

Applied Physics By Vibha Jain

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Higher Mathematics for Physics and Engineering Hiroyuki Shima 2010-04-12 Due to the rapid expansion of the frontiers of physics and engineering, the demand for higher-level mathematics is increasing yearly. This book is designed to provide accessible knowledge of higher-level mathematics demanded in contemporary physics and engineering. Rigorous mathematical structures of important subjects in these fields are fully covered, which will be helpful for readers to become acquainted with certain abstract mathematical concepts. The selected topics are: - Real analysis, Complex analysis, Functional analysis, Lebesgue integration theory, Fourier analysis, Laplace analysis, Wavelet analysis, Differential equations, and Tensor analysis. This book is essentially self-contained, and assumes only standard undergraduate preparation such as elementary calculus and linear algebra. It is thus well suited for graduate students in physics and engineering who are interested in theoretical backgrounds of their own fields. Further, it will also be useful for mathematics students who want to understand how certain abstract concepts in mathematics are applied in a practical situation. The readers will not only acquire basic knowledge toward higher-level mathematics, but also imbibe mathematical skills necessary for contemporary studies of their own fields.

Swift Heavy Ions for Materials Engineering and Nanostructuring Devesh Kumar Avasthi 2011-05-24 Ion beams have been used for decades for characterizing and analyzing materials. Now energetic ion beams are providing ways to modify the materials in unprecedented ways. This book highlights the emergence of high-energy swift heavy ions as a tool for tailoring the properties of materials with nanoscale structures. Swift heavy ions interact with materials by exciting/ionizing electrons without directly moving the atoms. This opens a new horizon towards the 'so-called' soft engineering. The book discusses the ion beam technology emerging from the non-equilibrium conditions and emphasizes the power of controlled irradiation to tailor the properties of various types of materials for specific needs.

Productivity with Health, Safety, and Environment Lakhwinder Pal Singh 2022-05-13 This volume comprises select proceedings of the International

Conference on Humanizing Work and Work Environment organized by the Indian Society of Ergonomics (HWE2019). The book presents research findings on different areas of ergonomics for developing appropriate tools and work environment considering capabilities and limitations of working people for maximum effectiveness on their performance. This volume will be of interest to academics, professionals and practitioners in the field of ergonomics.

Free Radicals in Human Health and Disease Vibha Rani 2014-11-14 The role of oxidative stress in human disease has become an area of intense interest. Free radicals, a normal product of metabolism, exist in all aerobic cells in balance with biochemical antioxidants. Environmental stress increases the levels of free radicals drastically, thereby disturbing the equilibrium between free radical production and the antioxidant capability causing oxidative stress. Over the years, ROS has been implicated in the pathologies of various diseases like cancer, neurological disorder, cardiovascular diseases rheumatoid arthritis, diabetes etc. This book provides an in depth critical state-of-art reviews from established investigators on free radicals, ROS associated pathogenesis of human diseases, biomarkers of oxidative damage, antioxidants, phytonutrients and other related health concerns of modern society. The present book is aimed at graduate students, researchers in academia, industry and clinicians with the interest in redox biology. Special attention has been devoted to the topic of ROS signalling, oxidative stress induced human pathologies & antioxidative therapies. The book consists of four parts in specified topics based on the current literatures for the better understanding of the readers with respect to their subject-wise interests. The first section of the book provides an overview about the ROS production and their measuring tools and techniques followed by the mechanisms involved in the oxidative stress in the second section. The third section describes the involvement of oxidative stress in different human diseases and the last section focuses on the different strategies to ameliorate oxidative stress induced stress.

A Concise Handbook of Mathematics, Physics, and Engineering Sciences Andrei D. Polyani 2010-10-18 A Concise Handbook of Mathematics, Physics, and Engineering Sciences takes a practical approach to the basic notions, formulas, equations, problems, theorems, methods, and laws that most frequently occur in scientific and engineering applications and university education. The authors pay special attention to issues that many engineers and students

Alberuni's India Muḥammad ibn Aḥmad Bīrūnī 1910

The Eleven Pictures of Time C K Raju 2003-09-11 'Magnificent, a true magnum opus....A tremendously important piece of work.... A truly revolutionary book (not merely an excellent book)' - Arun Ghosh Time is a mystery that has perplexed humankind since time immemorial. Resolving this mystery is of significance not only to philosophers and physicists but is also a very practical concern. Our perception of time shapes our values and way of life; it also mediates the interaction between science and religion both of which rest fundamentally on assumptions about the nature of time. C K Raju begins with a

