Pingel 2 Coil Electric Shifter

In the near future, organic semiconductors may be used in a variety of products, including flat-screen TVs, e-book readers, and third-generation organic photovoltaics applications, to name just a few. While organic electronics has received increased attention in scientific journals, those working in this burgeoning field require more in-depth coverage of the subject. Considering the rapid development in this field, Organic Electronics: Materials, Processing, Devices and Applications is a long-overdue assessment of state-of-the-art technology in organic electronics. This valuable reference harnesses the insight of various experts in the field, who contribute entire chapters on their area of specialty, covering chemistry and materials, fundamental physics, device processing, fabrication, and applications. Coverage includes cutting-edge advances in: Organic vapor phase deposition to fabricate organic nanostructures Organic semiconductor device physics Organic thin film and vertical transistors Organic photovoltaic cells OLED technologies for flat panel displays and lighting With its detailed discussion of the latest developments in the field of organic semiconductor materials and devices, this versatile book is ideally suited as a reference tool for scientists, engineers, and researchers or as an overview for those new to the field. In either capacity, its broad range of material will serve as a base for the further development of new sciences and technologies in this area.
Integrated 60GHz RF Beamforming in CMOS describes new concepts and design techniques that can be used for 60GHz phased array systems. First, general trends and challenges in low-cost high data-rate 60GHz wireless system are studied, and the phased array technique is introduced to improve the system performance. Second, the system requirements of phase shifters are analyzed, and different phased array architectures are compared. Third, the design and implementation of 60GHz passive and active phase shifters in a CMOS technology are presented. Fourth, the integration of 60GHz phase shifters with other key building blocks such as low noise amplifiers and power amplifiers are described in detail. Finally, this book describes the integration of a 60GHz CMOS amplifier and an antenna in a printed circuit-board (PCB) package.
A Textbook on Maritime History, Leadership, and Nautical Sciences for the NJROTC Student
This collection presents papers from a symposium on extraction of rare metals as well as rare extraction processing techniques used in metal production. It covers metals essential for critical modern technologies including electronics, electric motors, generators, energy storage systems, and specialty alloys. Rare metals are the main building blocks of many emerging critical technologies and have been receiving significant attention in recent years. Much research in academia and industry is devoted to finding novel techniques to extract critical and rare metals from primary and secondary sources. The technologies that rely on critical metals are dominating the world, and finding a way to extract and supply them effectively is highly desirable and beneficial. Rapid development of these technologies entails fast advancement of the resource and processing industry for their building materials. Authors from academia and industry exchange knowledge on developing, operating, and advancing extractive and processing technologies. Contributions cover rare-earth elements (magnets, catalysts, phosphors, and others), energy storage materials (lithium, cobalt, vanadium, graphite), alloy elements (scandium, niobium, titanium), and materials for electronics (gallium, germanium, indium, gold, silver). The contributions also cover various processing techniques in mineral beneficiation, hydrometallurgy, separation and purification, pyrometallurgy, electrometallurgy, supercritical fluid extraction, and recycling (batteries, magnets, electrical and electronic equipment).
Waste Electrical and Electronic Equipment (WEEE) Handbook
Elementary Processes in Organic Photovoltaics
Haemostasis in Spine Surgery
Sensor Systems
Materials, Devices, and Processing of Organic Light-Emitting Diodes
Maritime History, Leadership, and Nautical Sciences for the Njrotc Student

The unparalleled large-scale commercial application of poly(3,4-ethylenedioxythiophene), otherwise known as PEDOT, continues to fuel a need for literature about it that is concise, easily available, but sufficiently comprehensive. Designed to meet the requirements of readers from different areas of expertise and experience with the substance, PEDOT: Principles and Applications of an Intrinsically Conductive Polymer provides a comprehensive overview of chemical, physical, and technical information about this preeminent and most forwardly developed electrically conductive polymer. An indispensable resource for researchers, developers, and users of PEDOT—written by the researchers who succeeded in commercializing it A necessary response to the massive interest—as well as patents and papers—spawned by PEDOT, this handbook provides basic knowledge and explores technical applications, based on information generated by universities and academic research, as well as by industrial scientists. Available in various formulations and conductivities, this versatile PEDOT can be adapted for the needs and specific industrial applications of its different users. Although valuable information exists in handbooks on polythiophene chemistry and physics, under which PEDOT falls, until now, few if any books have focused exclusively on this important conducting polymer—certainly not one that so completely elucidates both its experimental and practical aspects. This book: Begins with a brief history of conducting polymers and polythiophenes Describes the invention of PEDOT and its commercial outgrowth, PEDOT:PSS Emphasizes key technical and commercial aspects and usage of PEDOT and how they have stimulated scientific research in a wide range of fields Explains the chemical and physical background for PEDOT in terms of its primary use and incorporation in products including cellular phones and flat panel displays Valuable for readers at any level of familiarity with PEDOT, this one-stop compilation of information offers specialists several unpublished results from the authors' celebrated work, as well as often overlooked information from patents. Balancing sufficient detail and references for further study, this book is a powerful tool for anyone working in the field.
