

Quimica General Navarro Delgado

This book reviews the history, current state of knowledge, and different research approaches and techniques of studies on interactions between humans and plants in an important area of agriculture and ongoing plant domestication: Mesoamerica. Leading scholars and key research groups in Mexico discuss essential topics as well as contributions from international research groups that have conducted studies on ethnobotany and domestication of plants in the region. Such a convocation will produce an interesting discussion about future investigation and conservation of regional human cultures, genetic resources, and cultural and ecological processes that are critical for global sustainability.

La cultura digital y el ritmo frenético del desarrollo tecnológico han transformado enormemente la documentoscopia, que en los últimos años ha tenido que enfrentarse a numerosos retos para seguir siendo una disciplina esencial, al servicio de la Justicia. Muchos de los avances de las últimas décadas, vinculados a los documentos de identidad o seguridad (como los certificados y firmas digitales) han generado un nuevo frente para los especialistas en documentoscopia: la falsedad de los documentos electrónicos. Ese nuevo escenario requiere la aplicación de nuevos métodos y medidas para seguir velando por la seguridad documental. En este libro se realiza una revisión de la profesión, se recogen algunos de los nuevos retos y se plantean soluciones que puedan tener aplicación en el ámbito del peritaje científico y forense; un área que exige cada vez una mayor actualización y especialización técnica. Esta obra recoge las aportaciones de analistas forenses y de profesionales especializados en las ciencias del grafismo y del documento de todo el mundo; tanto del ámbito académico como profesional. Este libro pretende ser un espacio de consulta en el que poder conocer algunas soluciones y avances que contribuyan a seguir velando por la autenticidad documental. Es, al mismo tiempo, un espacio en el que se integran y difunden conocimientos científicos sobre la documentoscopia, la pericia caligráfica o grafotécnica.

"IPCS, International Programme on Chemical Safety"--Cover.

This book collects the articles published in the Special Issue "Polymeric Materials: Surfaces, Interfaces and Bioapplications". It shows the advances in polymeric materials, which have tremendous applications in agricultural films, food packaging, dental restoration, antimicrobial systems, and tissue engineering. These polymeric materials are presented as films, coatings, particles, fibers, hydrogels, or networks. The potential to modify and modulate their surfaces or their content by different techniques, such as click chemistry, ozonation, breath figures, wrinkle formation, or electrospray, are also explained, taking into account the relationship between the structure and properties in the final application. Moreover, new trends in the development of such materials are presented, using more environmental friendly

and safe methods, which, at the same time, have a high impact on our society.

Este libro se ha concebido como texto base para la asignatura Introducción a la Experimentación en Química Física y Química Analítica del Grado en Química, con el objetivo de proporcionar al estudiante una base sólida y equilibrada de conocimientos físicoquímicos y analíticos, a la vez que desarrolla sus habilidades prácticas. De esta forma, se introduce al estudiante en el manejo correcto de la instrumentación propia de un laboratorio de Química Física y de Química Analítica, y en la resolución, de forma práctica, de los problemas que en ellos se plantean.

During the recent decades, social, political and academic endeavours have been made to improve environmental quality and reduce pollution. In particular, the ocean, sea and coastal areas show varying degrees of impact from the multiple human activities carried out in the terrestrial as well as in the aquatic environment. Ecology is a science which studies the relationship between organisms and the surrounding environment and in the modern era, the marine world is getting increasing attention. For centuries it has been the final reservoir of human garbage; later it became an oil farm with a concomitant increase of coastal population growth and unplanned growth of the fishing industry and the increasing use of sea routes for cargo transport and recreational uses (cruises). All this led to rising contamination with negative effects on biota and even human health. It is then imperative to know the current situation of the world's oceans: that is the main purpose of this book, to document at a glance the latest research in the field of ocean pollution.

