Pharmacognosy is a term derived from the Greek words for drug (pharmakon) and knowledge (gnosis). It is a field of study within Chemistry focused on natural products isolated from different sources and their biological activities. Research on natural products began more than a hundred years ago and has continued up to now with a plethora of research groups discovering new ideas and novel active constituents. This book compiles the latest research in the field and will be of interest to scientists, researchers, and students.

The fact that, of the approximately 600,000 plant species existing on the earth, only some 5% have been specifically investigated chemically or pharmacologically, is a challenge to chemists specializing in natural substances and to pharmacologists. In view of the...
limited number of research capacities and the ever diminishing financial means, this challenge can only be met if, together with an improvement and refinement of methods of analysis, medicinal plant research is carried out on a broader interdisciplinary basis, with comparable, scientifically recognized screening methods, and if it is better coordinated, with greater use of modern documentation means. It is thus necessary in the future to concentrate specifically on projects leading to the development of new medicinal preparations. The plenary lectures hold in the present symposium of the 1st International Congress for Research on Medicinal Plants reflect these efforts and tendencies. At the same time they provide a survey of some of the fields of medicinal plant research which are at present most actual and most intensively researched. They range from plant screening, isolation and structure elucidation of new principles, to the therapeutical optimization of a natural product. The lectures given at this congress show clearly the necessity, in addition to national phytochemical societies, for a central international organisation, in which all active medicinal plant researchers in the world are included. Their aim should be to provide the impulse for more optimal, rational research, aimed at the solution of specific projects.

Isoprenoids are important in primary and secondary metabolism. They have implications in a myriad of physiological processes notably in plants, microorganisms and parasites, and biological activities at the cellular, organism, and ecosystem levels. The importance of isoprenoids in various areas of the scientific world has spurred intense research worldwide. Also their role in "nutraceuticals" has stimulated scientific curiosity. Literature on isoprenoids is widely scattered in journals with quite differing readerships and geographic distribution. A comprehensive book on isoprenoids does not exist. Isoprenoid Synthesis in Plants and Microorganisms: New Concepts and Experimental Approaches fills this gap by presenting the latest and the most applicable information on isoprenoids. The most recent TERPNET conference serves as the backdrop and provides much of the inspiration for the topics covered in the book. Additional topics of interest are covered as well, making Isoprenoid Synthesis in Plants and Microorganisms: New Concepts and Experimental Approaches the most comprehensive review of isoprenoid synthesis to date.

In modern pharmacognosy chemical and physical-chemical methods are being used more and more for the investigation of medicinal plants. This important fact and the increasing involvement of chemistry, biochemistry and botany in pharmaceutical, medicinal and general biological questions usher in a new epoch in the discovery of medicinal substances and the development of drugs derived from the plant kingdom. One of the guiding ideas of the first ""Symposium on Pharmacognosy and Phytochemistry"" was to promote these developments, to provide an additional stimulus and to establish.

Banana is one of the most important food crops all over the world. There are around 365 varieties of bananas available throughout the world. Banana is a traditional medicine for diabetes, cancer, diarrhoea and also highly nutritional food crop. In this study, commonly
used varieties of banana are taken for characterization by morphology and genotype which is based on International Plant Genetic Resources Institute and RAPD analysis. Five varieties were morphologically similar in parameters such as leaf habit, pseudo stem appearance and peel color. RAPD analysis proved that these varieties of banana are closely related which coincides with the morphological characterization. Also, this study is aimed at examining the anticancer activity of Musa acuminata variety of banana which is commonly consumed in southern part of India. Anticancer examination of the sample was performed for the hexane extract using DLA and MG-63 cell lines which showed a high degree of anticancer activity which was proved by the cytotoxic effect on the tumor cell lines. Phytochemicals present in the plant concentrate provoked cell apoptosis and smoother cell expansion to quickly partitioning malignancy cell lines. Among the five varieties analysed, Musa acuminata Colla variety shows increased level of anticancer activity in both cell lines. So it is anticipated that this variety can be used as medicine orally for cancer treatment.

