

Download File Handbook Of Immunohistochemistry And In Situ Hybridization Of Human Carcinomas Molecular Genetics Gastrointestinal Carcinoma And Ovarian Carcinoma Read Pdf Free

In Situ Detection of DNA Damage *In Situ Hybridization Protocols* **Histology, Immunohistochemistry and In Situ Hybridisation, Lab Protocols. Use of Satellite and In-Situ Data to Improve Sustainability Handbook of Immunohistochemistry and in Situ Hybridization of Human Carcinomas** *Carcinoma in situ Microcrack Porosity and in Situ Stress in Illinois Borehole UPH-3* **In-situ Characterization Techniques for Nanomaterials In Situ Molecular Pathology and Co-expression Analyses** *In-situ Rock Stress* **In-situ-Untersuchungen zur Koksbildung an Zeolithkatalysatoren mittels einer oszillierenden Mikrowaage (TEOM) und FT-IR-Spektroskopie** **In Situ Visualization for Computational Science Challenges and Innovations in Ocean In Situ Sensors** **Aufbereitung von Spülwässern bei der hydraulischen In-situ Sanierung In Situ and On-site Bioremediation In Situ Testing in Geomechanics** **Updating Subsurface Samplings of Soils and Rocks and Their In-situ Testing** *Determination of the In-situ State of Stress in Soil Masses* **In-situ-Verfahren zur Boden- und Grundwassersanierung In Situ NMR Methods in Catalysis** **In-situ Mechanics of Materials** *Design and Instrumentation of In-Situ Experiments in Underground Laboratories for Radioactive Waste Disposal* **In Situ Hybridization in Neurobiology** **In Situ Hybridization** *The Ex Situ Conservation of Plant Genetic Resources* **DCIS Dilemmas: Discussions about Ductal Carcinoma In Situ & the Research Behind It** **In Situ Genetic Conservation of Monterey Pine (*Pinus Radiata* D. Don)** **Fluorescence In Situ Hybridization (FISH) - Application Guide** **In Situ Recovery of Shale Oil Resulting from the UCSD/NSF (RANN) Workshop Held at the University of California, San Diego, September 3 to 7, 1974** *Synthesis Techniques for Polymer Nanocomposites* **In Situ Hybridization Riemenschneider in Situ Regulatory Peptides** **Rare Tumors and Tumor-like Conditions in Urological Pathology** **Contaminants and the Soil Environment in the Australasia-Pacific Region** **Building a Culture of Patient Safety Through Simulation** *The Indian Forester* *Scandinavian Journal of Urology and Nephrology* **Chemical and Physical Behavior of Human Hair** **Handbook of Immunohistochemistry and in Situ Hybridization of Human Carcinomas**

In Situ and On-site Bioremediation Aug 19 2021 Topics include: Vol.

The Ex Situ Conservation of Plant Genetic Resources Oct 09 2020 It is a distressing truism that the human race during the last millennium has caused the exponential loss of plant genetic diversity throughout the world. This has had direct and negative economic, political and social consequences for the human race, which at the same time has failed to exploit fully the positive benefits that might result from conserving and exploiting the world's plant genetic resources. However, a strong movement to halt this loss of plant diversity and enhance its utilisation for the benefit of all humanity has been underway since the 1960's (Frankel and Bennett, 1970; Frankel and Hawkes, 1975). This initiative was taken up by the Convention on Biological Diversity (CBD, 1992) that not only expounds the need to

conserve biological diversity but links conservation to exploitation and development for the benefit of all. Article 8 of the Convention clearly states the need to develop more effective and efficient guidelines to conserve biological diversity, while Article 9, along with the FAO International Undertaking on Plant Genetic Resources, promotes the adoption of a complementary approach to conservation that incorporates both ex situ and in situ techniques.