This book contains the summaries of the "Innovation in Pharmacy: Advances and Perspectives" that took place in Salamanca (Spain) in September 2018. The early science of chemistry and microbiology were the source of most drugs until the revolution of genetic engineering in the mid 1970s. Then biotechnology made available novel protein agents such as interferons, blood factors and monoclonal antibodies that have changed the modern pharmacy. Over the past year, a new pharmacy of oligonucleotides has emerged from the science of gene expression such as RNA splicing and RNA interference. The ability to design therapeutic agents from genomic sequences will transform treatment for many diseases. The science that created this advance and its future promise will be discussed. Phillip Allen Sharp is an American geneticist and molecular biologist who co-discovered RNA splicing. He shared the 1993 Nobel Prize in Physiology or Medicine with Richard J. Roberts for "the discovery that genes in eukaryotes are not contiguous strings but contain introns, and that the splicing of messenger RNA to delete those introns can occur in different ways, yielding different proteins from the same DNA sequence. He works in Institute Professor Koch Institute for Integrative Cancer Research, Massachusetts Institute of Technology (MIT), Cambridge, MA, US. Este libro recoge los resúmenes de la «Innovation in Pharmacy: Advances and Perspectives» que tuvo lugar en Salamanca (España) en septiembre de 2018. La ciencia primitiva de la química y la microbiología fue la fuente de la mayoría de las drogas hasta la revolución de la ingeniería genética a mediados de la década de 1970. Luego, la biotecnología puso a disposición agentes proteínicos novedosos como interferones, factores sanguíneos y anticuerpos monoclonales que han cambiado la farmacia moderna. Durante el año pasado, surgió una

nueva farmacia de oligonucleótidos a partir de la ciencia de la expresión génica, como el empalme de ARN y la interferencia de ARN. La capacidad de diseñar agentes terapéuticos a partir de secuencias genómicas transformará el tratamiento de muchas enfermedades. La ciencia que creó este avance y su promesa futura será discutida. Phillip Allen Sharp es un genetista y biólogo molecular estadounidense que co-descubrió el empalme de ARN. Compartió el Premio Nobel de 1993 en Fisiología o Medicina con Richard J. Roberts por "el descubrimiento de que los genes en eucariotas no son cadenas contiguas, sino que contienen intrones, y que el empalme del ARN mensajero para eliminar esos intrones puede ocurrir de diferentes maneras, produciendo diferentes proteínas de la misma secuencia de ADN. Trabaja en el Instituto Profesor Koch Institute for Integrative Cancer Research, Instituto Tecnológico de Massachusetts (MIT), Cambridge, MA, EE. UU.

This book is composed of a selection of articles from The 2021 World Conference on Information Systems and Technologies (WorldCIST'21), held online between 30 and 31 of March and 1 and 2 of April 2021 at Hangra de Heroismo, Terceira Island, Azores, Portugal. WorldCIST is a global forum for researchers and practitioners to present and discuss recent results and innovations, current trends, professional experiences and challenges of modern information systems and technologies research, together with their technological development and applications. The main topics covered are: A) Information and Knowledge Management; B) Organizational Models and Information Systems; C) Software and Systems Modeling; D) Software Systems, Architectures, Applications and Tools; E) Multimedia Systems and Applications; F) Computer Networks, Mobility and Pervasive Systems; G) Intelligent and Decision Support Systems; H) Big Data Analytics and Applications; I) Human-computer Interaction; J) Ethics, Computers & Security; K) Health Informatics; L) Information Technologies in Education; M) Information Technologies in Radiocommunications; N) Technologies for Biomedical Applications.

Filling a gap in the current literature, this comprehensive reference presents all important catalyst classes, including metal oxides, polyoxometalates, and zeolites. Readers will find here everything they need to know -- from structure design to characterization, and from immobilization to industrial processes. A true must-have for anyone working in this key technology.

Artificial or constructed wetlands are an emerging technology particularly for tropical areas with water scarcity. For big cities, the sustainable management of water resources taking into account proper use is always challenging. The book presents case studies illustrating the above. As plants and microorganisms are a fundamental part of the correct functioning of these systems, their contribution to the degradation of the organic matter and to the removal and transformation of the pollutant compounds present in the wastewaters is also a highlight of this book.