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critical exposition of various time-beliefs, ranging from the earliest times through Augustine, Newton and Einstein to Stephen Hawking and current notions of chaos and time travel. He traces the role of organised religion in subverting time beliefs for its political ends. The book points out how this resulted in a facile dichotomy between 'linear' and 'cyclic' time, thereby inaugurating a confusion which, according to the author, has handicapped Western thought ever since, eventually influencing the content of science itself. Thus, this book daringly asserts that physical theory, traditionally regarded as amoral and objective, has depended on cultural beliefs about time. The author points out that time beliefs are again being manipulated today as the credibility of science is being exploited to promote a picture of time and, hence, a pattern of human behaviour which is convenient to the agenda of globalisation of culture. The linkages between modern theology and this 'brave new physics' are traced against the wider context of the so-called 'clash of civilisations', and the attempts to remake the world order. The conclusions point to the need to de-theologise time. The author challenges Einstein's understanding of relativity theory and suggests that a 'tilt in the arrow of time', or a small tendency towards cyclicity, will help repair the prevalent confusion about time. A 'tilt' also enables a physics that permits both memory and creativity, so that purpose and spontaneous growth of order are returned to human life. The book ends with a vision of Man as Creator, surprising God. Extensive research in physics, the history of science, comparative religions, and sociology lend weight to the important and challenging conclusions reached by the author. Written as a rejoinder to Stephen Hawking's A Brief History of Time, this book goes much further and, unlike any previous book, it gives a critical exposition of various world religions-Buddhism, Christianity, Hinduism, Islam, and Jainism-while exploring their intricate links, through time beliefs, to current physics on the one hand, and to global political and economic trends, on the other. This book will appeal to scholars and laypersons equally. It will fascinate anyone who reads it and will teach its readers to question the unquestionable.

Textbook of Applied Physics A. K. Jha 2013-12-30 Intended to serve as a textbook of Applied Physics / Physics paper of the undergraduate students of B.E., B.Tech and B.Sc. Exhaustive treatment of topics in optics, mechanics, relativistic mechanics, laser, optical fibres and holography have been included.

Quantum Plasmonics Sergey I. Bozhevolnyi 2016-11-26 This book presents the latest results of quantum properties of light in the nanostructured environment supporting surface plasmons, including waveguide quantum electrodynamics, quantum emitters, strong-coupling phenomena and lasing in plasmonic structures. Different approaches are described for controlling the emission and propagation of light with extreme light confinement and field enhancement provided by surface plasmons. Recent progress is reviewed in both experimental and theoretical investigations within quantum plasmonics, elucidating the fundamental physical phenomena involved and discussing the realization of quantum-controlled devices, including single-photon sources, transistors and

ultra-compact circuitry at the nanoscale.

Six Faces of Globalization Anthea Roberts 2021-09-28 An essential guide to the intractable public debates about the virtues and vices of economic globalization, cutting through the complexity to reveal the fault lines that divide us and the points of agreement that might bring us together. Globalization has lifted millions out of poverty. Globalization is a weapon the rich use to exploit the poor. Globalization builds bridges across national boundaries. Globalization fuels the populism and great-power competition that is tearing the world apart. When it comes to the politics of free trade and open borders, the camps are dug in, producing a kaleidoscope of claims and counterclaims, unlikely alliances, and unexpected foes. But what exactly are we fighting about? And how might we approach these issues more productively? Anthea Roberts and Nicolas Lamp cut through the confusion with an indispensable survey of the interests, logics, and ideologies driving these intractable debates, which lie at the heart of so much political dispute and decision making. The authors expertly guide us through six competing narratives about the virtues and vices of globalization: the old establishment view that globalization benefits everyone (win-win), the pessimistic belief that it threatens us all with pandemics and climate change (lose-lose), along with various rival accounts that focus on specific winners and losers, from China to America's rust belt. Instead of picking sides, *Six Faces of Globalization* gives all these positions their due, showing how each deploys sophisticated arguments and compelling evidence. Both globalization's boosters and detractors will come away with their eyes opened. By isolating the fundamental value conflicts—growth versus sustainability, efficiency versus social stability—driving disagreement and show where rival narratives converge, Roberts and Lamp provide a holistic framework for understanding current debates. In doing so, they showcase a more integrative way of thinking about complex problems.

