Engineering Chemistry Shivani

Elaboration And Applications Of Metal-organic FrameworksHandbook of Research on Diverse Applications of Nanotechnology in Biomedicine, Chemistry, and EngineeringElementary Organic SpectroscopyNanomaterials for Water RemediationConference on Drug Design and Discovery TechnologiesBiopolymersThe ELSI Handbook of NanotechnologyApplied ChemistryBio- and Nanosorbents from Natural ResourcesEmerging Carbon-Based Nanocomposites for Environmental ApplicationsCommencement [program]Textbook Of Engineering ChemistryTime: Almanac 2009ORGANIC CHEMISTRY: VOLUME II FOR JEE (MAINS & ADVANCED)ENGINEERING CHEMISTRY, THIRD EDITIONNanomaterials for Water RemediationFood Processing for Increased Quality and ConsumptionDioxinMetal-Organic Frameworks (MOFs) for Environmental ApplicationsCarbon Allotropes: Metal-Complex Chemistry, Properties and ApplicationsHazardous Reagent SubstitutionChemistry for EngineersAdvanced Nanomaterials for Wastewater RemediationPersonal Care Products in the Aquatic EnvironmentChemical Functionalization of Carbon NanomaterialsORGANIC CHEMISTRY: HALOALKANES AND HALOARENES (FOR NTA-NEET UG)Biosensor NanomaterialsHeat and Mass TransferENGINEERING CHEMISTRY, FOURTH EDITIONPolymer ScienceHandbook of Research on Medicinal ChemistryEngineering ChemistryDesalination and Water TreatmentLife at the NanoscaleSilica-based Organic-inorganic Hybrid Nanomaterials: Synthesis, Functionalization And

Applications In The Field Of CatalysisNanobiotechnologyAdvances in NanochemopreventionA Textbook of Engineering PhysicsNanogels for Biomedical ApplicationsBruin Life

Elaboration And Applications Of Metal-organic Frameworks

Carbon-based nanomaterials are rapidly emerging as one of the most fascinating materials in the twenty-first century. Chemical Functionalization of Carbon Nanomaterials: Chemistry and Applications provides a thorough examination of carbon nanomaterials, including their variants and how they can be chemically functionalized. It also gives a comprehensive overview of current advanced applications of functionalized carbon nanomaterials, including the automotive, packaging, coating, and biomedical industries. The book covers modern techniques to characterize chemically functionalized carbon nanomaterials as well as characterization of surface functional groups. It includes contributions from international leaders in the field who highlight the multidisciplinary and interdisciplinary flexibility of functionalized carbon nanomaterials. The book illustrates how natural drawbacks to carbon nanomaterials, such as low solubility, can be countered by surface modifications and shows how to make modifications. It discusses developments in the use of carbon nanomaterials in several critical areas in scientific research and practice, including analytical chemistry, drug

delivery, and water treatment. It explores market opportunities due to the versatility and increasing applicability of carbon nanomaterials. It also gives suggestions on the direction of the field from its current point, paving the way for future developments and finding new applications. Chemical Functionalization of Carbon Nanomaterials: Chemistry and Applications is a significant collection of findings in a rapidly developing field. It gives an in-depth look at the current achievements of research and practice while pointing you ahead to new possibilities in functionalizing and using carbon nanomaterials.

Handbook of Research on Diverse Applications of Nanotechnology in Biomedicine, Chemistry, and Engineering

This textbook presents the classical treatment of the problems of heat transfer in an exhaustive manner with due emphasis on understanding of the physics of the problems. This emphasis will be especially visible in the chapters on convective heat transfer. Emphasis is also laid on the solution of steady and unsteady two-dimensional heat conduction problems. Another special feature of the book is a chapter on introduction to design of heat exchangers and their illustrative design problems. A simple and understandable treatment of gaseous radiation has been presented. A special chapter on flat plate solar air heater has been incorporated that covers mathematical modeling of the air heater. The chapter on mass transfer

has been written looking specifically at the needs of the students of mechanical engineering. The book includes a large number and variety of solved problems with supporting line diagrams. A number of application-based examples have been incorporated where applicable. The end-of-chapter exercise problems are supplemented with stepwise answers. Though the book has been primarily designed to serve as a complete textbook for undergraduate and graduate students of mechanical engineering, it will also be useful for students of chemical, aerospace, automobile, production, and industrial engineering streams. The book fully covers the topics of heat transfer coursework and can also be used as an excellent reference for students preparing for competitive graduate examinations.

