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- ENVIRONMENTAL TECHNOLOGY ■ FOOD SCIENCE
- MACHINERY/MANUFACTURING ENGINEERING
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- SPORTS INSTRUCTION



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**2024**

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# ADVANCED MATERIALS

## 2024

### **American Society for Composites—Thirty-Ninth Technical Conference** *held jointly with the ASTM-D30 Meeting*

*Proceedings. October 21-24, 2024. San Diego, CA*

Edited by: Marianna Maiaru, Brett A. Bednarczyk, Gregory M. Odegard, and Evan J. Pineda

Original papers cover recent research and development in aircraft, spacecraft, and other emerging application areas in composite materials.

978-1-60595-695-4, ©2024, Online: eProceedings, **\$150.00**  
(Individual articles for \$25.00 each)

## 2023

### **American Society for Composites – Thirty-Eighth Technical Conference**

*Proceedings. September 17-20, 2023. Greater Boston, MA*

Edited by: Marianna Maiaru, Brett A. Bednarczyk, Gregory M. Odegard, and Evan J. Pineda

Under the theme of ICME (Integrated Computational Materials Engineering), original articles cover recent composite materials research and development in aircraft, spacecraft, and other emerging applications.

978-1-60595-691-6, ©2023, Online: eProceedings, **\$150.00**  
(Individual articles for \$25.00 each)

## **Ballistics 2023**

*33rd International Symposium, Bruges, Belgium, October 16-20, 2023*

Edited by: Frederik Coghe

The latest edition includes original articles in the most state-of-the-art research and technology in Ballistics. Topics include interior and exterior ballistics, terminal ballistics, launch dynamics, explosion mechanics and vulnerability and survivability.

978-1-60595-692-3, ©2023, 6x9 HC book, 2598 pages, 2 volumes, **\$299.00**

## **Photopolymerization Chemistry and Technology**

*Fundamental Polymer Chemistry and Industrial Applications*

Byron Christmas and Michael Idacavage

This book introduces the theory of light-induced polymerization utilizing ultraviolet (UV) and visible light and electron beams (EB) as the initiators, beginning with an analysis of the physical chemistry of photopolymerization and its advantages and disadvantages compared to other types. The volume explains how the underlying chemical reactions relate to the types of processes selected and product quality, with an in-depth consideration of the raw materials and equipment required for efficient UV and EB curing. Special attention is given to the principles of formulation and to applications where this type of curing leads to higher quality products at lower costs.

978-1-60595-427-1, ©2023, 248 pages, 6x9, HC book, **\$189.50**

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# ADVANCED MATERIALS

**2023**

## **Structural Health Monitoring in Sensor-Integrated Smart Composites**

*From Characterization to Application*

Hossein Montazerian, Mina Hoorfar and Abbas Milani

This book investigates external and self-sensing sensors for the health monitoring of composite materials and technically evaluates sensor advantages and disadvantages in terms of robustness and signaling, as well as their suitability for structural health monitoring (SHM) in different types of composites. The authors explain how piezoelectric, piezo-resistive, and optical fiber sensors are fabricated, embedded, and tested under different loading conditions, with special attention to the design and signaling of piezo-resistive devices. Data and modeling are provided from tests of a piezo-resistive polymeric composite sensor made with chopped carbon fibers and embedded in woven composites.

978-1-60595-597-1, ©2023, 210 pages, 6x9, HC book, **\$149.50**

## **Structural Health Monitoring 2023**

*Proceedings of the 14th International Workshop, September 2023, Stanford University*

Edited by: Fu-Kuo Chang

978-1-60595-693-0, ©2023, Available via Open Access

## **Textile Structural Composite Materials**

Chris Pastore, Cagri Aryanci and Frank Ko

This textbook is a technical introduction to the design, manufacture, and testing of textile composite materials. Written by experts in both textiles and materials science, the book covers the formation of near-net-shape composites from 2-D and 3-D textiles made from natural yarns and fabrics as well as synthetic fibers such as carbon, with a special stress on preforms. This is followed by a description of how textile composites are made with polymer, metal, and ceramic matrices. Design calculations are provided, starting with micromechanical features and moving toward finished components. The experiments and tests unique to textile composites are outlined and differentiated from tests for monolithic and laminated materials.

978-1-60595-224-6, ©2023, 244 pages, 6x9, HC book, **\$159.50**

## **Thermal Conductivity 35/Thermal Expansion 23**

*Proceedings of the 35th International Thermal Conductivity Conference and the 23rd International Thermal Expansion Symposium September 26-29, 2021 Boston, MA*

Newest publication from the ITCC/ITES book series. Refereed papers include applications related to thermophysical properties, measurement methods, equipment, processes, theory and new developments.

978-1-60595-688-6, ©2023, 322 pages, 6x9 HC book, **\$129.50**

## **Tooling for Composite Parts and Assemblies**

*An Introduction for Manufacturing Professionals*

Dave Dickson

Written to be used as both a student textbook and a practical reference, the proposed book explains the methods of tooling for composites manufacturing, along with approaches for selecting and applying the methods. The book discusses different composite designs and relates this information to fabrication technologies and their associated types of tooling. The text lays out the advantages and disadvantages of tooling strategies and clarifies the risks associated with each. Included are numerous examples, as well as troubleshooting guidelines.

978-1-60595-681-7, ©2023, 410 pages, 6x9 HC book, **\$189.50**

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# ADVANCED MATERIALS

**2022**

**American Society for Composites – Thirty-seventh Technical Conference**  
*Proceedings. September 18-21, 2022, Tucson, AZ*

Edited by: Olesya Zhupanska and Erdogan Madenci

Original articles cover recent research and development in aircraft, spacecraft, and other emerging application areas in composite materials.

978-1-60595-690-9, ©2022, Online: eProceedings, **\$150.00**  
(individual articles for \$25.00 each)

## **Ballistics 2022**

*32nd International Symposium*

Edited by: Thelma G. Manning and Frederick C. Rickert II

This latest edition includes original articles on the most state-of-the-art research and technology in Ballistics. Topics include interior and exterior ballistics, launch dynamics, explosion mechanics, and impact physics.

978-1-60595-689-3, ©2022, 2900 pages, 2 volumes, 6x9, HC book, **\$299.00**

## **Structural Health Monitoring 2021**

*Proceedings of the Thirteenth International Workshop, May, 2022, Stanford University*

Edited by: Fu-Kuo Chang

Selected papers from the latest in a workshop series that assesses the current state-of-the-art technologies and identifies key breakthroughs and emerging R&D challenges that are critical to structural health monitoring.

978-1-60595-687-9, ©2022, 1140 pages, 6x9, HC book **\$250.00**  
(individual articles for \$25.00 each)

**2021**

**3rd International Workshop on Structural Health Monitoring for Railway System**  
*(IWSHM-RS 2021)*

Edited by: Yungi Shi

30 selected papers from this conference present the latest research on applying structural health monitoring to railways. Papers address SHM big data analytics, diagnostics and prognostics.

978-1-60595-222-2, ©2021, Online: eProceedings, **\$55.00**

## **Additive Manufacturing of Metals**

Leila Ladani

A technical introduction to additive manufacturing (AM) with a focus on metals and powder bed processes, this book explains the materials and fabrication of AM parts using design and engineering parameters. The book shows the workings and limitations of electron beam and laser melt technologies for manufacturing multi-shape components with a variety of metal powders. Information is provided on current test methods, melting temperatures, build-up strategies, as well as quality control and reliability. Modeling techniques are described for build and process design. Each chapter includes a set of questions that illustrate problems routinely encountered in AM manufacturing.

978-1-60595-600-8, ©2021, 265 pages, 6x9, HC book, **\$157.50**  
Online: eBook, **\$125.00**

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# ADVANCED MATERIALS

## 2021

### **American Society for Composites – Thirty-sixth Technical Conference**

*Proceedings. September 19-22, 2021, College Station, TX (Virtual Conference)*

Edited by: Anastasia Muliana and John Whitcomb

Papers are organized around the theme Composites Ingenuity Taking on Challenges of Environment-Energy-Economy. Articles cover recent research and development in aircraft, spacecraft, and other emerging application areas.

978-1-60595-686-2, ©2021, Online: eProceedings, **\$125.00**

### **Crashworthy Composite Structures**

*Aircraft & Vehicle Applications*

David C. Fleming and Linda E. Jackson

This text investigates the variables needed to design and implement effective crashworthy composite materials, with the first part devoted to the scientific background of crashworthiness in terms of materials, measurements of impact, and animal and human responses to crashes. The book explains the concepts and materials needed to enable vehicles and their inhabitants to withstand catastrophic forces, including the design of survival cells and their surrounding architecture. The physics of impact behavior and energy absorption are presented, and the authors show how these principles apply to energy-absorbing composite materials from the microstructural level to the behavior of full-scale components. Original test protocols and data along with an array of computer simulations are included to assist readers in designing composites for crashworthiness.

978-1-60595-646-6, ©2021, 330 pages, 6x9, HC book, **\$169.50**

Online: eBook, **\$135.00**

### **Thermal Conductivity 34/Thermal Expansion 22**

*Proceedings of the 34th International Thermal Conductivity Conference and the 22nd International Thermal Expansion Symposium, June 17-20, 2019*

Edited by: John McCaffrey and Jason Saienga

Newest publication from the ITCC/ITES book series. Refereed papers include applications related to thermophysical properties, measurement methods, equipment, processes, theory, and new developments.

978-1-60595-666-4, ©2021, 358 pages, 6x9, HC book, **\$129.50**

## 2020

### **American Society for Composites—Thirty-fifth Technical Conference held jointly with the ASTM-D30 Meeting**

*Proceedings. September 14-17, 2020, Jersey City, NJ (Virtual Conference)*

Edited by: Kishore Pochiraju and Nikhil Gupta

Papers are organized around the theme Digital Manufacturing Design and Additive Manufacturing. Articles cover recent research and development in aircraft, spacecraft, and other emerging application areas.

978-1-60595-665-7, ©2020, Online: eProceedings, **\$100.00**

### **Asphalt Paving Technology 2019**

*Volume 88, Journal of the Association of Asphalt Paving Technologies*

Edited by: Rebecca S. McDaniel

Refereed research reports on the latest advances in asphalt technology, including pavement rehabilitation, recycled materials content, airport pavements, and performance evaluation.

978-1-60595-661-9, ©2020, 911 pages, 6x9, HC book, **\$200.00**

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# ADVANCED MATERIALS

**2020**

## **Ceramic Matrix Composites**

*Characterization, Analysis, and Applications*

Yasser Gawayed and Greg Ojard

This text brings together the technical elements needed to engineer ceramic matrix composites for aerospace and other applications. It also explains the technical data that regulates all phases of ceramic composite processing. A major feature of the book is to show how variables in reinforcements, fabrication techniques, and materials affect the properties and quality level of ceramic composites, thereby offering a path forward for design engineers. It shows what materials work best, how fabric reinforcements should be configured, and the pros and cons of PIP, CVI, and MI. Mathematically, detailed guidance is given on how to model CMCs. To complement modeling, a full spectrum of test methods is provided, including ways to determine time-dependent behavior under loading conditions.

978-1-60595-221-5, ©2020, 260 pages, 6x9, HC book, **\$154.50**

Online: eBook, **\$120.00**

## **Fatigue Consideration in Machine Design**

*Essentials of Endurance Analyses*

Robert E. Little

This book provides a unique mechanical metallurgy perspective in presenting classic fatigue testing theories with a highly practical approach. Coverage includes Wöhler's tests, fatigue crack initiation, fatigue effects, generalized fatigue models, fatigue factor of safety, and bolted joints.

978-1-60595-605-3, ©2020, 202 pages, 6x9, SC book, **\$89.50**

Online: eBook, **\$50.00**

**2019**

## **American Society for Composites—Thirty-fourth Technical Conference**

*Proceedings, September 23-25, 2019, Georgia Tech, Atlanta, GA*

Edited by: Kyriaki Kalaitzidou

Papers on composite materials engineering and science. Articles cover recent research and development in aircraft, spacecraft, and other emerging application areas.

978-1-60595-602-2, ©2019, USB Flash Drive or CD-ROM, **\$150.00**

Online: eProceedings, **\$125.00** (individual articles for \$25.00 each)

## **Ballistics 2019**

*31st International Symposium, November 4-8, 2019, Hyderabad, India*

Edited by: V. K. Saraswat, G. Sathesh Reddy and Clive Woodley

This latest edition includes the most current state-of-the-art technology in Ballistics. The two volumes contain original research papers on all phases of ballistics. Topics include interior and exterior ballistics, launch dynamics, explosion mechanics, impact physics, and vulnerability & survivability.

978-1-60595-610-7, ©2019, 2,660 pages, 2 volumes, 6x9, HC book, **\$299.00**

Online: eProceedings, **\$245.00**

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# ADVANCED MATERIALS

2019

## Convective Burning and Low-Velocity Detonation in Porous Media

Boris Ermolaev and Alexey Sulimov; Edited by Anna Crowley

*Endorsed by the International Ballistics Society*

This book presents original research into the behavior, ignition mechanisms, and wave structure of convective burning and low-velocity detonations (LVD). Such processes occupy an intermediate position between modes of normal combustion and normal detonation, and their properties directly affect the dynamics of explosions, including unplanned explosions caused by accidental ignition. The book presents ways of stabilizing convective burning and LVD and controlling their properties, thus enabling one to manage potentially dangerous hazards of transition to normal detonation. In addition, the book provides a scientific foundation for the technical application of these processes in pulse-nozzle and missile devices and in jet injectors. It also offers new studies on compacted modified propellants, which, due to their burning mechanisms, can significantly enhance the performance of barrel systems.

978-1-60595-565-0, ©2019, 352 pages, 6x9, HC book, **\$169.50**

Online: eBook, **\$125.00**

## Energy Harvesting

*Materials, Physics, and System Design with Practical Examples*

Ravi A. Kishore, Anthony Marin, Congcong Wu, Ashok Kuma and Shashank Priya

This text investigates the materials science and physics of energy harvesting, with a focus on system configuration and efficient performance. It presents the mathematical theory of materials, electrical conductivity, and device design for vibration-based harvesters, thermoelectrics, photovoltaics, wind-energy turbines, and hybrids thereof, e.g., piezoelectrics in wind turbines, as well as approaches using shape-memory alloys, thermomagnetics, and electrostatic generation. Information is provided on testing, characterization, and modeling of EH systems, with extensive equations analyzing materials and energy flow. Circuitry, batteries, and capacitors are also covered. An appendix includes ANSYS codes for finite element analysis of magnetic flux devices. Materials scientists, energy harvesting developers, and renewable energy specialists will find the book to be a key resource.

978-1-60595-122-5, ©2019, 280 pages, 6x9, HC book, **\$169.50**

Online: eBook, **\$99.50**

## Fourth Symposium on Automated Composite Manufacturing (ACM4)

Edited by: Suong V. Hoa

Summarizing recent work on thermoset and thermoplastics composites manufacturing automation, this volume contains original presentations on technologies such as: automated dry fiber placement; manufacturing complex shapes; 4D printing of composite structures, process development and optimization, mechanical performance of fiber-placed structures; and virtual manufacturing environments.

978-160595-603-9, ©2019, 248 pages, 6x9, SC book, **\$95.00**

## Structural Health Monitoring 2019

*Proceedings of the Twelfth International Workshop, September 10-12, 2019, Stanford University*

Edited by: Fu-Kuo Chang

The newest proceedings in a workshop series that assesses the current state-of-the-art technologies and identifies key breakthroughs and emerging R&D challenges that are critical to structural health monitoring. The current volumes feature reviews of SHM growth in the last two decades and the perspectives of future SHM directions in research and applications. Papers in support of autonomous and/or intelligent systems and the Industry Internet of Things (IIOT) are highlighted in addition to the general applications in aerospace, mechanical and civil infrastructure.

978-1-60595-601-5, ©2019, 3,576 pages, 2 Volumes, 6x9, HC book, **\$200.00**

Online: eProceedings, **\$150.00** (individual articles for \$25.00 each)

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# ADVANCED MATERIALS

**2019**

## **The Physics of Multifunctional Materials**

*Concepts, Materials, Applications*

Martin Gurka

Presents and explains the foundational concepts of the most commonly used multifunctional materials as an underpinning to addressing manufacturing and processing, and to evaluating new multifunctional materials based on underlying mechanisms. Covers the principles of functionality of piezoceramics, shape memory alloys and switchable fluids.

978-1-60595-260-4, ©2019, 184 pages, 6x9, HC book, **\$149.95**

Online: eBook, **\$120.00**

**2018**

## **2nd International Workshop on Structural Health Monitoring for Railway System (IWSHM-RS 2018)**

*Proceedings of the Second International Workshop, October 17-19, 2018*

Edited by: Fuhai Ma, Jun Wang, Sansan Ding and Fu-Kuo Chang

Over 90 selected papers from this conference present the latest research on applying structural health monitoring to railways under the theme Real Time Safety Assurance and Life-time Operation Efficiency. Papers discuss a range of EMU equipment, as well as advanced high-speed lines, and MagLev trains.

978-1-60595-572-8, ©2018

Online: eProceedings, **\$50.00**

## **American Society for Composites—Thirty-third Technical Conference**

*held jointly with 18th US-Japan Conference on Composite Materials and ASTM-D30 Meeting Proceedings, September 24-26, 2018, University of Washington, Seattle, WA*

Edited by: Anthony Waas

Papers on composite materials engineering and science with a focus on design for manufacturability. Articles cover recent research and development in aircraft, spacecraft, and other emerging application areas.

978-1-60595-534-6, ©2018, USB flash drive, **\$100.00**

Online: eProceedings, **\$100.00** (individual articles for \$25.00 each)

## **Asphalt Paving Technology 2017**

*Volume 86, Journal of the Association of Asphalt Paving Technologists*

Edited by: Rebecca S. McDaniel

Refereed research reports on the latest advances in asphalt technology, including pavement rehabilitation, recycling agents, and test methods. Tests investigate the long-term behavior of asphalt and the effects of age and fatigue. A special feature of this volume is a presentation on the increased use of rubberized asphalt and the challenges and opportunities provided.