Regulatory Peptides Jan 30 2020 J. M. Polak and S. R. Bloom For some time *Experientia* has published, as a unique feature, interdisciplinary multi-author reviews, giving a comprehensive overview of subjects regarded as 'growing edges' of science. The enthusiasm shown by the readers was contagious and thus it was felt necessary to compile a special volume dealing with the novel aspects of regulatory peptides. This book covers some of the growing areas in regulatory peptide research and, although it is based on the original volume of *Experientia*, it is expanded and updated. The topic of 'regulatory peptides' is relatively young and has grown at an unprecedented pace, from the embryonic conception of 'gut hormones' or 'brain neuropeptides' some 15 years ago to the realisation that these active peptides are found, almost without exception, in every part of the body in all vertebrate and many invertebrate species • Why the term 'regulatory peptides'? It represents a convenient label encompassing both the active peptides present in nerves, which are released as (putative) neurotransmitters, and those in endocrine cells, which act locally or at a distance as circulating hormones, these being the 18 main components of the so-called diffuse neuroendocrine or APUD system • Morphological studies support this physiological viewpoint.

Challenges and Innovations in Ocean In Situ Sensors Oct 21 2021 *Challenges and Innovations in Ocean In-Situ Sensors: Measuring Inner Ocean Processes and Health in the Digital Age* highlights collaborations of industry and academia in identifying the key challenges and solutions related to ocean observations. A new generation of sensors is presented that addresses the need for higher reliability (e.g. against biofouling), better integration on platforms in terms of size and communication, and data flow across domains (in-situ, space, etc.). Several developments are showcased using a broad diversity of measuring techniques and technologies. Chapters address different sensors and approaches for measurements, including applications, quality monitoring and initiatives that will guide the need for monitoring. Integrates information across key marine and maritime sectors and supports regional policy requirements on monitoring programs Offers tactics for enabling early detection and more effective monitoring of the marine environment and implementation of appropriate management actions Presents new technologies driving the next generation of sensors, allowing readers to understand new capabilities for monitoring and opportunities for another generation of sensors Includes a global vision for ocean monitoring that fosters a new perspective on the direction of ocean measurements

Handbook of Immunohistochemistry and in Situ Hybridization of Human Carcinomas Jun 24 2019 Classical histology has been augmented by immunohistochemistry (the use of specific antibodies to stain particular molecular species in situ). Immunohistochemistry has allowed the identification of many more cell types than could be visualized by classical histology, particularly in the immune system and among the scattered hormone-secreting cells of the endocrine system. This book discusses all aspects of immunohistochemistry and in situ hybridization technologies and the important role they play in reaching a cancer diagnosis. It provides step-by-step instructions on the methods of additional molecular technologies such as DNA microarrays, and microdissection, along with the benefits and limitations of each method. * The only book available that translates molecular genetics into cancer diagnosis * Methods were developed by internationally-recognized experts and presented in step-by-step manner * Results of each Immunohistochemical and in situ hybridization are presented in the form of color illustrations

In-situ Mechanics of Materials Feb 10 2021 This is the first comprehensive book to address in-situ mechanics approach, which relies on real-time imaging during mechanical measurements of materials. The book presents tools, techniques and methods to interrogate the deformation characteristics of a wide array of material classes, and how the mechanics and the material microstructures are correlated.

In-situ approach provides unprecedented ability to decipher the mechanical behavior of materials from atomic length scales all the way up to bulk-scale, which is not possible using conventional means. The book also addresses how to capture the deformation behavior of materials under different stress-states and extreme environments. The book will be useful to the new generation of students, scientists and researchers working on the frontiers of material design and innovation as they aim to develop new materials with predictable mechanical properties and technological applications. This book can also serve as a textbook aimed at upper-level undergraduates and graduate-level students who are beginning to delve into the mechanics of materials. Catering to a generation of students that appreciates videos as a didactic tool, this book contains numerous videos to supplement problems, solutions, and case studies.

In Situ Hybridization in Neurobiology Dec 11 2020 In situ hybridization has become an important and widely used research tool for neurobiologists. This sequel to the author's monograph "In Situ Hybridization: Applications to Neurobiology" examines recent advances in the technique and its impact on studies of the nervous system.