Contamination of foods and agricultural commodities by various types of toxigenic fungi is a concerning issue for human and animal health. Moulds naturally present in foods can produce mycotoxins and contaminate foodstuffs under favourable conditions of temperature, relative humidity, pH, and nutrient availability. Mycotoxins are, in general, stable molecules that are difficult to remove from foods once they have been produced. Therefore, the prevention of mycotoxin contamination is one of the main goals of the agriculture and food industries. Chemical control or decontamination techniques may be quite efficient; however, the more

sustainable and restricted use of fungicides, the lack of efficiency in some foods, and the consumer demand for chemical-residue-free foods require new approaches to control this hazard. Therefore, food safety demands continued research efforts for exploring new strategies to reduce mycotoxin contamination. This Special Issue contains original contributions and reviews that advance the knowledge about the most current promising approaches to minimize mycotoxin contamination, including biological control agents, phytochemical antifungal compounds, enzyme detoxification, and the use of novel technologies.

La presente obra, Química Aplicada a la Ingeniería, cubre los requerimientos docentes de Química de los planes de estudio de las titulaciones de Grado en Ingeniería Eléctrica, Ingeniería Electrónica Industrial y Automática, Ingeniería Mecánica e Ingeniería en Tecnologías Industriales, impartidas en la Escuela Técnica Superior de Ingenieros Industriales de la UNED. Sus contenidos temáticos se corresponden con los de un curso básico de Química Aplicada. Al planificar la obra se ha buscado un equilibrio, por una parte, entre la profundización en el estudio de los principales conceptos de química, que en gran medida ya fueron conocidos por los estudiantes durante el bachillerato y que les son indispensables para afrontar con éxito estudios posteriores más avanzados, y por otra la exposición más novedosa de una serie de temas de carácter tecnológico relativo al conocimiento de las propiedades y aplicaciones de los productos químicos de interés industrial, tanto de tipo básico como de sus derivados, sin olvidar los recursos naturales de los que proceden. Los principales básicos de la Ingeniería Química se presentan en esta obra de forma elemental. Al final de cada tema se incluyen una serie de ejercicios de auto comprobación con su resolución detallada.

Chemical education is essential to everybody because it deals with ideas that play major roles in personal, social, and economic decisions. This book is based on three principles: that all aspects of chemical education should be associated with research; that the development of opportunities for chemical education should be both a continuous process and be linked to research; and that the professional development of all those associated with chemical education should make extensive and diverse use of that research. It is intended for: pre-service and practising chemistry teachers and lecturers; chemistry teacher educators; chemical education researchers; the designers and managers of formal chemical curricula; informal chemical educators; authors of textbooks and curriculum support materials; practising chemists and chemical technologists. It addresses: the relation between chemistry and chemical education; curricula for chemical education; teaching and learning about chemical compounds and chemical change; the development of teachers; the development of chemical education as a field of enquiry. This is mainly done in respect of the full range of formal education contexts (schools, universities, vocational colleges) but also in respect of informal education contexts (books, science centres and museums).

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.

"Based on extensive archival research in Peru, Spain, and Italy, Making Medicines in Early Colonial Lima, Peru examines how apothecaries in Lima were trained, ran their businesses, traded medicinal products, prepared medicines, and found their place in society. In the book, Newson argues that apothecaries had the potential to be innovators in science, especially in the New World where they encountered new environments and diverse healing traditions. However, it shows that despite experimental tendencies among some apothecaries, they generally adhered to traditional humoral practices and imported materia medica from Spain rather than adopt native plants or exploit the region's rich mineral resources. This adherence was not due to state regulation, but reflected the entrenchment of humoral beliefs in popular thought and their promotion by the Church and Inquisition"--Provided by publisher.

The world is full of plants and animals that have their own defenses, producing various substances in their daily fight against bacteria, fungi, or other agents. These products are alternatives to conventional antimicrobials that have a poor reputation with consumers. Many of these compounds are well known; however, the multiple types of structures together with the variable responses depending of the type of biocontrol needed in a wide range of applications, such as clinical, agricultural, general hygiene, and food, necessitates the continuous search for specific applications and the continuous study of how to use these substances. The present book provides a summary of reviews and original research works that explore the multiple alternatives for the use of these compounds.

