

## Engineered Materials H

Sweet's Engineering Catalogue of Industrial and Power Plant Materials, Equipment and Supplies  
New Materials in Civil Engineering  
College of Engineering  
Craig's Restorative Dental Materials - E-Book  
Biological Performance of Materials  
Multiscale Modeling and Simulation of Composite Materials and Structures  
Engineered Materials Abstracts  
Application of Porous Media Methods for Engineered Materials  
E M & D; Engineering Materials and Design  
Nanotechnology-Driven Engineered Materials  
The CRC Handbook of Mechanical Engineering, Second Edition  
Engineered Materials Handbook: Composites  
Engineering Materials and Design  
Guide to Engineered Materials  
Surface Engineered Surgical Tools and Medical Devices  
Advances in Heterogeneous Material Mechanics 2011  
Emerging Technology in Precision Engineering XIV  
Ceramic Matrix Composites  
Introduction to Surface Engineering and Functionally Engineered Materials  
Nanoengineered Nanofibrous Materials  
The Science and Engineering of Materials  
Advances in Cryogenic Engineering  
Materials  
Physical Metallurgy and Advanced Materials  
Manufacturing Techniques for Materials  
Fourth International Symposium on Recycling of Metals and Engineered Materials  
Engineering Materials  
American Society of Composites, Fifteenth International Conference  
Flow Studies for Recycling Metal Commodities in the United States  
Advances in Cryogenic Engineering  
Materials  
Composite Materials  
Food Materials  
Science and Engineering  
Tissue Engineering Research Trends  
Tissue Engineered Medical Products (TEMPs)  
Environmental Effects on

Engineered MaterialsBTEC First EngineeringEnvironmental Effects on Engineered MaterialsConference on Raw Materials for Advanced and Engineered CeramicsEngineered Materials for Advanced Friction and Wear ApplicationsMechanical Properties of Engineered MaterialsThe Physics of Degradation in Engineered Materials and Devices

### **Sweet's Engineering Catalogue of Industrial and Power Plant Materials, Equipment and Supplies**

This volume is part of the Ceramic Engineering and Science Proceeding (CESP) series. This series contains a collection of papers dealing with issues in both traditional ceramics (i.e., glass, whitewares, refractories, and porcelain enamel) and advanced ceramics. Topics covered in the area of advanced ceramic include bioceramics, nanomaterials, composites, solid oxide fuel cells, mechanical properties and structural design, advanced ceramic coatings, ceramic armor, porous ceramics, and more.

### **New Materials in Civil Engineering**

Volume is indexed by Thomson Reuters CPCI-S (WoS). These 189 conference papers cover a wide variety of topical areas, including: high-precision machining,

non-conventional machining, CAD/CAM technology, machine tools and control, MEMS/NEMS, precision/medical devices, mechatronics, mechanical design and tribology, metrology, green manufacturing, advanced molding and forming and other related technologies. This work will certainly stimulate further research and development in the field of precision engineering.

### **College of Engineering**

Vols. for 1968- incorporate E M & D product data.

### **Craig's Restorative Dental Materials - E-Book**

Nanostructured materials are emerging as a new class of materials that exhibit unique microstructures and enhanced mechanical performance. As an outcome of this, these materials have attracted considerable attention in scientific communities all over the world. There is continuous research to facilitate product development, thereby improving product quality and reliability in industry. This volume is devoted to novel architectures at the nano-level with an emphasis on new synthesis and characterization methods. Special emphasis is given to new applications of nanostructures and nanocomposites in various fields, such as nano-electronics, energy conversion, catalysis, drug delivery and nano-medicine. The

chapters are divided into sections focusing on: Nanoparticles Assembly and Nanostructured Materials Nanocomposites Properties Nanostructured Materials for Biomedical Applications

### **Biological Performance of Materials**

For courses in Metallurgy and Materials Science. Co-authored by Kenneth G. Budinski and Michael K. Budinski, his son, with over 50 years of combined industry experience in the field, this practical, understandable introduction to engineering materials theory and industry-standard selection practices provides students with the working knowledge to (1) make an informed selection of materials for engineering applications and (2) correctly specify materials on drawings and purchasing documents. Encompassing all significant material systems metals, ceramics, plastics, and composites this text incorporates the most up-to-date information on material usage and availability, addresses the increasingly global nature of the field, and reflects the suggestions of numerous adopters of previous editions.