In Situ Detection of DNA Damage Nov 02 2022 Detection and analysis of DNA damage is of critical importance in a variety of biological disciplines studying apoptosis, cell cycle and cell division, carcinogenesis, tumor growth, embryogenesis and aging, neurodegenerative and heart diseases, anticancer drug development, environmental and radiobiological research, and others. Individual cells within the same tissue or in cell culture may vary in the extent of their DNA damage and, consequently, can display different reactions to it. These differences between individual cells in the same cell population are detected using in situ approaches. In situ is a Latin term meaning "on site" or "in place." It is used to denote the processes occurring or detected in their place of origin. In molecular and cell biology this usually refers to undisrupted mounted cells or tissue sections. In that meaning "in situ" is used as part of the terms "in situ PCR," "in situ transcription," "in situ hybridization," "in situ end labeling," and "in situ ligation." Sometimes the "in situ" term is applied at the subcellular level to cells disrupted in the process of analysis, for example, in the detection of specific sequences in chromosomes using fluorescent in situ hybridization (FISH). Historically, the term was used primarily in methods dealing with nucleic acids.

In Situ Recovery of Shale Oil Resulting from the UCSD/NSF (RANN) Workshop Held at the University of California, San Diego, September 3 to 7, 1974 Jun 04 2020

Aufbereitung von Spülwässern bei der hydraulischen In-situ Sanierung Sep 19 2021

In Situ Visualization for Computational Science Nov 21 2021 This book provides an overview of the emerging field of in situ visualization, i.e. visualizing simulation data as it is generated. In situ visualization is a processing paradigm in response to recent trends in the development of high-performance computers. It has great promise in its ability to access increased temporal resolution and leverage extensive computational power. However, the paradigm also is widely viewed as limiting when it comes to exploration-oriented use cases. Furthermore, it will require visualization systems to become increasingly complex and constrained in usage. As research efforts on in situ visualization are growing, the state of the art and best practices are rapidly maturing. Specifically, this book contains chapters that reflect state-of-the-art research results and best practices in the area of in situ visualization. Our target audience are researchers and practitioners from the areas of mathematics computational science, high-performance computing, and computer science that work on or with in situ techniques, or desire to do so in future.

Riemenschneider in Situ Mar 02 2020 Riemenschneider in Situ presents the newest research on the work of one of the most famous late medieval and early Renaissance sculptors, Tilman Riemenschneider. Moving beyond questions of style, date, and workshop practice, this volume investigates the sculptor's programs across the south German region of Franconia that survive in situ, within the particular contexts for which they were designed and in which they were originally experienced. In shifting the focus from fragmentary pieces in museum collections to extant installations in their original church settings, the volume contributes to a wave of scholarship

interested in reanimating medieval artistic ensembles by considering them as complex visual environments. Together, the authors-conservators, museum professionals, and art historians-provide an essential and overdue study of Riemenschneider's best-preserved pieces, while also making an important, collaborative addition to the broader discipline of pre-modern art history.

Chemical and Physical Behavior of Human Hair Jul 26 2019 Human hair is the subject of a wide range of scientific investigations. Its chemical and physical properties are of importance to the cosmetics industry, forensic scientists, and to biomedical researchers. This updated and enlarged fourth edition continues the tradition of its predecessor as being the definitive monograph on the subject. It now contains new information on various topics including: chemical hair damage, the cause of dandruff, skin and eye irritation, hair straightening, and others. *Chemical and Physical Behavior of Human Hair* is a teaching guide and reference volume for cosmetic chemists and other scientists in the hair products industry, academic researchers studying hair and hair growth, textile scientists, and forensic specialists.

The Indian Forester Sep 27 2019
Microcrack Porosity and in Situ Stress in Illinois Borehole UPH-3 Apr 26 2022

In Situ NMR Methods in Catalysis Mar 14 2021

A chemist, faced with the problem of determining the mechanism of a chemical reaction, tries to identify a set of reactions that will account for the observed

behavior. Ideally, a small set of known reactions should describe in great detail exactly what takes place at each stage of a chemical transformation. The fact that many reactions proceed in a stepwise fashion can most convincingly be demonstrated if intermediate species can be isolated and shown to proceed to the same products under otherwise identical reaction conditions. An intermediate is the reaction product of each of these steps, except for the last one that forms the final product.

