

Part I John Wiley Sons

A classroom-tested textbook providing a fundamental understanding of basic kinetic processes in materials. This textbook, reflecting the hands-on teaching experience of its three authors, evolved from Massachusetts Institute of Technology's first-year graduate curriculum in the Department of Materials Science and Engineering. It discusses key topics collectively representing the basic kinetic processes that cause changes in the size, shape, composition, and atomistic structure of materials. Readers gain a deeper understanding of these kinetic processes and of the properties and applications of materials. Topics are introduced in a logical order, enabling students to develop a solid foundation before advancing to more sophisticated topics. Kinetics of Materials begins with diffusion, offering a description of the elementary manner in which atoms and molecules move around in solids and liquids. Next, the more complex motion of dislocations and interfaces is addressed. Finally, still more complex kinetic phenomena, such as morphological evolution and phase transformations, are treated. Throughout the textbook, readers are instilled with an appreciation of the subject's analytic foundations and, in many cases, the approximations commonly used in the field. The authors offer many extensive derivations of important results to help illuminate their origins. While the principal focus is on kinetic phenomena in crystalline materials, select phenomena in noncrystalline materials are also discussed. In many cases, the principles involved apply to all materials. Exercises with accompanying solutions are provided throughout. Kinetics of Materials, enabling readers to put their newfound knowledge into practice. In addition, bibliographies are offered with each chapter, helping readers to investigate specialized topics in greater detail. Several appendices presenting important background material are also included. With its unique range of topics, progressive structure, and extensive exercises, this classroom-tested textbook provides an enriching learning experience for first-year graduate students.

This book provides a clear and thorough introduction to meta-analysis, the process of synthesizing data from a series of separate studies. Meta-analysis has become a critically important tool in fields as diverse as medicine, pharmacology, epidemiology, education, psychology, business, and ecology. Introduction to Meta-Analysis: Outlines the role of meta-analysis in the research process Shows how to compute effect sizes and treatment effects Explains the fixed-effect and random-effects models for synthesizing data Demonstrates how to assess and interpret variation in effect size across studies Clarifies concepts using text and figures, followed by formulas and examples Explains how to avoid common mistakes in meta-analysis Discusses controversies in meta-analysis Features a web site with additional material and exercises A superb combination of lucid prose and informative graphics, written by four of the world's leading experts on all aspects of meta-analysis. Borenstein, Hedges, Higgins, and Rothstein provide a refreshing departure from cookbook approaches with their clear explanations of the what and why of meta-analysis. The book is ideal as a course textbook or for self-study. My students, who used pre-publication versions of some of the chapters, raved about the clarity of the explanations and examples. David Rindskopf, Distinguished Professor of Educational Psychology, City University of New York, Graduate School and University Center, & Editor of the Journal of Educational and Behavioral Statistics. The approach taken by Introduction to Meta-analysis is intended to be primarily conceptual, and it is amazingly successful at achieving that goal. The reader can comfortably skip the formulas and still understand their application and underlying motivation. For the more statistically sophisticated reader, the relevant formulas and worked examples provide a superb practical guide to performing a meta-analysis. The book provides an eclectic mix of examples from education, social science, biomedical studies, and even ecology. For anyone considering leading a course in meta-analysis, or pursuing self-directed study, Introduction to Meta-analysis would be a clear first choice. Jesse A. Berlin, ScD Introduction to Meta-Analysis is an excellent resource for novices and experts alike. The book provides a clear and comprehensive presentation of all basic and most advanced approaches to meta-analysis. This book will be referenced for decades. Michael A. McDaniel, Professor of Human Resources and Organizational Behavior, Virginia Commonwealth University

Explore the essential steps for data collection, reporting, and analysis in business research Understanding Business Research offers a comprehensive introduction to the entire process of designing, conducting, interpreting, and reporting findings in the business environment. With an emphasis on the human factor, the book presents a complete set of tools for tackling complex behavioral and social processes that are a part of data collection in industry settings. Utilizing numerous real-world examples throughout, the authors begin by presenting an overview of the research process, outlining key ideas relating to the business environment, ethics, and empirical methods. Quantitative techniques and considerations that are specific to business research, including sampling and the use of assessments, surveys, and objective measures are also introduced. Subsequent chapters outline both common and specialized research designs for business data, including: Correlational Research Single Variable Between-Subjects Research Correlated Groups Designs Qualitative and Mixed-Method Research Between-Subjects Designs Between-Subjects Factorial Designs Research with Categorical Data Each chapter is organized using an accessible, comprehensive pedagogy that ensures a fluid presentation. Case studies showcase the real-world applications of the discussed topics while critical thinking exercises and Knowledge Checks supply questions that allow readers to test their comprehension of the presented material. Numerous graphics illustrate the visual nature of the research, and chapter-end glossaries outline definitions of key terms. In addition, detailed appendices provide a review of basic concepts and the most commonly used statistical tables. Requiring only a basic understanding of statistics, Understanding Business Research is an excellent book for courses on business statistics as well as business and management science research methods at the graduate level. The book is also a valuable resource for practitioners in business, finance, and management science who utilize qualitative and quantitative research methods in their everyday work.