### **Multiscale Modeling and Simulation of Composite Materials and Structures**

Manufacturing Techniques for Materials: Engineering and Engineered provides a cohesive and comprehensive overview of the following: (i) prevailing and emerging trends, (ii) emerging developments and related technology, and (iii) potential for the commercialization of techniques specific to manufacturing of materials. The first half of the book provides the interested reader with detailed chapters specific to the manufacturing of emerging materials, such as additive manufacturing, with a valued emphasis on the science, technology, and potentially viable practices specific to the manufacturing technique used. This section also attempts to discuss in a lucid and easily understandable manner the specific advantages and limitations of each technique and goes on to highlight all of the potentially viable and emerging technological applications. The second half of this archival volume focuses on a wide spectrum of conventional techniques currently available and being used in the manufacturing of both materials and resultant products. Manufacturing Techniques for Materials is an invaluable tool for a cross-section of readers including engineers, researchers, technologists, students at both the graduate level and undergraduate level, and even entrepreneurs.

### **Engineered Materials Abstracts**

### **Application of Porous Media Methods for Engineered Materials**

## **E M & D; Engineering Materials and Design**

### **Nanotechnology-Driven Engineered Materials**

#### **The CRC Handbook of Mechanical Engineering, Second Edition**

Bioengineers need a thorough grounding in biocompatibility - the biological performance of materials. Until now, there were no publications suitable for a neophyte in the field; prior publications were either not comprehensive or focused on rather narrow interests. Drawing on the author's 35 years of experience as a teacher, researcher, and consultant in biomaterials science and engineering (BSE), *Biological Performance of Materials: Fundamentals of Biocompatibility, Fourth Edition* focuses primarily on principles of biological performance at a relatively fundamental level, analyzing interactions between living organisms and nonliving materials used in medical devices - the subject that sets BSE apart as a distinct field of investigation. Following an introductory section, the book is divided into three sections: the material response to biological systems, host response to biomaterials, and test methods for determining biological response in vitro as well

as in animal models and clinical settings. Supplemental "Interparts" summarize the physical properties of commonly used metallic, polymeric, and ceramic biomaterials. They also provide a guide to understanding the clinical performance of implanted biomaterials.

### **Engineered Materials Handbook: Composites**

This book provides a clear and understandable text for users and developers of advanced engineered materials, particularly in the area of thin films, and addresses fundamentals of modifying the optical, electrical, photo-electric, tribological, and corrosion resistance of solid surfaces and adding functionality to solids by engineering their surface, structure, and electronic, magnetic and optical structure. Thin film applications are emphasized. Through the inclusion of multiple clear examples of the technologies, how to use them, and the synthesis processes involved, the reader will gain a deep understanding of the purpose, goals, and methodology of surface engineering and engineered materials. Virtually every advance in thin film, energy, medical, tribological materials technologies has resulted from surface engineering and engineered materials. Surface engineering involves structures and compositions not found naturally in solids and is used to modify the surface properties of solids and involves application of thin film coatings, surface functionalization and activation, and plasma treatment. Engineered materials are the future of thin film technology. Engineered structures

such as superlattices, nanolaminates, nanotubes, nanocomposites, smart materials, photonic bandgap materials, metamaterials, molecularly doped polymers and structured materials all have the capacity to expand and increase the functionality of thin films and coatings used in a variety of applications and provide new applications. New advanced deposition processes and hybrid processes are being used and developed to deposit advanced thin film materials and structures not possible with conventional techniques a decade ago. Properties can now be engineered into thin films that achieve performance not possible a decade ago.

### **Engineering Materials and Design**

Tissue engineering is the use of a combination of cells, engineering and materials methods, and suitable biochemical and physio-chemical factors to improve or replace biological functions. While most definitions of tissue engineering cover a broad range of applications, in practice the term is closely associated with applications that repair or replace portions of or whole tissues (i.e., bone, cartilage, blood vessels, bladder, etc.). Often, the tissues involved require certain mechanical and structural properties for proper function. The term has also been applied to efforts to perform specific biochemical functions using cells within an artificially-created support system (e.g. an artificial pancreas, or a bioartificial liver). The term regenerative medicine is often used synonymously with tissue engineering, although those involved in regenerative medicine place more emphasis on the use

of stem cells to produce tissues.