This book is written in honor of Prof. Francisco Rodriguez-Reinoso, who has made significant contributions in the area of porous materials such as active carbons and graphenes. It details the preparation of porous materials, including carbonaceous, zeolitic, and siliceous materials, MOFs, aerogels, and xerogels, describing the characterization techniques and the interpretation of the results, and highlighting common errors that can occur during the process. This book subsequently presents the use of modeling based on thermodynamics to describe the materials. Lastly, it illustrates a number of current environmental protection applications in the context of both water and air.

Química generalQuímica generalQuímica generalUnidades didácticas 4-5-6Química generalUnidades didácticas 1-2-3Química generalUnidades didácticas 1-2-3Técnicas experimentales de químicaQuímicaunidad didáctica 1,2,3,4,5,6Derecho CanónicoQUÍMICA APLICADA A LA INGENIERÍAEditorial UNED

This open access book offers a comprehensive overview of the role and potential of microorganisms in the degradation and preservation of cultural materials (e.g. stone, metals, graphic documents, textiles, paintings, glass, etc.).

Microorganisms are a major cause of deterioration in cultural artefacts, both in the case of outdoor monuments and

archaeological finds. This book covers the microorganisms involved in biodeterioration and control methods used to reduce their impact on cultural artefacts. Additionally, the reader will learn more about how microorganisms can be used for the preservation and protection of cultural artefacts through bio-based and eco-friendly materials. New avenues for developing methods and materials for the conservation of cultural artefacts are discussed, together with concrete advances in terms of sustainability, effectiveness and toxicity, making the book essential reading for anyone interested in microbiology and the preservation of cultural heritage. .

Evaluating the aromaticity of a molecular system and the influence of this concept on its properties is a crucial step in the development of novel aromatic systems. Modern computational methods can provide researchers with a high level of insight into such aromaticity, but identifying the most appropriate method for assessing a specific system can prove difficult. *Aromaticity: Modern Computational Methods and Applications* reviews the latest state-of-the-art computational methods in this field and discusses their applicability for evaluating the aromaticity of a system. In addition to covering aromaticity for typical organic molecules, this volume also explores systems possessing transition metals in their structures, macrocycles and even transition structures. The influence of the aromaticity on the properties of these species (including the structure, magnetic properties and reactivity) is highlighted, along with potential applications in fields including materials science and medicinal chemistry. Finally, the controversial and fuzzy nature of aromaticity as a concept is discussed, providing the basis for an updated and more comprehensive definition of this concept. Drawing on the knowledge of an international team of experts, *Aromaticity: Modern Computational Methods and Applications* is a unique guide for anyone researching, studying or applying principles of aromaticity in their work, from computational and organic chemists to pharmaceutical and materials scientists. Reviews a range of computational methods to assess the aromatic nature of different compounds, helping readers select the most useful tool for the system they are studying
Presents a complete guide to the key concepts and fundamental principles of aromaticity
Provides guidance on identifying which variables should be modified to tune the properties of an aromatic system for different potential applications

This book is open access under a CC BY 4.0 license. This book provides a fresh, updated and science-based perspective on the current status and prospects of the diverse array of topics related to the potato, and was written by distinguished scientists with hands-on global experience in research aspects related to potato. The potato is the third most important global food crop in terms of consumption. Being the only vegetatively propagated species among the world's main five staple crops creates both issues and opportunities for the potato: on the one hand, this constrains the speed of its geographic expansion and its options for international commercialization and distribution when compared with commodity crops such as maize, wheat or rice. On the other, it provides

an effective insulation against speculation and unforeseen spikes in commodity prices, since the potato does not represent a good traded on global markets. These two factors highlight the underappreciated and underrated role of the potato as a dependable nutrition security crop, one that can mitigate turmoil in world food supply and demand and political instability in some developing countries. Increasingly, the global role of the potato has expanded from a profitable crop in developing countries to a crop providing income and nutrition security in developing ones. This book will appeal to academics and students of crop sciences, but also policy makers and other stakeholders involved in the potato and its contribution to humankind's food security.

[Copyright: 8254f5a96f5bc0184bdf4d7acbb3a5f2](#)