The Electronic Device Failure Analysis Society proudly announces the Seventh Edition of the Microelectronics Failure Analysis Desk Reference, published by ASM International. The new edition will help engineers improve their ability to verify, isolate, uncover, and identify the root cause of failures. Prepared by a team of experts, this updated reference offers the latest information on advanced failure analysis tools and techniques, illustrated with numerous real-life examples. This book is geared to practicing engineers and for studies in the major area of power plant engineering. For non-metallurgists, a chapter has been devoted to the basics of material science, metallurgy of steels, heat treatment, and structure-property correlation. A chapter on materials for boiler tubes covers composition and application of different grades of steels and high temperature alloys currently in use as boiler tubes and future materials to be used in supercritical, ultra-supercritical and advanced ultra-supercritical thermal power plants. A comprehensive discussion on different mechanisms of boiler tube failure is the heart of the book. Additional chapters detailing the role of advanced material characterization techniques in failure investigation and the role of water chemistry in tube failures are key contributions to the book.
This book contains contributions to the 172. WE-Heraeus-Seminar "Atoms and Molecules in Strong External Fields," which took place April 7–11 1997 at the Phys- zentrum Bad Honnef (Germany). The designation "strong fields" applies to external static magnetic, and/or electric fields that are sufficiently intense to cause alterations in the atomic or molecular str- ture and dynamics. The specific topics treated are the behavior and properties of atoms in strong static fields, the fundamental aspects and electronic structure of molecules in strong magnetic fields, the dynamics and aspects of chaos in highly excited R- berg atoms in external fields, matter in the atmosphere of astrophysical objects (white dwarfs, neutron stars), and quantum nanostructures in strong magnetic fields. It is obvious that the elaboration of the corresponding properties in these regimes causes the greatest difficulties, and is incomplete even today. Present-day technology has made it possible for many research groups to study the behavior of matter in strong external fields, both experimentally and theore- cally, where the phrase "experimentally" includes the astronomical observations. - derstanding these systems requires the development of modern theories and powerful computational techniques. Interdisciplinary collaborations will be helpful and useful in developing more efficient methods to understand these important systems. Hence the idea was to bring together people from different fields like atomic and molecular physics, theoretical chemistry, astrophysics and all those colleagues interested in aspects of few-body systems in external fields.
Magnetic Fusion Energy: From Experiments to Power Plants is a timely exploration of the field, giving readers an understanding of the experiments that brought us to the threshold of the ITER era, as well as the physics and technology research needed to take us beyond ITER to commercial fusion power plants. With the start of ITER construction, the world's magnetic fusion energy (MFE) enterprise has begun a new era. The ITER scientific and technical (S&T) basis is the result of research on many fusion plasma physics experiments over a period of decades. Besides ITER, the scope of fusion research must be broadened to create the S&T basis for practical fusion power plants, systems that will continuously convert the energy released from a burning plasma to usable electricity, operating for years with only occasional interruptions for scheduled maintenance. Provides researchers in academia and industry with an authoritative overview of the significant fusion energy experiments Considers the pathway towards future development of magnetic fusion energy power plants Contains experts contributions from editors and others who are well known in the field
A Tutorial
Oxford Handbook of Transcranial Stimulation
Zeolites in Industrial Separation and Catalysis
Investigating Networks of Knowledge in Antiquity
Thomas Register of American Manufacturers and Thomas Register Catalog File
Microelectronics Fialure Analysis Desk Reference, Seventh Edition

A Comprehensive Source for Taking on the Next Stage of OLED R&D OLED Fundamentals: Materials, Devices, and Processing of Organic Light-Emitting Diodes brings together key topics across the field of organic light-emitting diodes (OLEDs), from fundamental chemistry and physics to practical materials science and engineering aspects to design and manufacturing factors. Experts from top academic institutions, industry, and national laboratories provide thorough, up-to-date coverage on the most useful materials, devices, and design and fabrication methods for high-efficiency lighting. The first part of the book covers all the construction materials of OLED devices, from substrate to encapsulation. For the first time in book form, the second part addresses challenges in devices and processing, including architectures and methods for new OLED lighting and display technologies. The book is suitable for a broad audience, including materials scientists, device physicists, synthetic chemists, and electrical engineers. It can also serve as an introduction for graduate students interested in applied aspects of photophysics and electrochemistry in organic thin films.
