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Comprehensive Biomaterials II Kevin E. Healy 2017-08-11 Comprehensive Biomaterials II, Second Edition brings together the myriad facets of biomaterials into one expertly-written series of edited volumes. Articles address the current status of nearly all biomaterials in the field, their strengths and weaknesses, their future prospects, appropriate analytical methods and testing, device applications and performance, emerging candidate materials as competitors and disruptive technologies, research and development, regulatory management, commercial aspects, and applications, including medical applications. Detailed coverage is given to both new and emerging areas and the latest research in more traditional areas of the field. Particular attention is given to those areas in which major recent developments have taken place. This new edition, with 75% new or updated articles, will provide biomedical scientists in industry, government, academia, and research organizations with an accurate perspective on the field in a manner that is both accessible and thorough. Reviews the current status of nearly all biomaterials in the field by analyzing their strengths and weaknesses, performance, and future prospects Covers all significant emerging technologies in areas such as 3D printing of tissues, organs and scaffolds, cell encapsulation; multimodal delivery, cancer/vaccine - biomaterial applications, neural interface understanding, materials used for in situ imaging, and infection prevention and treatment Effectively describes the many modern aspects of biomaterials from basic science, to clinical applications

Climate Change 2014: Mitigation of Climate Change Intergovernmental Panel on Climate Change 2015-01-26 This latest Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) will again form the standard reference for all those concerned with climate change and its consequences, including students, researchers and policy makers in environmental science, meteorology, climatology, biology, ecology, atmospheric chemistry and environmental policy.

Material Revolution 2 Sascha Peters 2014-02-24 Following the huge success of Material Revolution, this second volume addresses the rapid development of material research and presents materials new to the market since 2010. The significance of sustainable and intelligent materials in design and architecture has increased enormously over the last two years. Numerous new products have been introduced to the market and designers' thirst for knowledge about the sustainability of new material is as strong as ever, making a sequel to Material Revolution necessary. The new volume contains a similar system of classification but covers a completely different range of materials. There is a chapter dedicated solely to the criteria and factors of sustainable product design, as well as to innovative projects by designers and architects that work with new materials and technologies.

CONCUR 2014 – Concurrency Theory Paolo Baldan 2014-08-23 This book constitutes the refereed proceedings of the 25th International Conference on Concurrency Theory, CONCUR 2014, held in Rome, Italy in September 2014. The 35 revised full papers presented together with 5 invited talks were carefully reviewed and selected from 124 submissions. The focus of the conference is on the following topics: process calculi, model checking and abstraction, synthesis, quantitative models, automata and multithreading, complexity, process calculi and types, categories, graphs and quantum systems, automata and time, and games.

Cumulative Author Index to Psychological Abstracts 1975

The Economics of Life Gary Stanley Becker 1997 Collects the best of the economist's "Business Week" column

Governance of Seas and Oceans André Monaco 2015-11-04 The governance of seas and oceans, defined as all forms of social participation in decision-making on the marine environment, is here mainly from a legal perspective view with the Law of the Sea as a determinant. The book presents the main aspects of maritime law and the history of its construction. The exploitation of living resources, minerals and marine energy reserves, maritime transport, marine ecosystems disturbance by a vessel traffic constantly increasing, are included.

Planctomycetes-Verrucomicrobia-Chlamydiae Bacterial Superphylum: New Model Organisms for Evolutionary Cell Biology, 2nd Edition Laura van Niftrik 2019-10-02 The Planctomycetes, Verrucomicrobia, Chlamydiae (PVC) and related phyla have recently emerged as fascinating subjects for research in evolutionary cell biology, ecology, biotechnology, evolution and human health. This interest is prompted by particular characteristics observed in the PVC superphylum that are otherwise rarely observed in bacteria but are however still poorly described or understood, such as the presence of a complex endomembrane system, or compacted DNA throughout most of the cell cycle. Therefore, the members of the PVC superphylum represent an excellent example of the value of studying bacteria other than 'classical' models.