Specialist Periodical Reports provide systematic and detailed review coverage of progress in the major areas of chemical research. Written by experts in their specialist fields the series creates a unique service for the active research chemist, supplying regular critical in-depth accounts of progress in particular areas of chemistry. For over 80 years the Royal Society of Chemistry and its predecessor, the Chemical Society, have been publishing reports charting developments in chemistry, which originally took the form of Annual Reports. However, by 1967 the whole spectrum of chemistry could no longer be contained within one volume and the series Specialist Periodical Reports was born. The Annual Reports themselves still existed but were divided into two, and subsequently three, volumes covering Inorganic, Organic and Physical Chemistry. For more general coverage of the highlights in chemistry they remain a 'must'. Since that time the SPR series has altered according to the fluctuating degree of activity in various fields of chemistry. Some titles have remained unchanged, while others have altered their emphasis along with their titles; some have been combined under a new name whereas others have had to be discontinued.

The present study was carried out for phytochemical screening and pharmacological investigations on methanolic extract of rhizomes of Hedychium coronarium (Local name: Dolan Champa, Family: Zingiberaceae). In this study, the possible analgesic and CNS (Central Nervous System) depressant activities of the methanolic rhizome extract of Hedychium coronarium were investigated at the doses of 100 mg/Kg, 200 mg/kg and 400 mg/Kg body weight on mice by oral administration. The analgesic activities were investigated for their central and peripheral pharmacological actions using tail immersion testing and acetic acid-induced writhing testing respectively. Its CNS depressant activity was evaluated by using hole cross and open field tests and the cytotoxic activity was observed using brine shrimp lethality bioassay.
This book highlights the importance of traditional medicines, focuses on the standardization of herbal medicine and evaluates opportunities for advancing drug research. It addresses issues in utilization of medicinal plants and shares the importance of herbs in neutraceuticals. It provides most competitive techniques being used in research.

This book contains selected papers which were presented at the 3rd International Halal Conference (INHAC 2016), organized by the Academy of Contemporary Islamic Studies (ACIS), Universiti Teknologi MARA (UiTM) Shah Alam, Malaysia. It addresses halal-related issues that are applicable to various industries and explores a variety of contemporary and emerging issues. Highlighting findings from both scientific and social research studies, it enhances the discussion on the halal industry (both in Malaysia and at the international level), and serves as an invitation to engage in more advanced research on the global halal industry.

Here is an in-depth examination of the opium poppy—the first medicinal plant known to mankind. In Opium Poppy: Botany, Chemistry, and Pharmacology, author L. D. Kapoor provides readers with a comprehensive resource on poppy production from seed to alkaloid. He explores the opium poppy’s origin, distribution, chemistry, and uses and abuses from ancient civilizations through the present day. He covers plant and seed production and crop improvement and explores in detail the chemical and pharmaceutical by-products of the opium poppy. The book begins with a historical overview of the origin and use of opium poppy in ancient civilizations such as Greece, Egypt, and Mesopotamia. Chapters that follow contain detailed information on: botanical studies, cytogenetics and plant breeding, agronomy, including insect and pest control measures, physiological and anatomical studies, chemical and pharmacological aspects of opium alkaloids, biosynthesis and physiology of opium alkaloids, the occurrence and role of alkaloids in plants, the evaluation of analgesic actions of morphine in various pain models in experimental animals. Opium Poppy: Botany, Chemistry, and Pharmacology is a useful reference for professionals and students of pharmacy, botany, chemistry, medicine, and pharmacology who need a better overall understanding of this ancient plant and its (potential) modern usage.

Includes subject section, name section, and 1968-1970, technical reports.

The textbook of Pharmacognosy has been written for students of diploma in pharmacy first-year students keeping in mind specific requirements of the Pharmacy Council of India (PCI), Education Regulation - 2020. This is a bilingual book in both English and Hindi for easy understanding to students. This book is covering the entire syllabus as per new PCI norms including practicals and previous year question papers. This book containing eleven chapters staring with history and scope of pharmacognosy. Further, chapter including classification of drugs, quality control and analysis tests for herbal drugs. An individual chapter for different categories of drugs based
on their biological effects. The book also containing description of plant fibres used as surgical dressings, traditional system of medicine and methods of preparation of Ayurvedic formulation. The later chapters describing about aromatic plants, herbs as food, herbal cosmetics and phytochemical investigation of drugs.