This book presents an in-depth analysis covering climatic and weather conditions, house and building development history, construction methods and technologies, and environmental conditions. It provides relevant house and building information and highlights recent advances in hot and humid regions, as well as developments in other regions that are relevant to hot and humid climates. The countries in hot and humid regions, which include the tropical countries, the Middle Eastern countries around the Mediterranean, and many countries of Central Asia and Africa, are home to some of the most challenging conditions in the world in terms of house and building design and construction, and in terms of maintaining indoor thermal comfort and air quality in an energy-efficient way. The book's respective chapters, prepared by expert contributors, cover essential concepts, designs, and construction methodologies for houses and commercial buildings. As such, the book offers a valuable resource for undergraduate and graduate students in architecture and engineering, house and building designers, and building sciences researchers. Building contractors, manufacturers and distributors of building equipment and devices, and government policymakers and legislators will also benefit from the information provided in this book.
Waste Electrical and Electronic Equipment (WEEE) Handbook, Second Edition, is a one-stop reference on current electronic waste legislation initiatives, their impact, and the latest technological considerations for reducing electronic waste (e-waste) and increasing the efficiency of materials recovery. It also provides a wide-range of global and corporate examples and perspectives on the challenges that face specific regions and companies, along with the solutions they are implementing in managing e-waste, offering further insights on how discarded products can be treated. Sections introduce the reader to legislation and initiatives to manage WEEE and discuss technologies for the refurbishment, treatment and recycling of waste electronics. Further sections focus on electronic products that present particular challenges for recyclers, explore sustainable design of electronics and supply chains, discuss national and regional WEEE management schemes, and more. Addresses the latest challenges and opportunities for electronic waste (e-waste) management, including e-waste collection models, circular economy implications, rare earth metal recovery, and much more Draws lessons for waste electrical and electronic equipment (WEEE) policy and practice from around the world Discusses legislation and initiatives to manage WEEE, including global e-waste initiatives, EU legislation relating to electronic waste, and eco-efficiency evaluation of WEEE take-back systems
This book introduces the reader the chemistry of reaction approaches by which noble metal nanoparticles are synthesized, including synthetic approaches using the Brust–Schiffrin method , a high-temperature solution-phase synthesis, polymer and biological entities, weak and strong reducing and capping agents, the low and high temperatures, various additives and various novel approaches such as plasma, ionic liquids, UV light and gamma rays and others. This book starts with a brief overview of foundation work concerned with the chapter topics such as nanomaterials, nanoscience, surface-capping molecules, traditional and nontraditional reduction agents, In addition, chemical and physical properties of noble metal nanoparticles with different structures and elements such as monolayered clusters, nanorods, and bimetallic nanoparticles are described comprehensively. The aim is to summarize the fundamentals and mechanistic approaches in the preparation and characterization of metal colloidal nanoparticles and dispersions. In this way the reader is provided with a systematic and coherent picture of the interesting field of nanoscience based on noble metal colloidal nanoparticles. Intended as a wide-ranging overview, the book is a resource for novices in the field as well as for specialists, particularly those scientists working in the area of nanoparticle synthesis. Nanoscience and nanotechnology are discussed from the chemist's point of view. Therefore, this volume describes in detail the terms, definitions, theories, experiments, and techniques dealing with the synthesis of noble metal nanoparticles. The material presented here is essential reading for research chemists, technologists, and engineers in the fields of specialty nanomaterials and metal industries, and also is highly valuable for researchers in university, institutional, and governmental laboratories, especially for those at advanced stages of their careers.
