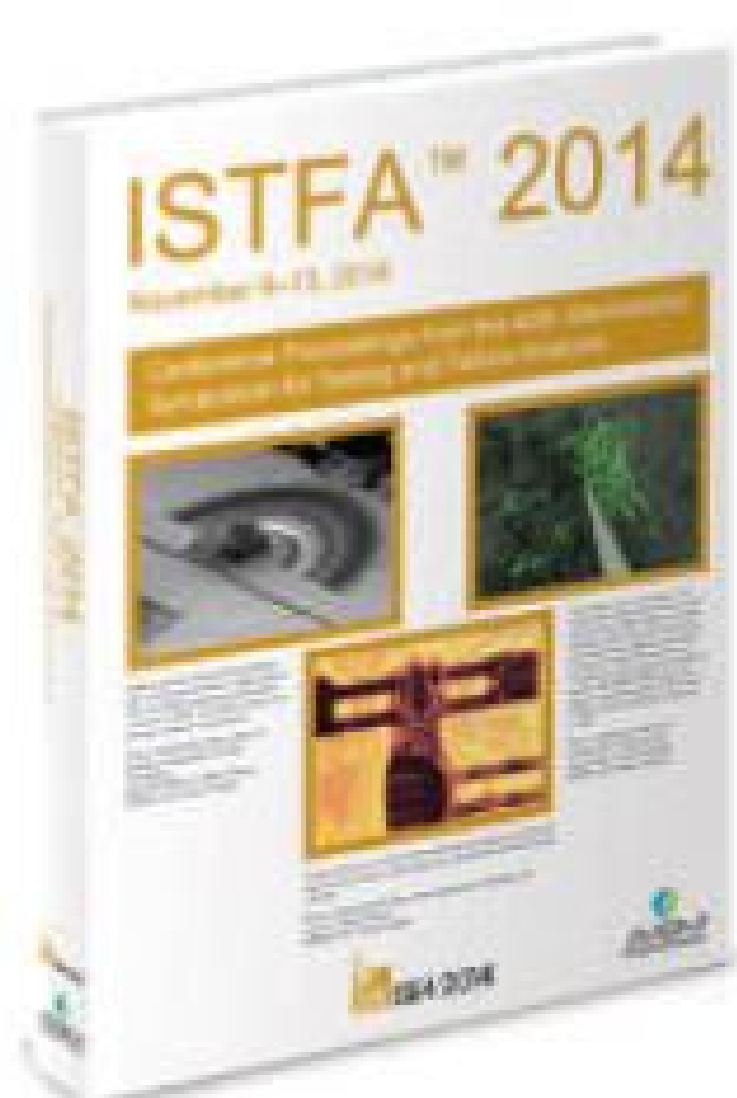
ISTFA™ 2015

Proceedings from the 41st International Symposium for Testing and Failure Analysis

2015 • Approx. 500 pages
ISBN: 978-1-62708-102-3
Product Code: 02217G

Price: \$167 / ASM or EDFASSM Member: \$125

This volume features the latest research and practical data from the premier event for the microelectronics failure analysis community. The papers address the symposium's theme, Follow the Data!