### **Guide to Engineered Materials**

This book is a comprehensive source of information on various aspects of ceramic matrix composites (CMC). It covers ceramic and carbon fibers; the fiber-matrix interface; processing, properties and industrial applications of various CMC systems; architecture, mechanical behavior at room and elevated temperatures, environmental effects and protective coatings, foreign object damage, modeling, life prediction, integration and joining. Each chapter in the book is written by specialists and internationally renowned researchers in the field. This book will provide state-of-the-art information on different aspects of CMCs. The book will be directed to researchers working in industry, academia, and national laboratories with interest and professional competence on CMCs. The book will also be useful to senior year and graduate students pursuing degrees in ceramic science and engineering, materials science and engineering, aeronautical, mechanical, and civil or aerospace engineering. Presents recent advances, new approaches and discusses new issues in the field, such as foreign object damage, life predictions, multiscale modeling based on probabilistic approaches, etc. Caters to the increasing interest in the application of ceramic matrix composites (CMC) materials in areas as diverse as aerospace, transport, energy, nuclear, and environment. CMCs are considered an enabling technology for advanced aeropropulsion, space

propulsion, space power, aerospace vehicles, space structures, as well as nuclear and chemical industries. Offers detailed descriptions of ceramic and carbon fibers; fiber-matrix interface; processing, properties and industrial applications of various CMC systems; architecture, mechanical behavior at room and elevated temperatures, environmental effects and protective coatings, foreign object damage, modeling, life prediction, integration/joining.

## **Surface Engineered Surgical Tools and Medical Devices**

## **Advances in Heterogeneous Material Mechanics 2011**

## **Emerging Technology in Precision Engineering XIV**

Proceedings of the Twelfth International Cryogenic Materials Conference (ICMC) held in Portland, Oregon, July 28-August 1, 1997

## **Ceramic Matrix Composites**

Written by an international group of industry experts, regulators, and academics,

this new ASTM publication provides the latest data on tissue engineering and the standards available for manufacturing TEMPs. Twenty-three peer-reviewed papers cover current technology, existing standards, development of new standards, and international standards used by regulatory bodies.

### **Introduction to Surface Engineering and Functionally Engineered Materials**

The third book in a series on heterogeneous materials, this volume offers integrated approaches to the measurement and modeling of materials using approaches from materials science, physics, mechanics, biology and other disciplines. The volume contains 289 chapters presenting original research on the connections among the nano-, micro-, and mesoscale mechanical properties and behaviors of many different types of engineered and natural heterogeneous materials. The book contains a wealth of never published multiscale data on materials loading behaviors, plasticity, creep, damage, fracture and failure. A separate section is devoted to the design and functionalization of materials using multiscale data and techniques

### **Nanoengineered Nanofibrous Materials**

This book presents the state-of-the-art in multiscale modeling and simulation techniques for composite materials and structures. It focuses on the structural and functional properties of engineering composites and the sustainable high performance of components and structures. The multiscale techniques can be also applied to nanocomposites which are important application areas in nanotechnology. There are few books available on this topic.

### **The Science and Engineering of Materials**

### **Advances in Cryogenic Engineering Materials**

The Science and Engineering of Materials, Third Edition, continues the general theme of the earlier editions in providing an understanding of the relationship between structure, processing, and properties of materials. This text is intended for use by students of engineering rather than materials, at first degree level who have completed prerequisites in chemistry, physics, and mathematics. The author assumes these students will have had little or no exposure to engineering sciences such as statics, dynamics, and mechanics. The material presented here admittedly cannot and should not be covered in a one-semester course. By selecting the appropriate topics, however, the instructor can emphasise metals,

provide a general overview of materials, concentrate on mechanical behaviour, or focus on physical properties. Additionally, the text provides the student with a useful reference for accompanying courses in manufacturing, design, or materials selection. In an introductory, survey text such as this, complex and comprehensive design problems cannot be realistically introduced because materials design and selection rely on many factors that come later in the student's curriculum. To introduce the student to elements of design, however, more than 100 examples dealing with materials selection and design considerations are included in this edition.