978-1-60595-493-6, ©2018, 792 pages, 6x9, HC book/CD-ROM, **\$200.00**

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# ADVANCED MATERIALS

**2018**

## **Design, Manufacturing and Applications of Composites**

*Proceedings of the Twelfth Joint Canada-Japan Workshop on Composites*

Edited by: Louis Laberge Lebel and Asami Nakai

Important reference book on composite materials manufacturing technologies from Japanese and Canadian researchers. Articles in advanced manufacturing technologies reports including CFRP and additive manufacturing and papers on application areas include aircraft, piping, fasteners and more. Edited by two internationally regarded materials science professors, this book is an important extension of a series presenting composites research from Canada and Japan.

ISBN: 978-1-60595-568-1, ©2018, 421 pages, 6x9, SC book, **\$100.00**

Online: eBook, **\$75.00**

## **Heat Transfer in Composite Materials**

Seiichi Nomura and A. Haji-Sheikh

This book provides analytical methods for predicting temperature distribution in isotropic and anisotropic composite media for both steady and transient states, with a focus on how temperature differences affect the properties of composite materials.

978-1-60595-459-2, ©2018, 215 pages, 6x9, HC book, **\$134.50**

Online: eBook, **\$105.00**

## **Principles of the Manufacturing of Composite Materials**

*Second, Expanded Edition*

Suong V. Hoa

New composites, including conductive materials, and a variety of automated and semi-automated processes have been added to this comprehensive textbook, which explains the principles of traditional and emerging technologies for manufacturing composite materials. In this edition, polymer nanocomposites are more fully described. Out-of-autoclave methods, thermostamping, and automated fiber placement (AFP) are analyzed in greater depth, and an entire new chapter has been added on automation. An original feature of this book is description of the 4D printing technique, which combines 3D printing and automated shape configuration in a unified process.

978-1-60595-421-9, ©2018, 445 pages, 6x9, HC book, **\$189.50**

Online: eBook, **\$99.50**

## **Surfactant Science**

*Principles and Practice*

Steven Abbott

This volume presents a practical guide to surfactant science and provides a technical resource for characterizing and formulating surfactants. It goes beyond standard guidelines and focuses on surfactant phenomena as a dynamic system. In explaining how property variables affect formulation results, the book offers numerous original phase diagrams and equations.

978-1-60595-484-4, ©2018, 198 pages, 7x10, HC Book, **\$97.50**

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# ADVANCED MATERIALS

## 2018

### **Thermal Conductivity 33/Thermal Expansion 21**

*Proceedings of the 33rd International Thermal Conductivity Conference and the 21st International Thermal Expansion Symposium, May 15-18, 2017*

Edited by: Heng Ban

Publication from the ITCC/ITES book series. Edited papers include applications related to thermo-physical properties measurement methods, equipment, processes, theory, and new developments.

978-1-60595-535-3, ©2018, 265 pages, 6x9, HC book, **\$100.00**

Online: eProceedings, **\$99.50**

## 2017

### **American Society for Composites—Thirty-second Technical Conference**

*Proceedings, October 22-25, 2017, West Lafayette, IN*

Edited by: Wenbin Yu, R. Byron Pipes and Johnathan Goodsell

Original research reports from U.S. and Canadian universities are included in this publication. It focuses on the design, manufacturing and testing of advanced composite materials, including ways of monitoring composite fabrication parameters and functionalizing composites' properties.

978-1-60595-418-9, ©2017, CD-ROM in plastic jewel case, **\$100.00**

Online: eProceedings, **\$100.00** (individual articles for \$25.00 each)

### **Asphalt Paving Technology 2016**

*Volume 85, Journal of the Association of Asphalt Paving Technologists*

Edited by: Eugene L. Skok

Refereed papers investigate asphalt mixes, test methods, pavement performance, and experimental binders, such as recycled oil, with a special reference section on balanced mixed design.

978-1-60595-404-2, ©2017, 903 pages, 6x9, HC book/CD-ROM, **\$200.00**

Online: eProceedings, **\$200.00**

### **Ballistics 2017**

*30th International Symposium, September 11-15, 2017, Long Beach, California*

Edited by: Sidney Chocron and James Walker

Includes state-of-the-art technology in Ballistics, the books contain original research papers on all phases of ballistics, topics include interior and exterior ballistics, launch dynamics, vulnerability, terminal ballistics and impact physics and explosion mechanics.

978-1-60595-419-6, ©2017, 1,440 pages, 2 volumes, 6x9, HC book, **\$275.00**

Online: eProceedings, **\$200.00**

### **Design, Manufacturing and Applications of Composites**

*Proceedings of the Joint Canada-Japan-Vietnam Workshop on Composites*

*August 8-10, 2016, Ho Chi Minh City, Vietnam*

Edited by: Suong V. Hoa, Hiroyuki Hamada and Huynh Dai Phu

The joint Canada-Japan-Vietnam workshop on composites is a continuation of the series of Canada-Japan workshops on composites held every two years since 1996. The workshop in 2016 was held in Vietnam, and involved a third country (Vietnam). The proceedings contain papers from scientists and engineers from the three countries. It covers many aspects on composites, with emphasis on composites made from natural resources such as fibers and resins.

978-1-60595-326-7, ©2017, 421 pages, 6x9, SC book, **\$100.00**

Online: eProceedings, **\$75.00**

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# ADVANCED MATERIALS

**2017**

## **Essentials of the Mechanics of Materials**

*Third Edition*

George Frantziskonis

The latest edition of this textbook includes expanded problem sets and materials for instructors. The book is well suited for both onsite and distance-university courses, because it clearly and concisely presents the theoretical concepts and equations that illustrate the behavior of material structures under standard stresses and strains. For students in civil, environmental and chemical engineering.

978-1-60595-414-1, ©2017, 342 pages, 8.5x11, SC book, **\$74.50**

Online eBook: 978-1-60595-430-1, **\$54.50**

## **Ferroelectric Devices & Piezoelectric Actuators**

*Principles, Problems and Common Misconceptions*

Kenji Uchino

Investigates basic principles and shared understandings regarding the materials and properties of piezoelectrics and dielectrics, including concepts such as electrostriction, ionic displacement strain, transmission coefficient, constraint dependency, mechanical impedance matching and more. The author demonstrates how misuse of selected ideas and formulas can negatively influence research and shows how to correct these faulty approaches. The volume also contains problems and solutions associated with the design and performance of dielectrics, memory devices, piezoelectrics, electrooptic and pyroelectric devices and more.

978-1-60595-312-0, ©2017, 244 pages, 6x9, SC book, **\$69.50**

Online: eBook, **\$50.00**

## **Fundamentals of Electrospinning & Electrospun Nanofibers**

Tong Lin and Jian Fang

This book reviews and analyzes the methods whereby nanofibers are spun, collected and fabricated into various fibrous structures. Explains the workings, quantitative specifications and set-up of virtually all formation technologies, including solvent and solvent-free, as well as needle and needleless spinning methods for nanofibers made from polymers, carbon and other materials. Practical information is provided for understanding and designing devices to fabricate nanofibers with many different shapes and internal structures. Special attention is given to strategies for overcoming defects in nanofibers and controlling their overall quality.

978-1-60595-160-7, ©2017, 250 pages, 6x9, HC book, **\$139.50**

Online: eBook, **\$110.00**

## **Structural Health Monitoring 2017**

*Real-Time Material State Awareness and Data-Driven Safety Assurance*

*Proceedings of the Eleventh International Workshop, September 12-14, 2017, Stanford University*

Edited by: Fu-Kuo Chang and Fotis Kopsaftopoulos

This important series collection is available both in print as a hardcover in two volumes and as downloadable in digital format. The text features hundreds of papers detailing new research on structural health monitoring (SHM) using a variety of signal types and processing strategies. A main focus of the book is technology enabling real-time analysis and management of structures. Articles include information on applications in support of autonomous and/or intelligent systems, as well as SHM systems in aircraft, buildings, bridges, railroad and sustainable energy facilities. The volumes assess state-of-the-art technologies for sensors, waveguides, materials, energy, damage detection, testing and quality control.

978-1-60595-330-4, ©2017, 3,338 pages, 2 Volumes, 6x9, HC book, **\$150.00**

Online: eProceedings, **\$150.00** (individual articles for \$25.00 each)

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# ADVANCED MATERIALS

**2017**

## **Third Symposium on Automated Composite Manufacturing (ACM3)**

Edited by: Suong V. Hoa

Summarizing recent work on thermoset and thermoplastics composites manufacturing automation, this volume contains original presentations on technologies such as: automated dry fiber placement; manufacturing complex shapes; fiber steering and variable stiffness; automation equipment; mechanical performance of fiber-placed structures; and virtual manufacturing environments.

978-1-60595-431-8, ©2017, 260 pages, (book OUT-OF-PRINT)

Online: eProceedings, **\$85.00**

**2016**

## **1st International Workshop on Structural Health Monitoring for Railway System (IWSHM-RS 2016)**

*Proceedings of the First International Workshop, October 12–14, 2016*

Edited by: Jun Wang, Yunshuang Ma and Fu-Kuo Chang

Recent online railway technology research.

978-1-60595-371-7, ©2016, Online: eProceedings, **\$50.00**

## **American Society for Composites—Thirty-first Technical Conference**

*held jointly with ASTM-D30 Meeting*

*Proceedings, September 19-22, 2016, Williamsburg, VA*

Edited by: Barry Davidson, James Ratcliffe and Michael Czabaj

Papers on composite engineering and science including additive manufacturing, design and manufacturing, functional materials and structure, armor & protection, flammability of composites, crashworthiness, marine composites, testing and characterization, multifunctional and smart composites, textile and 3D composites, progressive damage modeling, stability & postbuckling, natural, bio-based, green, and novel composites, ACP (NASA advanced composites project), space applications, automotive composites, civil structures, micromechanics, impact & dynamic response and more.

978-1-60595-316-8, ©2016, CD-ROM in plastic jewel case, **\$100.00**

Online: eProceedings, **\$75.00** (individual articles for \$25.00 each)

## **Asphalt Paving Technology 2015**

*Volume 84, Journal of the Association of Asphalt Paving Technologists*

Edited by: Eugene L. Skok

Features research presentations devoted to the chemistry, engineering, modeling and testing of asphalt materials and processing. Developments in the use of components like bio-oil are discussed, as are strategies for testing asphalt components for wear and durability at low and high temperatures.

978-1-60595-294-9, ©2016, 768 pages, 6x9, HC book/CD-ROM, **\$200.00**

## **Ballistics 2016**

*29th International Symposium, May 9-13, 2016, Edinburgh, Scotland, UK*

Edited by: Clive Woodley and Ian Cullis

978-1-60595-317-5, ©2016, 3,870 pages, (book OUT-OF-PRINT)

Online: eProceedings, **\$250.00** (individual articles for \$25.00 each)

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# ADVANCED MATERIALS

**2016**

## **DURACOSYS 2016**

*12th International Conference on Durability of Composite Systems  
Proceedings, June 12-15, 2016, University of Texas at Arlington*  
Edited by: Ken Reifsnider

Papers presented will focus on the science, ideas, and methods that enable applications, and the challenges that result from engineering development. Topics include manufacturing: defects, modeling, remediation; light-weighting and vehicular applications, analysis methods, durability of bio-composite systems, composite materials in civil infrastructure and composites for extreme environments.

978-1-60595-318-2, ©2016, Online: eProceedings, **\$50.00**

## **Mechanical Behavior of Thick Composites**

*International Workshop, March 14-15, 2016, Montreal, Canada*  
Edited by: Suong V. Hoa, et al.

The workshop intends to provide a forum for exchange of information on latest work done to understand the mechanical behavior of thick composites (more than 3 mm thick). Topics addressed include: Applications, Manufacturing processes, Quality Inspection, Stress analysis, Fracture, Fatigue, Experimental measurements and more.

978-1-60595-319-9, ©2016, 141 pages, 6x9, SC book, **\$79.50**

## **Shape-Memory Polymers for Aerospace Applications**

*Novel Activation, Modeling, Characterization and Design*

Edited by: Gyaneshwar Tandon, Amber McClung and Jeff Baur

This contributed volume investigates the parameters of shape-memory polymers (SMPs) required by aerospace, including synthesis, characterization, activation, and application in aircraft and space vehicles. It explains the chemistry and design of novel SMPs to meet the special demands of aeronautic performance, including heat and impact resistance, limited operational energies, aerodynamics, loading etc. The text analyzes and assesses shape-memory polymers and also composites and hybrid materials designed for use in reconfigurable applications in the military and commercial sectors, especially for morphing aircraft, micro air vehicles, deployable space structures, and adaptive engines. The chapters span novel synthesis, chemistry and activation of shape memory resins, constituent modeling and characterization methods, predictive methodologies, experimental validation, and case studies illustrating material property needs, design requirements and material performance.

978-1-60595-118-8, ©2016, 658 pages, 6x9, HC book, **\$175.00**

Online: eBook, **\$125.00**

## **Structures in Fire**

*Proceedings of the 9th International Conference (SiF'16)  
June 8-10, 2016, Princeton University, Princeton, NJ*

Edited by: Maria E. Moreyra Garlock

This book offers original research on how materials integrated into a variety of structures react to fire. Based on experiments as well as model calculations, the book presents key data to engineers and fire specialists required to understand and predict the material behavior of many types of structure-embedded elements, including ones made from composites, steel, aluminum, masonry and wood.

978-1-60595-320-5, ©2016, 1,170 pages, 6x9, SC book, **\$100.00**

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# ADVANCED MATERIALS

**2015**

## **Adhesion Science**

*Principles and Practice*

Steven Abbott

This important and pioneering technical book collates and explains the theoretical principles underlying adhesion and adhesives, including strong and "weak" bonds plus pressure-sensitive (PSA) across many polymer, metal and ceramic adherends. The author shows how adhesion-related chemistry and physics, clearly displayed in mathematical formulas, can clarify surface properties as well as the characteristics of good and bad adhesion, including multiple types of failure. The book provides science-based methods to predict, test and formulate adhesives. To this end, it includes access to a unique set of applied computer programs or "apps" that automate a wide range of adhesive formulas and allow engineers and formulators to input data and study the effect of adhesion properties in conjunction with and even prior to chemical compounding and empirical testing.

Print: 978-1-60595-178-2, ©2015, 320 pages, 6x9, HC book, **\$162.50**

Online: eBook: 978-1-60595-228-4, **\$120.00**

## **American Society for Composites—Thirtieth Technical Conference**

*Proceedings, September 28-30, 2015, Michigan State University, Lansing, MI*

Edited by: Xinran (Sharon) Xiao, Alfred Loos and Dahsin Liu

Papers on composite engineering and science including material development, processing, design and manufacturing, functional materials and structure, analysis, computation, testing, nondestructive evaluation, structure health monitoring, durability and damage tolerance, failure and fracture, fatigue, impact, blast, lightning, crashworthiness, composite applications in aerospace, automotive, transportation, civil structures, energy generation and storage, and repair technology.

978-1-60595-225-3, ©2015, CD-ROM in plastic jewel case, **\$100.00**

Online: eProceedings, **\$75.00** (individual articles for \$25.00 each)

## **Asphalt Paving Technology 2014**

*Volume 83, Journal of the Association of Asphalt Paving Technologists*

Edited by: Eugene L. Skok

Features research presentations devoted to the chemistry, engineering, modeling and testing of asphalt materials and processing. Developments in the use of components like bio-oil are discussed, as are strategies for testing asphalt components for wear and durability at low and high temperatures.

978-1-60595-206-2, ©2015, 763 pages, 6x9, HC book/CD-ROM, **\$200.00**

## **Chemistry, Materials, and Properties of Surface Coatings**

*Traditional and Evolving Technologies*

Güngör Gündüz

This professional reference presents the basic science, as well as formulation, synthesis and manufacturing technologies of paints, polymer and inorganic coatings. The book forms a comprehensive guide to the materials engineering of surface coatings, including binders and solvents, and addresses practical issues such as adhesion, shelf-life, durability, hardness, mechanical and other qualities. It explains anti-corrosive, conductive, self-cleaning, self-healing paints plus eco-friendly powder and UV technologies. Attention is given to metallic and non-metallic pigments and special purpose paints for marine, automotive, and aerospace applications.

978-1-60595-066-2, ©2015, 768 pages, HC book, **\$189.50**

Online: eBook, **\$145.00**

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# ADVANCED MATERIALS

**2015**

## **Design, Manufacturing and Applications of Composites**

*Proceedings of the Tenth Canada-Japan Workshop on Composites*

August 19-21, 2014, Vancouver, BC, Canada

Edited by: R. Vaziri, A. Nakai, B. Crawford, M. Hojjati, T. Kosaka and S. Hoa

This book in the series spans across all areas in composite design and manufacturing. Papers focused on fundamental research, engineering R & D and industrial applications with the intention of promoting the innovative use of knowledge in equal measure to its creation are presented.

978-1-60595-169-0, ©2015, 402 pages, 6x9, SC book, **\$100.00**

## **Engineering Fundamentals of Ring Spinning/Twisting, Over-end Unwinding and Two-for-One Twisting in Textile Processes**

Engineering with Fibers Series

Subhash K. Batra and W. Barrie Fraser

Using basic physics and engineering principles, this technical book offers an integrated approach for theoretically modeling a number of critical processes in the production of yarns and their subsequent preparation to make costly downstream conversion processes in the textile industry more efficient. The models provide practical insight into the physics of the phenomena and explain hitherto unintelligible observations, including the encountered engineering limitations.

978-1-60595-172-0, ©2015, 188 pages, 6x9, HC book, **\$125.00**

Online: eBook, **\$90.00**

## **Guide to Modeling Thermoplastic Composite Manufacturing Processes**

*Optimizing Process Variables and Tooling Design Using Finite Element Analysis*

Abbas Milani and Corey Lynam

Explains methods for building comprehensive finite element-based models/programs for the purpose of optimizing process variables and predicting dimensional distortions during the manufacturing of thermoplastic matrix composite parts. Provides a step-by-step approach to predict the magnitude of distortion via easily available FE codes. The approach connects testing, material characterization, modeling, simulation and optimization and is illustrated in a multi-staged, rolled continuous thermoplastic woven fabric laminate, which can be readily applied to other materials and processes. The method reduces the need for costly and time-consuming re-tooling in parts design.