Some intermediates are stable compounds in

their own right; some others, however, are so reactive that their isolation is not possible. Occasionally, evidence for the existence of short-lived intermediates may be obtained, in particular by spectroscopic observation. The latter may allow a direct observation or an indirect inference from unusual

phenomena occurring in the reaction products during in situ investigations of their corresponding chemical reactions. In NMR spectroscopy, for example, transient emission and enhanced absorption lines may be observed, and one is inclined to believe that there is a universal and unambiguous reason for their appearance. This is not necessarily the case, however, since this seemingly identical phenomenon may have a strikingly different origin: During free radical re-

actions, a phenomenon called chemically induced dynamic nuclear polarization (CIDNP) may give rise to virtually the same effect as occasionally observed

during homogeneous (and possibly even heterogeneous) hydrogenations: The latter phenomenon, called parahydrogen-induced polarization (PHIP), has a completely different physical basis. It was first

noticed twenty years later than CIDNP and occurs if there is an imbalance of the two spin isomers of symmetric molecules such as dihydrogen when hydrogenating unsaturated

compounds using appropriate catalysts. These two effects, if not differentiated properly, can cause misinterpretations of reaction mechanisms, as occurred initially when their different origins had not yet been understood appropriately.

Carcinoma in situ May 28 2022

In-situ Characterization Techniques for Nanomaterials Mar 26 2022 Seventh volume of a 40 volume series on nanoscience and nanotechnology, edited by the renowned scientist Challa S.S.R. Kumar. This handbook gives a comprehensive overview about In-situ Characterization Techniques for Nanomaterials. Modern applications and state-of-the-art techniques are covered and make this volume an essential reading for research scientists in academia and industry.

In Situ Hybridization Apr 02 2020 Leading researchers present contemporary treatment of in situ hybridization applied to current issues in animal virus pathogenesis. The most recent methods are given for locating viral genes in whole animal section and for defining the number and type of cells surrounded by viruses. The genetic programs played out in these cells and the newer methods of

hybridization at the electron microscopic level provide valuable insight into the complexities of virus-host interaction.

Rare Tumors and Tumor-like Conditions in Urological Pathology Dec 31 2019 This book is a comprehensive guide to rare tumors and tumor-like conditions of the urinary system and male genital organs. It comprises five chapters, devoted to the kidney, bladder, prostate, testes, and penis. Each chapter begins with a brief overview of “common” tumors and tumor-like conditions and with a section on the classification of both common and rare entities. The main clinical, pathological, immunohistochemical, and molecular findings for each rare tumor or tumor-like condition are then described and discussed. Significant characteristics are also documented by representative high-quality illustrations, with emphasis on those aspects of most relevance to differential diagnosis. In addition, prognostic features are fully covered. *Urological Pathology: Rare Tumors and Tumor-Like Conditions* will be ideal source of core information and practical guidance for residents, fellows, pathologists, urologists, and oncologists.

In Situ Genetic Conservation of Monterey Pine (*Pinus Radiata* D. Don) Aug 07 2020 Report No. 26 in GRCP Technical Report Series

Fluorescence In Situ Hybridization (FISH) - Application Guide Jul 06 2020 This book is a unique source of information on the present state of the exciting field of molecular cytogenetics and how it can be applied in research and diagnostics. The basic techniques of fluorescence in situ hybridization and primed in situ hybridization (PRINS) are outlined, the multiple approaches and probe sets that are now available for these techniques are described, and applications of them are presented in 36 chapters by authors from ten different countries around the world. The book not only provides the reader with basic and background knowledge on the topic, but also gives detailed protocols that show how molecular cytogenetics is currently performed by specialists in this field. The FISH Application Guide initially provides an overview of the (historical) development of molecular cytogenetics, its basic procedures, the equipment required, and probe generation. The book then describes tips and tricks for making different tissues available for molecular cytogenetic studies. These are followed by chapters on various multicolor FISH probe sets, their availability, and their potential for use in combination with other approaches. The possible applications that are shown encompass the characterization of marker chromosomes, cryptic cytogenetic aberrations and epigenetic changes in humans by interphase and metaphase cytogenetics, studies of nuclear architecture, as well as the application of molecular cytogenetics to zoology, botany and microbiology.

Histology, Immunohistochemistry and In Situ Hybridisation, Lab Protocols. Aug 31 2022 This book is designed to be a manual for laboratory use, based upon the author's own experience and successful published results. It is for the use of students and researchers.

In Situ Hybridization Nov 09 2020 The detection of DNA and RNA sequences by in situ hybridization is an important technique in many areas of biology, including the diagnosis of human diseases and investigation of the genome. This book provides step-by-step procedures for all the major variations of this technique.