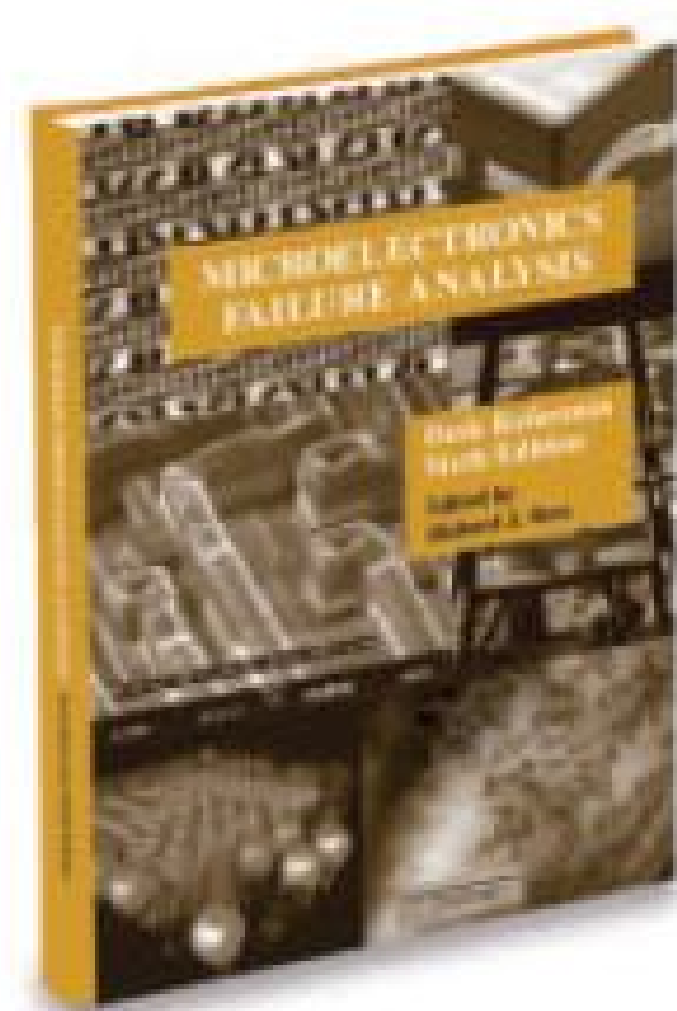
ISTFA™ 2014

Proceedings from the 40th International Symposium for Testing and Failure Analysis

2014 • 560 pages
ISBN: 978-1-62708-074-3
Product Code: 02216G

Price: \$167 / ASM or EDFASSM Member: \$125

This volume features the latest research and practical data from the premier event for the microelectronics failure analysis community. The papers address the symposium's theme, Exploring the Many Facets of Failure Analysis.

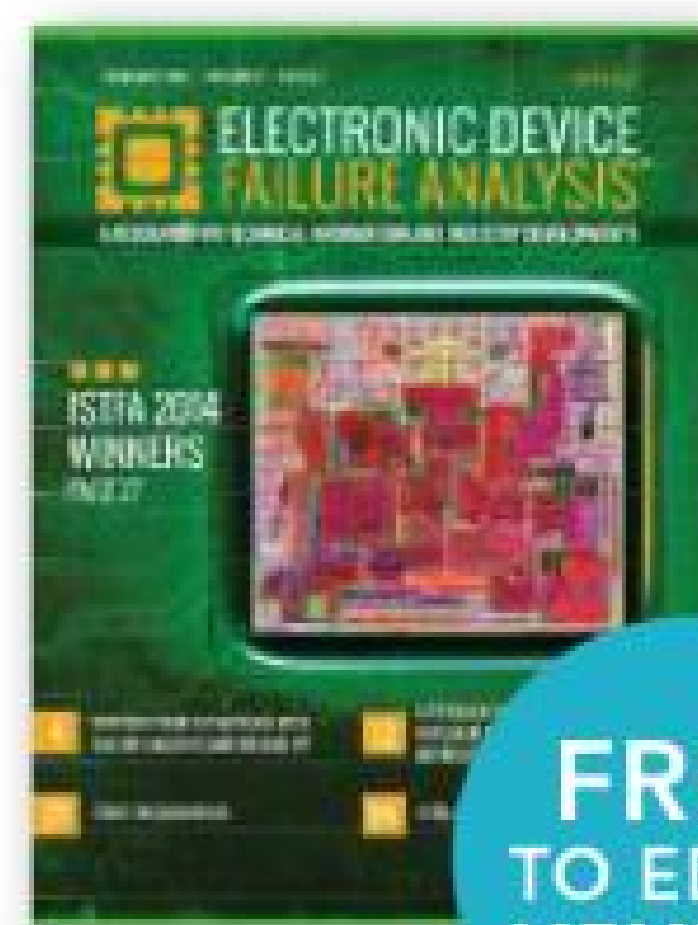


Microelectronics Failure Analysis Desk Reference, 6th Edition (Book + CD)

Edited by Richard J. Ross
2011 • 674 pages
ISBN: 978-1-61503-725-4
Product Code: 09110Z

Price: \$207 / ASM or EDFASSM Member: \$155

This updated reference book, prepared by experts in their fields, contains dozens of articles covering a range of topics.