Elementary Organic Spectroscopy

This valuable new book, Handbook of Research on Medicinal Chemistry: Innovations and Methodologies, presents some of the latest advancements in the various fields of combinatorial chemistry, drug discovery, biochemical aspects, pharmacology of medicinal agents, current practical problems, and nutraceuticals. The editors keep the drug molecule as the central component of the volume and aim to explain the associated features essential to exhibiting pharmacological activity. With a unique combination of chapters in biology, clinical aspects, biochemistry, synthetic chemistry, medicine and technology, the volume provides broad exposure to the essential aspect of pharmaceuticals. The volume many

important aspects of medicinal chemistry, including techniques in drug discovery pharmacological aspects of natural products chemical mediators: druggable targets advances in medicinal chemistry The field of medicinal chemistry is growing at an unprecedented pace, and this volume takes an interdisciplinary approach, covering a range of new research and new practices in the field. The volume takes into account the latest therapeutic guidelines put forward by the World Health Organization and the U.S Food and Drug Administration.. Topics include: drug design drug discovery natural products and supplements and nutraceuticals pharmaceutical approaches to sexual dysfunction drug resistance parasites new natural compounds and identification of new targets stereochemistry aspects in medicinal chemistry common drug interactions in daily practices Handbook of Research on Medicinal Chemistry: Innovations and Methodologies will be a valuable addition to the bookshelves of pharmaceutical scientists and faculty as well as for industry professionals.

Nanomaterials for Water Remediation

This Handbook focuses on the recent advancements in Safety, Risk, Ethical Society and Legal Implications (ESLI) as well as its commercialization of nanotechnology, such as manufacturing. Nano is moving out of its relaxation phase of scientific route, and as new products go to market, organizations all over the world, as well as the general public, are discussing the environmental and health issues

associated with nanotechnology. Nongovernmental science organizations have long since reacted; however, now the social sciences have begun to study the cultural portent of nanotechnology. Societal concerns and their newly constructed concepts, show nanoscience interconnected with the economy, ecology, health, and governance. This handbook addresses these new challenges and is divided into 7 sections: Nanomaterials and the Environment; Life Cycle Environmental Implications of Nanomanufacturing; Bioavailability and Toxicity of Manufactured Nanoparticles in Terrestrial Environments; Occupational Health Hazards of Nanoparticles; Ethical Issues in Nanotechnology; Commercialization of Nanotechnology; Legalization of Nanotechnology.

Conference on Drug Design and Discovery Technologies

Biopolymers

Contamination of aqueous environments by hazardous chemical compounds is the direct cause of the decline of safe clean water supply throughout the globe. The use of unconventional water sources such as treated wastewater will be a new norm. Emerging nanotechnological innovations have great potential for wastewater remediation processes. Applications that use smart nanomaterials of inorganic and

organic origin improve treatment efficiency and lower energy requirements. This book describes the synthesis, fabrication, and application of advanced nanomaterials in water treatment processes; their adsorption, transformation into low toxic forms, or degradation phenomena, and the adsorption and separation of hazardous dyes, organic pollutants, heavy metals and metalloids from aqueous solutions. It explains the use of different categories of nanomaterials for various pollutants and enhances understanding of nanotechnology-based water remediation to make it less toxic and reusable.

The ELSI Handbook of Nanotechnology

Presents facts on world statistics, famous people, demographic data, history, geography, global trends, election results, sports statistics, scientific research, and technological innovations.

Applied Chemistry

The capability to generate potable water from polluted sources is growing in importance as pharmaceuticals, microplastics and waste permeate our soil. Nanotechnology allows for improvements in water remediation technologies by taking advantage of the unique properties of materials at this small scale.