The Compliance Revolution—Practical, Powerful Changes for Strategic Organizational Value Compliance is absolutely critical in creating a robust and resilient organization, one which is trusted by clients and contributes to market stability. Firms must approach compliance differently in order to meet these standards. Written for compliance staff, regulatory organizations, and senior management, The Compliance Revolution explains how key changes in compliance affect underlying principles, practices, roles, expectations and values. This valuable resource for global practitioners assists in navigating compliance requirements and implementing solid protection for a sound organization. Author David Jackman presents a coherent model for understanding and applying key developments in regulation and compliance. While the model is based on financial services, it can be applied to any sector and industry. It identifies five critical compliance components: Start-up, crises, expansion, sustainability, and outcomes-led focus. You will also discover: Why compliance is worth spending money on What your firm could and should be doing differently The importance of ethics in compliance and regulatory challenges How to create a pro-compliance culture Ten principles of good governance and why good governance matters How to employ judgment-based compliance The features and benefits of corporate maturity The Compliance Revolution is a crucial asset for all those with stakes in compliance—board members, compliance managers, and employees. David Jackman outlines key compliance challenges and reveals the practical tools and techniques required for successful practice. The insight, examples, and strategies in this comprehensive guidebook will help you and your organization achieve increasingly efficient, substantially more effective compliance procedures and practices.

Advancing Healthcare, Research, and Education

Fundamentals of Physics 8th Edition Part I (Chapters 1 - 11) with Wiley Plus Set

Handbook of Practical Program Evaluation

The Nature of the Mechanical Bond

Statistical and Methodological Aspects of Oral Health Research

Lithium-Sulfur Batteries

This hugely informative and wide-ranging analysis on the management of projects, past, present and future, is written both for practitioners and scholars. Beginning with a history of the discipline's development, Reconstructing Project Management provides an extensive commentary on its practices and theoretical underpinnings, and concludes with proposals to improve its relevancy and value. Written not without a hint of attitude, this is by no means simply another project management textbook. The thesis of the book is that 'it all depends on how you define the subject'; that much of our present thinking about project management as traditionally defined is sometimes boring, conceptually weak, and of limited application, whereas in reality it can be exciting, challenging and enormously important. The book draws on leading scholarship and case studies to explore this thesis. The book is divided into three major parts. Following an Introduction setting the scene, Part 1 covers the origins of modern project management – how the discipline has come to be what it is typically said to be; how it has been constructed – and the limitations of this traditional model. Part 2 presents an enlarged view of the discipline and then deconstructs this into its principal elements. Part 3 then reconstructs these elements to address the challenges facing society, and the implications for the discipline, in the years ahead. A final section reprises the sweep of the discipline's development and summarises the principal insights from the book. This thoughtful commentary on project (and program, and portfolio) management as it has developed and has been practiced over the last 60-plus years, and as it may be over the next 20 to 40, draws on examples from many industry sectors around the world. It is a seminal work, required reading for everyone interested in projects and their management.

Quantum networks build on entanglement and quantum measurement to achieve tasks that are beyond the reach of classical systems. Using quantum effects, we can detect the presence of eavesdroppers, raise the sensitivity of scientific instruments such as telescopes, or teleport quantum data from one location to another. Long-distance entanglement can be used to execute important tasks such as Byzantine agreement and leader election in fewer rounds of communication than classical systems, improving the efficiency of operations that are critical in distributed systems.