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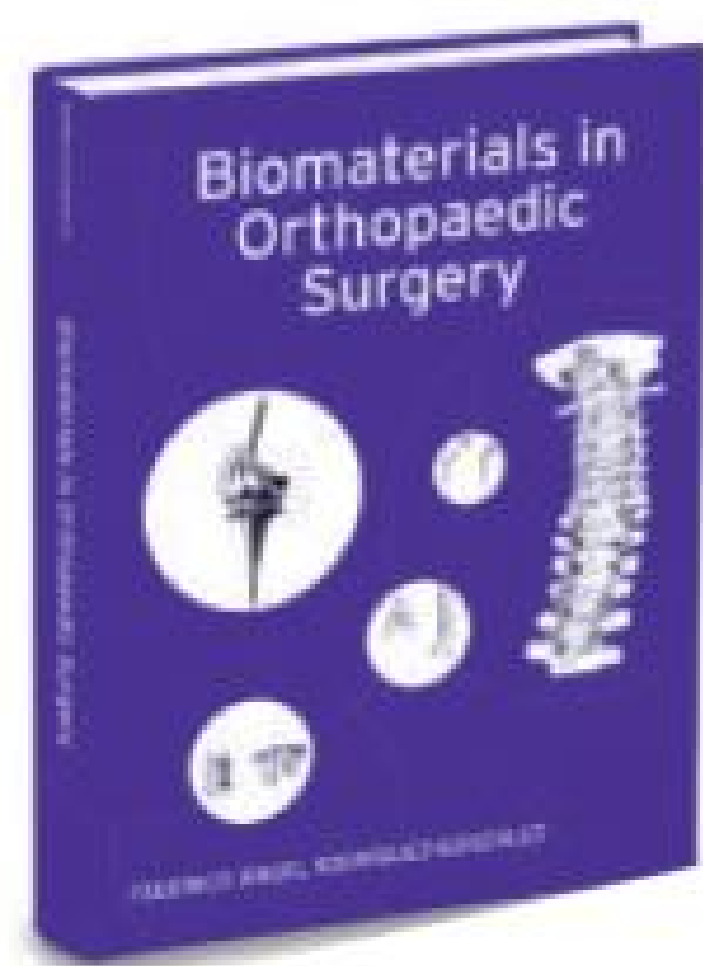
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Biomaterials in Orthopaedic Surgery

By Federico Ángel Rodríguez-González
2009 • 236 pages
ISBN: 978-1-61503-009-5
Product Code: 05233G

Price: \$137 / ASM Member: \$105

Biomaterials (metallic, nonmetallic, and bone allografts) used for orthopaedic applications and the engineering and clinical aspects of their use and performance. Case studies and specific applications include internal and external bone fracture fixation, hip and knee joint replacements, spine implants and disc prostheses, and the application of structural bone allografts for patients with bone tumors.