For hundreds of years, indigenous populations have developed drugs based on medicinal plants. Many practitioners, especially advocates of traditional medicine, continue to support the use of plants and functional foods as methods by which many ailments can be treated. With relevance around the world as a complementary and alternative medicine, advancements for the use of both ethnopharmacology and nutraceuticals in disease must continually be explored, especially as society works to combat chronic illnesses, increasingly resilient infectious diseases, and pain management controversies. The Research Anthology on Recent Advancements in Ethnopharmacology and Nutraceuticals discusses the advancements made in herbal medicines and functional foods that can be used as alternative medical treatments for a variety of illness and chronic diseases. The anthology will further explain the benefits that they provide as well as the possible harm they may do without proper research on the subject. Covering topics such as food additives, dietary supplements, and physiological benefits, this text is an important resource for dieticians, pharmacists, doctors, nurses, medical professionals, medical students, hospital administrators, researchers, and academicians.

Coffee – Production and Research presents a diversity of important issues related to coffee, with an emphasis on the science of coffee growing. Coffee is one of the highest value commodities traded worldwide. Cultivated and consumed widely, it generates progress for both the economy and society. Divided into six sections, this book examines two coffee species of commercial importance, Coffea arabica L. and Coffea canephora Pierre ex. A. Froehner. Chapters cover such topics as biotechnology, growing, harvesting, post-harvest handling, quality, chemistry, commercialization, and byproducts of coffee.

‘A new classic’ in a new edition! Fully revised and updated throughout New sections on antimicrobials From journal reviews of the previous edition: ‘Drawing on their wealth of experience and knowledge in this field, the authors, who are without doubt among the finest minds in pharmacognosy today, provide useful and fascinating insights into the history, botany, chemistry, phytotherapy and importance of medicinal plants in some of today's health care systems. This is a landmark textbook, which carefully brings together relevant data from numerous sources and provides in an authoritative and exhaustive manner, cutting edge information that is relevant to pharmacists, pharmacognocists, complementary practitioners, doctors and nurses alike.’ The Pharmaceutical Journal ‘This is the first
book that I have encountered which combines the compounds and plants found in standard pharmacognosy textbooks, i.e. those used in orthodox Western medicine, with the 'new phytopharmaceuticals' which have become established in Western culture over the last 20 years. The medical establishment in this environment is finally catching up with the practices of the general population and so this book is an excellent choice for those who wish to investigate which of the many plants available have some scientific credence. I shall be adding this book to the Essential Reading list for all of the undergraduate students on our pharmacy degree course and would encourage all those involved in teaching pharmacy students to do the same." P.J. Houghton, Department of Pharmacy, King's College London, Journal of Ethnopharmacology ‘Educated pharmacists no doubt equate Pharmacognosy with hours spent hunched over a microscope identifying vegetable drugs. Many probably consider it as a subject with little importance in a modern pharmacy curriculum. How wrong they are! This book is designed to give an overview at an easy-to-understand level of a broad subject area For students of science and of the healthcare professions it is a useful text and the authors are to be commended for their work.’ Irish Pharmacy Journal From customer reviews: ‘A new classic. This is an excellent publication both for science students and the non scientific who have an interest in phytotherapy. The layout is logical and clearly set out. I love the chemical structural diagrams, and the explanations of even complex sequences are easy to understand with very little jargon. It is encouraging to see pharmacognosy being given a prominent place in a modern textbook, and interesting to see both hand drawings and chemical structures on the same page!’ ‘I can recommend this to anyone who is interested in the science behind herbal products and medicines; especially if you are interested in plants. It's quite simple to follow and very concise! Good for pharmacy students.’ ‘This is an ultimate textbook in this subject and a boon for students of M Pharmacy (Pharmacognosy) as well as undergraduates students of Pharmacy. Besides them, it is really suitable for every course comprising a study of plants and their medicinal use.’ ‘Excellent reference book. As an editor, I instantly found the answers to various questions I had regarding botanical descriptions. And it even answered questions that I hadn't gotten around to asking. Highly recommended!’