Bibliographies on Aerospace Science United States. National Aeronautics and Space Administration. Scientific and Technical Information Division 1964

Cellulose and Cellulose Derivatives in the Food Industry Tanja Wuestenberg 2014-08-05 Cellulose and its

derivatives can be found in many forms in nature and is a valuable material for all manner of applications in industry. This book is authored by an expert with many years of experience as an application engineer at renowned cellulose processing companies in the food industry. All the conventional and latest knowledge available on cellulose and its derivatives is presented. The necessary details are elucidated from a theoretical and practical viewpoint, while retaining the focus on food applications. This book is an essential source of information and includes recommendations and instructions of a general nature to assist readers in the exploration of possible applications of cellulose and its derivatives, as well as providing food for thought for the generation of new ideas for product development. Topics include gelling and rheological properties, synergistic effects with other hydrocolloids, as well as nutritional and legal aspects. The resulting compilation covers all the information and advice needed for the successful development, implementation, and handling of cellulose-containing products.

Bio-Clean Energy Technologies: Volume 1 Pankaj Chowdhary 2022-05-30 This book discusses the latest advancements in the area of biofuel development. It covers extensive information regarding different aspects and types of biofuels. The book provides a road map of the various different kinds of biofuels available for consideration, including both conventional and advanced algal based biofuels, replete with the economic analysis of their production and implementation. The contributors are experienced professors, academicians and scientists associated with renowned laboratories and institutes in India and abroad. This book is of interest to teachers, researchers, biofuel scientists, capacity builders and policymakers. Also the book serves as additional reading material for undergraduate and graduate students. National and international scientists, policy makers will also find this to be a useful read.

Thanatia: The Destiny of the Earth's Mineral Resources Antonio Valero Capilla 2014-08-18 Is Gaia becoming Thanatia, a resource exhausted planet? For how long can our high-tech society be sustained in the light of declining mineral ore grades, heavy dependence on un-recycled critical metals and accelerated material dispersion? These are all root causes of future disruptions that need to be addressed today. This book presents a cradle-to-cradle view of the Earth's abiotic resources through a novel and rigorous approach based on the Second Law of Thermodynamics: heat dissipates and materials deteriorate and disperse. Quality is irreversibly lost. This allows for the assessment of such depletion and can be used to estimate the year where production of the main mineral commodities could reach its zenith. By postulating Thanatia, one acquires a sense of destiny and a concern for a unified global management of the planet's abiotic resource endowment. The book covers the core aspects of geology, geochemistry, mining, metallurgy, economics, the environment, thermodynamics and thermochemistry. It is supported by comprehensive databases related to mineral resources, including detailed compositions of the Earth's layers, thermochemical properties of over 300 substances, historical energy and mineral resource inventories, energy consumption and environmental impacts in the mining and metallurgical sector and world recycling rates of commodities. Contents: The Threads: Minerals, Economy and Thermodynamics: The Depletion of Non-Renewable Abiotic Resources Economic versus Thermodynamic Accounting From Thermodynamics to Economics and Ecology Physical Geonomics: A Cradle-Grave-Cradle Approach for Mineral Depletion Assessment Over the Rainbow: From Nature to Industry: The Geochemistry of the Earth The Resources of the Earth An Introduction to Mining and Metallurgy Metallurgy of Key Minerals Down the Rainbow: From Grave to Cradle: Thermodynamics of Mineral Resources Thanatia and the Crepuscular Earth Model The Exergy of the Earth and Its Mineral Resources The Exergy Replacement Costs of Mineral Wealth The Exergy Evolution of Mineral Wealth Tying the Rainbows: Towards a Rational Management of Resources: Recycling Solutions The Challenge of Resource Depletion The Principles of Resource Efficiency Epilogue Readership: Thermodynamicists, geologists, economists, policy makers, and mining, environmental and chemical engineers. Keywords: Exergy; Mineral Resources; Depletion; Hubbert Peak; Gibbs Free Energy; Mineralogical Composition of the Earth; Thermodynamics Reviews: "This is an exhaustive treatment of the subject with numerous tables of the baseline data and discussions going from basic thermodynamics to economics and social sciences. It is an essential read for any scientist who is concerned with resource evaluation and how we can best manage these assets and continue to live on an Earth in which we appreciate the service provided by the resource and thus avoid Thanatia in defence of Gaia." John Ludden Executive Director, British Geological Survey "'Thanatia' presents a refreshing way of analysing the run-down of our mineral inheritance ... To serious students of the resource problem the numerous tables in 'Thanatia' are useful because they are thought-provoking as much as for the numerical data. 'Thanatia' is a big book, with a wealth of data and background material on the minerals industry, representing many years of intensive investigation and analysis." Jane H Hodgkinson & Frank D Stacey CSIRO, Australia Authors of The Earth as a Cradle for Life "The unusual title of the book Thanatia (death in Greek) leads its readers to understand what sustainability really means and to quantify the problem of mineral depletion using both disciplines