Handbook of Immunohistochemistry and in Situ Hybridization of Human Carcinomas Jun 28 2022 Immunohistochemistry is the use of specific antibodies to stain particular molecular species in situ. This technique has allowed the identification of many more cell types than could be visualized by classical histology, particularly in the immune system and among the scattered hormone-secreting cells of the endocrine system, and has the potential to improve diagnosis, prognosis and therapeutic options of cancer. *Handbook of Immunohistochemistry and in Situ Hybridization of Human Carcinomas* discusses all aspects of immunohistochemistry and in situ hybridization technologies and the important role they play in reaching a cancer diagnosis. It provides step-by-step instructions on the methods of additional molecular technologies such as DNA microarrays, and microdissection, along with the benefits and limitations of each method. The topics of region-specific gene expression, its role in cancer development and the techniques that assist in the understanding of the molecular basis of disease are relevant and necessary in science today. This book is the second volume of three planned,

individually-sold volumes on this topic. Like Volume 1, this book fully explains the principles and applications of modern techniques used in the field of molecular genetics. It will be of particular interest to pathologists and molecular pathologists conducting both academic and/or clinical research. The only book available that translates molecular genetics into cancer diagnosis. The results of each Immunohistochemical and in situ hybridization method are presented in the form of color illustrations. Methods discussed were either developed or refined by expert contributors in their own laboratories.

DCIS Dilemmas: Discussions about Ductal Carcinoma In Situ & the Research Behind It Sep 07 2020 Women often think that their risk of getting Ductal Carcinoma In Situ (DCIS) or Invasive Breast Cancer (IBC) is much higher than real numbers show. This fear is often fed by new stories about research, and sometimes by their own doctors. Many doctors and researchers say that DCIS is not Invasive Breast Cancer (IBC) because it stays in the breast duct. HOWEVER... DCIS is also called Stage 0 breast cancer, and is treated as if it were IBC. There are many dilemmas about DCIS, and this book tries to clear them up. We know how easy it is to end up more confused after looking at different websites, books, and research results. We present a new way to approach DCIS that combines the latest research with practical information. Even though we state things plainly, many scientific resources and references were used to make sure this book is accurate. Please be aware that those resources may use older language that we are learning is not accurate for DCIS. For example, DCIS lesions do not have the ability to "recur," even though this term is commonly used by many scientists and doctors. You will learn about DCIS and how it fits into breast diseases, including breast cancer. The process of getting diagnosed is also explained, as are the different types of treatments that are commonly given for DCIS. Risks are also explained clearly. This includes the risk of being diagnosed with DCIS, as well as the risk of getting another DCIS or a future Invasive Breast Cancer. This book also highlights the various kinds of ongoing research for DCIS. A list of terms, and additional resources and references are also included to help you find more detailed information. We hope this book offers useful information to help you make decisions about DCIS, and look forward to hearing how you use it!

In-situ Rock Stress Jan 24 2022 With the new classification of chronic myeloproliferative disorders, and the rise of interest in molecularly targeted therapies, this timely text brings together international experts on the topic to discuss the current technologies and their implications for the treatment of patients. This title comprehensively covers chronic myeloid leukemia and Ph-negative chronic myeloproliferative disorders and is an essential resource for all practitioners in Hematologic Oncology.

In Situ Molecular Pathology and Co-expression Analyses Feb 22 2022 Major advancements in the field of in situ molecular pathology have occurred since publication of the first edition. In Situ Molecular Pathology and Co-expression Analyses, Second Edition, continues to teach both the molecular basis for the improvements and the actual protocols. This is the unique feature that separates it from the pack of other "cook-book" type approaches. The fields of in situ hybridization and immunohistochemistry have expanded rapidly where computer-based analyses systems have greatly expanded the power of these methods. Further, knowledge of the marked improvements in the reagents themselves since the first edition can make the difference of excellent versus misleading data. The automated platforms require that researchers and diagnostic biomedical investigators have a good understanding of the basics of in situ based tests, protocols, and biochemistry for troubleshooting in order to maximize the use of these platforms. This second edition focuses attention on straightforward protocols used to simultaneously detect two or more proteins/nucleic acids within intact tissue by doing co-expression analyses. Practicing molecular pathologists, diagnostic pathologists, laboratory directors, and toxicologists, as well as clinicians and researchers in training, will benefit from this clear presentation of protocols and theoretical framework. Data derived from in situ hybridization and immunohistochemistry. Explains the theory and foundation of immunohistochemistry and in situ hybridization and presents easy-to-follow experimental protocols with tricks of the trade. Includes two new chapters: Recent improvements in immunohistochemistry and in situ hybridization, Quality control for immunohistochemistry and in situ hybridization: How to know if the color change is signal