Forecasting and Applications
Building in Hot and Humid Regions
Magnetic Fusion Energy
Atoms and Molecules in Strong External Fields
Hydrometeorology
P3HT Revisited – From Molecular Scale to Solar Cell Devices

This volume presents the results of a multi-year research programme funded by the Deutsche Forschungsgemeinschaft (German Research Council), which explains how organic solar cells work. In this new promising photovoltaic technology, carbon-based materials are deposited by low-cost methods onto flexible substrates, thus allowing devices which open completely new applications like transparent coatings for building, solar cells integrated into clothing or packages, and many more. The investigation of organic solar cells is an interdisciplinary topic, covering physics, chemistry and engineering. The different chapters address topics ranging from the synthesis of new organic materials, to the characterization of the elementary processes such as exciton transport and separation, and the principles of highly efficient device design. /div
The idea for putting together a tutorial on zeolites came originally from my co-editor, Eric Derouane, about 5 years ago. I ?rst met Eric in the mid-1980s when he spent 2 years working for Mobil R&D at our then Corporate lab at Princeton, NJ. He was on the senior technical staff with projects in the synthesis and characterization of new materials. At that time, I managed a group at our Paulsboro lab that was responsible for catalyst characterization in support of our catalyst and process development efforts, and also had a substantial group working on new material synthesis. Hence, our interests overlapped considerably and we met regularly. After Eric moved back to Namur (initially), we maintained contact, and in the 1990s, we met a number of times in Europe on projects of joint interest. It was after I retired from ExxonMobil in 2002 that we began to discuss the tutorial concept seriously. Eric had (semi-)retired and lived on the Algarve, the southern coast of Portugal. In January 2003, my wife and I spent 3 weeks outside of Lagos, and I worked parts of most days with Eric on the proposed content of the book. We decided on a comprehensive approach that ultimately amounted to some 20+ chapters covering all of zeolite chemistry and catalysis and gave it the title Zeolite Chemistry and Catalysis: An integrated Approach and Tutorial.
This book provides a detailed introduction to organic radical polymers and open-shell macromolecules. Functional macromolecules have led to marked increases in a wide range of technologies, and one of the fastest growing of these fields is that of organic electronic materials and devices. To date, synthetic and organic electronic device efforts have focused almost exclusively on closed-shell polymers despite the promise of open-shell macromolecules in myriad applications. This text represents the first comprehensive review of the design, synthesis, characterization, and device applications of open-shell polymers. In particular, It will summarize the impressive synthetic and device performance efforts that have been achieved with respect to energy storage, energy conversion, magnetic, and spintronic applications. By combining comprehensive reviews with a wealth of informative figures, the text provides the reader with a complete "molecules-to-modules" understanding of the state of the art in open-shell macromolecules. Moreover, the monograph highlights future directions for open-shell polymers in order to allow the reader to be part of the community that continues to build the field. In this way, the reader will gain a rapid understanding of the field and will have a clear pathway to utilize these materials in next-generation applications.