thermodynamics and economics. ” Ph. Vieillard Director of Research C.N.R.S., Poitiers, France

Catalog of the Avery Memorial Architectural Library of Columbia University Avery Library 1958

Les travailleurs de la mer Victor Hugo 2002 Qui sauvera la Durande? A des milles de la côte, elle est là, empalée sur un écueil entre Guernesey et Saint-Malo. L'action se passe dans l'archipel de la Manche et permet une description de l'histoire naturelle et sociale des îles anglo-normandes.

De lange weg naar de vrijheid Nelson Mandela 2017-10-21 De lange weg naar de vrijheid is de beroemde autobiografie van een van de grootste mannen van de twintigste eeuw. Nelson Mandela beschrijft de lange weg die hij heeft moeten afleggen van onwetende jongen tot charismatisch staatsman. Dit is het verhaal van misschien wel de wonderbaarlijkste omwenteling in de geschiedenis, verteld door de man die het allemaal heeft meegemaakt en in gang gezet. Het verhaal van Mandela, door Mandela.

The Carbon Fix Stephanie Paladino 2016-11-18 Given the growing urgency to develop global responses to a changing climate, The Carbon Fix examines the social and equity dimensions of putting the world's forests—and, necessarily, the rural people who manage and depend on them—at the center of climate policy efforts such as REDD+, intended to slow global warming. The book assesses the implications of international policy approaches that focus on forests as carbon and especially, forest carbon offsets, for rights, justice, and climate governance. Contributions from leading anthropologists and geographers analyze a growing trend towards market principles and financialization of nature in environmental governance, placing it into conceptual, critical, and historical context. The book then challenges perceptions of forest carbon initiatives through in-depth, field-based case studies assessing projects, policies, and procedures at various scales, from informed consent to international carbon auditing. While providing a mixed assessment of the potential for forest carbon initiatives to balance carbon with social goals, the authors present compelling evidence for the complexities of the carbon offset enterprise, fraught with competing interests and interpretations at multiple scales, and having unanticipated and often deleterious effects on the resources and rights of the world's poorest peoples—especially indigenous and rural peoples. The Carbon Fix provides nuanced insights into political, economic, and ethical issues associated with climate change policy. Its case approach and fresh perspective are critical to environmental professionals, development planners, and project managers; and to students in upper level undergraduate and graduate courses in environmental anthropology and geography, environmental and policy studies, international development, and indigenous studies.

Biotechnology: Recent Trends and Emerging Dimensions Atul Bhargava 2017-11-22 Biotechnology is a multidisciplinary field encompassing microbiology, biochemistry, genetics, molecular biology, chemistry, immunology, cell and tissue culture physiology. This book describes the recent developments in these areas. Current research topics such as Quorum sensing, Integrins, Phytomining are discussed, which would serve as an excellent reference work for both academicians and researchers in the field.