Unique in addressing two different problems – sound visualization and manipulation – in a unified way Advances in signal processing technology are enabling ever more accurate visualization of existing sound fields and precisely defined sound field production. The idea of explaining both the problem of sound visualization and the problem of the manipulation of sound within one book supports this inter-related area of study. With rapid development of array technologies, it is possible to do much in terms of visualization and manipulation, among other technologies involved with the spatial distribution of sound. This book aims to explore various basic functions for the visualization and manipulation and demonstrate to the reader how these properties determine the quality of visualization and manipulation. The first half of the book introduces some basic and general concepts and theories and the second part of the book explains a number of techniques in sound visualization and manipulation. It offers a unified presentation to two very different topics - sound field visualization techniques based on microphone arrays, and techniques for generation of controlled sound fields using loudspeaker arrays. The authors emphasize the similarities between these two physical problems and between the mathematical methods used for solving them. With extensive examples throughout the book, chapters include: Acoustic Wave Equation and its Basic Physical Measures, Acoustic Wave Equation and its Basic Physical Measures, Basic Theory of Sound Visualization, Acoustic Holography, Beamforming, Basic Theory of Sound Manipulation, Sound Focusing, and Sound Field Reproduction. The first book to combine both the visualization and manipulation of sound technologies in one comprehensive volume Presents the basic concepts using simple one dimensional cases and then extends the concept to three dimensional cases, enabling easier understanding of the fundamental concepts through the use of minimum mathematics Provides a solid understanding of associated physics as well as mathematical concepts for understanding the technologies, addressing diffraction problems in an integrated format by using Kirchhoff-Helmholtz integral equation Uses extensive examples demonstrating the benefits and drawbacks of various applications, including beamforming and acoustic holography A valuable resource for postgraduate students, acoustic engineers, audio and noise control system developers

Presents the most innovative results in carbene chemistry, setting the foundation for new discoveries and applications The discovery of stable carbenes has reinvigorated carbene chemistry research, with investigators seeking to develop carbene into new useful catalysts and ligands. Presenting the most innovative and promising areas of carbene research over the past decade, this book explores newly discovered structural, catalytic, and organometallic aspects of carbene chemistry, with an emphasis on new and emerging synthetic applications. Contemporary Carbene Chemistry features contributions from an international team of pioneering carbene chemistry researchers. Collectively, these authors have highlighted the most interesting and promising areas of investigation in the field. The book is divided into two parts: Part 1, Properties and Reactions of Carbenes, explores new findings on carbene stability, acid-base behavior, and catalysis. Carbenic structure and reactivity are examined in chapters dedicated to stable carbenes, carbodicarbenes, carbenes as guests in supramolecular hosts, tunneling in carbene and oxacarbenes reactions, and ultrafast kinetics of carbenes and their excited state precursors. Theoretical concerns are addressed in chapters on computational methods and dynamics applied to carbene reactions. Part 2, Metal Carbenes, is dedicated to the synthetic dimensions of carbenes, particularly the reactions and catalytic properties of metal carbenes. The authors discuss lithium, rhodium, ruthenium, chromium, molybdenum, tungsten, cobalt, and gold. All the chapters conclude with a summary of the current situation, new challenges on the horizon, and promising new research directions. A list of key reviews and suggestions for further reading also accompanies every chapter. Each volume of the Wiley Series on Reactive Intermediates in Chemistry and Biology focuses on a specific reactive intermediate, offering a broad range of perspectives from leading experts that sets the stage for new applications and further discoveries.

Positive Linear Systems

Contemporary Carbene Chemistry

Quantum Networking

Design, Integration and Sustainability Analysis

Breaking the Book

Understanding Business Research

A COMPANION TO THE HISTORY OF THE BOOK A COMPANION TO THE HISTORY OF THE BOOK Edited by Simon Eliot and Jonathan Rose "As a stimulating overview of the multidimensional present state of the field, the Companion has no peer." Choice "If you want to understand how cultures come into being, endure, and change, then you need to come to terms with the rich and often surprising history of the book ... Eliot and Rose have done a fine job. Their volume can be heartily recommended. " Adrian Johns, Technology and Culture From the early Sumerian clay tablet through to the emergence of the electronic text, this Companion provides a continuous and coherent account of the history of the book. A team of expert contributors draws on the latest research in order to offer a cogent, transcontinental narrative. Many of them use illustrative examples and case studies of well-known texts, conveying the excitement surrounding this rapidly developing field. The Companion is organized around four distinct approaches to the history of the book. First, it introduces the variety of methods used by book historians and allied specialists, from the long-established discipline of bibliography to newer IT-based approaches. Next, it provides a broad chronological survey of the forms and content of texts. The third section situates the book in the context of text culture as a whole, while the final section addresses broader issues, such as literacy, copyright, and the future of the book. Contributors to this volume: Michael Albin, Martin Andrews, Rob Banham, Megan L Benton, Michelle P. Brown, Marie-Françoise Cachin, Hortensia Calvo, Charles Chadwyck-Healey, M. T. Clanchy, Stephen Colclough, Patricia Crain, J. S. Edgren, Simon Eliot, John Feather, David Finkelstein, David Greetham, Robert A. Gross, Deana Heath, Lotte Hellinga, T. H. Howard-Hill, Peter Kornicki, Beth Luse, Paul Luna, Russell L. Martin III, Jean-Yves Mollier, Angus Phillips, Eleanor Robson, Cornelia Roemer, Jonathan Rose, Emile G. L. Schrijver, David J. Shaw, Graham Shaw, Claire Squires, Rietje van Vliet, James Wald, Rowan Watson, Alexis Weedon, Adriaan van der Weel, Wayne A. Wiegand, Eva Hemmungs Wirtén.