978-1-60595-042-6, ©2015, 100 pages, 6x9, SC book, **\$97.50**

Online: eBook, **\$72.50**

## **Joining Composites via Adhesives**

*Theory and Applications*

Edited by: Magd Abdel Wahab

A comprehensive technical introduction to the theory and practice of how adhesives are used to join different types of composite materials (including polymers, metals, concrete and wood), this contributed volume explains quantitative methods and testing for joint strength, as well as mechanics. The second part of the book focuses on adhesives as applied connecting and adhering composites in aerospace, aircraft, automotive, marine, civil engineering and biomedical applications.

978-1-60595-093-8, ©2015, 324 pages, 6x9, HC book, **\$155.00**

Online: eBook, **\$125.00**

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# ADVANCED MATERIALS

**2015**

## **Metal Matrix Syntactic Foams**

*Processing, Microstructure, Properties and Applications*

Edited by: Nikhil Gupta and Pradeep K. Rohatgi

Comprehensive technical treatment of the theory, mechanical engineering and applications of metal matrix syntactic foams. Part of the book covers processing and properties of metal foams based on the matrix metal. The second part compares syntactic foams of different materials based on density and strain rate. In addition, the text clarifies the design and application of syntactic foams in automotive and biomedical applications.

978-1-932078-83-1, ©2015, 370 pages, 6x9, HC book, **\$150.00**

Online: eBook, **\$110.00**

## **Response of Structures Under Extreme Loading**

*Fifth International Workshop on Performance, Protection & Strengthening of Structures under Extreme Loading, (PROTECT 2015), June 28-30, 2015*

Edited by: Venkatesh Kodur and Nemkumar Banthia

The book investigates the performance of structures subject to shock, explosions, earthquakes and fire and presents methods for strengthening, repairing and retrofitting structures and offers detailed temperature, load and stress analysis of numerous engineered materials, including fiber-reinforced polymers and high-performance concrete. New information on protection design, structural health monitoring, sensors and fire-resistant materials is included.

978-1-60595-227-7, ©2015, 1,013 pages, 6x9, SC book, **\$175.00**

Online: eProceedings, **\$150.00**

## **Structural Health Monitoring 2015**

*An Automated Solution to Global Structural Integrity Management*

*Proceedings of the Tenth International Workshop, September 1-3, 2015, Stanford University*

Edited by: Fu-Kuo Chang

This important series is available as a beautiful bound edition and in Internet downloadable format for research and technology development providing information on improved Structural Health Monitoring (SHM), including actuators, multifunctional materials, networks and systems, signal processing, prognostics/CBM+, validation, certification and more. Special attention is given to SHM in aerospace, civil infrastructures, oil/gas energy sectors, medical applications, etc.

Print: 978-1-60595-275-8, ©2015, 3,220 pages, 6x9, 2 Vol/HC book, **\$150.00**

Online: eProceedings, **\$150.00** (individual articles for \$25.00 each)

## **Sustainable Composites**

*Fibers, Resins and Applications*

Anil Netravalli and Christopher Pastore

Technical volume shows how the design and mechanics of composite materials are transferred to the development, testing and applications of materials fabricated in whole or in part from renewable resources. The book provides scientific details on how plant-based and recycled materials are incorporated as fibers, resins and additives into traditional and multifunctional composites. Explains testing, modeling and applications, particularly in architecture, civil engineering and transportation.

978-1-60595-111-9, ©2015, 562 pages, 6x9, HC book, **\$155.00**

Online: eBook, **\$115.00**

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# ADVANCED MATERIALS

**2014**

## **Aeronautical Applications of Non-destructive Testing**

Abbas Fahr

Presents a detailed assessment of non-destructive testing methods for materials and parts in aircraft. Describes a wide variety of NDT techniques and explains their application in the evaluation and inspection of aerospace materials and components ranging from the entire airframe to systems and subsystems. Offers guidance on the information derived from each NDT method and its relation to aircraft design, repair, maintenance and overall safety. The book covers basic principles, as well as practical details of instrumentation, procedures and operational results with a full discussion of each method's capabilities and limitations as these pertain to aircraft inspection and different types of materials, e.g., composites and metal alloys. A final section is devoted to NDT reliability.

978-1-60595-120-1, ©2014, 510 pages, 6x9, SC book, **\$160.00**

Online: eBook, **\$125.00**

## **American Society for Composites—Twenty-ninth Technical Conference**

*held jointly with 16th US-Japan Conference on Composite Materials and ASTM-D30 Meeting Proceedings, September 8-10, 2014, University of California San Diego, La Jolla, CA*

Edited by: Hyonny Kim

A fully searchable CD contains unpublished research on multifunctional, active, biobased, structural health and self-healing composites for aircraft, bridges, concrete, armor, and wind energy. Synthetic, biobased, and nano composites with multiple matrices are discussed, along with new ways to model and manufacture composites. Also covers: electrical properties, damage/failure, micromechanics, environmental effects and impact.

978-1-60595-124-9, ©2014, CD-ROM in plastic jewel case, **\$100.00**

## **Fundamentals of Fiber Science**

Xiangwu Zhang

This volume provides the basic chemical and mathematical theory needed to understand and modify the connections among the structure, formation and properties of many different types of manmade and natural fibers. At a fundamental level it explains how polymeric and non-polymeric fibers are organized, how such fibers are formed and how primary and secondary properties, from basic flow to thermal and electrical qualities are derived from molecular and sub-molecular organization, thus establishing the quantitative and predictive relationships needed for fiber engineering.

978-1-60595-119-5, ©2014, 429 pages, 6x9, HC book, **\$159.50**

Online: eBook, **\$99.50**

## **Introduction to Polymer Chemistry**

*A Biobased Approach*

Judit Puskas

Designed for polymer and materials engineering students, the text introduces polymer chemistry through polymers found in nature. It explains biobased polymer systems and synthetic systems by exploring the chemistry of natural polymers from plants and animals, as well as self-assembled macromolecular structures, including proteins, lignin, protamers, and fibers. Also covered are synthetic polymerization and emerging advances in green polymer chemistry.

978-1-60595-030-3, ©2014, 338 pages, 6x9, SC book, **\$75.00**

Online: eBook, **\$50.00**

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**2014**

## **The Mechanics of Adhesives in Composite and Metal Joints**

*Finite Element Analysis with ANSYS*

Magd Abdel Wahab

Introduces the mechanics and modeling of adhesive joints (lapped, cantilever beam, etc.) made from composites and metals. After reviewing basic mechanics applied to adhesive joining, the book demonstrates how the properties of such joints are determined using finite element analysis, specifically ANSYS. The book includes guidelines and original input files for modeling non-cracked, cracked and damaged joints, where stress, fatigue cracks, thermal and diffusion analyses must be carried out for more accurate design, lifetime prediction and repairs.

978-1-60595-096-9, ©2014, 226 pages, 6x9, HC book, **\$129.50**

Online: eBook, **\$95.00**

## **Waterborne Coatings Symposium 2014**

*Proceedings of the Forty-First Annual International Waterborne, High-Solids, and Powder Coatings Symposium*

Edited by: James W. Rawlins and Robson F. Storey

The book offers guidance to performance improvements by chemical modification of additives, dispersants, and cross-linkers, as well as new approaches using nanomaterials, graphene, and polymer brush chemistry. Attention is given to VOC reduction, enhanced hiding capacity, weatherability, dispersion and more.

978-1-60595-165-2, ©2014, 470 pages, 8.5x11, SC book, **\$124.50**

**2013**

## **American Society for Composites—Twenty-eighth Technical Conference**

*Proceedings, September 9–11, 2013, State College, Pennsylvania*

Edited by: Charles Bakis

978-1-60595-107-2, ©2013, CD-ROM in plastic jewel case, **\$100.00**

## **An Introduction to Healthcare and Medical Textiles**

Wen Zhong

A scientific introduction to the study, engineering and applications of medical textiles. Book moves systematically from the fundamentals of textile materials and their fabrication through biocompatibility and biodegradability to the applications of textiles in healthcare, ranging from hygiene to wound care, grafts, implantables and more.

978-1-60595-020-4, ©2013, 294 pages, 6x9, SC book, **\$129.50**

Online: eBook, **\$95.00**

## **Asphalt Paving Technology 2013**

*Volume 82, Journal of the Association of Asphalt Paving Technologists*

Edited by: Eugene L. Skok

Hardcover series volume addresses technical problems in the mixing, application and long-term behavior of different types of asphalt. Data is provided on asphalt modeling, as well as strategies for formulating and testing flexible asphalt. New advances in recycled and sustainable asphalt are discussed.

978-1-60595-145-4, ©2013, 750 pages, 6x9, HC book/CD, **\$200.00**

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# ADVANCED MATERIALS

**2013**

## **Composite Materials in Piping Applications**

*Design, Analysis and Optimization of Subsea and Onshore Pipelines from FRP Materials*  
Dimitris G. Pavlou

A comprehensive book on the design, analysis, and performance of composite materials (CM) in oil, gas, water and wastewater pipe applications. Part one provides background on composite materials with a special emphasis on failure analysis, dynamic responses due to pulsed and sudden loading, as well as pressure vibration. The second part explains theoretical tools for assessing the design and lifetime performance of CM pipelines. The volume discusses pressure and temperature gradients during service, for the purpose of carrying out loading calculations. Optimization methods are presented for reducing pipeline costs, and a section is devoted to pre-service and in-service quality and maintenance. Includes a CD-ROM that contains original computer algorithms in the Mathematica platform based on equations in the book.

978-1-60595-029-7, ©2013, 412 pages, 6x9, HC book/CD, **\$150.00**

Online: eBook, **\$125.00**

## **Composite Science and Technology**

*2020 Scientific and Industrial Challenges*

*Proceedings of the 9th International Conference (ICCST/9), April 24-26, 2013, Sorrento, Italy*

Edited by: Michele Meo

Main topics include: Mechanics of composites, NDE and Structural Health Monitoring, Smart materials & structures, Impact and dynamic response, Repair and Self-Healing, Applications of composites, Multiscale modelling, Nano composites, Metal-matrix composites, Composite manufacturing, Damage, Fatigue and fracture, Green and Bio-Composites, Hybrid composites and Textile composites.

Online: eProceedings, 978-1-60595-113-3, ©2013, **\$75.00**

(individual articles for \$25.00)

## **Design and Analysis of Structural Joints with Composite Materials**

Rikard B. Heslehurst

Book presents a comprehensive set of design and analysis equations, as well as technical steps, to enable engineers and technicians to produce and test effective structural joints using composite materials and explains how composites joints differ from ones made of metal. Techniques provided apply to joining methods in aviation, aerospace, automotive, infrastructure and recreation. The book is enhanced with details on failure analysis and ways to improve composite joining systems, as well as special sections on troubleshooting drawn from field-based case studies.

978-1-60595-034-1, ©2013, 464 pages, 6x9, HC book, **\$150.00**

Online: eBook, **\$120.00**

## **Design, Manufacturing and Applications of Composites**

*Proceedings of the Ninth Joint Canada-Japan Workshop on Composites*

*July 30-August 1, 2012, Kyoto, Japan*

Edited by: Hiroyuki Hamada, Yuqiu Yang and Suong Van Hoa

978-1-60595-116-4, ©2013, 319 pages, 6x9, SC book, **\$100.00**

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**2013**

## **Graphene in Composite Materials**

*Synthesis, Characterization and Applications*

Nikhil Koratkar

Original monograph locates graphene within the carbon chemistry alternatives available to materials engineers and explains how it is incorporated into polymer-matrix, as well as ceramic- and metal-matrix composite materials. The book shows how various forms of graphene are synthesized and then added to polymer composites as main or hybrid nanofillers, with a focus on how graphene affects the electrical and mechanical properties of composites.

978-1-60595-056-3, ©2013, 198 pages, 6x9, HC book, **\$125.00**

Online: eBook, **\$75.00**

## **Metal Foams**

*Fundamentals and Applications*

Edited by: Nihad Dukhan

The first full-scale technical treatment of an important class of engineered porous materials: metal foams. Written by a team of metal foam experts from around the world, the volume offers new, as well as fundamental, information on all aspects of metal foams, including their theory, manufacture, structure-property relationships and applications. The book explains microscopy and modeling tools that enhance the prediction and determination of metal foam properties related to fluid flow, heat transfer, sound absorption and failure analysis.

978-1-60595-014-3, ©2013, 458 pages, 6x9, HC book, **\$150.00**

Online: eBook, **\$115.00**

## **Nanocoatings: Principles and Practice**

*From Research to Production*

Steven Abbott and Nigel Holmes

A practical guide for designing and making commercial coatings to which nanoparticles are added, this volume shows how to create and recognize a nanocoating formulation with the correct functional properties. Illustrates how to make and apply a coating so that it actually works as designed. Book connects formulation and fabrication in ways conducive to the manufacture of marketable nanocoated products. Nanoparticles discussed include: metal oxides, quantum dots, CNTs, graphene, nanoclays, photoconductors and more. Book is accompanied by downloadable working spreadsheets of design formulas and coatings data.

978-1-60595-090-7, ©2013, 343 pages, 6x9, HC book, **\$165.00**

Online: eBook, **\$144.50**

## **Nonlinear Mechanics**

*Proceedings of the Sixth International Conference (ICNM-VI), August 12-15, 2013, Shanghai, China*

Edited by: Zhe-wei Zhou

978-1-60595-109-6, ©2013, 637 pages, 6x9, SC book, **\$100.00**

## **Thermal Conductivity 31/Thermal Expansion 19**

*Proceedings of the 31st International Thermal Conductivity Conference and the 19th International Thermal Expansion Symposium, June 26-30, 2011*

Edited by: László I. Kiss and Lyne St-Georges

Part of the ITCC/ITES book series on thermal conductivity. Edited papers include applications related to thermophysical properties, measurement methods, equipment, processes, theory, and new developments. In addition to the traditional topics, articles include: green-energy applications, energy conservation, with new improved insulations and research related to global warming.

978-1-60595-055-6, ©2013, 326 pages, 6x9, HC book, **\$99.50**

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# ADVANCED MATERIALS

**2013**

## **The Waterborne Coatings Symposium**

*40th Annual International Waterborne, High-Solids, and Powder Coatings Symposium*

Edited by: James W. Rawlins and Robson F. Storey

This volume comprises 34 original papers on all phases of waterborne coatings, including UV curing, biobased coatings, polymer chemistry and processing, additives and pigmentation. Polymer chemistry is presented to improve processing of waterborne coatings and their adhesion to wood, metal and plastic surfaces under a range of environmental conditions.

978-1-60595-105-8, ©2013, 537 pages, 8.5 x11, SC book, **\$99.50**

*DEStech Publications and the American Society for Composites are proud to present the "ASC Series on Advances in Composite Materials."* These volumes consist of select definitive papers from past conferences.

## **Volume 1: Dynamic Effects in Composites**

Edited by: Dahsin Liu; Managing Editor: Michael Hyer

Book comprises multiple investigations into dynamic loading's effects on composite materials. With approaches ranging from weight drop to high-velocity and high-impact testing, as well as FEM and other analytic techniques, leading researchers explain damage, delamination and other effects in a variety of composites types and configurations.

978-1-60595-072-3, ©2012, 306 pages, 6x9, SC book, **\$25.00**

## **Volume 2: Nanocomposites**

Edited by: Tsu-Wei Chou and Chin-Teh Sun; Managing Editor: Michael Hyer

Second ASC series volume concentrates on using carbon- and silicon-based nanotubes, nanofibers and graphene sheets to improve the performance and properties of composites materials. The book covers all phases of nanocomposite synthesis--from design and multiscale modeling to processing and testing. Special attention is given to problems of dispersion and interfacial bonding and to using nanoparticles to enhance the electrical and mechanical properties of composites.

978-1-60595-073-0, ©2012, 240 pages, 6x9, SC book, **\$25.00**

## **Volume 3: Fatigue of Composite Materials**

Edited by: Ronald Gibson; Managing Editor: Michael Hyer

Presents unpublished investigations of fatigue modeling, behavior and experimental characterization. Covers prediction of fatigue life and crack growth, with new data on characterization and fatigue in composite laminates, joints, graphite, carbon nanotubes and full-scale structures.

978-1-60595-085-3, ©2013, 234 pages, 6x9, SC book, **\$25.00**

## **Volume 4: Failure in Composites**

Edited by: Anthony M. Waas and Bhavani V. Sankar; Managing Editor: Michael Hyer

The fourth volume of the ASC series contains critical information on static and dynamic composite failure and how it is predicted and modeled using novel computational methods and micromechanical analysis. Covers failure mechanisms for plates, tubes, panels, noncircular cylinders, and sandwich composite damage from projectile impact, crushing, and torsion.

978-1-60595-089-1, ©2013, 282 pages, 6x9, SC book, **\$25.00**

## **Volume 5: Damage of Composites**

Edited by: Bhavani V. Sankar and Anthony M. Waas; Managing Editor: Michael Hyer

Volume 5 of the ASC series presents original and path-breaking recent work on composite damage analysis, using empirical test methods and computational models. This book was developed by the editors as a complement to Volume 4 on failure in composite materials.

978-1-60595-088-4, ©2013, 304 pages, 6x9, SC book, **\$25.00**

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# ADVANCED MATERIALS

ASC Series on Advances in Composite Materials *continued*

## Volume 6: Manufacturing of Composites

Edited by: Alfred C. Loos; Managing Editor: Michael Hyer

Book comprises 16 original papers on the processing and manufacturing of thermoset and thermo-plastic composites. Nine chapters cover modeling and process parameters for many shapes of thermosets using RTM, VARTM and CRTM. Five chapters focus on thermoplastics, including FEM analysis, preforms, and optimizing manufacturing. The book concludes with important chapters on new processes, such as vacuum-bag-only prepregs (VBO) for out-of-autoclave (OOA) fabrication of aerospace composites.