New anti-infective strategies for treatment of tularemia Max Maurin 2014-11-21 Francisella tularensis, the causative agent of tularemia, is a paradigm among human pathogens. This Gram-negative bacterium has an intracellular lifestyle, which probably reflects an adaptation to its natural animal and protozoa reservoirs. This is one of the most infectious agents in humans and animals; only a few bacteria are needed to induce a severe infection in both types of hosts. The clinical presentation and severity of human tularemia varies according to the portal of entry of bacteria, the bacterial inoculum, the virulence of the infecting strain, and the immune response of the host. Although most infections occur after direct inoculation of bacteria through the skin (through skin wounds or bites of arthropods), pneumonia due to inhalation of infected aerosols is the most feared of the clinical forms of the disease, particularly in the context of biological threat. Two subspecies are responsible for tularemia (subsp. tularensis and subsp. holarctica), and several clades have been described for each, which might be associated with changes in disease severity in humans. Tularemia is also more severe in people with an impaired immune response. No safe vaccine is currently available for prophylaxis of tularemia in humans. On the other hand, control of proliferation of F. tularensis in wildlife is not feasible. Thus, only the anti-infective agents are used for treatment and prophylaxis of human tularemia. The standard options include aminoglycosides (gentamicin), tetracyclines (eg, doxycycline) and fluoroquinolones (eg, ciprofloxacin). The selection of acquired resistance to these antibiotics in F. tularensis, especially in the context of a biological threat, may quickly limit the therapeutic options. New prophylactic and therapeutic alternatives must be developed rapidly. The present Research Topic focuses on potential new strategies for treatment of tularemia, including the development and evaluation of new compounds having proper antibacterial activity, reducing the virulence of F. tularensis or enhancing the immune host response.

Ressourceneinsparpotenziale der „Vorbereitung zur Wiederverwendung“ von Elektro- und Elektronikgeräten Nadja von Gries 2020-01-01 Elektro- und Elektronikgeräte zählen zu den am schnellsten wachsenden Abfallströmen in Europa. Reparatur und Wiederverwendung können durch eine Verlängerung der Produktnutzungsdauer dazu beitragen, dass weniger Abfall entsorgt werden muss und Ressourcen durch die Vermeidung von Neuproduktion eingespart werden. In der Europäischen Abfallrahmenrichtlinie (2008/98/EG) wird der „Vorbereitung zur Wiederverwendung“ ein hoher Stellenwert eingeräumt; die Abfallvermeidung hat, gefolgt von der „Vorbereitung zur Wiederverwendung“, eindeutig Priorität gegenüber dem Recycling. Die Abfallhierarchie verspricht zwar implizit ökologische Vorteile der „Vorbereitung zur Wiederverwendung“, allerdings wurden die institutionell-ökologischen Zusammenhänge des Konzepts in der Forschungsdebatte bislang vernachlässigt. Somit sind die tatsächlichen Ressourceneinsparpotenziale der „Vorbereitung zur Wiederverwendung“ noch weitgehend unerforscht. Vor diesem Hintergrund zielt das Dissertationsprojekt darauf ab, ein Verständnis dafür zu entwickeln, wie spezifische Kontexte (beispielsweise die rechtlichen Rahmenbedingungen, ökonomische oder informatorische Aspekte) die „Vorbereitung zur Wiederverwendung“ von Produkten aus der Ressourcenperspektive beeinflussen. Dafür wurden die institutionell-ökologischen

Zusammenhänge der „Vorbereitung zur Wiederverwendung“ integrativ betrachtet, und zwar mit Fokus auf ausgewählte Geräte – Flachbildmonitore (FlaMo's), Kaffeefiltermaschinen (KaFil's), Kaffeepadmaschinen (Ka-Pad's), Lautsprecherboxen (LauS) und Waschmaschinen (WaMa's) – und im Sinne einer vergleichenden Analyse von zwei abfallstrukturell-charakteristischen Regionen – Flandern und Nordrhein-Westfalen. Die interdisziplinäre Fragestellung der Arbeit erforderte die Anwendung qualitativer Methoden für die tiefgründige Untersuchung der „Vorbereitung zur Wiederverwendung“ in den verschiedenen institutionellen Systemen, aber auch quantitative Methoden im Hinblick auf die zahlenmäßige Bewertung der Ressourceneinsparpotenziale. Zentrale Datenerhebungsinstrumente waren fallbeispielbezogene öffentliche Dokumente und Webseiten, die Analyse betriebsinterner Dokumentationen, Literaturlauswertungen, Stichprobenerhebungen, Beobachtungen und Experteninterviews.