A complete study on an important class of linear dynamical systems—positive linear systems One of the most often-encountered systems in nearly all areas of science and technology, positive linear systems is a specific but remarkable and fascinating class. Renowned scientists Lorenzo Farina and Sergio Rinaldi introduce readers to the world of positive linear systems in their rigorous but highly accessible book, rich in applications, examples, and figures. This professional reference is divided into three main parts: The first part contains the definitions and basic properties of positive linear systems. The second part, following the theoretical exposition, reports the main conceptual results, considering applicable examples taken from a number of widely used models. The third part is devoted to the study of some classes of positive linear systems of particular relevance in applications (such as the Leontief model, the Leslie model, the Markov chains, the compartmental systems, and the queueing systems). Readers familiar with linear algebra and linear systems theory will appreciate the way arguments are treated and presented. Extraordinarily comprehensive, Positive Linear Systems features: * Applications from a variety of backgrounds including modeling, control engineering, computer science, demography, economics, bioengineering, chemistry, and ecology * References and annotated bibliographies throughout the book * Two appendices concerning linear algebra and linear system theory for readers unfamiliar with the mathematics used Farina and Rinaldi make no effort to hide their enthusiasm for the topics presented, making Positive Linear Systems: Theory and Applications an indispensable resource for researchers and professionals in a broad range of fields.

Biocultural or biosocial anthropology is a research approach that views biology and culture as dialectically and inextricably intertwined, explicitly emphasizing the dynamic interaction between humans and their larger social, cultural, and physical environments. The biocultural approach emerged in anthropology in the 1960s, matured in the 1980s, and is now one of the dominant paradigms in anthropology, particularly within biological anthropology. This volume gathers contributions from the top scholars in biocultural anthropology focusing on six of the most influential, productive, and important areas of research within biocultural anthropology. These are: critical and synthetic approaches within biocultural anthropology; biocultural approaches to identity, including race and racism; health, diet, and nutrition; infectious disease from antiquity to the modern era; epidemiologic transitions and population dynamics; and inequality and violence studies. Focusing on these six major areas of burgeoning research within biocultural anthropology makes the proposed volume timely, widely applicable and useful to scholars engaging in biocultural research and students interested in the biocultural approach, and synthetic in its coverage of contemporary scholarship in biocultural anthropology. Students will be able to grasp the history of the biocultural approach, and how that history continues to impact scholarship, as well as the scope of current research within the approach, and the foci of biocultural research into the future. Importantly, contributions in the text follow a consistent format of a discussion of method and theory relative to a particular aspect of the above six topics, followed by a case study applying the surveyed method and theory. This structure will engage students by providing real world examples of anthropological issues, and demonstrating how biocultural method and theory can be used to elucidate and resolve them. Key features include: Contributions which span the breadth of approaches and topics within biological anthropology from the insights granted through work with ancient human remains to those granted through collaborative research with contemporary peoples. Comprehensive treatment of diverse topics within biocultural anthropology, from human variation and adaptability to recent disease pandemics, the embodied effects of race and racism, industrialization and the rise of allergy and autoimmune diseases, and the sociopolitics of slavery and torture. Contributions and sections united by thematically cohesive threads. Clear, jargon-free language in a text that is designed to be pedagogically flexible: contributions are written to be both understandable and engaging to both undergraduate and graduate students. Provision of synthetic theory, method and data in each contribution. The use of richly contextualized case studies driven by empirical data. Through case-study driven contributions, each chapter demonstrates how biocultural approaches can be used to better understand and resolve real-world problems and anthropological issues.