978-1-60595-099-0, ©2013, 288 pages, 6x9, SC book, **\$25.00**

## 2012

**American Society for Composites—Twenty-seventh Technical Conference**  
*held jointly with 15th US-Japan Conference on Composite Materials and ASTM-D30 Meeting*  
*Proceedings, October 1-3, 2012, Arlington, Texas*

Edited by: Wen S. Chan, Seiichi Nomura and Dragos-Stefan Dancila

978-1-60595-076-1, ©2012, CD-ROM in plastic jewel case, **\$75.00**

## Asphalt Paving Technology 2012

*Volume 81, Journal of the Association of Asphalt Paving Technologists*

Edited by: Eugene L. Skok

Presents over 30 refereed and not previously published research reports on all areas of asphalt technology including mixing, mixture elements, and testing. Offers new solutions to production and scale-up problems in asphalt plants and original information on asphalt research in Latin America. Subjects investigated include: photocatalytic asphalt; cracking resistance; fracture properties; RAP aggregate; high polymer mixtures; longitudinal joints; asphalt concrete; and GB5 mix design.

978-1-60595-100-3, ©2012, 855 pages, 6x9, HC book/CD-ROM, **\$200.00**

## Fatigue Behaviour of Fiber Reinforced Polymers

*Experiments and Simulations*

Edited by: Wei-Xing Yao, Jacques Renard and Norbert Himmel

978-1-60595-091-4, ©2012, 291 pages, 8x10, HC book, **\$75.00**

Online: eBook, **\$65.00**

## Introduction to Nonwovens Technology

Engineering with Fibers Series

Subhash Batra and Behnam Pourdeyhimi

Provides a systematic step-by-step explanation of virtually all processes that integrate relevant raw materials into finished nonwovens for different end uses. The book explains the connection between the structure of nonwovens and the specialized, as well as still evolving, technologies used to produce them—from simple roll goods to nanoscale webs and fiberwebs. The unified treatment in the book is meant to serve the needs of engineering and technology professionals. For students and instructors, the text also offers reviews of basic chemistry, polymer physics and heat transfer concepts, which are linked to processing and design information. Problems and exercises are presented for classroom study and individual practice.

978-1-60595-037-2, ©2012, 366 pages, 6x9, HC book, **\$169.50**

Online: eBook, **\$135.00**

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# ADVANCED MATERIALS

## 2012

### **Nanomaterials in Concrete**

*Advances in Protection, Repair, and Upgrade*

Henry E. Cardenas

978-1-60595-050-1, ©2012, 190 pages, 6x9, HC book, **\$100.00**

Online: eBook, **\$75.00**

### **Nanoscience and Nanomaterials**

*Synthesis, Manufacturing and Industry Impacts*

Wei-Hong Zhong, Bin Li, Russell G. Maguire, Vivian T. Dang, Jo Anne Shatkin,

Gwen M. Gross and Michael C. Richey

A comprehensive account of how nanomaterials are synthesized and processed, this book presents the theory and technologies of producing nano-based materials, particularly nanocomposites, for various applications.

978-1-60595-013-6, ©2012, 310 pages, 6x9, HC book, **\$110.00**

Online: eBook, **\$75.00**

### **Nanotechnologies for Solubilization and Delivery in Foods, Cosmetics and Pharmaceuticals**

Edited by: Nissim Garti and Idit Amar-Yuli

Demonstrates how vehicles for delivering bioactive ingredients through a variety of oral, transdermal, buccal and mucosal routes, can be synthesized by nanolevel manipulation of colloidal systems, proteins, peptides, liquid crystalline phases, organogels and dendrimers. Special attention is given to the modification of mesophases in micellar and liquid crystal systems, which are shown to be productive templates and chemical nanoreactors for uniquely structured nanocarriers.

978-1-60595-016-7, ©2012, 401 pages, 6x9, HC book, **\$125.00**

Online: eBook, **\$115.00**

### **Plants and Mechanical Motion**

*A Synthetic Approach to Nastic Materials and Structures*

Edited by: Norman Wereley and Janet M. Sater

Beginning with the basics of plant motion, this book explains technologies for translating plant-like-movements to new adaptive materials, with explicit reference to helicopter and aeronautic applications.

978-1-60595-043-3, ©2012, 274 pages, 6x9, HC book, **\$150.00**

Online: eBook, **\$135.00**

## 2011

### **Advances in Heterogeneous Material Mechanics (ICHMM-2011)**

Edited by: J. Fan, J. Zhang, H. Chen and Z.H. Jin

978-1-60595-054-9, ©2011, 1,204 pages, 6x9, SC book, **\$99.50**

### **American Society For Composites—Twenty-sixth Technical Conference**

*The Second Joint US-Canada Conference on Composites*

*Proceedings, September 26-28, 2011, Montreal, Quebec, Canada*

Edited by: Suong Hoa, Michael Hyer, Ozden Ochoa and Mehdi Hojjati

978-1-60595-051-8, ©2011, CD-ROM in plastic jewel case, **\$75.00**

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## 2011

### **BALLISTICS 2011**

*26th International Symposium, September 12-16, 2011, Miami, FL USA*

Edited by: Ernest Baker and Doug Templeton

978-1-60595-052-5, ©2011, 2,226 pages, 2 vols. w/CD, 6x9, HC book, **\$174.50**

### **Composites for Automotive, Truck and Mass Transit**

*Materials, Design, Manufacturing*

Uday Vaidya

This technical monograph provides a comprehensive explanation of how advanced composite materials, including FRPs, reinforced thermoplastics and others, are designed, manufactured and utilized in exterior, interior, under-the-hood structural, semi-structural and non-structural components in passenger cars, trucks, and mass transit vehicles.

978-1-932078-79-4, ©2011, 432 pages, 6x9, HC book, **\$150.00**

Online: eBook, **\$115.00**

### **Structural Health Monitoring 2011**

*Condition Based Maintenance and Intelligent Structures*

*Proceedings of the Eighth International Workshop, September 13–15, 2011, Stanford University*

Edited by: Fu-Kuo Chang

978-1-60595-053-2, ©2011, 2,704 pages, 2 vols. w/CD, 6x9, HC book, **\$100.00**

## 2010

### **American Society For Composites—Twenty-fifth Technical Conference**

*held jointly with 14th US-Japan Conference on Composite Materials and ASTM-D30 Meeting Proceedings, September 20-23, 2010, University of Dayton, Dayton, OH*

Edited by: Steven Donaldson and Gregory Schoeppner

978-1-60595-025-9, ©2010, CD-ROM in plastic jewel case, **\$75.00**

### **Design, Manufacturing and Applications of Composites**

*Proceedings of the Eighth Joint Canada-Japan Workshop on Composites July 26-29, 2010, Montreal, Canada*

Edited by: Anh Dung Ngo, Johanne Denault, Tohru Morii, and Asami Nakai

978-1-60595-028-0, ©2010, 466 pages, 6x9, SC book, **\$100.00**

### **Polymeric Solar Cells**

*Materials, Design, Manufacture*

Edited by: Frederik Krebs

978-1-60595-017-4, ©2010, 243 pages, 6x9, HC book, **\$65.00**

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**2009**

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## **Recent Advances in Textile Composites (TexComp 10)**

*10th International Conference on Textile Composites, October 26-28, 2010*

Edited by: Christophe Binetruy and François Boussu

978-1-60595-026-6, ©2010, 578 pages, 6x9, SC book, **\$65.00**

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## **Structural Health Monitoring 2010**

*Proceedings of the Fifth European Workshop, Sorrento, Naples, Italy, June 29-July 2, 2010*

Edited by: Fabio Casciati and Michele Giordano

978-1-60595-024-2, ©2010, 1,420 pages, 6x9, HC book/CD-ROM, **\$100.00**

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## **Thermal Conductivity 30/Thermal Expansion 18**

*Proceedings of the 30th International Thermal Conductivity Conference and the 18th International Thermal Expansion Symposium, August 29-September 2, 2009*

Edited by: Daniela S. Gaal and Peter S. Gaal

978-1-60595-015-0, ©2010, 1,016 pages, 6x9, HC book, **\$100.00**

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## **American Society For Composites—Twenty-fourth Technical Conference**

*Proceedings, September 15-17, 2009, University of Delaware, Newark, DE*

Edited by: John W. Gillespie, Jr.

978-1-60595-008-2, ©2009, CD-ROM in plastic jewel case, **\$75.00**

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## **Poromechanics IV**

*Proceedings, The Fourth Biot Conference on Poromechanics, June 8-10, 2009, Columbia Univ., NY*

Edited by: Hoe Ling and Andrew Smyth

978-1-60595-006-8, ©2009, 1,179 pages, 6x9, HC book, **\$100.00**

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## **Stress Analysis of Fiber-Reinforced Composite Materials**

*Updated Edition*

Michael Hyer, Ph.D.

Again available and updated, this classic book remains the definitive source of knowledge on the use of mechanics to understand stresses in composites caused by deformations, loading, and temperature changes. For advanced students and engineers, the book is a clear, practical introduction to analyzing the behavior of composites.

978-1-932078-86-2, ©2009, 710 pages, 6x9, HC book, **\$199.50**

Online: eBook, **\$164.50**

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## **Structural Health Monitoring 2009**

*From System Integration to Autonomous Systems*

*Proceedings of the Seventh International Workshop, September 9–11, 2009, Stanford University*

Edited by: Fu-Kuo Chang

Research on the safety monitoring of civil structures such as bridges, as well as ships and aircraft.

595-007-5, ©2009, 2,372 pages, 2 Vols./CD, 6x9, HC book, **\$125.00**

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## 2008

### **Advances in Heterogeneous Material Mechanics (ICHMM-2008)**

Edited by: Jinghong Fan and Haibo Chen

978-1-932078-80-0, ©2008, 1,755 pages, 6x9, SC book, **\$50.00**

### **American Society For Composites—Twenty-third Technical Conference**

*Proceedings, September 7-9, 2008, Memphis, TN*

Edited by: A. Vizzini

978-1-932078-95-4, ©2008, CD-ROM in plastic jewel case, **\$75.00**

### **Design, Manufacturing and Applications of Composites**

*Proceedings of the Seventh Joint Canada-Japan Workshop on Composites*

*July 28-31, 2008, Shonan Institute of Technology, Fujisawa, Kanagawa, Japan*

Edited by: J. Lo, T. Morii, C. Poon, A. Nakai, S. V. Hoa, and H. Hamada

978-1-932078-96-1, ©2008, 266 pages, 6x9, SC book, **\$100.00**

### **Porous Metals and Metallic Foams (MetFoam 2007)**

*5th International Conference, September 5-7, 2007, Montreal, Canada*

Edited by: L. P. Lefebvre

Research and development on metallic foams and porous metals is contained in this fully refereed book. The book covers new ways to design and process metallic foams and illustrates the many applications where metallic foams and porous metals are being implemented.

978-1-932078-28-2, ©2008, 541 pages, 8.5x11, HC book, **\$125.00**

### **Recent Advances in Textile Composites (TexComp 9)**

*9th International Conference on Textile Composites, October 13-15, 2008*

Edited by: Suresh G. Advani and John W. Gillespie, Jr.

978-1-932078-81-7, ©2008, 545 pages, 6x9, SC book, **\$50.00**

### **Structural Health Monitoring 2008**

*Proceedings of the Fourth European Workshop, Krakow, Poland, July 2-4, 2008*

Edited by: Tadeusz Uhl

This volume shows how SHM is applied in emerging technologies, such as wind turbines, as well as in transportation and infrastructure.

978-1-932078-94-7, ©2008, 1,328 pages, 6x9, HC book, **\$100.00**

### **Thermal Conductivity 29/Thermal Expansion 17**

*Proceedings of the 29th International Thermal Conductivity Conference and the*

*17th International Thermal Expansion Symposium, June 24-27, 2007, Birmingham, Alabama*

Edited by: John R. Koenig and Heng Ban

978-1-932078-72-5, ©2008, 624 pages, 6x9, HC book, **\$100.00**

## 2007

### **American Society For Composites—Twenty-second Technical Conference**

*Proceedings, September 17-19, 2007, University of Washington, Seattle, WA*

Edited by: P. Feraboli and P. B. Stickler

978-1-932078-70-1, ©2007, CD-ROM in plastic jewel case, **\$75.00**

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## 2007

### **Structural Health Monitoring 2007**

*Quantification, Validation, and Implementation*

*Proceedings of the Sixth International Workshop, September 11–13, 2007, Stanford University*

Edited by: Fu-Kuo Chang

978-1-932078-71-8, ©2007, 2,154 pages, 2 Vols./CD, 6x9, HC book, **\$100.00**

## 2006

### **American Society For Composites—Twenty-first Technical Conference**

*Proceedings, September 17-20, 2006, University of Michigan-Dearborn, Dearborn, MI*

Edited by: P.K. Mallick

978-1-932078-60-2, ©2006, CD-ROM in plastic jewel case, **\$75.00**

### **Structural Health Monitoring 2006**

*Proceedings of the Third European Workshop*

*Conference Centre, Granada, Spain, July 5-7, 2006*

Edited by: Alfredo Güemes and Rafael Gallego

978-1-932078-63-3, ©2006, 1,454 pages, 6x9, HC book, **\$75.00**

### **Twelfth U.S.-Japan Conference on Composite Materials**

*Proceedings, University of Michigan-Dearborn, Dearborn, MI, September 21-22, 2006*

Edited by: P. K. Mallick

978-1-932078-61-9, ©2006, 824 pages, 6x9, HC book, **\$50.00**

## 2005

### **Intelligence in a Small Materials World**

*Selected Papers from IPMM-2003*

*The Fourth International Conference on Intelligent Processing and Manufacturing of Needs*

Edited by: J. A. Meech, Y. Kawazoe, V. Kumar and J. F. Maguire

978-1-932078-19-0, ©2005, 985 pages, 6x9, SC book, **\$50.00**

### **Structural Control**

*Proceedings of the 4th International Workshop, June 10-11, 2004, Columbia University, NY*

Edited by: Andrew Smyth and Raimondo Betti

978-1-932078-45-9, ©2005, 326 pages, 6x9, HC book, **\$50.00**

## 2004

### **American Society For Composites—Nineteenth Technical Conference**

*Held jointly with the ASTM-D30 Meeting. Proceedings, October 17-20, 2004, Atlanta, GA*

Edited by: Erian Armanios and James Reeder

978-1-932078-44-2, ©2004, CD-ROM in plastic jewel case, **\$75.00**

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# ADVANCED MATERIALS

**2004**

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## **Introduction to the Dimensional Stability of Composite Materials**

Ernest G. Wolff

This book is a comprehensive introduction to the quantitative analysis of dimensional instability in composite materials. It will aid in predicting deformations in a wide range of composite materials products and parts, under mechanical, thermophysical, and environmental stresses over time.

978-1-932078-22-0, ©2004, 420 pages, 6x9, HC book, **\$125.00**

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## **Polymer Composites III**

*Transportation Infrastructure, Defense and Novel Applications of Composites Proceedings, March 30–April 1, 2004, West Virginia University, Morgantown, WV*

Edited by: Robert C. Creese and Hota GangaRao

978-1-932078-35-0, ©2004, 211 pages, 6x9, HC book, **\$29.50**

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## **Thermal Conductivity 27/Thermal Expansion 15**

*Proceedings of the 27th International Thermal Conductivity Conference and the 15th International Thermal Expansion Symposium, October 26-29, 2003, Knoxville, TN*

Edited by: Hsin Wang and Wally Porter

978-1-932078-34-3, ©2004, 681 pages, 6x9, HC book, **\$100.00**

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## **Thermal Conductivity 26/Thermal Expansion 14**

*Proceedings of the 26th International Thermal Conductivity Conference and the 14th International Thermal Expansion Symposium, August 6-8, 2001, Cambridge, MA*

Edited by: Ralph Dinwiddie

978-1-932078-36-7, ©2004, 592 pages, 6x9, HC book, **\$90.00**

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## **2003/2002/2001**

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### **Structural Health Monitoring 2003**

*From Diagnosis & Prognostics to Structural Health Management*

*Proceedings of the Fourth International Workshop, September 15–17, 2003, Stanford University*

Edited by: Fu-Kuo Chang

978-1-932078-20-6, ©2003, 1,552 pages, 6x9, HC book, **\$100.00**

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### **Tenth U.S.-Japan Conference on Composite Materials**

*Proceedings, September 16-18, 2002, Stanford University, USA*

Edited by: Fu-Kuo Chang

978-1-932078-13-8, ©2002, 1,125 pages, 6x9, HC book, **\$35.00**

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# EDUCATION

## 2016

### **Action Now**

#### *Transforming Schools Through Community*

Rebecca Wheat

This practical volume focuses on techniques for contacting and involving community members in public schools. Based on interviews with working school administrators in the San Francisco Bay area, the text presents ideas for forging networks and enlisting/retaining neighborhood leaders and families for school improvement initiatives.

978-1-60595-232-1, ©2016, 72 pages, 6x9, SC book, **\$22.50**

## 2015

### **Preparing for and Passing the School Superintendent Test of Texas**

#### *2nd Edition*

Pauline Sampson

A revision of a popular handbook designed to assist professionals in preparing for the state of Texas' school superintendency exam. The book lists all the standards examinees are expected to know, explains what the standards mean and locates them in terms of sample exam questions and answers. This edition includes updated standards and improved sample questions.

978-1-60595-216-1, ©2015, 160 pages, 6x9, SC book, **\$58.50**

Online: eBook, **\$40.00**

## 2014

### **Special Programs and Services in Schools**

#### *Creating Options, Meeting Needs*

#### *Revised, 2nd Edition*

Bonnie Beyer and Eileen S. Johnson

This is an updated and revised version of the original (2005) volume that organized and explained virtually all federally mandated programs administered in public education in the United States. It explains the goals and requirements of dozens of programs and clarifies government regulations affecting students as well as citizens who come in contact with schools, e.g., disabled individuals, job-seekers, employees, non-English-speaking parents and many other groups. The detailed information in this book is needed for understanding government mandates, accessing the right agencies, reducing discrimination, and avoiding legal entanglements. The book is used extensively in university courses for school administration.