Manikins for Textile Evaluation Rajkishore Nayak 2017-06-15 Manikins for Textile Evaluation is a key resource for all those engaged in textile and apparel development and production, and for academics engaged in research into textile science and technology. Creating garments that work with the human form, both stationary and in motion, is a complex task that requires extensive testing and evaluation. Manikins allow for performance testing of textiles in a safe, controlled, and appropriate environment, and are a key element in developing new textile products. Everyday apparel needs to be assessed for comfort, sizing and fit, and ergonomics, while technical and protective garments require extensive safety and performance testing. Manikins therefore range from simple representations of the human body to complex designs that simulate body temperature, sweating, and motion. Manikins are safe for use in hazardous testing environments, such as fire and flame protection, where wearer trials would be impossible. This book provides extensive coverage of manikin-based evaluation of protective, heat and flame resistant, medical, and automotive textile applications. The role of manikins in the development of day-to-day garments is also discussed, including fit, comfort, and ergonomics. The book is a key resource for all those engaged in textile and apparel development and production, and for academics engaged in research into textile science and technology. Delivers theoretical and practical guidance on evaluation using manikins that is of benefit to anyone developing textile products Offers a range of perspectives on high-performance textiles from an international team of authors with diverse expertise in academic research, and textile development and manufacture Provides systematic and comprehensive coverage of the topic from fabric construction, through product development, to the range of current and potential applications that exploit high-performance textile technology

Proceedings of 7th Euro Biosensors & Bioelectronics Congress 2017 ConferenceSeries July 10-11, 2017 Berlin, Germany Key Topics : Biosensors & Biomarkers, Types of Biosensors, Bioinstrumentation & Equipments, Bio-MEMS/NEMS, Biosensor Applications, Biosensing Technologies, Nanotechnology in Biosensors, Transducers in Biosensors, Bioelectronics, Biochips & Nucleic Acid Sensors, Biosensors for Imaging, Photonic Sensor Technologies, Environmental Biosensors, Biosensors & Global Market, Enzymatic Biosensors, Sensor Technologies Michael J. McGrath 2014-01-23 Sensor Technologies: Healthcare, Wellness and Environmental Applications explores the key aspects of sensor technologies, covering wired, wireless, and discrete sensors for the specific application domains of healthcare, wellness and environmental sensing. It discusses the social, regulatory, and design considerations specific to these domains. The book provides an application-based approach using real-world examples to illustrate the application of sensor technologies in a practical and experiential manner. The book guides the reader from the formulation of the research question, through the design and validation process, to the deployment and management phase of sensor applications. The processes and examples used in the book are primarily based on research carried out by Intel or joint academic research programs. “Sensor Technologies: Healthcare, Wellness and Environmental Applications provides an extensive overview of sensing technologies and their applications in healthcare, wellness, and environmental monitoring. From sensor hardware to system applications and case studies, this book gives readers an in-depth understanding of the technologies and how they can be applied. I would highly recommend it to students or researchers who are interested in wireless sensing technologies and the associated applications.” Dr. Benny Lo Lecturer, The Hamlyn Centre, Imperial College of London “This timely addition to the literature on sensors covers the broad complexity of sensing, sensor types, and the vast range of existing and emerging applications in a very clearly written and accessible manner. It is particularly good at capturing the exciting possibilities that will occur as sensor networks merge with cloud-based ‘big data’ analytics to provide a host of new applications that will impact directly on the individual in ways we cannot fully predict at present. It really brings this home through the use of carefully chosen case studies that bring the overwhelming concept of 'big data' down to the personal level of individual life and health.” Dermot Diamond Director, National Centre for Sensor Research, Principal Investigator, CLARITY Centre for Sensor Web Technologies, Dublin City University “Sensor Technologies: Healthcare, Wellness and Environmental Applications takes the reader on an end-to-end journey of sensor technologies, covering the fundamentals from an engineering perspective, introducing how the data gleaned can be both processed and visualized, in addition to offering exemplar case studies in a number of application domains. It is a must-read for those studying any undergraduate course that involves sensor technologies. It also provides a thorough foundation for those involved in the research and development of applied sensor systems. I highly recommend it to any engineer who wishes to broaden their knowledge in this area!” Chris Nugent Professor of Biomedical Engineering, University of Ulster