Bio- and Nanosorbents from Natural Resources

A Txtbook of Engineering Physics is written with two distinct objectives:to provied a single source of information for engineering undergraduates of different specializations and provied them a solid base in physics.Successivs editions of the book incorporated topic as required by students pursuing their studies in various universities.In this new edition the contents are fine-tuned,modeinized and updated at various stages.

Emerging Carbon-Based Nanocomposites for Environmental Applications

Currently the field of nanocatalysis is undergoing many exciting developments and the design of silica-based organic-inorganic hybrid nanocatalysts is a key focus of the researchers working in this field.This book aims to present a succinct overview of the recent research progress directed towards the fabrication of silica-based organic-inorganic hybrid catalytic systems encompassing the key advantages of silica nanoparticles and silica-coated magnetic nanoparticles in an integrated manner. Featuring comprehensive descriptions of almost all approaches utilized for the synthesis of nanomaterials including some latest techniques such as flow and microwave-assisted synthesis that enable large-scale synthesis, it proves useful

not only to academics but also industrialists. It also includes a systematic discussion on the vital characterization techniques employed for authenticating the structure of these.The title also offers an enormous amount of knowledge about the fusion of nanotechnology with green chemistry that strives to meet the scientific challenges of protecting human health and the environment.

Commencement [program]

Food Processing for Increased Quality and Consumption, Volume 18 in the Handbook of Food Bioengineering series, offers an updated perspective on the novel technologies utilized in food processing. This resource highlights their impact on health, industry and food bioengineering, also emphasizing the newest aspects of investigated technologies and specific food products through recently developed processing methods. As processed foods are more frequently consumed, there is increased demand to produce foods that attract people based on individual preferences, such as taste, texture or nutritional value. This book provides advantageous tools that improve food quality, preservation and aesthetics. Examines different frying techniques, dielectric defrosting, high pressure processing, and more Provides techniques to improve the quality and sensory aspects of foods Includes processing techniques for meat, fish, fruit, alcohol, yogurt and whey Outlines techniques for fresh, cured and frozen foods Presents processing methods to improve the nutritional value of foods

Textbook Of Engineering Chemistry

The 12 chapters comprehensively cover the development and advances on emerging carbon-based nanocomposites for wastewater applications and discuss the following topics: The emerging carbon-based nanocomposites for remediation of heavy metals and organic pollutants from wastewater; Functional green carbon nanocomposites for heavy-metal treatment in water; Green nanocomposites and their applications in environmentally-friendly carbon nanomaterials; Carbon-based nanocomposites as heterogeneous catalysts for organic reactions in environment-friendly solvents; Carbonaceous nanomaterials for arsenic and chromium removal from waste water; Biochar-based adsorbents for the removal of organic pollutants from aqueous systems; Describes carbon nanomaterials based green nanocomposites; The removal of trihalomethanes from water using nanofiltration membranes and The transformation of wide bandgap semiconductors for visible-light photocatalytic degradation of organic dyes; Nanocomposite materials as electrode materials in microbial fuel cells for the removal of water pollutants; Plasmonic smart nanosensors for the determination of environmental pollutants.

Time: Almanac 2009

Biosensors are devices that detect the presence of microbials such as bacteria,

viruses or a range biomolecules, including proteins, enzymes, DNA and RNA. For example, they are routinely applied for monitoring the glucose concentration in blood, quality analysis of fresh and waste water and for food control. Nanomaterials are ideal candidates for building sensor devces: where in just a few molecules can alter the properties so drastically that these changes may be easily detected by optical, electrical or chemical means. Recent advantages have radically increased the sensitivity of nanomaterial-based biosensors, making it possible to detect one particular molecule against a background of billions of others. Focusing on the materials suitable for biosensor applications, such as nanoparticles, quantum dots, meso- and nanoporous materials and nanotbues, this text enables the reader to prepare the respective nanomaterials for use in actual devices by appropriate functionalization, surface processing or directed self-assembly. The emphasis throughout is on electrochemical, optical and mechancial detection methods, leading to solutions for today's most challenging tasks. The result is a reference for researchers and developers, disseminating first-hand information on which nanomaterial is best suited to a particular application - and why.