Breaking the Book is a manifesto on the cognitive consequences and emotional effects of human interactions with physical books that reveals why the traditional humanities disciplines are resistant to 'digital' humanities. Explores the reasons why the traditional humanities disciplines are resistant to 'digital humanities' Reveals facets of book history, offering it as an example of how different media shape our modes of thinking and feeling Gathers together the most important book history and literary criticism concerning the hundred years leading up to the early 19th-century emergence of mass print culture Predicts effects of the digital revolution on disciplinary, expertise, and the institutional restructuring of the humanities

The Digital Patient

Laboratory Manual for Use in Introductory Geology (mineral and Rock Studies)

Ore Dressing

Synthesis, Structures, Properties, Processing, and Applications

How Compliance Needs to Change to Survive

The Compliance Revolution

A modern guide to computational models and constructive simulation for personalized patient care using the Digital Patient The healthcare industry's emphasis is shifting from merely reacting to disease to preventing disease and promoting wellness. Addressing one of the more hopeful Big Data undertakings, The Digital Patient: Advancing Healthcare, Research, and Education presents a timely resource on the construction and deployment of the Digital Patient and its effects on healthcare, research, and education. The Digital Patient will not be constructed based solely on new information from all the "omics" fields; it also includes systems analysis, Big Data, and the various efforts to model the human physiome and represent it virtually. The Digital Patient will be realized through the purposeful collaboration of patients as well as scientific, clinical, and policy researchers. The Digital Patient: Advancing Healthcare, Research, and Education addresses the international research efforts that are leading to the development of the Digital Patient, the wealth of ongoing research in systems biology and multiscale simulation, and the imminent applications within the domain of personalized healthcare. Chapter coverage includes: The visible human The physiological human The virtual human Research in systems biology Multi-scale modeling Personalized medicine Self-quantification Visualization Computational modeling Interdisciplinary collaboration The Digital Patient: Advancing Healthcare, Research, and Education is a useful reference for simulation professionals such as clinicians, medical directors, managers, simulation technologists, faculty members, and educators involved in research and development in the life sciences, physical sciences, and engineering. The book is also an ideal supplement for graduate-level courses related to human modeling, simulation, and visualization. *Absorption and Scattering of Light by Small Particles Treating absorption and scattering in equal measure, this self-contained, interdisciplinary study examines and illustrates how small particles absorb and scatter light. The authors emphasize that any discussion of the optical behavior of small particles is inseparable from a full understanding of the optical behavior of the parent material-bulk matter. To divorce one concept from the other is to render any study on scattering theory seriously incomplete. Special features and important topics covered in this book include: * Classical theories of optical properties based on idealized models * Measurements for three representative materials: magnesium oxide, aluminum, and water * An extensive discussion of electromagnetic theory * Numerous exact and approximate solutions to various scattering problems * Examples and applications from physics, astrophysics, atmospheric physics, and biophysics * Some 500 references emphasizing work done since Kerker's 1969 work on scattering theory * Computer programs for calculating scattering by spheres, coated spheres, and infinite cylinders* *This book describes the synthesis, properties, and processing methods of poly(lactic acid) (PLA), an important family of degradable plastics. As the need for environmentally-friendly packaging materials increases, consumers and companies are in search for new materials that are largely produced from renewable resources, and are recyclable. To that end, an overall theme of the book is the biodegradability, recycling, and sustainability benefits of PLA. The chapters, from a base of international expert contributors, describe specific processing methods, spectroscopy techniques for PLA analysis, and applications in medical items, packaging, and environmental use.*

Statistical and Methodological Aspects of Oral Health Research provides oral health researchers with an overview of the methodological aspects that are important in planning, conducting and analyzing their research projects whilst also providing biostatisticians with an idea of the statistical problems that arise when tackling oral health research questions. This collection presents critical reflections on oral health research and offers advice on practical aspects of setting up research whilst introducing the reader to basic as well as advanced statistical methodology. Features: An introduction to research methodology and an exposition of the state of the art. A variety of examples from oral health research. Contributions from well-known oral health researchers, epidemiologists and biostatisticians, all of whom have rich experience in this area. Recent developments in statistical methodology prompted by a variety of dental applications. Presenting both an introduction to research methodology and an exposition of the latest advances in oral health research, this book will appeal both beginning and experienced oral health researchers as well as biostatisticians and epidemiologists.