978-1-60595-175-1, ©2014, 225 pages, 7x10, SC book, **\$55.50**

Online: eBook, **\$42.50**

## 2013

### **Costs of Education**

#### *Revenue and Spending in Public, Private and Charter Schools*

Betty Cox, Spencer Weiler and Luke Cornelius

Based on extensive research and actual school budgets, this volume is a systematic exposition of how money is collected and spent in the thousands of U.S. public school districts, as well as in parochial, private and charter schools. The book explains the decisions and paper trail of how funds are allocated in planning, justified in outlays, and accounted for, especially with regard to educational goals.

978-1885432-54-4, ©2013, 236 pages, 6x9, SC book, **\$46.50**

Online: eBook, **\$41.00**

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# EDUCATION

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## 2013

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### **School Maintenance and Renovation**

*Administrator Policies, Practices, & Economics*

*2nd, Expanded Edition*

Glen I. Earthman and Linda K. Lemasters

Revised professional text covers technical details needed to build, maintain and upgrade school facilities, with special attention to student achievement and the budget. Information on financial calculations, procurement, staffing, outsourcing, legal and regulatory aspects and operations is included. The new edition offers guidance on alternative funding and cost-saving strategies, state and federal regulations, and trends in green building and LEED certification.

978-1885432-53-7, ©2013, 255 pages, 6x9, SC book, **\$46.50**

Online: eBook, **\$40.00**

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## 2011

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### **Shadow Children**

*Understanding Education's #1 Problem*

*Second Edition*

Anthony S. Dallmann-Jones

Provides an in-depth, research based examination of the at-risk problem and population by a leading authority. Included is a section of 5 chapters that provides guidance in prevention and intervention programs. The new edition is the primary text for Learner's Edge popular distance learning course "The Courage to Care: Working with At-Risk Students".

978-0-9787610-3-5, ©2011, 233 pages, 6x9, SC book, **\$34.50**

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## 2009

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### **Catholic School Administration**

*Theory, Practice, Leadership*

*2nd Edition, Revised and Expanded*

Robert H. Palestini

This second edition of the highly influential text, Catholic School Administration, has been greatly enlarged and improved with new chapters on curriculum improvement, supervision of instruction, ways to assess testing—as well as new information on marketing, human resources, and student recruitment. Based on principles drawn from Ignatius to Vatican II, as well as concepts from current educational and social theorists, the book combines the best ideas for leading and decision-making with detailed practical presentations of the managerial tasks that must be mastered to run a parochial school. Case studies and surveys provide extra guidance. For readers seeking to make organizational and instructional improvements, this text offers proven techniques for systematic change. It is an outstanding resource for introducing administrators to the challenges of running a Catholic school.

1-885432-44-5, ©2009, 346 pages, 6x9, SC book, **\$38.00**

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# ENVIRONMENTAL TECHNOLOGY

**2020**

## **Construction Site Soil Erosion and Sediment Controls**

*Planning, Design, and Performance*  
*Second Edition*

Robert Pitt, Shirley Clark and Donald Lake

This is a new edition of a widely used textbook on construction site erosion, first published in 2007. The new edition has been fully updated in terms of both technology, e.g., expanded discussions of chemical treatment and legal regulations governing site controls. The book now includes extensive data on the performance of erosion control strategies, along with a fuller discussion of both U.S. and international technical methods and standards. In addition, the revised volume contains more problems and projects for engineering students.

978-1-60595-599-5, ©2020, 462 pages, 8.5x11, SC book, **\$154.50**

Online: eBook, **\$125.00**

## **Wastewater Treatment Plant Operations Made Easy**

*A Practical Guide for Licensure*  
*Revised Edition*

Frank Spellman and Joanne Drinan

Updated format and edited for clarity with questions and quizzes designed for exam preparation. This book gives plant operators and students of wastewater a simple and math-based introduction to all major unit processes in the modern wastewater treatment plant. The work is designed for operators and managers to run plants and to advance their careers by passing state licensure exams. Sample questions and problems in the text have been selected to prepare for operator examinations.

978-1-60595-622-0, ©2020, 244 pages, 6x9, SC book, **\$44.50**

Online: eBook, **\$37.50**

**2019**

## **Activated Sludge Wastewater Treatment**

*Process Control & Optimization for the Operations Professional*

Eric J. Wahlberg

The book presents a scientific explanation of all unit operations in the activated sludge process and uses data to demonstrate the effectiveness of original process engineering techniques for modifying the sludge process and correcting problems in it. Provides methods for more efficient sludge treatment and predictable operating conditions by including mathematical explanations of operations based on instructional modules, as well as state point analysis. Investigates problems in aeration, settling, nitrification, denitrification, anaerobic digestion, and secondary clarification.

978-1-60595-333-5, ©2019, 538 pages, 6x9, HC book, **\$159.50**

Online: eBook, **\$95.00**

## **Land Treatment of Municipal Wastewater**

Frank R. Spellman

The book explains how land treatment works, particularly slow-rate land treatment, and then investigates technical improvements, including phytoremediation; vadose-zone monitoring; new types of surface irrigation; recharge and land subsidence strategies. Provides information on soil and aquifer management and develops a rational model for balancing oxygen uptake with BOD loadings. A special feature is demonstrating the use of land application to treat industrial wastewater, with an emphasis on food processing influents. Book analyses risks to the environment of land methods compared to those posed by other wastewater treatment methods.

978-1-60595-538-4, ©2019, 336 pages, 6x9, SC book, **\$94.50**

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# ENVIRONMENTAL TECHNOLOGY

**2019**

## **Wastewater Odor Production and Control**

*An Operator's Guide*

Michael Gerardi and Jon Gerardi

A comprehensive guide to the causes and control of odors in wastewater plants, lagoons, and biosolids (sludge) handling facilities, the book spells out the chemical and microbiological conditions in wastewater unit operations that produce foul smells and potential health hazards for workers. The book provides information on how to monitor odors and then explains techniques for preventing odors before they occur. Essential information is given on chemical, filtering and scrubbing methods for controlling mephitic compounds. The book also offers management strategies for addressing public complaints about odors associated with wastewater treatment.

978-1-60595-064-8, ©2019, 160 pages, 6x9, SC book, **\$124.50**

## **Water Treatment Operations Made Easy**

*A Practical Guide for Licensure*

Frank R. Spellman and J. Price-Bayer

This book gives plant operators and students a simple and math-based introduction to all major unit processes in the modern water treatment plant. The work is designed for operators and managers to run plants and to advance their careers by passing state licensure exams.

978-1-60595-509-4, ©2019, 472 pages, 6x9, SC book, **\$49.50**

Online: eBook, **\$37.50**

**2018**

## **Chemical Composition and Biological Activity of Environmental Waters**

*Characterization Methods*

Paul Bradley et al., *US Geological Survey*

The U.S. Geological Survey, in cooperation with the U.S. Environmental Protection Agency, conducted a study in which samples were collected from 38 streams in 25 States to provide an overview of chemical contaminants found in stream water across the Nation.

978-1-60595-533-9, ©2018, 116 pages, 8.5x11, SC book, **\$79.50**

**2016**

## **The Science of Wastewater**

Frank R. Spellman

The scientific properties of wastewater and the unit processes used to transform it into effluent of sufficient quality to be discharged into the environment are explained in this reference, which presents step-by-step descriptions of, and mathematical tools for, wastewater treatment from filtering and activated sludge to detention basins, ponds and lagoons to the stabilization and composting of biosolids. Chapters cover the math, hydraulics, chemistry, electrical conductivity of wastewater and its constituents, as well as methods and calculations used in sedimentation, biological contractors, chemical dosing, lab analysis and more, with hundreds of operations-based problems and solutions.

978-1-60595-250-5, ©2016, 508 pages, 6x9, HC book, **\$129.50**

Online: eBook, **\$95.00**

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# ENVIRONMENTAL TECHNOLOGY

**2016**

## **Wastewater Bioaugmentation and Biostimulation**

Michael Gerardi

A guide to understanding and enhancing existing microbial populations in biological wastewater treatment for municipal and industrial waste streams, the book addresses operational problems arising from deficiencies in biomass and presents ways wastewater processes can be improved. The text explains the groups of microbes used in bioaugmentation and the nutrients, enzymes and growth factors needed to solve processing problems and achieve operational goals, e.g., the conversion of starches such as cellulose. The text also reviews the degradation of substrates and the roles performed by specific microbes.

978-1-932078-78-7, ©2016, 147 pages, 6x9, HC book, **\$124.50**

Online: eBook, **\$99.50**

**2015**

## **Life Cycle Analysis of Nanoparticles**

*Risk, Assessment and Sustainability*

Edited by: Ashok Vaseashta

This book discusses how lifecycle assessment (LCA) concepts are applied to analyze the fate of nanoparticles and nanomaterials in a variety of environmental and manufacturing settings. Starting by locating LCA and LCA modeling in the context of overall risk assessment, the text presents sensor methods to detect and monitor nanoparticles and to characterize their risks. Subsequent chapters focus on the potential for the design of sustainable nanomaterials. Chapter topics include: risk mitigation in water, toxicology, biosensors, and membranes.

978-1-60595-023-5, ©2015, 404 pages, 6x9, HC book, **\$75.00**

Online: eBook, **\$50.00**

**2014**

## **Activated Sludge Technologies for Treating Industrial Wastewaters**

*Design and Troubleshooting*

Joseph G. Cleary and W. Wesley Eckenfelder

A comprehensive presentation of activated sludge from basic principles to new process designs and configurations, the book explains how activated sludge is utilized to bring industrial wastewaters up to effluent permit standards, with special attention to organics, microconstituents and bioactive pharmaceuticals. Covers characterization, pretreatment; treatability studies; process modeling and reuse from pharma, food, beverage, and meat packing facilities. A chapter is devoted to treatment of shale gas/fracking wastes. Key information for retrofitting, troubleshooting and new design.

978-1-60595-019-8, ©2014, 234 pages, 6x9, SC book, **\$44.00**

## **Personal Care Products and Pharmaceuticals in Wastewater and the Environment**

Frank R. Spellman

This volume analyzes current knowledge regarding the effects of endocrine disruptors and pharmaceuticals and personal care products in drinking water distribution systems. The book focuses on physiological effects in humans and animals of perchlorates, plasticizers, such as phthalates, bisphenol-A, and steroids that may be ingested in water. It evaluates technologies for detection and analysis, particularly with a view to EPA and other regulatory guidelines.

978-1-60595-123-2, ©2014, 244 pages, 6x9, SC book, **\$24.50**

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# ENVIRONMENTAL TECHNOLOGY

**2013**

## **Safe Work Practices for Green Energy Jobs**

Frank R. Spellman

A technical guide to establishing, promulgating and adhering to safety and protective procedures for wind energy, solar energy, geothermal, biofuel and recycling facilities. The book explains OSHA-mandated rules and shows how they are applied in the rapidly emerging area of green energy production and storage.

978-1-60595-075-4, ©2013, 323 pages, 6x9, SC book, **\$24.50**

**2011**

## **Sludge Engineering**

*The Treatment and Disposal of Wastewater Sludges*

F. Dilek Sanin, William W. Clarkson and P. Aarne Vesilind

With engineering and design information on sludge disposal technology and current legislation governing sludge removal, this professional book explains the best methods and management practices for safely treating wastewater plant and industry sludges. Covers sources and properties, stabilization, pumping/conveying, thickening, dewatering, as well as chemical industry sludges and ultimate land disposal and monitoring.

978-1-932078-87-9, ©2011, 403 pages, 6x9, HC book, **\$175.00**

Online: eBook, **\$125.00**

**2006/2004/2003**

## **Controlling Environmental Pollution**

*An Introduction to the Technologies, History, and Ethics*

Aarne Vesilind and Thomas D. DiStefano

Introductory textbook designed for a one-semester course in environmental technology. Created to appeal to a range of students, it combines lucid presentations of environmental technologies with fascinating stories and biographies illustrating milestones in environmental science and engineering.

978-1-932078-39-8, ©2006, 427 pages, 6x9, SC book, **\$69.50**

Online: eBook, **\$42.50**

*Student price available*

## **The Use of Best Management Practices (BMPs) in Urban Watersheds**

Edited by: R. Field, A. N. Tafuri, S. Muthukrishnan, B. A. Acquisto and A. Selvakumar

Written by leading U.S. stormwater experts, this book is a guide to the main techniques for controlling pollutants from diffuse, mainly wet weather, sources. Provides valuable data on the removal efficiencies, costs, and design parameters of all main runoff control structures.

978-1-932078-46-6, ©2006, 282 pages, 8.5x11, SC book, **\$49.50**

## **Pulp & Paper Mill Effluent Environmental Fate & Effects**

Edited by: Dennis L. Borton, Timothy Hall, Robert Fisher and Jill Thomas

978-1-932078-37-4, ©2004, 608 pages, 7x10, HC book/CD, **\$49.50**

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# ENVIRONMENTAL TECHNOLOGY

**2006/2004/2003**

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## **Understanding Water Quality Management**

*Technology and Applications*

W. Wesley Eckenfelder and William Ney Hansard

This professional reference presents specialized information about the sources of water pollution and the techniques now in use to improve water quality.

978-1-932078-21-3, ©2004, 200 pages, 6x9, HC book, **\$59.50**

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## **Industrial Wastewater and Best Available Treatment Technologies**

Edited by: Alan Bowers and W. Wesley Eckenfelder

978-1-932078-17-6, ©2003, CD-ROM w/installation instructions, **\$25.00**

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[www.destechpub.com](http://www.destechpub.com)

# FOOD SCIENCE

## 2022

### **Ancient Grains in Modern Soils**

Edited by: Raymond Cooper

This comprehensive volume has been written by international experts on the cultivation, properties, and use of ancient grains, pseudo-grains, and rice in modern agriculture and consumption. 16 chapters focus on unique properties including genetics and hybrids, phytochemicals, and implications for milling and baking.

978-1-60595-559-1, ©2022, 392 pages, 6x9, HC book, **\$189.50**

Online: eBook, **\$140.00**

### **Food Forensics Handbook**

*Practice, Instrumentation, Case Studies*

Var L. de St. Jeor

Based on the analysis of actual samples sent by agricultural and food producers, this volume is a technical introduction to the investigative methods and technical apparatus for analyzing foods containing contaminants or defects caused by chemical or microstructural irregularities. The book shows how a food forensics lab is set up and provides protocols for sample preparation, with special attention to light microscopy, X-ray devices, and elemental analysis. The book supplies numerous images and data sets to aid in formulating and solving problems of identifying defects in food products, such as off-flavors, improper texture, faulty ingredients, and inclusion of foreign bodies. Topics include: dyes and staining; SEM; X-ray tomography; spectroscopy; fluorescence; molecular and chemical analysis and more. This handbook is essential for anyone tasked with analyzing foods for safety, quality, or product design.

978-1-60595-331-1, ©2022, 588 pages, 6x9, HC book, **\$175.00**

Online: eBook, **\$125.00**

## 2019

### **Advances in Science & Engineering of Rice**

Edited by: Zhongli Pan and Ragab Khir

A systematic overview of the growth, uses and technical improvement of all elements of rice. Covers each stage of production, from pre-harvest to storage, role in food products and nutrition. The volume gives information on how genetic engineering and other technologies enhance the qualities of rice as a crop, as well as the nutritional properties of rice as a food. Chapters reveal how to apply advanced engineering and handling to lessen environmentally harmful chemical residues and costs while maintaining high levels of food quality and safety.

978-1-60595-191-1, ©2019, 690 pages, 6x9, HC book, **\$99.50**

Online: eBook, **\$75.00**

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# FOOD SCIENCE

**2018**

## **Methods for Developing New Food Products**

*An Instructional Guide*

*Expanded Second Edition*

Fadi Aramouni and Kathryn Deschenes

The book explains the steps to develop a new, safe and legally permitted food product from original idea to the marketed item. Important for any food specialist planning to introduce a new food item, this volume explains organizational, technical, legal and cost factors that must be taken into account before a new food can be produced and sold. The second edition has been updated in terms of the Food Safety Modernization Act and adds a chapter on pet food. New for this edition are sections on innovation software, emerging food pathogens, a Food Safety Plan, FDA information on labeling and additives, as well as Certificates of Analysis and Letters of Guarantee.

978-1-60595-432-5, ©2018, 430 pages, 6x9, HC book, **\$149.50**

Online eBook: 978-1-60595-433-2, **\$95.00**

**2017**

## **Molecular Methods for Detection and Characterization of Food and Environmental Pathogens**

Suresh Pillai

Textbook explains the principles and applications of molecular/genetic techniques that are widely used in food, environmental, public health and safety and other fields to identify dangerous microbes. After a basic introduction to detection methods, the book's chapters clarify the fundamental concepts underlying current molecular methods. Each method is elaborated step-by-step using examples and cases intended to help select the appropriate molecular method for sampling, identifying and tracing specific pathogens. All methods discussed are accompanied by detailed lab protocols that demonstrate how specific techniques and equipment (e.g., PCR, lab-on-a-chip etc.) are applied in realistic situations. The book also presents quantitative risk assessment and its connection to molecular methods.

978-1-60595-079-2, ©2017, 168 pages, 6x9, HC book, **\$129.50**

Online: eBook, **\$94.50**

## **The ICC Handbook of Cereals, Flour, Dough & Product Testing**

*Second, Revised Edition*

Edited by: Stanley P. Cauvain

An updated and expanded version of the industry-standard handbook developed with the International Association for Cereal Science and Technology (ICC), this enlarged reference explains technical standards and test methods applied through the grain chain for many types of cereals and the products made from them, e.g., baked goods and animal feeds. The new edition adds and explains novel tests, testing data, international requirements, operational procedures and equipment that have come into use since the first edition was published in 2009. Techniques in this book pertain to cereal chemistry, analysis, quality control and safety.

978-1-60595-104-1, ©2017, 520 pages, 6x9, HC book, **\$79.50**

Online: eBook, **\$44.50**

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# FOOD SCIENCE

**2017**

## **The Use of Nanomaterials in Food Contact Materials**

*Design, Application, Safety*

Rob Veraart

Analyzes the uses and risks of nanomaterials in food preparation, on surfaces, and within packaging. The book explains how nanomaterials are applied in many phases of food production, including packaging materials, inks, coatings and nano-silver antimicrobials. Shows how nanoparticles are monitored and characterized. In this context, the book reviews the evidence for migration of nanoparticles and assesses risks of exposure. A primary feature of this text is the presentation of national laws and standards from Europe, Asia, South and North America that regulate the use of food-related nanomaterials.