Biofuel Cropping Systems Hans Langeveld 2014-01-21 Choosing appropriate practices and policies for biofuel production requires an understanding of how soils, climate, farm types, infrastructure, markets and social

organisation affect the establishment and performance of these crops. The book highlights land use dynamics, cultivation practices related to conversion and wider impacts. It explores how biofuel production chain development is steered by emerging technologies and management practices and how both can be influenced by effective policies designed to encourage sustainable biofuel production. The book highlights major biofuel production chains including: cane cultivation in Brazil corn ethanol in the USA wheat and rapeseed in Europe oil palm in the Far East cane in Asia and Africa SRC and other lignocellulosic crops. In each case the development, cropping systems and impacts are discussed, system dynamics are shown and lessons drawn for the way things could or should change. Biofuel Cropping Systems is a vital resource for all those who want to understand the way biofuels are produced and how they impact other elements of society and especially how improvements can be made. It is a handbook for students, biofuel producers, researchers and policymakers in energy and agriculture.

Natural Products Analysis Vladimir Havlicek 2014-10-13 This book highlights analytical chemistry instrumentation and practices applied to the analysis of natural products and their complex mixtures, describing techniques for isolating and characterizing natural products. • Applies analytical techniques to natural products research – an area of critical importance to drug discovery • Offers a one-stop shop for most analytical methods: x-ray diffraction, NMR analysis, mass spectrometry, and chemical genetics • Includes coverage of natural products basics and highlights antibacterial research, particularly important as efforts to combat drug resistance gain prominence • Covers instrumental techniques with enough detail for both current practitioners and beginning researchers

Agent Environments for Multi-Agent Systems IV Danny Weyns 2015-11-26 This book constitutes the thoroughly refereed post-workshop proceedings of the 4th International Workshop on Environments for Multiagent Systems, E4MAS 2014 - 10 years later, held in Paris, France, in May 2014 as an associated event of AAMAS 2014, the 13th International Conference on Autonomous Agents and Multiagent Systems. The 6 revised full papers presented together with 1 roadmap paper and 7 invited papers were carefully reviewed and selected from 14 initial submissions. The papers are organized in topical sections on connecting agents, environments, and humans; environments for complex and stigmergic systems; virtual and simulated environments; and open agent environments and interoperability.

Pulp and Paper Industry Pratima Bajpai 2016-09-27 Pulp and Paper Industry: Nanotechnology in Forest Industry covers the latest scientific and technical advances in the area of nanotechnology in forest sector providing information on recent developments, structure and properties, raw materials and methods for the production of nanocellulose along with their characterization and application in various industries with an analysis of both challenges and opportunities with respect to environmentally sound technologies and consumer concerns such as health effects. Also identifies the key barriers to innovation, and the breakthroughs required to make nanocellulosic materials viable alternatives in the important sectors. Thorough review of the evolution and development of different types of nanocelluloses In-depth coverage of preparation and characterization of nanocellulose Use of nanocellulose materials in a wide range of applications Commercial and precommercial developments Challenges and opportunities of nanocellulose market Identifies the key barriers to innovation, and the breakthroughs required to make nanocellulosic materials viable alternatives in the important sectors

WeBIOPATR2015 THE FIFTH INTERNATIONAL WeBIOPATR WORKSHOP & CONFERENCE PARTICULATE MATTER: RESEARCH AND MANAGEMENT Milena Jovašević-Stojanović 2017-10-10

Advances in Biorefineries Keith W. Waldron 2014-04-28 Biorefineries are an essential technology in converting biomass into biofuels or other useful materials. Advances in Biorefineries provides a comprehensive overview of biorefining processing techniques and technologies, and the biofuels and other materials produced. Part one focuses on methods of optimizing the biorefining process and assessing its environmental and economic impact. It also looks at current and developing technologies for producing value-added materials. Part two goes on to explore these materials with a focus on biofuels and other value-added products. It considers the properties, limitations, and practical applications of these products and how they can be used to meet the increasing demand for renewable and sustainable fuels as an alternative to fossil fuels. Advances in Biorefineries is a vital reference for biorefinery/process engineers, industrial biochemists/chemists, biomass/waste scientists and researchers and academics in the field. A comprehensive and systematic reference on the advanced biomass recovery and conversion processes used in biorefineries Reviews developments in biorefining processes Discusses the wide range of value-added products from biorefineries, from biofuel to biolubricants and bioadhesives