First multi-year cumulation covers six years: 1965-70.

Local knowledge refers to knowledge and expertise, which originate from local and indigenous cultures that have developed over time. Its practices have been absorbed naturally and effortlessly into the local communities. However, due to globalization and modernization, much of this knowledge has not been practiced and will be lost in time if efforts are not taken to preserve, conserve and transfer it to the community. Through the discussion of six articles written based on local and international research findings, this book brings together researchers committed to local knowledge in sharing the process of documentation on local knowledge transfer issues and challenges,
and the methodology of knowledge transfer. Thus, new ideas are presented to promote the practice of preserving and conserving local knowledge to the practitioners, students and communities.

This book addresses the resurgence of interest in the rediscovery of ethnomedicinal plants as a source of potential ethnomedicines. In the 21st century, the pharmacological effects of medicinal plants are considered to have a promising future as drugs and medicines for the management of healthcare. Considering the extremely high cost and length of time needed for the development of new drugs, as well as the high drug attrition rate, pharmaceutical companies and researchers continue to explore new ways for drug R&D and focus more attention on the benefits of ethnomedicinal plants as a source of new compounds for drugs. The research provided in this timely volume examines the development and characterization of new natural drugs from medicinal plants with the aid of better screening methods. The chapters survey specific medicinal plant species and describe the characteristics of each, how the plants work, and their applications for healthcare. The authors provide research on plants from Western Ghats and adjoining areas for ethnomedicinal investigation because this area is very rich in phytodiversity and tribal traditions in phytotherapy and the plants surveyed have applications beyond this region. This book is a valuable medical compendium of plants and is intended as a guide and reference resource for professionals in the field. It reviews the current status of ethnomedicinal plants research in light of the surge in the demand for herbal medicine as a future source of new therapeutics.

Traditional medicinal knowledge, especially the use of ethnomedicinal plants in developing countries, has been passed down for generations. Today, however, scientists are poised to combine traditional medicinal plants and modern drug discoveries to further develop essential products that have followed the leads of indigenous cures used for centuries. Ethnomedicinal Plant Use and Practice in Traditional Medicine provides emerging research exploring the theoretical and practical aspects of indigenous knowledge and therapeutic potential within ethnobotany. Featuring coverage on a broad range of topics such as drug discovery, traditional knowledge, and herbal medicine, this book is ideally designed for doctors, healers, medical professionals, ethnobotanists, naturalists, academicians, researchers, and students interested in current research on the medical use and applications of natural-based resources.

The demand for medicinal plants is increasing, and this leads to unscrupulous collection from the wild and adulteration of supplies. Providing high-quality planting material for sustainable use and thereby saving the genetic diversity of plants in the wild is important. In this regard, the methods of propagation of some important medicinal plants are provided along with the traditional methods of propagation. Indian Medicinal Plants: Uses and Propagation Aspects offers a unique compendium of more than 270 medicinal plant species from India with detailed taxonomic classifications based on the Bentham and Hooker system of classification. Salient Features:
Provides traditional methods of propagation and discusses the propagation of medicinal plants. Presents plant properties, plant parts and chemical constituents. Describes the medicinal uses of more than 270 medicinal plant species from India. This book is of special interest to practitioners of alternative medicine, students of Ayurveda, researchers and industrialists associated with medical botany, pharmacologists, sociologists and medical herbalists.

This book provides a comprehensive review of the literature available on Satureja covering the ethnomedicine, micromorphology, the main secondary metabolites in its various species, as well as its important biological and pharmacological activities and the underlying mechanism of action for some of its medicinal properties. There is also discussion of the pharmacological evidence for the various therapeutic activities of Satureja spp., especially on the basis of traditional usage, the treatment of muscle pains, cramps, diarrhea, stomach pain, and blood pressure along with some new areas such as cytoprotection and anti-hyperlipidemia. This book offers a useful guide for researchers in the field of pharmaceutical sciences and natural medicines as well as students and residents in the fields of pharmacognosy and phytochemistry.