### **Physical Metallurgy and Advanced Materials**

Degradation is apparent in all things and is fundamental to both manufactured and natural objects. It is often described by the second law of thermodynamics, where entropy, a measure of disorder, tends to increase with time in a closed system. Things age! This concise reference work brings together experts and key players engaged in the physics of degradation to present the background science, current thinking and developments in understanding, and gives a detailed account of emerging issues across a selection of engineering applications. The work has been put together to equip the upper level undergraduate student, postgraduate student, as well as the professional engineer and scientist, in the importance of physics of degradation. The aim of The Physics of Degradation in Engineered

Materials and Devices is to bridge the gap between published textbooks on the fundamental science of degradation phenomena and published research on the engineering science of actual fabricated materials and devices. A history of the observation and understanding of physics of degradation is presented and the fundamentals and principles of thermodynamics and entropy are extensively discussed. This is the focus of this book, with an extended chapter by Alec Feinberg on equilibrium thermodynamic damage and non-equilibrium thermodynamic damage. It concludes with two particular technologies to give examples of areas of application.

### **Manufacturing Techniques for Materials**

Featuring in-depth discussions on tensile and compressive properties, shear properties, strength, hardness, environmental effects, and creep crack growth, "Mechanical Properties of Engineered Materials" considers computation of principal stresses and strains, mechanical testing, plasticity in ceramics, metals, intermetallics, and polymers, materials selection for thermal shock resistance, the analysis of failure mechanisms such as fatigue, fracture, and creep, and fatigue life prediction. It is a top-shelf reference for professionals and students in materials, chemical, mechanical, corrosion, industrial, civil, and maintenance engineering; and surface chemistry.

## **Fourth International Symposium on Recycling of Metals and Engineered Materials**

Eight papers apply to new engineered materials some previously developed techniques for describing the mechanical response of and transport phenomena in fluid-filled porous solids, and the infusion of these relations into first-principle equations. They discuss such aspects as the parametric study of reactive melt infiltration, porous media and mix

## **Engineering Materials**

Composites is designed to be of value to working engineers. Its orientation is practical rather than theoretical, although researchers and students will also find it to be a substantial source of worthwhile information. The 998 pages in this reference book are packed with real-life, how-to-do-it information aimed at solving problems. There are 13 major sections containing 161 separate articles. The information is clear and concise, yet complete. Ranging across a broad area of useful information about structural composites for engineering applications, Composites covers the subject completely and in depth. First constituent materials - the fibres and matrix materials of which composites are made - are described in detail. The forms in which they are available for use are reviewed in depth.

Sections on analysis and design of both the basic composites and structures made from composites provide guidance for design and materials engineers. Articles on manufacturing processes cover them in a practical and helpful way. Whole sections on quality control, testing and failure analysis round out the picture. Applications for and experience with composites are reported in a section that ranges across aircraft, automotive, marine, and recreational applications. A final section on materials for special applications describes metal-matrix, ceramic, and carbon-carbon composites.

### **American Society of Composites, Fifteenth International Conference**

During the past 20 years, the field of mechanical engineering has undergone enormous changes. These changes have been driven by many factors, including: the development of computer technology worldwide competition in industry improvements in the flow of information satellite communication real time monitoring increased energy efficiency robotics automatic control increased sensitivity to environmental impacts of human activities advances in design and manufacturing methods These developments have put more stress on mechanical engineering education, making it increasingly difficult to cover all the topics that a professional engineer will need in his or her career. As a result of these

developments, there has been a growing need for a handbook that can serve the professional community by providing relevant background and current information in the field of mechanical engineering. The CRC Handbook of Mechanical Engineering serves the needs of the professional engineer as a resource of information into the next century.

### **Flow Studies for Recycling Metal Commodities in the United States**

Food Materials Science and Engineering covers a comprehensive range of topics in relation to food materials, their properties and characterisation techniques, thus offering a new approach to understanding food production and quality control. The opening chapter will define the scope and application of food materials science, explaining the relationship between raw material structure and processing and quality in the final product. Subsequent chapters will examine the structure of food materials and how they relate to quality, sensory perception, processing attributes and nutrient delivery. The authors also address applications of nanotechnology to food and packaging science. Methods of manufacturing food systems with improved shelf-life and quality attributes will be highlighted in the book.