or background The second edition also includes a detailed test to help one learn the basics of histologic interpretation of tissues and a separate detailed test in how to differentiate signal from background Includes chapter-ending summaries of Key Points to Remember, bringing beginners up to speed with any seasoned veteran in the field Thoughtfully tackles the molecular basis of IHC and ISH, along with application of that knowledge to improving the techniques is significant

Scandinavian Journal of Urology and Nephrology Aug 26 2019

In-situ-Verfahren zur Boden- und Grundwassersanierung Apr 14 2021 Boden- und Grundwasserkontaminationen verursachen erhebliche Kosten, da aufwändige Sanierungen nicht nur Unternehmen, sondern oft auch die gesamte Volkswirtschaft belasten. Moderne In-situ-Verfahren verfolgen das Konzept, Schadstoffe in Böden und Grundwasser vor Ort in ungefährliche Stoffe umzusetzen. Durch Zugabe von Reagenzien werden Schadstoffe im Untergrund abgebaut oder in eine mobile, extrahierbare Form überführt. Doch nur mit dem nötigen Know-How lassen sich die Sanierungsverfahren auch effizient umsetzen. Mit diesem Buch werden die Grundlagen erarbeitet, die es ermöglichen, eine Boden und Grundwassersanierung zu planen, zu überwachen und erfolgreich zu beenden. Biogeochemische und physikalische Prozesse, die im kontaminierten Untergrund ablaufen, werden umfassend erläutert. Mit ingenieurtechnischem Ansatz und basierend auf der industriellen Praxis werden verschiedene Verfahren vorgestellt und unter sozioökonomischen und nachhaltigen Gesichtspunkten betrachtet. Denn nur wenn der gesamte Sanierungsprozess in idealer Weise durchlaufen wird, sind kostengünstige und umfassende Lösungen möglich. Ein unverzichtbarer Begleiter für Umweltbehörden und Umweltingenieure, aber auch gleichermaßen geeignet für Studenten der Chemie und Umweltwissenschaften. Aus dem Inhalt: * Schadstofftransport * Konzeptionelles Standortmodell * Sanierungsstrategie * Quellensanierung * Injektionstechniken * Mikrobielle Sanierungsverfahren * Chemischer Abbau und in situ chemische Oxidation (ISCO) * Arbeitsschutz und Arbeitssicherheit

Design and Instrumentation of In-Situ Experiments in Underground Laboratories for Radioactive Waste Disposal Jan 12 2021 First published in 1995. This volume includes papers of a Joint CEC-NEA Workshop on 'Design and Instrumentation of In-Situ Experiments in Underground Laboratories for Radioactive Waste Disposal' held in, Brussels, 15-17 May 1984. About 100 specialists attended this meeting, in which a review of the current development of such underground facilities was made.

Contaminants and the Soil Environment in the Australasia-Pacific Region Nov 29 2019 The Australasia-Pacific Region supports approximately 50% of the world's population. The last half-century has witnessed a rapid increase in the regional population, agricultural productivity, industrial activities and trade within the region. Both the demand for increased food production and the desire to improve the economic conditions have affected regional environmental quality. This volume presents an overview of the fate of contaminants in the soil environment; current soil management factors used to control contaminant impacts, issues related to sludge and effluent disposals in the soil environment; legal, health and social impacts of contaminated land, remediation approaches and strategies to manage contaminated land, some of the problems associated with environmental degradation in the Australasia-Pacific Region and steps that we need to take to safeguard our environment.