Sustainability Challenges in the Agrofood Sector covers a wide range of agrofood-related concerns, including urban and rural agriculture and livelihoods, water-energy management, food and environmental policies, diet and human health. Significant and relevant research topics highlighting the most recent updates will be covered, with contributions from leading experts currently based in academia, government bodies and NGOs (see list of contributors below). Chapters will address the realities of sustainable agrofood, the issues and challenges at stake, and will propose and discuss novel approaches to these issues. This book will be the most up-to-date and complete work yet published on the topic, with new and hot topics covered as well as the core aspects and challenges of agrofood sustainability.

Multiple Biological Activities of Unconventional Seed Oils brings detailed knowledge concerning the biological properties of oils (antioxidant, antimicrobial, antidiabetic, antitumor, anti-inflammatory, etc.), the content of individual substances with health-promoting properties, methods for biological properties assay, the influence of raw material quality and technological processes on the quality of oils, and possible raw materials and oil contaminants with adverse health effects. The book's chapters also highlight the unique properties of new oils, along with their biological activities. Less than a decade ago, the vegetable oils on grocery store shelves were derived from conventional oil seeds e.g., cotton, groundnut, sesame, corn sunflower and soybean. However, as consumers began to understand how fat intake affects overall health, researchers, plant growers and food manufacturers started to produce oils from...
unconventional sources. This book highlights what we've learned in the process. Explores unconventional oils, their different sources, and where they grow worldwide Explains the medicinal uses of unconventional oils Details the biological activities, antioxidant and physico-chemical composition of unconventional oils

Bde. 16, 18, 21, and 28 each contain section "Verlagsveränderungen im deutschen Buchhandel."

Specialist Periodical Reports provide systematic and detailed review coverage of progress in the major areas of chemical research. Written by experts in their specialist fields the series creates a unique service for the active research chemist, supplying regular critical in-depth accounts of progress in particular areas of chemistry. For over 90 years The Royal Society of Chemistry and its predecessor, the Chemical Society, have been publishing reports charting developments in chemistry, which originally took the form of Annual Reports. However, by 1967 the whole spectrum of chemistry could no longer be contained within one volume and the series Specialist Periodical Reports was born. The Annual Reports themselves still existed but were divided into two, and subsequently three, volumes covering Inorganic, Organic and Physical Chemistry. For more general coverage of the highlights in chemistry they remain a 'must'. Since that time the SPR series has altered according to the fluctuating degree of activity in various fields of chemistry. Some titles have remained unchanged, while others have altered their emphasis along with their titles; some have been combined under a new name whereas others have had to be discontinued. The current list of Specialist Periodical Reports can be seen on the inside flap of this volume.

Piper betle (betel vine) a pan-Asiatic, tropical plant, which can also grow under mild subtropical areas, is essentially grown for leaves which are chewed with array of additives besides slaked lime. The plant is cultivated widely in India and its surrounding areas. Phytochemistry of Piper betel landraces presents a brief on the distribution, historical and cultural aspects, and properties ascribed to this plant in the ancient texts. Phytochemical and pharmacological information has also been included to underscore the importance of this plant in the present time. A detailed account on metabolic profiling employing modern methods is included, such as real-time, direct analysis of the flight mass spectrometric method and chemometric analysis for characterization of the available biodiversity and signatures specific to gender and geographical location. It was also possible to identify the gender of unknown landraces, with the help of principal component analysis. Features: Elaborates on the chemical diversity within Piper betle. Piper betle leaves have mouth freshening antimicrobial compounds. Use of chemical signatures for the identification of different Piper betle landraces, their gender and geographical locations.
This study, first published in 1996, investigates the effects that local labor market conditions may have on the economic status of women and blacks, relative to their white male counterparts. More precisely, it examines the impact that local labor market conditions have on estimates of labor market discrimination investigated in this study are wage discrimination and occupational discrimination. This title will be of interest to students of sociology, gender studies and urban studies.