ORGANIC CHEMISTRY: VOLUME II FOR JEE (MAINS & ADVANCED)

The capability to generate potable water from polluted sources is growing in importance as pharmaceuticals, microplastics and waste permeate our soil. Nanotechnology allows for improvements in water remediation technologies by taking advantage of the unique properties of materials at this small scale.

ENGINEERING CHEMISTRY, THIRD EDITION

This book discusses the recent progress and advances in nanochemoprevention. Chemoprevention utilizes natural dietary compounds and has regained interest due to larger safety window and proven efficacy of such molecules in cancer treatments. Nanotechnology has revolutionized drug delivery through passive as well as active targeting. This book provides a comprehensive overview of phytochemical bioactives that are used in chemoprevention. It gives a comprehensive overview of the variety of natural molecules and types of nanoparticles as well as mechanistic aspects of their superior efficacy over plain drug molecules. The book concludes with summarizing the progress of pre-clinical results of developed formulations for cancer treatment using nano-chemoprevention.

Nanomaterials for Water Remediation

This new book, Nanobiotechnology: Concepts and Applications in Health, Agriculture, and Environment, presents a broad conceptual overview regarding the synthesis, applications, and toxicological aspects of nanobiotechnology. It focuses on the entrance into and interaction of nanomaterials in the human body, which has generated intense scientific curiosity, attracting much attention as well as increasing concern from the nanomaterial-based industries and academia across the world. This book looks at the scientific aspects of nanomaterials used in many applications of biosciences, taking an interdisciplinary approach that encompasses medicine, biology, pharmacy, physics, chemistry, engineering, nanotechnology, and materials science. The volume covers the basics of nanosciences and nanotechnology; different schemes and routes of synthesis; and various biological applications, including sensing, medicine, drug delivery systems, and remediation. Further, special chapters will be devoted to nanotoxicology and the developing risk factors associated with nanosized particles during use along with the ethical issues related to nanobiotechnology.

Food Processing for Increased Quality and Consumption

Dioxin – Environmental Fate and Health/Ecological Consequences offers a unique, and comprehensive coverage of dioxins and their congeners once they are released to the environment. The book provides readers with a systematic understanding of past and emerging sources of dioxins, current dioxins inventories

and historical trends, fate and long-range transboundary atmospheric transport, human health, and ecological risk and regulatory perspective. Providing an excellent analysis of dioxin exposure through the food chain and impact on human health, it also documents the environmental implications of dioxins on ecological flora and fauna. The book offers readers a holistic understanding about dioxins, their atmospheric fate and transport, distribution in various environmental matrices and various routes and exposure pathways through which human beings are exposed to this persistent organic pollutant. It further offers an insight into the toxicological profile and mechanistic analysis of the onset of cancer, remediation technologies, and existing regulatory framework to deal with the problems associated with dioxins. The book will serve as an excellent resource to environmental professionals, particularly environmental toxicologists, environmental health professionals, remediation engineers, environmental regulatory agencies, policymakers, and environmental law professionals.

Dioxin

The book is revised specifically to address the needs of the latest course curriculum in Engineering Chemistry for the first semester students of all branches of engineering. The topics covered in the book are customarily taught in several universities and institutes. The book exposes students to fundamental knowledge in Water technology • Applications of surface chemistry and concept of nuclear

energy and energy storage devices • Alloys and phase rule • Electrochemistry and principle involved in corrosion and its inhibition and protective coatings • Analysis of fuels and combustion KEY FEATURES • Several worked-out examples to help students reinforce their comprehension of theory • Numerous short and descriptive questions at the end of each chapter to test and foster students' conceptual understanding of the subject • Chapter-end problems to help students become proficient in problem solving TARGET AUDIENCE Students of first-year BE/BTech (All Branches)

Metal-Organic Frameworks (MOFs) for Environmental Applications

Any good text book,particularly that in the fast changing fields such as engineering & technology,is not only expected to cater to the current curricular requirments of various institutions but also should provied a glimplse towards the latest developments in the concerned subject and the relevant disciplines.It should guide the periodic review and updating of the curriculum.