978-1-60595-136-2, ©2017, 394 pages, 6x9, HC book, **\$145.00**

Online: eBook, **\$110.00**

**2016**

## **Functional Foods, Nutraceuticals and Natural Products**

*Concepts and Applications*

Edited by: Raj Vatter and Vatsala Maitin

Volume examines the evolution and analysis of functional foods in the prevention and therapeutic management of chronic and infectious human pathologies. It discusses the sources and constitutive active ingredients and expands the current understanding of the metabolic, physiological and genomic effects of functional food ingredients. It provides insights into relevance of functional foods in complementing pharmaceutical and other strategies for human health and wellness and explores the translation of scientific breakthroughs into commercial functional food products.

978-1-60595-101-0, ©2016, 820 pages, 6x9, HC book, **\$179.50**

Online: eBook, **\$125.00**

## **Peanuts: Bioactives & Allergens**

Edited by: N. Alice Lee, Rao Rachaputi and Graeme Wright

With the peanut representing an ever-increasing component of the global diet, the current book presents a scientific analysis of the two main and dichotomous properties of peanuts: allergenicity and health. The volume provides a technical explanation of the bioactive nutrients and dietary benefits of the peanut. It also reviews and analyzes the evidence implicating peanuts as a major food allergen. Moving beyond science to technology and engineering, the book demonstrates how genetic, pre-harvest, post-harvest and processing technologies are deployed that can increase the nutraceutical value of peanuts and mitigate their risks.

978-1-60595-036-5, ©2016, 382 pages, 6x9, HC book, **\$148.50**

Online: eBook, **\$120.00**

## **The Human Microbiome Handbook**

Edited by: Jason Tetro and Emma Allen-Vercoe

Written by a team of leading scientists, this text is designed as a technical introduction to microbiome research and its ramifications for human health and medicine. The first section focuses on the microbiome in general and its ecology, with contributions from pioneers in the field such as Sydney Finegold. Part two concentrates on the interactions between microbial populations and physiology, metabolism and immunology. The final section of the book is devoted to investigating the effects of the microbiome on chronic and autoimmune diseases. Genetics and the microbiome are discussed, as are clinical therapies for modifying the microbiome.

978-1-60595-159-1, ©2016, 382 pages, 6x9, HC book, **\$142.50**

Online: eBook, **\$110.00**

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# FOOD SCIENCE

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## 2015

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### **Post-Harvest Technologies of Fruits and Vegetables**

Hosahalli S. Ramaswamy

A comprehensive introduction to traditional and emerging areas of post-harvest technology, this text investigates factors that cause deterioration in the post-harvest quality and enhance shelf-life of perishable produce. The book explains all major post-harvest storage and handling technologies for fruits and vegetables in their fresh state, and also covers MAP packaging. Psychrometric principles and their role in post-harvest storage are examined to understand moisture transfer phenomena in produce storage. Volume includes calculations for process control and shelf-life prediction.

978-1-932078-27-5, ©2015, 325 pages, 6x9, HC book, **\$154.50**

Online: eBook, **\$115.00**

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## 2014

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### **Functionalizing Carbohydrates for Food Applications**

*Texturizing and Bioactive/Flavor Delivery Systems*

Edited by: Milda E. Embuscado

This book systematically explains the chemistry and engineering of new starch-based polymers and carbohydrates and shows how they improve the texture of foods and act as carriers for flavors and for bioactive compounds. Also investigates current and potential uses of functionalized carbohydrates in formulating and processing improved and healthier foods.

978-1-60595-038-9, ©2014, 426 pages, 6x9, HC book, **\$140.00**

Online: eBook, **\$105.00**

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### **Minerals in Food**

*Nutrition, Metabolism, Bioactivity*

Edward Harris

Book presents a technical introduction to all facets of nutritive minerals in foods, including their chemistry, transport, absorption, bioavailability and physiological functions. The book explains the in vivo behavior of minerals at a molecular level and clarifies their unique metabolic roles. Important instructional text for students and practitioners of nutrition and food science.

978-1-932078-97-8, ©2014, 378 pages, 6x9, HC book, **\$155.00**

Online: eBook, **\$115.00**

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## 2013

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### **Food Authentication Using Bioorganic Molecules**

Edited by: Stefano Sforza

Describes molecular-level techniques for identifying and measuring quality-defining properties of meats, fish, cheeses, wine, cereal products and more. Book offers practical guidance on DNA, peptide, lipid and other methods for certifying genuineness of sources and ingredients and preventing food counterfeiting.

978-1-60595-045-7, ©2013, 430 pages, 6x9, SC book, **\$115.00**

Online: eBook, **\$80.00**

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# FOOD SCIENCE

**2013**

## **Microbiology of Thermally Preserved Foods**

*Canning and Novel Physical Methods*

Tibor Deak and József Farkas

While introducing the principles and processes of industrial-level food canning, the volume focuses on the effects of microorganisms, their ecology, fate, and prevention through all phases of canning and other thermal processing techniques, such as aseptic packaging. It covers microbial spoilage and detection for vegetables, fruits, milk, meat and seafood from the raw food materials through individual unit operations, facility sanitation, and packaging.

978-1-60595-033-4, ©2013, 326 pages, 6x9, SC book, **\$129.50**

Online: eBook, **\$95.00**

## **Tharp and Young on Ice Cream**

*An Encyclopedic Guide to Ice Cream Science and Technology*

Bruce Tharp and Steve Young

This volume is a comprehensive and practical guide to the formulation, manufacturing and quality enhancement of ice cream and related frozen desserts such as sherbets, gelato, sorbets, and frozen yogurts. Organized alphabetically by topic, and with many technical tables, the book explains all aspects of ice cream processing and equipment, from raw materials to packaging. Specifically the book offers a comprehensive account of the freezing process and demonstrates how it affects the chemistry of, and ice formation inside, frozen dairy products.

978-1-932078-68-8, ©2013, 410 pages, 7x10, HC book, **\$199.50**

Online: eBook, **\$150.00**

**2012**

## **Military Food Engineering and Ration Technology**

Edited by: Ann Barrett and Armand Cardello

Written by a team from the U.S. Army's Combat Feeding Directorate at the Natick Research, Development and Engineering Center, this volume represents a comprehensive guide to how the military designs, processes, customizes, packages and distributes highly palatable, long shelf-life food products for field personnel.

978-1-60595-049-5, ©2012, 489 pages, 6x9, HC book, **\$150.00**

## **Nanotechnologies for Solubilization and Delivery in Foods, Cosmetics and Pharmaceuticals**

Edited by: Nissim Garti and Idit Amar-Yuli

Demonstrates how vehicles for delivering bioactive ingredients through a variety of oral, transdermal, buccal and mucosal routes, can be synthesized by nanolevel manipulation of colloidal systems, proteins, peptides, liquid crystalline phases, organogels and dendrimers. The information presented in this book is applicable to the design of micro- and nanolevel delivery systems with improved targeting, more efficient controlled release, and superior in vivo penetration into dermal and cellular structures.

978-1-60595-016-7, ©2012, 401 pages, 6x9, HC book, **\$150.00**

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# FOOD SCIENCE

**2012**

## **Omics, Microbial Modeling and Technologies for Foodborne Pathogens**

Edited by: Xianghe Yan, Vijay K. Juneja, Pina M. Fratamico and James L. Smith

This book provides comprehensive information on genetic analysis and multiple omics methods, microbial modeling, and other technologies used for the analysis of a wide variety of foodborne pathogens.

978-1-60595-047-1, ©2012, 643 pages, 6x9, HC book, **\$135.00**

Online: eBook, **\$90.00**

**2010**

## **Food, Nutrition and the Nitric Oxide Pathway**

Edited by: Nathan S. Bryan

This volume is the first to analyze the effects of food and nutrients on changes in the nitric oxide pathway. The authors present and explain novel pathways linking nitric oxide and nutrient intake. The book explains the role of foods and dietary elements for restoring nitric oxide production and homeostasis in NO-deficient subjects—without medical interventions. Intended for food, nutrition and pharma scientists, as well as medical researchers investigating the role of nitric oxide in human health.

978-1-932078-84-8, ©2010, 238 pages, 6x9, HC book, **\$125.00**

Online: eBook, **\$100.00**

**2008/2006/2004**

## **Food Drying Science and Technology**

*Microbiology, Chemistry, Applications*

Edited by: Y.H. Hui, Carter Clary, Mohammed Farid, Oladiran Fasina, Athapol Noomhorm, and Jorge Welti-Chanes

Explains the latest technologies for drying a wide assortment of foods—with important new data on microbiology and preservation.

978-1-932078-56-5, ©2008, 807 pages, 6x9, HC book, **\$189.50**

Online: eBook, **\$145.00**

## **Seafood Quality & Safety**

*Advances in the New Millennium*

Edited by: Fereidoon Shahidi and Benjamin K. Simpson

0-9683220-2-6, ©2004, 391 pages, 6x9, HC book, **\$50.00**

## **Trends in Food Science—History at Penn State**

Manfred Kroger

This unique book chronicles the scientific investigation of food at Penn State University, where significant developments in food science, especially dairy technology, had their start.

978-1-932078-66-4, ©2006, 334 pages, 6x9, HC book, **\$19.95**

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# MACHINERY / MFR. ENGINEERING

**2021**

## **Web Handling Handbook**

Dilwyn Jones, David Roisum and Tim Walker

An engineering handbook that explains all technical aspects of webs, long thin sheets of materials, such as paper, plastic films, foils, and textiles that are wound into rolls, often after being laminated, printed, or coated. Topics covered include: tension control, roller mechanics, drives, brakes, nip control, guides, spreaders, slitters, and more. The book illustrates engineering principles with shop-floor examples and provides easy-to-understand calculations that control how web systems are designed and operated, and how webs of many different materials can be made to move efficiently over a variety of rollers. These tools are meant to help industry specialists troubleshoot and correct defects such as wrinkles, bagginess, curl, and misshapen wound rolls. As part of web handling the book provides extensive details on many roll-to-roll converting operations, such as calendaring, coating, laminating, and printing.

978-1-60595-598-8, ©2021, 684 pages, 6x9, HC book, **\$255.00**

Online: eBook, **\$199.00**

**2010**

## **Precision Spindle Metrology, 2nd Edition**

Eric Marsh

New techniques and data have been added to this book to increase its size by over 20 percent. The goal of the book is to provide concepts and measurement techniques for analysis of precision spindle performance. The volume shows how to use and measure spindles to improve manufacturing and inspection processes. One of the main emphases is on sustaining rotational quality. The book will benefit engineers, quality control personnel, and precision machine specialists.

978-1-60595-003-7, ©2010, 176 pages, 8.5x11, HC book, **\$184.50**

## **Web Machine Buying Guide**

*Designing For, Installing and Maintaining Web Equipment*

David R. Roisum

Provides a step-by-step technical approach to acquiring machines designed to process large rolls of plastic film, paper, foils and other materials. Written by one of the leading authorities in the world, the book offers analysis for engineers and managers in the packaging, converting, paper, and plastics industry.

978-1-60595-011-2, ©2010, 274 pages, 6x9, flexible SC book, **\$149.50**

**2008**

## **Winding: Machines, Mechanics and Measurements**

James K. Good and David R. Roisum

This recent book, by two of the world's foremost experts, is the definitive guide to how winding machines work and how wound rolls are formed. It covers a wide array of machines in use across all web industries, including paper, film, foil, nonwovens, textiles, and more. It sets the standard for understanding and applying quality control in the field.

*Upon purchase, contact publisher for computer models for many winding situations*

978-1-932078-69-5, ©2008, 432 pages, 6x9, HC book, **\$229.95**

Online: eBook, **\$175.00**

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# NURSING / HEALTHCARE

**2024**

## **Achieving Equity, Humanity, and Cultural Humility in Nursing**

Edited by: Julian Gallegos and Michele Bunker-Alberts

The profession of nursing is uniquely positioned to integrate and foster a community of equality, humanity, cultural awareness and humility. This textbook provides a basic understanding and underpinning for these concepts. The book introduces the historical perspectives of vulnerable populations in the United States, discusses the impact of social determinants of health within these populations, and introduces the reader to the concepts of social justice and cultural humility while providing ideas and methods for incorporating the concepts into nursing curricula and practice.

978-1-60595-069-3, December 2024, 6x9, SC book 240 pages **\$69.50**

## **Advancing Organizations by Exemplary Nursing Leadership**

Edited by: Mary Bemker and Diane Whitehead

This book focuses on the nursing leadership qualities that advance health organizations to be optimal providers. Drawing on the expertise of top experts as chapter authors this book reveals the necessary leadership elements needed to elevate nurse leaders within a health organization.

978-1-60595-671-8, May 2024, 540 pages, 7x10, SC book, **\$129.50**

Online: eBook, **\$89.00**

## **Applied Statistical Analysis for Social and Health Sciences**

James Schreiber

Written from an approach of understanding statistical analyses from the research question posed and the perspective of the research design, this book presents the fundamental concepts of statistical analysis. The content covers descriptive and univariate statistics, Bayes Theorem, non-parametric approaches, as well as unique coverage on ethics and analysis. This textbook is appropriate for graduate level courses addressing statistics for social and health sciences.

978-1-60595-567-4, ©2024, 342 pages, 6x9, SC book, **\$89.50**

Online: eBook, **\$60.00**

## **Nurse Practitioner Clinical Education**

*A Guide for Educators, Preceptors, and Clinical Practice Partners*

Edited by: Alexa Colgrove Curtis and Prabjot Sandhu

A guide for nurse educators and nursing programs to develop successful clinical training placement programs. Focused on graduate education, this book explores and describes innovative approaches to building a robust placement program utilizing community partnerships, residencies and fellowships, as well as telehealth models.

978-1-60595-539-1, ©2024, 378 pages, 6x9, SC book, **\$89.50**

Online: eBook, **\$79.50**

## **Optimizing Advanced Practice Nursing Distance Education**

Edited by: Kathy Wheeler and Joyce Knestrick

As the number of hybrid education programs for advanced practice nursing increases so has the need for faculty to teach via this new medium. Highly prized for their clinical skills, these educators are often unprepared as distance educators. This succinct text provides a resource specifically written for faculty and instructors facing the challenge of providing quality distance education.

978-1-60595-311-3, ©2024, 300 pages, 6x9, SC book, **\$89.50**

Online: eBook, **\$70.00**

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# NURSING / HEALTHCARE

**2024**

## **Population Health and Its Integration into Advanced Nursing Practice**

*Second Edition*

Edited by: Mary Bemker and Christine Ralyea

This new edition of the bestselling and award-winning textbook provides both updated and new chapters. New coverage includes LGBTQ+ populations and telemedicine.

978-1-60595-619-0, ©2024, 550 pages, 6x9, HC book **\$139.00**

Online: eBook, **\$95.00**

## **Psychotherapy Essentials for the Contemporary Psychiatric Nurse Practitioner**

*A Primer for PMHNPs*

Edited by: Jeffrey Ramirez

Given the national shortage of psychiatrists, Psych-Mental Health Nurse Practitioners are needed more than ever to address a growing need for mental healthcare. This text focuses on and provides an introduction to the various types and theories of psychotherapy, a proven method to improve mental health. Covering several modalities, this book addresses the ANCC requirement for PMHNPs to be prepared in at least two psychotherapy modalities.

978-1-60595-653-4, November 2024, 6x9 SC book, 200 pages **\$64.50**

## **Resiliency in Nursing**

Edited by: Mary Bemker and Christine Ralyea

Resilience includes being aware of and prepared for moral distress, compassion fatigue, PTSD, burnout, and a lack organizational support. Practical, evidence-based tools are provided in this book to understand and bolster resiliency. The book has been designed for use in a traditional classroom, a flipped classroom, online learning, hybrid learning, and independent exploration. Case studies, examples, and toolkits are integrated throughout the book providing for activities to emphasize key concepts and encourage discussion. The impact of resiliency on leadership, and how leaders can support themselves and those they lead are components of organizational resilience. This book has been written to hone and advance nurses and other healthcare providers' resiliency. The content has evolved from the cumulative nursing experiences of the authors and editors in education, leadership, and practice.

978-1-60595-082-2, ©2024, 6x9, SC book, 212 pages **\$69.50**

Online: eBook, **\$55.00**

## **Successful Nurse Practitioner Role Transition**

Edited by: Asefeh Faraz Covelli and Cheryl Fattibene

A useful and well-organized guide covering all aspects of workforce transition for the new NP transitioning to practice or the experienced NP transitioning to a new position or role. Topics include NP job search considerations, cover letter and resume writing, navigating the interview process, negotiation strategies, credentialing, legal issues, and a special section on billing and coding. This is the first book to provide coverage of all of these topics in one place in a succinct manner. The authors and their contributors provide special focus on critical elements to guide the reader in navigating these challenging areas.

978-1-60595-335-9, August 2024, 200 pages, 6x9, SC book, **\$69.50**

Online: eBook, **\$55.00**

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# NURSING / HEALTHCARE

**2023**

## **Advancing Relationships in Healthcare**

*Intentional Use of Self*

Jean Johnson and Eileen T. O'Grady

This book presents a model for healthcare providers to enhance their skills in patient and colleague interaction while providing care. The focus of this reference is to provide ways to improve health-related interaction by envisioning oneself as a therapeutic tool. Patient ratings of provider interactions increasingly affect setting finances, morale, and award statuses such as "Magnet". Compassion fatigue and burn-out lead to lower quality care and employee attrition. This book presents a useful and practical model to provide students, healthcare leaders, and healthcare providers with a clear path to improving care.

978-1-60595-574-2, ©2023, 268 pages, 6x9, SC book, **\$79.50**

Online: eBook, **\$60.00**

## **Increasing Emotional Competence in Nursing and Healthcare**

*Strategies to Combat Low Morale and Increase Resilience*

Michelle Doas

Suitable for all nursing levels, this book provides a guide to achieving a healthy working relationship with patients, patient families, doctors, supervisors, and administrators. The concepts are supported by numerous examples, reflection questions, tools, and exercises to provide a robust guide to optimizing a productive and successful clinical career.