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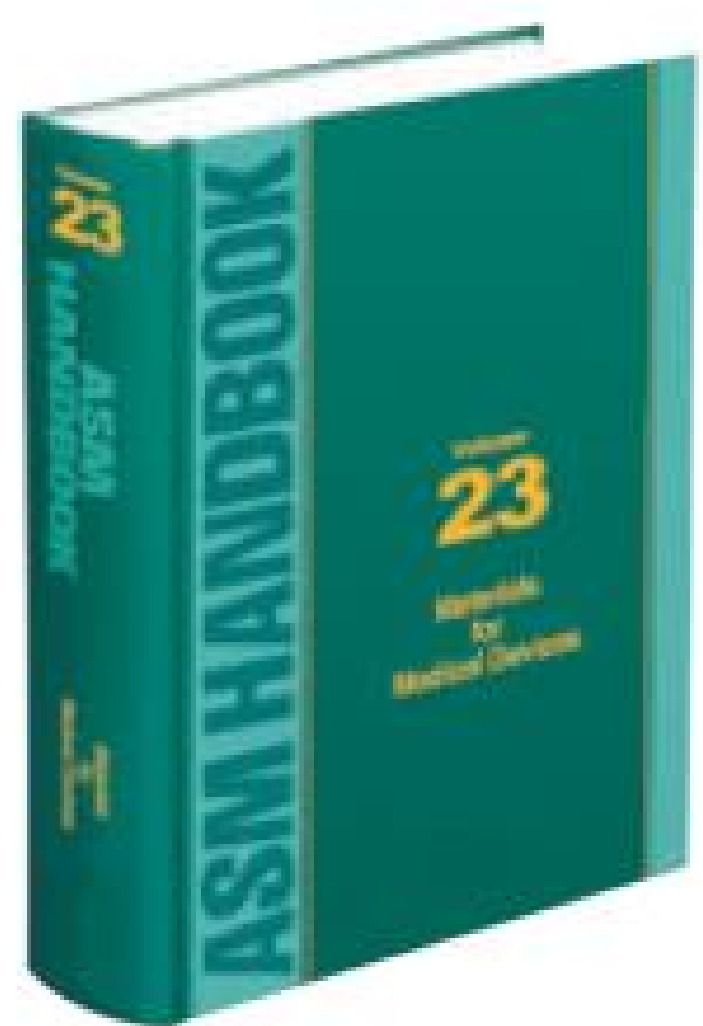
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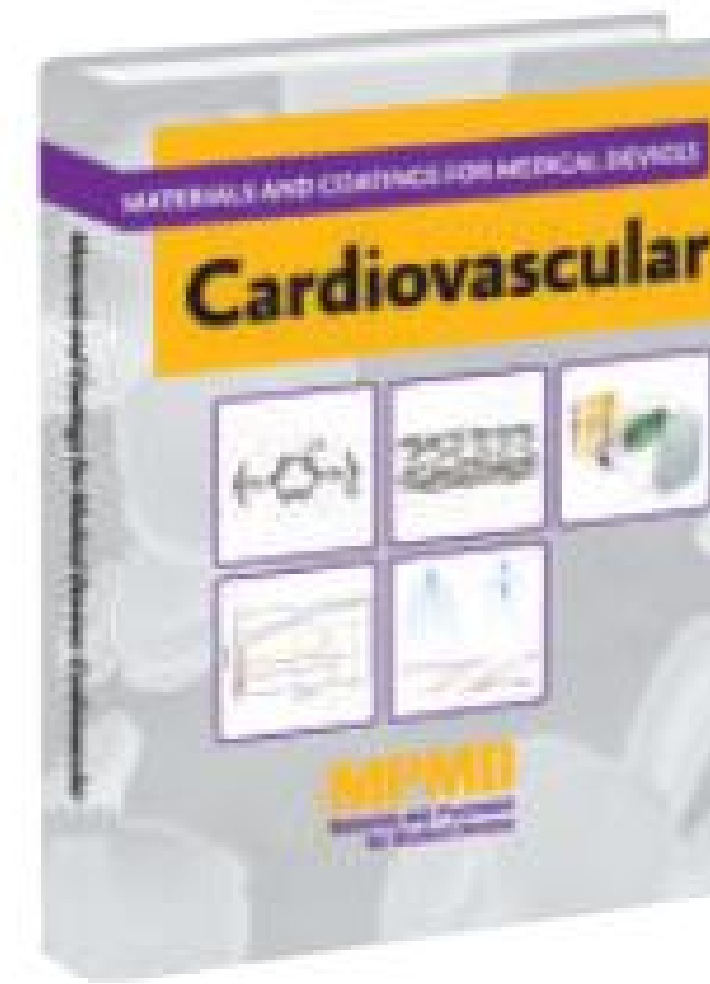
Volume 23: Materials for Medical Devices

Edited by Roger Narayan
2012 • 396 pages
ISBN: 978-1-61503-827-5
Product Code: 05285G

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State-of-the-art reference for implant materials including stainless steels, cobalt-base alloys, titanium, shape memory alloys, noble metals, ceramics, and polymers. Examples of materials- and mechanical-based failures of medical devices. Covers biotribology, implant wear, clinical wear, and biological aspects. Corrosion effects, corrosion products, mechanically assisted corrosion, and corrosion fatigue. Biocompatibility of ceramics and polymers.

Volume 23 is a replacement for the *Handbook of Materials for Medical Devices* edited by J.R. Davis (ASM, 2003). It features new content that greatly expands the scope and depth of coverage, including a more in-depth discussion of materials and focus on applications.