Carbon Allotropes: Metal-Complex Chemistry, Properties and Applications

THIS BOOK CONTAINS CORE & FINE CONCEPTS OF HALOALKANES AND HALOARENES. Haloalkanes and Haloarenes (Periods 12) Haloalkanes: Nomenclature, nature of C-X bond, physical and chemical properties, mechanism of substitution reactions. Optical rotation. Haloarenes: Nature of C-X bond, substitution reactions (directive influence of halogen for monosubstituted compounds only). Uses and environmental effects of – dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT. * ORGANIC ACCELERATOR *NCERT BOOSTER Organic Chemistry with engineering entrance examinations requirements. The book has been reorganized based on the challenges faced by the students preparing for engineering entrance in terms of practice problems and clarity of theories. The relevance to exams is enhanced by elaborating concepts related to the syllabus, removing irrelevant topics and addition of specific problems at the end of each chapter.

Hazardous Reagent Substitution

Chemistry is the basic subject whose principles are applied in all fields of science. To understand basic concepts of the subject understanding the chemistry part is equally essential. This book is specially designed for undergraduate students of different disciplines.It explains the fundamental concepts of chemistry in a very effortless manner. The book is written in a lucid, precise and systematic way. It explains the basic concepts of bonding, reaction rates, chemistry of engineering

materials, Instrumental methods of analysis and Fuels and Lubricants

Chemistry for Engineers

This volume offers an overview of the occurrence and distribution of personal care products in continental and marine waters, presents analytical methods and degradation technologies and discusses their impact on human health. Experts from different disciplines highlight major issues for each family of compounds related to their occurrence in the water column as well as in solid and biota samples, methodological strategies for their analysis, non-conventional degradation technologies, (eco)toxicity data and their human and environmental risk assessment. The book also includes a general introduction to personal care products, covering their properties, use, behaviour and regulatory framework, and a final chapter identifying knowledge gaps and future research trends. It will appeal to experts from various fields of research, including analytical and environmental chemistry, toxicology and environmental engineering.

Advanced Nanomaterials for Wastewater Remediation

Personal Care Products in the Aquatic Environment

This book describes the structure, performance and applications of biopolymers. It contains thirteen chapters: Chapter One describes the general introduction of biopolymers, while Chapter Two deals with environmental perspectives that biopolymers are involved in. Chapter Three deals with the surface nanostructuring of biopolymers for tissue engineering. Chapter Four describes the nanomaterials as an emerging opportunity for purifying drinking water. Chapter Five is based on the microalgal engineering of biopolymers, while Chapter Six contains information on the lignocellulosic biomass used to obtain polyhydroxybutyrate as a biopolymer under. Chapter Seven mainly discusses chitosan as a biomedical material (properties and applications), and Chapter Eight introduces details about gum ghatti (Anogeissus latifolia), a proteinaceous edible biopolymer and its multifaceted biological applications. Chapter Nine describes the recent advances in biopolymers for innovative food packaging, while Chapter Ten discusses the potential production of polyhydroxybutyrate from renewable feedstocks. Chapter Eleven contains information about biopolymer stabilization of fly ash and coal mine overburden for erosion resistance, whereas Chapter Twelve describes in detail the structure, features and applications of biopolymers. Finally, Chapter Thirteen summarizes the recent trends concerning biopolymers. The current book will be highly beneficial to researchers working in the area of biopolymers, polymer chemistry, materials science, engineering, drug delivery, medicine, waste management, environmental science and waste water research. This book also covers information concerning natural biopolymers, biotechnology, biocomposites

and bioplastics for a variety of environmental applications. The potential researchers working in the area will benefit from the fundamental concepts, advanced approaches and applications. The book also provides a platform for all researchers to carry out biopolymer research mainly towards its structure, performance and application, and also covers fundamental background information in the area. The book also covers recent advancements in the area as well as prospects about the future research and development of biopolymers.