978-1-60595-556-8, ©2023, 158 pages, 6x9, SC book, **\$69.50**

Online: eBook, **\$55.00**

## **Organizationally Minded Nursing Leadership**

Bobbie Berkowitz, Catherine Gilliss, Jean Johnson, Paula Milone-Nuzzo, Patricia Reid-Ponte

This book is designed for nurses who want to lead more effectively in healthcare and academic organizations. With a focus on the relationship between the nurse leader and the organization, this text guides nurses toward leadership that is effective, credible, inclusive, just and organizationally minded.

978-1-60595-668-8, ©2023, 6x9, 364 pages, HC book, **\$109.50**

Online: eBook, **\$89.00**

**2022**

## **Advancing Healthcare Quality and Safety**

*Protecting Patients, Improving Care*

L. Gregory Pawlson and Jean Johnson

An up to date course textbook that addresses the core concepts of quality and safety in healthcare. Co-authored by two experts, the text is written in one voice providing continuity among chapters. Quality and safety are presented using scientific principles which allow for a methodology resulting in evidence-based measurement of outcomes. Examples and cases are provided throughout to illustrate key concepts and provide classroom or online discussion. Ideal for graduate courses in nursing, physician assistance programs, and other healthcare personnel training.

978-1-60595-575-9, ©2022, 402 pages, 6x9, SC book, **\$74.95**

Online: eBook, **\$60.00**

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# NURSING / HEALTHCARE

**2022**

## **Clinical Decision-Making and Judicial Reasoning**

Larry Brenner and Mara Williams

A guide for healthcare providers to prudent decision-making that ensures the safety of patients and protects providers from liability. The book is written in a concise, highly accessible, and methodical way for both students and practitioners. Examples and cases are provided throughout for classroom discussions and personal reflection. This is a key reference for physicians, medical students, advanced practice nurses, and law students in tort law programs.

978-1-60595-137-9, ©2022, 198 pages, 6x9, SC book, **\$79.50**

Online: eBook, **\$59.50**

## **Healthcare Finance and Financial Management**

*Essentials for Advanced Practice Nurses and Interdisciplinary Care Teams*

*Second Edition*

Mary Paterson

This textbook is intended for students preparing as advanced practice clinicians. It is organized in two main parts. The first focuses on macro issues in healthcare finance and policy issues. The second concentrates on healthcare financing management and new to the second edition, includes coverage of the role of the consumer as a payer and as a participant in ambulatory care. Case studies included with each section have been updated in the new edition. This book is suitable for healthcare finance courses in the curriculum for MSN and DNP programs and also for schools of social work, medicine, occupational, and physical therapy.

978-1-60595-627-5, ©2022, 280 pages, 6x9, SC book, **\$74.95**

Online: eBook, **\$55.00**

## **Rural Health Nursing**

*Barriers and Benefits*

Edited by: Laurie Anne Ferguson and Kenneth Lowrance

Contributed to by topic experts, this textbook focuses on the practical issues and challenges faced by nurses working with rural populations. Additionally, the text provides background information on chapter topics such as the aging rural population, mental health, substance abuse, rural veterans, telehealth, interprofessional education, and introduces evidence-based strategies to facilitate quality care. Ideal for academic programs seeking to include rural health in the curriculum and for nurses in rural settings.

978-1-60595-157-7, ©2022, 376 pages, 6x9, SC book, **\$79.50**

Online: eBook, **\$60.00**

## **The Successful Completion of Your DNP Project**

Edited by: Mary Bemker, Christine Ralyea, and Barb Schreiner

The DNP degree supports the nurse's ability to take evidence-based practice from the review of the literature and apply it in practice to advance care delivery, healthcare systems, nursing education, policy development or nursing practice. The DNP project reflects the culmination of this degree and this book will guide the DNP student from the choice of a topical project to the final presentation. Guidance is provided on general but critical topics such as working with your professor and choosing a mentor. 12 successful project exemplars are included by recent DNP graduates in leadership, education, and clinical and policy development. Strategies are offered on how to overcome barriers with a review of the literature, narrowing the topic, getting through the institutional review board, data analysis, developing and working from an outline for a project, and dissemination of findings.

978-1-60595-569-8, ©2022, 382 pages, 6x9, SC book, **\$84.50**

Online: eBook, **\$75.00**

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# NURSING / HEALTHCARE

**2021**

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## **Statistics and Research Design for the DNP Project**

Christi Doherty and Kris Skalsky

This concise and practical textbook provides guidance on statistical analysis, specific to the needs of the DNP student, to assist in analyzing data for the results of the final DNP project and to provide a framework for future scholarly pursuits. Instruction is tied directly to the DNP Essentials as outlined by the AACN. Examples introduced in the opening chapters are threaded through each of the chapters to provide continuity as concepts are explained.

978-1-60595-384-7, ©2021, 230 pages, 6x9, SC book, **\$79.50**

Online: eBook, **\$60.00**

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## **Write! A Guide to Writing for Nurses**

Joyce E. Johnson and Kevin Rulo

A concise and approachable guide that provides the skills and knowledge necessary for nurse leaders and nursing graduate students to successfully and persuasively convey written content with clarity and technical proficiency. Readers will be able to develop and complete written course assignments, major course papers, DNP projects, PhD dissertations, and Masters' Capstone projects. Chapter content addresses project planning as well as specific tools for mastering grammar and for enhancing writing skills quickly. Ideal for all nurse leaders and graduate nursing students working on course assignments and projects.

978-1-60595-510-0, ©2021, 160 pages, 6x9, SC book, **\$69.50**

Online: eBook, **\$55.00**

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**2020**

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## **Ethical and Legal Issues for Doctoral Nursing Students**

*A Textbook for Students and Reference for Nurse Leaders*

*Second Edition*

Edited by: Anne Griswold Peirce and Jennifer A. Smith

Designed for ethics courses in nursing PhD and DNP programs, this new edition presents revisions and updates in each chapter. This book fills the need for an expanded view of required ethics content in the nursing curriculum. Coverage of ethical patient care, care in vulnerable populations, legal influences on ethical care, ethical business practices, and research ethics are discussed and analyzed by experts. Case studies provide real-world examples and facilitate classroom discussion.

978-1-60595-596-4, ©2020, 386 pages, 6x9, SC book, **\$74.50**

Online: eBook, **\$59.50**

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## **The Successful Nurse Faculty Member**

*Tools of the Trade*

Edited by: Denise Korniewicz

*Awarded 1st Place in the 2020 AJN Book of the Year in "Nursing Management and Leadership"*

A guide designed for novice faculty members and nursing education students who are teaching or will be teaching in higher education, this book provides the skills necessary to teach courses for classroom and online courses. Information is provided in a practical and accessible way and includes best practices for setting up a syllabus and curriculum, test item writing, grading, mentoring students, and personal advancement as a faculty member. The book furnishes exercises, rubrics, and self-test items to give readers hands-on practice in defining and carrying out an effective instructional agenda.

978-1-60595-630-5, ©2020, 290 pages, 6x9, SC book, **\$72.50**

Online: eBook, **\$55.00**

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# NURSING / HEALTHCARE

## 2019

### **The DNP Nurse in Executive Leadership Roles**

Edited by: Joyce E. Johnson and Linda L. Costa

*Awarded 2nd Place in the 2019 AJN Book of the Year in "Nursing Management and Leadership"*

This textbook presents and describes the knowledge and skills necessary for novice and experienced DNP nurses to advance and lead in C-suite, or chief officer, positions. Techniques provided in the book are directly linked to the core DNP Essentials and competencies. The book focuses on business-oriented skill sets and performance expectations required of upper-level executives. Examples include data and financial analysis, quality control, methods for transforming organizations, and business planning. Faculty and students in nurse leadership courses and DNPs exploring C-suite roles will find the book an extremely valuable resource.

978-1-60595-492-9, ©2019, 394 pages, 6x9, HC book, **\$109.50**

Online: eBook, **\$90.00**

## 2018

### **Population Health and Its Integration into Advanced Nursing Practice**

Edited by: Mary Bemker and Christine Ralyea

*Awarded 1st Place in the 2018 AJN Book of the Year in "Advanced Practice Nursing"*

This textbook provides essential population concepts in a comprehensive way to advanced practice students and practitioners in population and public health. Focus is placed on the supports and practices used in the advanced practice role with chapters contributed by nationally known experts on their respective topics. Addresses key issues and populations including the elderly, the chronically ill, substance abusers, and the military.

978-1-60595-392-2, ©2018, 528 pages, 6x9, HC Book, **\$124.50**

Online: eBook, **\$89.00**

## 2017

### **The Case Manager's Survival Guide**

*Winning Strategies in the New Healthcare Environment, 3rd Edition*

Toni Cesta and Hussein Tahan

The 3rd edition of this highly successful and widely used book provides vital information case managers and administrators of case management programs need to be successful. This new edition incorporates the impact of the Patient Protection and Affordable Care Act, Value-Based Purchasing measures, case management practices across the continuum, care coordination, transitional planning, and case management software and other technology applications. A useful resource for working in the changing healthcare environment, it addresses case managers in all settings and from diverse professional backgrounds. This edition places special emphasis on nurse case managers and their role in providing case management services, coordinating resources, cost containment, and optimizing the patient experience. Focusing on the practical aspects of case management, it discusses the operations of case management programs based on the authors' first hand experiences.

978-1-60595-288-8, ©2017, 534 pages, 8.5x11, SC book, **\$98.50**

Online: eBook, **\$74.50**

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# NURSING / HEALTHCARE

**2016**

## **Electronic Health Records for Quality Nursing & Health Care**

Tiffany Kelley

This comprehensive reference provides foundational knowledge on electronic health records (EHRs) for the delivery of quality nursing care. Chapters cover descriptions of EHR components and functions, federal regulations within the HITECH Act, privacy and security considerations, interfaces and interoperability, design, building, testing, implementation, maintenance and evaluating outcomes. Key reference for nurse executives, nurse directors, nurse managers, advance practice nurses, nurse researchers, nurse educators, and nurse informaticists.

978-1-60595-071-6, ©2016, 496 pages, 6x9, SC book, **\$79.50**

Online: eBook, **\$60.00**

## **Genomic Essentials for Graduate Level Nurses**

Edited by: Diane Seibert, Quannetta Edwards, Ann Maradiegue and Susan Tinley

Designed as both a nursing reference and course text, this book presents genetics and genomic essentials specifically for graduate-level nurses. Preliminary chapters cover the basics of genetics, risk assessment and genetic testing. With chapter contributions by topic experts, the remainder of the book is organized by disease system and covers genetics and genomics in prenatal care, neurology, cancer, respiratory function, cardiology, pharmacogenomics, hematology and others. Key chapters on ethical and legal issues and future technology are also included.

Print: 978-1-60595-094-5, ©2016, 460 pages, 7x10, SC book, **\$99.95**

Online: eBook, 928-1-60595-095-2, **\$79.95**

## **The DNP Degree & Capstone Project**

*A Practical Guide*

Edited by: Mary Bemker and Barb Schreiner

This textbook focuses on enhancing understanding, and characterizing the Doctor of Nursing Practice degree, and its place in the current healthcare environment. The book offers guidelines for planning and conducting all phases of a DNP capstone project. Examples of successful projects from varied areas of nursing practice are included along with practical tips for publicizing capstone project results to the wider medical community.

978-1-60595-259-8, ©2016, 198 pages, 6x9, SC book, **\$64.50**

Online: eBook, **\$49.95**

**2015**

## **Nursing Leadership and Management**

*The Advanced Practice Role*

Edited by: Denise M. Korniewicz

This textbook is intended for students preparing as advanced practice nurses, doctoral physical therapists, doctoral pharmacists, and other advanced practice professionals. The book provides a practical approach to the application of leadership and management principles while systematically presenting the content needed for skilled leadership specific to clinical settings. A case study is incorporated into the theoretical material of each chapter as a continuing illustration. Key themes such as quality and safe patient care, transforming clinical practice, and critical thinking principles to improve patient outcomes form key chapters of the book.

978-1-60595-158-4, ©2015, 209 pages, 6x9, SC book, **\$69.50**

Online: eBook, **\$49.95**

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# NURSING / HEALTHCARE

**2014**

## **Infection Control for Advanced Practice Professionals**

Edited by: Denise M. Korniewicz

Professional reference combines research on the best practices for infection control in clinical settings with essential information for advanced practice nurses. The book is organized by healthcare settings, and the coverage ranges from small practice offices to large hospitals and medical institutions. A case study is incorporated into the theoretical material of each chapter as a continuing illustration. Nurse practitioners, physical therapists, physician assistants, and students are the intended audience.

978-1-60595-060-0, ©2014, 264 pages, 6x9, SC book, **\$55.50**

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# OTHER TECHNOLOGIES

## CHEMISTRY

### **The Integrated Approach to Chemistry Laboratory**

*Selected Experiments*

Edited by: Partha Basu and Mitchell Johnson

This volume is intended for chemistry instructors seeking to provide engaging and challenging labs that combine all the features and benefits of the integrated laboratory.

978-1-932078-88-6, ©2009, 122 pages, 8x10, SC book, **\$24.95**

## COMPUTER TECHNOLOGY

### **Security Enhanced Linux Symposium—SELinux 2007**

*3rd Annual Proceedings; March 12-16, 2007, Baltimore, MD*

Presents original papers on SELinux, an operating system element designed to protect against software vulnerabilities.

978-1-932078-67-1, ©2007, 120 pages, 8.5x11, SC book, **\$10.00**

## GEOSCIENCE

### **Great Basin Evolution and Metallogeny—2015**

*Geological Society of Nevada Symposium, May 14-23, 2015*

Edited by: William M. Pennell and Larry J. Garside

This two-volume set of peer-reviewed papers, shown in full color, focuses on the geological analysis of ore-rich deposits in the western United States, especially those containing gold, silver, cobalt, molybdenum and other high-value metals. A range of stratigraphic, lithographic, remote-sensing models and core sample analyses are presented, particularly of areas likely to host Carlin-type gold deposits. Original research is provided on geochemical analysis, exploration and mining technologies. The volumes contain critical data, maps and discoveries for geology and mining engineering.

978-1-60595-226-0, ©2015, 1,388 pages, 2 Vols./CD, 8.5x11, HC book, **\$200.00**

## MATHEMATICS

### **Complex and Harmonic Analysis**

*Proceedings, May 25-27, 2006, University of Thessaloniki, Greece*

Edited by: A. Carberry, P. L. Duren, D. Khavinson, and A. G. Siskakis

Presents updated materials on the following topics: Classical complex analysis, Geometric function theory, Approximation theory in the complex plane, Potential theory, Spaces of analytic functions and related operators, Harmonic analysis, and BMO functions.

978-1-932078-73-2, ©2007, 332 pages, 6x9, SC book, **\$20.00**

## NON-DESTRUCTIVE TESTING

### **Neutron Radiography**

*Proceedings of the Eighth World Conference—WCNR-8*

Edited by: Muhammad Arif and R. Gregory Downing

This book-CD-ROM combination contains 72 highly refereed chapters covering key advances in neutron radiography, with a focus on the analysis of materials and high-value artifacts and products. The book shows how neutron radiography is a highly efficient tool for materials research and NDT testing, especially with regard to microstructure, and to the analysis of material elements in situ.

978-1-932078-74-9, ©2008, 655 pages, 6x9, HC book/CD-ROM, **\$89.50**

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# PACKAGING TECHNOLOGY

## 2019

### **Packaging Design Decisions**

*A Technical Guide*

Roland ten Klooster, Frans Lox and Ton Schilperoord

Based on a popular handbook published originally in the Dutch language, the present volume is intended to help package designers and design team members to achieve cost-effective and problem-free packages. The book focuses on technical details about packaging that graphic artists, marketers, and engineers need to know to create a package that can be economically, practically, and lawfully fabricated on a large scale. Specifically, the text explains materials, machinery, printing, test methods, and regulations that negatively impact design options for primary and secondary packaging, including closures and labels. The book stresses how design must take into account every stage of a package throughout its lifecycle: processing, loading conditions, consumer response, and disposal. Data is provided for plastics, paper, metal, glass, and cardboard in laminated food packages, boxes, cans, jars, bottles, and shipping containers.

978-1-60595-070-9, ©2019, 400 pages, 6x9, HC book, **\$129.50**

Online: eBook, **\$95.00**

## 2018

### **The 21st IAPRI World Conference on Packaging**

*Packaging: Driving a Sustainable Future*

*Proceedings: June 18-22, 2018, Jinan University, Guangzhou, China*

Edited by: Zhi-Wei Wang

Following the theme, Packaging: Driving a Sustainable Future, the presentations at this global conference include the latest research in active packaging, and packaging for food, agricultural, and pharmaceutical products, as well as sections on materials, machinery, and standards and legislation. This proceedings is the latest in a series from this important global packaging meeting, which brings together packaging researchers from around the world.

978-1-60595-046-4, ©2018, Online: eProceedings, **\$99.50**

## 2017

### **Packaging and Distribution of Fresh Fruits and Vegetables**

Vanee Chonhenchob, S. Paul Singh and Jay Singh

A comprehensive explanation of technologies used to package fresh fruits and vegetables throughout the supply chain, i.e., from field to point of purchase, the book shows the connections among post-harvest treatment, packaging materials and systems, cold chain, transportation, storage, and merchandising. It presents and explains currently used as well as experimental packaging strategies, including edible coatings. It thus goes beyond lab-based science to clarify in technical detail how a wide variety of commercial produce, such as strawberries, apples, stonefruits, bananas etc. are processed and packaged to reduce bruising, spoilage and microbial contamination.

978-1-60595-327-4, ©2017, 264 pages, 6x9, HC book, **\$129.50**

Online: eBook, **\$95.00**

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# PACKAGING TECHNOLOGY

**2016**

## **Bioactive Food Packaging**

*Strategies, Quality, Safety*

Edited by: Michael Kontominas

Edited monograph explains the chemistry and effects of natural active ingredients incorporated into food packaging materials to prevent, suppress or kill microbes. Among the bioactive agents discussed are: scavengers, enzymes, peptides, polysaccharides, plant extracts, essential oils and more. Contributors explain impregnating these substances into packaging materials and their synergy in microbe suppression and quality control for muscle, dairy and cereal foods, including efficacy over time and shelf-life. How bioactives affect practical packaging decisions, such as scale-up, fabrication and labeling, is also discussed, as are the ramifications of bioactives for food handling and regulations.