Gender Indicators in Science, Engineering and Technology Sophia Huyer 2007-01-01 This toolkit provides a survey of the differential gender patterns of participation by men and women in science and technology. It assesses information provided by current sex-disaggregated quantitative data, along with discussing the reasons for differential rates of participation between women and men. The volume also looks at international methods for measuring science and technology activities, personnel and qualifications, and occupations, as well as how these can be properly disaggregated by sex, age and other variables. A key question addressed includes how to define economic and employment activities that can constitute or incorporate scientific and technological activities.--Publisher's description.

The Growth Hacking Book 2 Parul Agrawal 2021-06-12

Encyclopedia of Data Warehousing and Mining Wang, John 2005-06-30 Data Warehousing and Mining (DWM) is the science of managing and analyzing large datasets and discovering novel patterns and in recent years has emerged as a

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particularly exciting and industrially relevant area of research. Prodigious amounts of data are now being generated in domains as diverse as market research, functional genomics and pharmaceuticals; intelligently analyzing these data, with the aim of answering crucial questions and helping make informed decisions, is the challenge that lies ahead. The Encyclopedia of Data Warehousing and Mining provides a comprehensive, critical and descriptive examination of concepts, issues, trends, and challenges in this rapidly expanding field of data warehousing and mining (DWM). This encyclopedia consists of more than 350 contributors from 32 countries, 1,800 terms and definitions, and more than 4,400 references. This authoritative publication offers in-depth coverage of evolutions, theories, methodologies, functionalities, and applications of DWM in such interdisciplinary industries as healthcare informatics, artificial intelligence, financial modeling, and applied statistics, making it a single source of knowledge and latest discoveries in the field of DWM.

Vedic Physics Raja Ram Mohan Roy 2015-12-14 This is a reprint of the original 1999 edition with minor editorial changes. The Rigveda is the first book of humankind and the most sacred scripture of Hinduism. It also happens to be the most ill-understood book of our times. Despite the extensive study by academic and religious scholars, the purpose and meaning of the Rigveda and many ancient Hindu scriptures remain unclear. In this pathbreaking book, the discovery of the Rigveda as a book of ancient cosmology is described, and related to the seals of ancient Indus Valley Civilization, thereby challenging our perception of humanity. "The Vedas have always been lauded as containing the secrets of cosmogenesis. Raja Roy in his remarkable book shows how this is true not only from the yogic vision but according to the latest insights of modern physics. The book takes the reader on a vast panoramic journey through the universe of matter, mind and human history as well." David Frawley (Vamadeva Shastri) Director, American Institute of Vedic Studies "Roy presents a new framework for the understanding of the Vedic hymns from the point of view of physics and then he draws parallels with recent theories on the nature of the universe. We celebrate the new path he has hewn through the bush of old scholarship." Professor Subhash Kak Oklahoma State University

A Textbook of Engineering Physics (Kerala) A S Vasudeva 2008 Interference | Diffraction | Polarization | Lasers | Fiberoptics | Simple Harmonic Motion | Wave Motion | Ultrasonics And Acoustics | X-Rays | Electronic configuration | General Properties Of The Nucleus | Nuclear Models | Natural Radioactivity | Nuclear reactions And Artificial Radioactivity | Nuclear Fission And fusion | Crystal Structure | Band Theory Of Solids | Metals, Insulators And Semiconductors | Magnetic And dielectric Properties Of Materials | Maxwell's Equations | Matter Waves And Uncertainty Principle | Quantum theory | Super-Conductivity | Statistics And Distribution laws | Scalar And Vector Fields

Proceeding of the Second International Conference on Microelectronics, Computing & Communication Systems (McCs 2017) Vijay Nath 2019-08-14 The volume presents high quality papers presented at the Second International Conference

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on Microelectronics, Computing & Communication Systems (MCCS 2017). The book discusses recent trends in technology and advancement in MEMS and nanoelectronics, wireless communications, optical communication, instrumentation, signal processing, image processing, bioengineering, green energy, hybrid vehicles, environmental science, weather forecasting, cloud computing, renewable energy, RFID, CMOS sensors, actuators, transducers, telemetry systems, embedded systems, and sensor network applications. It includes original papers based on original theoretical, practical, experimental, simulations, development, application, measurement, and testing. The applications and solutions discussed in the book will serve as a good reference material for future works.