The Wiley Handbook of Christianity and Education

Sound Visualization and Manipulation

Absorption and Scattering of Light by Small Particles**Print Humanities in the Digital Age****Theory and Applications****A Companion to Buddhist Philosophy**

A guide to lithium sulfur batteries that explores their materials, electrochemical mechanisms and modelling and includes recent scientific developments Lithium Sulfur Batteries (Li-S) offers a comprehensive examination of Li-S batteries from the viewpoint of the materials used in their construction, the underlying electrochemical mechanisms and how this translates into the characteristics of Li-S batteries. The authors - noted experts in the field - outline the approaches and techniques required to model Li-S batteries. Lithium Sulfur Batteries reviews the application of Li-S batteries for commercial use and explores many broader issues including the development of battery management systems to control the unique characteristics of Li-S batteries. The authors include information on sulfur cathodes, electrolytes and other components used in making Li-S batteries and examine the role of lithium sulfide, the shuttle mechanism and its effects, and degradation mechanisms. The book contains a review of battery design and: Discusses electrochemistry of Li-S batteries and the analytical techniques used to study Li-S batteries Offers information on the application of Li-S batteries for commercial use Distills years of research on Li-S batteries into one comprehensive volume Includes contributions from many leading scientists in the field of Li-S batteries Explores the potential of Li-S batteries to power larger battery applications such as automobiles, aviation and space vehicles Written for academic researchers, industrial scientists and engineers with an interest in the research, development, manufacture and application of next generation battery technologies, Lithium Sulfur Batteries is an essential resource for accessing information on the construction and application of Li-S batteries.

Now in an accessible paperback edition, this classic work is just as relevant as when it first appeared in 1974, due to the increased use of nonlinear waves. It covers the behavior of waves in two parts, with the first part addressing hyperbolic waves and the second addressing dispersive waves. The mathematical principles are presented along with examples of specific cases in communications and specific physical fields, including flood waves in rivers, waves in glaciers, traffic flow, sonic booms, blast waves, and ocean waves from storms.

A comprehensive source that demonstrates how 21st century Christianity can interrelate with current educational trends and aspirations The Wiley Handbook of Christianity and Education provides a resource for students and scholars interested in the most important issues, trends, and developments in the relationship between Christianity and education. It offers a historical understanding of these two intertwined subjects with a view to creating a context for the myriad issues that characterize—and challenge—the relationship between Christianity and education today. Presented in three parts, the book starts with thought-provoking essays covering major issues in Christian education such as the movement away from God in American education; the Christian paradigm based on love and character vs. academic industrial models of American education; why religion is good for society, offenders, and prisons; the resurgence of vocational exploration and its integrative potential for higher education; and more. It then looks at Christianity and education around the globe—faith-based schooling in a pluralistic democracy; religious expectations in the Latino home; church-based and community-centered higher education; etc. The third part examines how humanity is determining the relationship between Christianity and education with chapters covering the use of Christian paradigm of living and learning; enrollment, student demographic, and capacity trends in Christian schools after the introduction of private schools; empirical studies on the perceptions of intellectual diversity at elite universities in the US; and more. Provides the breadth and depth of knowledge necessary to gain a sophisticated and nuanced understanding of the complex relationship between Christianity and education and its place in contemporary society A long overdue assessment of the subject, one that takes into account the enormous changes in Christian education Presents a global consideration of the subject Examines Christian education across elementary, secondary, and post-secondary levels The Wiley Handbook of Christianity and Education will be of great interest to Christian educators in the academic world, the teaching profession, the ministry, and the college and graduate level student body.

The Wiley Handbook of Diversity in Special Education is a state-of-the-art reference showcasing cutting-edge special education research with a focus on children and youth with disabilities from diverse cultural, ethnic, linguistic, and economic backgrounds. Cutting-edge special education research focusing on children and youth with disabilities from diverse cultural, ethnic, linguistic, and economic backgrounds An authoritative contribution to the field, this work charts a new path to effective interventions and sets an agenda for future research Addresses disabilities from an international perspective

Reconstructing Project Management

Statistical Analysis with Missing Data

Signal Theory Methods in Multispectral Remote Sensing

From Molecules to Machines

Catalog of Copyright Entries. Part 1. [A] Group 1. Books. New Series

Methods of Soil Analysis, Part 3

An outgrowth of the author's extensive experience teaching senior and graduate level students, this is both a thorough introduction and a solid professional reference. * Material covered has been developed based on a 35-year research program associated with such systems as the Landsat satellite program and later satellite and aircraft programs. * Covers existing aircraft and satellite programs and several future programs *An Instructor's Manual presenting detailed solutions to all the problems in the book is available from the Wiley editorial department.

A timely book on a topic that has witnessed a surge of interest over the last decade, owing in part to several novel applications, most notably in data compression and computational molecular biology. It describes methods employed in average case analysis of algorithms, combining both analytical and probabilistic tools in a single volume. * Tools are illustrated through problems on words with applications to molecular biology, data compression, security, and pattern matching. * Includes chapters on algorithms and data structures on words, probabilistic and analytical models, inclusion-exclusion principles, first and second moment methods, subadditive ergodic theorem and large deviations, elements of information theory, generating functions, complex asymptotic methods, Mellin transform and its applications, and analytic poissonization and depoissonization. * Written by an established researcher with a strong international reputation in the field.