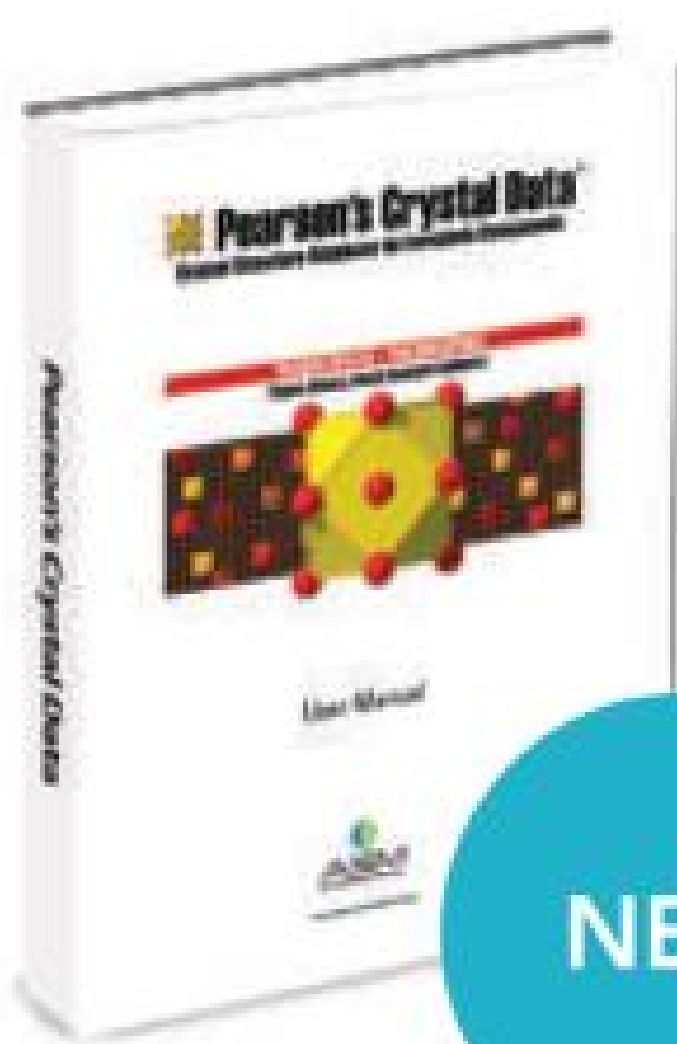
Materials and Coatings for Medical Devices: Cardiovascular

2009 • 452 pages
ISBN: 978-1-61503-000-2
Product Code: 05269G

Price: \$307 / ASM Member: \$231

A unique volume of engineering property data with detailed biological response information, in a consistent data sheet format, for the materials and coatings for cardiovascular medical devices. The emphasis is on materials and coatings used in FDA-approved implantable devices.

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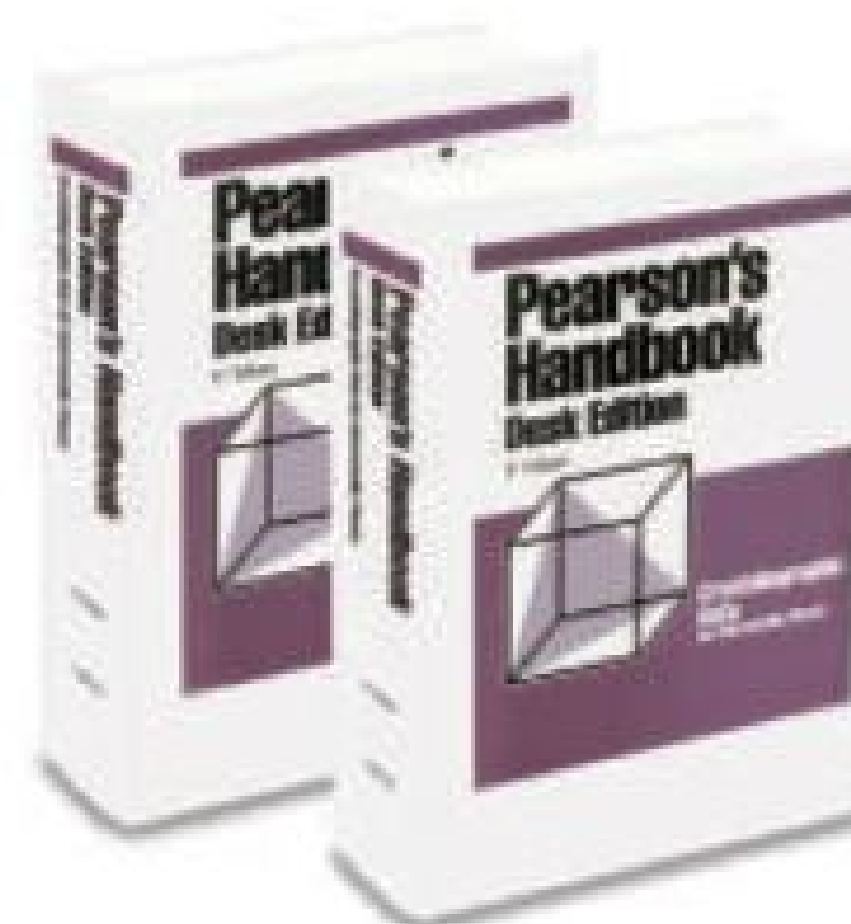