In Situ Hybridization Protocols Oct 01 2022 This revised and updated edition emphasizes tissue and cell in situ hybridization methods. Among the new techniques detailed are PNA probes for viral diagnostics, plant in situ hybridization, cell proliferation detection, and quantitation of in situ hybridization. There are also cutting-edge techniques for tissue microarrays, expanded embryology-developmental gene detection, and expanded cell culture. Derivative techniques presented include identification of transplanted cells, histones, nick-end labeling for apoptosis, the use of peptide nucleic acid probes, and in situ hybridization of plant specimens.

Synthesis Techniques for Polymer Nanocomposites May 04 2020 The book series 'Polymer Nano-, Micro- and Macrocomposites' provides complete and comprehensive information on all important aspects of polymer composite research and development, including, but not limited to synthesis, filler modification, modeling, characterization as well as application and commercialization issues. Each

book focuses on a particular topic and gives a balanced in-depth overview of the respective subfield of polymer composite science and its relation to industrial applications. With the books the readers obtain dedicated resources with information relevant to their research, thereby helping to save time and money. Summarizing all the most important synthesis techniques used in the lab as well as in industry, this book is comprehensive in its coverage from chemical, physical and mechanical viewpoints. This book helps readers to choose the correct synthesis route, such as suspension and miniemulsion polymerization, living polymerization, sonication, mechanical methods or the use of radiation, and so achieve the desired composite properties.

Determination of the In-situ State of Stress in Soil Masses May 16 2021 The mass behavior of soil and the loadings imparted to civil engineering works by soil masses are strongly influenced by the naturally existing in-situ soil stresses. The determination of in-situ stresses in soil masses is a difficult problem which, in some cases, requires extensive and subtle evaluation if even an approximate determination is to be made. These studies were conducted to review and assess techniques. Methods for estimating in-situ stress from a knowledge of the soil and assumed stress history, as well as direct measurement methods are identified and described. All known methods for determining in-situ stresses are summarized. Recommendations are made for the development of more sophisticated hardware, transfer and development of fabric analysis technology to soil mechanics, and long range development of magnetic resonance techniques.

In-situ-Untersuchungen zur Koksbildung an Zeolithkatalysatoren mittels einer oszillierenden Mikrowaage (TEOM) und FT-IR-Spektroskopie Dec 23 2021 Zeolithe spielen eine wichtige Rolle als Katalysatoren in vielen Prozessen der Raffinerietechnik und der petrochemischen Industrie. Ein häufig auftretendes Problem bei der Anwendung von Zeolithkatalysatoren ist deren Desaktivierung durch die Ablagerung hochsiedender kohlenstoffhaltiger Verbindungen, dem sogenannten Koks. Um ein besseres Verständnis der Vorgänge bei der Verkokung von Zeolithen zu erhalten, werden zunehmend Methoden angewendet, die eine Untersuchung der Katalysatoren unter Prozessbedingungen erlauben (z.B. FT-IR-, NMR-Spektroskopie). In dieser Arbeit wurde für die quantitative Erfassung der Masse von Koksdepositen an "arbeitenden" Zeolithkatalysatoren (in situ Bedingungen) eine oszillierende Mikrowaage (TEOM) eingesetzt. Die TEOM diente gleichzeitig als Festbettreaktor für katalytische Umsetzungen. Die Koksbildung sowie die Regenerierung von Zeolithkatalysatoren mit unterschiedlichen Porensystemen und sauren Eigenschaften wurde untersucht. Dabei diente die Umsetzung von 2-Propanol zu Diisopropylether bzw. zu Propen als Modellreaktion. Alkene wie Propen gelten im Allgemeinen als wirkungsvolle Vorläufer für Koksdeposite, vor allem an sauren Katalysatoren. Ergänzend wurde die Umsetzung von Propen an den Zeolithen H-Y und H-ZSM-5 untersucht. Die so erhaltenen Ergebnisse bestätigen qualitativ die Aussagen zur Koksbildung und Desaktivierung von Zeolithkatalysatoren aus früheren, in der Literatur berichteten Untersuchungen, die mittels konventioneller thermogravimetrischer Analyse (TGA) gewonnen wurden. Zum Teil erhebliche Unterschiede zu diesen Arbeiten ergeben sich aber bei der quantitativen Analyse der Massenänderung der Katalysatoren mit Hilfe der TEOM. Komplementär zu den in der Mikrowaage durchgeführten Experimenten wurde die Desaktivierung der Zeolithkatalysatoren in den Umsetzungen von 2-Propanol und Propen auch mit Hilfe der In situ FT IR Spektroskopie untersucht. Die IR-Spektroskopie liefert Aussagen über die Art und Zusammensetzung der Ablagerungen. Auf diese Weise konnten die mit der TEOM erhaltenen quantitativen Aussagen zur Koksablagerung auf Zeolithkatalysatoren um Informationen zur chemischen Natur der Deposite ergänzt werden.