A thorough presentation of analytical methods for characterizing soil chemical properties and processes, Methods, Part 3 includes chapters on Fourier transform infrared, Raman, electron spin resonance, x-ray photoelectron, and x-ray absorption fine structure spectroscopies, and more.

The second edition of Handbook of Practical Program Evaluation offers managers, analysts, consultants, and educators in government, nonprofit, and private institutions a valuable resource that outlines efficient and economical methods for assessing program results and identifying ways to improve program performance. The Handbook has been thoroughly revised. Many new chapters have been prepared for this edition, including chapters on logic modeling and on evaluation applications for small nonprofit organizations. The Handbook of Practical Program Evaluation is a comprehensive resource on evaluation, covering both in-depth program evaluations and performance monitoring. It presents evaluation methods that will be useful at all levels of government and in nonprofit organizations.

Linear and Nonlinear Waves

New Directions in Biocultural Anthropology

Introduction to Meta-Analysis

Proceedings of the American Society of Civil Engineers

Hawaiian Planters' Record

Using electrochemical impedance spectroscopy in a broad range of applications This book provides the background and training suitable for application of impedance spectroscopy to varied applications, such as corrosion, biomedical devices, semiconductors and solid-state devices, sensors, batteries, fuel cells, electrochemical capacitors, dielectric measurements, coatings, electrochromic materials, analytical chemistry, and imaging. The emphasis is on generally applicable fundamentals rather than on detailed treatment of applications. With numerous illustrative examples showing how these principles are applied to common impedance problems, Electrochemical Impedance Spectroscopy is ideal either for course study or for independent self-study, covering: Essential background, including complex variables, differential equations, statistics, electrical circuits, electrochemistry, and instrumentation Experimental techniques, including methods used to measure impedance and other transfer functions Process models, demonstrating how deterministic models of impedance response can be developed from physical and kinetic descriptions Interpretation strategies, describing methods of interpreting of impedance data, ranging from graphical methods to complex nonlinear regression Error structure, providing a conceptual understanding of stochastic, bias, and fitting errors in frequency-domain measurements An overview that provides a philosophy for electrochemical impedance spectroscopy that integrates experimental observation, model development, and error analysis This is an excellent textbook for graduate students in electrochemistry, materials science, and chemical engineering. It's also a great self-study guide and reference for scientists and engineers who work with electrochemistry, corrosion, and electrochemical technology, including those in the biomedical field, and for users and vendors of impedance-measuring instrumentation.

A Companion to Media Fandom and Fan Studies offers scholars and fans an accessible and engaging resource for understanding the rapidly expanding field of fan studies. International in scope and written by a team that includes many major scholars, this volume features over thirty especially-commissioned essays on a variety of topics, which together provide an unparalleled overview of this fast-growing field. Separated into five sections—Histories, Genealogies, Methodologies; Fan Practices; Fandom and Cultural Studies; Digital Fandom; and The Future of Fan Studies—the book synthesizes literature surrounding important theories, debates, and issues within the field of fan studies. It also traces and explains the social, historical, political, commercial, ethical, and creative dimensions of fandom and fan studies. Exploring both the historical and the contemporary fan situation, the volume presents fandom and fan studies as models of 21st century production and consumption, and identifies the emergent trends in this unique field of study.

AN UP-TO-DATE, COMPREHENSIVE TREATMENT OF A CLASSIC TEXT ON MISSING DATA IN STATISTICS The topic of missing data has gained considerable attention in recent decades. This new edition by two acknowledged experts on the subject offers an up-to-date account of practical methodology for handling missing data problems. Blending theory and application, authors Roderick Little and Donald Rubin review historical approaches to the subject and describe simple methods for multivariate analysis with missing values. They then provide a coherent theory for analysis of problems based on likelihoods derived from statistical models for the data and the missing data mechanism, and then they apply the theory to a wide range of important missing data problems. Statistical Analysis with Missing Data, Third Edition starts by introducing readers to the subject and approaches toward solving it. It looks at the patterns and mechanisms that create the missing data, as well as a taxonomy of missing data. It then goes on to examine missing data in experiments, before discussing complete-case and available-case analysis, including weighting methods. The new edition expands its coverage to include recent work on topics such as nonresponse in sample surveys, causal inference, diagnostic methods, and sensitivity analysis, among a host of other topics. An updated "classic" written by renowned authorities on the subject Features over 150 exercises (including many new ones) Covers recent work on important methods like multiple imputation, robust alternatives to weighting, and Bayesian methods Revises previous topics based on past student feedback and class experience Contains an updated and expanded bibliography Statistical Analysis with Missing Data, Third Edition is an ideal textbook for upper undergraduate and/or beginning graduate level students of the subject. It is also an excellent source of information for applied statisticians and practitioners in government and industry.