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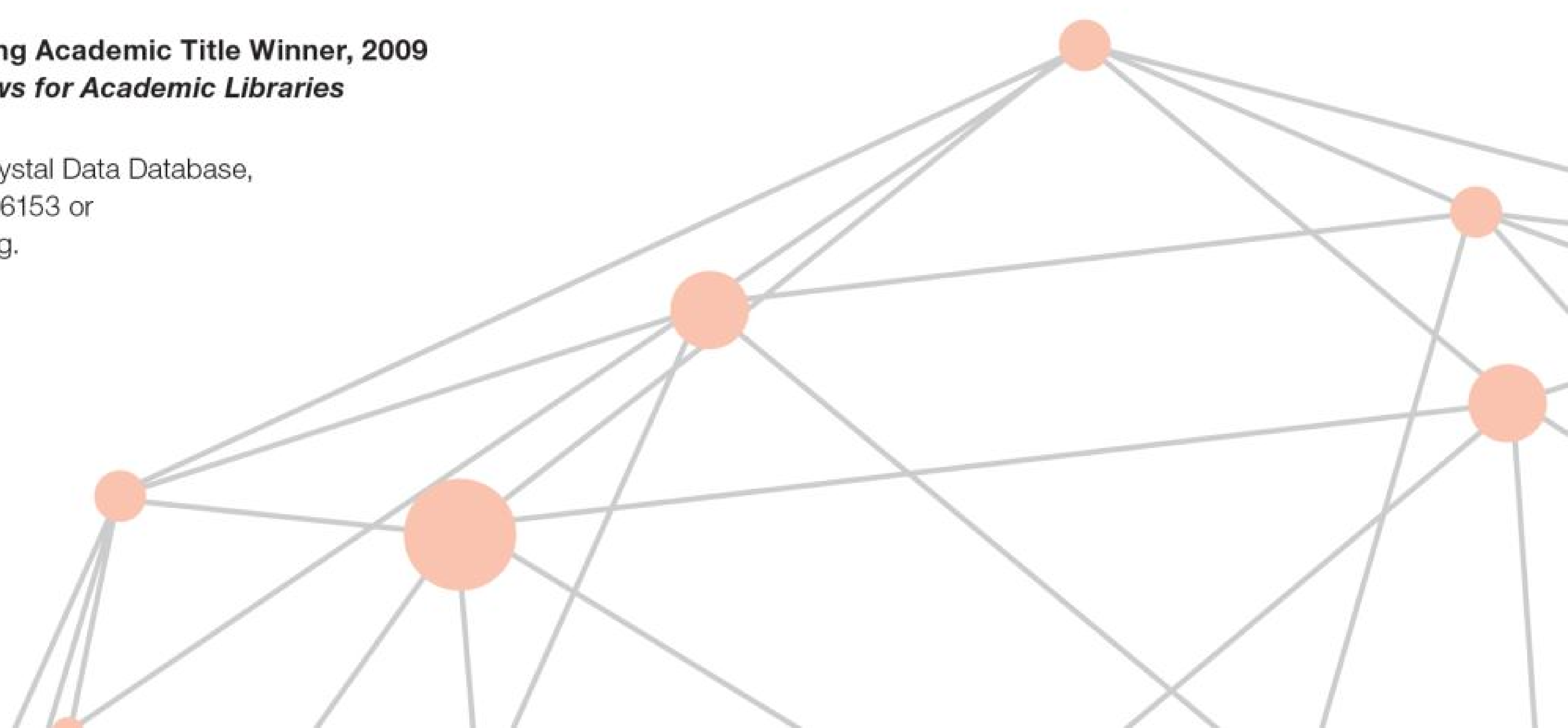
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