The series Advances in Polymer Science presents critical reviews of the present and future trends in polymer and biopolymer science. It covers all areas of research in polymer and biopolymer science including chemistry, physical chemistry, physics, material science. The thematic volumes are addressed to scientists, whether at universities or in industry, who wish to keep abreast of the important advances in the covered topics. Advances in Polymer Science enjoys a longstanding tradition and good reputation in its community. Each volume is dedicated to a current topic, and each review critically surveys one aspect of that topic, to place it within the context of the volume. The volumes typically summarize the significant developments of the last 5 to 10 years and discuss them critically, presenting selected examples, explaining and illustrating the important principles, and bringing together many important references of primary literature. On that basis, future research directions in the area can be discussed. Advances in Polymer Science volumes thus are important references for every polymer scientist, as well as for other scientists interested in polymer science - as an introduction to a neighboring field, or as a compilation of detailed information for the specialist. Review articles for the individual volumes are invited by the volume editors. Single contributions can be specially commissioned. Readership: Polymer scientists, or scientists in related fields interested in polymer and biopolymer science, at universities or in industry, graduate students
Rare Metal Technology 2021
Fundamentals of Magnetic Thermonuclear Reactor Design
Inhibitors of Protein Kinases and Protein Phosphates
Materials, Processing, Devices and Applications
Poultry Meat Processing and Quality
Enabling Materials Resource Sustainability

Poultry products are universally popular and in recent years the consumption of poultry meat has risen dramatically. To ensure the continued growth and competitiveness of this industry, it is essential that poultry meat quality and safety are maintained during production and processing. This important collection provides an authoritative review of the key issues affecting poultry meat quality in production and processing. The book begins by establishing consumer requirements for meat quality, before examining the influence of breeding and husbandry, and techniques for stunning and slaughter of poultry. Chapters 5 and 6 look at primary and secondary processing and Chapters 7, 8 and 9 discuss packaging, refrigeration and other preservation techniques. There are also chapters on microbial hazards and chemical residues in poultry. Quality management issues are reviewed in the final group of chapters, including shelf-life and spoilage, measuring quality parameters and ways of maintaining safety and maximising quality. Poultry meat processing and quality is an essential reference book for technical managers in the Poultry Industry and anyone engaged in teaching or research on poultry meat production. An essential reference for the entire poultry meat industry Reviews the key issues affecting poultry meat quality in production and processing Extensive analysis of poultry meat safety issues
The improvement of exercise performance in sports not only involves the enhancement of physical strength, but also includes the development of psychological and cognitive functions. There is an increasing body of evidence to show that physical exercise is a powerful way to improve a number of aspects of cognition and brain function at the systemic and behavioral levels. Yet, several questions remain: What type of exercise program is optimal for improving cognitive functions? What are the real effects of certain innovative exercise protocols on the relationship between behavior and the brain? To what extent do ergogenic aids boost cognitive function? How efficient are neuromodulation techniques in relation to behavioral performance? The answers to these questions likely require multidisciplinary insights not only from physiologists and sports scientists, but also from neuroscientists and psychologists. The manuscripts published (16 research papers and one perspective article from various academic fields) in this Special Issue Book "Exercise: A Gate That Primes the Brain to Perform" bring together current knowledge and novel directions in human exercise-cognition research dealing with performance. This book showcases the various relationships between cognitive function, brain activity, and behavioral performance with applications in sports and exercise science.
The aims of this volume are to highlight the tremendous pharmacological potential of protein kinase and protein phosphatase inhibitors, to provide a thorough overview of the most remarkable achievements in the field and to illustrate how beneficial these studies can be for the advancement of both basic knowledge on biological regulation and deregulation and for the clinical treatment of a wide spectrum of diseases. This goal is attained by contributions of leader investigators in the field, who address the issue from different angles.
This volume compiles topics from the REWAS 2013 symposium at the TMS Annual Meeting, focusing on different aspects of sustainability. It discusses how to realize sustainability in such areas as transportation, the built environment, electrical and electronic equipment and infrastructure, energy production, and water systems. Enabling sustainability topics include the use of metals and materials processing, recycling and recovery, as well as process design and modeling. The book focuses on understanding sustainability through life cycle management and analysis, systems modeling and design, and education and consumer awareness.
Elementary science -5
Naval Science 2
OLED Fundamentals
Noble Metal Nanoparticles
Organic Electronics
Suzuki GSX1300R Hayabusa 99-07

Fundamentals of Magnetic Thermonuclear Reactor Design is a comprehensive resource on fusion technology and energy systems written by renowned scientists and engineers from the Russian nuclear industry. It brings together a wealth of invaluable experience and knowledge on controlled thermonuclear fusion (CTF) facilities with magnetic plasma confinement - from the first semi-commercial tokamak T-3, to the multi-billion international experimental thermonuclear reactor ITER, now in construction in France. As the INTOR and ITER projects have made an immense contribution in the past few decades, this book focuses on its practical engineering aspects and the basics of technical physics and electrical engineering. Users will gain an understanding of the key ratios between plasma and technical parameters, design streamlining algorithms and engineering solutions. Written by a team of qualified experts who have been involved in the design of thermonuclear reactors for over 50 years Outlines the most important features of the ITER project in France which is building the largest tokamak, including the design, material selection, safety and economic considerations Includes data on how to design magnetic fusion reactors using CAD tools, along with relevant regulatory documents
Since becoming commercially available in 1985, transcranial magnetic stimulation (TMS) has emerged as an important tool in several areas of neuroscience. Originally envisioned as a way to measure the responsiveness and conduction speed of neurons and synapses in the brain and spinal cord, TMS has also become an important tool for changing the activity of brain neurons and the functions they subserve and an important adjunct to brain imaging and mapping techniques. Along with transcranial electrical stimulation techniques, TMS has diffused far beyond the borders of clinical neurophysiology and into cognitive, perceptual, behavioural, and therapeutic investigation and attracted a highly diverse group of users and would-be users. This book provides an authoritative review of the scientific and technical background required to understand transcranial stimulation techniques and a wide-ranging survey of their burgeoning application in neurophysiology, perception, cognition, emotion, and clinical practice. Each of its six sections deals with a major area and is edited by an international authority therein. It will serve researchers, clinicians, students, and others as the definitive text in this area for years to come.