In Situ Testing in Geomechanics Jul 18 2021 Demanding a thorough knowledge of material behaviour and numerical modelling, site characterisation and in situ test interpretation are no longer just basic empirical recommendations. Giving a critical appraisal of the understanding and assessment of the stress-strain-time and strength characteristics of geomaterials, this book explores new interpretation methods for measuring properties of a variety of soil formations. Emphasis is given to the five most commonly encountered in situ test techniques: standard penetration tests cone

penetration tests vane test pressuremeter tests dilatometer tests Ideal for practising engineers in the fields of geomechanics and environmental engineering, this book solves numerous common problems in site characterisation. It is also a valuable companion for students coming to the end of their engineering courses and looking to work in this sector.

Use of Satellite and In-Situ Data to Improve Sustainability Jul 30 2022 More than 30-year operational satellite data have already been used for monitoring land, ocean and atmosphere. These applications have contributed to improve sustainable economy, produce healthy environment and enhance human life. The Advanced Research Workshop sponsored by NATO and organized by the USA's National Oceanic and Atmospheric Administration and Ukrainian's Space Agency bring the scientists with the most mature research designed for practical use. The goals were to select those which is used for services today and identify the areas to expand research and services. Scientific and application results of the Workshop presented in this book can be used today in agriculture, forestry, water resources, healthy coastal life and fisheries, climate and land cover change, anthropogenic activities and others. The presented papers provide information on how to use operational satellites and in situ measurements for early detection of large-scale droughts, floods and fires, diagnose crop and pasture annual losses, predict periods with health/unhealthy vegetation based on such climate forcing events as ENSO, monitor air quality and geomagnetic activities, assess land cover trends in response to global warming etc. The available satellite/ground information and method is currently warn with a lead time sufficient to respond, recover and protect.

Building a Culture of Patient Safety Through Simulation Oct 28 2019 "This book provides a dynamic and comprehensive interprofessional approach to building a culture of safety by using simulation across clinical and education spheres in healthcare... This is a comprehensive guide and resource for healthcare organizations, educators, and diverse interprofessional healthcare team members to use to improve patient safety efforts to adapt to the ever-changing, complex world of healthcare. Its practical application is pertinent in transforming the education and practice of medicine, nursing, and other health-related fields... Weighted Numerical Score: 99 - 5 Stars!" Patricia West, MS, BSN Michigan State University College of Nursing Doody's Medical Reviews [The authors] have brought together a core group of national leaders to produce what I think is a paradigm-busting book that will help to transform education at the graduate level in medicine, nursing, and all related fields. The book speaks expertly about the high fidelity of simulation training, the need for synthetic models, the adult learning theory behind the debrief. It is a manifesto about where we must go as an interprofessional team, caring for the patient of the future. From the Foreword, by David B. Nash, MD, MBA Dean, Jefferson School of Population Health Philadelphia, PA This groundbreaking book reflects the accomplishments of an internationally recognized leader of innovation regarding interprofessional clinical learning through simulation. Based on the North Shore-LIJ Health System corporate university experience, the book describes how this organization used simulation to successfully tackle the major interprofessional health issue of our time: patient safety. This health system created a transformative simulation center that involves nurses, doctors, and related health professionals whose work in clinical teams has resulted in measurable improvements in all aspects of clinical decision-making, critical thinking, teamwork, and communication skills toward the ultimate goal of improved patient safety. Key Features: Describes in detail a groundbreaking system of achieving patient safety that uses interprofessional clinical learning through simulation Detailed case studies using concrete methods and examples illustrate the application of theory to practice Presents simulations scalable to any size organization and for use by health care professionals in all specialties Includes theoretical foundations and practical applications for teaching and learning Focuses on interprofessional cooperation and learning

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