Yearbook of International Organizations, 1988-89 Union of International Associations Staff 1988-07

The Illustrated London News 1860

Biopolymers for Biomedical and Biotechnological Applications Bernd H. A. Rehm 2021-01-26 Provides insight into biopolymers, their physicochemical properties, and their biomedical and biotechnological applications This comprehensive book is a one-stop reference for the production, modifications, and assessment of biopolymers. It highlights the technical and methodological advancements in introducing biopolymers, their study, and promoted applications. "Biopolymers for Biomedical and Biotechnological Applications" begins with a general overview of biopolymers, properties, and biocompatibility. It then provides in-depth information in three dedicated sections: Biopolymers through Bioengineering and Biotechnology Venues; Polymeric Biomaterials with Wide Applications; and Biopolymers for Specific Applications. Chapters cover: advances in biocompatibility; advanced microbial polysaccharides; microbial cell factories for biomanufacturing of polysaccharides; exploitation of exopolysaccharides from lactic acid bacteria; and the new biopolymer for biomedical application called nanocellulose. Advances in mucin biopolymer research are presented, along

with those in the synthesis of fibrous proteins and their applications. The book looks at microbial polyhydroxyalkanoates (PHAs), as well as natural and synthetic biopolymers in drug delivery and tissue engineering. It finishes with a chapter on the current state and applications of, and future trends in, biopolymers in regenerative medicine. * Offers a complete and thorough treatment of biopolymers from synthesis strategies and physicochemical properties to applications in industrial and medical biotechnology * Discusses the most attracted biopolymers with wide and specific applications * Takes a systematic approach to the field which allows readers to grasp and implement strategies for biomedical and biotechnological applications "Biopolymers for Biomedical and Biotechnological Applications" appeals to biotechnologists, bioengineers, and polymer chemists, as well as to those working in the biotechnological industry and institutes.

Erdgas und erneuerbares Methan für den Fahrzeugantrieb Richard van Basshuysen 2015-03-09 Das Buch bietet einen allgemeinen Überblick über die verschiedenen Aspekte von Eigenschaften, Gewinnung, Speicherung und Anwendung von Erdgas und erneuerbarem Methan. Speziell wird der Betrieb von Fahrzeugen betrachtet, wobei der aktuelle Stand der Technik insbesondere in der CO₂-Diskussion beleuchtet wird. Neben den fundierten Darstellungen zu Technik und Betrieb werden auch die künftigen Entwicklungen zur klimaneutralen Mobilität angesprochen.

E-Waste in Transition Florin-Constantin Mihai 2016-06-29 E-waste management is a serious challenge across developed, transition, and developing countries because of the consumer society and the globalization process. E-waste is a fast-growing waste stream which needs more attention of international organizations, governments, and local authorities in order to improve the current waste management practices. The book reveals the pollution side of this waste stream with critical implications on the environment and public health, and also it points out the resource side which must be further developed under the circular economy framework with respect to safety regulations. In this context, complicated patterns at the global scale emerge under legal and illegal e-waste trades. The linkages between developed and developing countries and key issues of e-waste management sector are further examined in the book.

Industrial Scale Suspension Culture of Living Cells Hans-Peter Meyer 2014-08-04 The submerged cultivation of organisms in sterile containments or fermenters has become the standard manufacturing procedure, and will remain the gold standard for some time to come. This book thus addresses submerged cell culture and fermentation and its importance for the manufacturing industry. It goes beyond expression systems and integrally investigates all those factors relevant for manufacturing using suspension cultures. In so doing, the contributions cover all industrial cultivation methods in a comprehensive and comparative manner, with most of the authors coming from the industry itself. Depending on the maturity of the technology, the chapters address in turn the expression system, basic process design, key factors affecting process economics, plant and bioreactor design, and regulatory aspects.