This book describes recent developments in hydrometeorological forecasting techniques for a range of timescales, from short term to seasonal and longer terms. It conveniently brings together both meteorological and hydrological aspects in a single volume.
Over the past decade network theory and methodologies have become central to exploring and explaining social, economic and political relationships and connections in past societies. However, as van Oyen (2017) has pointed out the use of networks has often been more descriptive than analytical, and methodologies have often depended upon underlying assumptions which inevitably simplify complex relationships of many kinds, and which may or may not be solidly supported by our generally fragmentary and heterogenous data and evidence. In ancient societies, we must infer the movement of knowledge of 'how to make things' largely from the objects themselves because we usually lack direct evidence of the human relationships which might have connected people to objects and their makers. The chapters in this volume aim to interrogate the interpretative potential of network concepts for understanding the movement over time and space of ideas about how to make things through a range of archaeological case studies which reveal both functional and dysfunctional relationships. The purpose is to consider how more broadly contextualized and multi-faceted studies can both enhance, and be enhanced by, network and related approaches. While there is much work on the use of formal, less formal and informal network theory, methodologies, including agent-based modelling, with the exception of Astrid van Oyen's work, far less thought has been devoted to the complexity of understanding the wider contexts and the full range of diverse factors which shaped the relationships which constitute networks. The volume will make a significant contribution to understanding the movement and transmission of knowledge (or in some cases their absence), and to debates about how best to expand the utility of network concepts and approaches. This volume originated from an interdisciplinary Leverhulme Research Programme, 'Tracing Networks: craft traditions in the ancient Mediterranean and beyond'. This volume consists of a coherent selection of the archaeological papers which focus specifically on the interrogation of network concepts for understanding and interpreting the ancient past.
Innovative Separations and Transformations
Studying Brain Activity in Sports Performance
Q.C. Trends
PEDOT
Integrated 60GHz RF Beamforming in CMOS
Spectroscopic Properties of Inorganic and Organometallic Compounds

Vols. for 1970-71 includes manufacturers catalogs.
Blood loss in spine surgery is a significant and very common problem connected with all kinds of surgical procedures. An international faculty of authors provide a comprehensive survey on the research and evidence about blood sparing in spine surgery. This publication fills a gap in the spinal literature and provides invaluable data for all those confronted with blood loss during surgical procedures on the spine.
GSXR1300R Hayabusa (1999-2007)
This book covers sensors and multiple sensor systems, including sensor networks and multi-sensor data fusion. It presents the physics and principles of operation and discusses sensor selection, ratings and performance specifications, necessary hardware and software for integration into an engineering system and signal processing and data analysis. Additionally, it discusses parameter estimation, decision making and practical applications. Even though the book has all the features of a course textbook, it also contains a wealth of practical information on the subject.
Modern Methodologies
Green Separation Processes
Zeolite Characterization and Catalysis
Standard Directory of Advertising Agencies
Surgery of the Cranio-Vertebral Junction
Historical Perspective and Technological Advances

This book provides a unique tool for approaching cranio-vertebral junction (CVJ) surgery. Following a brief introduction to the relevant anatomy and biomechanics of CVJ, it explores the field of cranio-vertebral junction lesions and their management. Furthermore, individual chapters cover endovascular surgery, endoscopic skull base techniques, navigation and robotics, ensuring that surgeons stay up-to-date. A chapter addressing the consequences of CVJ surgery with regard to sagittal balance is of particular importance. The book is structured according both to the type of lesion involving the CVJ (tumor, trauma), and to the type of surgical approach (anterior, posterior). Further, it reflects innovative treatment modalities that have improved patient safety and efficacy rates for surgery involving the CVJ, and covers both open and minimally invasive surgical methods, enabling surgeons to hone their skills in both areas.