978-1-60595-117-1, ©2016, 486 pages, 6x9, HC book, **\$99.50**

Online: eBook, **\$65.00**

**2015**

## **Cartons, Crates & Corrugated Board**

*Handbook of Paper and Wood Packaging Technology*

*Second Edition*

Diana Twede, Susan E.M. Selke, Donatien-Pascal Kamdem and David Shires

Revised and expanded edition of a volume that is now the standard professional reference and academic text for the technology of wood, paper and paperboard packaging. The new edition offers key technical, regulatory and marketing developments from the past decade, including barrier packaging, food contact and migration, folding carton design and the dynamics of corrugated paperboard in the distribution network. With addition of two more authors, the work has been updated with information on European and global tests and testing standards, as well as emerging product opportunities and sustainable paper and board packaging initiatives. New sample problems have improved the book as a resource for university and corporate instructors.

978-1-60595-135-5, ©2015, 584 pages, 6x9, HC book, **\$184.50**

Online: eBook, **\$115.00**

## **Packaging and Transportation Forensics**

*Reducing Risk and Liability*

S. Paul Singh and Jay Singh

This technical book outlines the laws and liabilities associated with producing, labeling and shipping packages. Special sections cover the regulations and risks of transport via truck, rail, ship and aircraft. Case law and court decisions illustrate strategies to lower the risk of accidents and lawsuits connected with all phases of packaging, including disposal. Covers personal injury, intellectual property, labels, cargo loading, regulations (including CFR 49, FMCSR, CVSA, and hazardous materials), tamper-evidence, accessibility, environmental impacts and more.

978-1-60595-164-5, ©2015, 368 pages, 6x9, HC book, **\$149.50**

Online: eBook, **\$120.00**

**2013**

## **Creating Value Through Packaging**

*Unlocking a New Business and Management Strategy*

James Peters, Brian Higgins and Michael Richmond

A methodical guide to managing packaging that can benefit all phases of a business and its customers.

978-1-60595-087-7, ©2013, 214 pages, 5.5x8.5, SC book, **\$45.00**

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# PACKAGING TECHNOLOGY

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## 2011

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### **Protective Packaging for Distribution**

*Design and Development*

Daniel Goodwin and Dennis Young

Starting with a section on foundational (dynamic) theory, the book defines the hazards of distribution packaging, including the best practices for measurement of environmental stresses. This book seeks to understand the packaged product within a variety of systems and contains information for designing protective packaging.

978-1-60595-001-3, ©2011, 269 pages, 6x9, HC book, **\$169.50**

Online: eBook, **\$134.50**

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## 2010

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### **The Packaging Value Chain**

Claire Sand

Intended for packaging engineers and technologists, the text explains how all aspects of packaging are used to increase value throughout the packaging supply chain from raw materials, to suppliers and converters, to manufacturers and retailers to the post-consumer stage of a package. The book offers a comprehensive understanding of relationship management, informational flows and knowledge management, economics, and negotiations at every step of the packaging value chain.

978-1-60595-002-0, ©2010, 124 pages, 6x9, SC book, **\$64.50**

Online: eBook, **\$35.00**

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## 2008

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### **Illustrated Glossary of Packaging Terminology**

*Second Edition*

Walter Soroka

The book concentrates on the material components of packaging, ranging from wood and metal to the latest plastics. This edition presents many illustrated descriptions of the machinery and processes whereby packaging materials are formed.

978-1-930268-27-2, ©2008, 272 pages, 8.5x11, SC book, **\$124.50**

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## 2007

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### **Mass Transport & Reactive Barriers in Packaging**

*Theory, Applications & Design*

Anatoliy Y. Goldman and Stanislav E. Solovyov

This book is a systematic and comprehensive presentation of the theory and practice of polymer barrier films. Starting from a presentation of how gases and liquid solutes permeate films, the book explains the performance limits of polymer barriers under multiple packaging conditions. This information is then used to illustrate how engineers can predict properties and performance for single and multilayer barriers for a wide variety of packaging applications.

978-1-932078-64-0, ©2007, 558 pages, 6x9, HC book, **\$145.00**

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# PLASTICS/POLYMERS

**2023**

## **Photopolymerization**

*Fundamental Polymer Chemistry and Industrial Applications*

Byron Christmas and Michael Idacavage

This book introduces the theory of light-induced polymerization utilizing ultraviolet (UV) and visible light and electron beams (EB) as the initiators, beginning with an analysis of the physical chemistry of photopolymerization and its advantages and disadvantages compared to other types. The volume explains how the underlying chemical reactions relate to the types of processes selected and product quality, with an in-depth consideration of the raw materials and equipment required for efficient UV and EB curing. Special attention is given to the principles of formulation and to applications where this type of curing leads to higher quality products at lower costs.

978-1-60595-427-1, ©2023, 300 pages, 6x9, HC book, **\$159.50**

**2016**

## **Shape-Memory Polymers for Aerospace Applications**

*Novel Activation, Modeling, Characterization and Design*

Edited by: Gyaneshwar Tandon, Amber McClung and Jeff Baur

This contributed volume investigates the parameters of shape-memory polymers (SMPs) required by aerospace, including synthesis, characterization, activation, and application in aircraft and space vehicles. It explains the chemistry and design of novel SMPs to meet the special demands of aeronautic performance, including heat and impact resistance, limited operational energies, aerodynamics, loading etc. The text analyzes and assesses shape-memory polymers and also composites and hybrid materials designed for use in reconfigurable applications in the military and commercial sectors, especially for morphing aircraft, micro air vehicles, deployable space structures, and adaptive engines. The chapters span novel synthesis, chemistry and activation of shape memory resins, constituent modeling and characterization methods, predictive methodologies, experimental validation, and case studies illustrating material property needs, design requirements and material performance.

978-1-60595-118-8, ©2016, 658 pages, 6x9, HC book, **\$175.00**

Online: eBook, **\$125.00**

**2014**

## **Introduction to Polymer Chemistry**

*A Biobased Approach*

Judit Puskas

Designed for polymer and materials engineering students, the text introduces polymer chemistry through polymers found in nature. It explains biobased polymer systems and synthetic systems by exploring the chemistry of natural polymers from plants and animals, as well as self-assembled macromolecular structures, including proteins, lignin, protamers, and fibers. Also covered are synthetic polymerization and emerging advances in green polymer chemistry.

978-1-60595-030-3, ©2014, 338 pages, 6x9, SC book, **\$75.00**

Online: eBook, **\$50.00**

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# PLASTICS/POLYMERS

## 2009

### Essentials of Polymer Science and Engineering

Paul C. Painter and Michael M. Coleman

This book is the culmination of decades of imaginative and insightful presentations of polymer science by two of the best-known polymer textbook writers in America. The authors have maintained their informal and humorous literary style and included in this updated text, numerous color illustrations. The book covers the central topics of polymer science and engineering, including polymerization synthesis and kinetics, the application of probability theory, structure and morphology, thermal and solution properties, mechanical properties and processing methods. What makes this book unique (in addition to the authors' well-known style) is the inclusion of brief essays labeled Polymer Milestones and Fascinating Polymers at pertinent points in the text. The former are cameos describing the contributions of great scientists and interesting characters, while the latter consider specific polymers that have interesting histories or unusual properties. The text is designed for both undergraduates and graduate students that are new to the field and is a great source for industrial scientists. The book contains useful reviews and introductions to basic topics and also comes with extensive problem sets and other materials for instructors.

Print: 978-1-932078-75-6, ©2009, 538 pages, 7x10, HC book, **\$194.50**

Online: eBook, **\$115.00**

## 2006

### Miscible Polymer Blends

*Background and Guide for Calculations and Design*

Michael M. Coleman and Paul C. Painter

Offers polymer chemists and engineers a method for very rapidly determining which polymers and co-polymers mix and do not mix. The CD-ROM calculator is designed to aid in determining promising polymer blends for many different applications. A self-guided tutorial on the CD-ROM, as well as an accompanying booklet, presents the theoretical background.

978-1-932078-55-8, ©2006, 40 pages, 6x9, SC book plus CD-ROM, **\$159.50**

## 2004

### Painter and Coleman on Polymers

Disk One—***Polymer Science and Engineering*** (with optional Workbook)

Disk Two—***The Incredible World of Polymers: Tales of Innovation, Serendipity and Perseverance***

Paul C. Painter and Michael Coleman

This 2-CD-ROM set with supplemental Workbook gives students and professionals the best features of a comprehensive introduction to polymers, along with animated movies, hundreds of interactive illustrations, and a fully interlinked glossary of polymer terms, equations, and formulas.

978-1-932078-23-7, 2004, 2-CD-ROM Set in CD Folder.

Regular Price: **\$55.00** (2-CD-ROM Set)

Student Price: **\$39.95**

*CD Sets For PC Only—CD-ROM available on Macintosh with special request.*

Workbook: 978-1-932078-23-7B, 100 pages, 8.5x11, spiral bound SC, **\$45.00**

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# RELIABILITY ENGINEERING

**2002 new/updates**

## **Robust Engineering Design-By-Reliability with Emphasis on Mechanical Components and Structural Reliability, Volume 1**

Dimitri B. Kececioglu

This book, written by the world's foremost expert in Reliability Engineering, is the first to provide an advanced methodology to achieve optimum designed-in reliability of products and components.

978-1-932078-07-7, ©2002, 722 pages, 6x9, HC book, **\$109.50**

Online: eBook, **\$89.50**

## **Burn-In Testing—**

*Its Quantification and Optimization*

Dimitri B. Kececioglu and Feng-Bin Sun

Burn-in testing (an alternative to ESS) is widely used as an aid in producing failure-free electronic components. When scientifically planned and conducted, burn-in-testing offers one of the most effective methods of reliability screening at the component level.

978-1-932078-06-0, ©1997, updated 2002, 698 pages, 6x9, HC book, **\$99.50**

Online: eBook, **\$79.50**

## **Environmental Stress Screening—**

*Its Quantification, Optimization and Management*

Dimitri B. Kececioglu and Feng-Bin Sun

With the growth of the electronics industry, environmental stress screening (ESS) has become an essential tool for the production of failure-free electronic assemblies, modules and systems.

978-1-932078-04-6, ©1993, updated 2002, 548 pages, 6x9, HC book, **\$99.50**

Online: eBook, **\$79.50**

## **Reliability & Life Testing Handbook, Volume 1**

Dimitri B. Kececioglu

Each volume is a complete guide and reference to product reliability testing. Encyclopedic in scope, it covers all steps from planning and test selection to test procedure and results analysis. Volume 1 delivers must-have information on a variety of distributions, including the Chi-Square, Exponential, Normal, Lognormal, Weibull, Gamma, and others.

978-1-932078-02-2, ©1993, updated 2002, 941 pages, 6x9, HC book, **\$99.50**

Online: eBook, **\$79.50**

## **Reliability & Life Testing Handbook, Volume 2**

Dimitri B. Kececioglu

This volume includes the binomial tests of comparison and up-to-date information on Accept-Reject Tests, the Sequential Probability Ratio Test, Bayesian MTBF and Reliability Demonstration Tests, as well as other very important accelerated tests such as Arrhenius, Eyring, Bazovsky, and Inverse Power Law.

978-1-932078-03-9, ©1993, updated 2002, 877 pages, 6x9, HC book, **\$99.50**

Online: eBook, **\$79.50**

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# RELIABILITY ENGINEERING

**2002 new/updates**

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## **Reliability Engineering Handbook, Volume 1**

Dimitri B. Kececioglu

The demand for reliable products, components, and systems has never been greater, especially among organizations seeking greater competitiveness in world markets. This handbook is widely used in engineering education and industrial practice. It provides a comprehensive, systematic presentation of today's reliability engineering for optimized design engineering of products, parts, components and equipment.

978-1-932078-00-8, ©1991, updated 2002, 720 pages, 6x9, HC book, **\$99.50**

Online: eBook, **\$79.50**

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## **Reliability Engineering Handbook, Volume 2**

Dimitri B. Kececioglu

Expanding on the coverage provided in Volume 1, Volume 2 covers the prediction of equipment and system reliability for the series, parallel, standby, and conditional function configuration cases and discusses the prediction of the reliability of complex components, equipment, and systems with multimode function and logic, multistress level of function, load sharing function mode, static switches, cyclic switches, and fault tree analysis.

978-1-932078-01-5, ©1991, updated 2002, 576 pages, 6x9, HC book, **\$99.50**

Online: eBook, **\$79.50**

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# SPORTS INSTRUCTION

**2008**

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*Series in the Chinese Kung Fu style of Iron Palm by Grandmaster Brian Gray*

## **Iron Palm Fundamentals**

This is the conditioning book. The book details how to condition the hand to withstand pressure of Iron Palm strikes, the changing process that gives a practitioner a deadly palm, as well as the physics for breaking objects. Also outlines how to avoid the pitfalls of training with fraudulent teachers and the damage from improper training.

978-1-932078-89-3, ©2008, 110 pages, 7x10, SC book, **\$19.95**

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## **Advanced Iron Palm**

This book deals with learning how to intensify the potential in the student's striking skills and differences between external and internal breaking theories.

978-1-932078-90-9, ©2008, 87 pages, 7x10, SC book, **\$19.95**

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## **Applied Iron Palm**

The book begins with an overview of theories and answers to questions and discoveries in light of earlier learning from knowledge gained from the first two books. The book deals with applying the knowledge and how to use the palm in self-defense. The book also teaches how to make Grandmaster Gray's famous Iron Palm liniment.

978-1-932078-91-6, ©2008, 112 pages, 7x10, SC book, **\$19.95**

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## **Iron Palm Form**

Although there has never been a form for the Iron Palm, the reason is contained in this book. The author created Iron Palm form so that martial artists and non-martial artists would be able to practice self-defense techniques that coordinate with the Iron Palm theories. Regardless of a person's level or martial art style, this form gives theory and application for a three-dimensional regimen.

978-1-932078-92-3, ©2008, 66 pages, 7x10, SC book, **\$19.95**

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**2006**

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## **Baseball's Forgotten Basics**

*A Field Manual and Instructional DVD • For Coaches, Parents and Players*

Marc Shoenfelt

Written by a professional baseball instructor and educator, the book and 99-minute instructional DVD combination puts on your bookshelf and home television the little things that are overlooked in other volumes but add up to solid baseball technique. Designed to give younger players of all skill levels solid fundamentals, with safety and fun in mind, these basics of baseball form a foundation that will make any player better.

978-1-932078-53-4, ©2006, Book/DVD, 181 pages, 7x10, SC book, **\$34.95**

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# UTILITY MANAGEMENT

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## 2023

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### **Sustainable Asset Management**

*Linking Assets, People, and Processes for Results*  
Second Edition

Roopchan Lutchman

This new edition, which is thoroughly revised, reflects the many changes that have taken place since the first edition appeared in 2006. Every chapter has been updated with new content on the advances in asset management thinking and the impact of recent legislation and economic regulations.

978-1-60595-672-5, June 2023, 300 pages, HC book, **\$99.50**

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## 2012

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### **Creating and Managing Sustainable Organizations**

Roopchan Lutchman

Explains how to form and manage a self-sustaining business or public utility by providing techniques organizations must apply to remain adaptable and meet the needs of customers and employees while facing a variety of business challenges, from worker quality to increasing costs and global competition. The book includes numerous examples from the public and private sectors.

978-1-60595-041-9, ©2012, 160 pages, 6x9, SC book, **\$59.95**

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## 2006

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### **Sustainable Asset Management**

*Linking Assets, People, and Processes for Results*

Roopchan Lutchman

This book, by one of North America's leading specialists, presents new ways of maintaining and improving assets in utilities and manufacturing environments.

978-1-932078-47-3, ©2006, 270 pages, 6x9, HC book, **\$69.50**

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## 2004

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### **Computerized Work Management Systems for Utility and Plant Operations**

Roopchan Lutchman

This book shows how new computerized technologies can be used to create more cost-effective work management—and improved asset management.

978-1-932078-30-5, ©2004, 207 pages, 6x9, HC book, **\$59.50**

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## ADVANCED MATERIALS

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- **American Society For Composites**  
*Twentieth Technical Conference*
- **Asphalt Paving Technology 2011**  
*Journal of the Association of Asphalt Paving Technologists*
- **BALLISTICS 2002**
- **BALLISTICS 2005**
- **BALLISTICS 2008**
- **BALLISTICS 2013**
- **BALLISTICS 2014**
- **Design, Manufacturing and Applications of Composites**  
*Proceedings of the Fifth Joint Canada-Japan Workshop on Composites*
- **Design, Manufacturing and Applications of Composites**  
*Proceedings of the Sixth Joint Canada-Japan Workshop on Composites*
- **Introduction to Nanocomposite Materials**  
*Properties, Processing, Characterization*
- **Polymer Derived Ceramics**  
*From Nano-Structure to Applications*
- **Structural Health Monitoring 2002**  
*Proceedings of the First European Workshop*
- **Structural Health Monitoring 2004**  
*Proceedings of the Second European Workshop*
- **Structural Health Monitoring 2005**
- **Structural Health Monitoring 2013**  
*A Roadmap to Intelligent Structures*  
*Proceedings of the Ninth International Workshop, September 10-13, 2013, Stanford University*

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## GEOSCIENCE

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- **Great Basin Evolution and Metallogeny-2010**  
*Geological Society of Nevada Symposium*

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## PACKAGING

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- **18th IAPRI World Packaging Conference**  
*Proceedings*
- **Fundamentals of Packaging Technology**  
*Fourth Edition*

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Weight	Domestic (US)	International
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3 to 3.99 LBS	\$27.00	\$45.00
4+ LBS	\$32.00	\$50.00

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**U.S.:** Orders are shipped via UPS ground or US Mail and will normally arrive within 1-6 days from receipt of order.

**Canada:** Orders are shipped via UPS International Standard or US Mail and will normally arrive within 6-15 business days.

**All Other Countries:** Orders are shipped via Direct Link Worldwide and will normally arrive to the intended country within 6-15 business days.

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