### **Advances in Cryogenic Engineering Materials**

## **Composite Materials**

This invaluable reference provides a comprehensive overview of corrosion and environmental effects on metals, intermetallics, glossy metals, ceramics and composites of metals, and ceramics and polymer materials. It surveys numerous options for various applications involving environments and guidance in materials selection and substitution. Explorin

## **Food Materials Science and Engineering**

Physical Metallurgy and Advanced Materials is the latest edition of the classic book previously published as Modern Physical Metallurgy and Materials Engineering. Fully revised and expanded, this new edition is developed from its predecessor by including detailed coverage of the latest topics in metallurgy and material science. It emphasizes the science, production and applications of engineering materials and is suitable for all post-introductory materials science courses. This book provides coverage of new materials characterization techniques, including scanning tunneling microscopy (STM), atomic force microscopy (AFM), and nanoindentation. It also boasts an updated coverage of sports materials, biomaterials and nanomaterials. Other topics range from atoms and atomic

arrangements to phase equilibria and structure; crystal defects; characterization and analysis of materials; and physical and mechanical properties of materials. The chapters also examine the properties of materials such as advanced alloys, ceramics, glass, polymers, plastics, and composites. The text is easy to navigate with contents split into logical groupings: fundamentals, metals and alloys, nonmetals, processing and applications. It includes detailed worked examples with real-world applications, along with a rich pedagogy comprised of extensive homework exercises, lecture slides and full online solutions manual (coming). Each chapter ends with a set of questions to enable readers to apply the scientific concepts presented, as well as to emphasize important material properties. Physical Metallurgy and Advanced Materials is intended for senior undergraduates and graduate students taking courses in metallurgy, materials science, physical metallurgy, mechanical engineering, biomedical engineering, physics, manufacturing engineering and related courses. Renowned coverage of metals and alloys, plus other materials classes including ceramics and polymers. Updated coverage of sports materials, biomaterials and nanomaterials. Covers new materials characterization techniques, including scanning tunneling microscopy (STM), atomic force microscopy (AFM), and nanoindentation. Easy to navigate with contents split into logical groupings: fundamentals, metals and alloys, nonmetals, processing and applications. Detailed worked examples with real-world applications. Rich pedagogy includes extensive homework exercises.

## **Tissue Engineering Research Trends**

The combination of conductive polymer technology with the ability to produce nanofibres will facilitate major new developments in biotechnology and information technology, benefiting such areas as scaffolds for tissue engineering and drug delivery systems; wires, capacitors, transistors and diodes; sensor technology; biohazard protection; and energy transport, conversion and storage. The work on nanofibrous materials presented here is designed, first of all, to instruct scientists in the most advanced methods for the formation of nanofibres and nanotubes. The second section covers the physics and chemistry of nanofibres, while the third deals with computer simulation and modelling. The applications described in section 4 include biomedical applications, nanotube-based devices, electronic applications of nanotubes and nanofibres, nanofluidics, and composites. Finally, the fifth section discusses recent developments in nanomaterials, nanoparticles and nanostructures.

## **Tissue Engineered Medical Products (TEMPs)**

New Materials in Civil Engineering provides engineers and scientists with the tools and methods needed to meet the challenge of designing and constructing more resilient and sustainable infrastructures. This book is a valuable guide to the

properties, selection criteria, products, applications, lifecycle and recyclability of advanced materials. It presents an A-to-Z approach to all types of materials, highlighting their key performance properties, principal characteristics and applications. Traditional materials covered include concrete, soil, steel, timber, fly ash, geosynthetic, fiber-reinforced concrete, smart materials, carbon fiber and reinforced polymers. In addition, the book covers nanotechnology and biotechnology in the development of new materials. Covers a variety of materials, including fly ash, geosynthetic, fiber-reinforced concrete, smart materials, carbon fiber reinforced polymer and waste materials Provides a “one-stop resource of information for the latest materials and practical applications Includes a variety of different use case studies

### **Environmental Effects on Engineered Materials**

This book examines the interaction between nano tools and nano materials. It explains the use of appropriate tools in surgery for a variety of applications and provides a complete description of clinical procedures accompanied by photographs. Coverage also presents the latest developments in surface coatings technology such as chemical vapor deposition for use on complex cutting tools for biomedical applications.