This timely book is the first to provide a comprehensive overview of all important aspects of this modern technology with the focus on the "green aspect". The expert authors present everything from reactions without solvents to nanostructures for separation methods, from combinatorial chemistry on solid phase to dendrimers. The result is a ready reference packed full of valuable facts on the latest developments in the field - high-quality information otherwise widely spread throughout articles and reviews. From the contents: * Green chemistry for sustainable development * New synthetic methodologies and the demand for adequate separation processes * New developments in separation processes * Future trends and needs It is a "must-have" for every researcher in the field.
Discover how the application of novel multidisciplinary, integrative approaches and technologies are dramatically changing our understanding of the pathogenesis of infectious diseases and their treatments. Each article presents the state of the science, with a strong emphasis on new and emerging medical applications. The Encyclopedia of Infectious Diseases is organized into five parts. The first part examines current threats such as AIDS, malaria, SARS, and influenza. The second part addresses the evolution of pathogens and the relationship between human genetic diversity and the spread of infectious diseases. The next two parts highlight the most promising uses of molecular identification, vector control, satellite detection, surveillance, modeling, and high-throughput technologies. The final part explores specialized topics of current concern, including bioterrorism, world market and infectious diseases, and antibiotics for public health. Each article is written by one or more leading experts in the field of infectious diseases. These experts place all the latest findings from various disciplines in context, helping readers understand what is currently known, what the next generation of breakthroughs is likely to be, and where more research is needed. Several features facilitate research and deepen readers' understanding of infectious diseases: Illustrations help readers understand the pathogenesis and diagnosis of infectious diseases Lists of Web resources serve as a gateway to important research centers, government agencies, and other sources of information from around the world Information boxes highlight basic principles and specialized terminology International contributions offer perspectives on how infectious diseases are viewed by different cultures A special chapter discusses the representation of infectious diseases in art With its multidisciplinary approach, this encyclopedia helps point researchers in new promising directions and helps health professionals better understand the nature and treatment of infectious diseases.
This first book to offer a practical overview of zeolites and their commercial applications provides a practical examination of zeolites in three capacities. Edited by a globally recognized and acclaimed leader in the field with contributions from major industry experts, this handbook and ready reference introduces such novel separators as zeolite membranes and mixed matrix membranes. The first part of the book discusses the history and chemistry of zeolites, while the second section focuses on separation processes. The third and final section treats zeolites in the field of catalysis. The three sections are unified by an examination of how the unique properties of zeolites allow them to function in different capacities as an adsorbent, a membrane and as a catalyst, while also discussing their impact within the industry.
REWAS 2013
Interrogating Networks
Brake Design and Safety
From Experiments to Power Plants
Membrane Operations
Encyclopedia of Infectious Diseases

The only book dedicated to membrane technology, covering all the different innovative membrane areas from separation to contactors, and regarding them as unit operations in process engineering. The specific potential of these advanced new operations is analyzed by different experts in the field, with regard to their basic aspects and in particular to their potential application for a sustainable growth and improvement in the quality of life. To this end, much emphasis is placed on the role of membrane engineering as a dominant technology in such areas as water desalination or artificial organs. The editors are well known and recognized within the community, while the active experience of the authors provides a highly practical, industrially relevant approach to the subject. Topics considered in detail include membranes in fuel cells, membranes in MEMS and OLEDS, as well as integrated membrane systems.
The unique properties of conducting and semiconducting (conjugated) polymers make them one of the most attractive areas of interdisciplinary materials science and technology. Written by a pioneer in the field, this book is the first aimed at teaching graduate students, postdoctoral scientists, and specialists in industry about this exciting field.
Reflecting the growing volume of published work in this field, researchers will find this book an invaluable source of information on current methods and applications.

Organic Radical Polymers
New Avenues in Organic Electronics
Masters Theses in the Pure and Applied Sciences
Fundamentals and Applications
Preparation, Composite Nanostructures, Biodecoration and Collective Properties
Semiconducting and Metallic Polymers