A Manual of Buddhist Philosophy William Montgomery McGovern 1923

The White Tiger Aravind Adiga 2008-04-22 SOON TO BE A MAJOR MOTION PICTURE The stunning Booker Prize-winning novel from the author of *Amnesty* and *Selection Day* that critics have likened to Richard Wright's *Native Son*, *The White Tiger* follows a darkly comic Bangalore driver through the poverty and corruption of modern India's caste society. "This is the authentic voice of the Third World, like you've never heard it before" (John Burdett, *Bangkok 8*). The white tiger of this novel is Balram Halwai, a poor Indian villager whose great ambition leads him to the zenith of Indian business culture, the world of the Bangalore entrepreneur. On the occasion of the president of China's impending trip to Bangalore, Balram writes a letter to him describing his transformation and his experience as driver and servant to a wealthy Indian family, which he thinks exemplifies the contradictions and complications of Indian society. Recalling *The Death of Vishnu* and *Bangkok 8* in ambition, scope, *The White Tiger* is narrative genius with a mischief and personality all its own. Amoral, irreverent, deeply endearing, and utterly contemporary, this novel is an international publishing sensation—and a startling, provocative debut.

Introduction to Data Science Rafael A. Irizarry 2019-11-20 *Introduction to Data Science: Data Analysis and Prediction Algorithms with R* introduces concepts and skills that can help you tackle real-world data analysis challenges. It covers concepts from probability, statistical inference, linear regression, and machine learning. It also helps you develop skills such as R programming, data wrangling, data visualization, predictive algorithm building, file organization with UNIX/Linux shell, version control with Git and GitHub, and reproducible document preparation. This book is a textbook for a first course in data science. No previous knowledge of R is necessary, although some experience with programming may be helpful. The book is divided into six parts: R, data visualization, statistics with R, data wrangling, machine learning, and productivity tools. Each part has several chapters meant to be presented as one lecture. The author uses motivating case studies that realistically mimic a data scientist's experience. He starts by asking specific questions and answers these through data analysis so concepts are learned as a means to answering the questions. Examples of the case studies included are: US murder rates by state, self-reported student heights, trends in world health and economics, the impact

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of vaccines on infectious disease rates, the financial crisis of 2007-2008, election forecasting, building a baseball team, image processing of hand-written digits, and movie recommendation systems. The statistical concepts used to answer the case study questions are only briefly introduced, so complementing with a probability and statistics textbook is highly recommended for in-depth understanding of these concepts. If you read and understand the chapters and complete the exercises, you will be prepared to learn the more advanced concepts and skills needed to become an expert.

Engineering Chemistry Jain Pc 2004 This book on Engineering Chemistry has been entirely rewritten in order to make it up-to-date and modern, both in approach and content. All diagrams have been redrawn or replaced by new ones. To meet the requirements of the latest syllabi of the various universities of India, topics like transition metals, coordination compounds, crystal field theory, gaseous and liquid states, adsorption, flame photometry, fullerenes, composites, mechanism of some typical reactions, oils and fats, soaps and detergents, have been included or expanded upon. A large number of solved numerical examples drawn from various university examinations have been given at the end of theoretical part of each chapter. Questions have been drawn from latest examinations of various universities.

Documentation on Women, Children, and Human Rights 1999

Early Buddhist Theory of Knowledge K N Jayatilleke 2013-10-16 The author of this volume, an accomplished philologist, historian and philosopher, analyzes the relevant earlier and later texts and traces the epistemological foundations of Pali canonical thought from the Vedic period onwards. Originally published in 1963, it sheds new light on later developments and elucidates from the Indian point of view some of the basic problems of the conflict between metaphysics and logical and linguistic analysis.

Data Warehousing and Mining: Concepts, Methodologies, Tools, and Applications Wang, John 2008-05-31 In recent years, the science of managing and analyzing large datasets has emerged as a critical area of research. In the race to answer vital questions and make knowledgeable decisions, impressive amounts of data are now being generated at a rapid pace, increasing the opportunities and challenges associated with the ability to effectively analyze this data.

Physics for Engineers M. R. Srinivasan 2009

The Specter of Speciesism Paul Waldau 2002 The concept of speciesism, coined in 1970 as an analogy to racism, has been discussed almost exclusively within philosophical circles. Here, Waldau looks at how non-human animals have been viewed in the Buddhist and Christian religious traditions.

Emerging Synthesis Techniques for Luminescent Materials Tiwari, Ratnesh 2018-05-19 The design and study of materials is a pivotal component to new discoveries in the various fields of science and technology. By better

understanding the components and structures of materials, researchers can increase their applications across different industries. *Emerging Synthesis Techniques for Luminescent Materials* is a critical scholarly resource that explores the important field of emerging synthesis techniques of luminescent materials and its practical applications. Featuring coverage on a broad range of topics such as electroluminescence, glow curve analysis, and upconversion, this book is geared towards engineers, academics, researchers, students, professionals, and practitioners seeking current research on photoluminescence and the study of rare earth doped phosphors.