## **BTEC First Engineering**

### **Environmental Effects on Engineered Materials**

#### **Conference on Raw Materials for Advanced and Engineered Ceramics**

This invaluable reference provides a comprehensive overview of corrosion and environmental effects on metals, intermetallics, glossy metals, ceramics and composites of metals, and ceramics and polymer materials. It surveys numerous options for various applications involving environments and guidance in materials selection and substitution. Exploring a wide range of environments, including aqueous and high-temperature surroundings, *Environmental Effects on Engineered Materials* examines specific material-environmental interactions; corrosion rates and material limitations; preventive measurements against corrosion; utilization of older materials in recent applications; the use of new materials for existing equipment; and more.

#### **Engineered Materials for Advanced Friction and Wear**

### **Applications**

As composite materials gain increasing prominence in engineering applications, it becomes essential for designers and engineers to have a thorough grounding in the various material forms, their production, their benefits, and their limitations. Composite Materials: Engineering and Science helps build the groundwork needed to begin incorporating these remarkable materials-with high strength and stiffness yet low weight-into projects, and effectively exploit their advantages. The authors, acknowledged experts in the composites community, set forth the underlying science and engineering applications of composite materials. The text discusses the different forms of reinforcement and matrix and their interaction. Although it focuses on the most widely used composites-polymer matrices and fibrous reinforcement-it also addresses metal and ceramic matrix systems. A substantial portion of the text deals with methods for calculating stiffness and strength, and the authors provide worked examples and representative data. The final chapters address the various aspects of mechanical behavior, including toughness, fatigue, impact resistance, and the properties of joints-including toughening mechanisms and repair. The book concludes with a presentation of non-destructive testing methods. The use and development of composites for engineering purposes will undoubtedly continue to grow, in both applications and importance. Now is the time for engineering professionals to make sure they are not left behind. With its numerous examples and self-assessment questions, Composite Materials:

Engineering and Science makes the ideal text for designers and engineers new to the world of composites.

### **Mechanical Properties of Engineered Materials**

Master the use of dental materials in the clinic and dental laboratory and stay current with this ever-changing field with Craig's Restorative Dental Materials, 13th Edition. From fundamental concepts to advanced skills, this comprehensive text details everything you need to know to understand the scientific basis for selecting dental materials when designing and fabricating restorations. This practical, clinically relevant approach to the selection and use of dental materials challenges you to retain and apply your knowledge to realistic clinical scenarios, giving you an authoritative advantage in dental practice. Problems and Solutions at the end of each chapter test your ability to apply chapter concepts to solve common clinical challenges. Mind Maps on the companion Evolve website condense essential chapter content into single-page overviews ideal for quick reference, study outlines, or comprehensive reviews. Comprehensive coverage reflects fundamental concepts and the latest practical knowledge all in one authoritative source. Appendix of useful resource materials provides quick, convenient access to Weights and Measurements, Conversion Tables, and Comparative Table of Troy, Avoirdupois, and Metric Weights. Content updates and links on Evolve keep you current with the latest developments in the field. NEW! Full-color design and

illustrations clarify clinical detail for greater understanding. NEW! Reorganized content emphasizes scientific evidence and is organized by usage in a clinical setting to help you study more efficiently. NEW! Digital Imaging and Processing for Restorations chapter equips you with essential understanding of current imaging practices. NEW! Major revisions reflect the latest advances in the use of enamel, dental, biofilms, mechanical testing, ceramics, polymers, and composites.

### **The Physics of Degradation in Engineered Materials and Devices**

A clearly written and easily accessible textbook that encourages independent study, covering all the core material required for the BTEC First Certificate and Diploma. Knowledge-check questions and activities are included throughout, along with review questions and worked mathematical examples, all of which relate to real-world engineering contexts. Students will gain a valuable insight into various areas of engineering technology and related industries, providing a potential springboard to further training, qualifications, or suitable employment. For those students wishing to progress to BTEC National, this textbook covers all the vital material required as a prerequisite to NVQ Level 3. New in this edition: \* Updated in line with the 2010 changes to the BTEC First specifications \* Includes detailed information on assessment, featuring example questions and answers \* Layout and

design changes provide extra clarity

[ROMANCE](#) [ACTION & ADVENTURE](#) [MYSTERY & THRILLER](#) [BIOGRAPHIES & HISTORY](#) [CHILDREN'S](#) [YOUNG ADULT](#) [FANTASY](#) [HISTORICAL FICTION](#) [HORROR](#) [LITERARY FICTION](#) [NON-FICTION](#) [SCIENCE FICTION](#)