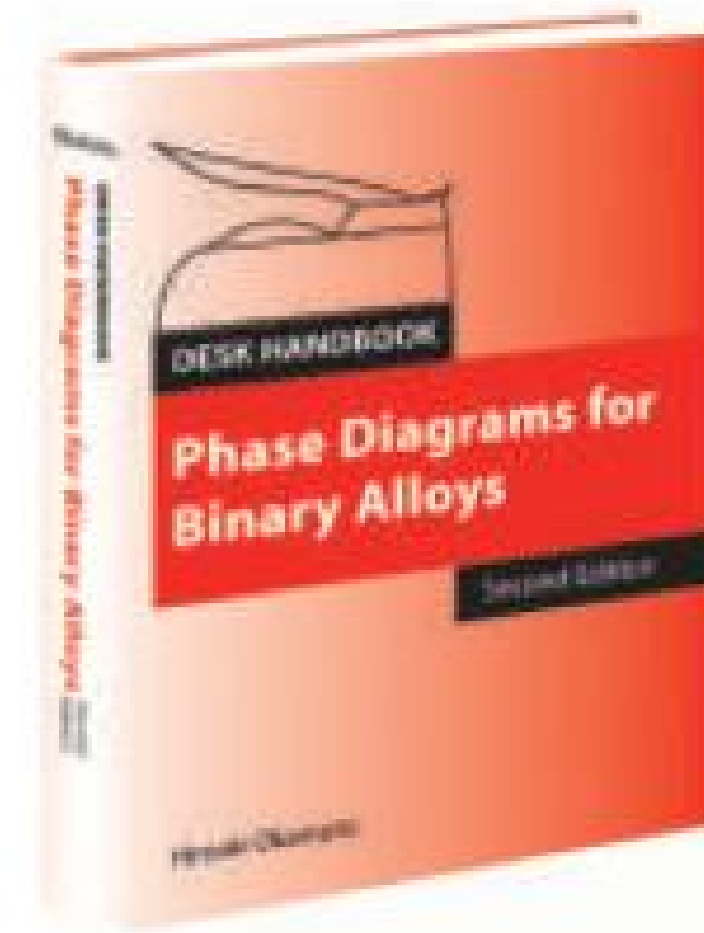
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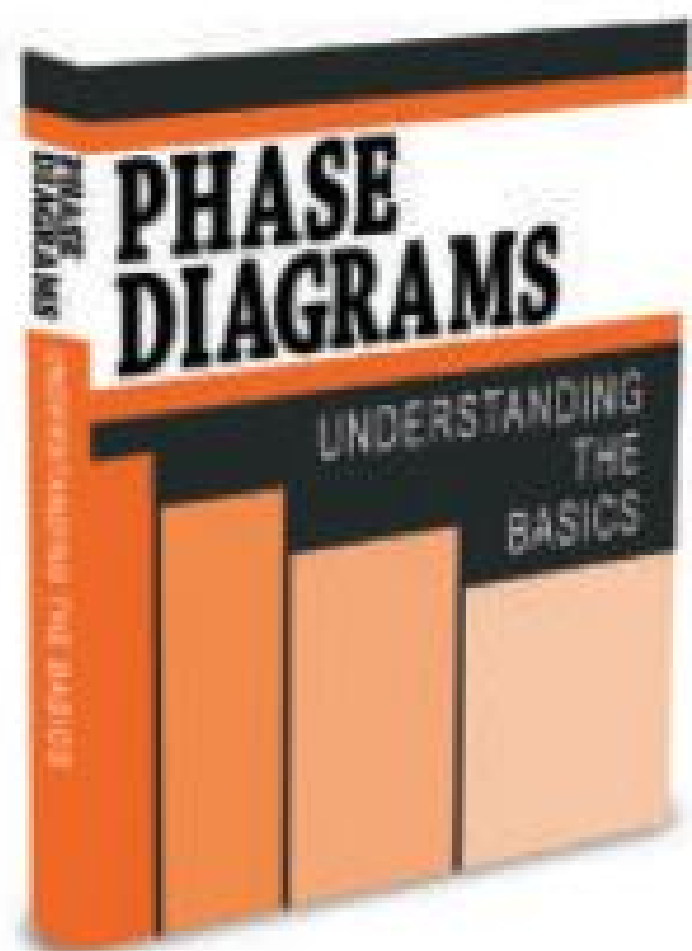
2010 • 855 pages