Modern Engineering Physics A S Vasudeva 2012-07 The book in its present form is due to my interaction with the students for quite a long time. It had been my long-cherished desire to write a book covering most of the topics that form the syllabi of the Engineering and Science students at the degree level. Many students, although able to understand the various topics of the books, may not be able to put their knowledge to use. For this purpose a number of questions and problems are given at the end of each chapter.

The Oxford Handbook of Group and Organizational Learning Linda Argote 2020 This handbook is currently in development, with individual articles publishing online in advance of print publication. At this time, we cannot add information about unpublished articles in this handbook, however the table of contents will continue to grow as additional articles pass through the review process and are added to the site. Please note that the online publication date for this handbook is the date that the first article in the title was published online.

International Conference on Innovative Computing and Communications Deepak Gupta 2020-08-01 This book includes high-quality research papers presented at the Third International Conference on Innovative Computing and Communication (ICICC 2020), which is held at the Shaheed Sukhdev College of Business Studies, University of Delhi, Delhi, India, on 21–23 February, 2020. Introducing the innovative works of scientists, professors, research scholars, students and industrial experts in the field of computing and communication, the book promotes the transformation of fundamental research into institutional and industrialized research and the conversion of applied exploration into real-time applications.

International Books in Print 1991

Sentiment Analysis and Opinion Mining Bing Liu 2012 Sentiment analysis and opinion mining is the field of study that analyzes people's opinions, sentiments, evaluations, attitudes, and emotions from written language. It is one of the most active research areas in natural language processing and is also widely studied in data mining, Web mining, and text mining. In fact, this research has spread outside of computer science to the management sciences and social sciences due to its importance to business and society as a whole. The growing importance of sentiment analysis coincides with the growth of social media such as reviews, forum discussions, blogs, micro-blogs, Twitter, and

social networks. For the first time in human history, we now have a huge volume of opinionated data recorded in digital form for analysis. Sentiment analysis systems are being applied in almost every business and social domain because opinions are central to almost all human activities and are key influencers of our behaviors. Our beliefs and perceptions of reality, and the choices we make, are largely conditioned on how others see and evaluate the world. For this reason, when we need to make a decision we often seek out the opinions of others. This is true not only for individuals but also for organizations. This book is a comprehensive introductory and survey text. It covers all important topics and the latest developments in the field with over 400 references. It is suitable for students, researchers and practitioners who are interested in social media analysis in general and sentiment analysis in particular. Lecturers can readily use it in class for courses on natural language processing, social media analysis, text mining, and data mining. Lecture slides are also available online. Table of Contents: Preface / Sentiment Analysis: A Fascinating Problem / The Problem of Sentiment Analysis / Document Sentiment Classification / Sentence Subjectivity and Sentiment Classification / Aspect-Based Sentiment Analysis / Sentiment Lexicon Generation / Opinion Summarization / Analysis of Comparative Opinions / Opinion Search and Retrieval / Opinion Spam Detection / Quality of Reviews / Concluding Remarks / Bibliography / Author Biography

Who's Who in Science and Engineering 2008-2009 Marquis Who's Who, Inc. 2007-12

Functionalization of Graphene Vasilios Georgakilas 2014-04-03 All set to become the standard reference on the topic, this book covers the most important procedures for chemical functionalization, making it an indispensable resource for all chemists, physicists, materials scientists and engineers entering or already working in the field. Expert authors share their knowledge on a wide range of different functional groups, including organic functional groups, hydrogen, halogen, nanoparticles and polymers.

Big Data in Small Business Lund Pedersen, Carsten 2021-09-21 This important book considers the ways in which small and medium-sized enterprises (SMEs) can thrive in the age of big data. To address this central issue from multiple viewpoints, the editors introduce a collection of experiences, insights, and guidelines from a variety of expert researchers, each of whom provides a piece to solve this puzzle.