Zeitschrift für Kryptogamkunde.

This unique text provides comprehensive coverage of betalains, outlining the specific makeup and uses of this plant. The chapters provide deep insight into the biosynthesis, structures, pharmacokinetics, stability, extraction, health benefits and occurrence in nature of betalains. As the first major reference work to focus specifically on betalains, this book serves as an important reference for any researcher looking for insights into the use of betalains as functional foods, food coloring agents, and nutraceuticals. Betalains: Biomolecular Aspects outlines the chemical structure of betalains, including their occurrence in nature. The utilization of these plants as natural color in food and beverages is covered in depth, as are the intake and secretion of betalains in the human body. The various factors affecting the stability of betalains are described, including their stability when used in food products. Current health related uses for these plants are outlined, including antioxidant and anti-inflammatory uses. The isolation and purification of these plants, plus analysis techniques, are outlined. In providing extensive coverage of betalains and their uses, this text presents a singular work which is of major value for a wide range of researchers.

Pharmacognosy (the science of biogenic or nature-derived pharmaceuticals and poisons) has been an established basic pharmaceutical science taught in institutions of pharmacy education for over two centuries. Over the past 20 years though it has become increasingly important given the explosion of new drugs, phytomedicines (plant medicines), nutraceuticals and dietary supplements - all of which need to be fully understood, tested and regulated. From a review of the previous edition: 'Drawing on their wealth of experience and knowledge in this field, the authors, who are without doubt among the finest minds in pharmacognosy today, provide useful and fascinating insights into the history, botany, chemistry, phytotherapy and importance of medicinal plants in some of today's healthcare systems. This is a landmark textbook, which carefully brings together relevant data from numerous sources and provides, in an authoritative and exhaustive manner, cutting-edge information that is relevant to pharmacists, pharmacognocists, complementary practitioners, doctors and nurses alike.' The Pharmaceutical Journal 'This is an excellent text book which provides fascinating insights into the world of pharmacognosy and the authors masterfully integrated elements of orthodox pharmacognosy and phytotherapy. Both
the science student and the non-scientific person interested in phytotherapy will greatly benefit from reading this publication. It is comprehensive, easy to follow and after having read this book, one is so much more aware of the uniqueness of phytomedicines. A must read for any healthcare practitioner.' Covers the history, biology and chemistry of plant-based medicines Covers pharmaceutical and neutraceuticals derived from plants Covers the role of medicinal plants in worldwide healthcare systems Examines the therapeutics and evidence of plant-based medicines by body system Sections on regulatory information expanded New evidence updates throughout New material covering non-medical supplements Therapeutics updated throughout Now on StudentConsult

Combating bacterial infections calls for a multidisciplinary approach and this is what is on offer here. Written by an experienced international team of researchers from various fields ranging from biotechnology to traditional medicine, the book provides complete and comprehensive coverage of topics relevant to new antibacterial drugs. This ready reference and handbook adopts a novel approach, focusing on combating multi-drug resistance in bacteria by developing antibacterials with new target sites, using new advances in drug discovery as well as natural products. Divided into three sections, the first describes the problem of drug resistance and the need for new drugs, while the second treats recent trends and new classes of drugs, including relevant developments in transcriptomics and proteomics leading to new antimicrobial drug discovery, and a new generation of antibiotics and non-antibiotics. The third section on natural products discusses the antibacterial action of phytocompounds, plant extracts, essential oils and honey as well as the role of probiotics in bacterial infections. Invaluable to students of medicine, pharmaceutical sciences, phytomedicine and microbiology and all those wanting to know about the possibilities and limitations of new antibacterial drugs. Furthermore, its coverage of plants and other natural products makes this relevant to the pharmaceutical and herbal industries.

A textbook of Pharmacognosy describe the content of crude drugs the study of medicines or crude drugs produced from natural sources such as plants, microbes, and animals. It includes analysis of their biological, chemical, biochemical, and physical properties. of pharmacognosy is "the study of the physical, chemical, biochemical, and biological properties of drugs, drug substances or potential drugs or drug substances of natural origin.

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