This combined survey of operant and classical conditioning provides professional and academic readers with an up-to-date, inclusive account of a core field of psychology research, with in-depth coverage of the basic theory, its applications, and current topics including behavioral economics. Provides comprehensive coverage of operant and classical conditioning, relevant fundamental theory, and applications including the latest techniques Features chapters by leading researchers, professionals, and academicians Reviews a range of core literature on conditioning Covers cutting-edge topics such as behavioral economics

Infrared and Raman Spectra of Inorganic and Coordination Compounds, Part A

Kinetics of Materials

Chemical Methods

The Wiley Blackwell Handbook of Operant and Classical Conditioning

Biorefineries and Chemical Processes

The Wiley Handbook of Diversity in Special Education

Highly readable paperback reprint of one of the great time-tested classics in the field of signal processing Together with the reprint of Part III and the new Part IV, this will be the most complete treatment of the subject available As imperative today as it was when it originally published Has important applications in radar, sonar, communications, seismology, biomedical engineering, and astronomy Includes section summaries, examples, and a large number of problems

As the range of feedstocks, process technologies and products expand, biorefineries will become increasingly complex manufacturing systems. Biorefineries and Chemical Processes: Design, Integration and Sustainability Analysis presents process modelling and integration, and whole system life cycle analysis tools for the synthesis, design, operation and sustainable development of biorefinery and chemical processes. Topics covered include: Introduction: An introduction to the concept and development of biorefineries. Tools: Included here are the methods for detailed economic and environmental impact analyses; combined economic value and environmental impact analysis; life cycle assessment (LCA); multi-criteria analysis; heat integration and utility system design; mathematical programming based optimization and genetic algorithms. Process synthesis and design: Focuses on modern unit operations and innovative process flowsheets. Discusses thermochemical and biochemical processing of biomass, production of chemicals and polymers from biomass, and processes for carbon dioxide capture. Biorefinery systems: Presents biorefinery process synthesis using whole system analysis. Discusses bio-oil and algae biorefineries, integrated fuel cells and renewables, and heterogeneous catalytic reactors. Companion website: Four case studies, additional exercises and examples are available online, together with three supplementary chapters which address waste and emission minimization, energy storage and control systems, and the optimization and reuse of water. This textbook is designed to bridge a gap between engineering design and sustainability assessment, for advanced students and practicing process designers and engineers.

Detection, Estimation, and Modulation Theory, Part I Detection, Estimation, and Linear Modulation Theory John Wiley & Sons

An introduction to the mechanical bond -- The fundamentals of making mechanical bonds -- Making mechanical bonds under thermodynamic control -- Molecular topologies and architectures with mechanical bonds -- The stereochemistry of the mechanical bond -- Molecular switches and machines with mechanical bonds

Poly(lactic acid)

Electrochemical Impedance Spectroscopy

A Companion to Media Fandom and Fan Studies

Theory and Applications in Inorganic Chemistry

Physics, Part II

Detection, Estimation, and Modulation Theory, Part I

A Companion to Buddhist Philosophy is the most comprehensive single volume on the subject available; it offers the very latest scholarship to create a wide-ranging survey of the most important ideas, problems, and debates in the history of Buddhist philosophy. Encompasses the broadest treatment of Buddhist philosophy available, covering social and political thought, meditation, ecology and contemporary issues and applications Each section contains overviews and cutting-edge scholarship that expands readers understanding of the breadth and diversity of Buddhist thought Broad coverage of topics allows flexibility to instructors in creating a syllabus Essays provide valuable alternative philosophical perspectives on topics to those available in Western traditions

The Sixth Edition of this classic work comprises the most comprehensive and current guide to infrared and Raman spectra of inorganic, organometallic, bioinorganic, and coordination compounds. From fundamental theories of vibrational spectroscopy to applications in a variety of compound types, this has been extensively updated. New topics include the theoretical calculations of vibrational frequencies (DFT method), chemical synthesis by matrix co-condensation reactions, time-resolved Raman spectroscopy, and more. This volume is a core reference for chemists and medical professionals working with infrared or Raman spectroscopies and an excellent textbook for graduate courses.

Detection, Estimation, and Linear Modulation Theory

A Companion to the History of the Book

Average Case Analysis of Algorithms on Sequences