Additive Manufacturing Manu Srivastava 2019-09-16 There is a growing need for manufacturing optimization all over the world. The immense market of Additive Manufacturing (AM) technologies dictates a need for a book that will provide knowledge of the various aspects of AM for anyone interested in learning about this fast-growing topic. This book disseminates knowledge of AM amongst scholars at graduate level, post graduate level, doctoral level, as well as industry personnel. The objective is to offer a state-of-the-art book which covers all aspects of AM and incorporates all information regarding trends, historical developments, classifications, materials, tooling, software issues,

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dynamic design, principles, limitations, and communication interfaces in a one-stop resource. Features: Breaks down systematic coverage of various aspects of AM within four distinct sections Contains details of various AM techniques based on ASTM guidelines Discusses many AM applications with suitable illustrations Includes recent trends in the field of AM Covers engineering materials utilized as raw materials in AM Compares AM techniques with different traditional manufacturing methods

Integrating Deep Learning Algorithms to Overcome Challenges in Big Data

Analytics R. Sujatha 2021-09-22 Data science revolves around two giants: Big Data analytics and Deep Learning. It is becoming challenging to handle and retrieve useful information due to how fast data is expanding. This book presents the technologies and tools to simplify and streamline the formation of Big Data as well as Deep Learning systems. This book discusses how Big Data and Deep Learning hold the potential to significantly increase data understanding and decision-making. It also covers numerous applications in healthcare, education, communication, media, and entertainment. Integrating Deep Learning Algorithms to Overcome Challenges in Big Data Analytics offers innovative platforms for integrating Big Data and Deep Learning and presents issues related to adequate data storage, semantic indexing, data tagging, and fast information retrieval. FEATURES Provides insight into the skill set that leverages one's strength to act as a good data analyst Discusses how Big Data and Deep Learning hold the potential to significantly increase data understanding and help in decision-making Covers numerous potential applications in healthcare, education, communication, media, and entertainment Offers innovative platforms for integrating Big Data and Deep Learning Presents issues related to adequate data storage, semantic indexing, data tagging, and fast information retrieval from Big Data This book is aimed at industry professionals, academics, research scholars, system modelers, and simulation experts.

AI Assistants Roberto Pieraccini 2021-09-07 An accessible explanation of the technologies that enable such popular voice-interactive applications as Alexa, Siri, and Google Assistant. Have you talked to a machine lately? Asked Alexa to play a song, asked Siri to call a friend, asked Google Assistant to make a shopping list? This volume in the MIT Press Essential Knowledge series offers a nontechnical and accessible explanation of the technologies that enable these popular devices. Roberto Pieraccini, drawing on more than thirty years of experience at companies including Bell Labs, IBM, and Google, describes the developments in such fields as artificial intelligence, machine learning, speech recognition, and natural language understanding that allow us to outsource tasks to our ubiquitous virtual assistants. Pieraccini describes the software components that enable spoken communication between humans and computers, and explains why it's so difficult to build machines that understand humans. He explains speech recognition technology; problems in extracting meaning from utterances in order to execute a request; language and speech generation; the dialog manager module; and interactions with social assistants and robots. Finally, he considers the next big challenge in the development of

virtual assistants: building in more intelligence--enabling them to do more than communicate in natural language and endowing them with the capacity to know us better, predict our needs more accurately, and perform complex tasks with ease.

Functionally Graded Materials (FGMs) Pulak M. Pandey 2021-09-15 The science and study of functionally graded materials (FGMs) have intrigued researchers over the last few decades. Their application has the capability to produce parts with unmatched properties which are virtually impossible to obtain via conventional material routes. This book addresses various FGM aspects and provides a relevant, high-quality, and comprehensive data source. The book covers trends, process classification on various bases, physical processes involved, structure, properties, applications, advantages, and limitations. Emerging trends in the field are discussed in detail and advancements are thoroughly reviewed and presented to broaden the spectrum of FGM applications. This reference book will be of interest to scholars, researchers, academicians, industry practitioners, government labs, libraries, and anyone interested in the area of materials engineering.

Theory of Thermoluminescence and Related Phenomena Reuven Chen 1997 In this book, the authors give an up-to-date account of thermoluminescence (TL) and other thermally stimulated phenomena. Although most recent experimental results of TL in different materials are described in some detail, the main emphasis in the present book is on general processes, and the approach is more theoretical. Thus the details of the possible processes which can take place during the excitation of the sample, and during its heating, are carefully analysed. The methods for analysing TL glow curves are critically discussed, and recommendations as to their application are made. Also discussed is the expected behavior of these phenomena as functions of the experimental parameters, for example, dose of excitation. The consequences of the main applications of TL (for example, radiation dosimetry) are also discussed in detail as are the similarities and dissimilarities of other thermally stimulated phenomena, and the simultaneous measurements of the latter and TL.

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