Chemical Functionalization of Carbon Nanomaterials

Metal-Organic Frameworks for Environmental Applications examines this important topic, looking at potential materials and methods for the remediation of pressing pollution issues, such as heavy-metal contaminants in water streams, radioactive waste disposal, marine oil-spillage, the treatment of textile and dye industry effluents, the clean-up of trace amounts of explosives in land and water, and many other topics. This survey of the cutting-edge research and technology of MOFs is an invaluable resource for researchers working in inorganic chemistry and materials science, but it is also ideal for graduate students studying MOFs and their applications. Examines the applications of metal-organic frameworks for the remediation of environmental pollutants Features leading experts who research the applications of MOFs from around the world, including contributions from the United States, India and China Explores possible solutions to some of today's most

pressing environmental challenges, such as heavy-metal contamination in bodies of water, oil spills and clean-up of explosives hidden in land and water Provides an excellent reference for researchers and graduate students studying in the areas of inorganic chemistry, materials chemistry and environmental science

ORGANIC CHEMISTRY: HALOALKANES AND HALOARENES (FOR NTA-NEET UG)

Proceeding from basic fundamentals to applications, this volume provides a comprehensive overview of the use of AFM and related scanning probe microscopies for cell surface analysis. It covers all cell types, from viruses and protoplasts to bacteria and animal cells. It also discusses a range of advanced AFM modalities, including high-resolution imaging, nanoindentation measurements, recognition imaging, and single-molecule and single-cell force spectroscopy. The book covers methodologies for preparing and analyzing cells and membranes of all kinds and highlights recent examples to illustrate the power of AFM techniques in life sciences and nanomedicine.

Biosensor Nanomaterials

PRINCIPLES AND CHEMICAL APPLICATIONS FOR B.SC.(HONS) POST GRADUATE

STUDENTS OF ALL INDIAN UNIVERSITIES AND COMPETITIVE EXAMINATIONS.

Heat and Mass Transfer

This publication is based on peer-reviewed manuscripts from the 2019 Conference on Drug Design & Discovery Technologies (CDDT) held at Ramaiah University of Applied Sciences, India. Providing a wide range of up to date topics on the latest advancements in drug design and discovery technologies, this book ensures the reader receives a good understanding of the scope of the field. Aimed at scientists, students, regulators, academics and consultants throughout the world, this book is an ideal resource for anyone interested in the state of the art in drug design and discovery.

ENGINEERING CHEMISTRY, FOURTH EDITION

As a paradigm for the future, micro-scale technology seeks to fuse revolutionary concepts in science and engineering and then translate it into reality. Nanotechnology is an interdisciplinary field that aims to connect what is seen with the naked eye and what is unseen on the molecular level. The Handbook of Research on Diverse Applications of Nanotechnology in Biomedicine, Chemistry, and Engineering examines the strengths and future potential of micro-scale

technologies in a variety of industries. Highlighting the benefits, shortcomings, and emerging perspectives in the application of nano-scale technologies, this book is a comprehensive reference source for synthetic chemists, engineers, graduate students, and researchers with an interest in the multidisciplinary applications, as well as the ongoing research in the field.

Polymer Science

This book reviews the work in the field of nanoadsorbents derived from natural polymers, with a special emphasis on materials finding application in water remediation. It includes natural materials both with an organic or an inorganic skeleton, from which the nanomaterials can be made. Those nanomaterials can therefore be used to reinforce other matrices and in their pristine form have an extraordinary adsorption efficiency. Being of natural or biological origin, the materials described in this book distinguish themselves as eco-friendly and non-toxic. The book describes how these benefits of the described materials can be combined and exploited. It will thus appeal to chemists, nanotechnologists, environmental engineers and generally all scientist working in the field of water pollution and remediation as an inspiration for the innovation toward new technologies.

Handbook of Research on Medicinal Chemistry

A comprehensive overview of nanogel-based systems and their applications in nanomedicine.