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2,421 diagrams of which 450 are new or greatly revised; among these 87 are not in the First Edition. Approximately 600 crystal structure tables of systems for which phase diagrams are unknown.



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Edited by F.C. Campbell

2012 • 470 pages

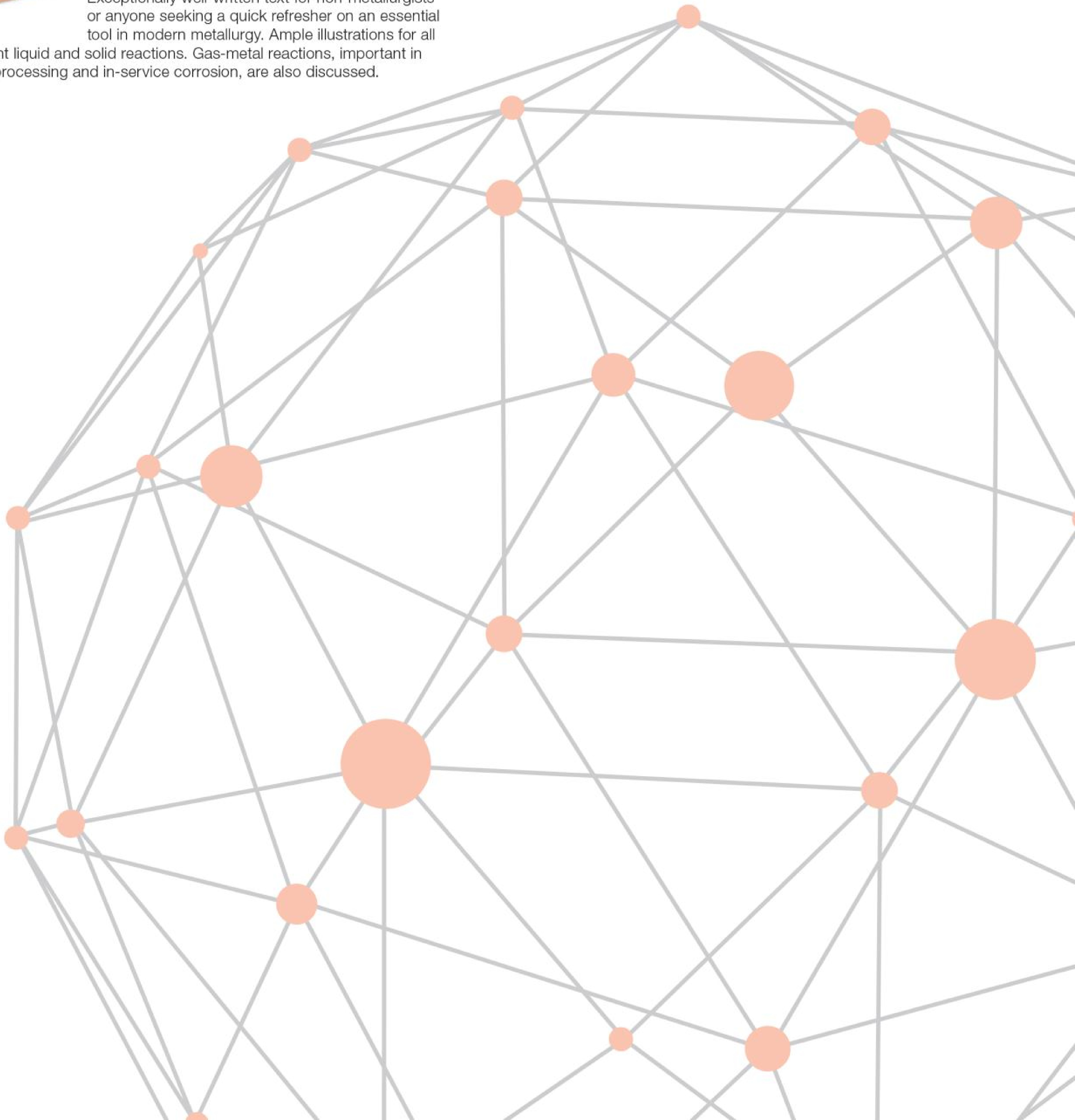
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