Comprehensive Biomaterials Paul Ducheyne 2015-08-28 Comprehensive Biomaterials brings together the myriad facets of biomaterials into one, major series of six edited volumes that would cover the field of biomaterials in a major, extensive fashion: Volume 1: Metallic, Ceramic and Polymeric Biomaterials Volume 2: Biologically Inspired and Biomolecular Materials Volume 3: Methods of Analysis Volume 4: Biocompatibility, Surface Engineering, and Delivery Of Drugs, Genes and Other Molecules Volume 5: Tissue and Organ Engineering Volume 6: Biomaterials and Clinical Use Experts from around the world in hundreds of related biomaterials areas have contributed to this publication, resulting in a continuum of rich information appropriate for many audiences. The work addresses the current status of nearly all biomaterials in the field, their strengths and weaknesses, their future prospects, appropriate analytical methods and testing, device applications and performance, emerging candidate materials as competitors and disruptive technologies, and strategic insights for those entering and operational in diverse biomaterials applications, research and development, regulatory management, and commercial aspects. From the outset, the goal was to review materials in the context of medical devices and tissue properties, biocompatibility and surface analysis, tissue engineering and controlled release. It was also the intent both, to focus on material properties from the perspectives of therapeutic and diagnostic use, and to address questions relevant to state-of-the-art research endeavors. Reviews the current status of nearly all biomaterials in the field by analyzing their strengths and weaknesses, performance as well as future prospects Presents appropriate analytical methods and testing procedures in addition to potential device applications Provides strategic insights for those working on diverse application areas such as R&D, regulatory management, and commercial development

Plastics and Microplastics: A Reference Handbook David E. Newton 2021-07-31 Plastic plays a vital role in today's world but has become increasingly problematic. Plastics and Microplastics: A Reference Handbook discusses the history and evolution of plastic and its many uses, both in the United States and around the world. Beginning with a history of plastic—from the first scientific discovery of the material to its diversity of forms and uses in the present day—Plastics and Microplastics: A Reference Handbook discusses the history and evolution of plastic and its many uses, both in the United States and around the world. Importantly, it delves into the problems and controversies concerning plastic and microplastics, such as the pollution of oceans, rivers, and streams; its exceptionally long shelf life; its contribution to air pollution; and ingestion of microplastics by marine life. One of the most valuable aspects of the book is its survey of the history of plastics and microplastics conducted in a manner that helps readers to identify key issues to address. Moreover, it discusses both implemented and proposed solutions. A perspectives chapter includes a broad range of voices, allowing crucial, diverse perspectives to round out the author's expertise. Provides readers with the basic background they need about plastics and microplastics in order to understand current problems Includes additional readings, a comprehensive chronology, a glossary, and other features to aid students'

understanding of current issues and guide them in designing and conducting their own research Offers ideas for additional research from a list of important individuals and organizations Rounds out the author's expertise in perspectives essays that show readers a diversity of viewpoints

Science Citation Index 1994 Vols. for 1964- have guides and journal lists.

Ambient Assisted Living Reiner Wichert 2017-03-07 In this book, leading authors in the field discuss the habitats of tomorrow. These habitats will be connected through autonomous and assistive systems, turning habitats into health resorts. This book discusses how assistance technologies enable a smooth transition from comfortable health support to medical or nursing care. The contributions have been chosen and invited at the

9th AAL congress, Frankfurt.

Lewis Mumford and Patrick Geddes Frank G. Novak Jr. 2014-04-23 First published in 1995. Routledge is an imprint of Taylor & Francis, an informa company.

Built to Grow - Blending architecture and biology Barbara Imhof 2016-01-15 Built to Grow investigates patterns of growth and dynamics in nature with the aim of creating a new "living architecture" that can be applied to architectonic designs. It examines biological processes to identify basic principles of growth and translate them into exemplary architectonic ideas and visions. The project brings together experts from the fields of architecture, biology, art, mechatronics, and robotics.