Engineering Chemistry

Desalination and Water Treatment

The Third Edition of this book has been comprehensively revised in a coherent style to impart fundamental principles and useful applications of chemistry in engineering and technology. It provides extensive explanation of all five modules—Electrochemistry and Battery Technology, Corrosion and Metal Finishing, Fuels and Solar Energy, Polymers, Water Technology and Nanomaterials—with good emphasis on topics of interest in engineering. The newly added material to this edition certainly builds up the information as well as strengthens the text further. The book covers all those important topics that are required for the first-year undergraduate students of engineering of all branches for their course in Engineering Chemistry. NEW TO THE THIRD EDITION • Incorporates a new chapter on Nanomaterials. • Comprises new sections on Production of Solar Grade

Silicon—Union Carbide Process, Purification of Silicon (Zone Refining) in the chapter on Chemical Energy Resources, and sections on Boiler's Sludge and Scales, Priming, Foaming and Boiler Corrosion in the chapter on Water Technology. • Includes revamped section on Molecular Mass (Weight) of a Polymer in the chapter on High Polymers. • Contains a Model Test Paper to help the students from examination point of view.

Life at the Nanoscale

Silica-based Organic-inorganic Hybrid Nanomaterials: Synthesis, Functionalization And Applications In The Field Of Catalysis

Nanobiotechnology

THIS BOOK CONTAINS CORE & FINE CONCEPTS OF HALOALKANES AND HALOARENES. Haloalkanes and Haloarenes (Periods 12) Haloalkanes: Nomenclature, nature of C-X bond, physical and chemical properties, mechanism of substitution reactions. Optical rotation. Haloarenes: Nature of C-X bond,

substitution reactions (directive influence of halogen for monosubstituted compounds only). Uses and environmental effects of – dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT. * ORGANIC ACCELERATOR *NCERT BOOSTER Organic Chemistry with engineering entrance examinations requirements. The book has been reorganized based on the challenges faced by the students preparing for engineering entrance in terms of practice problems and clarity of theories. The relevance to exams is enhanced by elaborating concepts related to the syllabus, removing irrelevant topics and addition of specific problems at the end of each chapter.

Advances in Nanochemoprevention

In recent years, a significant amount of progress has been made using green chemistry in the synthesis of synthetically useful compounds and molecules by replacing hazardous chemicals with greener alternatives. However, there is still room for improvement, especially in the pharmaceutical sector where new drugs are being formulated. This book examines green approaches to overcoming hazardous organic transformations. Summarizing recent developments, the book features a detailed description of some of the high impact active pharmaceutical ingredients that have been developed considering green chemistry approaches. It explores the design, engineering and process development and the calculations to account for waste. The book includes strategies to further advance green

approaches in the development of generic pharmaceutical industries and features novel, innovative approaches that promote waste-free organic synthesis. This book is of interest to industrialists working in pharmaceuticals and researchers working in green chemistry.

A Textbook of Engineering Physics

This book provides a detailed description of metal-complex functionalized carbon allotrope forms, including classic (such as graphite), rare (such as M- or T-carbon), and nanoforms (such as carbon nanotubes, nanodiamonds, etc.). Filling a void in the nanotechnology literature, the book presents chapters generalizing the synthesis, structure, properties, and applications of all known carbon allotropes. Metal-complex composites of carbons are described, along with several examples of their preparation and characterization, soluble metal-complex carbon composites, cost-benefit data, metal complexes as precursors of carbon allotropes, and applications. A lab manual on the synthesis and characterization of carbon allotropes and their metal-complex composites is included. Provides a complete description of all carbon allotropes, both classic and rare, as well as carbon nanostructures and their metal-complex composites; Contains a laboratory manual of experiments on the synthesis and characterization of metal-complex carbon composites; Discusses applications in diverse fields, such as catalysis on supporting materials, water treatment, sensors, drug delivery, and devices.

Nanogels for Biomedical Applications

The need for fresh water is increasing with the rapid growth of the world's population. In countries and regions with available water resources, it is necessary to ensure the health and safety of the water supply. However, in countries and regions with limited freshwater resources, priority is given to water supply plans and projects, among which the desalination strategy stands out. In the desalination process, membrane and thermal processes are used to obtain fresh water from salty water that is in abundant amounts in the sea. This book will outline valuable scientific contributions to the new desalination and water treatment technologies to obtain high quality water with low negative environmental impacts and cost. The editors would like to record their sincere thanks to the authors for their contributions.

Bruin Life

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